TRAFFIC IMPACT STUDY

REPORT

Proposed Commercial and Residential Development East of County Road 10

Village of Millbrook

Township of Cavan Monaghan, Peterborough County

June 25, 2025

Project No. 2400-25



Transportation Studies



Traffic Operations



Traffic Signals



Transportation Safety

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Project Title

Proposed Commercial and Residential Development East of County Road 10, Millbrook

Project Number

2400-25

Report Date

June 25, 2025

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June 25, 2025

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Reference: Proposed Commercial and Residential Development East of County Road 10, Millbrook
Traffic Impact Study Report
Township of Cavan Monaghan, Peterborough County, ON
Project Nº 2400-25

Dear Mr. Montemarano,

Asurza Engineers Ltd. is pleased to submit the enclosed Traffic Impact Study in support of the proposed mixed-use development located east of County Road 10 in the Village of Millbrook, Township of Cavan Monaghan. The study was prepared on behalf of the proponent as part of the documentation required by the Township as well as Peterborough County. Should you have any questions regarding this report, please do not hesitate to contact the undersigned.



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Executive Summary

Asurza Engineers Ltd. was retained to undertake a traffic impact study in order to review, assess, and determine any traffic impact the proposed development may generate on the adjacent roads and intersections.

The subject site is a vacant land located east of County Road 10 in the Township of Cavan Monaghan, County of Peterborough, between Larmer Line and Fallis Line. The site is proposed for a commercial and residential development, featuring a variety of land uses and housing types.

It is expected that by 2027, Phase 1 of development will be completed, which includes a commercial plaza of 10,708 m^2 GFA (116,030 ft^2); by 2030, it is expected that Phase 2 of development will be completed, which will include a general office building of 4150 m^2 GFA (44,670 ft^2), as well as a total of 483 residential dwelling units.

In order to evaluate existing conditions, traffic counts were performed at intersections within the study area. The traffic operations for the existing conditions (2025) show that movements at the intersections are operating well, with almost all projected levels of service showing “A” or “B”.

In order to establish base conditions for the comparison and evaluation of future scenarios, it is necessary to review results of traffic operations over time, with the assumption that traffic will continue to grow over time and geometric upgrades identified in previous traffic studies will be in place.

As part of the background volumes, the study includes the major proposed developments that are approved or in construction in Millbrook. The traffic volumes of these developments were obtained from “Millbrook Development Phase 2 – Traffic Impact Study for the Tower Hill Developments Ltd.” a report prepared by JD Engineering (see *Appendix O*), as well as “Traffic Impact Study, Residential Development (East of CR10),” prepared by Asurza Engineers (see *Appendix P*).

With the regular growth over time and the additional traffic generated by the nearby developments, the trajectory of recommended improvements within the study area is as follows:

- For CR10 & Larmer Ln, auxiliary NB and SB left turn lanes are required by 2027, and traffic signals are required by 2035.
- For CR10 & Highland Blvd, traffic signals are required by 2035.
- For CR10 & Fallis Ln, traffic signals are required by 2027, as well as a reconfiguration of the west leg and a left turn lane on the planned east leg.
- For CR10 & King St, the length of the SB left turn lane should be extended to 30 m by 2027.
- For CR10 & Centennial Ln, no improvements are recommended at this time, however the intersection should be monitored over time for the need of traffic signals.

Background traffic operations results show the improved geometry and traffic controls will continue to manage the growing traffic demand. The only geometric improvements required at any study intersection is the extension of the SB-L storage at CR10 / King St, as the 95th percentile queue length increases over time.

The estimation of trips generated by the subject developments were derived from the Trip Generation Manual, 11th Edition, published by the Institute of Transportation Engineers (ITE).

With the normal growth over time and the additional traffic generated by the nearby developments, as well as the subject commercial and residential development in place, the trajectory of recommended improvements is as follows:

- For CR10 & Larmer Ln, auxiliary NB and SB left turn lanes are required by 2027, and traffic signals are required by 2030, as well as an auxiliary NB right turn lane.
- For CR10 & Highland Blvd, traffic signals are required by 2027, as well as an auxiliary SB left turn lane and a left turn lane on the planned east leg.

- For CR10 & Fallis Ln, traffic signals are required by 2027, as well as a reconfiguration of the west leg and a left turn lane on the planned east leg.
- For CR10 & King St, the length of the SB left turn lane should be extended to 30 m by 2027, and extended to 40 m by 2035.
- For CR10 & Centennial Ln, no improvements are recommended at this time, however the intersection should be monitored over time.

Further details on the recommended improvements are presented in *Sections 3.2 and 5.2*. These improvements will maintain acceptable capacity of the road network throughout the study years.

From the traffic point of view, it is concluded that the proposed development can take place with the inclusion of the appropriate intersection upgrades.

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1 Introduction

1.1 Overview

Asurza Engineers Ltd. was retained by the developer to undertake a traffic impact study for the proposed commercial and residential development located east of County Road 10, between Fallis Line and Larmer Line. The report was prepared for the Township's review and approval to permit the proposed development.

1.2 Objectives

The purpose of this study is to determine any traffic impact the proposed development may generate on the adjacent roadways and adjacent intersections, as well as to identify the required improvements to maintain acceptable operational levels on the roadways within the study area.

The general scope of this study includes the following key elements:

- Establish baseline traffic conditions for the study area.
- Estimate the traffic growth for future planning horizons.
- Estimate the traffic generated by the proposed development.
- Estimate the total future traffic and identify impacts within the study area.
- Provide recommendations to address any deficiencies, if identified.

To achieve these objectives, the traffic study makes use of accepted methodologies and procedures including informational reports, publications from recognized institutions, recommended best practice manuals and municipal guidelines when available.

2 Existing Conditions

2.1 Study Area

The Township of Cavan Monaghan, located approximately 20 kilometres southwest of the City of Peterborough, had a population of 10,016 according to the 2021 Census. The Community of Millbrook, where the proposed development is located, is estimated to have fewer than 4,000 residents.

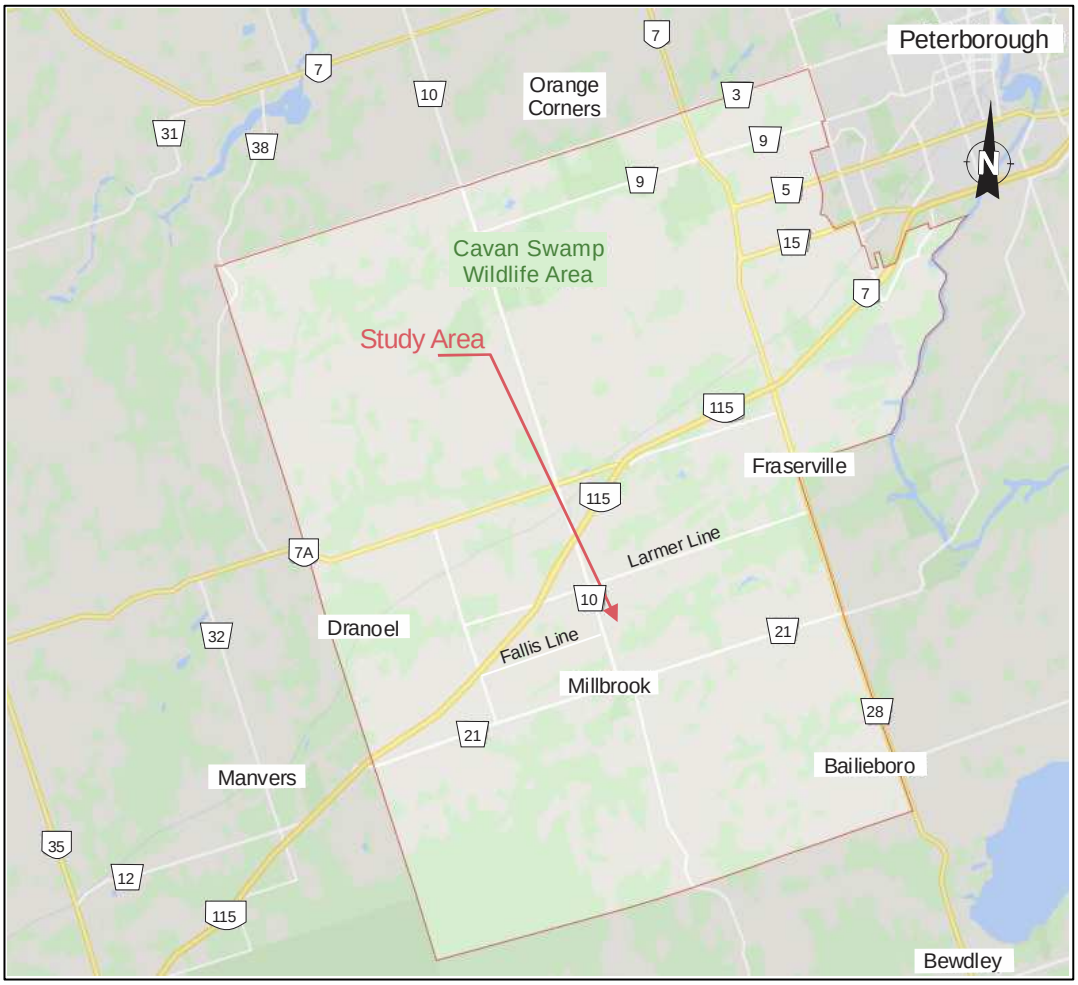


Exhibit 1: *Site Location.*

The presence of other developments in Millbrook that are approved or in construction will be included in this study. The estimated construction horizons were ascertained though communications with the Township. The sketch of these developments is shown in ***Exhibit 2***.

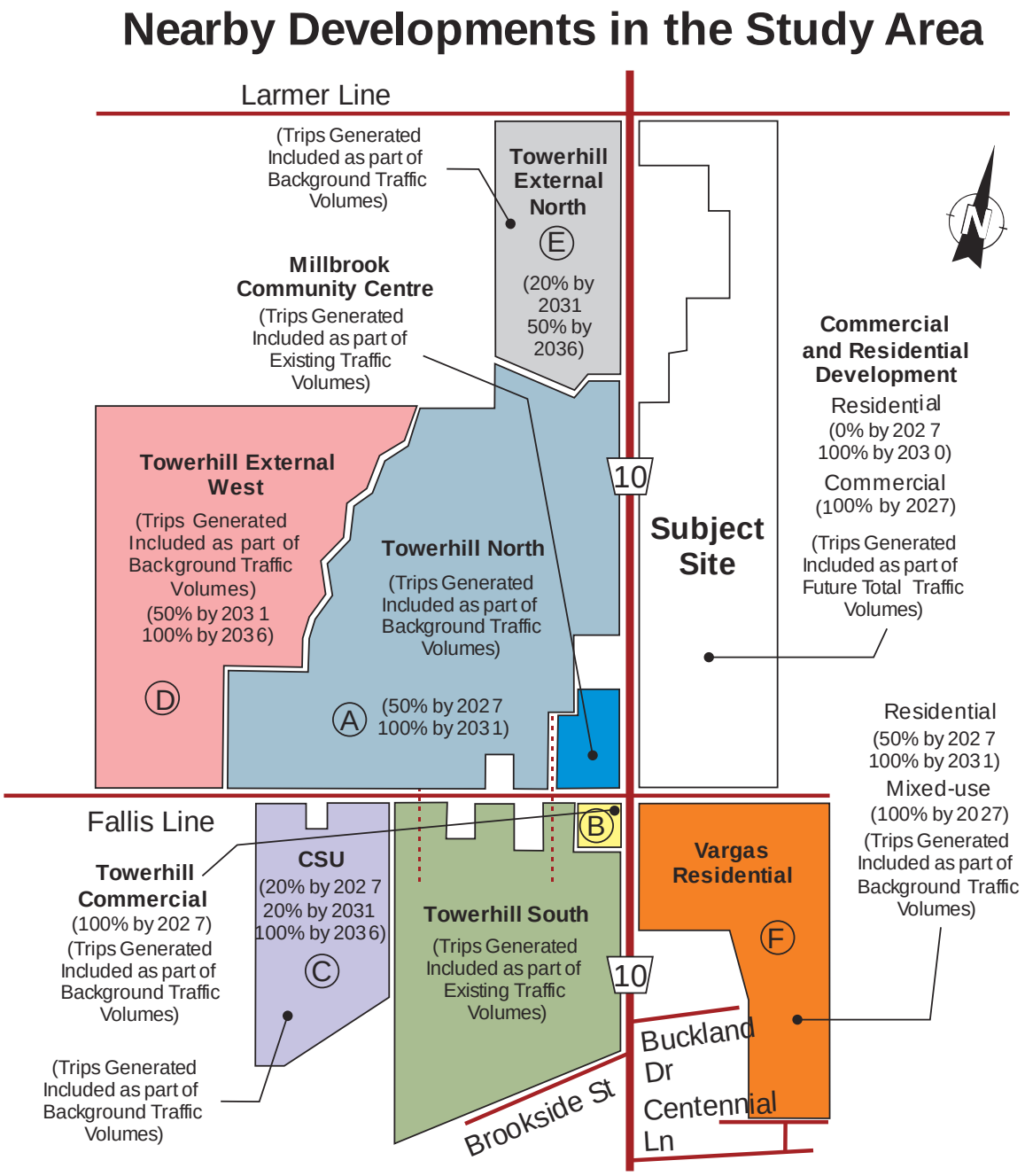


Exhibit 2: *Nearby Developments in the Study Area.*

Included in the analysis are the following study area intersections:

- County Road 10 & Larmer Line
- County Road 10 & Fallis Line
- County Road 10 & Centennial Lane
- County Road 10 & King Street
- Fallis Line & Tapley Quarter Line

2.2 The Subject Site

The subject site for the proposed development is a vacant parcel of land located east of County Road 10, between Fallis Line and Larmer Line. For an aerial view of the lands included, see ***Exhibit 3***.



Exhibit 3: *The Site.*

The proposed development is intended to feature the following land uses:

Phase 1 – Commercial Plaza (Block 189)

- Retail – 32,181 square feet GFA
- Foodstore – 25,614 square feet GFA
- Quick Service Restaurant w/ Drive-Thru – 20,888 square feet GFA
- Pharmacy – 17,427 square feet GFA
- Medical Offices – 12,218 square feet GFA
- Walk-in Bank – 3,512 square feet GFA
- Convenience Store – 2500 square feet GFA
- Gasoline Station – 8 Vehicle Fueling Pumps
- Automatic Carwash – 1 Tunnel, 1200 square feet GFA

Phase 2 – General Offices (Block 188) & Residential Units

- General Offices – 44,670 square feet GFA
- Single Detached House – 159 units
- Single Attached House – 148 units
- Low-rise Multifamily (3 storeys) – 45 units
- Mid-rise Multifamily (4 storeys) – 131 units

Access to the proposed development is intended as follows, listed from north to south:

- 'Street A' intersecting Larmer Ln (full movement)
- 'Street G' intersecting CR10 (full movement), 340 m south of Larmer Ln
- 'Driveway A' intersecting CR 10 (restricted to right-in-right-out), 160 metres south of Street G, serving the General Offices
- 'Street D,' an extension of the planned Highlands Boulevard, intersecting CR 10 (full movement), serving 'Driveways B (Offices) & C (Comm. Plaza).'
- 'Driveway D,' located across from the existing municipal driveway, intersecting CR 10 (full movement), serving the Comm. Plaza
- 'Driveway E' intersecting CR 10 (restricted to right-in-right-out), located 40 m south of the municipal driveway, serving the Comm. Plaza
- 'Driveway F', located across from the Dev. F RIRO driveway, intersecting the extension of Fallis Ln (full movement), serving the Comm. Plaza
- 'Street B' intersecting the extension of Fallis Ln (full movement)

See *Appendix A – Site Plans* for further details.

2.3 Existing Roadway Network

The following roads are part of the study area:

County Road 10 (CR10), known locally as Tupper Street, is a two-lane (one lane per direction) north/south arterial road. In general, CR10 shows a rural cross-section with granular shoulders and ditches for surface water drainage; as the road approaches the Downtown, CR10 becomes an urban roadway with curbs & gutters, sidewalks and catch basins for surface water collection. CR10 has a posted speed of 80 km/h with speed reduction to 60 km/h south of Larmer Ln, and further reduced to 50 km/h in proximity to the Downtown.

Larmer Line is a two-lane (one lane per direction) east/west rural road. It connects with CR10 to make a 4-leg intersection with stop signs at both approaches of Larmer Line. No posted speed was identified in proximity within the area; therefore, the legislative speed limit of 50 km/h is adopted.

Fallis Line is a two-lane (one lane per direction) east/west rural road. It also connects with CR10 to form a 4-leg intersection; the east leg of Fallis Line is more like an unpaved pathway which currently serves as a driveway for the adjacent property. Fallis Line has a posted speed limit of 50 km/h.

Tapley Quarter Line is a two-lane (one lane per direction) north/south rural road, Fallis Line connects with Tapley Quarter Line to form a “T” type intersection. No posted speed was identified within the area; therefore, the legislative speed limit of 50 km/h is adopted.

County Road 21 (CR21), also known locally as King Street, is a two-lane (one lane per direction) east/west urban arterial road. The road has a mix of a residential and commercial environment within the intersection area. A speed of 50 km/h is posted within this area.

2.4 Traffic Data

Asurza Engineers has undertaken video-based traffic movement counts to identify the weekday morning, afternoon, and Saturday peak hour traffic volumes within the study area. Counts were performed on April 24, 2025, as well as May 3, 2025, for the following study intersections:

- County Road 10 & Larmer Line
- County Road 10 & Fallis Line

- County Road 10 & King Street
- Fallis Line & Tapley Quarter Line

See *Appendix B – Traffic Data and Volume Projections* for further details.

The existing lane configuration at the subject intersections are shown in ***Exhibit 4***, and the existing 2025 traffic volumes for the AM, PM, and SAT peak hours are shown in ***Exhibits 5, 6, and 7***.

Existing Lane Configuration at Intersections

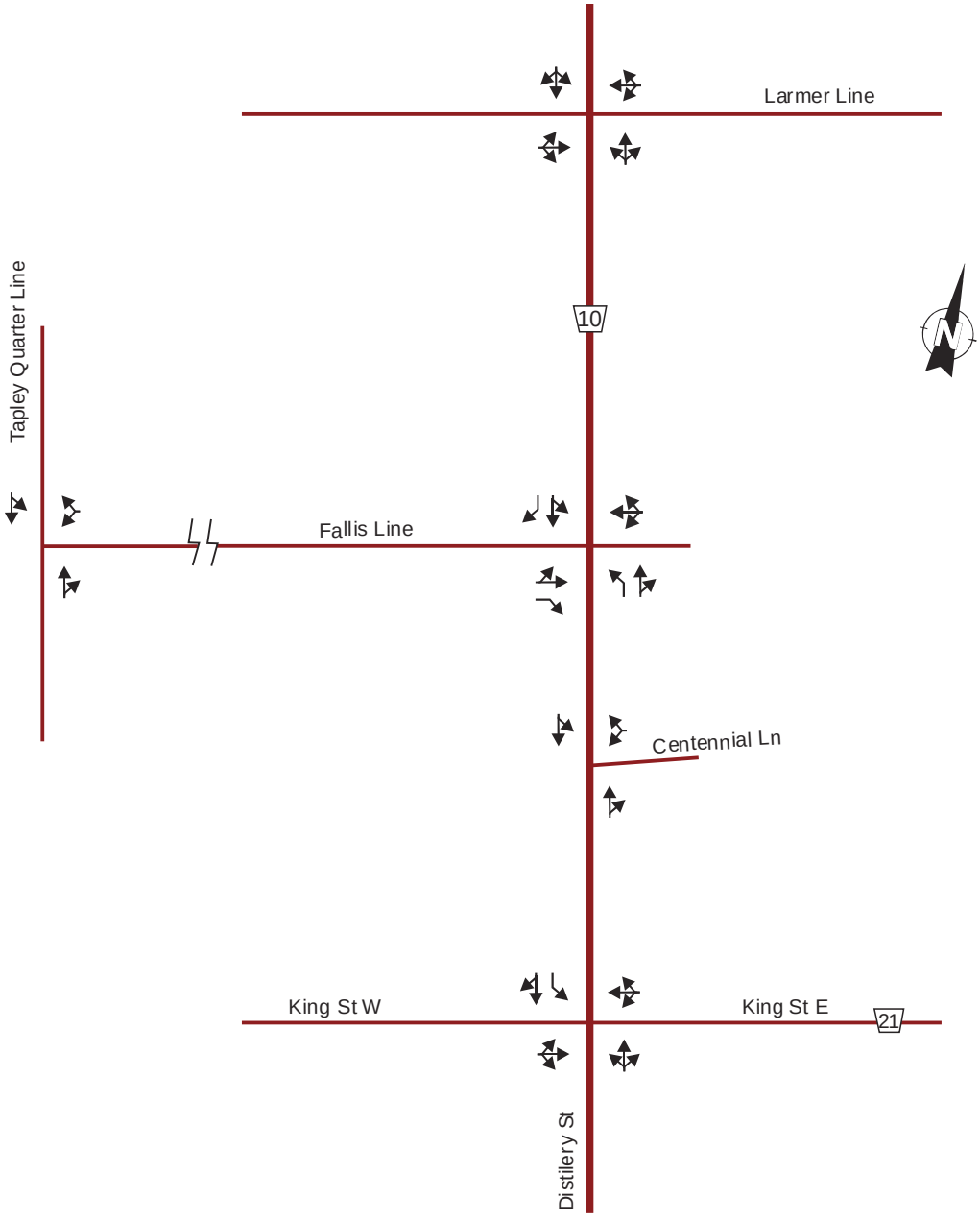


Exhibit 4: *Existing Lane Configurations at Intersections.*

Existing Volumes, AM Peak Hour, 2025

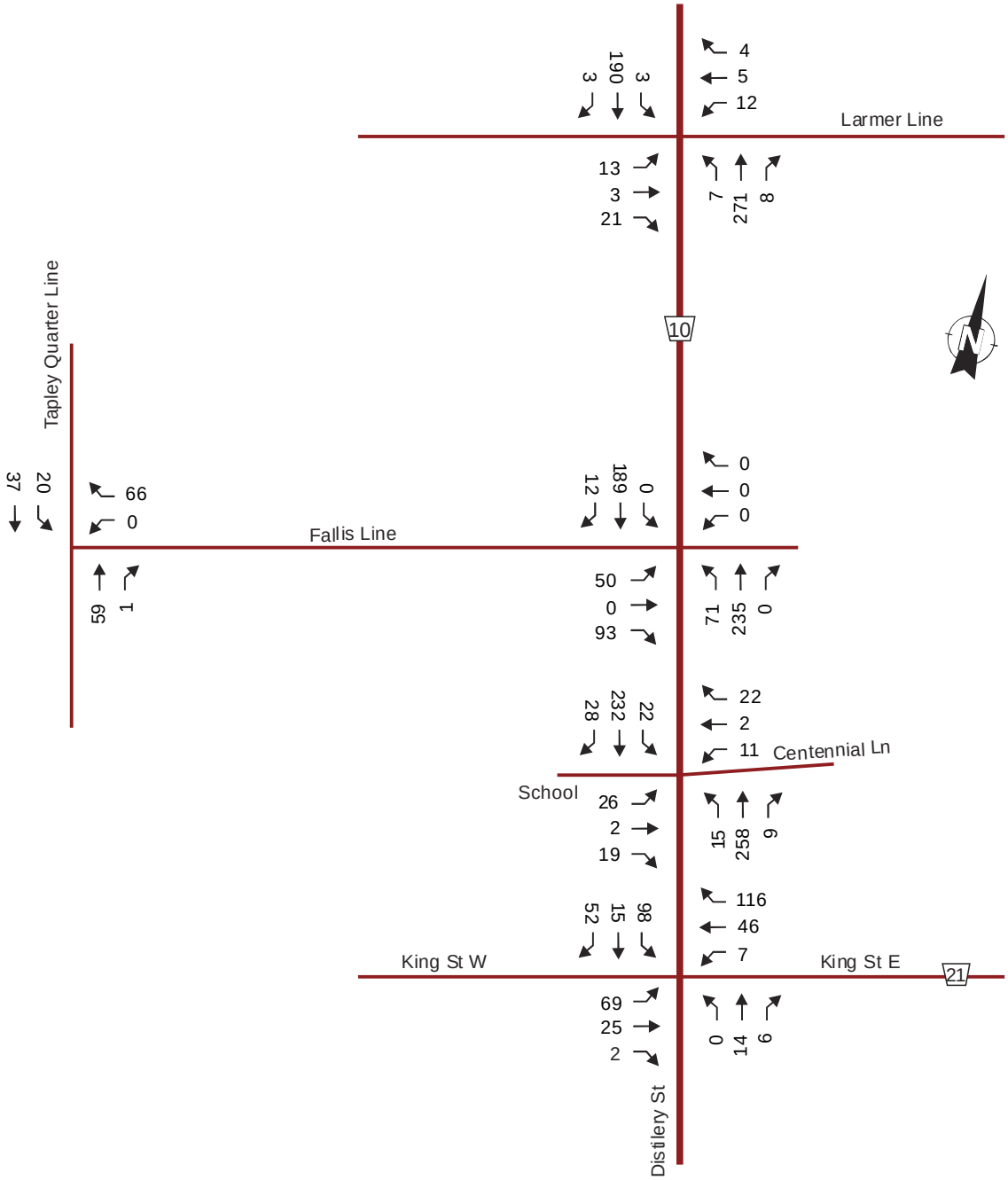


Exhibit 5: *Existing Volumes, AM Peak Hour, 2025*

Existing Volumes, PM Peak Hour, 2025

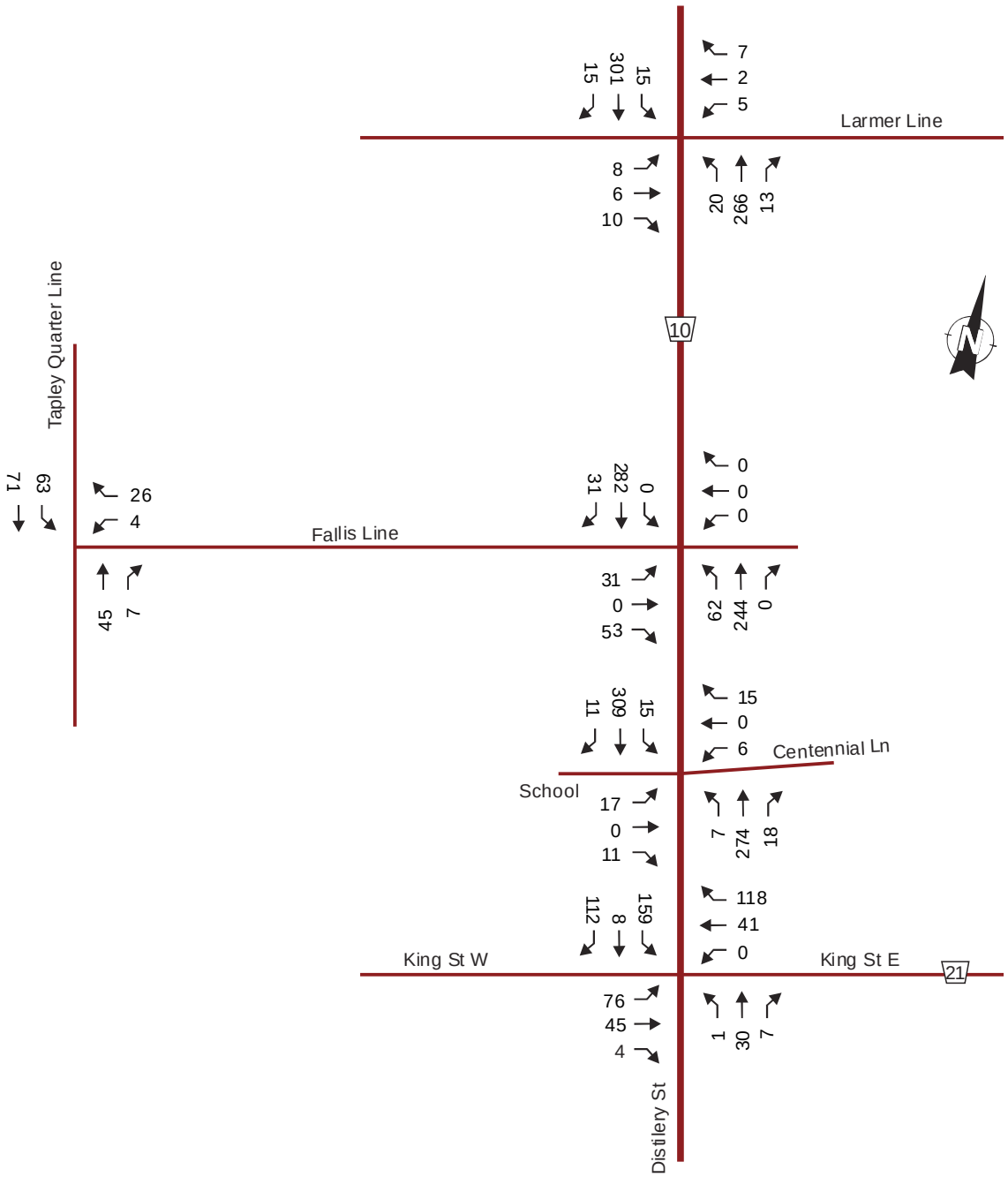


Exhibit 6: *Existing Volumes, PM Peak Hour, 2025*

Existing Volumes, SAT Peak Hour, 2025

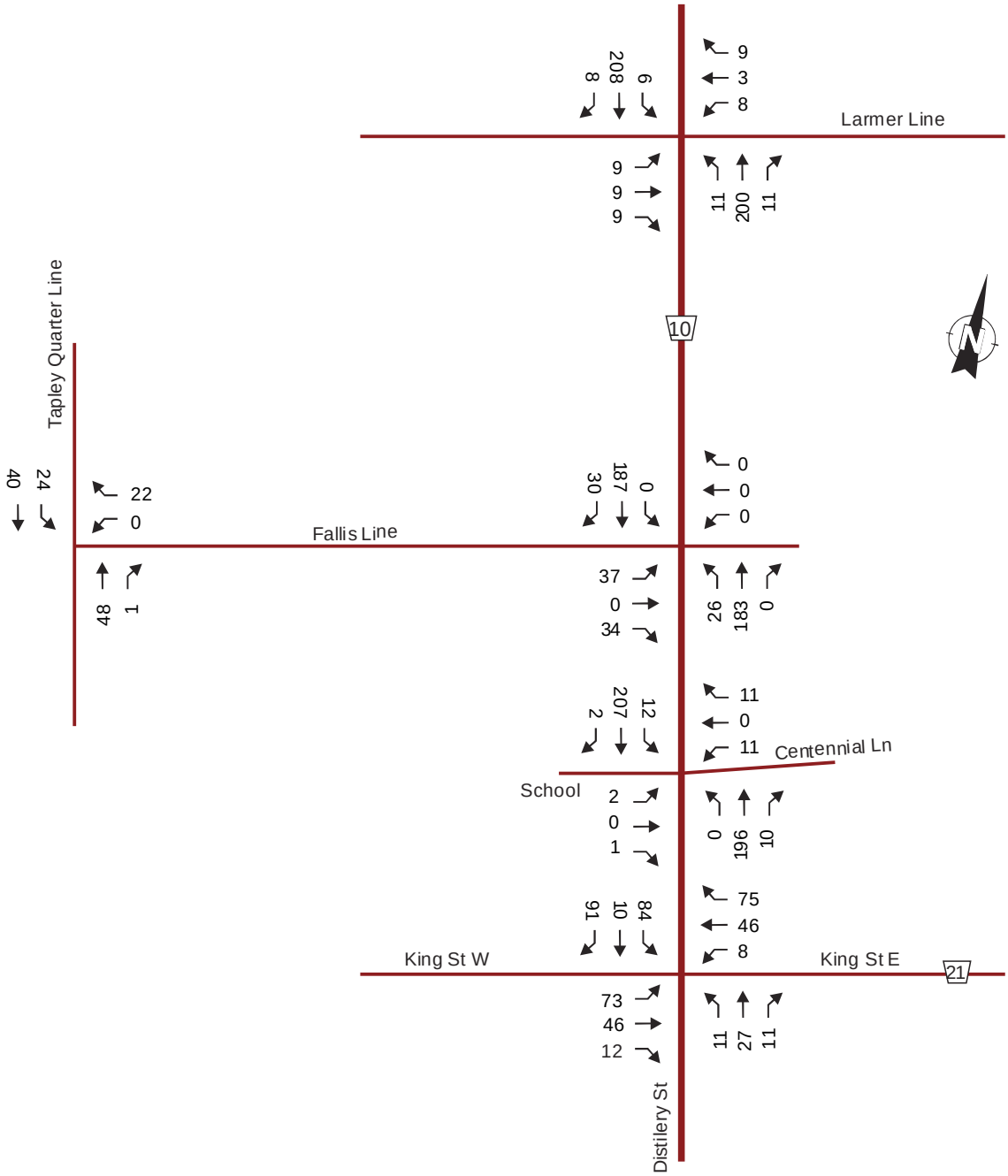


Exhibit 7: *Existing Volumes, SAT Peak Hour, 2025*

2.5 Existing Traffic Operations

Intersection level of service (LOS) is a recognized method of qualifying the efficiency of traffic flow at intersections. The assigned LOS is determined from the delay caused by the control system, experienced by individual vehicles executing the various movements. The delay is related to the number of vehicles desiring to make a particular movement, compared to the estimated capacity for that movement.

Table 1 shows the LOS criteria for intersections, ranging from 'A' to 'F,' where 'A' represents ideal traffic and 'F' represents extreme congestion.

LOS	Signalized Control Delay (sec/veh)	Unsignalized Control Delay (sec/veh)
A	0 - 10	0 - 10
B	> 10 - 20	> 10 - 15
C	> 20 - 35	> 15 - 25
D	> 35 - 55	> 25 - 35
E	> 55 - 80	> 35 - 50
F	> 80	> 50

Table 1: *Level of Service Definition.*

The intersection analysis, based on the Highway Capacity Manual (HCM), considers the following:

- The volume to capacity (v/c) ratio for the intersection and for each movement.
- The average delay in seconds for each movement and overall delay of the intersection.
- The 95th percentile queue length for each movement.
- The level of service for each movement and overall level of service of the intersection.

The existing operations for the subject intersections were evaluated in the Synchro 11 software using the existing traffic volumes for the AM and PM peak hours, and the results are summarized below in ***Table 2***.

		Intersection Capacity, Existing Volumes 2025											
		AM Peak Hour				PM Peak Hour				SAT Peak Hour			
		V/C	Delay (s)	Q_{95} (m)	LOS	V/C	Delay (s)	Q_{95} (m)	LOS	V/C	Delay (s)	Q_{95} (m)	LOS
CR10 / Larmer Line (stop control)	EB-LTR	0.07	11.6	1.7	B	0.06	14.0	1.5	B	0.05	11.6	1.1	B
	WB-LTR	0.05	13.3	1.3	B	0.03	13.1	0.8	B	0.03	11.2	0.8	B
	NB-LTR	0.01	0.2	0.1	A	0.02	0.7	0.4	A	0.01	0.4	0.2	A
	SB-LTR	0.00	0.1	0.1	A	0.01	0.5	0.3	A	0.00	0.2	0.1	A
CR10 / Municipal Access (stop control)	EB-L	0.40	22.0	1.0	C	0.08	17.5	2.0	C	0.00	11.7	0.0	B
	EB-R	0.01	11.2	0.3	B	0.04	11.2	0.8	B	0.00	9.5	0.1	A
	NB-L	0.00	8.4	0.0	A	0.00	8.3	0.0	A	0.00	7.7	0.0	A
	NB-T	0.39	0.0	0.0	A	0.25	0.0	0.0	A	0.15	0.0	0.0	A
	SB-TR	0.30	0.0	0.0	A	0.29	0.0	0.0	A	0.14	0.0	0.0	A
CR10 / Fallis Line (stop control)	EB-LT	0.21	13.6	5.9	B	0.10	12.8	2.6	B	0.09	11.3	2.1	B
	EB-R	0.21	13.6	5.9	B	0.10	12.8	2.6	B	0.09	11.3	2.1	B
	WB-LTR	-	-	-	-	-	-	-	-	-	-	-	-
	NB-L	0.07	8.0	1.7	A	0.06	8.1	1.3	A	0.02	7.8	0.5	A
	NB-TR	0.18	0.0	0.0	A	0.16	0.0	0.0	A	0.12	0.0	0.0	A
	SB-LT	0.00	0.0	0.0	A	0.00	0.0	0.0	A	0.00	0.0	0.0	A
	SB-R	0.01	0.0	0.0	A	0.02	0.0	0.0	A	0.02	0.0	0.0	A
Fallis Line / Tapley Q. Line (stop control)	WB-LR	0.09	9.0	2.1	A	0.03	8.90	0.8	A	0.02	8.6	0.6	A
	NB-TR	0.04	0.0	0.0	A	0.03	0.00	0.0	A	0.03	0.0	0.0	A
	SB-LT	0.02	2.7	0.4	A	0.04	3.70	1.0	A	0.02	2.8	0.4	A
CR10 / King St (stop control)	EB-LTR	0.15	8.8	17.8	A	0.22	9.7	17.0	A	0.18	8.8	16.1	A
	WB-LTR	0.24	8.6	21.3	A	0.25	9.2	17.9	A	0.17	8.2	15.9	A
	NB-LTR	0.03	8.1	13.7	A	0.07	8.6	13.9	A	0.07	8.2	13.9	A
	SB-L	0.19	9.0	18.0	A	0.32	10.5	21.8	B	0.14	8.5	17.9	A
	SB-TR	0.10	7.1	16.4	A	0.19	7.7	17.5	A	0.14	7.1	18.4	A

Table 2: *Intersection Capacity, Existing Volumes 2025.*

During typical peak hours, results show that all movements at intersections are operating well with LOS "C" or better. However, it should be noted that the 95th percentile queue lengths for the southbound left movement at CR10/King St exceeds the 14 m storage length for all scenarios, which may result in the spillback of vehicles.

3 Background Traffic Volumes and Operations

3.1 Background Traffic Volumes

In order to establish base conditions for the comparison and evaluation of future scenarios, it is necessary to review the results of traffic operations over time.

Horizon years respective to each phase of construction are identified; Phase 1 expected by 2027, the full build-out is expected by 2030, and 2035 represents 5 years after completion.

To project future traffic volumes, a compounded annual growth rate of 2% is applied to the through movements along CR10, as well as the movements at the CR10 & King St intersection.

As previously mentioned, the presence of other developments in Millbrook that are approved or in construction must be account for to better represent future traffic.

For Developments A, B, D, & E, the generated volumes were obtained from "Millbrook Development Phase 2 – Traffic Impact Study for the Tower Hill Developments Ltd.", a report prepared by JD Engineering. For further details, see *Appendix O – Relevant Excerpts from JD Engineering TIS*.

Additionally, the volumes for trips generated by Developments C & F were obtained from "Traffic Impact Study, Residential Development (East of CR10)," prepared by Asurza Engineers, dated March 22, 2024. For further details, see *Appendix P – Relevant Excerpts from Asurza Engineers TIS*.

Table 3 below shows the approximate estimated development progress for each nearby development by each study year.

Nearby Developments - Estimated Progress by Study Year			
Development	Year 2027	Year 2030	Year 2035
Dev. A (Towerhill North)	50%	50%	100%
Dev. B (Towerhill Comm.)	100%	100%	100%
Dev. C (CSU)	20%	20%	20%
Dev. D (Towerhill Ext. West)	0%	0%	50%
Dev. E (Towerhill Ext. North)	0%	0%	20%
Dev. F (Vargas Residential)	50%	50%	100%

Table 3: *Nearby Developments, Estimated Progress by Study Year.*

The trips generated by these developments are included in the background volumes for this study as shown in ***Exhibit 2***. For a full breakdown, see *Appendix B - Traffic Data and Volume Projections* and *Appendix D - Volumes Added by Nearby Developments*.

The following ***Exhibits 8 to 16*** show the projected AM, PM, and SAT peak hour background traffic volumes for the horizon years 2027, 2030 and 2035.

Background Volumes, AM Peak Hour, 2027 (including nearby developments)

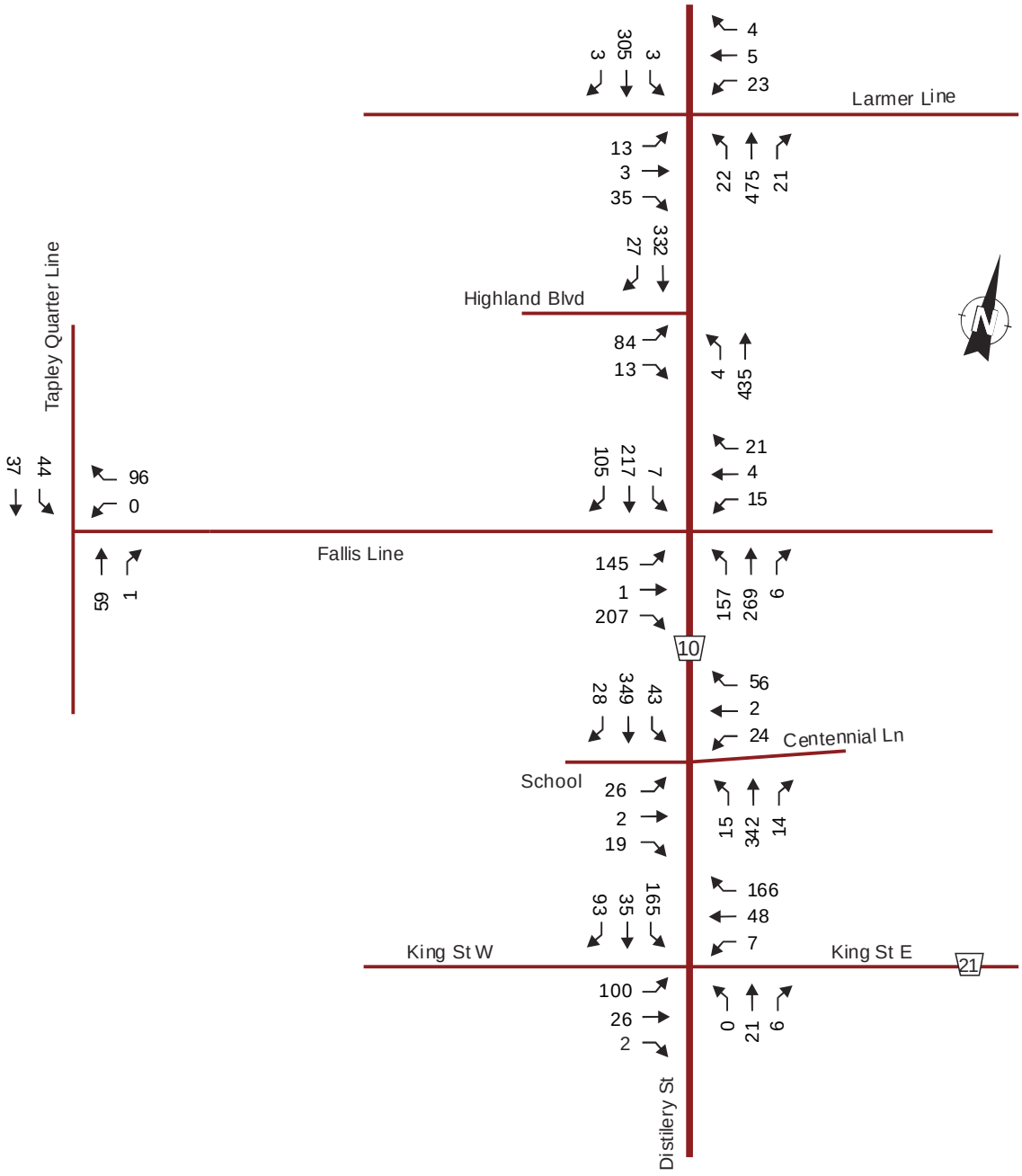


Exhibit 8: *Background Volumes, AM Peak Hour, 2027.*

Background Volumes, PM Peak Hour, 2027 (including nearby developments)

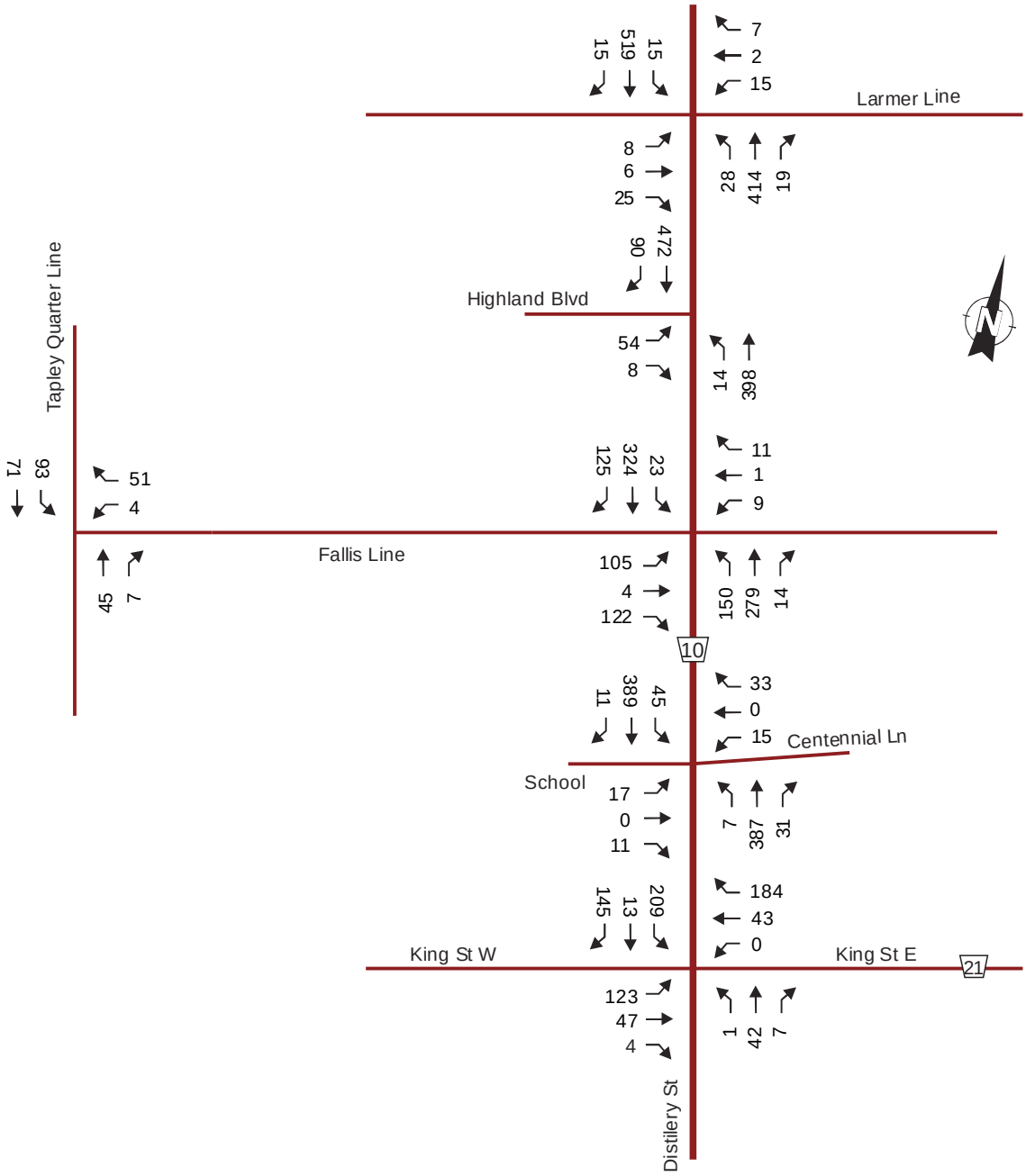


Exhibit 9: *Background Volumes, PM Peak Hour, 2027.*

Background Volumes, SAT Peak Hour, 2027 (including nearby developments)

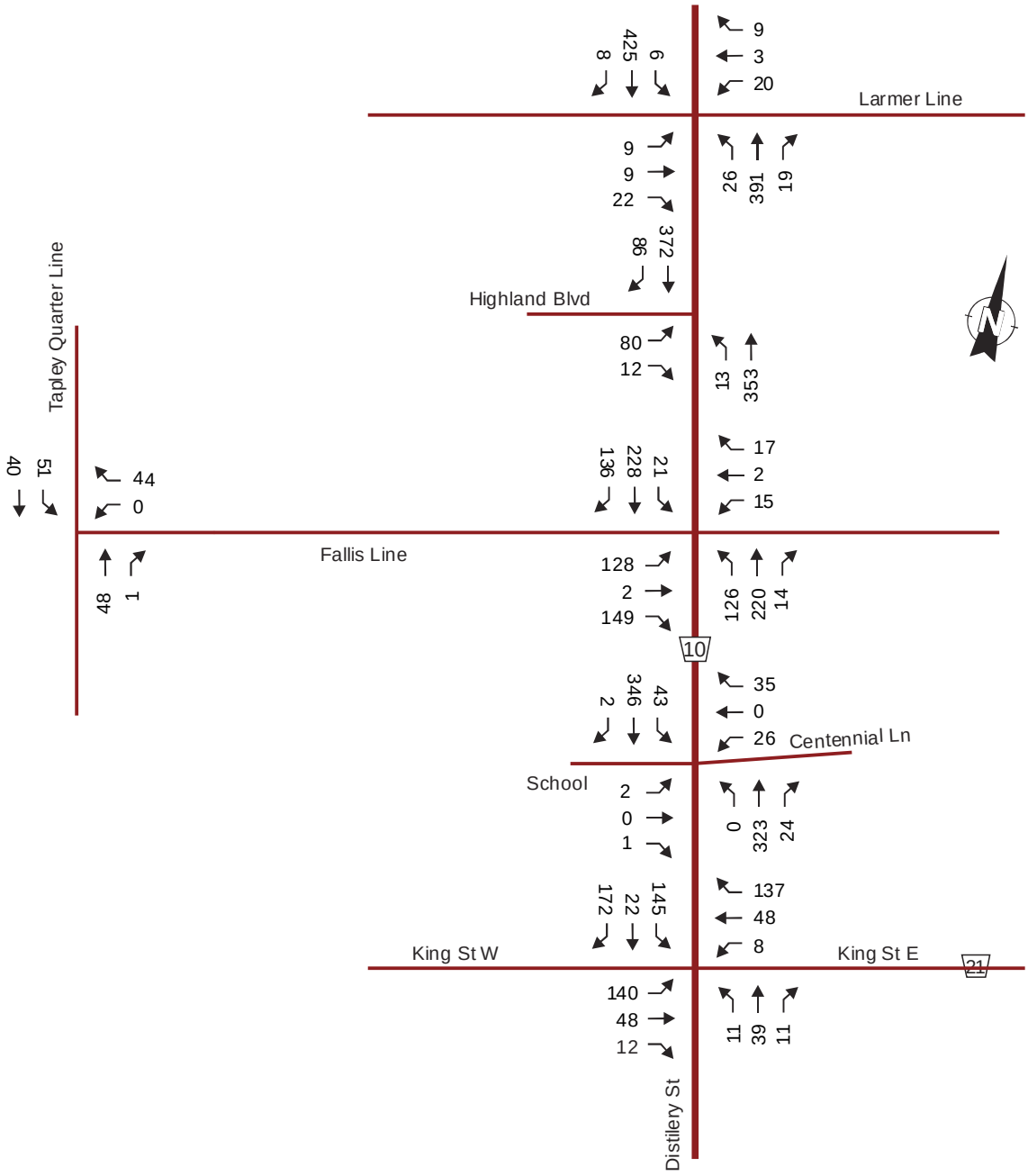


Exhibit 10: *Background Volumes, SAT Peak Hour, 2027.*

Background Volumes, AM Peak Hour, 2030 (including nearby developments)

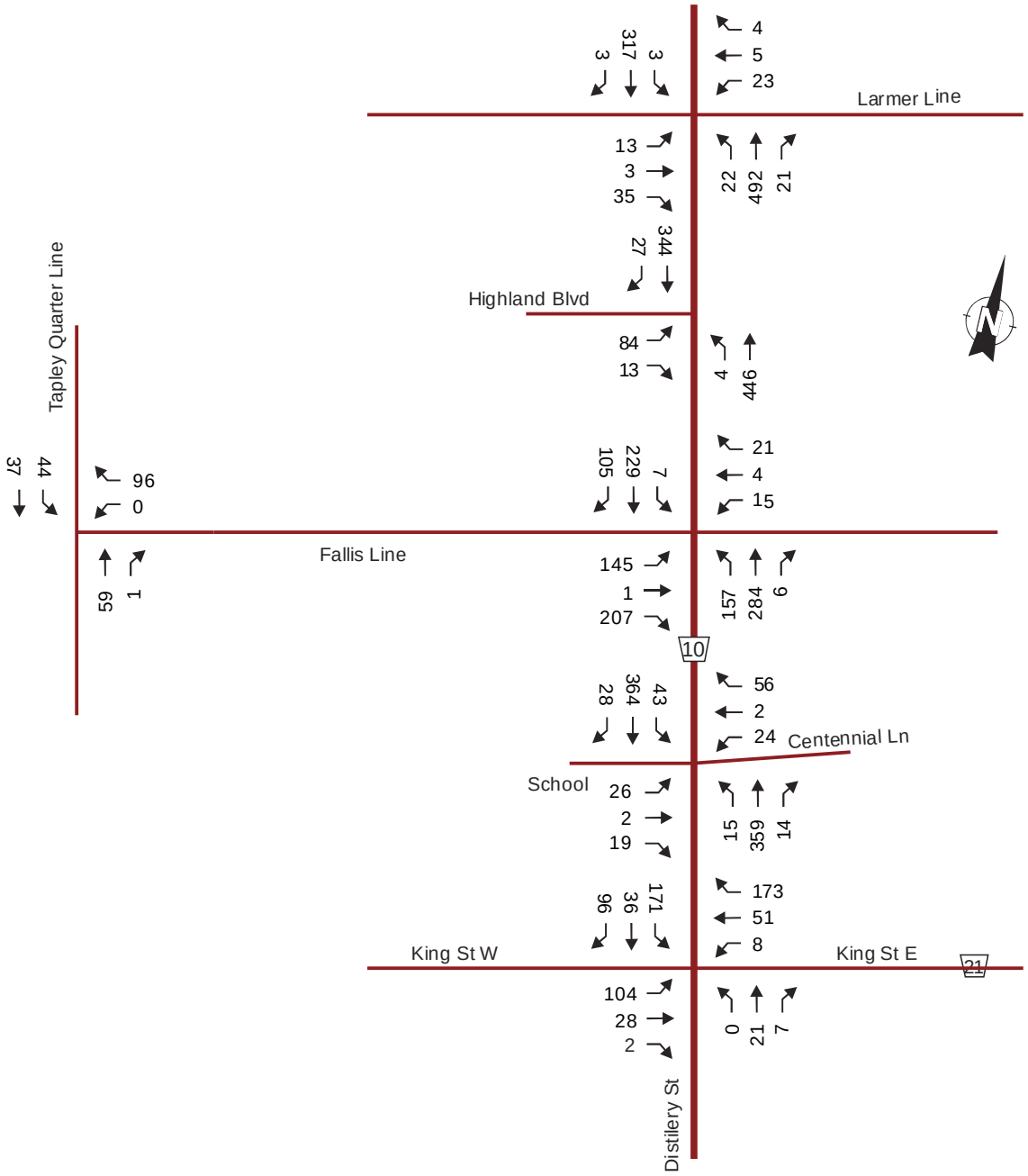


Exhibit 11: *Background Volumes, AM Peak Hour, 2030.*

Background Volumes, PM Peak Hour, 2030 (including nearby developments)

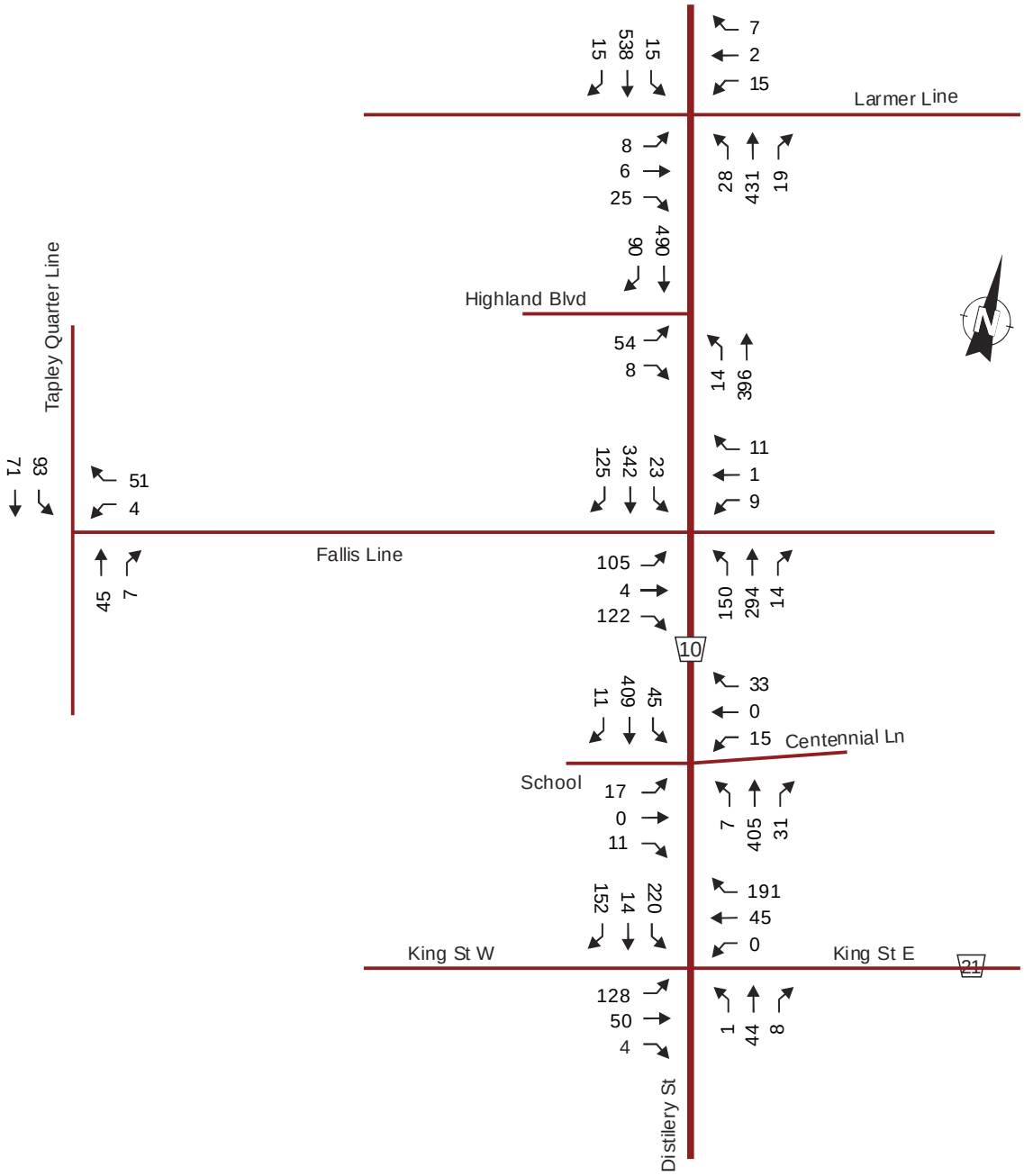


Exhibit 12: *Background Volumes, PM Peak Hour, 2030.*

Background Volumes, SAT Peak Hour, 2030 (including nearby developments)

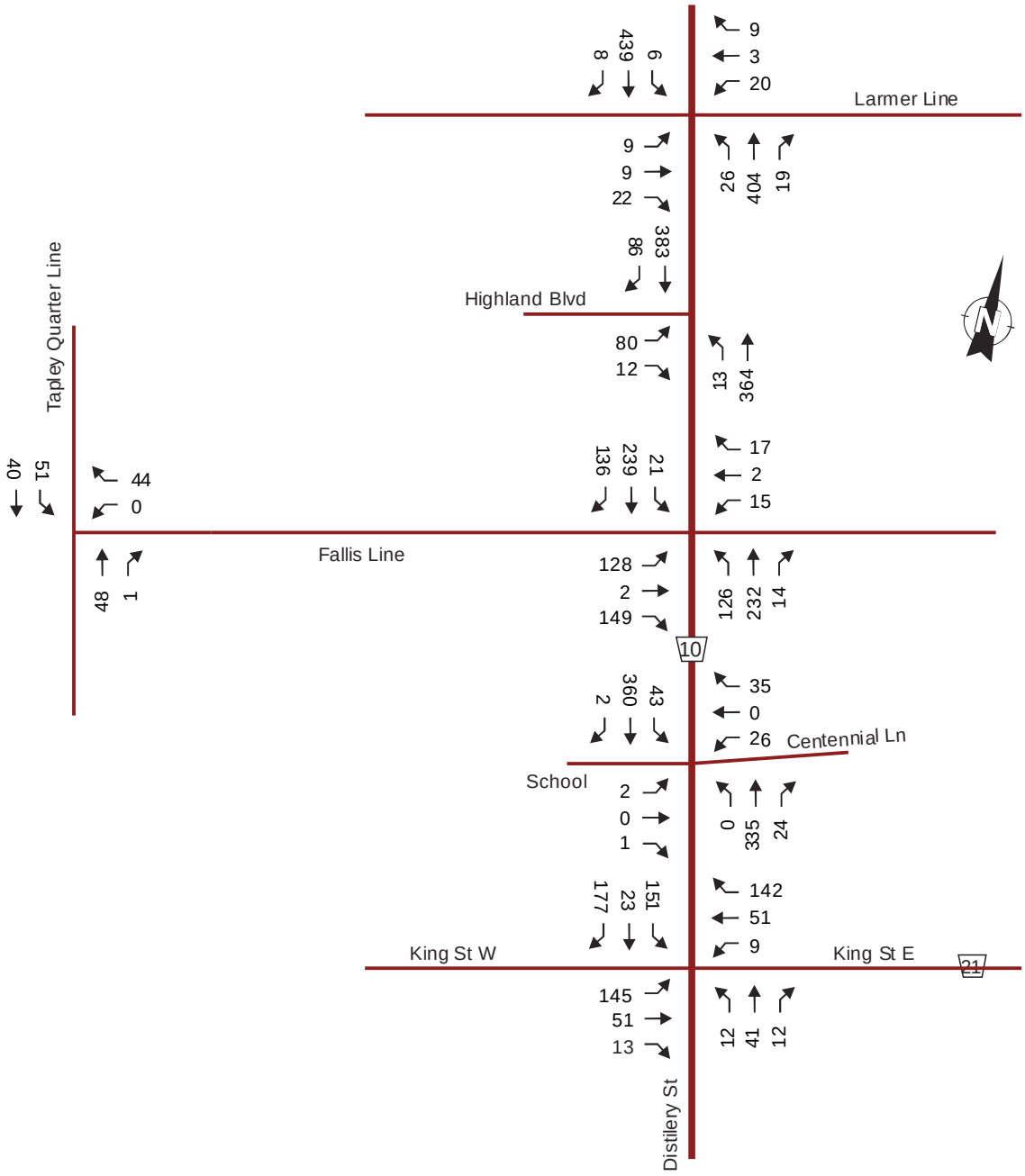


Exhibit 13: *Background Volumes, SAT Peak Hour, 2030.*

Background Volumes, AM Peak Hour, 2035 (including nearby developments)

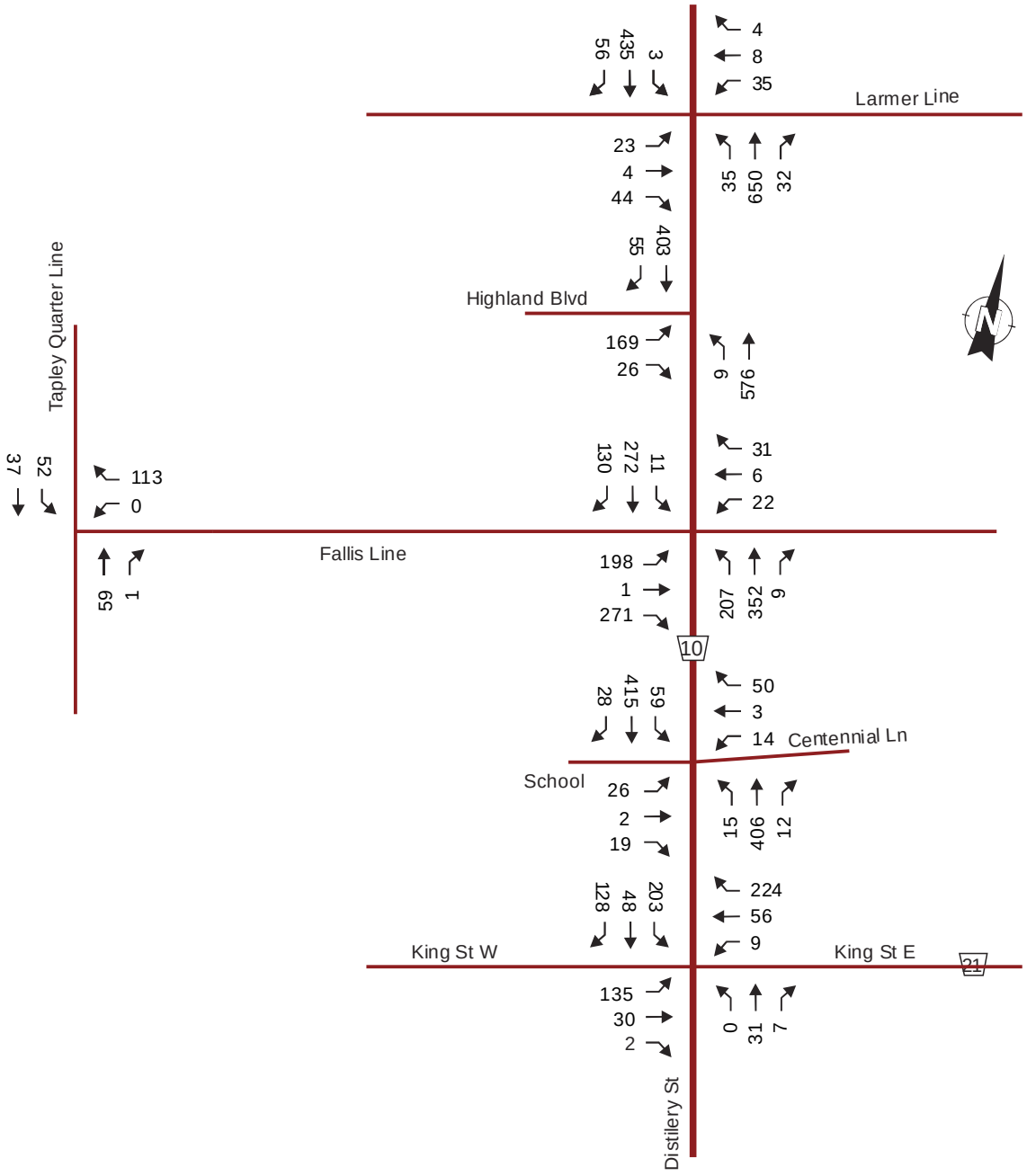


Exhibit 14: *Background Volumes, AM Peak Hour, 2035.*

Background Volumes, PM Peak Hour, 2035 (including nearby developments)

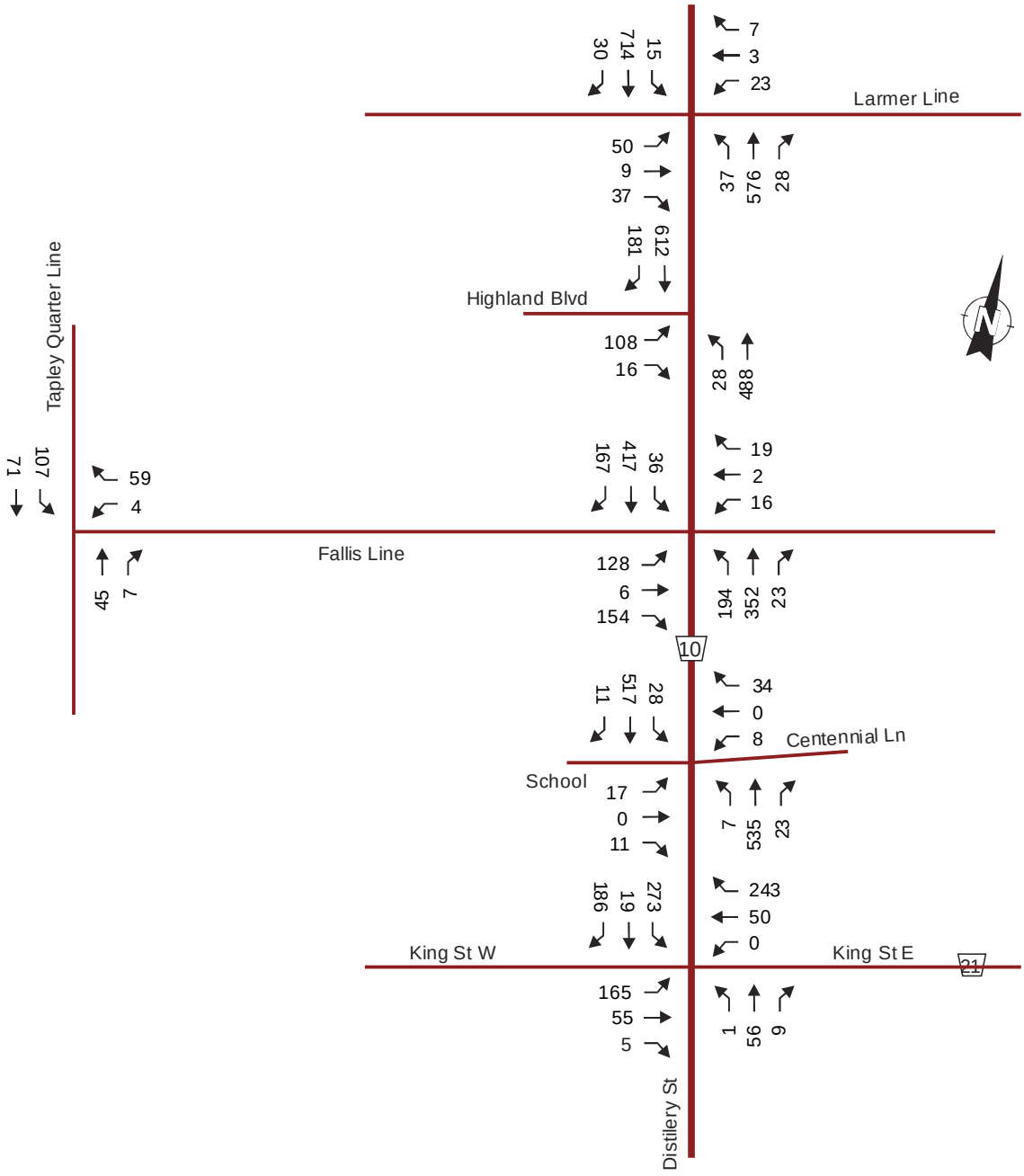


Exhibit 15: *Background Volumes, PM Peak Hour, 2035.*

Background Volumes, SAT Peak Hour, 2035 (including nearby developments)

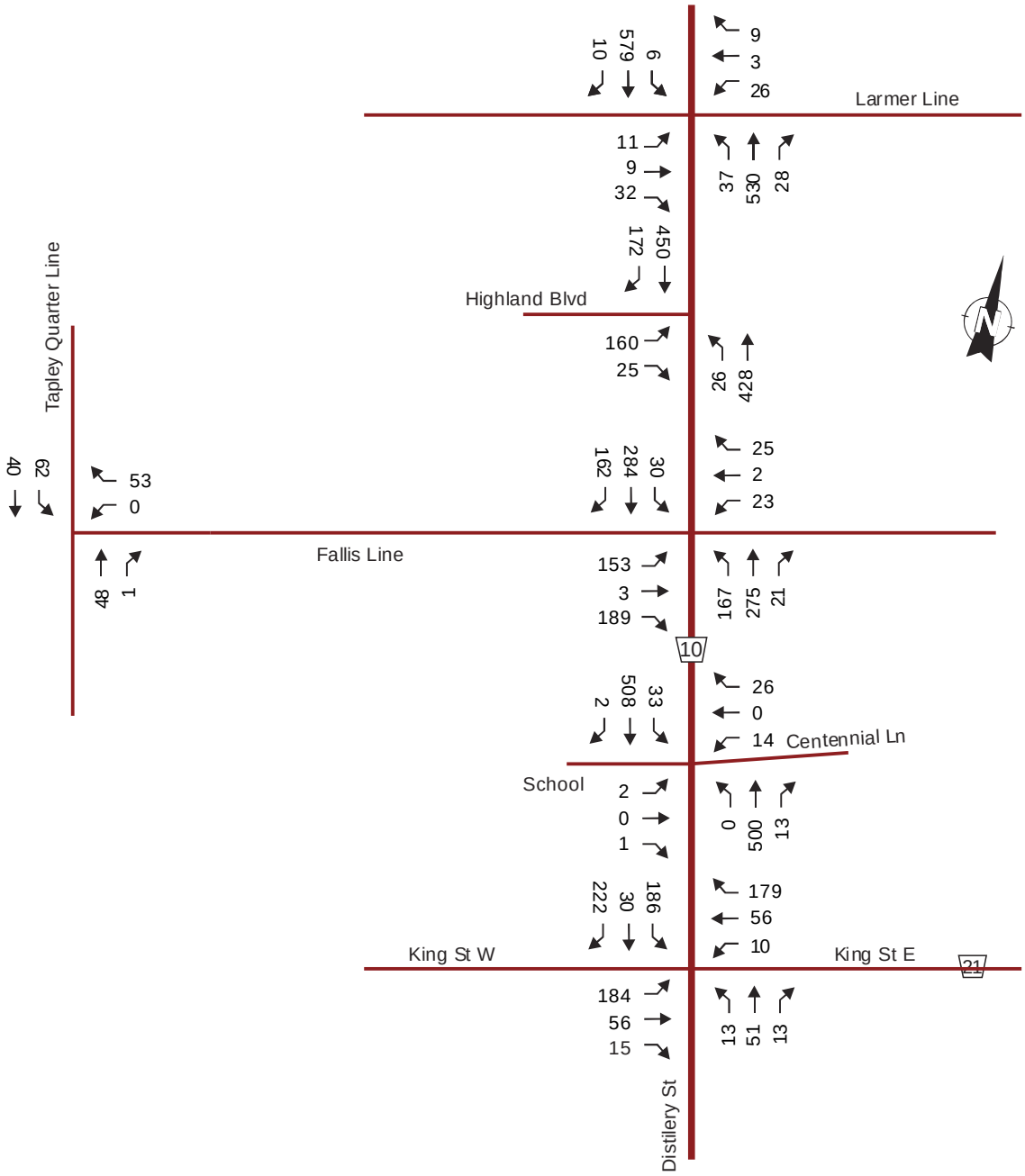


Exhibit 16: *Background Volumes, SAT Peak Hour, 2035.*

3.2 Background Traffic Operations

Guidance from the capacity factors projected for future background traffic, previous reports within the study area, the MTO left turn warrant procedure (see *Appendix Q*), as well as the traffic signal justification methodology from OTM Book 12 (see *Appendix R*), provide the basis for the following recommended background traffic conditions throughout the study years:

County Road 10 & Larmer Line:

2027

- The need for auxiliary lanes were identified in previous traffic reports.
- Left turn lanes are warranted by the 2027 background traffic scenario.
- A new 85 m NB left turn lane (taper as per TAC Guide Table 9.17.1).
- A new 85 m SB left turn lane (taper as per TAC Guide Table 9.17.1).
- No changes to the existing two-way stop control.

2030

- No changes to the existing two-way stop control.
- No additional geometry upgrades.

2035

- The need for traffic signals were previously identified.
- Traffic signals are justified, for preliminary timing see *Appendix G*.
- No additional geometry upgrades.

County Road 10 & Highland Boulevard:

2027

- Planned as a 3-leg intersection with one-way stop control.
- Intended to include an EB & NB left turn lane, and SB right turn lane.

2030

- No changes to the existing one-way stop control.
- Maintain the existing intersection geometry.

2035

- Traffic signals are justified, for preliminary timing see *Appendix G*.
- Maintain the existing intersection geometry.

County Road 10 & Fallis Line:

2027

- The need for traffic signals and shifted auxiliary lanes were identified in previous traffic reports.
- Traffic signals are required, for preliminary timing see *Appendix E*.
- Reconfigure west leg to include a 50 m EB left turn lane (taper as per TAC Guide Table 9.17.1) and an EB shared thru/right lane.
- The east leg extension of Fallis Ln is recommended to include a 20 m WB left turn lane (taper as per TAC Guide Table 9.17.1).
- A new 85 m NB right turn lane (taper as per TAC Guide Table 9.14.2).
- A new 85 m SB left turn lane (taper as per TAC Guide Table 9.17.1).

2030

- No additional geometry upgrades.

2035

- No additional geometry upgrades.

County Road 10 & County Rd 21 (King St):

2027

- Monitor over time for changes to existing all-way stop control.
- Extend the SB left turn lane length to 30 m.

2030

- Monitor over time for changes to existing all-way stop control.
- No additional geometry upgrades.

2035

- Monitor over time for changes to existing all-way stop control.
- No additional geometry upgrades.

Additionally, the operations of County Road 10 & Centennial Lane should also be monitored over time for signal justification. For a summary of the traffic signal justifications for each intersection and scenario, see *Appendix* Q.

The summary of results for the background traffic operations in 2027, 2030 and 2035 are shown in the following ***Tables 4 to 6***.

Given the background conditions identified for 2027, and the Millbrook development progress indicated in ***Table 3***, and without the subject development in place, traffic will be operating well with acceptable level of service for all movements.

By 2030, traffic will continue to operate well for most movements, with delays slightly increasing due to traffic growth. Traffic is expected to maintain good operations with acceptable level of service for all movements.

By 2035, the improved geometry and traffic controls will continue to manage the growing traffic demand, which include notably higher volumes due to the further progress of nearby developments. The results do not show any movements on the network degrading past LOS "D".

		Intersection Capacity, Background Volumes 2027											
		AM Peak Hour				PM Peak Hour				SAT Peak Hour			
		V/C	Delay (s)	Q_{95} (m)	LOS	V/C	Delay (s)	Q_{95} (m)	LOS	V/C	Delay (s)	Q_{95} (m)	LOS
CR10 / Larmer Line (stop control)	EB-LTR	0.14	14.7	3.5	B	0.14	18.8	3.7	C	0.11	15.7	2.7	C
	WB-LTR	0.16	23.4	4.2	C	0.13	25.2	3.3	D	0.11	19.3	2.9	C
	NB-L	0.02	8.0	0.5	A	0.03	8.7	0.7	A	0.02	8.3	0.6	A
	NB-TR	0.33	0.0	0.0	A	0.28	0.0	0.0	A	0.25	0.0	0.0	A
	SB-L	0.00	9.2	0.1	A	0.01	8.3	0.3	A	0.01	8.1	0.1	A
	SB-TR	0.21	0.0	0.0	A	0.34	0.0	0.0	A	0.26	0.0	0.0	A
CR10 / Municipal Access (stop control)	EB-L	0.02	19.2	0.4	C	0.06	18.0	1.5	C	0.00	15.9	0.1	C
	EB-R	0.01	10.8	0.1	B	0.03	11.5	0.6	B	0.00	10.8	0.1	B
	NB-L	0.00	8.2	0.0	A	0.00	8.4	0.0	A	0.00	8.2	0.0	A
	NB-T	0.33	0.0	0.0	A	0.25	0.0	0.0	A	0.24	0.0	0.0	A
	SB-TR	0.26	0.0	0.0	A	0.31	0.0	0.0	A	0.26	0.0	0.0	A
CR10 / Fallis Line (signalized)	EB-L	0.66	37.6	35.8	D	0.51	34.1	27.6	C	0.56	34.0	32.4	C
	EB-TR	0.49	6.6	8.9	A	0.36	8.3	13.0	A	0.39	7.4	13.0	A
	WB-L	0.12	24.5	6.1	C	0.05	23.7	4.6	C	0.08	23.5	6.4	C
	WB-TR	0.08	10.8	5.2	B	0.05	13.5	4.2	B	0.07	11.8	5.0	B
	NB-L	0.27	6.4	18.1	A	0.22	4.4	12.9	A	0.18	4.7	12.7	A
	NB-T	0.30	9.0	44.2	A	0.25	7.9	37.7	A	0.21	8.3	32.7	A
	NB-R	0.01	0.0	0.0	A	0.01	0.0	0.0	A	0.02	0.0	0.0	A
	SB-L	0.01	6.0	1.8	A	0.03	4.0	3.0	A	0.03	4.5	3.3	A
	SB-T	0.31	14.7	39.5	B	0.36	11.9	49.3	B	0.27	11.6	37.1	B
	SB-R	0.20	3.8	6.2	A	0.15	2.7	8.1	A	0.17	2.8	8.6	A
	Overall	0.66	12.6	-	B	0.51	10.4	-	B	0.56	10.9	-	B
CR10 / Highland Blvd (stop control)	EB-L	0.27	19.8	8.3	C	0.22	21.7	6.1	C	0.25	19.1	7.5	C
	EB-R	0.02	10.4	0.5	B	0.02	11.5	0.4	B	0.02	10.7	0.5	B
	NB-L	0.00	8.1	0.1	A	0.02	8.8	0.4	A	0.01	8.4	0.3	A
	NB-T	0.28	0.0	0.0	A	0.25	0.0	0.0	A	0.23	0.0	0.0	A
	SB-T	0.21	0.0	0.0	A	0.30	0.0	0.0	A	0.24	0.0	0.0	A
	SB-R	0.02	0.0	0.0	A	0.06	0.0	0.0	A	0.05	0.0	0.0	A
Fallis Line / Tapley Q. Line (stop control)	WB-LR	0.12	9.2	3.2	A	0.06	8.9	1.4	A	0.05	8.7	1.2	A
	NB-TR	0.04	0.0	0.0	A	0.03	0.0	0.0	A	0.03	0.0	0.0	A
	SB-LT	0.04	4.3	0.9	A	0.06	4.5	1.5	A	0.04	4.3	0.9	A
CR10 / King St (stop control)	EB-LTR	0.23	10.1	20.2	B	0.34	11.7	20.7	B	0.32	10.9	19.5	B
	WB-LTR	0.34	10.3	24.9	B	0.39	11.4	22.4	B	0.28	9.8	20.1	A
	NB-LTR	0.05	8.9	14.4	A	0.10	9.7	13.6	A	0.10	9.2	13.7	A
	SB-L	0.33	11.1	20.9	B	0.45	13.5	24.7	B	0.27	10.2	18.5	B
	SB-TR	0.21	8.3	18.7	A	0.28	9.1	21.6	A	0.29	8.9	22.4	A

Table 4: *Intersection Capacity, Background Volumes 2027.*

		Intersection Capacity, Background Volumes 2030											
		AM Peak Hour				PM Peak Hour				SAT Peak Hour			
		V/C	Delay (s)	Q_{95} (m)	LOS	V/C	Delay (s)	Q_{95} (m)	LOS	V/C	Delay (s)	Q_{95} (m)	LOS
CR10 / Larmer Line (stop control)	EB-LTR	0.14	15.1	3.7	C	0.15	19.6	3.9	C	0.11	16.1	2.8	C
	WB-LTR	0.17	24.5	4.5	C	0.14	26.7	3.5	D	0.12	20.0	3.0	C
	NB-L	0.02	8.0	0.5	A	0.03	8.8	0.7	A	0.02	8.3	0.6	A
	NB-TR	0.34	0.0	0.0	A	0.29	0.0	0.0	A	0.25	0.0	0.0	A
	SB-L	0.00	9.2	0.1	A	0.01	8.4	0.3	A	0.01	8.2	0.1	A
	SB-TR	0.21	0.0	0.0	A	0.36	0.0	0.0	A	0.27	0.0	0.0	A
CR10 / Municipal Access (stop control)	EB-L	0.02	20.0	0.5	C	0.06	18.9	1.6	C	0.00	16.3	0.1	C
	EB-R	0.01	10.9	0.1	B	0.03	11.7	0.6	B	0.00	10.9	0.1	B
	NB-L	0.00	8.2	0.0	A	0.00	8.5	0.0	A	0.00	8.2	0.0	A
	NB-T	0.34	0.0	0.0	A	0.26	0.0	0.0	A	0.25	0.0	0.0	A
	SB-TR	0.27	0.0	0.0	A	0.32	0.0	0.0	A	0.26	0.0	0.0	A
CR10 / Fallis Line (signalized)	EB-L	0.66	37.6	35.8	D	0.51	34.1	27.6	C	0.56	34.0	32.4	C
	EB-TR	0.49	6.6	8.9	A	0.36	8.3	13.0	A	0.39	7.4	13.0	A
	WB-L	0.12	24.5	6.1	C	0.05	23.7	4.6	C	0.08	23.5	6.4	C
	WB-TR	0.08	10.8	5.2	B	0.05	13.5	4.2	B	0.07	11.8	5.0	B
	NB-L	0.28	6.4	18.1	A	0.23	4.4	12.9	A	0.18	4.7	12.7	A
	NB-T	0.31	9.2	46.8	A	0.27	8.0	40.0	A	0.22	8.4	34.4	A
	NB-R	0.01	0.0	0.0	A	0.01	0.0	0.0	A	0.02	0.0	0.0	A
	SB-L	0.01	6.0	1.8	A	0.03	4.0	3.0	A	0.03	4.5	3.3	A
	SB-T	0.33	14.9	41.7	B	0.38	12.1	52.5	B	0.28	11.7	38.8	B
	SB-R	0.20	3.8	6.2	A	0.15	2.7	8.1	A	0.17	2.8	8.6	A
	Overall	0.66	12.6	-	B	0.51	10.5	-	B	0.56	10.9	-	B
CR10 / Highland Blvd (stop control)	EB-L	0.28	20.5	8.6	C	0.22	22.2	6.2	C	0.26	19.7	7.9	C
	EB-R	0.02	10.5	0.5	B	0.02	11.7	0.4	B	0.02	10.8	0.5	B
	NB-L	0.00	8.1	0.1	A	0.02	8.8	0.4	A	0.01	8.5	0.3	A
	NB-T	0.29	0.0	0.0	A	0.25	0.0	0.0	A	0.23	0.0	0.0	A
	SB-T	0.22	0.0	0.0	A	0.31	0.0	0.0	A	0.24	0.0	0.0	A
	SB-R	0.02	0.0	0.0	A	0.06	0.0	0.0	A	0.05	0.0	0.0	A
Fallis Line / Tapley Q. Line (stop control)	WB-LR	0.12	9.2	3.2	A	0.06	8.9	1.4	A	0.05	8.7	1.2	A
	NB-TR	0.04	0.0	0.0	A	0.03	0.0	0.0	A	0.03	0.0	0.0	A
	SB-LT	0.04	4.3	0.9	A	0.06	4.5	1.5	A	0.04	4.3	0.9	A
CR10 / King St (stop control)	EB-LTR	0.24	10.3	19.0	B	0.36	12.2	18.7	B	0.34	11.2	19.4	B
	WB-LTR	0.37	10.6	23.8	B	0.41	11.9	23.9	B	0.30	10.1	20.7	B
	NB-LTR	0.05	9.0	13.9	A	0.11	9.9	14.2	A	0.11	9.4	13.2	A
	SB-L	0.35	11.4	23.3	B	0.48	14.3	25.2	B	0.28	10.5	19.9	B
	SB-TR	0.22	8.5	20.2	A	0.30	9.4	20.0	A	0.30	9.2	20.9	A

Table 5: *Intersection Capacity, Background Volumes 2030.*

		Intersection Capacity, Background Volumes 2035											
		AM Peak Hour				PM Peak Hour				SAT Peak Hour			
		V/C	Delay (s)	Q_{95} (m)	LOS	V/C	Delay (s)	Q_{95} (m)	LOS	V/C	Delay (s)	Q_{95} (m)	LOS
CR10 / Larmer Line (stop control)	EB-LTR	0.40	22.2	16.2	C	0.52	33.9	26.0	C	0.28	22.0	12.8	C
	WB-LTR	0.34	37.2	17.1	D	0.22	30.1	12.2	C	0.23	30.7	13.0	C
	NB-L	0.06	2.6	3.4	A	0.09	3.5	4.4	A	0.05	2.2	3.0	A
	NB-TR	0.51	4.7	60.2	A	0.43	4.5	56.7	A	0.34	2.7	33.5	A
	SB-L	0.01	2.7	0.6	A	0.03	3.1	2.1	A	0.01	2.2	0.9	A
	SB-TR	0.36	3.4	35.3	A	0.54	5.6	80.7	A	0.36	2.8	36.3	A
	Overall	0.51	6.3	-	A	0.54	7.4	-	A	0.36	4.3	-	A
CR10 / Municipal Access (stop control)	EB-L	0.02	18.9	0.4	C	0.07	20.0	1.7	C	0.00	17.5	0.1	C
	EB-R	0.01	11.4	0.2	B	0.03	12.0	0.7	B	0.00	11.2	0.1	B
	NB-L	0.00	8.7	0.0	A	0.00	8.9	0.0	A	0.00	8.5	0.0	A
	NB-T	0.44	0.0	0.0	A	0.32	0.0	0.0	A	0.30	0.0	0.0	A
	SB-TR	0.34	0.0	0.0	A	0.37	0.0	0.0	A	0.32	0.0	0.0	A
CR10 / Fallis Line (signalized)	EB-L	0.74	39.9	48.3	D	0.58	36.0	33.3	D	0.62	36.0	39.0	D
	EB-TR	0.52	5.6	8.2	A	0.40	8.0	14.8	A	0.44	7.0	14.4	A
	WB-L	0.20	25.5	8.2	C	0.09	24.2	6.7	C	0.15	25.0	8.7	C
	WB-TR	0.10	9.0	6.0	A	0.07	11.8	5.5	B	0.09	10.3	5.9	B
	NB-L	0.42	9.8	29.5	A	0.34	5.7	18.3	A	0.26	5.6	18.1	A
	NB-T	0.41	12.7	69.4	B	0.34	10.2	52.1	B	0.27	9.3	43.7	A
	NB-R	0.01	0.0	0.0	A	0.03	0.4	0.7	A	0.02	0.3	0.5	A
	SB-L	0.02	8.2	3.0	A	0.05	4.6	4.6	A	0.05	5.2	4.5	A
	SB-T	0.42	19.3	56.9	B	0.47	14.6	72.0	B	0.34	13.8	50.9	B
	SB-R	0.25	4.2	7.2	A	0.21	2.8	10.0	A	0.21	3.0	9.9	A
	Overall	0.74	15.0	-	B	0.58	11.9	-	B	0.62	11.8	-	B
CR10 / Highland Blvd (signalized)	EB-L	0.43	17.7	29.1	B	0.31	17.9	20.1	B	0.38	14.5	23.5	B
	EB-R	0.07	7.2	4.6	A	0.05	8.6	3.7	A	0.06	6.3	3.9	A
	NB-L	0.02	5.3	1.9	A	0.07	5.0	3.6	A	0.06	5.8	3.6	A
	NB-T	0.62	10.6	60.5	B	0.42	6.5	41.4	A	0.42	7.8	37.9	A
	SB-T	0.43	8.0	37.1	A	0.53	7.8	57.8	A	0.45	8.0	40.6	A
	SB-R	0.07	2.1	3.5	A	0.17	1.4	5.5	A	0.18	1.8	6.1	A
	Overall	0.62	10.2	-	B	0.53	7.3	-	A	0.45	7.9	-	A
Fallis Line / Tapley Q. Line (stop control)	WB-LR	0.14	9.3	3.8	A	0.07	9.0	1.6	A	0.06	8.8	1.4	A
	NB-TR	0.04	0.0	0.0	A	0.03	0.0	0.0	A	0.03	0.0	0.0	A
	SB-LT	0.04	4.6	1.1	A	0.07	4.7	1.8	A	0.04	0.3	1.1	A
CR10 / King St (stop control)	EB-LTR	0.33	11.9	21.3	B	0.49	15.7	25.0	C	0.45	13.5	24.3	B
	WB-LTR	0.49	13.2	29.0	B	0.57	16.3	29.6	C	0.39	11.9	23.5	B
	NB-LTR	0.08	9.8	15.6	A	0.15	11.3	14.3	B	0.14	10.3	15.4	B
	SB-L	0.44	13.6	24.8	B	0.65	21.2	27.6	C	0.37	12.3	22.4	B
	SB-TR	0.32	10.0	21.8	A	0.41	11.8	22.2	B	0.41	11.2	24.2	B

Table 6: *Intersection Capacity, Background Volumes 2035.*

4 Proposed Development Traffic Forecasting

4.1 Traffic Impact Study Methodology

The traffic impact analysis was completed in accordance with the methodologies published by the Transportation Research Board (TRB), the Transportation Impact Analysis for Site Developments published by the Institute of Transportation Engineers (ITE) as well as the Traffic Impact Study Guidelines published by Durham Region.

The estimation of trips generated by the proposed development were derived from the Trip Generation Manual, 11th Edition, published by ITE.

4.2 Site Trip Generation

The land uses which most closely describe the proposed development blocks are the following, separated by phase of development:

Phase 1 – Commercial Plaza (Block 189)

- Code 821 – Shopping Plaza (40k-150k) w/ Supermarket – 10,708 m^2 GFA
- Code 960 – Super Convenience Market/Gas Station – 8 fueling positions

Phase 2 – General Offices (Block 188) & Residential Units

- Code 210 – Single Family Detached Housing – 159 dwelling units
- Code 215 – Single Family Attached Housing – 148 dwelling units
- Code 220 – Multifamily Housing (Low-rise) – 45 dwelling units
- Code 221 – Multifamily Housing (Mid-rise) – 131 dwelling units
- Code 710 – General Office Building – 4,150 m^2 GFA

The ITE trip generation rates and entering/exiting proportions for the above land uses are shown in ***Table 7***, and the estimated trips generated by each phase of development are shown in ***Tables 8 and 9*** respectively. As per the methodology, the fitted equations are used in place of the average rates when the trip data requirements are met.

TRIP GENERATION RATES BY LAND USE												
ITE Code	ITE Land Use	Unit of Measure	AM Peak Hour			PM Peak Hour			SAT Peak Hour		
			Rate	In	Out	Rate	In	Out	Rate	In	Out
210	Single-Family Detached Housing	Dwelling Units	0.91Ln(X) + 0.12	25%	75%	0.94Ln(X) + 0.27	63%	37%	0.86(X) + 9.72	54%	46%
215	Single-Family Attached Housing	Dwelling Units	0.52(X) - 5.70	25%	75%	0.60Ln(X) - 3.93	59%	41%	0.82Ln(X) + 0.43	48%	52%
220	Multifamily Housing (Low Rise)	Dwelling Units	0.31(X) + 22.85	24%	76%	0.43(X) + 20.55	63%	37%	0.41	50%	50%
221	Multifamily Housing (Mid Rise)	Dwelling Units	0.44(X) - 11.61	23%	77%	0.39(X) + 0.34	61%	39%	1.00Ln(X) - 0.91	51%	49%
710	General Office Building	GFA	0.86Ln(X) + 1.16	88%	12%	0.83Ln(X) + 1.29	17%	83%	0.53	54%	46%
821	Shopping Plaza (40-150k)	GLA	3.53	62%	38%	7.67(X) + 118.86	48%	52%	7.60(X) + 125.07	51%	49%
Internal Trip Reduction			See *Appendix H*			See *Appendix H*			See *Appendix H*		
Pass-by Trip Reduction			15%			34%			26%		
960	Super Convenience Market/Gas Station	Fuelling Positions	28.08	50%	50%	22.96	50%	50%	23.26	50%	50%
Internal Trip Reduction			See *Appendix H*			See *Appendix H*			See *Appendix H*		
Pass-by Trip Reduction			63%			66%			66%		

Table 7: *ITE Trip Rates and Directional Distribution per Land Use.*

ESTIMATED NUMBER OF TRIPS BY LAND USE - Phase 1 (2027)											
ITE Code	ITE Land Use	Total Units	AM Peak Hour			PM Peak Hour			SAT Peak Hour		
			Trips	In	Out	Trips	In	Out	Trips	In	Out
821	Shopping Plaza (40-150k)	116.03	410	254	156	1009	484	525	1007	514	493
Internal Trip Reduction			36	16	20	65	38	27	65	38	27
Pass-by Trip Reduction			56	36	20	321	152	169	245	124	121
960	Super Convenience Market/Gas Station	8	224	112	112	184	92	92	186	93	93
Internal Trip Reduction			36	20	16	65	27	38	65	27	38
Pass-by Trip Reduction			118	58	60	79	43	36	80	44	36
TOTAL NEW TRIPS			388	236	152	663	316	347	738	374	364

Table 8: *Estimation of Trips Generated by the Proposed Development, 2027.*

ESTIMATED NUMBER OF TRIPS BY LAND USE - Phase 2 (2030)											
ITE Code	ITE Land Use	Total Units	AM Peak Hour			PM Peak Hour			SAT Peak Hour		
			Trips	In	Out	Trips	In	Out	Trips	In	Out
210	Single-Family Detached Housing	159	113	28	85	154	97	57	146	79	67
215	Single-Family Attached Housing	148	71	18	53	85	50	35	92	44	48
220	Multifamily Housing (Low Rise)	45	37	9	28	40	25	15	18	9	9
221	Multifamily Housing (Mid Rise)	131	46	11	35	51	31	20	53	27	26
Internal Trip Reduction (Residential Uses)			10	0	10	54	32	22	48	24	24
710	General Office Building	44.67	84	74	10	85	14	71	24	13	11
Internal Trip Reduction			24	14	10	27	9	18	10	8	2
821	Shopping Plaza (40-150k)	116.03	410	254	156	1009	484	525	1007	514	493
Internal Trip Reduction			42	19	23	124	68	56	105	56	49
Pass-by Trip Reduction			55	35	20	300	141	159	234	119	115
960	Super Convenience Market/Gas Station	8	224	112	112	184	92	92	186	93	93
Internal Trip Reduction			64	37	27	85	36	49	81	34	47
Pass-by Trip Reduction			101	47	54	65	37	28	69	39	30
TOTAL NEW TRIPS			689	354	335	953	470	483	979	499	480

Table 9: *Estimation of Trips Generated by the Proposed Development, 2030.*

According to the Trip Generation Manual, *'Single family detached housing'* includes any single-family detached home on an individual lot. A typical site surveyed is a suburban subdivision.

'Single-family attached housing' includes any single-family housing unit that shares a wall with an adjoining dwelling unit, whether the walls are for living space, a vehicle garage, or storage space.

'Low-rise multifamily housing' includes apartments, townhouses, and condominiums located within the same building with at least three other dwelling units and that have two or three floors.

'Mid-rise multifamily housing' includes apartments and condominiums located in a building that has between four and 10 floors of living space. Access to individual dwelling units is through an outside building entrance, a lobby, elevator, and a set of hallways.

A *'shopping plaza'* is an integrated group of commercial establishments that is planned, developed, owned, and managed as a unit. Each study site in this land use has between 40,000 and 150,000 ft^2 of gross leasable area. Its major tenant is often a supermarket, but many sites are anchored by home improvement, discount, or other stores. A shopping plaza may also contain tenants such as office space, a movie theater, restaurants, a post office, banks, a health club, and recreational facilities are common tenants.

A *'general office building'* is a location where affairs of businesses, commercial or industrial organizations, or professional persons or firms are conducted, An office building houses multiple tenants that can include, as examples, professional services, insurance companies, investment brokers, a banking institution, a restaurant, or other service retailers.

A *'super convenience market/gas station'* includes gasoline/service stations with convenience markets where there is significant business related to the sale of convenience items and the fueling of motor vehicles. Some commonly sold convenience items include newspapers, freshly brewed coffee, daily-made donuts, bakery items, hot and cold beverages, breakfast items, dairy items, fresh fruits, soups, light meals, ready-to-go and freshly made sandwiches and wraps, and ready-to-go salads.

In particular, the general urban/suburban filter was applied to the data sets, as well as the "not close to rail transit" filter for the residential uses.

According to the Trip Generation Handbook, a key characteristic of a multi-use development is that trips among the various land uses can be made internally as opposed to beginning or ending on the road network. The internal interaction between the shopping plaza, gas station, general offices, and residential units was estimated in the OTISS software, according to the methodology and data within the Trip Generation Handbook, 3rd Ed, published by ITE.

These trips were subsequently removed from the auto trip totals. The OTISS trip generation output sheets are included in *Appendix H – Trip Generation*. Additionally, some internal trips between the subject development and the future planned Development "F" were also estimated along the extension of Fallis Ln.

Pass-by trips are another phenomenon, made as intermediate stops from an origin to a primary trip destination. These trips already exist on the link passing the site but are temporarily attracted by the new development.

The Phase 1 build-out, estimated to be in place by 2027, is estimated to generate 388, 663, & 738 trips during the AM, PM & SAT peak hours, respectively. The Phase 2 build-out or full build-out including Phase 1, planned to be in place by 2030, is estimated to generate 689, 953, & 979 trips during the AM, PM & SAT peak hours, respectively.

4.3 Trip Distribution/Assignment

The vehicles entering and leaving the site are distributed proportional to the future projected directional traffic patterns for the given horizon year.

The logical routing patterns of an average driver, separate for each land use and direction of travel, were identified. Following this, assumptions were made in terms of the proportion of trips utilizing the various driveways and streets to enter/exit the development. For example, inbound shopping plaza trips arriving along CR10 from the south assume 30% entering at Driveway F, 60% entering at Driveway E, 10% entering at Driveway D, and none entering at Highland Blvd.

The distribution of new trips, internal trips generated, pass-by trips generated, and ingress/egress assumptions are shown in *Appendix I – Trip Distribution*.

Exhibits 17 to 25 show the new trips generated by the proposed development for the morning, afternoon, and Saturday peak hours, distributed according to each year's projected traffic pattern.

Site Generated Trips, AM Peak Hour, 2027

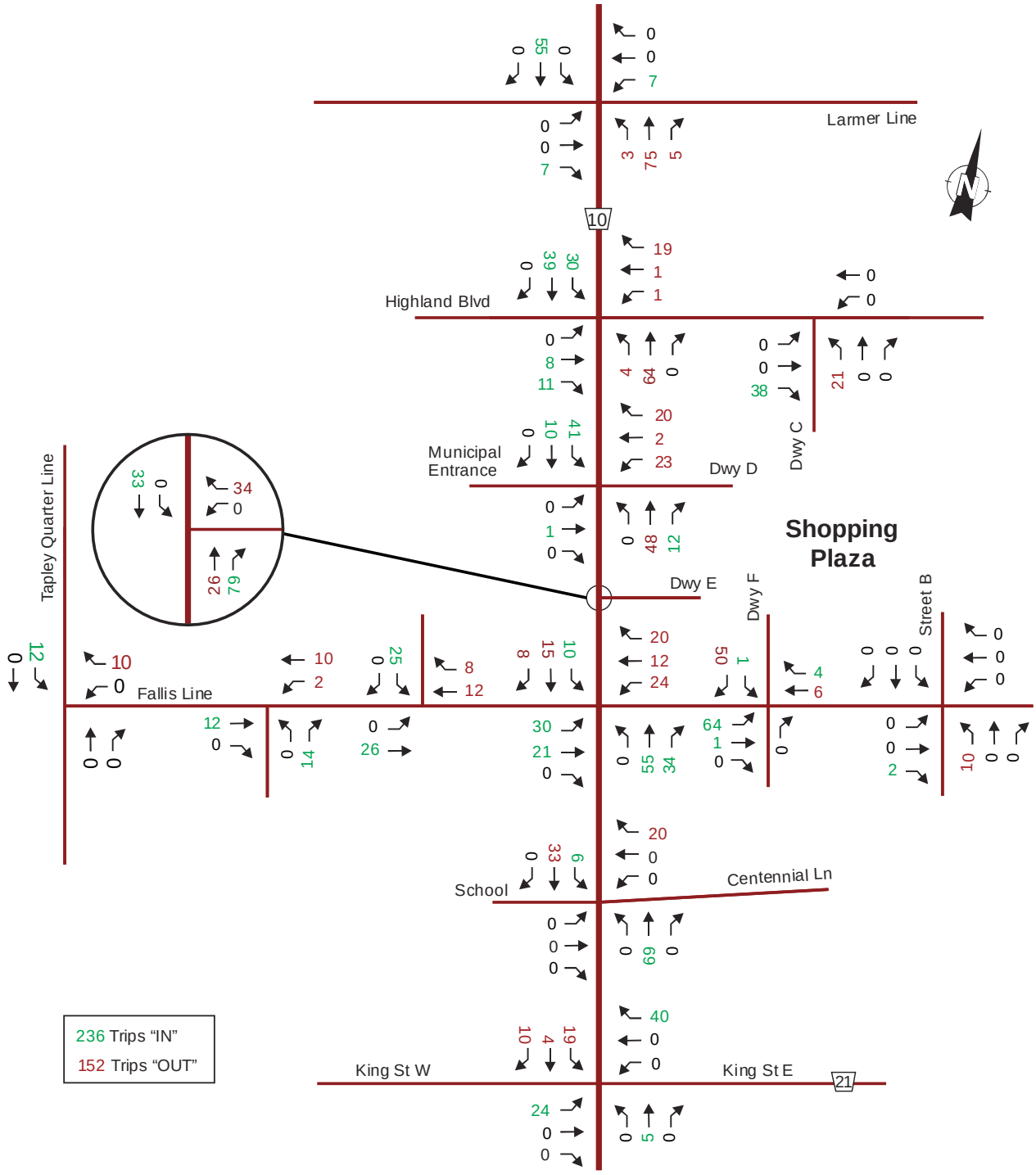


Exhibit 17: *Site Generated Trips, AM Peak Hour, 2027.*

Site Generated Trips, AM Peak Hour, 2030

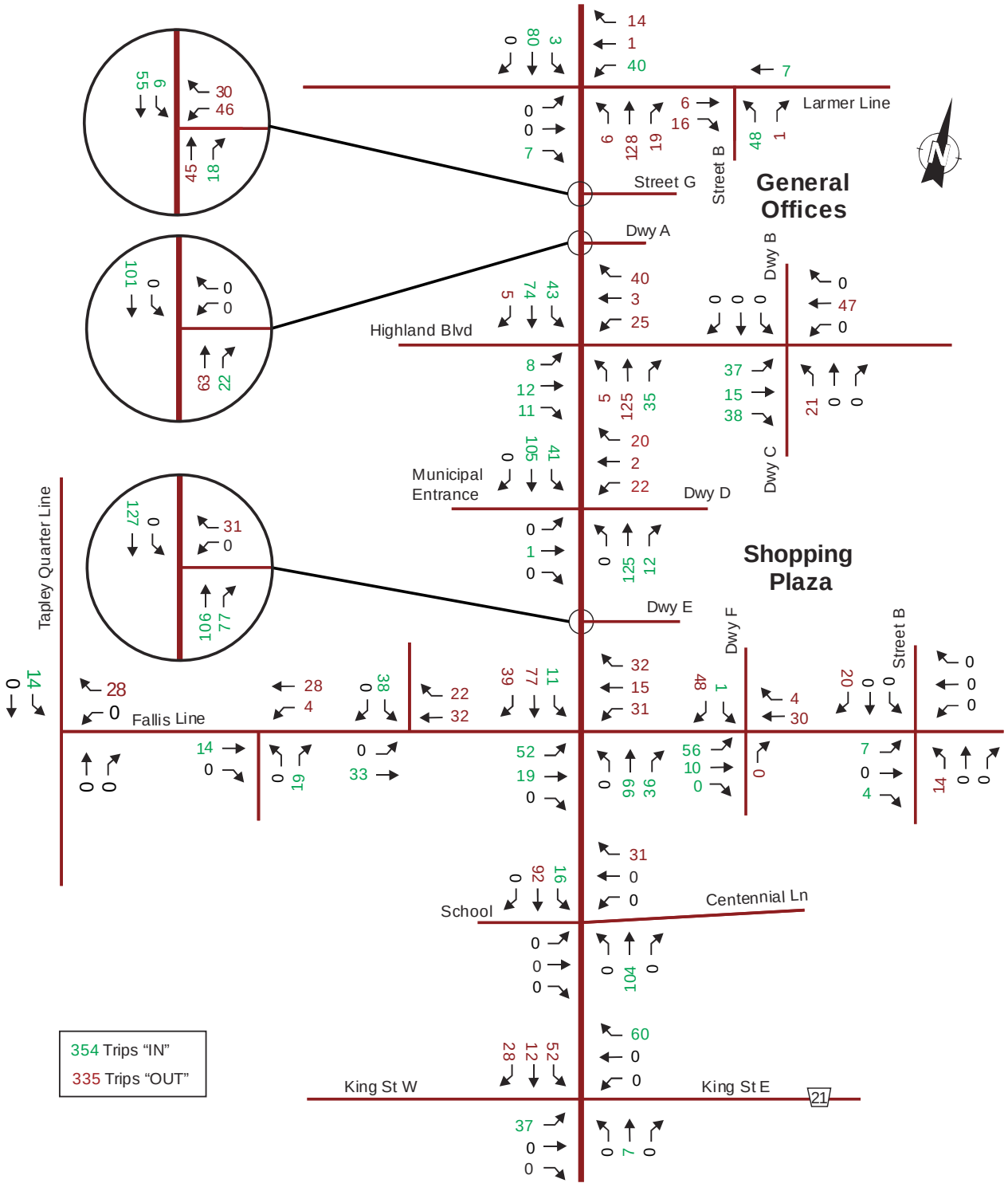


Exhibit 18: *Site Generated Trips, AM Peak Hour, 2030.*

Site Generated Trips, AM Peak Hour, 2035

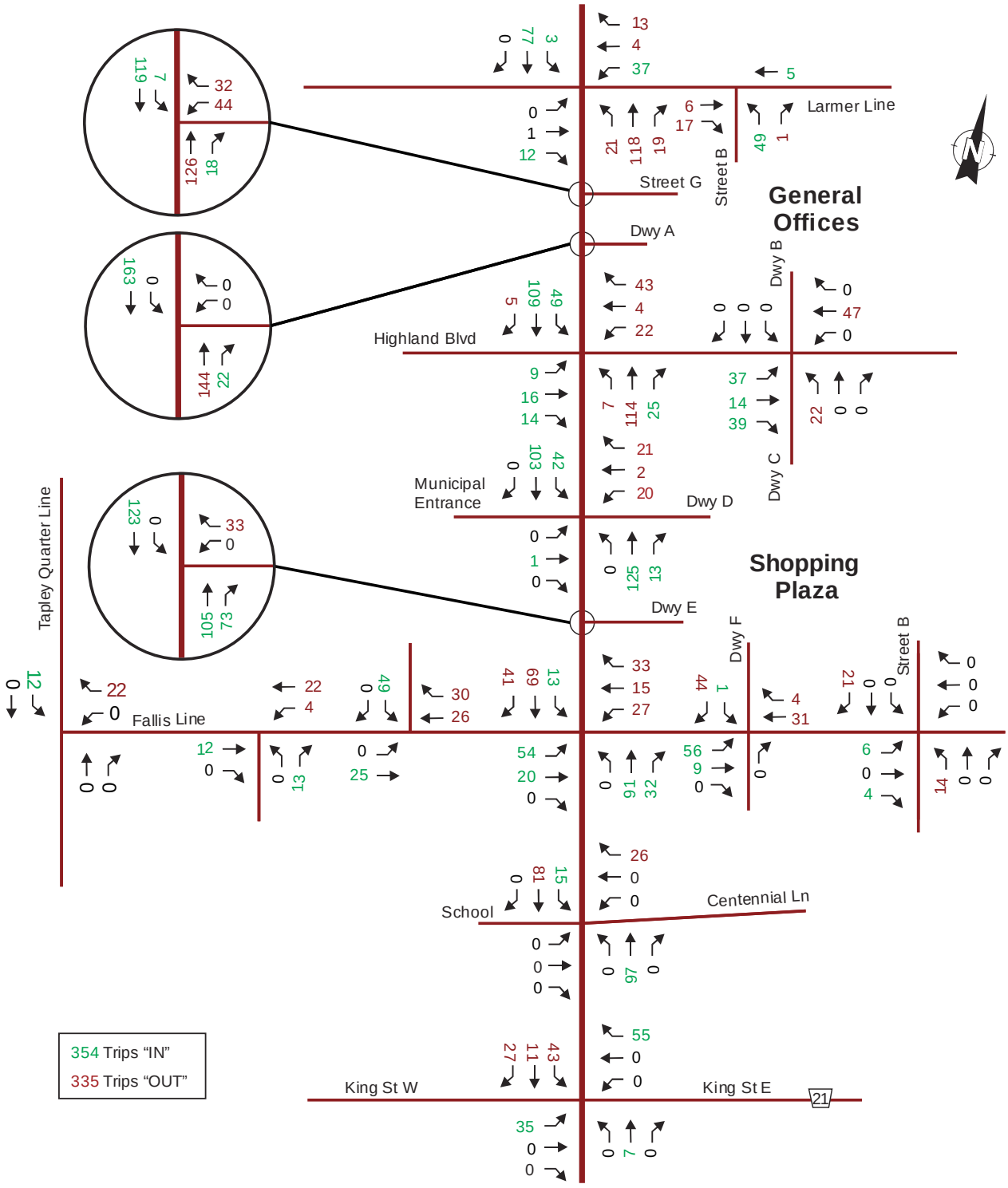


Exhibit 19: *Site Generated Trips, AM Peak Hour, 2035.*

Site Generated Trips, PM Peak Hour, 2027

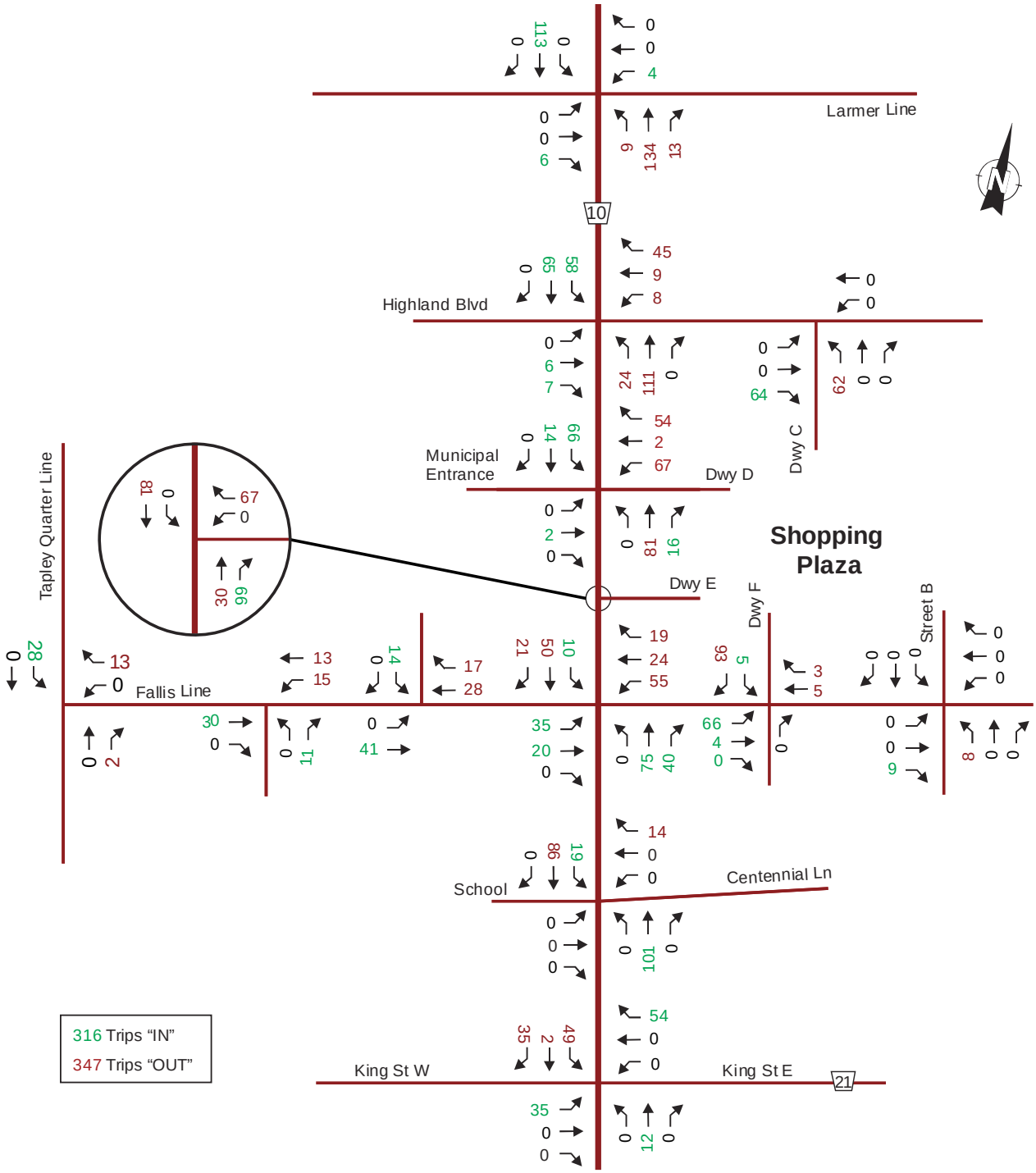


Exhibit 20: *Site Generated Trips, PM Peak Hour, 2027.*

Site Generated Trips, PM Peak Hour, 2030

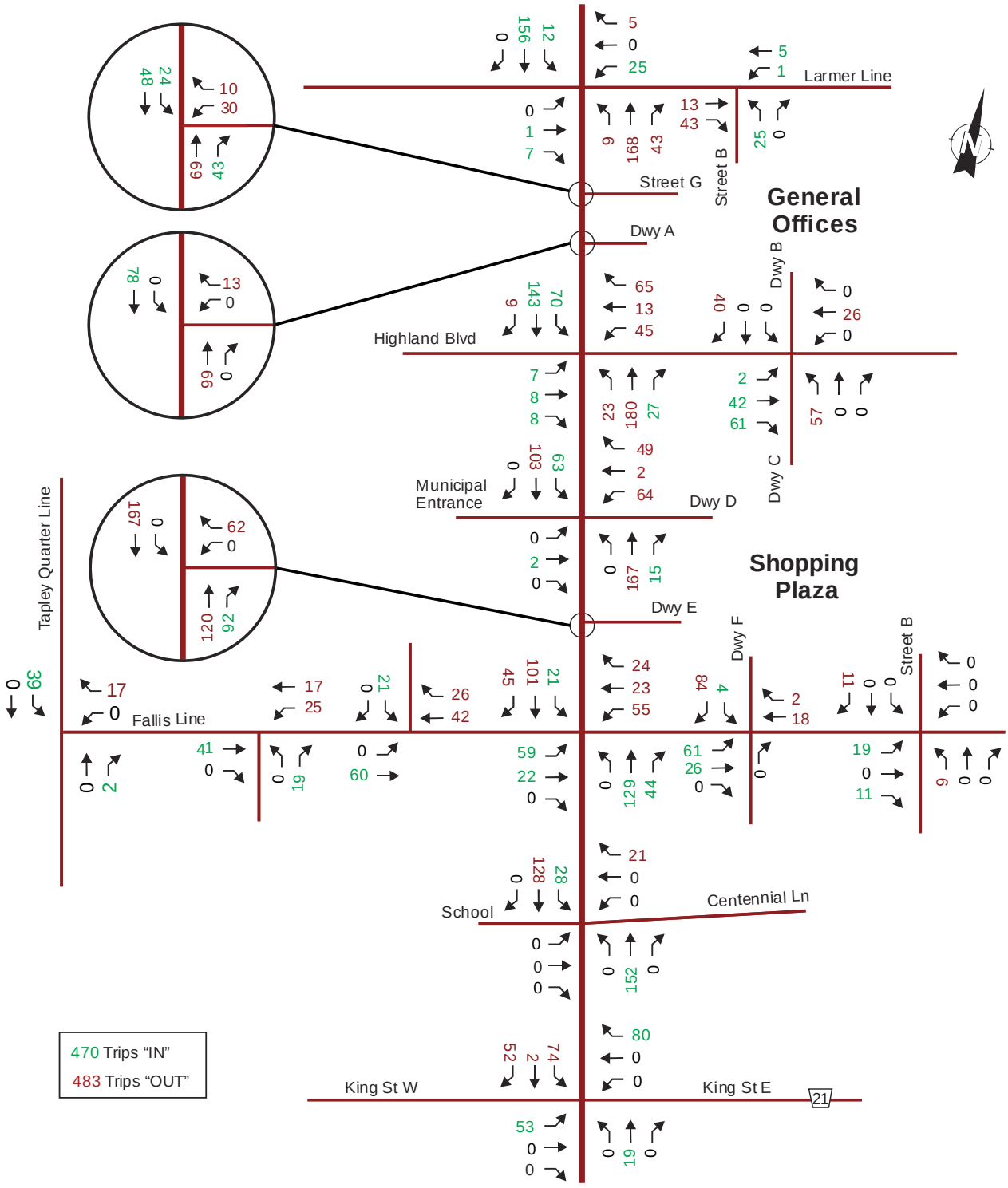


Exhibit 21: *Site Generated Trips, PM Peak Hour, 2030.*

Site Generated Trips, PM Peak Hour, 2035

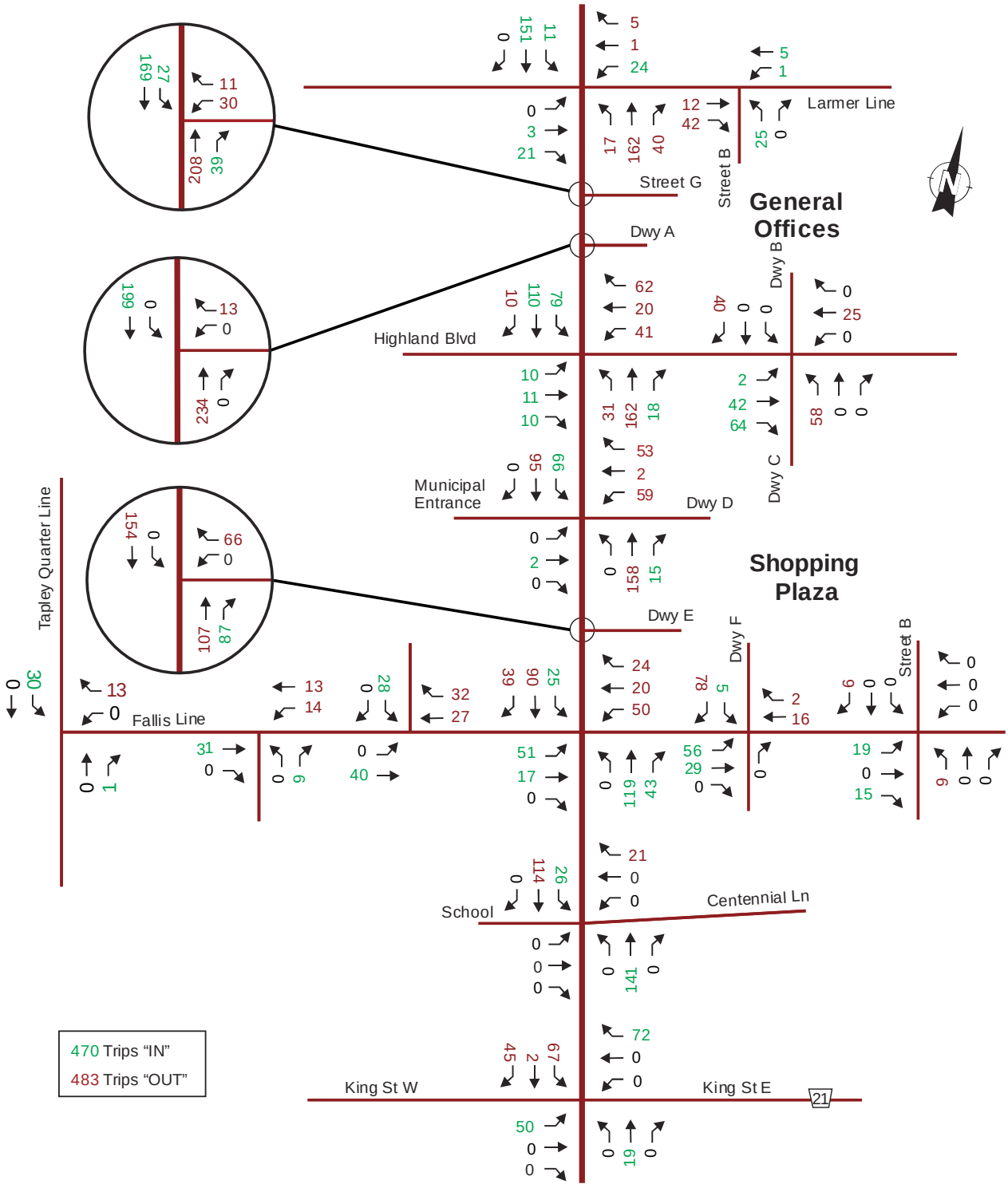


Exhibit 22: *Site Generated Trips, PM Peak Hour, 2035.*

Site Generated Trips, SAT Peak Hour, 2027

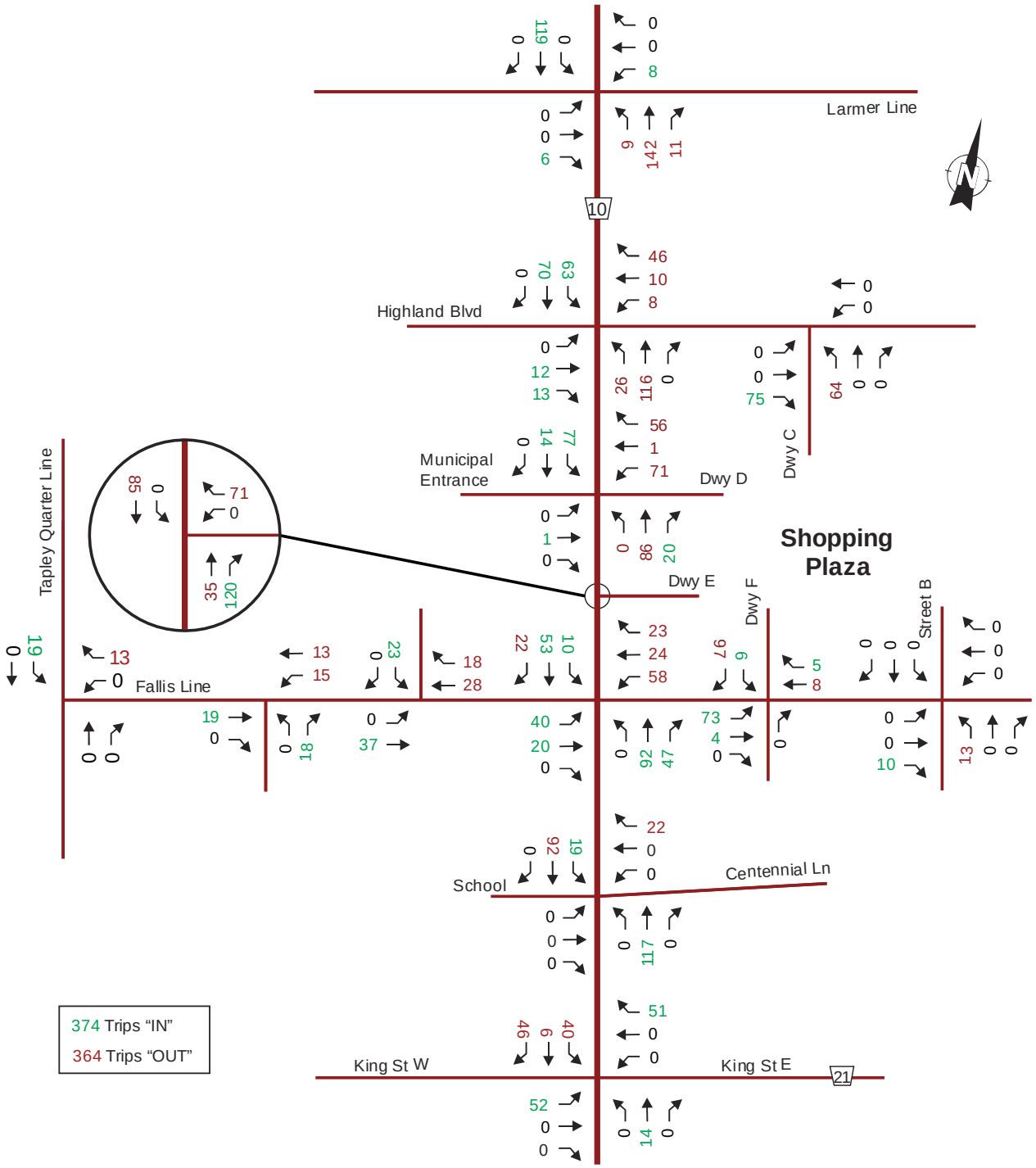


Exhibit 23: *Site Generated Trips, SAT Peak Hour, 2027.*

Site Generated Trips, SAT Peak Hour, 2030

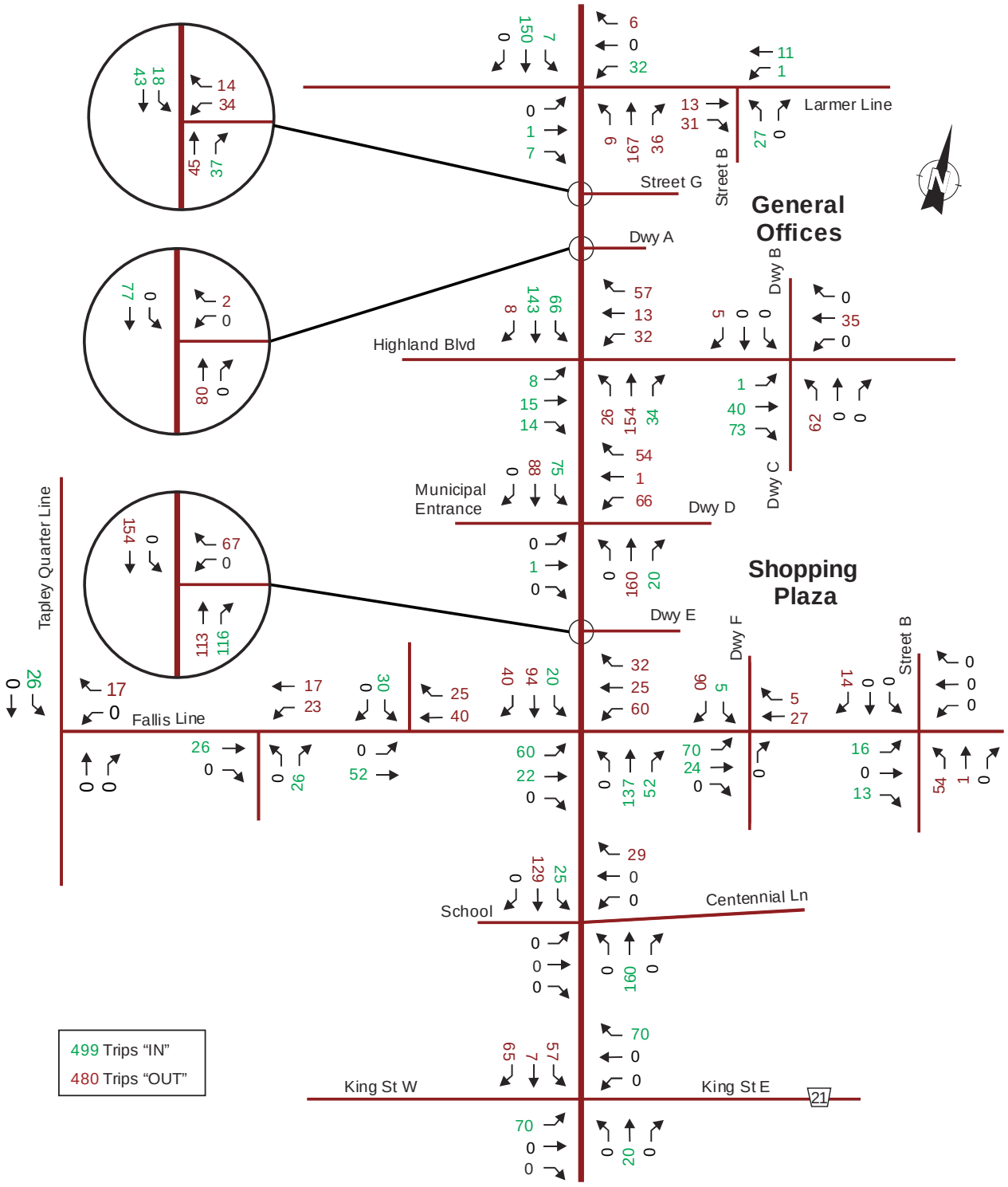


Exhibit 24: *Site Generated Trips, SAT Peak Hour, 2030.*

Site Generated Trips, SAT Peak Hour, 2035

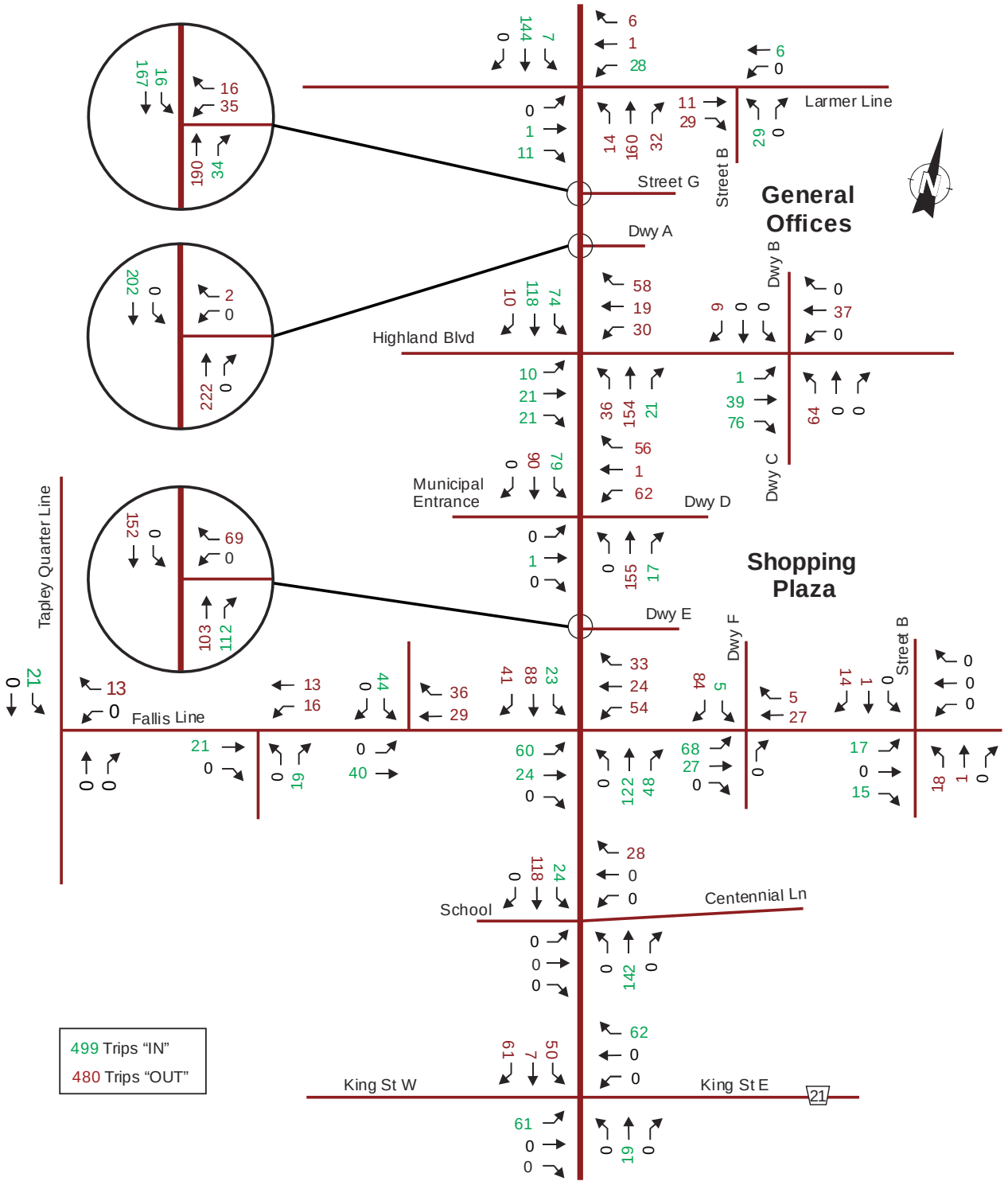


Exhibit 25: *Site Generated Trips, SAT Peak Hour, 2035.*

5 Future Traffic Volumes and Operations

5.1 Future Total Traffic Volumes

The future total traffic volumes are obtained by adding the background traffic volumes to the total new traffic volumes generated by the proposed development. The background volumes and total volumes are the basis for comparisons to identify any impacts on future projected traffic.

The analysis will review the intersection operations for the year 2027 (Phase 1 build-out), for the year 2030 (Phase 2 full build-out), and for the year 2035 (five years after the full build-out).

The total traffic volumes for the horizon years 2027, 2030, and 2035 are shown in ***Exhibits 26 to 34***.

Total Volumes, AM Peak Hour, 2027

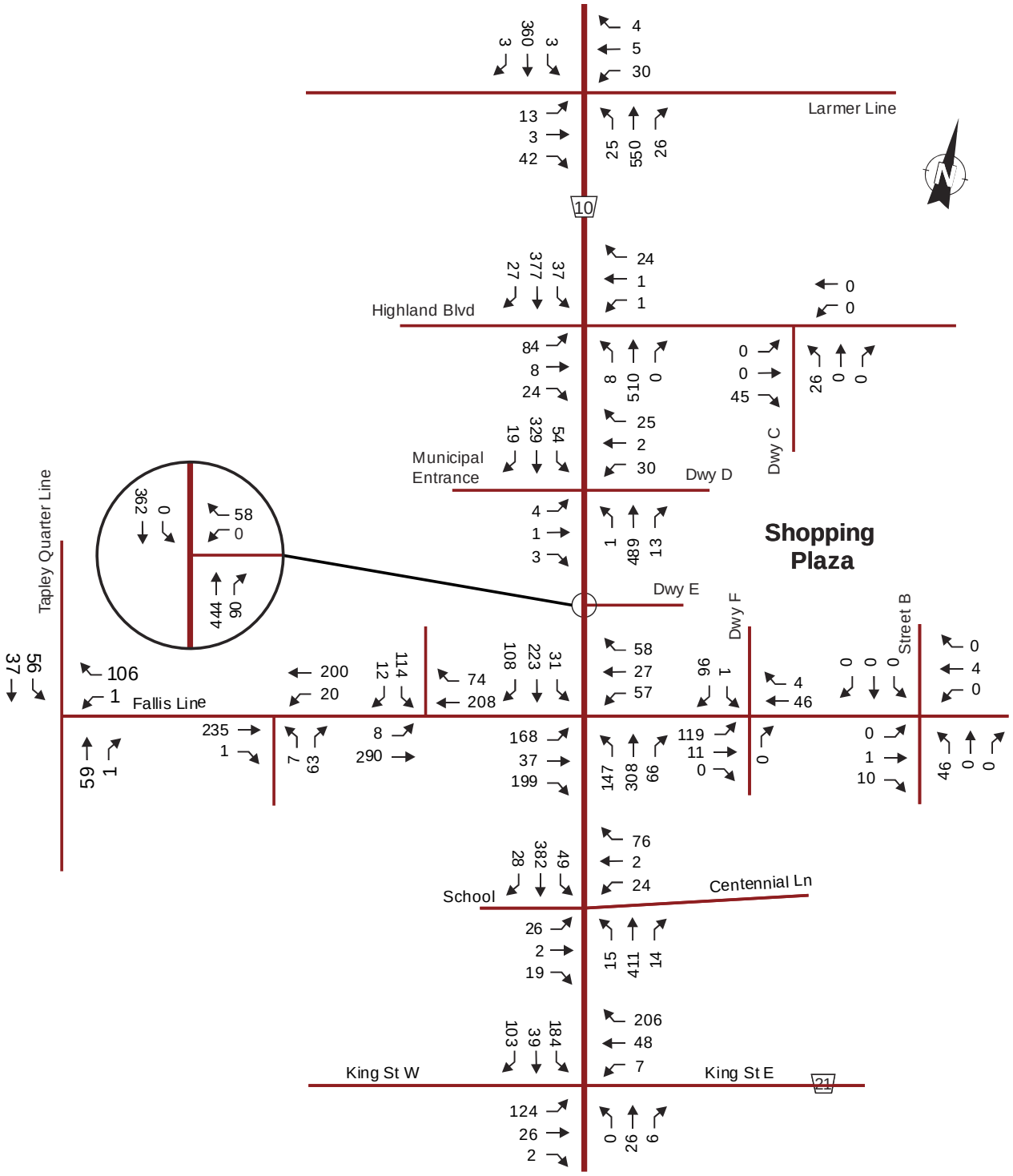


Exhibit 26: *Total Volumes, AM Peak Hour, 2027*

Total Volumes, AM Peak Hour, 2030

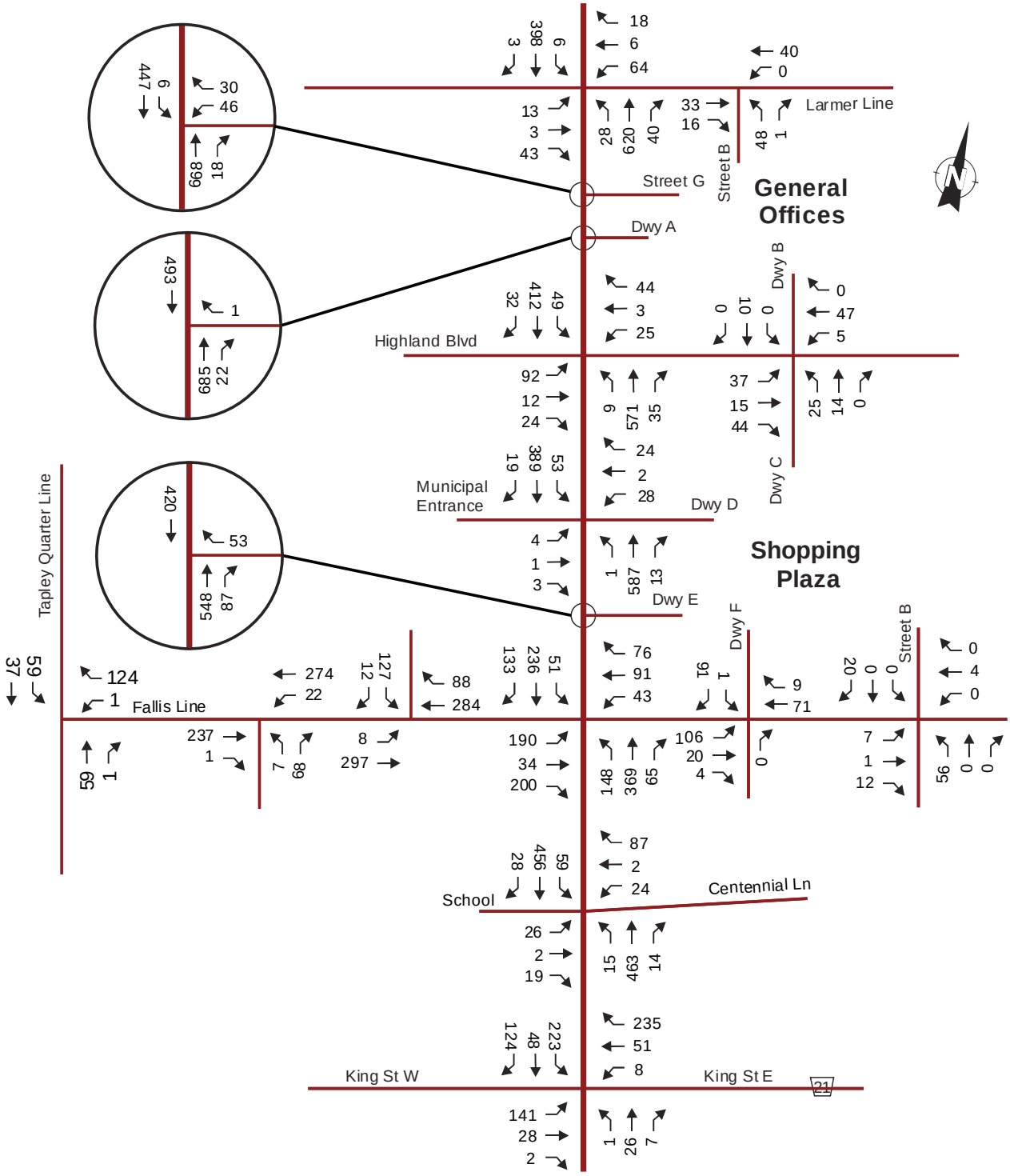


Exhibit 27: *Total Volumes, AM Peak Hour, 2030.*

Total Volumes, AM Peak Hour, 2035

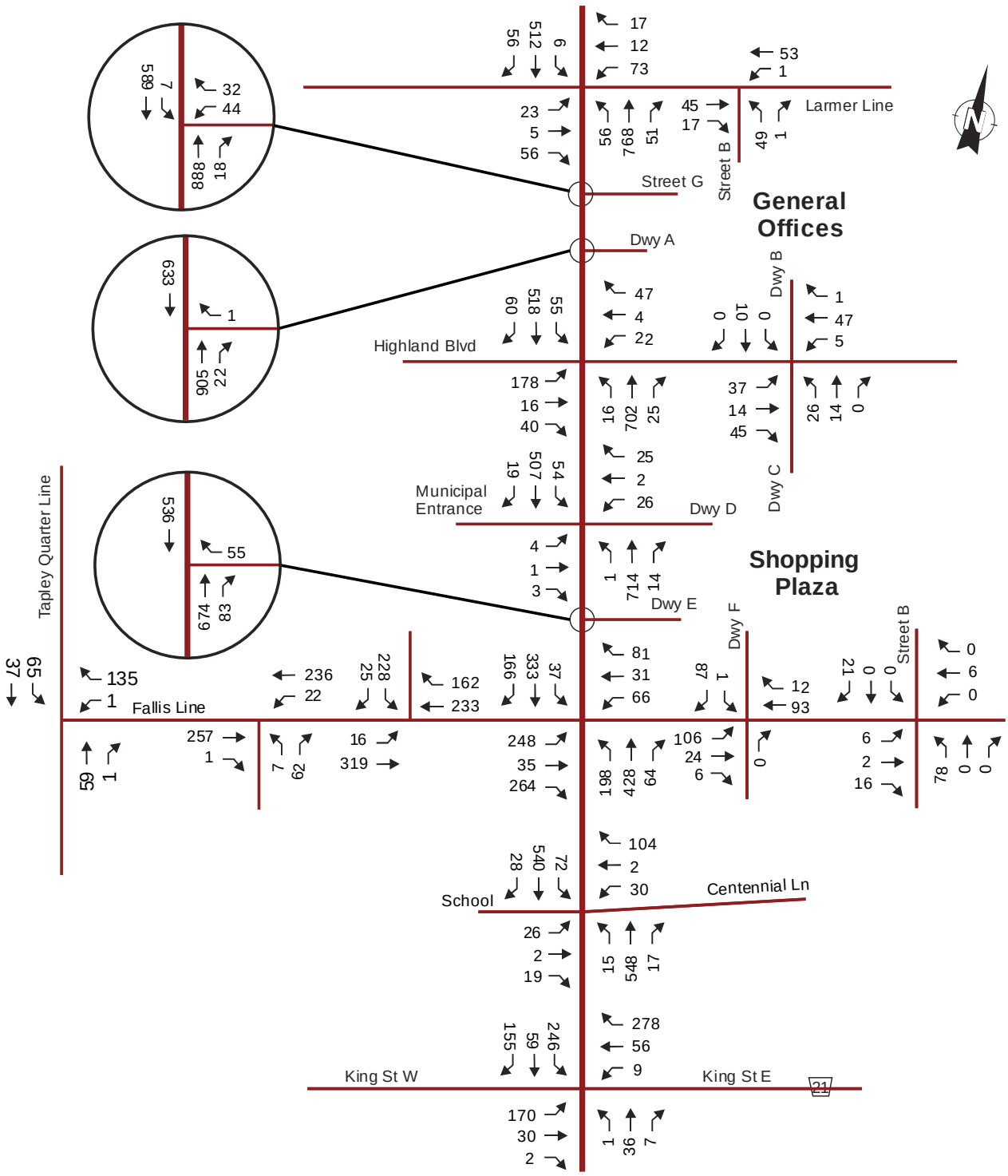


Exhibit 28: *Total Volumes, AM Peak Hour, 2035.*

Total Volumes, PM Peak Hour, 2027

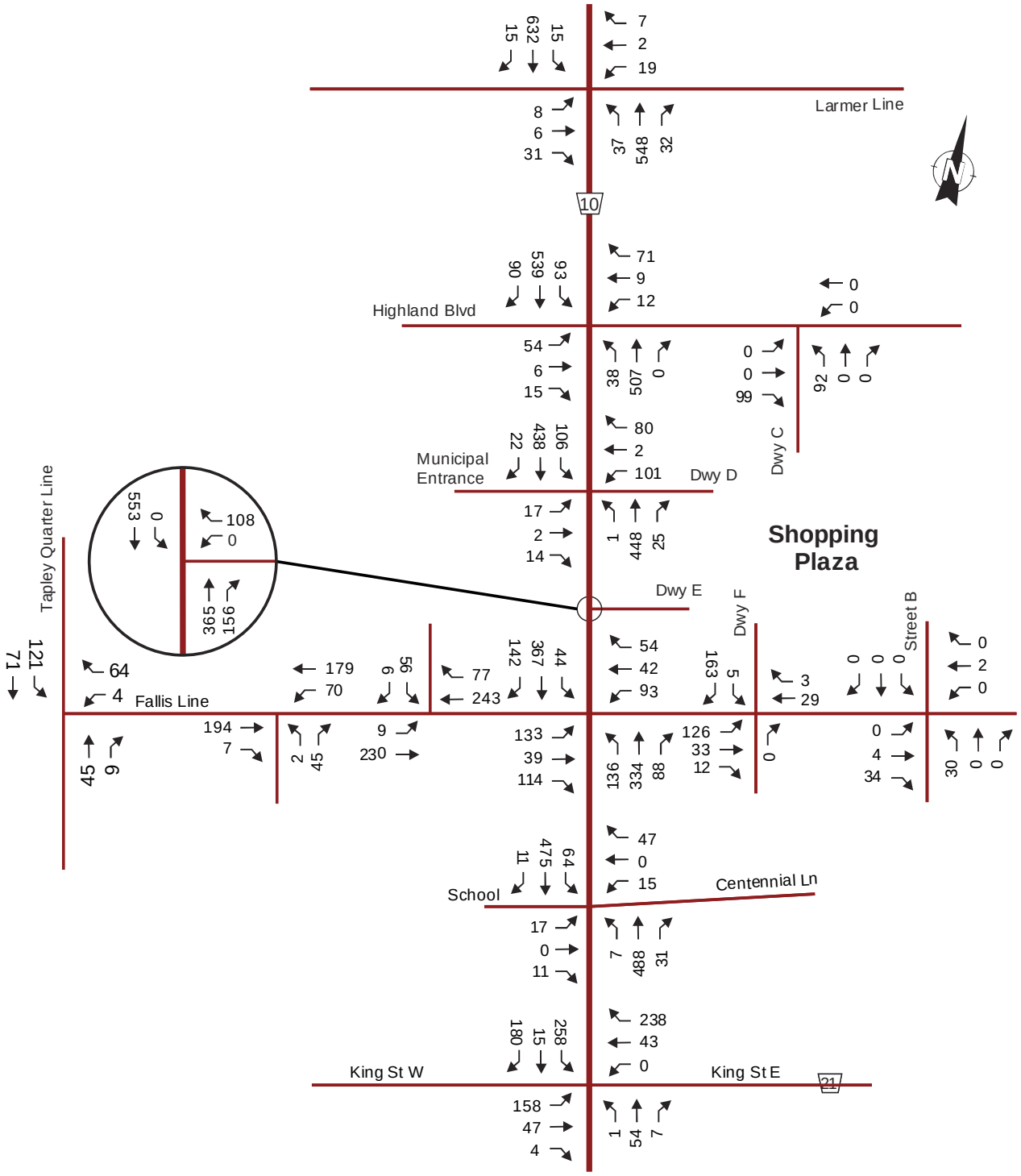


Exhibit 29: *Total Volumes, PM Peak Hour, 2027.*

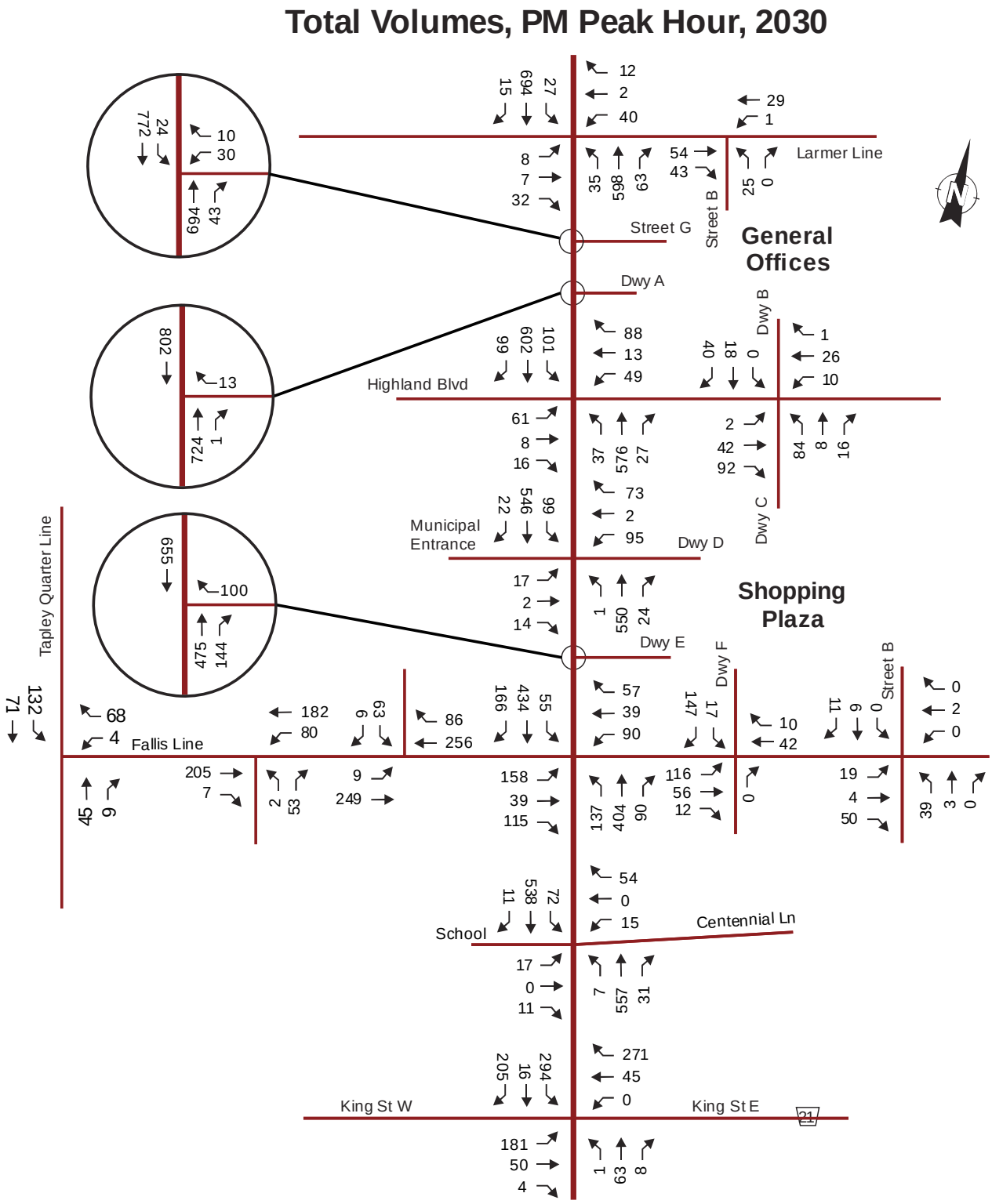


Exhibit 30: *Total Volumes, PM Peak Hour, 2030.*

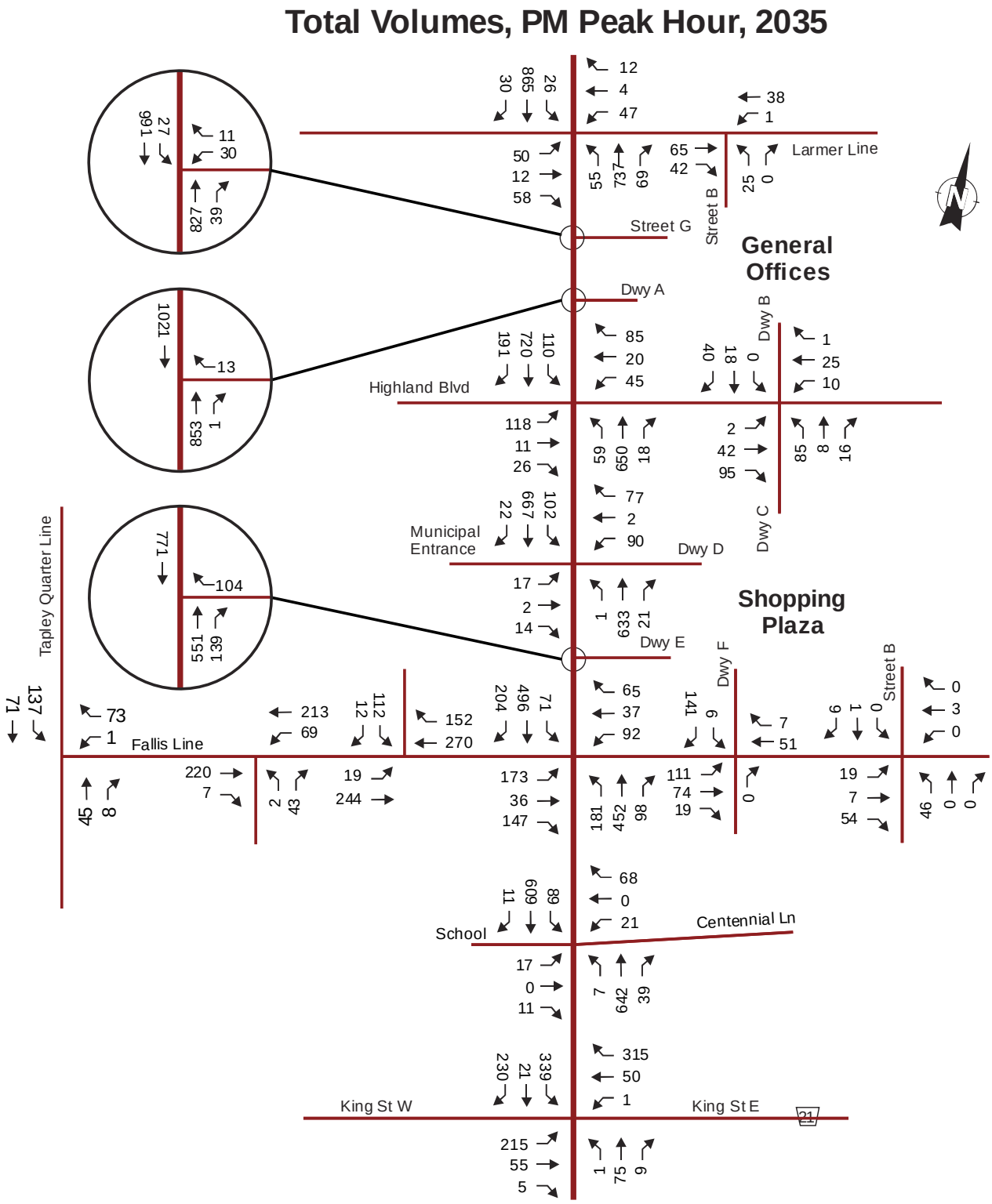


Exhibit 31: *Total Volumes, PM Peak Hour, 2035.*

Total Volumes, SAT Peak Hour, 2027

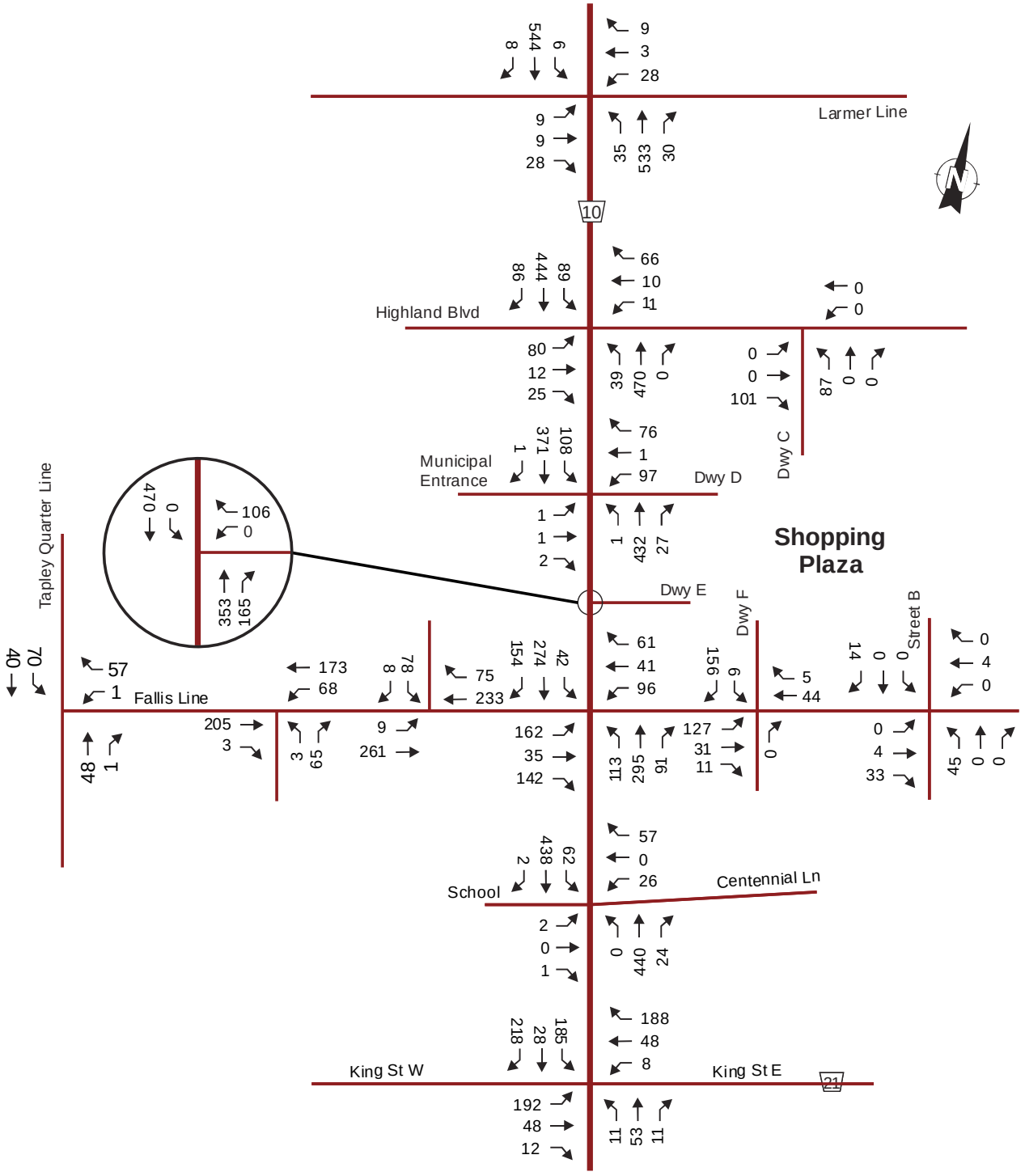


Exhibit 32: *Total Volumes, SAT Peak Hour, 2027.*

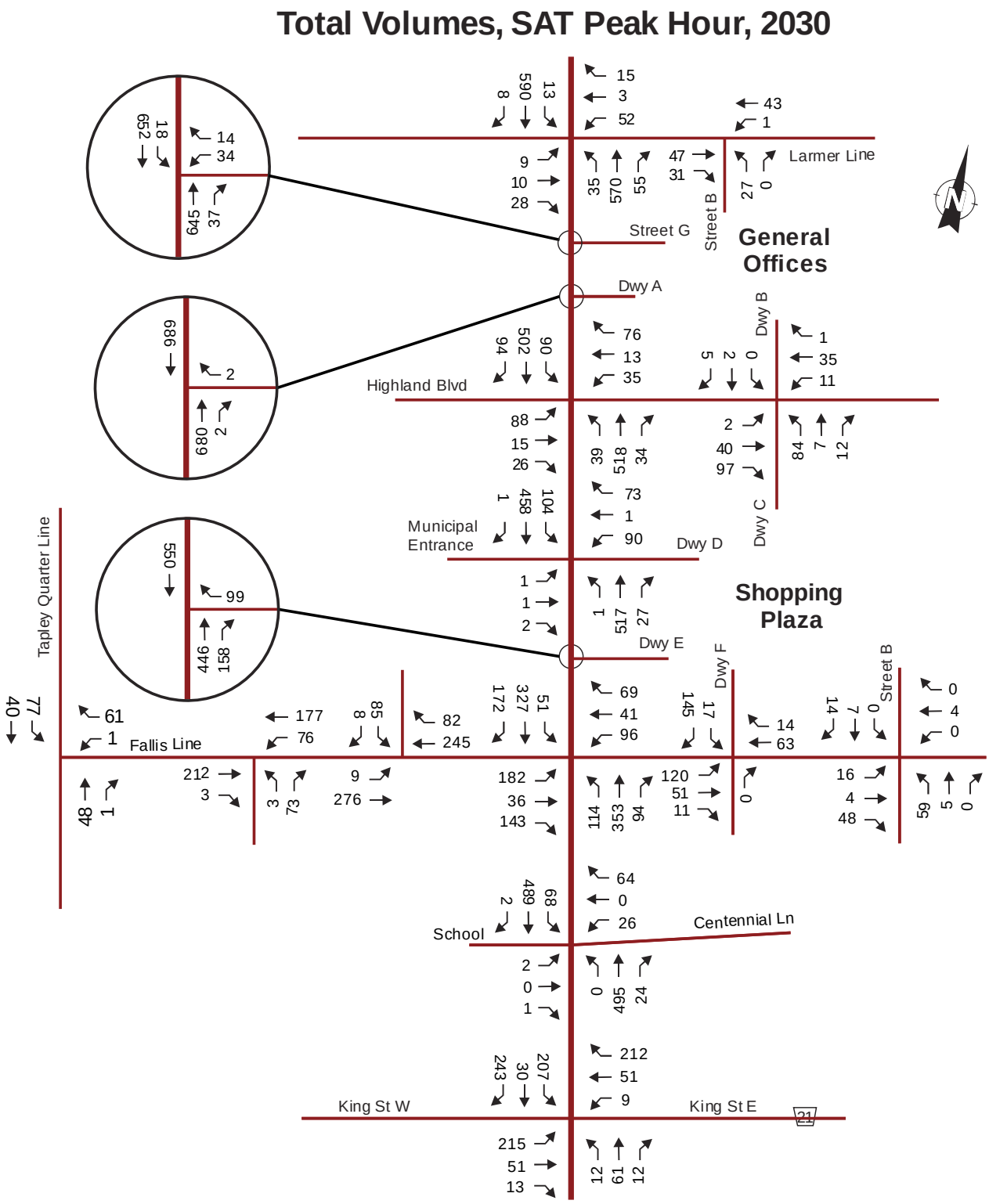


Exhibit 33: *Total Volumes, SAT Peak Hour, 2030.*

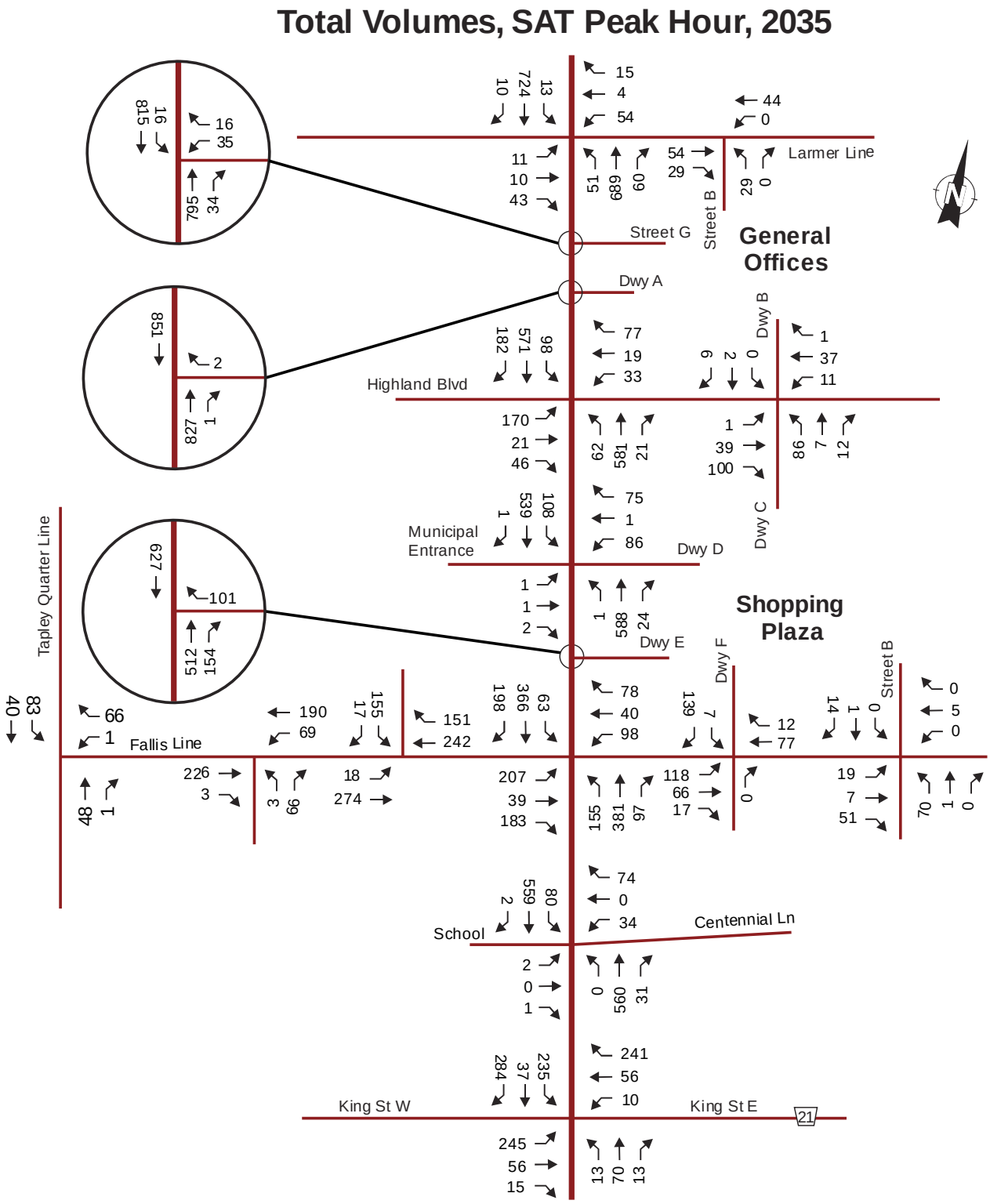


Exhibit 34: *Total Volumes, SAT Peak Hour, 2035.*

5.2 Future Total Traffic Operations

Guidance from the capacity factors projected for the total traffic volumes, the MTO left turn warrant procedure (see *Appendix R*), as well as the signal justification methodology from OTM Book 12 (see *Appendix Q*), provide the basis for the following recommended total traffic conditions throughout the study years:

County Road 10 & Larmer Line:

2027

- The need for auxiliary lanes was previously identified.
- A new 85 m NB left turn lane (taper as per TAC Guide Table 9.17.1).
- A new 85 m SB left turn lane (taper as per TAC Guide Table 9.17.1).
- No changes to the existing two-way stop control.

2030

- The need for traffic signals were identified in previous traffic reports.
- Traffic signals are justified, for preliminary timing see *Appendix K*.
- A new 70 m NB right turn lane (taper as per TAC Guide Table 9.14.2).

2035

- No additional geometry upgrades.
- Maintain the traffic signals and their timing.

County Road 10 & Highland Boulevard:

2027

- Traffic signals are required, for preliminary timing see *Appendix J*.
- Planned as a 4-leg intersection with traffic signals.
- Intended to include an EB & NB left turn lane, and SB right turn lane.
- A new 85 m SB left turn lane (taper as per TAC Guide Table 9.17.1).
- A new 30 m WB left turn lane (taper as per TAC Guide Table 9.17.1).

2030

- No additional geometry upgrades.

2035

- No additional geometry upgrades.

County Road 10 & Fallis Line:

2027

- The need for traffic signals and shifted auxiliary lanes were identified in previous traffic reports.
- Traffic signals are required, for preliminary timing see *Appendix J*.
- Reconfigure west leg to include a 70 m EB left turn lane (taper as per TAC Guide Table 9.17.1) and an EB shared thru/right lane.
- The east leg extension of Fallis Ln is recommended to include a 30 m WB left turn lane (taper as per TAC Guide Table 9.17.1).
- A new 70 m NB right turn lane (taper as per TAC Guide Table 9.14.2).
- A new 85 m SB left turn lane (taper as per TAC Guide Table 9.17.1).

2030

- No additional geometry upgrades.

2035

- No additional geometry upgrades.

County Road 10 & County Rd 21 (King St):

2027

- Monitor over time for traffic signal justification.
- Extend the SB left turn lane length to 30 m.

2030

- Monitor over time for traffic signal justification.
- No additional geometry upgrades.

2035

- Monitor over time for traffic signal justification.
- Extend the SB left turn lane length to 40 m.

Additionally, the operations of County Road 10 & Centennial Lane should also be monitored over time as traffic signal might be justified. For a summary of the traffic signal justifications for each intersection and scenario, see *Appendix* Q.

At present, the posted speed along CR10 currently transitions from 80 km/h to 60 km/h north of Fallis Ln. By 2027, the transition should occur north of Highland Blvd, and by 2030, the transition should occur north of Larmer Ln.

The summary of results for the total traffic operations in 2027, 2030 and 2035 are shown in the following ***Tables 10 to 12***.

		Intersection Capacity, Total Volumes 2027 (Phase 1)											
		AM Peak Hour				PM Peak Hour				SAT Peak Hour			
		V/C	Delay (s)	Q_{95} (m)	LOS	V/C	Delay (s)	Q_{95} (m)	LOS	V/C	Delay (s)	Q_{95} (m)	LOS
CR10 / Larmer Line (stop control)	EB-LTR	0.17	16.5	4.7	C	0.22	25.2	6.2	D	0.16	20.0	4.4	C
	WB-LTR	0.26	32.7	7.5	D	0.27	46.7	7.6	E	0.25	33.5	7.0	D
	NB-L	0.02	8.2	0.6	A	0.05	9.2	1.1	A	0.04	8.7	0.8	A
	NB-TR	0.39	0.0	0.0	A	0.37	0.0	0.0	A	0.34	0.0	0.0	A
	SB-L	0.00	9.5	0.1	A	0.02	8.8	0.4	A	0.01	8.6	0.1	A
	SB-TR	0.24	0.0	0.0	A	0.42	0.0	0.0	A	0.33	0.0	0.0	A
CR10 / Municipal Access / Driveway D (stop control)	EB-L	0.02	20.5	0.4	C	0.18	48.5	4.7	E	0.01	33.5	0.2	D
	EB-TR	0.01	12.3	0.2	B	0.04	13.4	0.9	B	0.01	15.5	0.2	C
	WB-L	0.13	21.0	3.3	C	0.85	107.1	40.4	F	0.64	60.0	27.4	F
	WB-TR	0.06	12.4	1.4	B	0.17	13.1	4.5	B	0.15	12.4	3.9	B
	NB-L	0.00	8.0	0.0	A	0.00	8.4	0.0	A	0.00	8.1	0.0	A
	NB-TR	0.32	0.0	0.0	A	0.30	0.0	0.0	A	0.29	0.0	0.0	A
	SB-L	0.06	8.8	1.4	A	0.11	8.8	2.8	A	0.11	8.8	2.8	A
	SB-TR	0.22	0.0	0.0	A	0.29	0.0	0.0	A	0.24	0.0	0.0	A
CR10 / Fallis Line (signalized)	EB-L	0.70	38.6	41.3	D	0.61	36.7	34.5	D	0.64	35.5	41.0	D
	EB-TR	0.51	8.2	14.3	A	0.39	10.8	18.7	B	0.40	9.2	18.2	A
	WB-L	0.44	32.3	17.2	C	0.45	31.5	25.3	C	0.48	31.4	26.3	C
	WB-TR	0.23	10.1	11.1	B	0.27	13.9	16.4	B	0.26	12.5	16.2	B
	NB-L	0.27	7.9	20.8	A	0.23	5.4	14.3	A	0.18	6.0	14.0	A
	NB-T	0.39	14.5	59.2	B	0.33	10.8	51.9	B	0.31	11.8	50.5	B
	NB-R	0.09	3.9	5.4	A	0.10	2.9	6.9	A	0.11	3.2	7.3	A
	SB-L	0.06	7.5	5.9	A	0.07	4.9	5.8	A	0.07	5.7	6.4	A
	SB-T	0.33	16.7	45.7	B	0.42	13.9	63.6	B	0.32	13.4	50.4	B
	SB-R	0.21	4.1	6.8	A	0.18	3.0	9.4	A	0.19	3.1	10.0	A
	Overall	0.70	15.0	-	B	0.61	13.3	-	B	0.64	13.6	-	B
CR10 / Highland Blvd (signalized)	EB-L	0.29	15.2	14.2	B	0.17	13.9	10.6	B	0.22	12.6	12.8	B
	EB-TR	0.09	7.6	5.2	A	0.06	9.1	4.4	A	0.09	7.4	5.5	A
	WB-L	0.00	12.0	0.8	B	0.04	12.9	3.8	B	0.03	11.2	3.3	B
	WB-TR	0.07	6.8	4.1	A	0.21	6.5	8.3	A	0.18	5.8	7.5	A
	NB-L	0.01	4.9	1.5	A	0.08	4.8	4.2	A	0.07	5.3	4.4	A
	NB-TR	0.47	7.6	43.8	A	0.41	5.9	39.9	A	0.39	6.4	39.3	A
	SB-L	0.08	5.5	4.4	A	0.17	5.4	8.8	A	0.16	6.0	9.0	A
	SB-T	0.35	6.4	29.8	A	0.43	6.1	43.6	A	0.37	6.2	36.3	A
	SB-R	0.03	2.4	2.2	A	0.08	1.6	3.7	A	0.08	1.8	4.0	A
	Overall	0.47	7.5	-	A	0.43	6.1	-	A	0.39	6.4	-	A

Fallis Line / Tapley Q. Line (stop control)	WB-LR	0.14	9.3	3.6	A	0.07	9.0	1.8	A	0.06	8.8	1.6	A
	NB-TR	0.04	0.0	0.0	A	0.03	0.0	0.0	A	0.03	0.0	0.0	A
	SB-LT	0.05	4.7	1.2	A	0.08	5.0	2.0	A	0.05	4.9	1.2	A
CR10 / King St (stop control)	EB-LTR	0.29	11.0	21.6	B	0.45	14.4	24.2	B	0.44	13.3	22.7	B
	WB-LTR	0.42	11.5	27.6	B	0.53	14.8	27.4	B	0.39	11.7	22.7	B
	NB-LTR	0.06	9.4	14.6	A	0.14	10.9	14.9	B	0.14	10.3	15.2	B
	SB-L	0.39	12.3	24.0	B	0.60	18.6	26.6	C	0.36	12.2	20.4	B
	SB-TR	0.25	8.9	17.2	A	0.38	11.0	20.7	B	0.40	10.9	21.2	B

Table 10: *Intersection Capacity, Total Volumes 2027.*

		Intersection Capacity, Total Volumes 2030 (Phase 2)											
		AM Peak Hour				PM Peak Hour				SAT Peak Hour			
		V/C	Delay (s)	Q_{95} (m)	LOS	V/C	Delay (s)	Q_{95} (m)	LOS	V/C	Delay (s)	Q_{95} (m)	LOS
CR10 / Larmer Line (stop control)	EB-LTR	0.28	17.2	12.8	B	0.25	19.7	12.0	B	0.23	20.6	12.0	C
	WB-LTR	0.50	38.2	26.6	D	0.32	32.1	17.3	C	0.41	35.8	20.4	D
	NB-L	0.04	3.2	3.5	A	0.07	2.7	3.5	A	0.06	2.9	3.5	A
	NB-T	0.47	5.2	63.5	A	0.40	3.4	48.3	A	0.37	3.8	42.5	A
	NB-R	0.04	1.2	2.4	A	0.05	0.8	2.5	A	0.04	0.9	2.3	A
	SB-L	0.02	3.3	1.3	A	0.05	2.6	2.9	A	0.02	2.7	1.7	A
	SB-TR	0.30	3.8	34.5	A	0.48	4.0	63.7	A	0.39	3.9	45.4	A
	Overall	0.50	7.5	-	A	0.48	5.1	-	A	0.41	5.8	-	A
CR10 / Municipal Access / Driveway D (stop control)	EB-L	0.02	25.4	0.5	D	0.23	65.2	6.2	F	0.01	45.2	0.3	E
	EB-TR	0.01	13.6	0.2	B	0.05	15.0	1.1	C	0.01	18.3	0.3	C
	WB-L	0.15	26.4	4.0	D	1.03	178.1	48.8	F	0.83	111.1	37.6	F
	WB-TR	0.06	13.5	1.5	B	0.18	14.5	4.8	B	0.16	13.6	4.3	B
	NB-L	0.00	8.2	0.0	A	0.00	8.8	0.0	A	0.00	8.4	0.0	A
	NB-TR	0.38	0.0	0.0	A	0.37	0.0	0.0	A	0.35	0.0	0.0	A
	SB-L	0.08	9.3	1.9	A	0.11	9.3	2.9	A	0.11	9.1	2.9	A
	SB-TR	0.26	0.0	0.0	A	0.36	0.0	0.0	A	0.29	0.0	0.0	A
CR10 / Fallis Line (signalized)	EB-L	0.85	54.0	52.0	D	0.65	37.6	40.7	D	0.67	36.3	46.4	D
	EB-TR	0.46	7.0	13.5	A	0.36	10.0	18.4	B	0.39	8.7	18.2	A
	WB-L	0.24	24.2	13.2	C	0.40	28.8	24.4	C	0.44	29.6	26.2	C
	WB-TR	0.38	18.8	30.2	B	0.25	12.5	15.8	B	0.26	11.5	16.4	B
	NB-L	0.31	10.0	21.4	A	0.26	6.5	16.4	A	0.20	6.8	15.4	A
	NB-T	0.53	20.2	75.9	C	0.41	12.7	71.9	B	0.39	13.5	65.9	B
	NB-R	0.10	4.3	5.5	A	0.10	3.2	7.6	A	0.11	3.4	7.8	A
	SB-L	0.13	9.3	8.8	A	0.09	5.8	7.8	A	0.09	6.4	8.0	A
	SB-T	0.38	19.7	49.2	B	0.51	16.5	85.5	B	0.39	15.2	64.7	B
	SB-R	0.26	4.3	7.3	A	0.21	3.2	10.9	A	0.21	3.2	10.9	A
	Overall	0.85	18.9	-	B	0.65	14.4	-	B	0.67	14.3	-	B
CR10 / Highland Blvd (signalized)	EB-L	0.32	17.4	18.0	B	0.23	16.3	12.9	B	0.25	14.4	15.9	B
	EB-TR	0.10	9.2	6.5	A	0.07	10.0	5.1	A	0.10	8.5	6.6	A
	WB-L	0.09	14.6	6.8	B	0.17	15.4	10.8	B	0.10	13.2	7.9	B
	WB-TR	0.12	6.9	6.4	A	0.25	7.0	10.2	A	0.20	6.4	9.1	A
	NB-L	0.02	4.8	1.8	A	0.10	5.3	4.3	A	0.07	5.3	4.7	A
	NB-TR	0.56	8.6	60.3	A	0.56	8.1	53.9	A	0.45	6.8	51.3	A
	SB-L	0.14	6.1	6.1	A	0.28	7.4	11.1	A	0.19	6.3	10.1	A
	SB-T	0.38	6.6	35.2	A	0.55	8.1	54.0	A	0.41	6.4	45.2	A
	SB-R	0.03	2.2	2.5	A	0.10	1.5	4.0	A	0.09	1.7	4.3	A
	Overall	0.56	8.4	-	A	0.56	8.1	-	A	0.45	6.9	-	A

Fallis Line / Tapley Q. Line (stop control)	WB-LR	0.16	9.4	4.3	A	0.08	9.0	1.9	A	0.07	8.8	1.7	A
	NB-TR	0.04	0.0	0.0	A	0.03	0.0	0.0	A	0.03	0.0	0.0	A
	SB-LT	0.05	4.9	1.2	A	0.09	5.2	2.2	A	0.06	5.0	1.3	A
CR10 / King St (stop control)	EB-LTR	0.34	12.2	23.7	B	0.54	17.4	24.8	C	0.51	15.5	25.4	C
	WB-LTR	0.35	13.4	28.3	B	0.64	19.0	29.0	C	0.46	13.3	24.6	B
	NB-LTR	0.07	9.9	14.5	A	0.18	12.0	14.7	B	0.17	11.0	15.3	B
	SB-L	0.49	14.7	25.6	B	0.72	25.9	27.8	D	0.42	13.8	22.0	B
	SB-TR	0.31	10.0	20.0	A	0.45	13.0	21.6	B	0.47	12.6	23.0	B

Table 11: *Intersection Capacity, Total Volumes 2030.*

		Intersection Capacity, Total Volumes 2035 (5 years after Phase 2)											
		AM Peak Hour				PM Peak Hour				SAT Peak Hour			
		V/C	Delay (s)	Q_{95} (m)	LOS	V/C	Delay (s)	Q_{95} (m)	LOS	V/C	Delay (s)	Q_{95} (m)	LOS
CR10 / Larmer Line (stop control)	EB-LTR	0.35	17.8	16.7	B	0.56	31.5	29.2	C	0.29	18.9	13.7	B
	WB-LTR	0.57	41.9	31.3	D	0.43	37.4	20.4	D	0.40	35.0	21.0	C
	NB-L	0.11	4.2	6.9	A	0.19	5.2	7.5	A	0.10	3.3	5.0	A
	NB-T	0.59	7.3	101.4	A	0.56	6.5	85.4	A	0.45	4.5	57.8	A
	NB-R	0.06	1.3	2.9	A	0.06	1.0	3.2	A	0.05	0.9	2.5	A
	SB-L	0.02	3.8	1.5	A	0.07	3.7	3.6	A	0.02	2.8	1.7	A
	SB-TR	0.44	5.3	59.8	A	0.68	8.6	127.1	A	0.48	4.7	64.0	A
	Overall	0.59	9.0	-	A	0.68	9.7	-	A	0.48	6.3	-	A
CR10 / Municipal Access / Driveway D (stop control)	EB-L	0.03	28.2	0.6	D	0.32	94.7	8.5	F	0.01	55.2	0.3	F
	EB-TR	0.01	14.7	0.2	B	0.06	17.4	1.3	C	0.01	20.3	0.3	C
	WB-L	0.16	28.8	4.1	D	1.26	283.0	56.7	F	0.94	152.7	42.2	F
	WB-TR	0.08	15.3	1.9	C	0.21	16.1	6.0	C	0.18	14.7	5.0	B
	NB-L	0.00	8.7	0.0	A	0.00	9.5	0.0	A	0.00	8.7	0.0	A
	NB-TR	0.47	0.0	0.0	A	0.42	0.0	0.0	A	0.39	0.0	0.0	A
	SB-L	0.08	10.2	1.9	B	0.13	9.8	3.4	A	0.13	9.5	3.3	A
	SB-TR	0.34	0.0	0.0	A	0.44	0.0	0.0	A	0.35	0.0	0.0	A
CR10 / Fallis Line (signalized)	EB-L	0.87	51.6	65.4	D	0.68	38.8	44.5	D	0.72	38.5	53.1	D
	EB-TR	0.52	6.7	13.7	A	0.39	8.9	19.0	A	0.43	7.9	19.5	A
	WB-L	0.48	33.3	20.6	C	0.43	30.1	25.2	C	0.50	32.0	27.7	C
	WB-TR	0.24	8.3	12.2	A	0.25	11.5	15.8	B	0.26	10.1	16.3	B
	NB-L	0.50	13.0	28.1	B	0.39	8.2	22.6	A	0.31	8.5	22.9	A
	NB-T	0.59	21.2	89.7	C	0.49	15.4	87.6	B	0.44	16.5	80.4	B
	NB-R	0.10	4.2	5.4	A	0.12	3.3	8.3	A	0.12	3.8	8.6	A
	SB-L	0.11	9.7	6.9	A	0.13	6.6	10.1	A	0.12	7.7	10.7	A
	SB-T	0.56	24.3	71.1	C	0.59	19.3	105.6	B	0.47	18.7	81.2	B
	SB-R	0.33	4.3	7.5	A	0.26	3.2	12.4	A	0.26	3.5	12.3	A
	Overall	0.87	20.0	-	B	0.68	15.5	-	B	0.72	15.7	-	B
CR10 / Highland Blvd (signalized)	EB-L	0.58	27.4	44.7	C	0.43	24.2	30.0	C	0.54	22.8	35.7	C
	EB-TR	0.13	10.3	10.3	B	0.10	11.5	8.1	B	0.15	8.6	10.0	A
	WB-L	0.07	19.3	8.1	B	0.15	20.0	13.5	B	0.10	15.7	9.0	B
	WB-TR	0.13	8.1	8.2	A	0.25	8.9	13.8	A	0.21	7.3	11.4	A
	NB-L	0.04	6.4	3.4	A	0.20	7.5	9.1	A	0.22	8.8	9.9	A
	NB-TR	0.73	14.2	116.7	B	0.58	9.3	84.9	A	0.66	12.4	79.6	B
	SB-L	0.26	10.4	11.0	B	0.33	9.3	17.1	A	0.38	12.1	16.9	B
	SB-T	0.52	9.7	68.7	A	0.62	10.1	96.7	B	0.63	11.7	73.4	B
	SB-R	0.07	2.1	4.3	A	0.18	1.4	6.4	A	0.21	1.9	7.2	A
	Overall	0.73	13.3	-	B	0.62	9.9	-	A	0.66	11.6	-	B

Fallis Line / Tapley Q. Line (stop control)	WB-LR	0.17	9.5	4.8	A	0.08	8.9	1.9	A	0.07	8.8	1.8	A
	NB-TR	0.04	0.0	0.0	A	0.03	0.0	0.0	A	0.03	0.0	0.0	A
	SB-LT	0.06	5.0	1.4	A	0.09	5.2	2.3	A	0.06	5.2	1.4	A
CR10 / King St (stop control)	EB-LTR	0.43	14.4	27.5	B	0.69	25.4	29.4	D	0.62	19.8	30.3	C
	WB-LTR	0.63	17.7	34.0	C	0.81	32.2	36.8	D	0.55	16.5	31.9	C
	NB-LTR	0.10	10.8	17.4	B	0.24	14.1	15.5	B	0.21	12.2	16.8	B
	SB-L	0.57	18.0	25.7	C	0.91	49.5	35.5	E	0.51	16.6	25.2	C
	SB-TR	0.42	12.1	22.4	B	0.57	17.2	21.9	C	0.59	16.5	27.4	C

Table 12: *Intersection Capacity, Total Volumes 2035.*

Throughout the study years, the recommended improvements are expected to manage the significant growth of traffic on the network. Almost all movements within the study area are projected to operate with LOS "D" or better.

Particularly, the intersection of CR10 & Municipal Access/Driveway D shows LOS "F" by 2027 for the movements turning left out of the driveways. This indicates that those drivers may experience extended delays to merge into CR10. Based on the HCM procedures, Synchro capacity factors at a given intersection are determined independent of the rest of the road network.

As such, this result cannot be representative for recommendations, due to the real-world effect that signals at one intersection will have some effect on the capacity of another nearby intersection. To simulate a more realistic behaviour of the road network, the SimTraffic module was applied to the worst-case scenario (2035 total volumes). The simulation results show that the delays equivalent to LOS "D" are instead projected for these movements, see *Appendix L*. It is clear that the signalization of CR10 & Fallis Ln and CR10 & Highland Blvd will generate some effect on the adjacent intersections resulting in sufficient gaps for traffic flow along CR10 during peak hours.

5.3 Future Total Traffic Operations at Accesses

The configuration of the planned entrances is shown in *Appendix N*. The site accesses capacity factors for the worst-case scenario (2035 total traffic volumes, 5 years after the Phase 2 build-out) are shown in the following ***Table 13***.

The results show that the accesses will be able to handle the increases in traffic throughout the study years, regardless of the scenario.

		Intersection Capacity, Total Volumes 2035 - Accesses (5 years after Phase 2)											
		AM Peak Hour				PM Peak Hour				SAT Peak Hour			
		V/C	Delay (s)	Q_{95} (m)	LOS	V/C	Delay (s)	Q_{95} (m)	LOS	V/C	Delay (s)	Q_{95} (m)	LOS
Street A & Larmer Line	EB-TL	0.04	0.0	0.0	A	0.07	0.0	0.0	A	0.05	0.0	0.0	A
	WB-LT	0.00	0.0	0.0	A	0.00	0.2	0.0	A	0.00	0.0	0.0	A
	NB-LR	0.06	9.3	1.5	A	0.03	9.3	0.7	A	0.04	9.3	0.9	A
Street G & CR10	EB-L	0.79	171.6	26.9	F	1.01	341.5	26.9	F	0.68	156.7	21.5	F
	EB-R	0.12	19.1	3.1	C	0.04	16.8	0.9	C	0.05	16.2	1.2	C
	NB-TR	0.58	0.0	0.0	A	0.55	0.0	0.0	A	0.53	0.0	0.0	A
	SB-L	0.01	11.4	0.3	B	0.05	10.9	1.1	B	0.03	10.5	0.6	B
	SB-T	0.38	0.0	0.0	A	0.63	0.0	0.0	A	0.52	0.0	0.0	A
Driveway A & CR10	WB-R	0.00	18.0	0.1	C	0.40	17.0	1.1	C	0.01	15.9	0.1	C
	NB-TR	0.59	0.0	0.0	A	0.55	0.0	0.0	A	0.53	0.0	0.0	A
	SB-T	0.40	0.0	0.0	A	0.65	0.0	0.0	A	0.54	0.0	0.0	A
Highland Blvd & Driveway B/Driveway C	EB-LTR	0.03	3.0	0.6	A	0.00	0.1	0.0	A	0.00	0.1	0.0	A
	WB-LTR	0.00	0.7	0.1	A	0.01	2.2	0.2	A	0.01	1.8	0.2	A
	NB-LTR	0.06	10.3	1.4	B	0.16	10.9	4.3	B	0.14	10.3	3.8	B
	SB-LTR	0.02	10.5	0.4	B	0.07	9.3	1.7	A	0.01	8.9	0.2	A
CR10 & Municipal Access / Driveway D	EB-L	0.03	28.2	0.6	D	0.32	94.7	8.5	F	0.01	55.2	0.3	F
	EB-TR	0.01	14.7	0.2	B	0.06	17.4	1.3	C	0.01	20.3	0.3	C
	WB-L	0.16	28.8	4.1	D	1.26	283.0	56.7	F	0.94	152.7	42.2	F
	WB-TR	0.08	15.3	1.9	C	0.21	16.1	6.0	C	0.18	14.7	5.0	B
	NB-L	0.00	8.7	0.0	A	0.00	9.5	0.0	A	0.00	8.7	0.0	A
	NB-TR	0.47	0.0	0.0	A	0.42	0.0	0.0	A	0.39	0.0	0.0	A
	SB-L	0.08	10.2	1.9	B	0.13	9.8	3.4	A	0.13	9.5	3.3	A
	SB-TR	0.34	0.0	0.0	A	0.44	0.0	0.0	A	0.35	0.0	0.0	A
CR10 & Driveway E	WB-R	0.13	14.1	3.4	B	0.22	13.8	6.2	B	0.20	13.1	5.6	B
	NB-T	0.43	0.0	0.0	A	0.35	0.0	0.0	A	0.33	0.0	0.0	A
	NB-R	0.05	0.0	0.0	A	0.09	0.0	0.0	A	0.10	0.0	0.0	A
	SB-T	0.34	0.0	0.0	A	0.49	0.0	0.0	A	0.40	0.0	0.0	A
Fallis Ln & Driveway F/Dev F RIRO	EB-L	0.08	7.6	1.9	A	0.08	7.6	2.0	A	0.09	7.7	2.1	A
	EB-TR	0.02	0.0	0.0	A	0.06	0.0	0.0	A	0.05	0.0	0.0	A
	WB-TR	0.07	0.0	0.0	A	0.04	0.0	0.0	A	0.06	0.0	0.0	A
	NB-R	-	-	-	-	-	-	-	-	-	-	-	-
	SB-LTR	0.10	9.3	2.6	A	0.20	10.0	5.5	A	0.20	10.2	5.7	B
Fallis Ln & Street B/Dev F Full Move	EB-LTR	0.00	2.0	0.1	A	0.01	1.5	0.3	A	0.01	1.5	0.3	A
	WB-LTR	0.00	0.0	0.0	A	0.00	0.0	0.0	A	0.00	0.0	0.0	A
	NB-LTR	0.09	9.3	2.3	A	0.07	9.6	1.8	A	0.11	9.8	2.9	A
	SB-LTR	0.02	8.4	0.5	A	0.02	9.2	0.5	A	0.03	9.0	0.6	A

Table 13: *Intersection Capacity at Accesses, Total Volumes 2035.*

As previously mentioned, the base HCM calculations results in CR10 & Municipal Access/Driveway D showing LOS “F” for the movements turning left out of the driveways, while the traffic simulation instead projects delays equivalent to LOS “D.”

Similarly, the intersection of CR10 & Street G shows LOS “F” for trips turning left onto CR10 within the base calculations. However, when utilizing the traffic simulation (SimmTraffic), the left turn out of Street G is projected to also operate with LOS “D”. It is clear that the signalization of CR10 & Highland Blvd and CR10 & Larmer Ln will generate some effects on other nearby intersections resulting in sufficient gaps in the traffic flow along CR10 during peak hours.

6 Conclusions/Recommendations

The subject site is a vacant land located east of County Road 10 in the Township of Cavan Monaghan, County of Peterborough, between Larmer Line and Fallis Line. The site is proposed for a commercial and residential development, featuring a variety of land uses and housing types.

It is expected that by 2027, Phase 1 of development will be completed, which includes a commercial plaza of 10,708 m^2 GFA; by 2030, it is expected that Phase 2 of development will be completed, which will include a general office plaza of 4150 m^2 GFA, as well as a total of 483 residential dwelling units.

Guidance from the capacity factors projected for future background traffic, previous reports within the study area, the MTO left turn warrant procedure (see *Appendix Q*), as well as the traffic signal justification methodology from OTM Book 12 (see *Appendix R*), provide the basis for the following recommended background traffic conditions throughout the study years:

County Road 10 & Larmer Line:

2027

- The need for auxiliary lanes were identified in previous traffic reports.
- Left turn lanes are warranted by the 2027 background traffic scenario.
- A new 85 m NB left turn lane (taper as per TAC Guide Table 9.17.1).
- A new 85 m SB left turn lane (taper as per TAC Guide Table 9.17.1).
- No changes to the existing two-way stop control.

2030

- No changes to the existing two-way stop control.
- No additional geometry upgrades.

2035

- The need for traffic signals were identified in previous traffic reports.
- Traffic signals are justified, for preliminary timing see *Appendix G*.
- No additional geometry upgrades.

County Road 10 & Highland Boulevard:

2027

- Planned as a 3-leg intersection with one-way stop control.
- Intended to include an EB & NB left turn lane, and SB right turn lane.

2030

- No changes to the existing one-way stop control.
- Maintain the existing intersection geometry.

2035

- Traffic signals are justified, for preliminary timing see *Appendix G*.
- Maintain the existing intersection geometry.

County Road 10 & Fallis Line:

2027

- The need for traffic signals and shifted auxiliary lanes were identified in previous traffic reports.
- Traffic signals are required, for preliminary timing see *Appendix E*.
- Reconfigure west leg to include a 50 m EB left turn lane (taper as per TAC Guide Table 9.17.1) and an EB shared thru/right lane.
- The east leg extension of Fallis Ln is recommended to include a 20 m WB left turn lane (taper as per TAC Guide Table 9.17.1).
- A new 70 m NB right turn lane (taper as per TAC Guide Table 9.14.2).
- A new 85 m SB left turn lane (taper as per TAC Guide Table 9.17.1).

2030

- No additional geometry upgrades.

2035

- No additional geometry upgrades.

County Road 10 & County Rd 21 (King St):

2027

- Monitor over time for changes to existing all-way stop control.
- Extend the SB left turn lane length to 30 m.

2030

- Monitor over time for changes to existing all-way stop control.
- No additional geometry upgrades.

2035

- Monitor over time for changes to existing all-way stop control.
- No additional geometry upgrades.

Guidance from the capacity factors projected for the total traffic volumes, the MTO left turn warrant procedure, as well as the signal justification methodology from OTM Book 12, provide the basis for the following recommended total traffic conditions throughout the study years:

County Road 10 & Larmer Line:

2027

- The need for auxiliary lanes was previously identified.
- A new 85 m NB left turn lane (taper as per TAC Guide Table 9.17.1).
- A new 85 m SB left turn lane (taper as per TAC Guide Table 9.17.1).
- No changes to the existing two-way stop control.

2030

- The need for traffic signals were identified in previous traffic reports.
- Traffic signals are justified, for preliminary timing see *Appendix K*.
- A new 70 m NB right turn lane (taper as per TAC Guide Table 9.14.2).

2035

- No additional geometry upgrades.

County Road 10 & Highland Boulevard:

2027

- Traffic signals are required, for preliminary timing see *Appendix J*.
- Planned as a 4-leg intersection with traffic signals.
- Intended to include an EB & NB left turn lane, and SB right turn lane.
- A new 85 m SB left turn lane (taper as per TAC Guide Table 9.17.1).
- A new 30 m WB left turn lane (taper as per TAC Guide Table 9.17.1).

2030

- No additional geometry upgrades.

2035

- No additional geometry upgrades.

County Road 10 & Fallis Line:

2027

- The need for traffic signals and shifted auxiliary lanes were identified in previous traffic reports.
- Traffic signals are required, for preliminary timing see *Appendix J*.
- Reconfigure west leg to include a 70 m EB left turn lane (taper as per TAC Guide Table 9.17.1) and an EB shared thru/right lane.
- The east leg extension of Fallis Ln is recommended to include a 30 m WB left turn lane (taper as per TAC Guide Table 9.17.1).
- A new 70 m NB right turn lane (taper as per TAC Guide Table 9.14.2).
- A new 85 m SB left turn lane (taper as per TAC Guide Table 9.17.1).

2030

- No additional geometry upgrades.

2035

- No additional geometry upgrades.

County Road 10 & County Rd 21 (King St):

2027

- Monitor over time for traffic signal justification.
- Extend the SB left turn lane length to 30 m.

2030

- Monitor over time for traffic signal justification.
- No additional geometry upgrades.

2035

- Monitor over time for traffic signal justification.
- Extend the SB left turn lane length to 40 m.

Additionally, the operations of County Road 10 & Centennial Lane should also be monitored over time for signal justification. For a summary of the traffic signal justifications for each intersection and scenario, see *Appendix Q*.

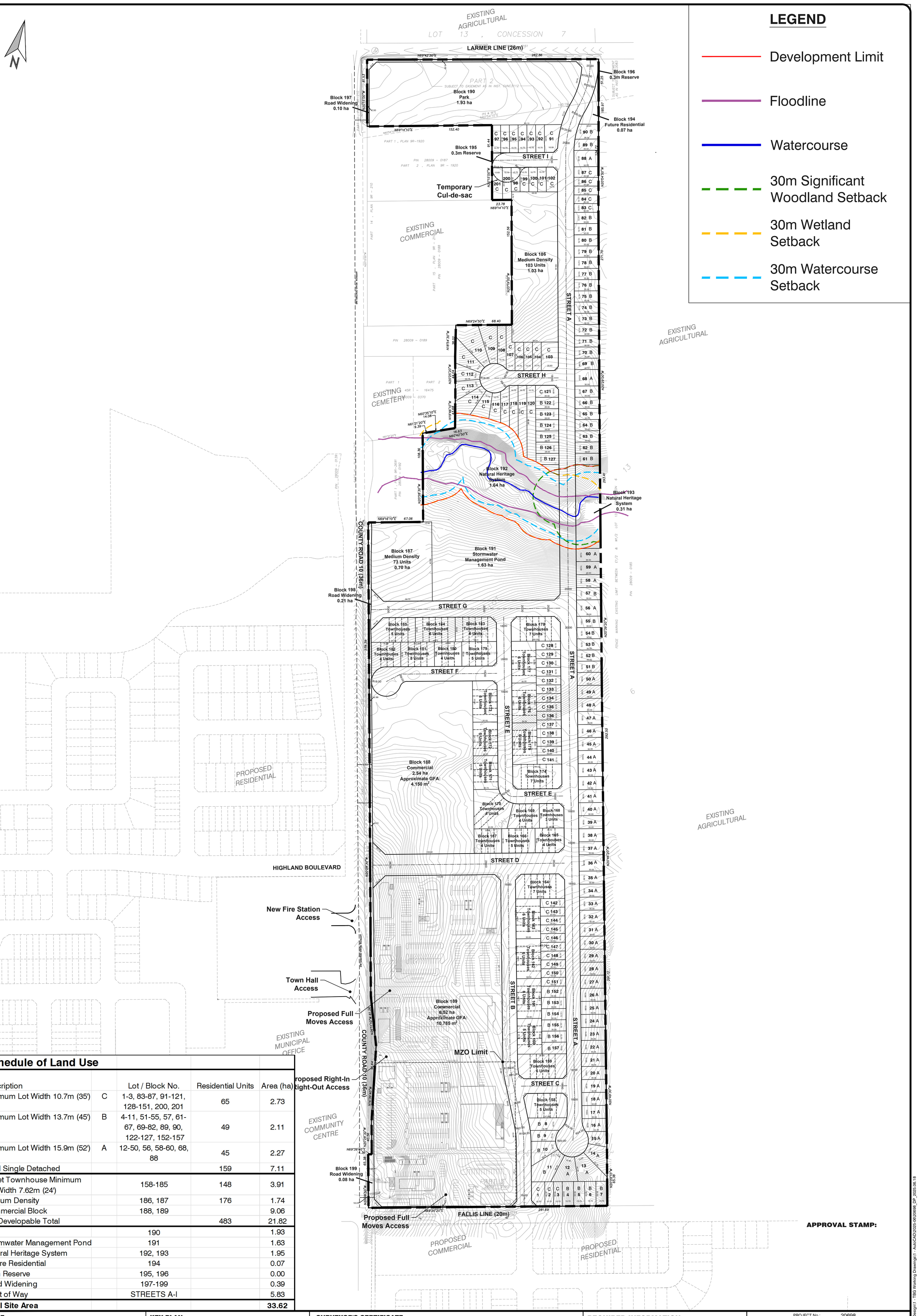
At present, the posted speed along CR10 currently transitions from 80 km/h to 60 km/h north of Fallis Ln. By 2027, the transition should occur north of Highland Blvd, and by 2030, the transition should occur north of Larmer Ln. Therefore, the posted speed of 60 km/h after full build-out of proposed development is recommended for CR10 immediately south of Larmer Ln.

From the traffic point of view, it is concluded that the proposed developments can take place with the inclusion of the appropriate intersection upgrades.

For an illustration of the final geometry configuration at intersections and proposed entrances, see *Appendix N*.

Appendix A

Draft Site Plans



Schedule of Land Use

Description		Lot / Block No.	Residential Units	Area (ha)
Minimum Lot Width 10.7m (35')	C	1-3, 83-87, 91-121, 128-151, 200, 201	65	2.73
Minimum Lot Width 13.7m (45')	B	4-11, 51-55, 57, 61-67, 69-82, 89, 90, 122-127, 152-157	49	2.11
Minimum Lot Width 15.9m (52')	A	12-50, 56, 58-60, 68, 88	45	2.27
Total Single Detached			159	7.11
Street Townhouse Minimum Lot Width 7.62m (24')		158-185	148	3.91
Medium Density		186, 187	176	1.74
Commercial Block		188, 189		9.06
Net Developable Total			483	21.82
Park		190		1.93
Stormwater Management Pond		191		1.63
Natural Heritage System		192, 193		1.95
Future Residential		194		0.07
0.3m Reserve		195, 196		0.00
Road Widening		197-199		0.39
Right of Way		STREETS A-I		5.83
Total Site Area				**33.62**

APPROVAL STAMP:

TITLE:

DRAFT PLAN OF SUBDIVISION

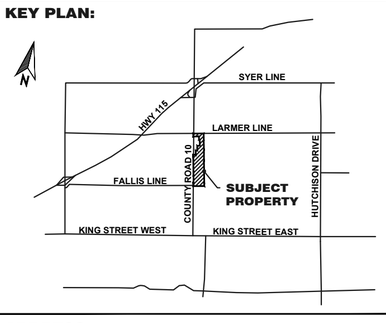
LEGAL DESCRIPTION:

DRAFT PLAN OF SUBDIVISION
PART OF LOT 13
CONCESSION 6
GEOGRAPHIC TOWNSHIP OF CAVAN
TOWNSHIP OF CAVAN
COUNTY OF PETERBOROUGH

PROJECT NAME

FALLIS NORTH

KEY PLAN:



ADDRESS

963 COUNTY ROAD 10

SURVEYOR'S CERTIFICATE:

I HEREBY CERTIFY THAT THE BOUNDARIES OF THE LANDS TO BE SUBDIVIDED AS SHOWN ON THIS PLAN AND THEIR RELATIONSHIP TO THE ADJACENT LANDS ARE ACCURATE AND CORRECTLY SHOWN IN ACCORDANCE WITH A PLAN OF SURVEY PREPARED BY IBW SURVEYORS

IBW SURVEYORS
DAVID COMERY, O.L.S.

DATE

OWNER'S CERTIFICATE:

I HEREBY AUTHORIZE **THE BIGLIERI GROUP LTD.** TO PREPARE AND SUBMIT THIS DRAFT PLAN OF SUBDIVISION TO THE COUNTY OF PETERBOROUGH

SAVERIO MONTEMARANO
VARGAS P INC.

DATE

REQUIRED INFORMATION:

AS REQUIRED UNDER SECTION 51(17) OF THE PLANNING ACT R.S.O. 1990.

(a) SEE PLAN
(b) SEE PLAN
(c) SEE KEY MAP
(d) SEE SCHEDULE OF LAND USE
(e) SEE PLAN
(f) SEE PLAN
(f.1) N/A
(g) SEE PLAN
(h) MUNICIPAL SERVICES AVAILABLE
(i) SANDY SILT, CLAYEY SILT, SILTY CLAY
(j) SEE PLAN
(k) MUNICIPAL SERVICES AVAILABLE
(l) SEE PLAN

NOTE:
DISTANCES AND/OR COORDINATES SHOWN ON THIS PLAN ARE IN METRES AND CAN BE CONVERTED TO FEET BY DIVIDING BY 0.3048.

REVISIONS

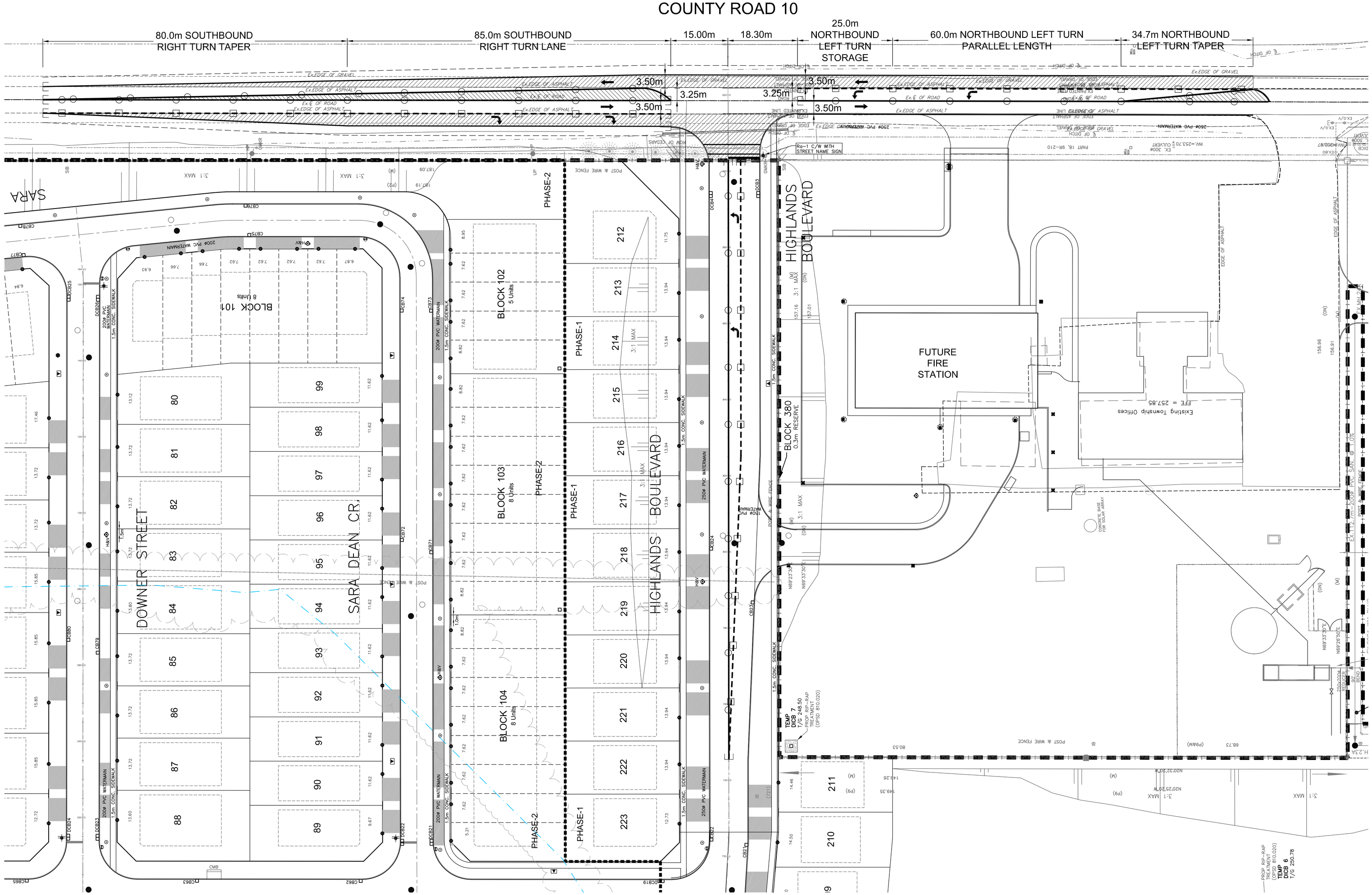
No.	Description	Date	Int.
3			
2			
1			

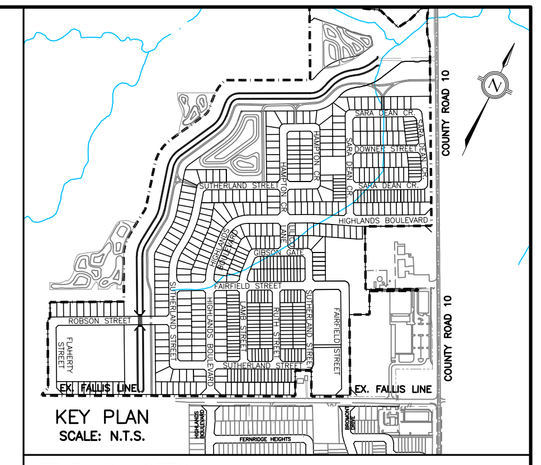
PROJECT No.:	20698
DATE:	May 6, 2025
SCALE:	1:2000
DRAFTED BY:	EC
CHECKED BY:	
DRAWING No.:	**DP-01**

BIGLIERI GROUP
2472 Kingston Road, Toronto
21 King Street W, Suite 1502, Hamilton
(416) 693-9155
thebiglierigroup.com

C:\Users\ericc\The Biglieri Group\TBG_Project - 2020-2024\2020\20698\2 - TBG Design\1 - TBG Working Drawings\1 - AutoCAD\2025-06\20698_DP_2025.06.18

COUNTY ROAD 10





BEARING NOTES

Bearings are utm grid, derived from real time network (rtn) gps observations, being utm zone 17, nad83 (csrs) (2010.0).
Distances are grid and can be converted to ground by multiplying by the combined scale factor of 0.999923.
Boundary information is derived from plans 45r-12388, 45r-16040, 45r-16385, 45r-16430, and 9r-1334.

POINT ID	NORTHING	EASTING
A		
B		

LEGEND:

- SUBDIVISION BOUNDARY
- PAVEMENT WIDENING
- PAINTED WHITE TRAFFIC ARROW
- STOP SIGN
- STREET NAME SIGN
- 0.6m STOP BAR
- 0.1m WIDE WHITE BROKEN TURN LANE
- 0.1m WIDE SOLID YELLOW LINE
- DENOTES END OF LINE PAINTING SYMBOL
- 0.1m WIDE SOLID WHITE LINE

No.	Revision	Date	By	Appr'd
4	ISSUED FOR 3rd ENGINEERING SUBMISSION	APR. 11, 2023	V.L.	P.S.Z.
3	ISSUED FOR TENDER AND 2nd ENGINEERING SUBMISSION	SEP. 20, 2022	V.L.	P.S.Z.
2	PER ORCA COMMENTS	MAY 27, 2022	V.L.	P.S.Z.
1	ISSUED FOR 1ST ENGINEERING SUBMISSION	MAY 10, 2022	V.L.	P.S.Z.

BENCHMARK:

Elevations are geodetic datum cgvd28(htv2.0), and are derived from horizontal control monuments 11918u208q, having an elevation of 212.44 meters and 11932u532s, having an elevation of 265.10 meters.
The published elevations values on this plan may or may not differ from external elevation data published by others due to differing methodology such as reference to physical benchmarks as opposed to direct GPS observation methods resulting in slightly different datum variations. It is the responsibility of the user to recognise and verify such discrepancies.

CONSULTANT:

LICENSED PROFESSIONAL ENGINEER P. S. ZOURNTOS APR. 11, 2023 PROVINCE OF ONTARIO

SIGNATURE AS TO FORM IN RELIANCE UPON THE PROFESSIONAL SKILL AND ABILITY OF THE CONSULTING ENGINEERS AS TO DESIGN AND SPECIFICATIONS.

DIRECTOR OF PUBLIC WORKS
W. HANCOCK, P.ENG.

SIGNATURE DATE

TOWERHILL NORTH SUBDIVISION

TOWERHILL DEVELOPMENT INC. 15T-18002

VALDOR ENGINEERING INC.
Consulting Engineers - Project Managers
571 Chrislea Road, Unit 4, 2nd Floor, Woodbridge, Ontario, L4L 8A2
TEL (905)264-0054, FAX (905)264-0069 E-MAIL: info@valdor-engineering.com
www.valdor-engineering.com

TOWNSHIP OF CAVAN MONAGHAN
COUNTY OF PETERBOROUGH

COUNTY ROAD 10
PAVEMENT MARKING PLAN

Surveyed by:		Checked by: P.S.Z.	Project No. 17125
Drawn by: V.L./D.M.		Approved by: D.G.	
Designed by: V.L./D.M.			Drawing No.
Scale: 1:500	0m 40m 80m		Sheet No. PM-1

Appendix B

Traffic Data and Volume Projections

Turning Movement Count (Morning)

Intersection Location: CR10/Larmer Line
City: Millbrook
N/S Street: CR10
E/W Street: Larmer Line
Period Time: 7:30 am to 8:30 am
Date: April 24, 2025
Controled: Stop
Project: 2400-25

Movement / Time Period	EBL		EBT		EBR		NBL		NBT		NBR		WBL		WBT		WBR		SBL		SBT		SBR	
	Cars	Trucks	Cars	Trucks	Cars	Trucks	Cars	Trucks	Cars	Trucks	Cars	Trucks	Cars	Trucks	Cars	Trucks	Cars	Trucks	Cars	Trucks	Cars	Trucks	Cars	Trucks
7:00 - 7:15	2	0	0	0	1	0	0	1	39	0	0	0	1	0	0	0	6	0	0	0	21	3	0	0
7:15 - 7:30	4	0	0	0	0	0	0	0	49	2	2	0	1	0	0	1	5	0	1	1	36	1	2	0
7:30 - 7:45	6	0	1	0	5	0	0	0	47	3	0	0	2	0	1	0	1	0	1	1	46	1	1	0
7:45 - 8:00	3	0	0	0	12	1	1	0	74	1	1	1	2	0	3	0	2	0	0	0	48	0	2	0
8:00 - 8:15	3	0	1	0	1	0	6	0	81	1	4	1	6	0	1	0	1	0	0	0	47	0	0	0
8:15 - 8:30	1	0	1	0	2	0	0	0	64	0	1	0	2	0	0	0	0	0	1	0	48	0	0	0
8:30 - 8:45	2	0	0	0	1	0	2	0	52	0	0	0	0	0	0	0	1	0	0	0	26	0	1	0
8:45 - 9:00	2	0	0	0	6	0	1	0	31	0	1	0	0	0	0	0	0	0	1	0	36	1	1	0
9:00 - 9:15	1	0	1	0	1	0	1	0	36	0	2	0	3	0	1	0	0	0	2	0	34	0	3	1
9:15 - 9:30	5	0	0	0	1	0	0	0	37	0	2	0	3	0	1	0	1	0	1	0	37	0	1	0
9:30 - 9:45	3	0	1	0	4	0	1	0	38	0	0	0	1	0	0	0	3	0	3	0	26	0	3	0
9:45 - 10:00	4	0	0	0	2	0	3	0	33	0	2	0	1	0	0	0	2	0	2	0	29	0	0	0
Peak Hour Volume (Veh/h)	13	0	3	0	20	1	7	0	266	5	6	2	12	0	5	0	4	0	2	1	189	1	3	0
Percentage Cars & Trucks	100.0%	0.0%	100.0%	0.0%	95.2%	4.8%	100.0%	0.0%	98.2%	1.8%	75.0%	25.0%	100.0%	0.0%	100.0%	0.0%	100.0%	0.0%	66.7%	33.3%	99.5%	0.5%	100.0%	0.0%

Total Vehicles	13	3	21	7	271	8	12	5	4	3	190	3

Turning Movement Count (Morning)

Intersection Location: CR10/Fallis Line
City: Millbrook
N/S Street: CR10
E/W Street: Fallis Line
Period Time: 7:30 am to 8:30 am
Date: April 24, 2025
Controled: Stop
Project: 2124-19

Movement / Time Period	EBL		EBT		EBR		NBL		NBT		NBR		WBL		WBT		WBR		SBL		SBT		SBR	
	Cars	Trucks	Cars	Trucks	Cars	Trucks	Cars	Trucks	Cars	Trucks	Cars	Trucks	Cars	Trucks	Cars	Trucks	Cars	Trucks	Cars	Trucks	Cars	Trucks	Cars	Trucks
7:00 - 7:15	2	0	0	0	3	2	5	0	32	1	0	0	0	0	0	0	0	0	0	0	21	2	4	0
7:15 - 7:30	12	0	0	0	8	1	5	1	42	1	0	0	0	0	0	0	0	0	0	0	34	0	1	1
7:30 - 7:45	10	2	0	0	11	1	8	0	43	1	1	0	0	0	0	0	1	0	0	0	46	0	4	0
7:45 - 8:00	13	0	0	0	31	2	9	0	59	2	0	0	0	0	0	0	0	0	0	0	54	1	1	1
8:00 - 8:15	17	0	0	0	39	0	39	1	68	3	0	0	0	0	0	0	0	0	0	0	40	0	4	2
8:15 - 8:30	7	1	0	0	9	0	14	0	59	0	0	0	0	0	0	0	0	0	0	0	47	1	0	0
8:30 - 8:45	15	0	0	0	4	0	9	0	43	0	0	0	0	0	0	0	0	0	0	0	20	0	4	0
8:45 - 9:00	10	0	0	0	13	0	3	0	23	0	0	0	0	0	0	0	0	0	0	0	34	1	2	0
9:00 - 9:15	12	0	0	0	5	0	7	0	24	0	0	0	0	0	0	0	1	0	0	0	28	0	6	1
9:15 - 9:30	4	1	0	0	8	1	2	0	32	0	0	0	0	0	0	0	0	0	0	0	39	0	5	0
9:30 - 9:45	12	0	0	0	11	0	7	0	29	0	0	0	0	0	0	0	0	0	0	0	24	0	5	0
9:45 - 10:00	7	1	0	0	4	0	3	0	27	1	1	0	0	0	0	0	0	0	0	0	27	0	5	0
Peak Hour Volume (Veh/h)	47	3	0	0	90	3	70	1	229	6	1	0	0	0	0	0	1	0	0	0	187	2	9	3
Percentage Cars & Trucks	94.0%	6.0%	######	######	96.8%	3.2%	98.6%	1.4%	97.4%	2.6%	100.0%	0.0%	######	######	######	######	100.0%	0.0%	######	######	98.9%	1.1%	75.0%	25.0%

Total Vehicles	50	0	93	71	235	1	0	0	1	0	189	12

Turning Movement Count (Morning)

Intersection Location: CR10 / CR21 / Distillery St
City: Millbrook
N/S Street: CR10 & Distillery St
E/W Street: CR21

Period Time: 7:15 am to 8:15 am
Date: April 24, 2025
Controled: Stop
Project: 2400-25

Movement / Time Period	EBL		EBT		EBR		NBL		NBT		NBR		WBL		WBT		WBR		SBL		SBT		SBR	
	Cars	Trucks	Cars	Trucks	Cars	Trucks	Cars	Trucks	Cars	Trucks	Cars	Trucks	Cars	Trucks	Cars	Trucks	Cars	Trucks	Cars	Trucks	Cars	Trucks	Cars	Trucks
7:00 - 7:15	11	0	6	0	0	0	0	0	2	0	2	0	1	0	3	0	12	0	11	5	0	0	3	1
7:15 - 7:30	17	2	6	0	0	0	0	0	2	0	2	0	1	0	4	1	25	0	28	1	1	0	4	0
7:30 - 7:45	11	2	9	0	1	0	0	0	1	0	2	0	2	0	9	1	25	1	23	1	2	0	6	0
7:45 - 8:00	18	0	2	0	0	0	0	0	4	1	1	0	3	0	18	0	33	5	14	1	8	0	19	1
8:00 - 8:15	18	1	8	0	1	0	0	0	6	0	1	0	1	0	12	1	26	1	28	2	4	0	22	0
8:15 - 8:30	8	0	9	1	0	0	0	0	1	0	0	0	0	0	7	0	22	0	11	0	8	0	15	0
8:30 - 8:45	12	0	5	0	0	0	0	0	0	0	1	0	0	0	14	0	19	1	20	1	2	0	1	0
8:45 - 9:00	6	0	10	0	2	0	0	0	0	0	3	0	0	0	9	0	14	0	11	1	2	0	15	1
9:00 - 9:15	9	1	5	1	0	0	1	0	1	0	1	0	1	0	7	0	8	0	15	0	3	0	15	0
9:15 - 9:30	9	0	12	0	1	0	1	0	1	0	0	0	1	0	11	0	19	0	16	0	1	0	10	0
9:30 - 9:45	12	0	6	0	1	0	0	0	2	0	1	1	1	0	5	0	9	0	14	1	1	0	10	1
9:45 - 10:00	14	0	11	1	1	0	0	0	1	0	2	0	0	0	14	0	17	0	8	0	1	0	19	0
Peak Hour Volume (Veh/h)	64	5	25	0	2	0	0	0	13	1	6	0	7	0	43	3	109	7	93	5	15	0	51	1
Percentage Cars & Trucks	92.8%	7.2%	100.0%	0.0%	100.0%	0.0%	######	######	92.9%	7.1%	100.0%	0.0%	100.0%	0.0%	93.5%	6.5%	94.0%	6.0%	94.9%	5.1%	100.0%	0.0%	98.1%	1.9%

Total Vehicles	69	25	2	0	14	6	7	46	116	98	15	52

Turning Movement Count (Morning)

Intersection Location: Fallis Line / Tapley Quarter Line
City: Millbrook
N/S Street: Tapley Quarter Line
E/W Street: Fallis Line

Period Time: 7:30 am to 8:30 am
Date: April 24, 2025
Controled: Stop
Project: 2400-25

Movement / Time Period	EBL		EBT		EBR		NBL		NBT		NBR		WBL		WBT		WBR		SBL		SBT		SBR	
	Cars	Trucks	Cars	Trucks	Cars	Trucks	Cars	Trucks	Cars	Trucks	Cars	Trucks	Cars	Trucks	Cars	Trucks	Cars	Trucks	Cars	Trucks	Cars	Trucks	Cars	Trucks
7:00 - 7:15	0	0	0	0	0	0	0	0	12	0	0	0	0	0	0	0	17	1	3	1	7	0	0	0
7:15 - 7:30	0	0	0	0	0	0	0	0	9	0	0	0	0	1	0	0	15	0	5	3	3	0	0	0
7:30 - 7:45	0	0	0	0	0	0	0	0	10	1	0	1	0	0	0	0	19	1	4	1	4	1	0	0
7:45 - 8:00	0	0	0	0	0	0	0	0	21	0	0	0	0	0	0	0	14	1	5	2	14	0	0	0
8:00 - 8:15	0	0	0	0	0	0	0	0	16	0	0	0	0	0	0	0	16	1	4	0	8	0	0	0
8:15 - 8:30	0	0	0	0	0	0	0	0	11	0	0	0	0	0	0	0	14	0	4	0	10	0	0	0
8:30 - 8:45	0	0	0	0	0	0	0	0	11	0	0	0	0	0	0	0	8	0	1	0	10	0	0	0
8:45 - 9:00	0	0	0	0	0	0	0	0	6	0	0	0	1	0	0	0	11	0	4	0	12	0	0	0
9:00 - 9:15	0	0	0	0	0	0	0	0	8	0	0	0	1	0	0	0	10	0	1	0	9	0	0	0
9:15 - 9:30	0	0	0	0	0	0	0	0	6	0	0	0	0	0	0	0	6	0	3	1	10	1	0	0
9:30 - 9:45	0	0	0	0	0	0	0	0	10	0	0	0	0	0	0	0	8	0	2	0	6	0	0	0
9:45 - 10:00	0	0	0	0	0	0	0	0	4	0	0	0	0	0	0	0	5	0	4	0	10	1	0	0
Peak Hour Volume (Veh/h)	0	0	0	0	0	0	0	0	58	1	0	1	0	0	0	0	63	3	17	3	36	1	0	0
Percentage Cars & Trucks	######	######	######	######	######	######	######	######	98.3%	1.7%	0.0%	100.0%	######	######	######	######	95.5%	4.5%	85.0%	15.0%	97.3%	2.7%	######	######

Total Vehicles	0	0	0	0	59	1	0	0	66	20	37	0

Turning Movement Count (Morning)

Intersection Location: CR10 / Centennial Ln
City: Millbrook
N/S Street: County Road 10
E/W Street: Centennial Ln
Period Time: 7:30 am to 8:30 am
Date: November 23, 2023
Controled: Stop
Project: 2124-19

Movement / Time Period	EBL		EBT		EBR		NBL		NBT		NBR		WBL		WBT		WBR		SBL		SBT		SBR	
	Cars	Trucks	Cars	Trucks	Cars	Trucks	Cars	Trucks	Cars	Trucks	Cars	Trucks	Cars	Trucks	Cars	Trucks	Cars	Trucks	Cars	Trucks	Cars	Trucks	Cars	Trucks
7:00 - 7:15																								
7:15 - 7:30																								
7:30 - 7:45	1	1	1	0	2	0	2	0	35	3	1	0	2	0	0	0	3	0	3	0	32	2	6	0
7:45 - 8:00	6	0	0	0	3	0	3	0	46	4	2	0	2	0	2	0	10	0	8	0	35	0	7	0
8:00 - 8:15	12	1	1	0	7	2	10	0	51	0	2	0	3	0	0	0	6	0	5	0	40	0	13	0
8:15 - 8:30	5	0	0	0	5	0	0	0	35	1	4	0	4	0	0	0	3	0	5	1	40	2	2	0
8:30 - 8:45																								
8:45 - 9:00																								
9:00 - 9:15																								
9:15 - 9:30																								
9:30 - 9:45																								
9:45 - 10:00																								
Peak Hour Volume (Veh/h)	24	2	2	0	17	2	15	0	167	8	9	0	11	0	2	0	22	0	21	1	147	4	28	0
Percentage Cars & Trucks	92.3%	7.7%	100.0%	0.0%	89.5%	10.5%	100.0%	0.0%	95.4%	4.6%	100.0%	0.0%	100.0%	0.0%	100.0%	0.0%	100.0%	0.0%	95.5%	4.5%	97.4%	2.6%	100.0%	0.0%

Total Vehicles	26	2	19	15	175	9	11	2	22	22	151	28

Turning Movement Count (Morning)

Intersection Location: CR10 / Entrance
City: Millbrook
N/S Street: County Road 10
E/W Street: Entrance
Period Time: 7:30 am to 8:30 am
Date: May 27, 2025
Controled: Stop
Project: 2400-25

Movement / Time Period	EBL		EBT		EBR		NBL		NBT		NBR		WBL		WBT		WBR		SBL		SBT		SBR	
	Cars	Trucks	Cars	Trucks	Cars	Trucks	Cars	Trucks	Cars	Trucks	Cars	Trucks	Cars	Trucks	Cars	Trucks	Cars	Trucks	Cars	Trucks	Cars	Trucks	Cars	Trucks
7:00 - 7:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0
7:15 - 7:30	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0
7:30 - 7:45	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0
7:45 - 8:00	1	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0
8:00 - 8:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	0
8:15 - 8:30	2	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	12	0
8:30 - 8:45																								
8:45 - 9:00																								
9:00 - 9:15																								
9:15 - 9:30																								
9:30 - 9:45																								
9:45 - 10:00																								
Peak Hour Volume (Veh/h)	4	0	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	19	0
Percentage Cars & Trucks	100.0%	0.0%	######	######	100.0%	0.0%	######	######	######	######	######	######	######	######	######	######	######	######	######	######	######	######	100.0%	0.0%

Total Vehicles	4	0	3	0	0	0	0	0	0	0	0	19

Turning Movement Count (Afternoon)

Intersection Location: CR10/Larmer Line
City: Millbrook
N/S Street: CR10
E/W Street: Larmer Line
Period Time: 4:15 pm to 5:15 pm
Date: April 24, 2025
Controled: Stop
Project: 2400-25

Movement / Time Period	EBL		EBT		EBR		NBL		NBT		NBR		WBL		WBT		WBR		SBL		SBT		SBR	
	Cars	Trucks	Cars	Trucks	Cars	Trucks	Cars	Trucks	Cars	Trucks	Cars	Trucks	Cars	Trucks	Cars	Trucks	Cars	Trucks	Cars	Trucks	Cars	Trucks	Cars	Trucks
3:30 - 3:45	3	0	2	0	1	0	2	0	67	3	2	0	2	0	1	0	0	0	2	0	45	1	2	0
3:45 - 4:00	2	0	1	0	0	0	5	0	41	0	1	0	0	0	1	0	0	0	1	0	52	0	3	0
4:00 - 4:15	3	0	2	0	3	0	6	0	61	2	2	0	2	0	1	0	1	0	1	2	62	0	7	0
4:15 - 4:30	4	0	0	0	5	0	3	0	62	2	1	0	2	0	1	0	0	0	1	0	77	1	2	0
4:30 - 4:45	2	0	2	0	0	0	5	0	76	1	1	0	2	0	0	0	4	1	5	0	78	0	7	0
4:45 - 5:00	1	0	3	0	4	0	4	0	54	0	6	0	0	0	1	0	1	0	2	0	77	1	2	0
5:00 - 5:15	1	0	1	0	1	0	8	0	71	0	5	0	1	0	0	0	1	0	7	0	66	1	4	0
5:15 - 5:30	1	0	1	0	2	0	1	0	44	1	1	0	0	0	0	0	2	0	7	0	74	0	5	0
5:30 - 5:45	3	0	0	0	2	0	2	0	44	0	0	0	1	0	1	0	3	0	3	0	64	0	2	0
5:45 - 6:00	2	0	0	0	4	0	4	0	44	0	1	0	1	0	1	0	0	0	2	0	54	0	4	0
6:00 - 6:15	1	0	0	0	2	0	0	0	35	0	3	0	1	0	0	0	1	0	0	0	50	1	2	0
6:15 - 6:30	2	0	1	0	1	0	1	0	39	1	0	0	1	0	1	0	2	0	1	0	48	0	3	0
Peak Hour Volume (Veh/h)	8	0	6	0	10	0	20	0	263	3	13	0	5	0	2	0	6	1	15	0	298	3	15	0
Percentage Cars & Trucks	100.0%	0.0%	100.0%	0.0%	100.0%	0.0%	100.0%	0.0%	98.9%	1.1%	100.0%	0.0%	100.0%	0.0%	100.0%	0.0%	85.7%	14.3%	100.0%	0.0%	99.0%	1.0%	100.0%	0.0%

Total Vehicles	8	6	10	20	266	13	5	2	7	15	301	15

Turning Movement Count (Afternoon)

Intersection Location: CR10/Fallis Line
City: Millbrook
N/S Street: CR10
E/W Street: Fallis Line
Period Time: 4:15 pm to 5:15 pm
Date: April 24, 2025
Controled: Stop
Project: 2400-25

Movement / Time Period	EBL		EBT		EBR		NBL		NBT		NBR		WBL		WBT		WBR		SBL		SBT		SBR	
	Cars	Trucks	Cars	Trucks	Cars	Trucks	Cars	Trucks	Cars	Trucks	Cars	Trucks	Cars	Trucks	Cars	Trucks	Cars	Trucks	Cars	Trucks	Cars	Trucks	Cars	Trucks
3:30 - 3:45	9	0	0	0	8	0	5	1	57	3	0	0	0	0	0	0	0	0	0	0	37	1	9	0
3:45 - 4:00	5	0	0	0	13	1	14	1	42	0	0	0	0	0	0	0	0	0	0	0	45	2	11	0
4:00 - 4:15	9	1	0	0	16	0	15	0	58	1	0	0	0	0	0	0	0	0	0	0	56	0	12	0
4:15 - 4:30	7	1	0	0	10	0	15	1	65	0	0	0	0	0	0	0	0	0	0	0	82	0	4	1
4:30 - 4:45	6	1	0	0	20	0	16	0	59	1	0	0	0	0	0	0	0	0	0	0	80	0	8	0
4:45 - 5:00	9	0	0	0	12	0	15	0	44	1	0	0	0	0	0	0	0	0	0	0	67	0	8	0
5:00 - 5:15	7	0	0	0	11	0	15	0	74	0	0	0	0	0	0	0	0	0	0	0	53	0	10	0
5:15 - 5:30	14	0	0	0	12	0	17	0	33	1	0	0	0	0	0	0	1	0	0	0	54	0	18	0
5:30 - 5:45	13	0	0	0	12	0	16	0	36	0	0	0	0	0	0	0	0	0	0	0	55	0	11	0
5:45 - 6:00	13	0	0	0	6	0	10	0	30	0	0	0	0	0	0	0	0	0	0	0	48	0	9	0
6:00 - 6:15	5	0	0	0	9	0	10	0	36	0	0	0	0	0	0	0	0	0	0	0	37	1	15	0
6:15 - 6:30	8	0	0	0	7	0	5	0	31	0	0	0	0	0	0	0	0	0	0	0	29	0	9	0
Peak Hour Volume (Veh/h)	29	2	0	0	53	0	61	1	242	2	0	0	0	0	0	0	0	0	0	0	282	0	30	1
Percentage Cars & Trucks	93.5%	6.5%	######	######	100.0%	0.0%	98.4%	1.6%	99.2%	0.8%	######	######	######	######	######	######	######	######	######	######	100.0%	0.0%	96.8%	3.2%

Total Vehicles	31	0	53	62	244	0	0	0	0	0	282	31

Turning Movement Count (Afternoon)

Intersection Location: CR10 / CR21 / Distillery St
City: Millbrook
N/S Street: CR10 & Distillery St
E/W Street: CR21

Period Time: 4:15 pm to 5:15 pm
Date: April 24, 2025
Controled: Stop
Project: 2400-25

Movement / Time Period	EBL		EBT		EBR		NBL		NBT		NBR		WBL		WBT		WBR		SBL		SBT		SBR	
	Cars	Trucks	Cars	Trucks	Cars	Trucks	Cars	Trucks	Cars	Trucks	Cars	Trucks	Cars	Trucks	Cars	Trucks	Cars	Trucks	Cars	Trucks	Cars	Trucks	Cars	Trucks
3:30 - 3:45	18	1	6	0	3	0	2	0	2	0	3	0	4	0	20	1	22	3	17	0	4	0	15	0
3:45 - 4:00	20	0	17	1	0	0	1	0	2	0	0	0	0	0	11	0	14	1	19	1	3	0	18	0
4:00 - 4:15	17	0	12	0	2	0	0	0	3	0	2	0	1	0	8	1	35	1	24	2	0	0	19	2
4:15 - 4:30	15	1	9	1	2	0	1	0	3	0	0	0	0	0	8	0	30	2	38	0	2	0	23	0
4:30 - 4:45	16	0	11	0	0	0	0	0	4	0	3	0	0	0	10	0	31	0	33	0	1	0	38	0
4:45 - 5:00	17	0	9	0	0	0	0	0	4	0	1	0	0	0	9	0	18	1	45	1	4	0	28	0
5:00 - 5:15	27	0	15	0	2	0	0	0	19	0	3	0	0	0	14	0	36	0	42	0	1	0	23	0
5:15 - 5:30	10	0	12	0	0	0	1	0	2	0	1	0	0	0	14	0	27	2	29	0	1	0	19	0
5:30 - 5:45	15	0	5	0	2	0	0	0	0	0	0	0	0	0	6	0	24	0	32	0	2	0	15	0
5:45 - 6:00	14	0	10	0	1	0	0	0	1	0	3	0	1	0	7	0	28	0	29	0	2	0	11	0
6:00 - 6:15	11	0	8	0	1	0	0	0	5	0	0	0	0	0	7	1	15	1	20	1	1	0	18	0
6:15 - 6:30	19	0	7	0	0	0	0	0	1	0	1	0	1	0	7	0	14	0	16	0	2	0	10	0
Peak Hour Volume (Veh/h)	75	1	44	1	4	0	1	0	30	0	7	0	0	0	41	0	115	3	158	1	8	0	112	0
Percentage Cars & Trucks	98.7%	1.3%	97.8%	2.2%	100.0%	0.0%	100.0%	0.0%	100.0%	0.0%	100.0%	0.0%	######	######	100.0%	0.0%	97.5%	2.5%	99.4%	0.6%	100.0%	0.0%	100.0%	0.0%

Total Vehicles	76	45	4	1	30	7	0	41	118	159	8	112

Turning Movement Count (Afternoon)

Intersection Location: Fallis Line / Tapley Quarter Line
City: Millbrook
N/S Street: Tapley Quarter Line
E/W Street: Fallis Line

Period Time: 4:15 pm to 5:15 pm
Date: April 24, 2025
Controled: Stop
Project: 2400-25

Movement / Time Period	EBL		EBT		EBR		NBL		NBT		NBR		WBL		WBT		WBR		SBL		SBT		SBR	
	Cars	Trucks	Cars	Trucks	Cars	Trucks	Cars	Trucks	Cars	Trucks	Cars	Trucks	Cars	Trucks	Cars	Trucks	Cars	Trucks	Cars	Trucks	Cars	Trucks	Cars	Trucks
3:00 - 3:15	0	0	0	0	0	0	0	0	9	0	0	1	1	0	0	0	8	1	3	0	14	1	0	0
3:15 - 3:30	0	0	0	0	0	0	0	0	3	0	0	0	2	0	0	0	5	2	19	1	16	0	0	0
3:30 - 3:45	0	0	0	0	0	0	0	0	14	0	1	0	0	0	0	0	11	0	15	0	14	0	0	0
3:45 - 4:00	0	0	0	0	0	0	0	0	8	0	0	0	0	0	0	0	11	0	10	1	26	0	0	0
4:00 - 4:15	0	0	0	0	0	0	0	0	12	0	1	0	0	0	0	0	9	0	10	0	16	0	0	0
4:15 - 4:30	0	0	0	0	0	0	0	0	10	1	0	0	0	0	0	0	7	1	12	1	23	0	0	0
4:30 - 4:45	0	0	0	0	0	0	0	0	11	0	1	0	1	0	0	0	4	0	23	0	16	0	0	0
4:45 - 5:00	0	0	0	0	0	0	0	0	12	0	5	0	3	0	0	0	6	0	13	0	15	0	0	0
5:00 - 5:15	0	0	0	0	0	0	0	0	11	0	1	0	0	0	0	0	8	0	14	0	17	0	0	0
5:15 - 5:30	0	0	0	0	0	0	0	0	14	0	0	0	1	0	0	0	7	0	19	0	9	0	0	0
5:30 - 5:45	0	0	0	0	0	0	0	0	5	0	0	0	0	0	0	0	7	0	13	0	18	0	0	0
5:45 - 6:00	0	0	0	0	0	0	0	0	6	0	0	0	0	0	0	0	6	0	18	0	17	0	0	0
Peak Hour Volume (Veh/h)	0	0	0	0	0	0	0	0	44	1	7	0	4	0	0	0	25	1	62	1	71	0	0	0
Percentage Cars & Trucks	######	######	######	######	######	######	######	######	97.8%	2.2%	100.0%	0.0%	100.0%	0.0%	######	######	96.2%	3.8%	98.4%	1.6%	100.0%	0.0%	######	######

Total Vehicles	0	0	0	0	45	7	4	0	26	63	71	0

Turning Movement Count (Afternoon)

Intersection Location: CR10 / Entrance
City: Millbrook
N/S Street: County Road 10
E/W Street: Entrance
Period Time: 4:15 pm to 5:15 pm
Date: 2025-05-27
Controled: Stop
Project: 2400-25

Movement / Time Period	EBL		EBT		EBR		NBL		NBT		NBR		WBL		WBT		WBR		SBL		SBT		SBR	
	Cars	Trucks	Cars	Trucks	Cars	Trucks	Cars	Trucks	Cars	Trucks	Cars	Trucks	Cars	Trucks	Cars	Trucks	Cars	Trucks	Cars	Trucks	Cars	Trucks	Cars	Trucks
3:00 - 3:15																								
3:15 - 3:30																								
3:30 - 3:45																								
3:45 - 4:00																								
4:00 - 4:15																								
4:15 - 4:30	1	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0
4:30 - 4:45	9	0	0	0	6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 - 5:00	4	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	8	0
5:00 - 5:15	3	0	0	0	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	12	0
5:15 - 5:30																								
5:30 - 5:45																								
5:45 - 6:00																								
Peak Hour Volume (Veh/h)	17	0	0	0	14	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	22	0
Percentage Cars & Trucks	100.0%	0.0%	######	######	100.0%	0.0%	######	######	######	######	######	######	######	######	######	######	######	######	######	######	######	######	100.0%	0.0%

Total Vehicles	17	0	14	0	0	0	0	0	0	0	0	22

Turning Movement Count (Afternoon)

Intersection Location: CR10 / Centennial Ln
City: Millbrook
N/S Street: County Road 10
E/W Street: Centennial Ln
Period Time: 4:30 pm to 5:30 pm
Date: November 23, 2023
Controled: Stop
Project: 2124-19

Movement / Time Period	EBL		EBT		EBR		NBL		NBT		NBR		WBL		WBT		WBR		SBL		SBT		SBR	
	Cars	Trucks	Cars	Trucks	Cars	Trucks	Cars	Trucks	Cars	Trucks	Cars	Trucks	Cars	Trucks	Cars	Trucks	Cars	Trucks	Cars	Trucks	Cars	Trucks	Cars	Trucks
3:00 - 3:15																								
3:15 - 3:30																								
3:30 - 3:45																								
3:45 - 4:00																								
4:00 - 4:15																								
4:15 - 4:30																								
4:30 - 4:45	5	0	0	0	3	0	3	0	60	2	3	0	3	0	0	0	5	0	0	0	57	0	5	0
4:45 - 5:00	2	0	0	0	3	0	2	0	55	0	6	0	1	0	0	0	3	0	5	0	71	0	2	0
5:00 - 5:15	4	0	0	0	5	0	2	0	69	1	5	0	1	0	0	0	3	0	4	0	55	1	1	0
5:15 - 5:30	6	0	0	0	0	0	0	0	47	0	4	0	1	0	0	0	4	0	6	0	67	0	3	0
5:30 - 5:45																								
5:45 - 6:00																								
Peak Hour Volume (Veh/h)	17	0	0	0	11	0	7	0	231	3	18	0	6	0	0	0	15	0	15	0	250	1	11	0
Percentage Cars & Trucks	100.0%	0.0%	######	######	100.0%	0.0%	100.0%	0.0%	98.7%	1.3%	100.0%	0.0%	100.0%	0.0%	######	######	100.0%	0.0%	100.0%	0.0%	99.6%	0.4%	100.0%	0.0%

Total Vehicles	17	0	11	7	234	18	6	0	15	15	251	11

Turning Movement Count (Saturday)

Intersection Location: CR10/Larmer Line
City: Millbrook
N/S Street: CR10
E/W Street: Larmer Line
Period Time: 1:00 pm to 2:00 pm
Date: May 3, 2025
Controled: Stop
Project: 2400-25

Movement / Time Period	EBL		EBT		EBR		NBL		NBT		NBR		WBL		WBT		WBR		SBL		SBT		SBR	
	Cars	Trucks	Cars	Trucks	Cars	Trucks	Cars	Trucks	Cars	Trucks	Cars	Trucks	Cars	Trucks	Cars	Trucks	Cars	Trucks	Cars	Trucks	Cars	Trucks	Cars	Trucks
11:00 - 11:15	5	0	1	0	1	0	1	0	52	0	1	0	0	0	1	0	3	0	0	0	47	0	6	0
11:15 - 11:30	3	0	0	0	3	0	0	0	43	1	1	0	1	0	1	0	3	0	1	0	52	0	3	0
11:30 - 11:45	2	0	2	0	2	0	2	0	36	0	0	0	1	0	0	0	1	0	1	0	55	0	2	0
11:45 - 12:00	3	0	3	0	3	0	1	0	48	0	2	0	4	0	1	0	3	0	3	0	51	0	2	0
12:00 - 12:15	1	0	3	0	2	0	1	0	39	0	0	0	3	0	2	0	2	0	2	0	46	0	2	0
12:15 - 12:30	2	0	3	0	2	0	2	0	38	0	2	0	4	0	1	0	1	0	2	0	34	0	3	0
12:30 - 12:45	0	0	1	0	3	0	3	0	53	0	4	0	3	0	3	0	1	0	2	0	53	0	3	0
12:45 - 1:00	2	0	1	0	1	0	2	0	42	0	4	0	4	0	1	0	2	0	1	0	54	0	2	0
1:00 - 1:15	1	0	3	0	1	0	5	0	59	0	2	0	4	0	1	0	3	0	3	0	42	0	1	0
1:15 - 1:30	3	0	1	0	2	0	3	0	50	0	3	0	1	0	0	0	5	0	2	0	47	0	2	0
1:30 - 1:45	3	0	3	0	3	0	1	0	46	0	3	0	2	0	2	0	1	0	0	0	55	0	4	0
1:45 - 2:00	2	0	2	0	3	0	2	0	45	0	3	0	1	0	0	0	0	0	1	0	64	0	1	0
Peak Hour Volume (Veh/h)	9	0	9	0	9	0	11	0	200	0	11	0	8	0	3	0	9	0	6	0	208	0	8	0
Percentage Cars & Trucks	100.0%	0.0%	100.0%	0.0%	100.0%	0.0%	100.0%	0.0%	100.0%	0.0%	100.0%	0.0%	100.0%	0.0%	100.0%	0.0%	100.0%	0.0%	100.0%	0.0%	100.0%	0.0%	100.0%	0.0%

Total Vehicles	9	9	9	11	200	11	8	3	9	6	208	8

Turning Movement Count (Saturday)

Intersection Location: CR10/Fallis Line
City: Millbrook
N/S Street: CR10
E/W Street: Fallis Line
Period Time: 1:00 pm to 2:00 pm
Date: May 3, 2025
Controled: Stop
Project: 2400-25

Movement / Time Period	EBL		EBT		EBR		NBL		NBT		NBR		WBL		WBT		WBR		SBL		SBT		SBR	
	Cars	Trucks	Cars	Trucks	Cars	Trucks	Cars	Trucks	Cars	Trucks	Cars	Trucks	Cars	Trucks	Cars	Trucks	Cars	Trucks	Cars	Trucks	Cars	Trucks	Cars	Trucks
11:00 - 11:15	10	0	0	0	11	0	5	0	43	0	0	0	0	0	0	0	0	0	0	0	39	0	9	0
11:15 - 11:30	5	0	0	0	6	0	6	0	38	1	0	0	0	0	0	0	1	0	0	0	43	0	10	0
11:30 - 11:45	6	0	0	0	12	0	3	0	33	0	0	0	0	0	0	0	0	0	0	0	42	0	13	0
11:45 - 12:00	7	0	0	0	6	0	7	0	42	0	0	0	0	0	0	0	0	0	0	0	55	0	4	0
12:00 - 12:15	6	0	0	0	11	0	6	0	31	0	0	0	0	0	0	0	0	0	1	0	46	0	6	0
12:15 - 12:30	7	0	0	0	9	0	5	0	33	0	0	0	0	0	0	0	0	0	0	0	33	0	8	0
12:30 - 12:45	10	0	0	0	9	0	3	0	52	0	0	0	0	0	0	0	0	0	0	0	45	0	10	0
12:45 - 1:00	5	0	0	0	6	0	7	0	42	0	0	0	0	0	0	0	0	0	0	0	50	0	12	0
1:00 - 1:15	14	0	0	0	11	0	6	0	55	0	0	0	0	0	0	0	0	0	0	0	36	0	5	0
1:15 - 1:30	8	0	0	0	7	0	4	0	44	0	0	0	0	0	0	0	0	0	0	0	49	0	5	0
1:30 - 1:45	9	0	0	0	5	0	8	0	34	0	0	0	0	0	0	0	0	0	0	0	44	0	12	0
1:45 - 2:00	6	0	0	0	11	0	8	0	50	0	0	0	0	0	0	0	0	0	0	0	58	0	8	0
Peak Hour Volume (Veh/h)	37	0	0	0	34	0	26	0	183	0	0	0	0	0	0	0	0	0	0	0	187	0	30	0
Percentage Cars & Trucks	100.0%	0.0%	######	######	100.0%	0.0%	100.0%	0.0%	100.0%	0.0%	######	######	######	######	######	######	######	######	######	######	100.0%	0.0%	100.0%	0.0%

Total Vehicles	37	0	34	26	183	0	0	0	0	0	187	30

Turning Movement Count (Saturday) - From Field Counts

Intersection Location: CR10 / CR21 / Distillery St
City: Millbrook
N/S Street: CR10 & Distillery St
E/W Street: CR21

Period Time: 12:30 pm to 1:30 pm
Date: May 3, 2025
Controled: Stop
Project: 2400-25

Movement / Time Period	EBL		EBT		EBR		NBL		NBT		NBR		WBL		WBT		WBR		SBL		SBT		SBR	
	Cars	Trucks	Cars	Trucks	Cars	Trucks	Cars	Trucks	Cars	Trucks	Cars	Trucks	Cars	Trucks	Cars	Trucks	Cars	Trucks	Cars	Trucks	Cars	Trucks	Cars	Trucks
11:00 - 11:15	15	0	8	0	2	0	2	0	5	0	3	0	2	0	27	0	14	0	19	0	5	0	30	0
11:15 - 11:30	17	0	15	0	0	0	1	0	5	0	3	0	0	0	11	0	22	0	28	0	1	0	17	0
11:30 - 11:45	14	0	10	0	2	0	4	0	4	0	2	0	2	0	18	0	21	0	30	0	1	0	20	0
11:45 - 12:00	10	0	10	1	2	0	1	0	6	0	2	0	1	0	9	0	18	0	31	0	5	0	15	0
12:00 - 12:15	15	0	7	0	2	0	0	0	3	0	0	0	1	0	13	0	12	0	20	0	4	0	24	0
12:15 - 12:30	9	0	12	0	4	0	1	0	4	0	3	0	1	0	7	0	11	0	17	0	4	0	16	0
12:30 - 12:45	20	0	12	0	3	0	3	0	5	0	5	0	4	0	12	0	15	0	17	0	5	0	23	0
12:45 - 1:00	16	0	12	0	3	0	1	0	6	0	4	0	2	0	15	0	25	0	17	0	3	0	28	0
1:00 - 1:15	19	0	12	0	3	0	6	0	11	0	1	0	1	0	9	0	21	0	31	0	0	0	17	0
1:15 - 1:30	18	0	10	0	3	0	1	0	5	0	1	0	1	0	10	0	14	0	19	0	2	0	23	0
1:30 - 1:45	13	0	12	0	4	0	1	0	4	0	1	0	0	0	10	0	21	0	21	1	1	0	9	0
1:45 - 2:00	14	0	8	0	2	0	1	0	6	0	3	0	0	0	11	0	23	1	34	0	3	0	17	0
Peak Hour Volume (Veh/h)	73	0	46	0	12	0	11	0	27	0	11	0	8	0	46	0	75	0	84	0	10	0	91	0
Percentage Cars & Trucks	100.0%	0.0%	100.0%	0.0%	100.0%	0.0%	100.0%	0.0%	100.0%	0.0%	100.0%	0.0%	100.0%	0.0%	100.0%	0.0%	100.0%	0.0%	100.0%	0.0%	100.0%	0.0%	100.0%	0.0%

Total Vehicles	73	46	12	11	27	11	8	46	75	84	10	91

Turning Movement Count (Saturday) - From Field Counts

Intersection Location: Fallis Line / Tapley Quarter Line
City: Millbrook
N/S Street: Tapley Quarter Line
E/W Street: Fallis Line

Period Time: 12:30 pm to 1:30 pm
Date: May 3, 2025
Controled: Stop
Project: 2400-25

Movement / Time Period	EBL		EBT		EBR		NBL		NBT		NBR		WBL		WBT		WBR		SBL		SBT		SBR	
	Cars	Trucks	Cars	Trucks	Cars	Trucks	Cars	Trucks	Cars	Trucks	Cars	Trucks	Cars	Trucks	Cars	Trucks	Cars	Trucks	Cars	Trucks	Cars	Trucks	Cars	Trucks
11:00 - 11:15	0	0	0	0	0	0	0	0	14	0	0	0	0	0	0	0	10	0	5	0	10	0	0	0
11:15 - 11:30	0	0	0	0	0	0	0	0	6	0	0	0	0	0	0	0	4	0	4	0	7	0	0	0
11:30 - 11:45	0	0	0	0	0	0	0	0	12	0	2	0	1	0	0	0	4	0	5	0	7	0	0	0
11:45 - 12:00	0	0	0	0	0	0	0	0	8	0	2	0	1	0	0	0	8	0	6	0	10	0	0	0
12:00 - 12:15	0	0	0	0	0	0	0	0	7	0	1	0	0	0	0	0	8	0	5	0	11	0	0	0
12:15 - 12:30	0	0	0	0	0	0	0	0	7	0	0	0	1	0	0	0	3	0	5	0	11	0	0	0
12:30 - 12:45	0	0	0	0	0	0	0	0	7	0	1	0	0	0	0	0	7	0	8	0	11	0	0	0
12:45 - 1:00	0	0	0	0	0	0	0	0	16	0	0	0	0	0	0	0	6	0	3	0	13	0	0	0
1:00 - 1:15	0	0	0	0	0	0	0	0	15	0	0	0	0	0	0	0	6	0	7	0	7	0	0	0
1:15 - 1:30	0	0	0	0	0	0	0	0	10	0	0	0	0	0	0	0	3	0	6	0	9	0	0	0
1:30 - 1:45	0	0	0	0	0	0	0	0	8	0	0	0	0	0	0	0	3	0	4	0	9	0	0	0
1:45 - 2:00	0	0	0	0	0	0	0	0	13	0	0	0	0	0	0	0	8	0	6	0	15	0	0	0
Peak Hour Volume (Veh/h)	0	0	0	0	0	0	0	0	48	0	1	0	0	0	0	0	22	0	24	0	40	0	0	0
Percentage Cars & Trucks	######	######	######	######	######	######	######	######	100.0%	0.0%	100.0%	0.0%	######	######	######	######	100.0%	0.0%	100.0%	0.0%	100.0%	0.0%	######	######

Total Vehicles	0	0	0	0	48	1	0	0	22	24	40	0

Turning Movement Count (Saturday) - From Field Counts

Intersection Location: CR10 / Centennial Ln
City: Millbrook
N/S Street: County Road 10
E/W Street: Centennial Ln
Period Time: 12:00 noon to 1:00 pm
Date: 2023-11-25
Controled: Stop
Project: 2124-19

Movement / Time Period	EBL		EBT		EBR		NBL		NBT		NBR		WBL		WBT		WBR		SBL		SBT		SBR	
	Cars	Trucks	Cars	Trucks	Cars	Trucks	Cars	Trucks	Cars	Trucks	Cars	Trucks	Cars	Trucks	Cars	Trucks	Cars	Trucks	Cars	Trucks	Cars	Trucks	Cars	Trucks
12:00 - 12:15	1	0	0	0	0	0	0	0	54	0	3	0	4	0	0	0	5	0	4	0	65	0	1	0
12:15 - 12:30	1	0	0	0	0	0	0	0	38	1	1	0	0	0	0	0	2	0	3	0	37	1	0	0
12:30 - 12:45	0	0	0	0	0	0	0	0	51	0	3	0	2	0	0	0	3	0	2	0	32	0	0	0
12:45 - 1:00	0	0	0	0	1	0	0	0	53	0	3	0	5	0	0	0	1	0	3	0	56	1	1	0
Peak Hour Volume (Veh/h)	2	0	0	0	1	0	0	0	196	1	10	0	11	0	0	0	11	0	12	0	190	2	2	0
Percentage Cars & Trucks	100.0%	0.0%	######	######	100.0%	0.0%	######	######	99.5%	0.5%	100.0%	0.0%	100.0%	0.0%	######	######	100.0%	0.0%	100.0%	0.0%	99.0%	1.0%	100.0%	0.0%

Total Vehicles	2	0	1	0	197	10	11	0	11	12	192	2

Turning Movement Count (Saturday) - From Field Counts

Intersection Location: CR10 / Entrance
City: Millbrook
N/S Street: County Road 10
E/W Street: Entrance
Period Time: 1:00 pm to 2:00 pm
Date: 2025-5-24
Controled: Stop
Project: 2400-25

Movement / Time Period	EBL		EBT		EBR		NBL		NBT		NBR		WBL		WBT		WBR		SBL		SBT		SBR	
	Cars	Trucks	Cars	Trucks	Cars	Trucks	Cars	Trucks	Cars	Trucks	Cars	Trucks	Cars	Trucks	Cars	Trucks	Cars	Trucks	Cars	Trucks	Cars	Trucks	Cars	Trucks
12:30 - 12:45	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:45 - 1:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:00 - 1:15	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:15 - 1:30	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0
1:30 - 1:45	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0
1:45 - 2:00	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Peak Hour Volume (Veh/h)	1	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0
Percentage Cars & Trucks	100.0%	0.0%	######	######	100.0%	0.0%	######	######	######	######	######	######	######	######	######	######	######	######	######	######	######	######	100.0%	0.0%

Total Vehicles	1	0	2	0	0	0	0	0	0	0	0	1

REGISTERED AND PROJECTED VOLUMES

CR10 / Larmer Line			Eastbound			Northbound			Westbound			Southbound			Volume Type
			LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT	
April	2025	AM	13	3	21	7	271	8	12	5	4	3	190	3	Registered Volumes
April	2025	PM	8	6	10	20	266	13	5	2	7	15	301	15	
April	2025	SAT	9	9	9	11	200	11	8	3	9	6	208	8	
Annual Growth Rate 2.00% (CR10 thru only)															
	2025	AM	13	3	21	7	271	8	12	5	4	3	190	3	Existing Volumes (Projected)
	2025	PM	8	6	10	20	266	13	5	2	7	15	301	15	
	2025	SAT	9	9	9	11	200	11	8	3	9	6	208	8	
	2027	AM	13	3	21	7	282	8	12	5	4	3	198	3	Background Volumes (Projected)
	2027	PM	8	6	10	20	277	13	5	2	7	15	313	15	
	2027	SAT	9	9	9	11	208	11	8	3	9	6	216	8	
	2027	AM	0	0	8	12	97	10	7	0	0	0	34	0	Development "A" 50% Complete
	2027	PM	0	0	10	6	61	4	6	0	0	0	102	0	
	2027	SAT	0	0	9	8	89	6	6	0	0	0	95	0	
	2027	AM	0	0	3	0	30	0	3	0	0	0	55	0	Development "B" 100% Complete
	2027	PM	0	0	1	1	38	1	1	0	0	0	31	0	
	2027	SAT	0	0	1	3	41	1	2	0	0	0	48	0	
	2027	AM	0	0	1	1	28	1	1	0	0	0	6	0	Development "C" 20% Complete
	2027	PM	0	0	2	1	16	1	1	0	0	0	31	0	
	2027	SAT	0	0	1	2	21	1	2	0	0	0	28	0	
	2027	AM	0	0	0	0	0	0	0	0	0	0	0	0	Dev "D" 0% Complete Dev "E" 0% Complete
	2027	PM	0	0	0	0	0	0	0	0	0	0	0	0	
	2027	SAT	0	0	0	0	0	0	0	0	0	0	0	0	
	2027	AM	0	0	2	2	38	2	0	0	0	0	12	0	Dev "F" 50% Complete
	2027	PM	0	0	2	0	22	0	2	0	0	0	42	0	
	2027	SAT	0	0	2	2	32	0	2	0	0	0	38	0	
	2027	AM	13	3	35	22	475	21	23	5	4	3	305	3	Total Background Volumes 2027
	2027	PM	8	6	25	28	414	19	15	2	7	15	519	15	
	2027	SAT	9	9	22	26	391	19	20	3	9	6	425	8	
	2027	AM	0	0	7	3	75	5	7	0	0	0	55	0	Phase 1 Site Gen. Trips (Lower Comm., No Res.)
	2027	PM	0	0	6	9	134	13	4	0	0	0	113	0	
	2027	SAT	0	0	6	9	142	11	8	0	0	0	119	0	
	2027	AM	13	3	42	25	550	26	30	5	4	3	360	3	Total Volumes 2027 (Lower Comm., No Res.)
	2027	PM	8	6	31	37	548	32	19	2	7	15	632	15	
	2027	SAT	9	9	28	35	533	30	28	3	9	6	544	8	
Annual Growth Rate 2.00% (CR10 thru only)															
	2030	AM	13	3	21	7	299	8	12	5	4	3	210	3	Background Volumes (Projected)
	2030	PM	8	6	10	20	294	13	5	2	7	15	332	15	
	2030	SAT	9	9	9	11	221	11	8	3	9	6	230	8	
	2030	AM	0	0	8	12	97	10	7	0	0	0	34	0	Development "A" 50% Complete
	2030	PM	0	0	10	6	61	4	6	0	0	0	102	0	
	2030	SAT	0	0	9	8	89	6	6	0	0	0	95	0	
	2030	AM	0	0	3	0	30	0	3	0	0	0	55	0	Development "B" 100% Complete
	2030	PM	0	0	1	1	38	1	1	0	0	0	31	0	
	2030	SAT	0	0	1	3	41	1	2	0	0	0	48	0	
	2030	AM	0	0	1	1	28	1	1	0	0	0	6	0	Development "C" 20% Complete
	2030	PM	0	0	2	1	16	1	1	0	0	0	31	0	
	2030	SAT	0	0	1	2	21	1	2	0	0	0	28	0	
	2030	AM	0	0	0	0	0	0	0	0	0	0	0	0	Dev "D" 0% Complete Dev "E" 0% Complete
	2030	PM	0	0	0	0	0	0	0	0	0	0	0	0	
	2030	SAT	0	0	0	0	0	0	0	0	0	0	0	0	
	2030	AM	0	0	2	2	38	2	0	0	0	0	12	0	Dev "F" 50% Complete
	2030	PM	0	0	2	0	22	0	2	0	0	0	42	0	
	2030	SAT	0	0	2	2	32	0	2	0	0	0	38	0	
	2030	AM	13	3	35	22	492	21	23	5	4	3	317	3	Total Background Volumes 2030
	2030	PM	8	6	25	28	431	19	15	2	7	15	538	15	
	2030	SAT	9	9	22	26	404	19	20	3	9	6	439	8	
	2030	AM	0	0	8	6	128	19	41	1	14	3	81	0	Phase 2 Site Gen. Trips (All Comm. & Res. 100%)
	2030	PM	0	1	7	7	167	44	25	0	5	12	156	0	
	2030	SAT	0	1	7	9	166	36	32	0	6	7	151	0	
	2030	AM	13	3	43	28	620	40	64	6	18	6	398	3	Total Volumes 2030 (All Comm. & Res. 100%)
	2030	PM	8	7	32	35	598	63	40	2	12	27	694	15	
	2030	SAT	9	10	29	35	570	55	52	3	15	13	590	8	
Annual Growth Rate 2.00% (CR10 thru only)															
	2035	AM	13	3	21	7	330	8	12	5	4	3	232	3	Background Volumes (Projected)
	2035	PM	8	6	10	20	324	13	5	2	7	15	367	15	
	2035	SAT	9	9	9	11	244	11	8	3	9	6	254	8	
	2035	AM	0	0	17	25	194	20	14	0	0	0	68	0	Development "A" 100% Complete
	2035	PM	0	0	20	13	122	8	13	0	0	0	204	0	
	2035	SAT	0	0	19	17	178	12	12	0	0	0	191	0	
	2035	AM	0	0	3	0	30	0	3	0	0	0	55	0	Development "B" 100% Complete
	2035	PM	0	0	1	1	38	1	1	0	0	0	31	0	
	2035	SAT	0	0	1	3	41	1	2	0	0	0	48	0	
	2035	AM	0	0	1	1	28	1	1	0	0	0	9	0	Development "C" 20% Complete
	2035	PM	0	0	2	1	16	1	1	0	0	0	31	0	
	2035	SAT	0	0	1	2	21	1	2	0	0	0	28	0	
	2035	AM	10	1	0	0	10	1	3	3	0	0	53	53	Dev "D" 50% Complete Dev "E" 20% Complete
	2035	PM	42	3	0	0	42	3	1	1	0	0	15	15	
	2035	SAT	2	0	0	0	2	1	0	0	0	0	2	2	
	2035	AM	0	0	2	2	58	2	2	0	0	0	18	0	Dev "F" 100% Complete
	2035	PM	0	0	4	2	34	2	2	0	0	0	66	0	
	2035	SAT	0	0	2	4	44	2	2	0	0	0	56	0	
	2035	AM	23	4	44	35	650	32	35	8	4	3	435	56	Total Background Volumes 2035
	2035	PM	50	9	37	37	576	28	23	3	7	15	714	30	
	2035	SAT	11	9	32	37	530	28	26	3	9	6	579	10	
	2035	AM	0	1	12	21	118	19	38	4	13	3	77	0	Phase 2 Site Gen. Trips (All Comm. & Res. 100%)
	2035	PM	0	3	21	18	161	41	24	1	5	11	151	0	
	2035	SAT	0	1	11	14	159	32	28	1	6	7	145	0	
	2035	AM	23	5	56	56	768	51	73	12	17	6	512	56	Total Volumes 2035 (All Comm. & Res. 100%)
	2035	PM	50	12	58	55	737	69	47	4	12	26	865	30	
	2035	SAT	11	10	43	51	689	60	54	4	15	13	724	10	

CR10 / Fallis Line			Eastbound			Northbound			Westbound			Southbound			Volume Type
			LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT	
April	2025	AM	50	0	93	71	235	0	0	0	0	0	189	12	Registered Volumes
April	2025	PM	31	0	53	62	244	0	0	0	0	0	282	31	
April	2025	SAT	37	0	34	26	183	0	0	0	0	0	187	30	
Annual Growth Rate 2.00% (CR10 thru only)															
	2025	AM	50	0	93	71	235	0	0	0	0	0	189	12	Existing Volumes (Projected)
	2025	PM	31	0	53	62	244	0	0	0	0	0	282	31	
	2025	SAT	37	0	34	26	183	0	0	0	0	0	187	30	
	2027	AM	50	0	93	71	244	0	0	0	0	0	197	12	Background Volumes (Projected)
	2027	PM	31	0	53	62	254	0	0	0	0	0	293	31	
	2027	SAT	37	0	34	26	190	0	0	0	0	0	195	30	
	2027	AM	35	0	64	47	4	0	0	0	0	0	13	22	Development "A" 50% Complete
	2027	PM	17	0	30	43	14	0	0	0	0	0	8	28	
	2027	SAT	23	0	39	41	13	0	0	0	0	0	12	25	
	2027	AM	30	0	29	27	0	0	0	0	0	0	0	61	Development "B" 100% Complete
	2027	PM	40	0	17	21	0	0	0	0	0	0	0	33	
	2027	SAT	45	0	48	34	0	0	0	0	0	0	0	51	
	2027	AM	30	0	20	8	0	0	0	0	0	0	0	10	Development "C" 20% Complete
	2027	PM	17	0	18	23	0	0	0	0	0	0	0	33	
	2027	SAT	23	0	26	23	0	0	0	0	0	0	0	30	
	2027	AM	0	0	0	0	0	0	0	0	0	0	0	0	Dev "D" 0% Complete Dev "E" 0% Complete
	2027	PM	0	0	0	0	0	0	0	0	0	0	0	0	
	2027	SAT	0	0	0	0	0	0	0	0	0	0	0	0	
	2027	AM	0	1	1	4	21	6	15	4	21	7	7	0	Dev "F" 50% Complete
	2027	PM	0	4	4	1	11	14	9	1	11	23	23	0	
	2027	SAT	0	2	2	2	17	14	15	2	17	21	21	0	
	2027	AM	145	1	207	157	269	6	15	4	21	7	217	105	Total Background Volumes 2027
	2027	PM	105	4	122	150	279	14	9	1	11	23	324	125	
	2027	SAT	128	2	149	126	220	14	15	2	17	21	228	136	
	2027	AM	30	21	0	0	55	34	24	12	20	10	15	8	Phase 1 Site Gen. Trips (Shopping Plaza., No Res.)
	2027	PM	35	20	0	0	75	40	55	24	19	10	50	21	
	2027	SAT	40	20	0	0	92	47	58	24	23	10	53	22	
	2027	AM	-7	15	-8	-10	-16	26	18	11	17	14	-9	-5	Phase 1 Pass-by Trips (Shopping Plaza)
	2027	PM	-7	15	-8	-14	-20	34	29	17	24	11	-7	-4	
	2027	SAT	-6	13	-7	-13	-17	30	23	15	21	11	-7	-4	
	2027	AM	168	37	199	147	308	66	57	27	58	31	223	108	Total Volumes 2027 (Shopping Plaza., No Res.)
	2027	PM	133	39	114	136	334	88	93	42	54	44	367	142	
	2027	SAT	162	35	142	113	295	91	96	41	61	42	274	154	
Annual Growth Rate 2.00% (CR10 thru only)															
	2030	AM	50	0	93	71	259	0	0	0	0	0	209	12	Background Volumes (Projected)
	2030	PM	31	0	53	62	269	0	0	0	0	0	311	31	
	2030	SAT	37	0	34	26	202	0	0	0	0	0	206	30	
	2030	AM	35	0	64	47	4	0	0	0	0	0	13	22	Development "A" 50% Complete
	2030	PM	17	0	30	43	14	0	0	0	0	0	8	28	
	2030	SAT	23	0	39	41	13	0	0	0	0	0	12	25	
	2030	AM	30	0	29	27	0	0	0	0	0	0	0	61	Development "B" 100% Complete
	2030	PM	40	0	17	21	0	0	0	0	0	0	0	33	
	2030	SAT	45	0	48	34	0	0	0	0	0	0	0	51	
	2030	AM	30	0	20	8	0	0	0	0	0	0	0	10	Development "C" 20% Complete
	2030	PM	17	0	18	23	0	0	0	0	0	0	0	33	
	2030	SAT	23	0	26	23	0	0	0	0	0	0	0	30	
	2030	AM	0	0	0	0	0	0	0	0	0	0	0	0	Dev "D" 0% Complete Dev "E" 0% Complete
	2030	PM	0	0	0	0	0	0	0	0	0	0	0	0	
	2030	SAT	0	0	0	0	0	0	0	0	0	0	0	0	
	2030	AM	0	1	1	4	21	6	15	4	21	7	7	0	Dev "F" 50% Complete
	2030	PM	0	4	4	1	11	14	9	1	11	23	23	0	
	2030	SAT	0	2	2	2	17	14	15	2	17	21	21	0	
	2030	AM	145	1	207	157	284	6	15	4	21	7	229	105	Total Background Volumes 2030
	2030	PM	105	4	122	150	294	14	9	1	11	23	342	125	
	2030	SAT	128	2	149	126	232	14	15	2	17	21	239	136	
	2030	AM	52	19	0	0	99	36	11	77	39	31	15	33	Phase 2 Site Gen. Trips (All Comm. & Res. 100%)
	2030	PM	59	22	0	0	129	44	55	23	24	22	101	45	
	2030	SAT	60	22	0	0	137	52	60	25	32	20	94	40	
	2030	AM	-7	14	-7	-9	-14	23	17	10	16	13	-8	-5	Phase 2 Pass-by Trips (Shopping Plaza)
	2030	PM	-6	13	-7	-13	-19	32	26	15	22	10	-9	-4	
	2030	SAT	-6	12	-6	-12	-16	28	21	14	20	10	-6	-4	
	2030	AM	190	34	200	148	369	65	43	91	76	51	236	133	Total Volumes 2030 (All Comm. & Res. 100%)
	2030	PM	158	39	115	137	404	90	90	39	57	55	434	166	
	2030	SAT	182	36	143	114	353	94	96	41	69	51	327	172	
Annual Growth Rate 2.00% (CR10 thru only)															
	2035	AM	50	0	93	71	286	0	0	0	0	0	230	12	Background Volumes (Projected)
	2035	PM	31	0	53	62	297	0	0	0	0	0	344	31	
	2035	SAT	37	0	34	26	223	0	0	0	0	0	228	30	
	2035	AM	70	0	128	95	9	0	0	0	0	0	26	44	Development "A" 100% Complete
	2035	PM	35	0	60	86	28	0	0	0	0	0	16	56	
	2035	SAT	47	0	78	82	26	0	0	0	0	0	25	50	
	2035	AM	30	0	29	27	0	0	0	0	0	0	0	61	Development "B" 100% Complete
	2035	PM	40	0	17	21	0	0	0	0	0	0	0	33	
	2035	SAT	45	0	48	34	0	0	0	0	0	0	0	51	
	2035	AM	30	0	20	8	0	0	0	0	0	0	0	10	Development "C" 20% Complete
	2035	PM	17	0	18	23	0	0	0	0	0	0	0	33	
	2035	SAT	23	0	26	23	0	0	0	0	0	0	0	30	
	2035	AM	18	0	0	0	26	0	0	0	0	0	5	3	Dev "D" 50% Complete Dev "E" 20% Complete
	2035	PM	5	0	0	0	8	0	0	0	0	0	21	14	
	2035	SAT	1	0	0	0	1	0	0	0	0	0	1	1	
	2035	AM	0	1	1	6	31	9	22	6	31	11	11	0	Dev "F" 100% Complete
	2035	PM	0	6	6	2	19	23	16	2	19	36	36	0	
	2035	SAT	0	3	3	2	25	21	23	2	25	30	30	0	
	2035	AM	198	1	271	207	352	9	22	6	31	11	272	130	Total Background Volumes 2035
	2035	PM	128	6	154	194	352	23	16	2	19	36	417	167	
	2035	SAT	153	3	189	167	275	21	23	2	25	30	284	162	
	2035	AM	57	20	0	0	90	32	27	15	34	13	69	41	Phase 2 Site Gen. Trips (All Comm. & Res. 100%)
	2035	PM	51	17	0	0	119	43	50	20	24	25	88	41	
	2035	SAT	60	24	0	0	122	48	54	24	33	23	88	40	
	2035	AM	-7	14	-7	-9	-14	23	17	10	16	13	-8	-5	Phase 2 Pass-by Trips (Shopping Plaza)
	2035	PM	-6	13	-7	-13	-19	32	26	15	22	10	-9	-4	
	2035	SAT	-6	12	-6	-12	-16	28	21	14	20	10	-6	-4	
	2035	AM	248	35	264	198	428	64	66	31	81	37	333	166	Total Volumes 2035 (All Comm. & Res. 100%)
	2035	PM	173	36	147	181	452	98	92	37	65	71	496	204	
	2035	SAT	207	39	183	155	381	97	98	40	78	63	366	198	

CR10 / CR21 / Distillery			Eastbound			Northbound			Westbound			Southbound			Volume Type
			LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT	
April	2025	AM	69	25	2	0	14	6	7	46	116	98	15	52	Registered Volumes
April	2025	PM	76	45	4	1	30	7	0	41	118	159	8	112	
April	2025	SAT	73	46	12	11	27	11	8	46	75	84	10	91	
Annual Growth Rate 2.00%															
	2025	AM	69	25	2	0	14	6	7	46	116	98	15	52	Existing Volumes (Projected)
	2025	PM	76	45	4	1	30	7	0	41	118	159	8	112	
	2025	SAT	73	46	12	11	27	11	8	46	75	84	10	91	
	2027	AM	72	26	2	0	15	6	7	48	121	102	16	54	Background Volumes (Projected)
	2027	PM	79	47	4	1	31	7	0	43	123	165	8	117	
	2027	SAT	76	48	12	11	28	11	8	48	78	87	10	95	
	2027	AM	14	0	0	0	3	0	0	0	23	30	8	19	Development "A" 50% Complete
	2027	PM	19	0	0	0	5	0	0	0	26	15	1	10	
	2027	SAT	24	0	0	0	4	0	0	0	22	19	4	25	
	2027	AM	7	0	0	0	2	0	0	0	12	11	4	7	Development "B" 100% Complete
	2027	PM	7	0	0	0	2	0	0	0	10	9	1	5	
	2027	SAT	15	0	0	0	3	0	0	0	15	17	4	23	
	2027	AM	3	0	0	0	1	0	0	0	4	8	3	5	Development "C" 20% Complete
	2027	PM	8	0	0	0	2	0	0	0	11	10	1	7	
	2027	SAT	11	0	0	0	2	0	0	0	10	10	2	13	
	2027	AM	0	0	0	0	0	0	0	0	0	0	0	0	Dev "D" 0% Complete Dev "E" 0% Complete
	2027	PM	0	0	0	0	0	0	0	0	0	0	0	0	
	2027	SAT	0	0	0	0	0	0	0	0	0	0	0	0	
	2027	AM	4	0	0	0	0	0	0	0	6	14	4	8	Dev "F" 50% Complete
	2027	PM	10	0	0	0	2	0	0	0	14	10	2	6	
	2027	SAT	14	0	0	0	2	0	0	0	12	12	2	16	
	2027	AM	100	26	2	0	21	6	7	48	166	165	35	93	Total Background Volumes 2027
	2027	PM	123	47	4	1	42	7	0	43	184	209	13	145	
	2027	SAT	140	48	12	11	39	11	8	48	137	145	22	172	
	2027	AM	24	0	0	0	5	0	0	0	40	19	4	10	Phase 1 Site Gen. Trips (Shopping Plaza., No Res.)
	2027	PM	35	0	0	0	12	0	0	0	54	49	2	35	
	2027	SAT	52	0	0	0	14	0	0	0	51	40	6	46	
	2027	AM	124	26	2	0	26	6	7	48	206	184	39	103	Total Volumes 2027 (Shopping Plaza., No Res.)
	2027	PM	158	47	4	1	54	7	0	43	238	258	15	180	
	2027	SAT	192	48	12	11	53	11	8	48	188	185	28	218	
Annual Growth Rate 2.00%															
	2030	AM	76	28	2	0	15	7	8	51	128	108	17	57	Background Volumes (Projected)
	2030	PM	84	50	4	1	33	8	0	45	130	176	9	124	
	2030	SAT	81	51	13	12	30	12	9	51	83	93	11	100	
	2030	AM	14	0	0	0	3	0	0	0	23	30	8	19	Development "A" 50% Complete
	2030	PM	19	0	0	0	5	0	0	0	26	15	1	10	
	2030	SAT	24	0	0	0	4	0	0	0	22	19	4	25	
	2030	AM	7	0	0	0	2	0	0	0	12	11	4	7	Development "B" 100% Complete
	2030	PM	7	0	0	0	2	0	0	0	10	9	1	5	
	2030	SAT	15	0	0	0	3	0	0	0	15	17	4	23	
	2030	AM	3	0	0	0	1	0	0	0	4	8	3	5	Development "C" 20% Complete
	2030	PM	8	0	0	0	2	0	0	0	11	10	1	7	
	2030	SAT	11	0	0	0	2	0	0	0	10	10	2	13	
	2030	AM	0	0	0	0	0	0	0	0	0	0	0	0	Dev "D" 0% Complete Dev "E" 0% Complete
	2030	PM	0	0	0	0	0	0	0	0	0	0	0	0	
	2030	SAT	0	0	0	0	0	0	0	0	0	0	0	0	
	2030	AM	4	0	0	0	0	0	0	0	6	14	4	8	Dev "F" 50% Complete
	2030	PM	10	0	0	0	2	0	0	0	14	10	2	6	
	2030	SAT	14	0	0	0	2	0	0	0	12	12	2	16	
	2030	AM	104	28	2	0	21	7	8	51	173	171	36	96	Total Background Volumes 2030
	2030	PM	128	50	4	1	44	8	0	45	191	220	14	152	
	2030	SAT	145	51	13	12	41	12	9	51	142	151	23	177	
	2030	AM	37	0	0	0	5	0	0	0	62	52	12	28	Phase 2 Site Gen. Trips (All Comm. & Res. 100%)
	2030	PM	53	0	0	0	19	0	0	0	80	74	2	53	
	2030	SAT	70	0	0	0	20	0	0	0	70	56	7	66	
	2030	AM	141	28	2	0	26	7	8	51	235	223	48	124	Total Volumes 2030 (All Comm. & Res. 100%)
	2030	PM	181	50	4	1	63	8	0	45	271	294	16	205	
	2030	SAT	215	51	13	12	61	12	9	51	212	207	30	243	
Annual Growth Rate 2.00%															
	2035	AM	84	30	2	0	17	7	9	56	141	119	18	63	Background Volumes (Projected)
	2035	PM	93	55	5	1	37	9	0	50	144	194	10	137	
	2035	SAT	89	56	15	13	33	13	10	56	91	102	12	111	
	2035	AM	28	0	0	0	7	0	0	0	47	61	16	39	Development "A" 100% Complete
	2035	PM	38	0	0	0	10	0	0	0	52	31	3	20	
	2035	SAT	48	0	0	0	9	0	0	0	44	38	8	50	
	2035	AM	7	0	0	0	2	0	0	0	12	11	4	7	Development "B" 100% Complete
	2035	PM	7	0	0	0	2	0	0	0	10	9	1	5	
	2035	SAT	15	0	0	0	3	0	0	0	15	17	4	23	
	2035	AM	3	0	0	0	1	0	0	0	4	8	3	5	Development "C" 20% Complete
	2035	PM	8	0	0	0	2	0	0	0	11	10	1	7	
	2035	SAT	11	0	0	0	2	0	0	0	10	10	2	13	
	2035	AM	7	0	0	0	2	0	0	0	12	2	1	2	Dev "D" 50% Complete Dev "E" 20% Complete
	2035	PM	3	0	0	0	1	0	0	0	4	11	2	7	
	2035	SAT	1	0	0	0	0	0	0	0	1	1	0	1	
	2035	AM	6	0	0	0	2	0	0	0	8	2	6	12	Dev "F" 100% Complete
	2035	PM	16	0	0	0	4	0	0	0	22	18	2	10	
	2035	SAT	20	0	0	0	4	0	0	0	18	18	4	24	
	2035	AM	135	30	2	0	31	7	9	56	224	203	48	128	Total Background Volumes 2035
	2035	PM	165	55	5	1	56	9	0	50	243	273	19	186	
	2035	SAT	184	56	15	13	51	13	10	56	179	186	30	222	
	2035	AM	35	0	0	0	5	0	0	0	54	43	11	27	Phase 2 Site Gen. Trips (All Comm. & Res. 100%)
	2035	PM	50	0	0	0	19	0	0	0	72	66	2	44	
	2035	SAT	61	0	0	0	19	0	0	0	62	49	7	62	
	2035	AM	170	30	2	0	36	7	9	56	278	246	59	155	Total Volumes 2035 (All Comm. & Res. 100%)
	2035	PM	215	55	5	1	75	9	0	50	315	339	21	230	
	2035	SAT	245	56	15	13	70	13	10	56	241	235	37	284	

Fallis Line / Tapley Quarter Line			Eastbound			Northbound			Westbound			Southbound			Volume Type
			LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT	
April	2025	AM	0	0	0	0	59	1	0	0	66	20	37	0	Registered Volumes
April	2025	PM	0	0	0	0	45	7	4	0	26	63	71	0	
April	2025	SAT	0	0	0	0	48	1	0	0	22	24	40	0	
Annual Growth Rate 0.00%															
	2025	AM	0	0	0	0	59	1	0	0	66	20	37	0	Existing Volumes (Projected)
	2025	PM	0	0	0	0	45	7	4	0	26	63	71	0	
	2025	SAT	0	0	0	0	48	1	0	0	22	24	40	0	
	2027	AM	0	0	0	0	59	1	0	0	66	20	37	0	Background Volumes (Projected)
	2027	PM	0	0	0	0	45	7	4	0	26	63	71	0	
	2027	SAT	0	0	0	0	48	1	0	0	22	24	40	0	
	2027	AM	0	0	0	0	0	0	0	0	12	8	0	0	Development "A" 50% Complete
	2027	PM	0	0	0	0	0	0	0	0	6	9	0	0	
	2027	SAT	0	0	0	0	0	0	0	0	8	9	0	0	
	2027	AM	0	0	0	0	0	0	0	0	3	13	0	0	Development "B" 100% Complete
	2027	PM	0	0	0	0	0	0	0	0	15	6	0	0	
	2027	SAT	0	0	0	0	0	0	0	0	7	11	0	0	
	2027	AM	0	0	0	0	0	0	0	0	7	1	0	0	Development "C" 20% Complete
	2027	PM	0	0	0	0	0	0	0	0	2	7	0	0	
	2027	SAT	0	0	0	0	0	0	0	0	3	3	0	0	
	2027	AM	0	0	0	0	0	0	0	0	0	0	0	0	Dev "D" 0% Complete Dev "E" 0% Complete
	2027	PM	0	0	0	0	0	0	0	0	0	0	0	0	
	2027	SAT	0	0	0	0	0	0	0	0	0	0	0	0	
	2027	AM	0	0	0	0	0	0	0	0	8	2	0	0	Dev "F" 50% Complete
	2027	PM	0	0	0	0	0	0	0	0	2	8	0	0	
	2027	SAT	0	0	0	0	0	0	0	0	4	4	0	0	
	2027	AM	0	0	0	0	59	1	0	0	96	44	37	0	Total Background Volumes 2027
	2027	PM	0	0	0	0	45	7	4	0	51	93	71	0	
	2027	SAT	0	0	0	0	48	1	0	0	44	51	40	0	
	2027	AM	0	0	0	0	0	0	0	0	10	12	0	0	Phase 1 Site Gen. Trips (Shopping Plaza., No Res.)
	2027	PM	0	0	0	0	0	2	0	0	13	28	0	0	
	2027	SAT	0	0	0	0	0	0	0	0	13	19	0	0	
	2027	AM	0	0	0	0	59	1	0	0	106	56	37	0	Total Volumes 2027 (Shopping Plaza., No Res.)
	2027	PM	0	0	0	0	45	9	4	0	64	121	71	0	
	2027	SAT	0	0	0	0	48	1	0	0	57	70	40	0	
Annual Growth Rate 0.00%															
	2030	AM	0	0	0	0	59	1	0	0	66	20	37	0	Background Volumes (Projected)
	2030	PM	0	0	0	0	45	7	4	0	26	63	71	0	
	2030	SAT	0	0	0	0	48	1	0	0	22	24	40	0	
	2030	AM	0	0	0	0	0	0	0	0	12	8	0	0	Development "A" 50% Complete
	2030	PM	0	0	0	0	0	0	0	0	6	9	0	0	
	2030	SAT	0	0	0	0	0	0	0	0	8	9	0	0	
	2030	AM	0	0	0	0	0	0	0	0	3	13	0	0	Development "B" 100% Complete
	2030	PM	0	0	0	0	0	0	0	0	15	6	0	0	
	2030	SAT	0	0	0	0	0	0	0	0	7	11	0	0	
	2030	AM	0	0	0	0	0	0	0	0	7	1	0	0	Development "C" 20% Complete
	2030	PM	0	0	0	0	0	0	0	0	2	7	0	0	
	2030	SAT	0	0	0	0	0	0	0	0	3	3	0	0	
	2030	AM	0	0	0	0	0	0	0	0	0	0	0	0	Dev "D" 0% Complete Dev "E" 0% Complete
	2030	PM	0	0	0	0	0	0	0	0	0	0	0	0	
	2030	SAT	0	0	0	0	0	0	0	0	0	0	0	0	
	2030	AM	0	0	0	0	0	0	0	0	8	2	0	0	Dev "F" 50% Complete
	2030	PM	0	0	0	0	0	0	0	0	2	8	0	0	
	2030	SAT	0	0	0	0	0	0	0	0	4	4	0	0	
	2030	AM	0	0	0	0	59	1	0	0	96	44	37	0	Total Background Volumes 2030
	2030	PM	0	0	0	0	45	7	4	0	51	93	71	0	
	2030	SAT	0	0	0	0	48	1	0	0	44	51	40	0	
	2030	AM	0	0	0	0	0	0	0	0	28	15	0	0	Phase 2 Site Gen. Trips (All Comm. & Res. 100%)
	2030	PM	0	0	0	0	0	2	0	0	17	39	0	0	
	2030	SAT	0	0	0	0	0	0	0	0	17	26	0	0	
	2030	AM	0	0	0	0	59	1	0	0	124	59	37	0	Total Volumes 2030 (All Comm. & Res. 100%)
	2030	PM	0	0	0	0	45	9	4	0	68	132	71	0	
	2030	SAT	0	0	0	0	48	1	0	0	61	77	40	0	
Annual Growth Rate 0.00%															
	2035	AM	0	0	0	0	59	1	0	0	66	20	37	0	Background Volumes (Projected)
	2035	PM	0	0	0	0	45	7	4	0	26	63	71	0	
	2035	SAT	0	0	0	0	48	1	0	0	22	24	40	0	
	2035	AM	0	0	0	0	0	0	0	0	25	16	0	0	Development "A" 100% Complete
	2035	PM	0	0	0	0	0	0	0	0	12	19	0	0	
	2035	SAT	0	0	0	0	0	0	0	0	17	18	0	0	
	2035	AM	0	0	0	0	0	0	0	0	3	13	0	0	Development "B" 100% Complete
	2035	PM	0	0	0	0	0	0	0	0	15	6	0	0	
	2035	SAT	0	0	0	0	0	0	0	0	7	11	0	0	
	2035	AM	0	0	0	0	0	0	0	0	7	1	0	0	Development "C" 20% Complete
	2035	PM	0	0	0	0	0	0	0	0	2	7	0	0	
	2035	SAT	0	0	0	0	0	0	0	0	3	3	0	0	
	2035	AM	0	0	0	0	0	0	0	0	0	0	0	0	Dev "D" 50% Complete Dev "E" 20% Complete
	2035	PM	0	0	0	0	0	0	0	0	0	0	0	0	
	2035	SAT	0	0	0	0	0	0	0	0	0	0	0	0	
	2035	AM	0	0	0	0	0	0	0	0	12	2	0	0	Dev "F" 100% Complete
	2035	PM	0	0	0	0	0	0	0	0	4	12	0	0	
	2035	SAT	0	0	0	0	0	0	0	0	4	6	0	0	
	2035	AM	0	0	0	0	59	1	0	0	113	52	37	0	Total Background Volumes 2035
	2035	PM	0	0	0	0	45	7	4	0	59	107	71	0	
	2035	SAT	0	0	0	0	48	1	0	0	53	62	40	0	
	2035	AM	0	0	0	0	0	0	0	0	22	13	0	0	Phase 2 Site Gen. Trips (All Comm. & Res. 100%)
	2035	PM	0	0	0	0	0	1	0	0	14	30	0	0	
	2035	SAT	0	0	0	0	0	0	0	0	13	21	0	0	
	2035	AM	0	0	0	0	59	1	0	0	135	65	37	0	Total Volumes 2035 (All Comm. & Res. 100%)
	2035	PM	0	0	0	0	45	8	4	0	73	137	71	0	
	2035	SAT	0	0	0	0	48	1	0	0	66	83	40	0	

CR10 / Centennial Ln			Eastbound			Northbound			Westbound			Southbound			Volume Type
			LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT	
Nov.	2023	AM	26	2	19	15	258	9	11	2	22	22	232	28	Registered Volumes
Nov.	2023	PM	17	0	11	7	274	18	6	0	15	15	309	11	
Nov.	2023	SAT	2	0	1	0	196	10	11	0	11	12	207	2	
Annual Growth Rate 2.00% (CR10 thru only)															
	2025	AM	26	2	19	15	258	9	11	2	22	22	232	28	Existing Volumes (Projected)
	2025	PM	17	0	11	7	274	18	6	0	15	15	309	11	
	2025	SAT	2	0	1	0	196	10	11	0	11	12	207	2	
	2027	AM	26	2	19	15	268	9	11	2	22	22	241	28	Background Volumes (Projected)
	2027	PM	17	0	11	7	285	18	6	0	15	15	321	11	
	2027	SAT	2	0	1	0	204	10	11	0	11	12	215	2	
	2027	AM	0	0	0	0	41	0	0	0	5	8	58	0	Development "A" 50% Complete
	2027	PM	0	0	0	0	50	0	0	0	3	1	27	0	
	2027	SAT	0	0	0	0	50	0	0	0	3	3	48	0	
	2027	AM	0	0	0	0	21	0	0	0	3	3	22	0	Development "B" 100% Complete
	2027	PM	0	0	0	0	19	0	0	0	1	1	15	0	
	2027	SAT	0	0	0	0	33	0	0	0	1	3	44	0	
	2027	AM	0	0	0	0	7	0	0	0	1	2	15	0	Development "C" 20% Complete
	2027	PM	0	0	0	0	20	0	0	0	2	1	17	0	
	2027	SAT	0	0	0	0	22	0	0	0	1	2	24	0	
	2027	AM	0	0	0	0	0	0	0	0	0	0	0	0	Dev "D" 0% Complete Dev "E" 0% Complete
	2027	PM	0	0	0	0	0	0	0	0	0	0	0	0	
	2027	SAT	0	0	0	0	0	0	0	0	0	0	0	0	
	2027	AM	0	0	0	0	5	5	13	0	25	8	13	0	Dev "F" 50% Complete
	2027	PM	0	0	0	0	13	13	9	0	12	27	9	0	
	2027	SAT	0	0	0	0	14	14	15	0	19	23	15	0	
	2027	AM	26	2	19	15	342	14	24	2	56	43	349	28	Total Background Volumes 2027
	2027	PM	17	0	11	7	387	31	15	0	33	45	389	11	
	2027	SAT	2	0	1	0	323	24	26	0	35	43	346	2	
	2027	AM	0	0	0	0	69	0	0	0	20	6	33	0	Phase 1 Site Gen. Trips (Shopping Plaza., No Res.)
	2027	PM	0	0	0	0	101	0	0	0	14	19	86	0	
	2027	SAT	0	0	0	0	117	0	0	0	22	19	92	0	
	2027	AM	26	2	19	15	411	14	24	2	76	49	382	28	Total Volumes 2027 (Shopping Plaza., No Res.)
	2027	PM	17	0	11	7	488	31	15	0	47	64	475	11	
	2027	SAT	2	0	1	0	440	24	26	0	57	62	438	2	
Annual Growth Rate 2.00% (CR10 thru only)															
	2030	AM	26	2	19	15	285	9	11	2	22	22	256	28	Background Volumes (Projected)
	2030	PM	17	0	11	7	303	18	6	0	15	15	341	11	
	2030	SAT	2	0	1	0	216	10	11	0	11	12	229	2	
	2030	AM	0	0	0	0	41	0	0	0	5	8	58	0	Development "A" 50% Complete
	2030	PM	0	0	0	0	50	0	0	0	3	1	27	0	
	2030	SAT	0	0	0	0	50	0	0	0	3	3	48	0	
	2030	AM	0	0	0	0	21	0	0	0	3	3	22	0	Development "B" 100% Complete
	2030	PM	0	0	0	0	19	0	0	0	1	1	15	0	
	2030	SAT	0	0	0	0	33	0	0	0	1	3	44	0	
	2030	AM	0	0	0	0	7	0	0	0	1	2	15	0	Development "C" 20% Complete
	2030	PM	0	0	0	0	20	0	0	0	2	1	17	0	
	2030	SAT	0	0	0	0	22	0	0	0	1	2	24	0	
	2030	AM	0	0	0	0	0	0	0	0	0	0	0	0	Dev "D" 0% Complete Dev "E" 0% Complete
	2030	PM	0	0	0	0	0	0	0	0	0	0	0	0	
	2030	SAT	0	0	0	0	0	0	0	0	0	0	0	0	
	2030	AM	0	0	0	0	5	5	13	0	25	8	13	0	Dev "F" 50% Complete
	2030	PM	0	0	0	0	13	13	9	0	12	27	9	0	
	2030	SAT	0	0	0	0	14	14	15	0	19	23	15	0	
	2030	AM	26	2	19	15	359	14	24	2	56	43	364	28	Total Background Volumes 2030
	2030	PM	17	0	11	7	405	31	15	0	33	45	409	11	
	2030	SAT	2	0	1	0	335	24	26	0	35	43	360	2	
	2030	AM	0	0	0	0	104	0	0	0	31	16	92	0	Phase 2 Site Gen. Trips (All Comm. & Res. 100%)
	2030	PM	0	0	0	0	152	0	0	0	21	27	129	0	
	2030	SAT	0	0	0	0	160	0	0	0	29	25	129	0	
	2030	AM	26	2	19	15	463	14	24	2	87	59	456	28	Total Volumes 2030 (All Comm. & Res. 100%)
	2030	PM	17	0	11	7	557	31	15	0	54	72	538	11	
	2030	SAT	2	0	1	0	495	24	26	0	64	68	489	2	
Annual Growth Rate 2.00% (CR10 thru only)															
	2035	AM	26	2	19	15	315	9	11	2	22	22	283	28	Background Volumes (Projected)
	2035	PM	17	0	11	7	334	18	6	0	15	15	377	11	
	2035	SAT	2	0	1	0	239	10	11	0	11	12	252	2	
	2035	AM	0	0	0	0	82	0	0	0	10	17	116	0	Development "A" 100% Complete
	2035	PM	0	0	0	0	100	0	0	0	7	3	54	0	
	2035	SAT	0	0	0	0	101	0	0	0	6	6	96	0	
	2035	AM	0	0	0	0	21	0	0	0	3	3	22	0	Development "B" 100% Complete
	2035	PM	0	0	0	0	19	0	0	0	1	1	15	0	
	2035	SAT	0	0	0	0	33	0	0	0	1	3	44	0	
	2035	AM	0	0	0	0	7	0	0	0	1	2	15	0	Development "C" 20% Complete
	2035	PM	0	0	0	0	20	0	0	0	2	1	17	0	
	2035	SAT	0	0	0	0	22	0	0	0	1	2	24	0	
	2035	AM	0	0	0	0	21	0	0	0	3	1	4	0	Dev "D" 50% Complete Dev "E" 20% Complete
	2035	PM	0	0	0	0	7	0	0	0	1	1	19	0	
	2035	SAT	0	0	0	0	2	0	0	0	0	0	1	0	
	2035	AM	0	0	0	0	8	8	19	0	37	12	19	0	Dev "F" 100% Complete
	2035	PM	0	0	0	0	21	21	15	0	21	42	15	0	
	2035	SAT	0	0	0	0	21	21	23	0	27	33	23	0	
	2035	AM	26	2	19	15	454	17	30	2	76	57	459	28	Total Background Volumes 2035
	2035	PM	17	0	11	7	501	39	21	0	47	63	497	11	
	2035	SAT	2	0	1	0	418	31	34	0	46	56	440	2	
	2035	AM	0	0	0	0	94	0	0	0	28	15	81	0	Phase 2 Site Gen. Trips (All Comm. & Res. 100%)
	2035	PM	0	0	0	0	141	0	0	0	21	26	112	0	
	2035	SAT	0	0	0	0	142	0	0	0	28	24	119	0	
	2035	AM	26	2	19	15	548	17	30	2	104	72	540	28	Total Volumes 2035 (All Comm. & Res. 100%)
	2035	PM	17	0	11	7	642	39	21	0	68	89	609	11	
	2035	SAT	2	0	1	0	560	31	34	0	74	80	559	2	

Fallis Ln / Driveway F			Eastbound			Northbound			Westbound			Southbound			Volume Type
			LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT	
Annual Growth Rate 0.00%															
	2027	AM	0	10	4	0	0	0	0	40	0	0	0	0	Dev "F" 50% Complete (Background Volumes)
	2027	PM	0	29	12	0	0	0	0	24	0	0	0	0	
	2027	SAT	0	27	11	0	0	0	0	36	0	0	0	0	
	2027	AM	64	1	0	0	0	0	0	6	4	1	0	50	Phase 1 Site Gen. Trips (Shopping Plaza., No Res.)
	2027	PM	66	4	0	0	0	0	0	5	3	5	0	93	
	2027	SAT	73	4	0	0	0	0	0	8	5	6	0	97	
	2027	AM	55	0	0	0	0	0	0	0	0	0	0	46	Phase 1 Pass-by Trips (Shopping Plaza)
	2027	PM	60	0	0	0	0	0	0	0	0	0	0	70	
	2027	SAT	54	0	0	0	0	0	0	0	0	0	0	59	
	2027	AM	0	0	0	0	0	0	0	0	5	0	0	0	Phase 1 Internal Trips with Dev "F" 50%
	2027	PM	0	0	0	0	0	0	0	0	7	10	0	0	
	2027	SAT	0	0	0	0	0	0	0	0	9	10	0	0	
	2027	AM	119	11	4	0	0	0	0	46	9	1	0	96	Total Volumes 2027 (Shopping Plaza., No Res.)
	2027	PM	126	33	12	0	0	0	0	29	10	15	0	163	
	2027	SAT	127	31	11	0	0	0	0	44	14	16	0	156	
Annual Growth Rate 0.00%															
	2030	AM	0	10	4	0	0	0	0	40	0	0	0	0	Dev "F" 50% Complete (Background Volumes)
	2030	PM	0	29	12	0	0	0	0	24	0	0	0	0	
	2030	SAT	0	27	11	0	0	0	0	36	0	0	0	0	
	2030	AM	56	10	0	0	0	0	0	30	4	1	0	48	Phase 2 Site Gen. Trips (All Comm. & Res. 100%)
	2030	PM	61	26	0	0	0	0	0	18	2	4	0	84	
	2030	SAT	70	24	0	0	0	0	0	27	5	5	0	90	
	2030	AM	50	0	0	0	0	0	0	0	0	0	0	43	Phase 2 Pass-by Trips (Shopping Plaza)
	2030	PM	55	0	0	0	0	0	0	0	0	0	0	63	
	2030	SAT	50	0	0	0	0	0	0	0	0	0	0	55	
	2030	AM	0	0	0	0	0	0	0	0	5	0	0	0	Phase 2 Internal Trips with Dev "F" 50%
	2030	PM	0	0	0	0	0	0	0	0	7	11	0	0	
	2030	SAT	0	0	0	0	0	0	0	0	9	10	0	0	
	2030	AM	106	20	4	0	0	0	0	70	9	1	0	91	Total Volumes 2030 (All Comm. & Res. 100%)
	2030	PM	116	55	12	0	0	0	0	42	9	15	0	147	
	2030	SAT	120	51	11	0	0	0	0	63	14	15	0	145	
Annual Growth Rate 0.00%															
	2035	AM	0	14	6	0	0	0	0	61	0	0	0	0	Dev "F" 100% Complete (Background Volumes)
	2035	PM	0	45	19	0	0	0	0	35	0	0	0	0	
	2035	SAT	0	39	17	0	0	0	0	50	0	0	0	0	
	2035	AM	56	9	0	0	0	0	0	31	4	1	0	44	Phase 2 Site Gen. Trips (All Comm. & Res. 100%)
	2035	PM	56	29	0	0	0	0	0	16	2	5	0	78	
	2035	SAT	68	27	0	0	0	0	0	27	5	5	0	84	
	2035	AM	50	0	0	0	0	0	0	0	0	0	0	43	Phase 2 Pass-by Trips (Shopping Plaza)
	2035	PM	55	0	0	0	0	0	0	0	0	0	0	63	
	2035	SAT	50	0	0	0	0	0	0	0	0	0	0	55	
	2035	AM	0	0	0	0	0	0	0	0	8	0	0	0	Phase 2 Internal Trips with Dev "F" 100%
	2035	PM	0	0	0	0	0	0	0	0	11	17	0	0	
	2035	SAT	0	0	0	0	0	0	0	0	16	15	0	0	
	2035	AM	106	23	6	0	0	0	0	92	12	1	0	87	Total Volumes 2035 (All Comm. & Res. 100%)
	2035	PM	111	74	19	0	0	0	0	51	13	22	0	141	
	2035	SAT	118	66	17	0	0	0	0	77	21	20	0	139	

Fallis Ln / Street B			Eastbound			Northbound			Westbound			Southbound			Volume Type
			LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT	
Annual Growth Rate 0.00%															
	2027	AM	0	1	8	36	0	0	0	4	0	0	0	0	Dev "F" 50% Complete (Background Volumes)
	2027	PM	0	4	25	22	0	0	0	2	0	0	0	0	
	2027	SAT	0	4	23	32	0	0	0	4	0	0	0	0	
	2027	AM	0	0	2	10	0	0	0	0	0	0	0	0	Phase 1 Site Gen. Trips (Shopping Plaza., No Res.)
	2027	PM	0	0	9	8	0	0	0	0	0	0	0	0	
	2027	SAT	0	0	10	13	0	0	0	0	0	0	0	0	
	2027	AM	0	0	0	5	0	0	0	0	0	0	0	0	Phase 1 Internal Trips with Dev "F" 50%
	2027	PM	0	0	10	7	3	0	0	0	0	0	6	0	
	2027	SAT	0	0	10	9	5	0	0	0	0	0	5	0	
	2027	AM	0	1	10	51	0	0	0	4	0	0	0	0	Total Volumes 2027 (Shopping Plaza., No Res.)
	2027	PM	0	4	44	37	3	0	0	2	0	0	6	0	
	2027	SAT	0	4	43	54	5	0	0	4	0	0	5	0	
Annual Growth Rate 0.00%															
	2030	AM	0	1	8	36	0	0	0	4	0	0	0	0	Dev "F" 50% Complete (Background Volumes)
	2030	PM	0	4	25	22	0	0	0	2	0	0	0	0	
	2030	SAT	0	4	23	32	0	0	0	4	0	0	0	0	
	2030	AM	7	0	4	14	0	0	0	0	0	0	0	20	Phase 2 Site Gen. Trips (All Comm. & Res. 100%)
	2030	PM	19	0	11	9	0	0	0	0	0	0	0	11	
	2030	SAT	16	0	13	54	1	0	0	0	0	0	0	14	
	2030	AM	0	0	0	5	0	0	0	0	0	0	0	0	Phase 2 Internal Trips with Dev "F" 50%
	2030	PM	0	0	11	7	3	0	0	0	0	0	6	0	
	2030	SAT	0	0	10	9	5	0	0	0	0	0	5	0	
	2030	AM	7	1	12	55	0	0	0	4	0	0	0	20	Total Volumes 2030 (All Comm. & Res. 100%)
	2030	PM	19	4	47	38	3	0	0	2	0	0	6	11	
	2030	SAT	16	4	46	95	6	0	0	4	0	0	5	14	
Annual Growth Rate 0.00%															
	2035	AM	0	2	12	55	0	0	0	6	0	0	0	0	Dev "F" 100% Complete (Background Volumes)
	2035	PM	0	7	38	32	0	0	0	3	0	0	0	0	
	2035	SAT	0	5	34	45	0	0	0	5	0	0	0	0	
	2035	AM	6	0	4	14	0	0	0	0	0	0	0	21	Phase 2 Site Gen. Trips (All Comm. & Res. 100%)
	2035	PM	19	0	15	9	0	0	0	0	0	0	0	9	
	2035	SAT	17	0	15	18	1	0	0	0	0	0	1	14	
	2035	AM	0	0	0	8	0	0	0	0	0	0	0	0	Phase 2 Internal Trips with Dev "F" 100%
	2035	PM	0	0	17	11	4	0	0	0	0	0	9	0	
	2035	SAT	0	0	15	16	7	0	0	0	0	0	8	0	
	2035	AM	6	2	16	77	0	0	0	6	0	0	0	21	Total Volumes 2035 (All Comm. & Res. 100%)
	2035	PM	19	7	70	52	4	0	0	3	0	0	9	9	
	2035	SAT	17	5	64	79	8	0	0	5	0	0	9	14	

Highland Blvd / Driveway B / Driveway C			Eastbound			Northbound			Westbound			Southbound			Volume Type
			LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT	
Annual Growth Rate 0.00%															
	2027	AM	0	0	38	21	0	0	0	0	0	0	0	0	Phase 1 Site Gen. Trips (Shopping Plaza., No Res.)
	2027	PM	0	0	64	62	0	0	0	0	0	0	0	0	
	2027	SAT	0	0	75	64	0	0	0	0	0	0	0	0	
	2027	AM	0	0	7	5	0	0	0	0	0	0	0	0	Phase 1 Pass-by Trips (Shopping Plaza)
	2027	PM	0	0	35	30	0	0	0	0	0	0	0	0	
	2027	SAT	0	0	26	23	0	0	0	0	0	0	0	0	
	2027	AM	0	0	45	26	0	0	0	0	0	0	0	0	Total Volumes 2027 (Shopping Plaza., No Res.)
	2027	PM	0	0	99	92	0	0	0	0	0	0	0	0	
	2027	SAT	0	0	101	87	0	0	0	0	0	0	0	0	
Annual Growth Rate 0.00%															
	2030	AM	37	15	38	21	0	0	0	47	0	0	0	0	Phase 2 Site Gen. Trips (All Comm. & Res. 100%)
	2030	PM	2	42	61	57	0	0	0	26	0	0	0	40	
	2030	SAT	1	40	73	62	0	0	0	35	0	0	0	5	
	2030	AM	0	0	6	4	0	0	0	0	0	0	0	0	Phase 2 Pass-by Trips (Shopping Plaza)
	2030	PM	0	0	31	27	0	0	0	0	0	0	0	0	
	2030	SAT	0	0	24	22	0	0	0	0	0	0	0	0	
	2030	AM	0	0	0	0	14	0	5	0	0	0	10	0	Phase 2 Internal Trips (All Comm. & Res. 100%)
	2030	PM	0	0	0	0	8	16	10	0	1	0	18	0	
	2030	SAT	0	0	0	0	7	12	11	0	1	0	2	0	
	2030	AM	37	15	44	25	14	0	5	47	0	0	10	0	Total Volumes 2030 (All Comm. & Res. 100%)
	2030	PM	2	42	92	84	8	16	10	26	1	0	18	40	
	2030	SAT	1	40	97	84	7	12	11	35	1	0	2	5	
Annual Growth Rate 0.00%															
	2035	AM	37	14	39	22	0	0	0	47	0	0	0	0	Phase 2 Site Gen. Trips (All Comm. & Res. 100%)
	2035	PM	2	42	64	58	0	0	0	25	0	0	0	40	
	2035	SAT	1	39	76	64	0	0	0	37	0	0	0	6	
	2035	AM	0	0	6	4	0	0	0	0	0	0	0	0	Phase 2 Pass-by Trips (Shopping Plaza)
	2035	PM	0	0	31	27	0	0	0	0	0	0	0	0	
	2035	SAT	0	0	24	22	0	0	0	0	0	0	0	0	
	2035	AM	0	0	0	0	14	0	5	0	0	0	10	0	Phase 2 Internal Trips (All Comm. & Res. 100%)
	2035	PM	0	0	0	0	8	16	10	0	1	0	18	0	
	2035	SAT	0	0	0	0	7	12	11	0	1	0	2	0	
	2035	AM	37	14	45	26	14	0	5	47	0	0	10	0	Total Volumes 2035 (All Comm. & Res. 100%)
	2035	PM	2	42	95	85	8	16	10	25	1	0	18	40	
	2035	SAT	1	39	100	86	7	12	11	37	1	0	2	6	

CR10 / Highland Blvd			Eastbound			Northbound			Westbound			Southbound			Volume Type
			LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT	
Annual Growth Rate 0.00%															
	2027	AM	84	0	13	4	435	0	0	0	0	0	332	27	Total Background Volumes 2027
	2027	PM	54	0	8	14	398	0	0	0	0	0	472	90	
	2027	SAT	80	0	12	13	353	0	0	0	0	0	372	86	
	2027	AM	0	8	11	4	64	0	1	1	19	30	39	0	Phase 1 Site Gen. Trips (Shopping Plaza., No Res.)
	2027	PM	0	6	7	24	111	0	8	9	45	58	65	0	
	2027	SAT	0	12	13	26	116	0	8	10	46	63	70	0	
	2027	AM	0	0	0	0	0	0	0	0	5	7	-7	0	Phase 1 Pass-by Trips (Shopping Plaza)
	2027	PM	0	0	0	0	0	0	4	0	26	35	-35	0	
	2027	SAT	0	0	0	0	0	0	3	0	20	26	-26	0	
	2027	AM	84	8	24	8	510	0	1	1	24	37	377	27	Total Volumes 2027 (Shopping Plaza., No Res.)
	2027	PM	54	6	15	38	507	0	12	9	71	93	539	90	
	2027	SAT	80	12	25	39	470	0	11	10	66	89	444	86	
Annual Growth Rate 0.00%															
	2030	AM	84	0	13	4	446	0	0	0	0	0	344	27	Total Background Volumes 2030
	2030	PM	54	0	8	14	396	0	0	0	0	0	490	90	
	2030	SAT	80	0	12	13	364	0	0	0	0	0	383	86	
	2030	AM	8	12	11	5	125	35	25	3	40	43	74	5	Phase 2 Site Gen. Trips (All Comm. & Res. 100%)
	2030	PM	7	8	8	23	180	27	45	13	65	70	143	9	
	2030	SAT	8	15	14	26	154	34	32	13	57	66	143	8	
	2030	AM	0	0	0	0	0	0	0	0	4	6	-6	0	Phase 2 Pass-by Trips (Shopping Plaza)
	2030	PM	0	0	0	0	0	0	4	0	23	31	-31	0	
	2030	SAT	0	0	0	0	0	0	3	0	19	24	-24	0	
	2030	AM	92	12	24	9	571	35	25	3	44	49	412	32	Total Volumes 2030 (All Comm. & Res. 100%)
	2030	PM	61	8	16	37	576	27	49	13	88	101	602	99	
	2030	SAT	88	15	26	39	518	34	35	13	76	90	502	94	
Annual Growth Rate 0.00%															
	2035	AM	169	0	26	9	576	0	0	0	0	0	403	55	Total Background Volumes 2035
	2035	PM	108	0	16	28	488	0	0	0	0	0	612	181	
	2035	SAT	160	0	25	26	428	0	0	0	0	0	450	172	
	2035	AM	9	16	14	7	114	25	22	4	43	49	109	5	Phase 2 Site Gen. Trips (All Comm. & Res. 100%)
	2035	PM	10	11	10	31	162	18	41	20	62	79	110	10	
	2035	SAT	10	21	21	36	154	21	30	19	58	74	118	10	
	2035	AM	0	0	0	0	0	0	0	0	4	6	-6	0	Phase 2 Pass-by Trips (Shopping Plaza)
	2035	PM	0	0	0	0	0	0	4	0	23	31	-31	0	
	2035	SAT	0	0	0	0	0	0	3	0	19	24	-24	0	
	2035	AM	178	16	40	16	702	25	22	4	47	55	518	60	Total Volumes 2035 (All Comm. & Res. 100%)
	2035	PM	118	11	26	59	650	18	45	20	85	110	720	191	
	2035	SAT	170	21	46	62	581	21	33	19	77	98	571	182	

Appendix C

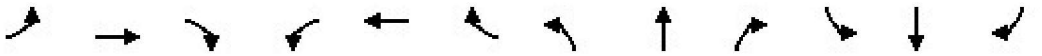
Synchro Reports,

Existing Volumes, 2025

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	13	3	21	12	5	4	7	271	8	3	190	3
Future Volume (Veh/h)	13	3	21	12	5	4	7	271	8	3	190	3
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Hourly flow rate (vph)	15	3	24	14	6	5	8	308	9	3	216	3
Pedestrians												
Lane Width (m)												
Walking Speed (m/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (m)												
pX, platoon unblocked												
vC, conflicting volume	560	556	218	578	554	312	219			317		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	560	556	218	578	554	312	219			317		
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	4.1			4.4		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.5		
p0 queue free %	97	99	97	97	99	99	99			100		
cM capacity (veh/h)	432	438	815	413	440	732	1362			1087		

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	42	25	325	222
Volume Left	15	14	8	3
Volume Right	24	5	9	3
cSH	591	460	1362	1087
Volume to Capacity	0.07	0.05	0.01	0.00
Queue Length 95th (m)	1.7	1.3	0.1	0.1
Control Delay (s)	11.6	13.3	0.2	0.1
Lane LOS	B	B	A	A
Approach Delay (s)	11.6	13.3	0.2	0.1
Approach LOS	B	B		

Intersection Summary				
Average Delay	1.5			
Intersection Capacity Utilization	28.7%	ICU Level of Service	A	
Analysis Period (min)	15			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	50	0	93	0	0	0	71	235	0	0	189	12
Future Volume (Veh/h)	50	0	93	0	0	0	71	235	0	0	189	12
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77
Hourly flow rate (vph)	65	0	121	0	0	0	92	305	0	0	245	16
Pedestrians												
Lane Width (m)												
Walking Speed (m/s)												
Percent Blockage												
Right turn flare (veh)			4									
Median type								None			None	
Median storage veh)												
Upstream signal (m)												
pX, platoon unblocked												
vC, conflicting volume	734	734	245	794	750	305	261			305		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	734	734	245	794	750	305	261			305		
tC, single (s)	7.2	6.5	6.2	7.1	6.5	6.2	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.6	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	79	100	85	100	100	100	93			100		
cM capacity (veh/h)	313	325	791	247	318	740	1309			1267		

Direction, Lane #	EB 1	WB 1	NB 1	NB 2	SB 1	SB 2
Volume Total	186	0	92	305	245	16
Volume Left	65	0	92	0	0	0
Volume Right	121	0	0	0	0	16
cSH	896	1700	1309	1700	1267	1700
Volume to Capacity	0.21	0.00	0.07	0.18	0.00	0.01
Queue Length 95th (m)	5.9	0.0	1.7	0.0	0.0	0.0
Control Delay (s)	13.6	0.0	8.0	0.0	0.0	0.0
Lane LOS	B	A	A			
Approach Delay (s)	13.6	0.0	1.8		0.0	
Approach LOS	B	A				

Intersection Summary				
Average Delay	3.9			
Intersection Capacity Utilization	35.6%	ICU Level of Service		A
Analysis Period (min)	15			



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	4	3	1	285	198	19
Future Volume (Veh/h)	4	3	1	285	198	19
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.43	0.43	0.43	0.43	0.43	0.43
Hourly flow rate (vph)	9	7	2	663	460	44
Pedestrians						
Lane Width (m)						
Walking Speed (m/s)						
Percent Blockage						
Right turn flare (veh)						
Median type				None	None	
Median storage veh)						
Upstream signal (m)						
pX, platoon unblocked						
vC, conflicting volume	1149	482	504			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	1149	482	504			
tC, single (s)	6.4	6.2	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	96	99	100			
cM capacity (veh/h)	221	588	1071			

Direction, Lane #	EB 1	EB 2	NB 1	NB 2	SB 1
Volume Total	9	7	2	663	504
Volume Left	9	0	2	0	0
Volume Right	0	7	0	0	44
cSH	221	588	1071	1700	1700
Volume to Capacity	0.04	0.01	0.00	0.39	0.30
Queue Length 95th (m)	1.0	0.3	0.0	0.0	0.0
Control Delay (s)	22.0	11.2	8.4	0.0	0.0
Lane LOS	C	B	A		
Approach Delay (s)	17.3		0.0		0.0
Approach LOS	C				

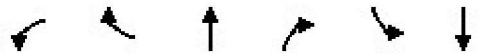
Intersection Summary			
Average Delay	0.2		
Intersection Capacity Utilization	25.0%	ICU Level of Service	A
Analysis Period (min)	15		



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Stop			Stop	
Traffic Volume (vph)	69	25	2	7	46	116	1	14	6	98	15	52
Future Volume (vph)	69	25	2	7	46	116	1	14	6	98	15	52
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85
Hourly flow rate (vph)	81	29	2	8	54	136	1	16	7	115	18	61

Direction, Lane #	EB 1	WB 1	NB 1	SB 1	SB 2
Volume Total (vph)	112	198	24	115	79
Volume Left (vph)	81	8	1	115	0
Volume Right (vph)	2	136	7	0	61
Hadj (s)	0.22	-0.30	-0.09	0.58	-0.51
Departure Headway (s)	4.9	4.3	4.9	5.8	4.7
Degree Utilization, x	0.15	0.24	0.03	0.19	0.10
Capacity (veh/h)	689	791	672	583	716
Control Delay (s)	8.8	8.6	8.1	9.0	7.1
Approach Delay (s)	8.8	8.6	8.1	8.2	
Approach LOS	A	A	A	A	

Intersection Summary				
Delay	8.5			
Level of Service	A			
Intersection Capacity Utilization	37.3%	ICU Level of Service	A	
Analysis Period (min)	15			



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	1	66	59	1	20	37
Future Volume (Veh/h)	1	66	59	1	20	37
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Peak Hour Factor	0.80	0.80	0.80	0.80	0.80	0.80
Hourly flow rate (vph)	1	82	74	1	25	46
Pedestrians						
Lane Width (m)						
Walking Speed (m/s)						
Percent Blockage						
Right turn flare (veh)						
Median type			None			None
Median storage veh)						
Upstream signal (m)						
pX, platoon unblocked						
vC, conflicting volume	170	74			75	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	170	74			75	
tC, single (s)	6.4	6.2			4.2	
tC, 2 stage (s)						
tF (s)	3.5	3.3			2.3	
p0 queue free %	100	92			98	
cM capacity (veh/h)	810	979			1446	

Direction, Lane #	WB 1	NB 1	SB 1
Volume Total	83	75	71
Volume Left	1	0	25
Volume Right	82	1	0
cSH	976	1700	1446
Volume to Capacity	0.09	0.04	0.02
Queue Length 95th (m)	2.1	0.0	0.4
Control Delay (s)	9.0	0.0	2.7
Lane LOS	A		A
Approach Delay (s)	9.0	0.0	2.7
Approach LOS	A		

Intersection Summary			
Average Delay	4.1		
Intersection Capacity Utilization	20.5%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	8	6	10	5	2	7	20	266	13	15	301	15
Future Volume (Veh/h)	8	6	10	5	2	7	20	266	13	15	301	15
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Hourly flow rate (vph)	9	7	11	5	2	8	22	292	14	16	331	16
Pedestrians												
Lane Width (m)												
Walking Speed (m/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (m)												
pX, platoon unblocked												
vC, conflicting volume	723	721	339	728	722	299	347			306		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	723	721	339	728	722	299	347			306		
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.3	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.4	2.2			2.2		
p0 queue free %	97	98	98	98	99	99	98			99		
cM capacity (veh/h)	331	345	708	323	345	713	1223			1266		

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	27	15	328	363
Volume Left	9	5	22	16
Volume Right	11	8	14	16
cSH	428	462	1223	1266
Volume to Capacity	0.06	0.03	0.02	0.01
Queue Length 95th (m)	1.5	0.8	0.4	0.3
Control Delay (s)	14.0	13.1	0.7	0.5
Lane LOS	B	B	A	A
Approach Delay (s)	14.0	13.1	0.7	0.5
Approach LOS	B	B		

Intersection Summary				
Average Delay	1.3			
Intersection Capacity Utilization	32.1%	ICU Level of Service	A	
Analysis Period (min)	15			

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	31	0	53	0	0	0	62	244	0	0	282	31
Future Volume (Veh/h)	31	0	53	0	0	0	62	244	0	0	282	31
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	34	0	58	0	0	0	67	265	0	0	307	34
Pedestrians												
Lane Width (m)												
Walking Speed (m/s)												
Percent Blockage												
Right turn flare (veh)			4									
Median type								None			None	
Median storage veh)												
Upstream signal (m)												
pX, platoon unblocked												
vC, conflicting volume	706	706	307	735	740	265	341			265		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	706	706	307	735	740	265	341			265		
tC, single (s)	7.2	6.5	6.2	7.1	6.5	6.2	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.6	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	90	100	92	100	100	100	94			100		
cM capacity (veh/h)	330	343	738	298	328	779	1218			1311		

Direction, Lane #	EB 1	WB 1	NB 1	NB 2	SB 1	SB 2
Volume Total	92	0	67	265	307	34
Volume Left	34	0	67	0	0	0
Volume Right	58	0	0	0	0	34
cSH	892	1700	1218	1700	1311	1700
Volume to Capacity	0.10	0.00	0.06	0.16	0.00	0.02
Queue Length 95th (m)	2.6	0.0	1.3	0.0	0.0	0.0
Control Delay (s)	12.8	0.0	8.1	0.0	0.0	0.0
Lane LOS	B	A	A			
Approach Delay (s)	12.8	0.0	1.6		0.0	
Approach LOS	B	A				

Intersection Summary				
Average Delay	2.3			
Intersection Capacity Utilization	41.0%	ICU Level of Service		A
Analysis Period (min)	15			



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	17	14	1	275	299	22
Future Volume (Veh/h)	17	14	1	275	299	22
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.66	0.66	0.66	0.66	0.66	0.66
Hourly flow rate (vph)	26	21	2	417	453	33
Pedestrians						
Lane Width (m)						
Walking Speed (m/s)						
Percent Blockage						
Right turn flare (veh)						
Median type				None	None	
Median storage veh)						
Upstream signal (m)						
pX, platoon unblocked						
vC, conflicting volume	890	470	486			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	890	470	486			
tC, single (s)	6.4	6.2	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	92	96	100			
cM capacity (veh/h)	315	598	1087			

Direction, Lane #	EB 1	EB 2	NB 1	NB 2	SB 1
Volume Total	26	21	2	417	486
Volume Left	26	0	2	0	0
Volume Right	0	21	0	0	33
cSH	315	598	1087	1700	1700
Volume to Capacity	0.08	0.04	0.00	0.25	0.29
Queue Length 95th (m)	2.0	0.8	0.0	0.0	0.0
Control Delay (s)	17.5	11.2	8.3	0.0	0.0
Lane LOS	C	B	A		
Approach Delay (s)	14.7		0.0		0.0
Approach LOS	B				

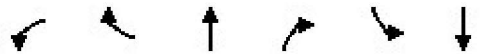
Intersection Summary			
Average Delay	0.7		
Intersection Capacity Utilization	27.1%	ICU Level of Service	A
Analysis Period (min)	15		



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Stop			Stop	
Traffic Volume (vph)	76	45	4	0	41	118	1	30	7	159	8	112
Future Volume (vph)	76	45	4	0	41	118	1	30	7	159	8	112
Peak Hour Factor	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83
Hourly flow rate (vph)	92	54	5	0	49	142	1	36	8	192	10	135

Direction, Lane #	EB 1	WB 1	NB 1	SB 1	SB 2
Volume Total (vph)	151	191	45	192	145
Volume Left (vph)	92	0	1	192	0
Volume Right (vph)	5	142	8	0	135
Hadj (s)	0.12	-0.41	-0.10	0.52	-0.65
Departure Headway (s)	5.2	4.7	5.2	5.9	4.8
Degree Utilization, x	0.22	0.25	0.07	0.32	0.19
Capacity (veh/h)	641	719	623	577	717
Control Delay (s)	9.7	9.2	8.6	10.5	7.7
Approach Delay (s)	9.7	9.2	8.6	9.3	
Approach LOS	A	A	A	A	

Intersection Summary				
Delay	9.3			
Level of Service	A			
Intersection Capacity Utilization	41.7%	ICU Level of Service	A	
Analysis Period (min)	15			



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	4	26	45	7	63	71
Future Volume (Veh/h)	4	26	45	7	63	71
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96
Hourly flow rate (vph)	4	27	47	7	66	74
Pedestrians						
Lane Width (m)						
Walking Speed (m/s)						
Percent Blockage						
Right turn flare (veh)						
Median type			None			None
Median storage veh)						
Upstream signal (m)						
pX, platoon unblocked						
vC, conflicting volume	256	50			54	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	256	50			54	
tC, single (s)	6.4	6.2			4.1	
tC, 2 stage (s)						
tF (s)	3.5	3.3			2.2	
p0 queue free %	99	97			96	
cM capacity (veh/h)	705	1012			1551	

Direction, Lane #	WB 1	NB 1	SB 1
Volume Total	31	54	140
Volume Left	4	0	66
Volume Right	27	7	0
cSH	958	1700	1551
Volume to Capacity	0.03	0.03	0.04
Queue Length 95th (m)	0.8	0.0	1.0
Control Delay (s)	8.9	0.0	3.7
Lane LOS	A		A
Approach Delay (s)	8.9	0.0	3.7
Approach LOS	A		

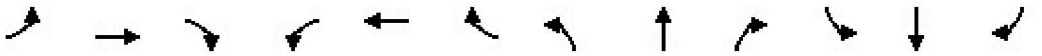
Intersection Summary			
Average Delay	3.5		
Intersection Capacity Utilization	23.9%	ICU Level of Service	A
Analysis Period (min)	15		



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	9	9	9	8	3	9	11	200	11	6	208	8
Future Volume (Veh/h)	9	9	9	8	3	9	11	200	11	6	208	8
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Hourly flow rate (vph)	9	9	9	8	3	9	11	204	11	6	212	8
Pedestrians												
Lane Width (m)												
Walking Speed (m/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (m)												
pX, platoon unblocked												
vC, conflicting volume	470	465	216	473	464	210	220			215		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	470	465	216	473	464	210	220			215		
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	98	98	99	98	99	99	99			100		
cM capacity (veh/h)	495	492	829	488	492	836	1361			1367		

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	27	20	226	226
Volume Left	9	8	11	6
Volume Right	9	9	11	8
cSH	570	601	1361	1367
Volume to Capacity	0.05	0.03	0.01	0.00
Queue Length 95th (m)	1.1	0.8	0.2	0.1
Control Delay (s)	11.6	11.2	0.4	0.2
Lane LOS	B	B	A	A
Approach Delay (s)	11.6	11.2	0.4	0.2
Approach LOS	B	B		

Intersection Summary				
Average Delay	1.4			
Intersection Capacity Utilization	26.3%	ICU Level of Service	A	
Analysis Period (min)	15			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	37	0	34	0	0	0	26	183	0	0	187	30
Future Volume (Veh/h)	37	0	34	0	0	0	26	183	0	0	187	30
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Hourly flow rate (vph)	42	0	39	0	0	0	30	208	0	0	212	34
Pedestrians												
Lane Width (m)												
Walking Speed (m/s)												
Percent Blockage												
Right turn flare (veh)			4									
Median type								None			None	
Median storage veh)												
Upstream signal (m)												
pX, platoon unblocked												
vC, conflicting volume	480	480	212	500	514	208	246			208		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	480	480	212	500	514	208	246			208		
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	91	100	95	100	100	100	98			100		
cM capacity (veh/h)	491	477	833	454	456	837	1332			1375		

Direction, Lane #	EB 1	WB 1	NB 1	NB 2	SB 1	SB 2
Volume Total	81	0	30	208	212	34
Volume Left	42	0	30	0	0	0
Volume Right	39	0	0	0	0	34
cSH	947	1700	1332	1700	1375	1700
Volume to Capacity	0.09	0.00	0.02	0.12	0.00	0.02
Queue Length 95th (m)	2.1	0.0	0.5	0.0	0.0	0.0
Control Delay (s)	11.3	0.0	7.8	0.0	0.0	0.0
Lane LOS	B	A	A			
Approach Delay (s)	11.3	0.0	1.0		0.0	
Approach LOS	B	A				

Intersection Summary				
Average Delay	2.0			
Intersection Capacity Utilization	31.6%	ICU Level of Service		A
Analysis Period (min)	15			



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	1	2	1	220	215	1
Future Volume (Veh/h)	1	2	1	220	215	1
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88
Hourly flow rate (vph)	1	2	1	250	244	1
Pedestrians						
Lane Width (m)						
Walking Speed (m/s)						
Percent Blockage						
Right turn flare (veh)						
Median type				None	None	
Median storage veh)						
Upstream signal (m)						
pX, platoon unblocked						
vC, conflicting volume	496	244	245			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	496	244	245			
tC, single (s)	6.4	6.2	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	100	100	100			
cM capacity (veh/h)	536	799	1333			

Direction, Lane #	EB 1	EB 2	NB 1	NB 2	SB 1
Volume Total	1	2	1	250	245
Volume Left	1	0	1	0	0
Volume Right	0	2	0	0	1
cSH	536	799	1333	1700	1700
Volume to Capacity	0.00	0.00	0.00	0.15	0.14
Queue Length 95th (m)	0.0	0.1	0.0	0.0	0.0
Control Delay (s)	11.7	9.5	7.7	0.0	0.0
Lane LOS	B	A	A		
Approach Delay (s)	10.3		0.0		0.0
Approach LOS	B				

Intersection Summary			
Average Delay	0.1		
Intersection Capacity Utilization	21.6%	ICU Level of Service	A
Analysis Period (min)	15		



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Stop			Stop	
Traffic Volume (vph)	73	46	12	8	46	75	11	27	11	84	10	91
Future Volume (vph)	73	46	12	8	46	75	11	27	11	84	10	91
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Hourly flow rate (vph)	78	49	13	9	49	80	12	29	12	89	11	97

Direction, Lane #	EB 1	WB 1	NB 1	SB 1	SB 2
Volume Total (vph)	140	138	53	89	108
Volume Left (vph)	78	9	12	89	0
Volume Right (vph)	13	80	12	0	97
Hadj (s)	0.06	-0.33	-0.09	0.50	-0.63
Departure Headway (s)	4.7	4.4	4.8	5.7	4.6
Degree Utilization, x	0.18	0.17	0.07	0.14	0.14
Capacity (veh/h)	715	774	692	596	741
Control Delay (s)	8.8	8.2	8.2	8.5	7.1
Approach Delay (s)	8.8	8.2	8.2	7.7	
Approach LOS	A	A	A	A	

Intersection Summary				
Delay	8.2			
Level of Service	A			
Intersection Capacity Utilization	36.0%	ICU Level of Service	A	
Analysis Period (min)	15			



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	1	22	48	1	24	40
Future Volume (Veh/h)	1	22	48	1	24	40
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89
Hourly flow rate (vph)	1	25	54	1	27	45
Pedestrians						
Lane Width (m)						
Walking Speed (m/s)						
Percent Blockage						
Right turn flare (veh)						
Median type			None			None
Median storage veh)						
Upstream signal (m)						
pX, platoon unblocked						
vC, conflicting volume	154	54			55	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	154	54			55	
tC, single (s)	6.4	6.2			4.1	
tC, 2 stage (s)						
tF (s)	3.5	3.3			2.2	
p0 queue free %	100	98			98	
cM capacity (veh/h)	828	1018			1563	

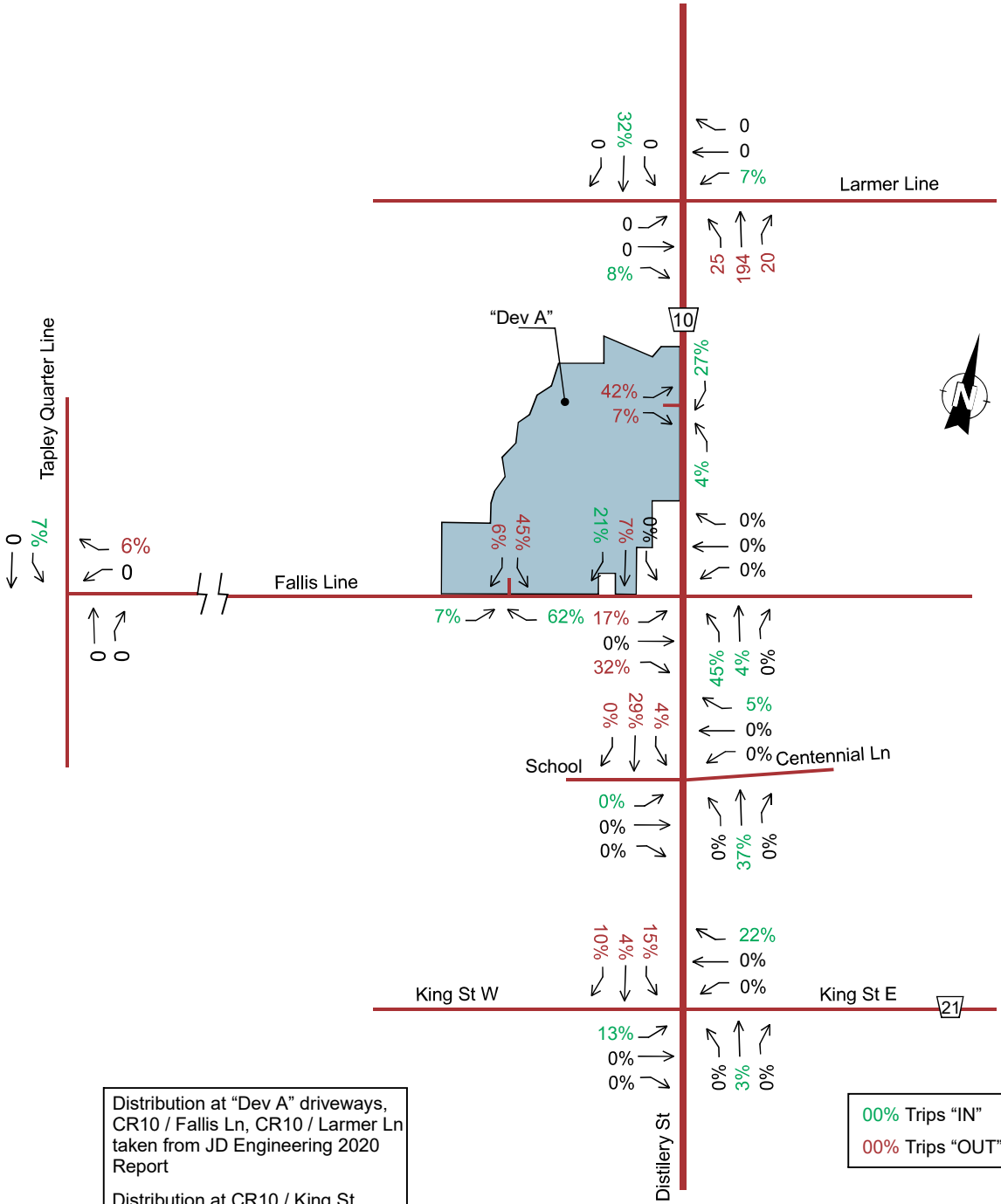
Direction, Lane #	WB 1	NB 1	SB 1
Volume Total	26	55	72
Volume Left	1	0	27
Volume Right	25	1	0
cSH	1009	1700	1563
Volume to Capacity	0.03	0.03	0.02
Queue Length 95th (m)	0.6	0.0	0.4
Control Delay (s)	8.7	0.0	2.8
Lane LOS	A		A
Approach Delay (s)	8.7	0.0	2.8
Approach LOS	A		

Intersection Summary			
Average Delay		2.8	
Intersection Capacity Utilization		20.1%	ICU Level of Service
Analysis Period (min)		15	

Appendix D

Volumes Added by Nearby Developments

Distribution of Trips Generated by "Development A" AM Peak Hour

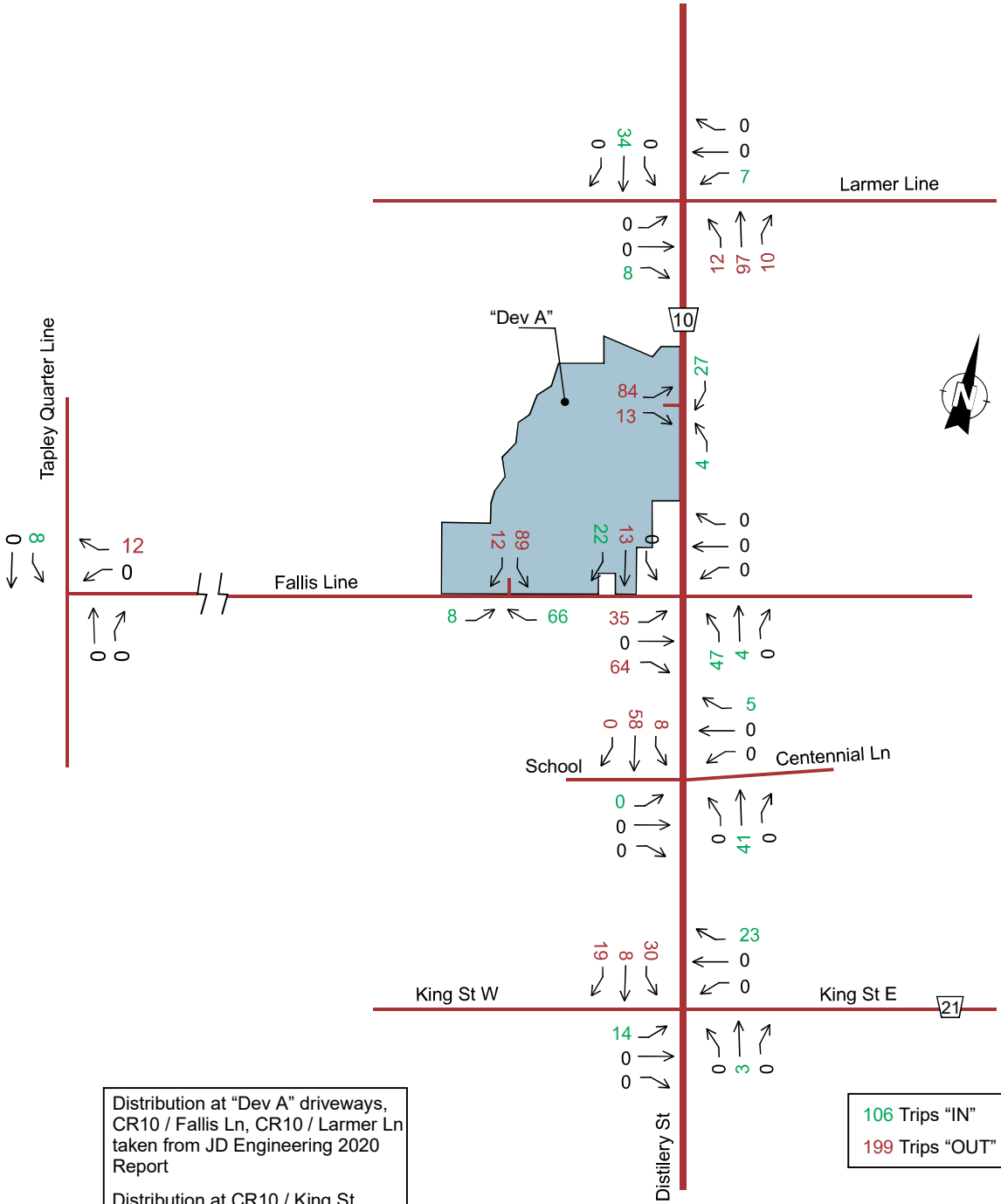


Distribution at "Dev A" driveways, CR10 / Fallis Ln, CR10 / Larmer Ln taken from JD Engineering 2020 Report

Distribution at CR10 / King St, Fallis Ln / Tapley Quarter Ln, Fallis Ln / Centennial Ln taken from Asurza Engineers 2023 traffic counts

00% Trips "IN"
00% Trips "OUT"

Trips Generated by “Development A”
AM Peak Hour - 2027 (50% Build-out)



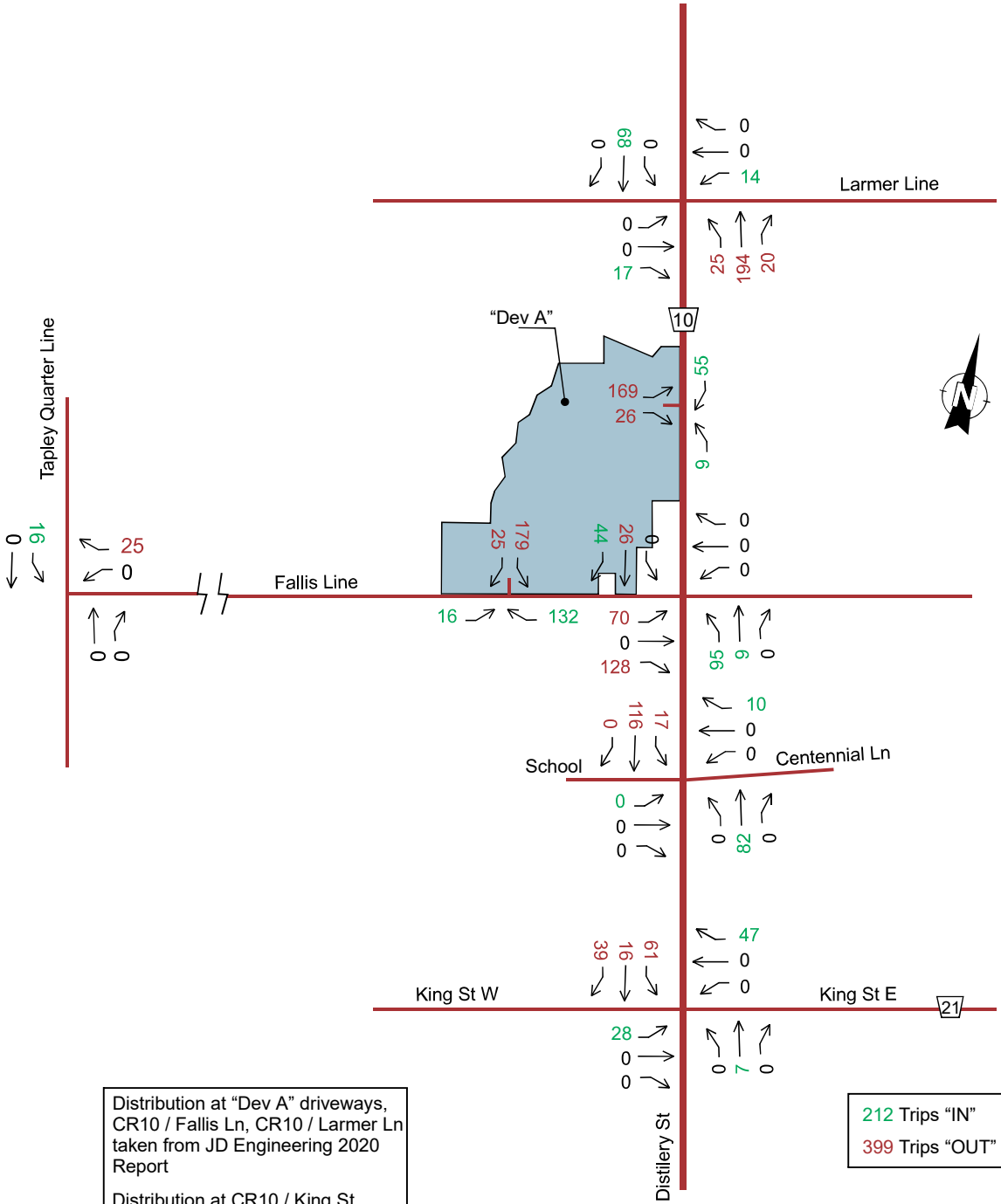
Distribution at “Dev A” driveways, CR10 / Fallis Ln, CR10 / Larmer Ln taken from JD Engineering 2020 Report

Distribution at CR10 / King St, Fallis Ln / Tapley Quarter Ln, Fallis Ln / Centennial Ln taken from Asurza Engineers 2023 traffic counts

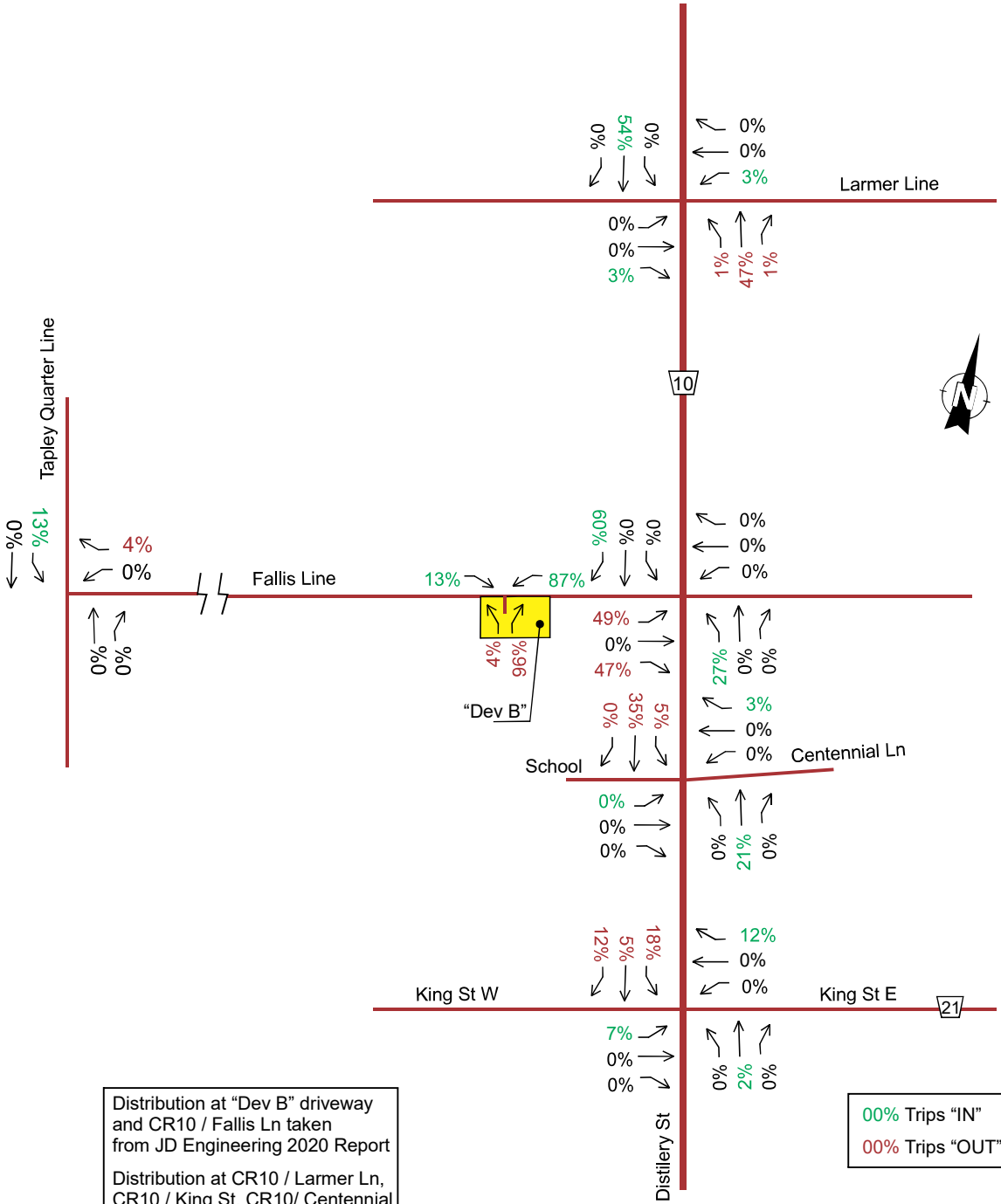
106 Trips “IN”

199 Trips “OUT”

Trips Generated by “Development A”
AM Peak Hour - 2031 (100% Build-out)



Distribution of Trips Generated by "Development B" AM Peak Hour

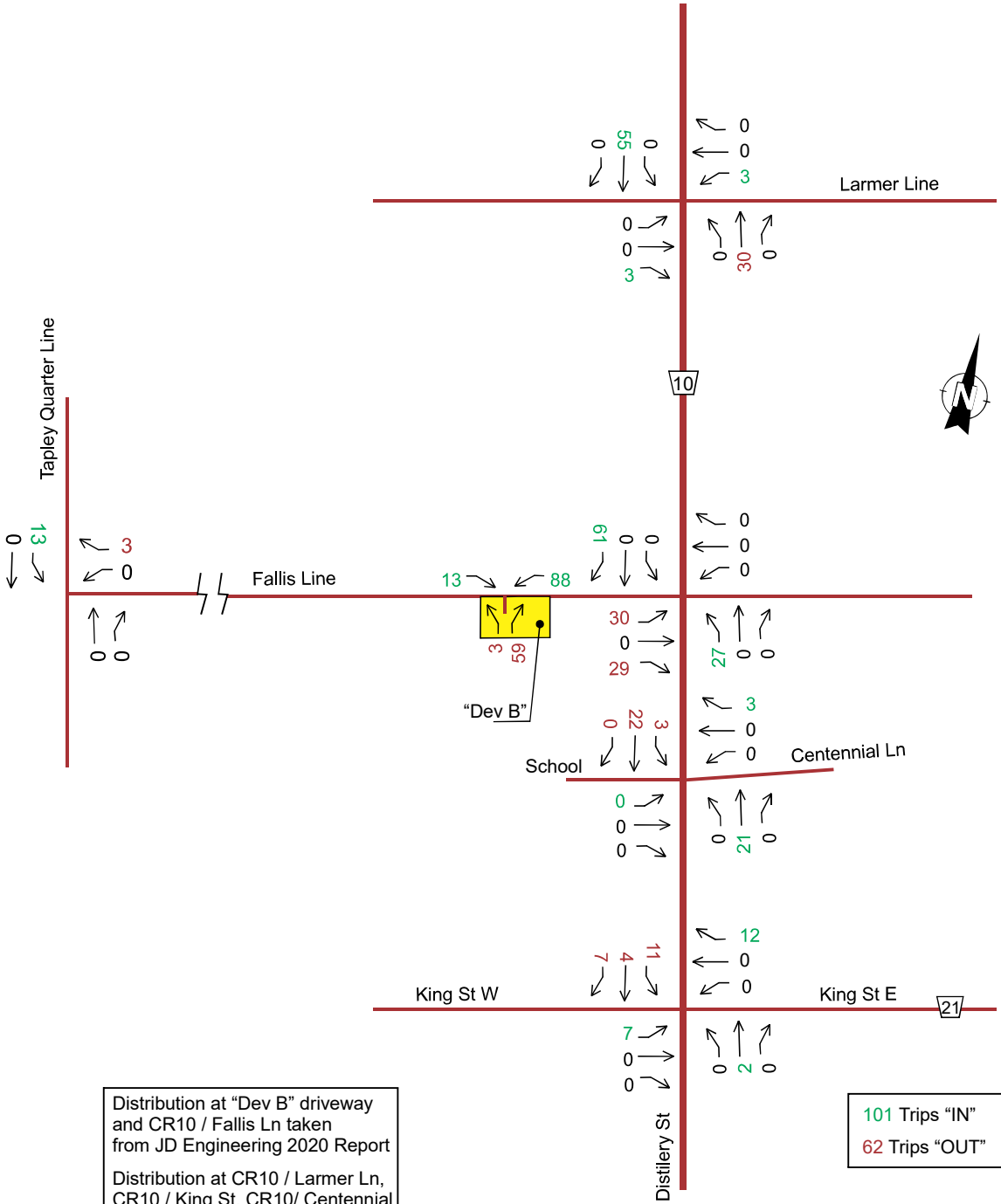


Distribution at "Dev B" driveway and CR10 / Fallis Ln taken from JD Engineering 2020 Report

Distribution at CR10 / Larmer Ln, CR10 / King St, CR10/ Centennial Ln, Fallis Ln / Tapley Quarter Ln taken from Asurza Engineers 2023 traffic counts

00% Trips "IN"
00% Trips "OUT"

Trips Generated by “Development B”
AM Peak Hour - 2027 (100% Build-out)



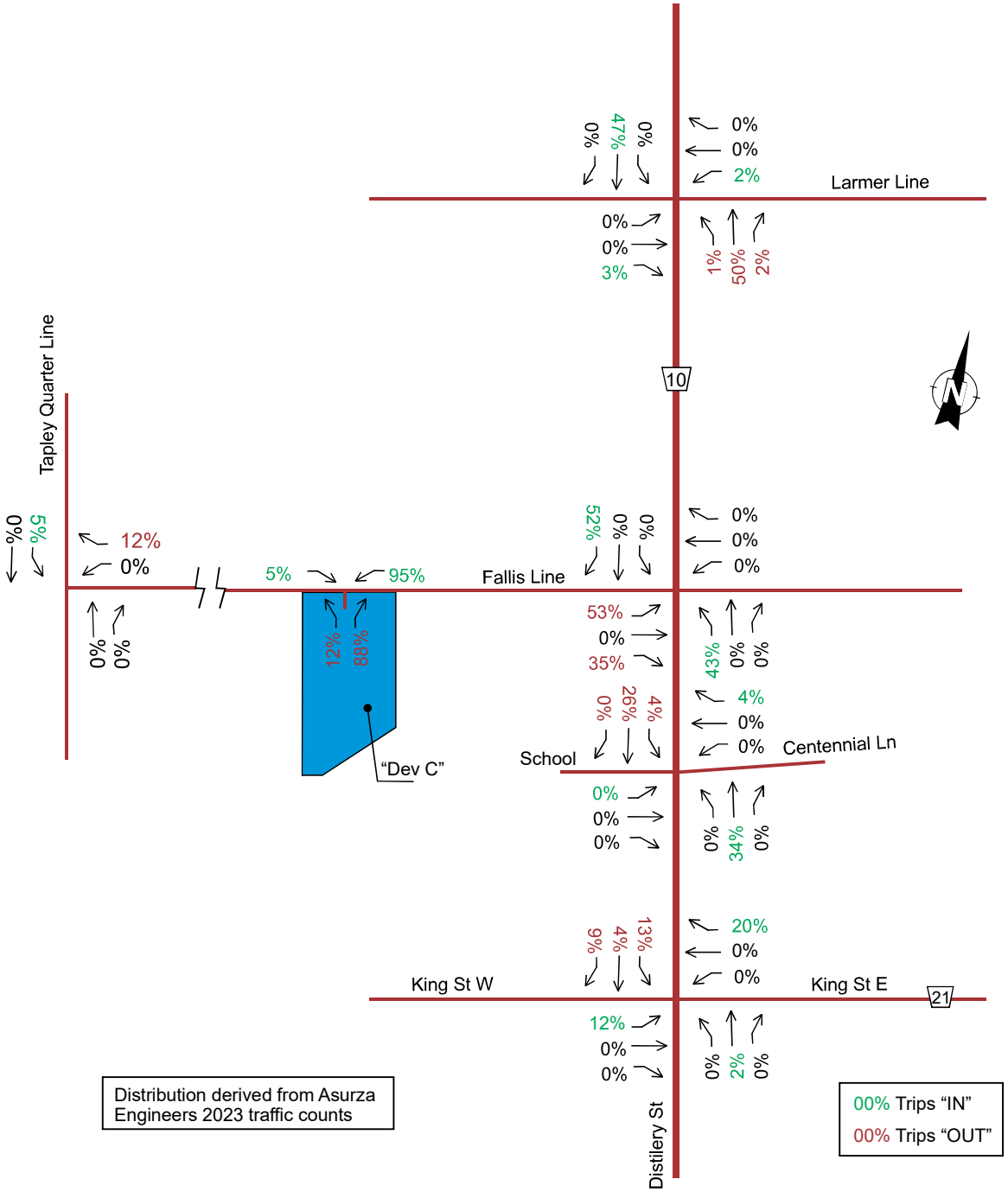
Distribution at “Dev B” driveway and CR10 / Fallis Ln taken from JD Engineering 2020 Report

Distribution at CR10 / Larmer Ln, CR10 / King St, CR10/ Centennial Ln, Fallis Ln / Tapley Quarter Ln taken from Asurza Engineers 2023 traffic counts

101 Trips “IN”

62 Trips “OUT”

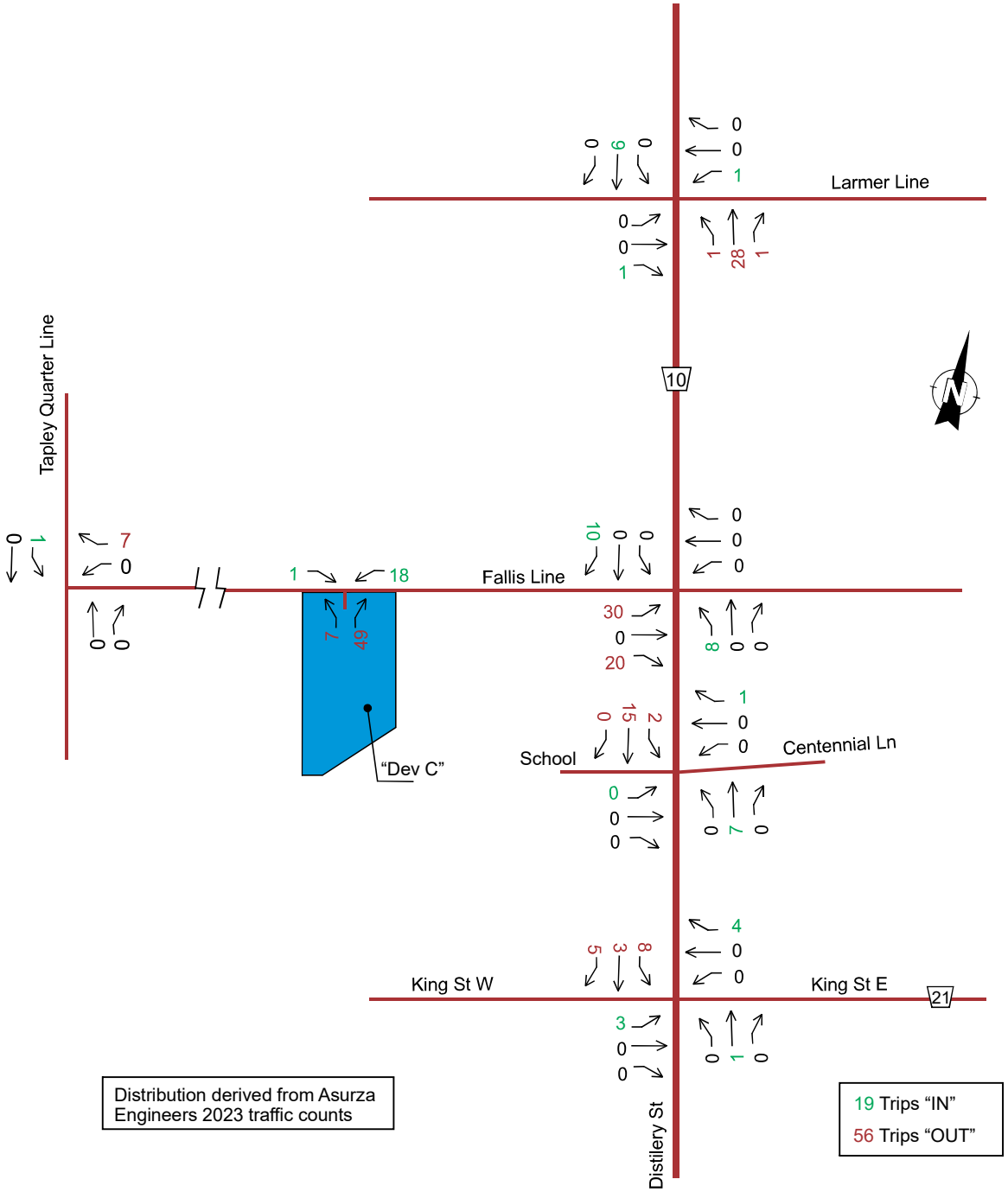
Distribution of Trips Generated by "Development C" AM Peak Hour



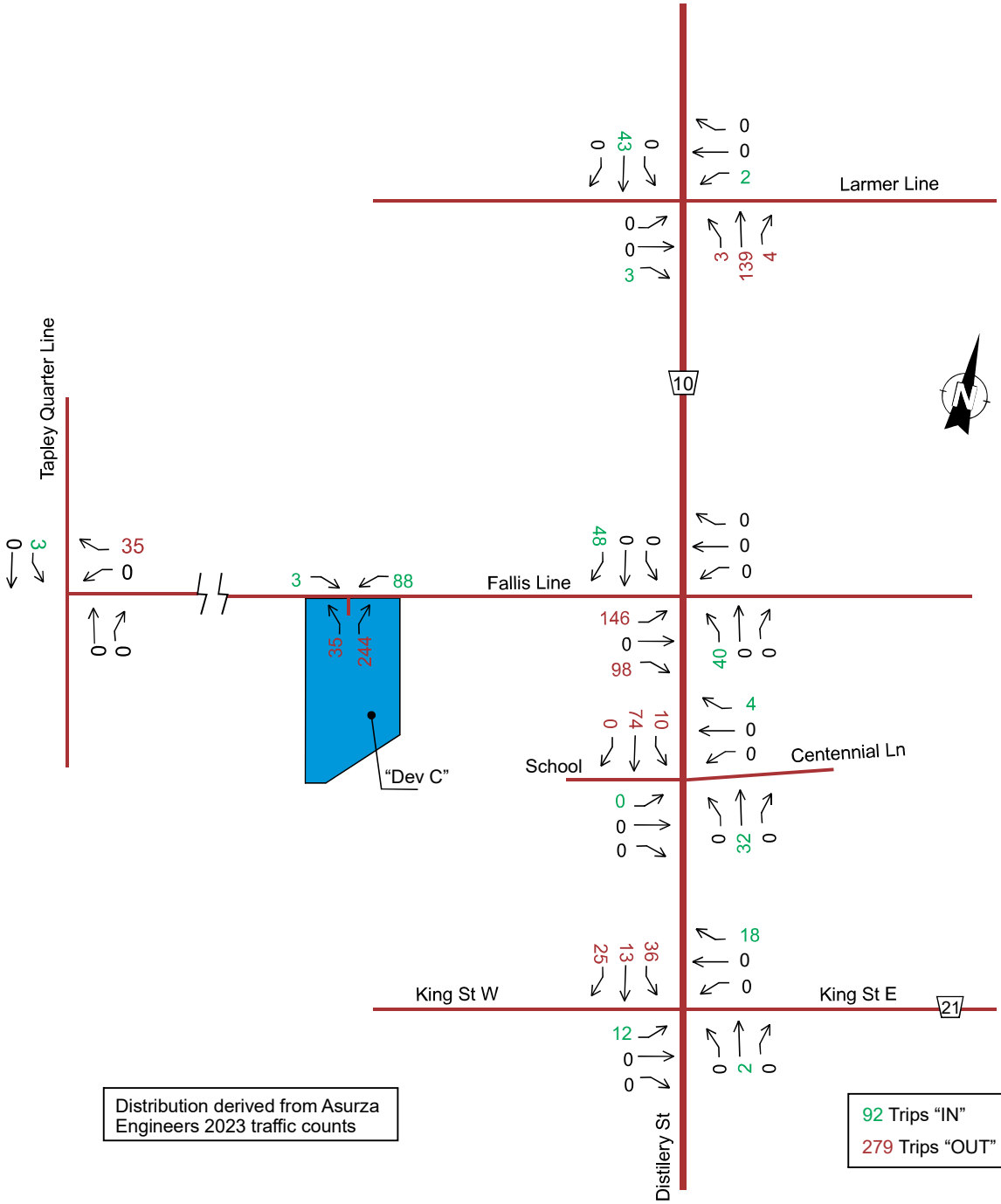
Distribution derived from Asurza Engineers 2023 traffic counts

00% Trips "IN"
00% Trips "OUT"

Trips Generated by “Development C”
AM Peak Hour - 2027 & 2031 (20% Build-out)



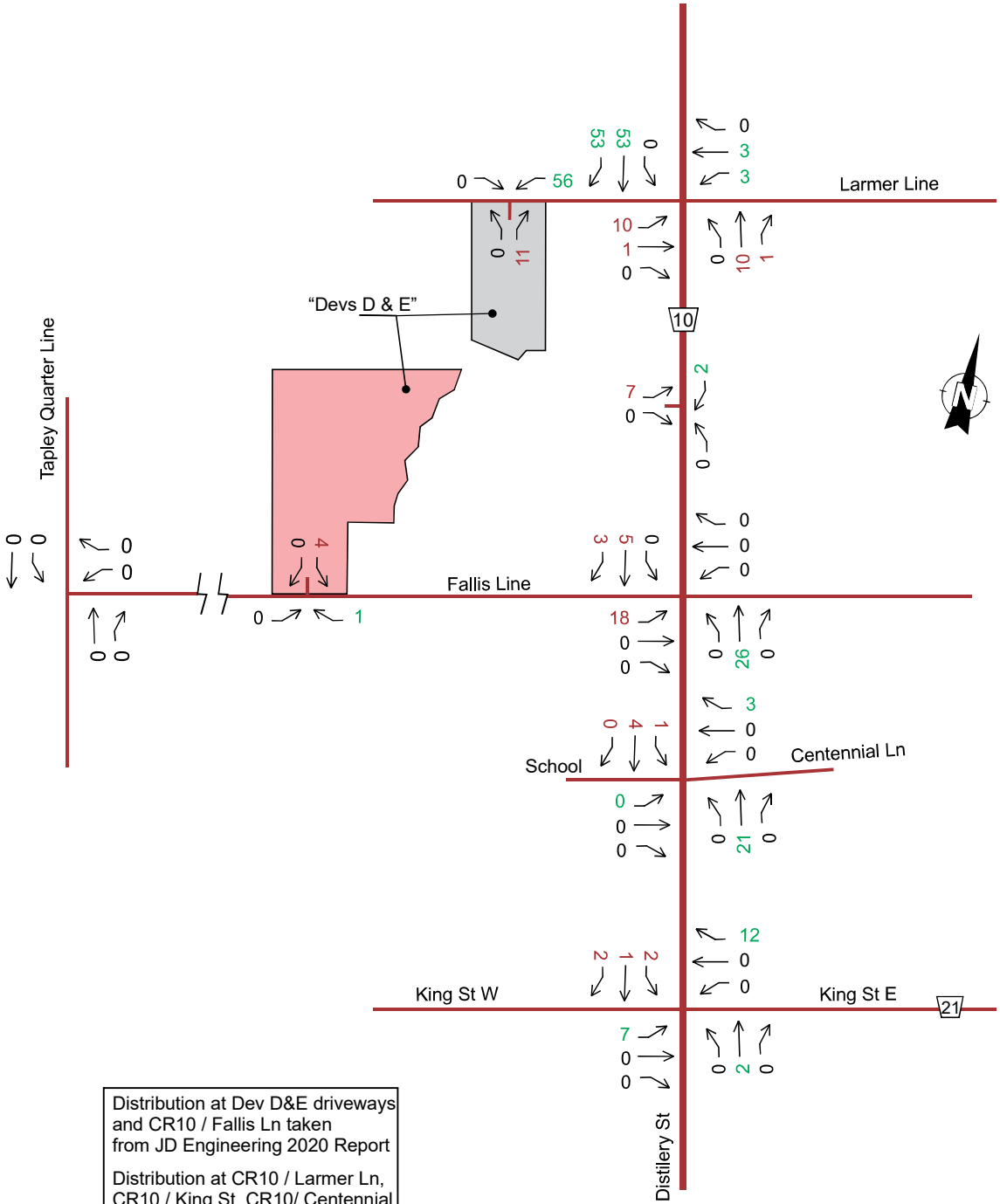
Trips Generated by “Development C”
AM Peak Hour - 2036 (100% Build-out)



Distribution derived from Asurza Engineers 2023 traffic counts

92 Trips “IN”
279 Trips “OUT”

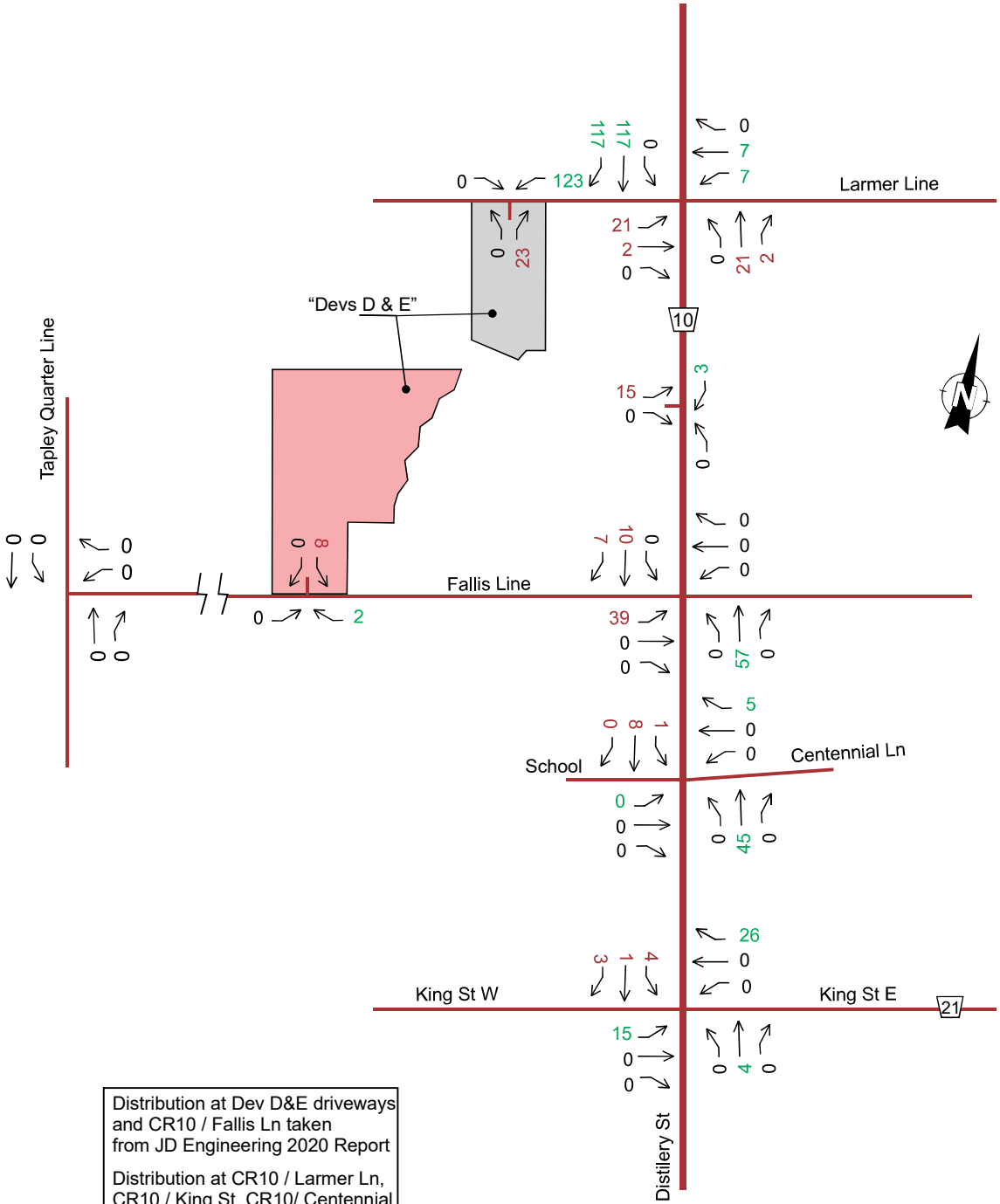
Trips Generated by "Developments D & E"
AM Peak Hour - 2031 (50% & 20% Build-out)



Distribution at Dev D&E driveways and CR10 / Fallis Ln taken from JD Engineering 2020 Report

Distribution at CR10 / Larmer Ln, CR10 / King St, CR10/ Centennial Ln, Fallis Ln / Tapley Quarter Ln taken from Asurza Engineers 2023 traffic counts

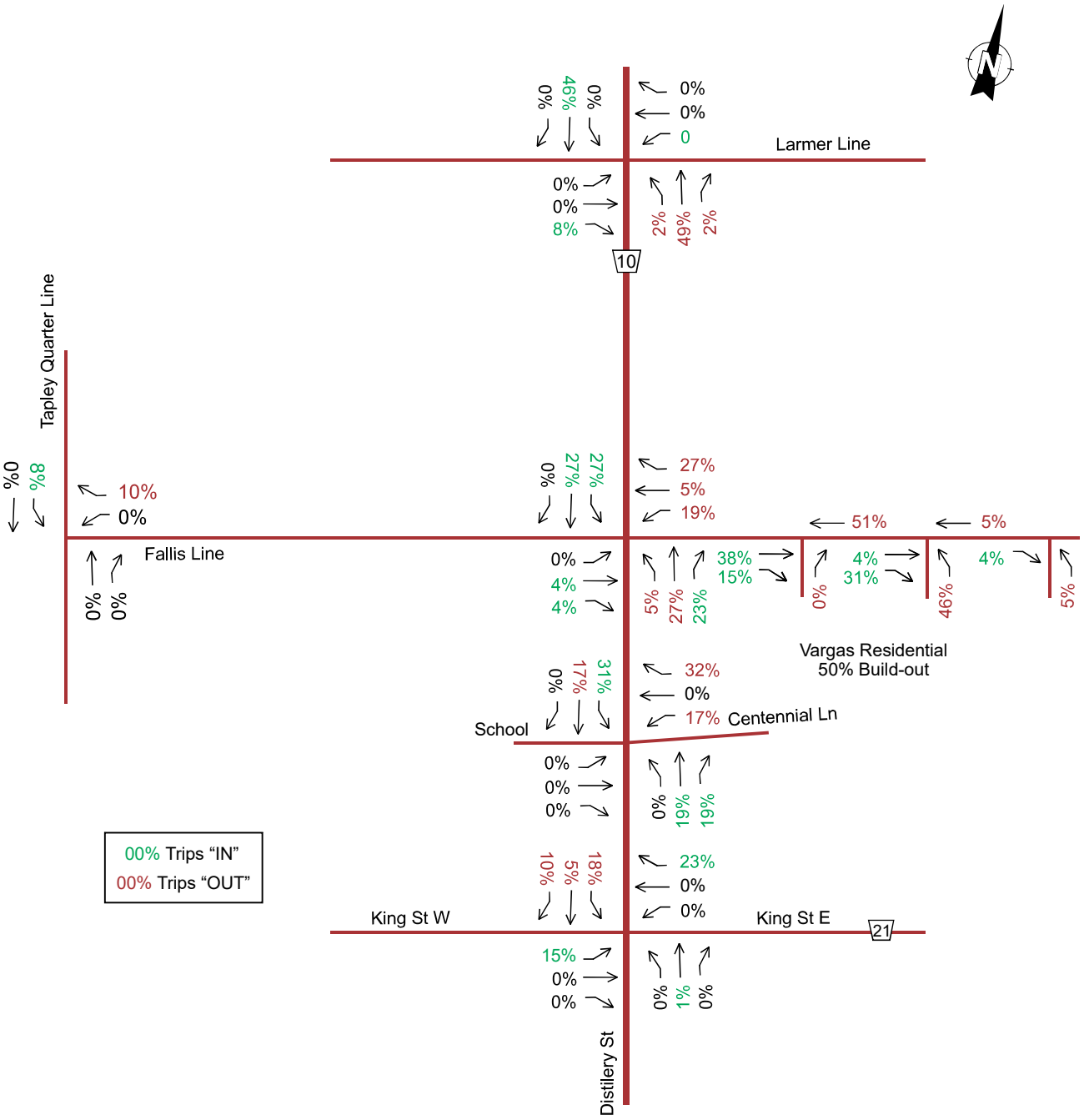
Trips Generated by "Developments D & E"
AM Peak Hour - 2036 (100% & 50% Build-out)



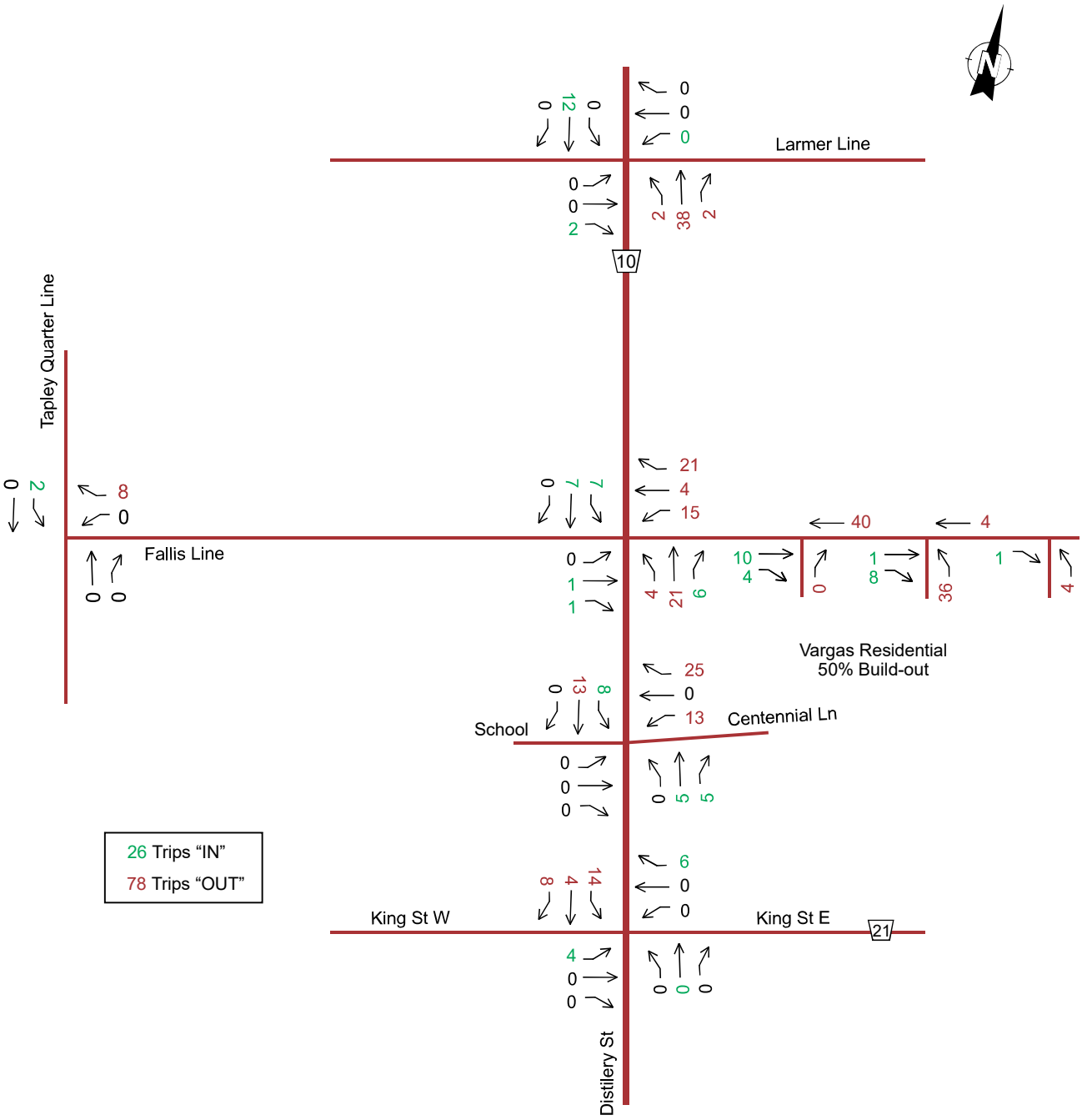
Distribution at Dev D&E driveways and CR10 / Fallis Ln taken from JD Engineering 2020 Report

Distribution at CR10 / Larmer Ln, CR10 / King St, CR10/ Centennial Ln, Fallis Ln / Tapley Quarter Ln taken from Asurza Engineers 2023 traffic counts

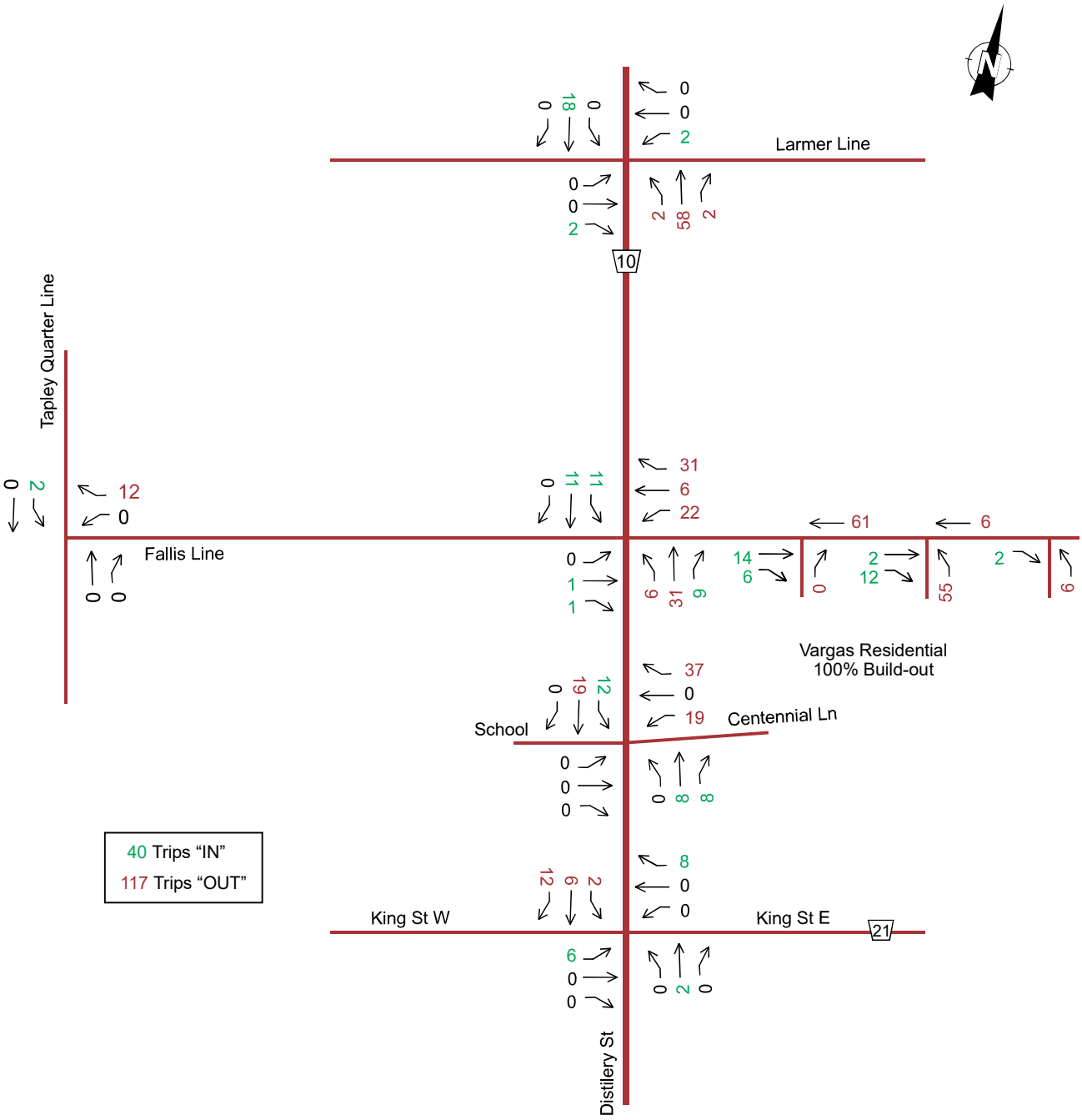
Distribution of Trips Generated by "Development F (Vargas Residential)" AM Peak Hour



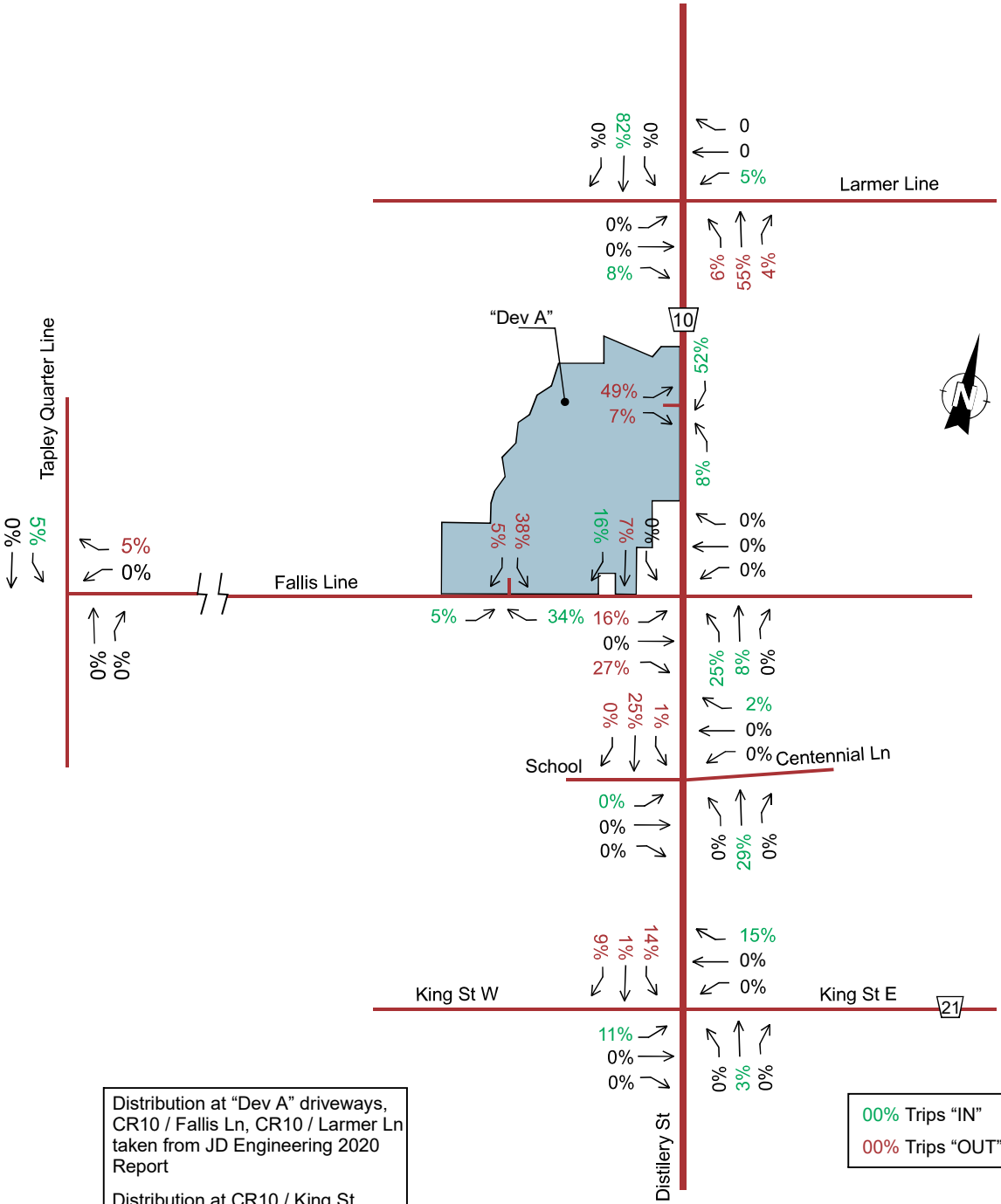
Trips Generated by "Development F (Vargas Residential)"
AM Peak Hour - 2027 (50% Build-out)



Trips Generated by "Development F (Vargas Residential)"
AM Peak Hour - 2031 (100% Build-out)



Distribution of Trips Generated by "Development A" PM Peak Hour

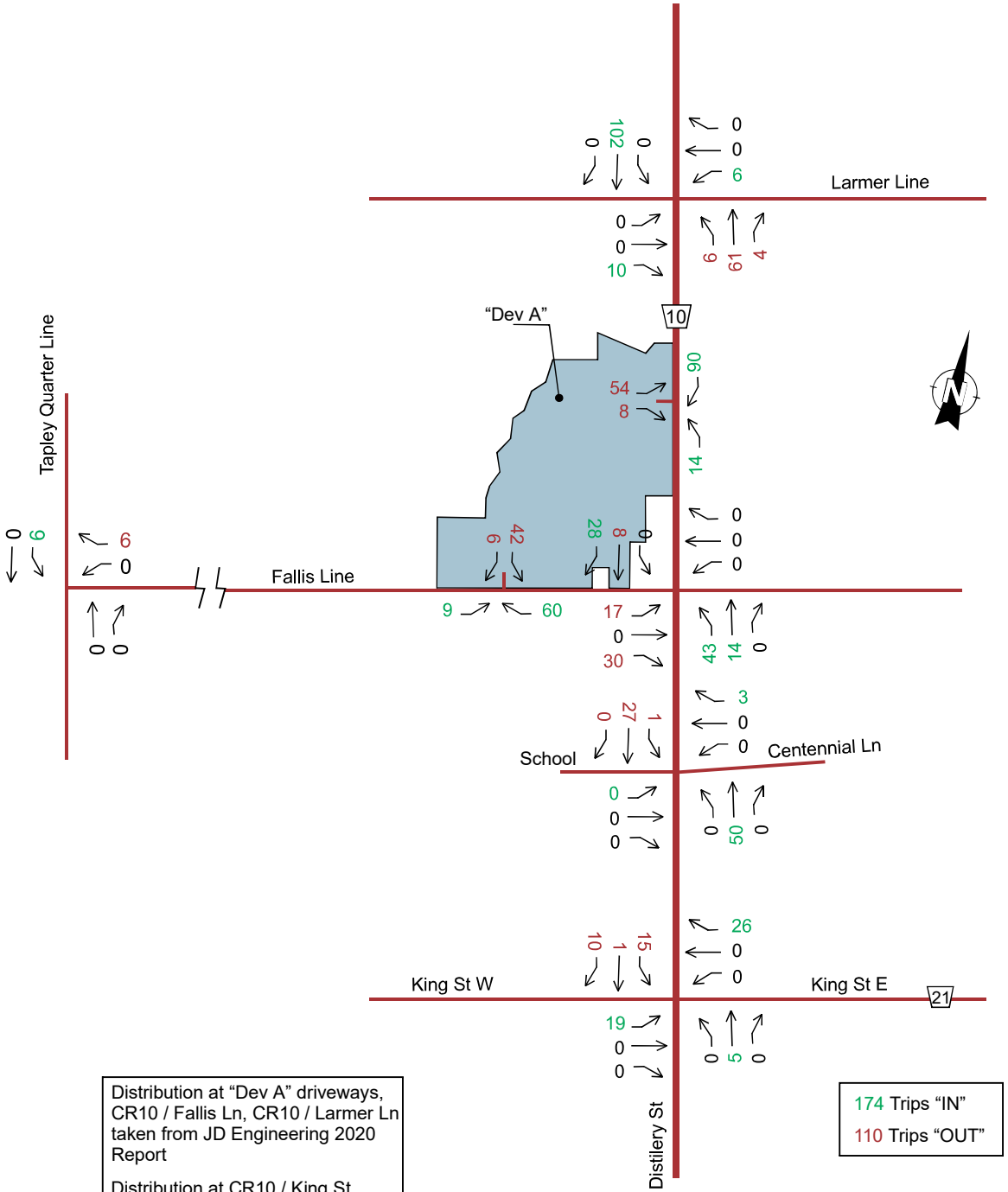


Distribution at "Dev A" driveways, CR10 / Fallis Ln, CR10 / Larmer Ln taken from JD Engineering 2020 Report

Distribution at CR10 / King St, Fallis Ln / Tapley Quarter Ln, Fallis Ln / Centennial Ln taken from Asurza Engineers 2023 traffic counts

00% Trips "IN"
00% Trips "OUT"

Trips Generated by “Development A”
PM Peak Hour - 2027 (50% Build-out)



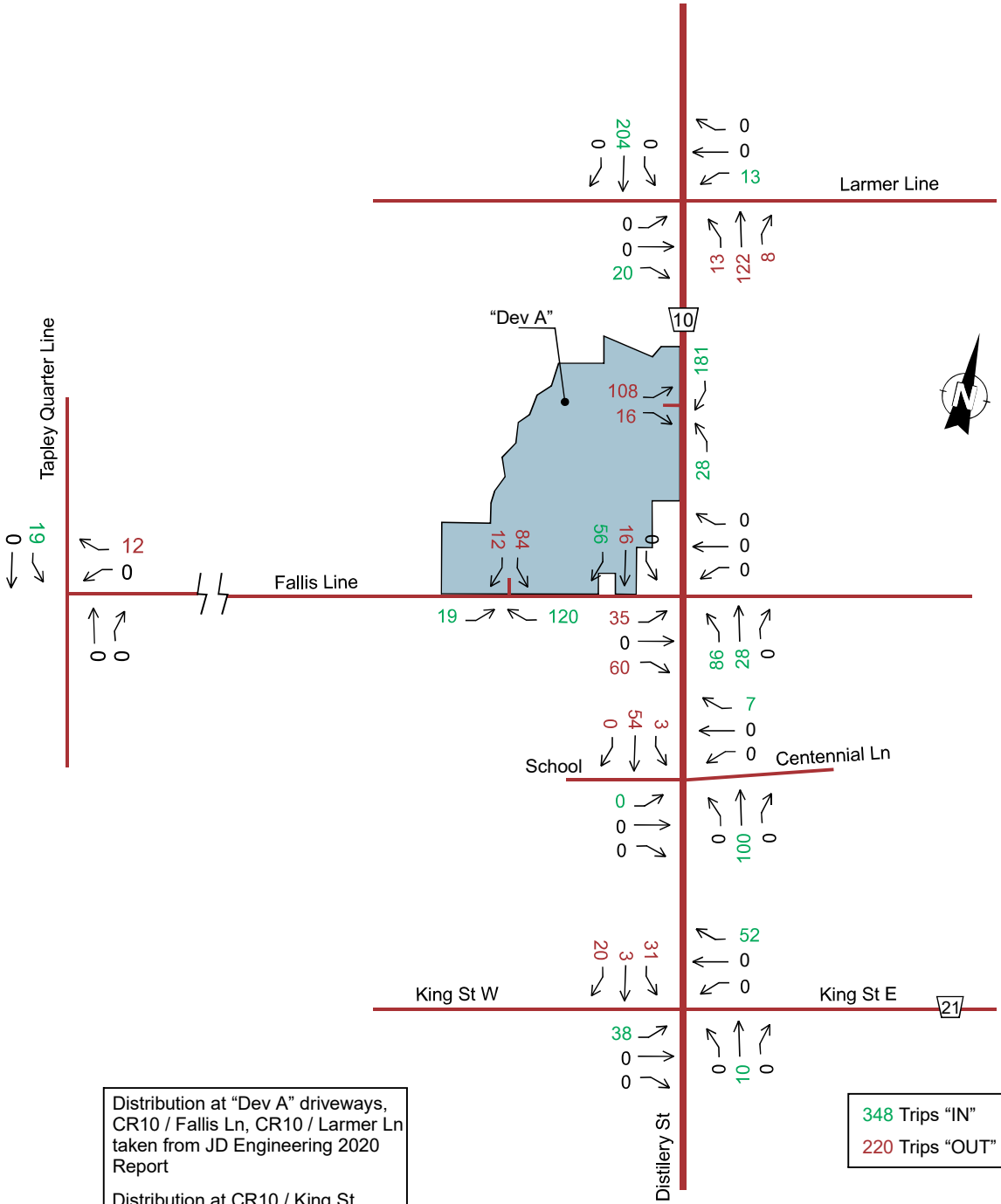
Distribution at “Dev A” driveways, CR10 / Fallis Ln, CR10 / Larmer Ln taken from JD Engineering 2020 Report

Distribution at CR10 / King St, Fallis Ln / Tapley Quarter Ln, Fallis Ln / Centennial Ln taken from Asurza Engineers 2023 traffic counts

174 Trips “IN”

110 Trips “OUT”

Trips Generated by “Development A”
PM Peak Hour - 2031 (100% Build-out)



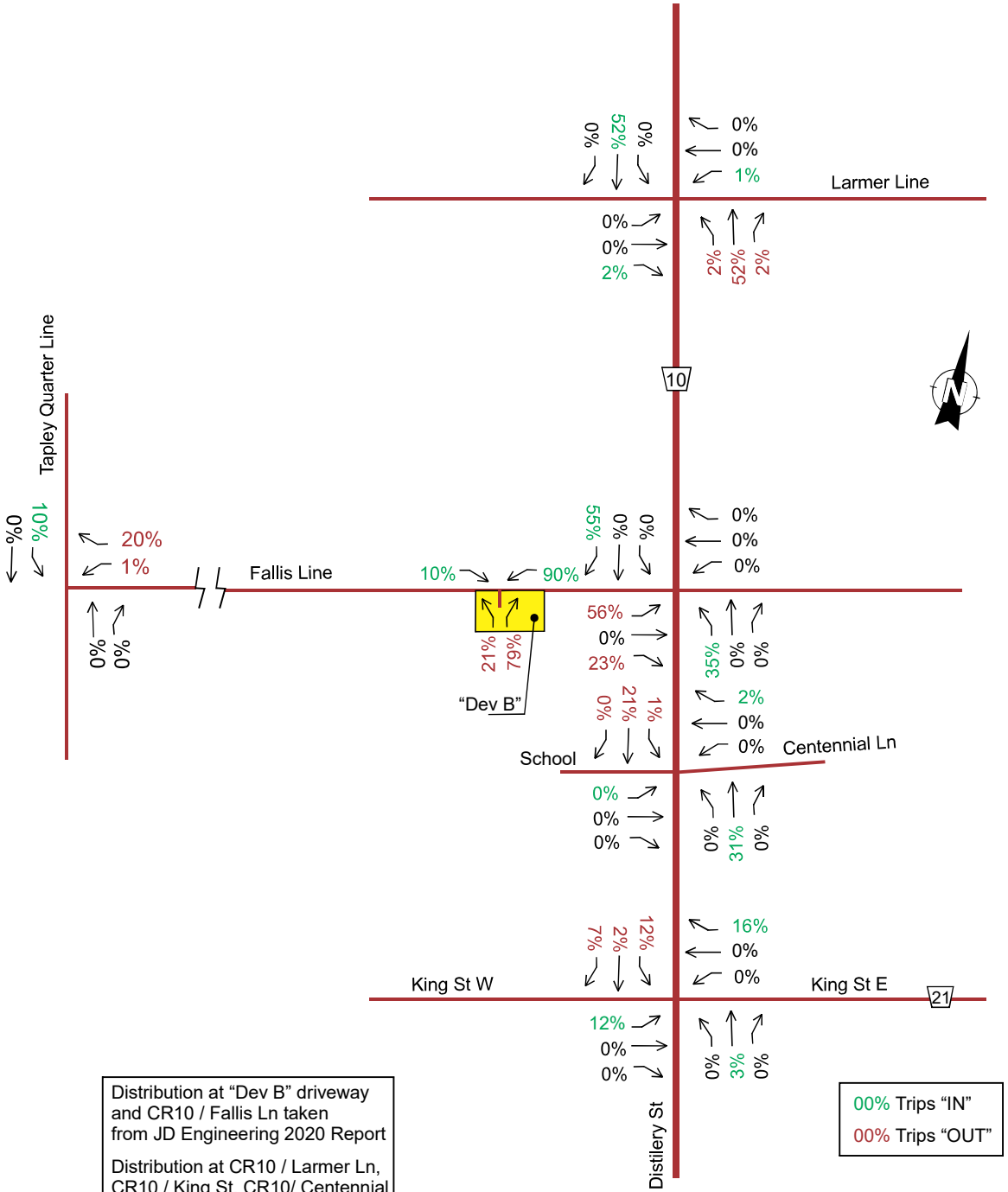
Distribution at “Dev A” driveways, CR10 / Fallis Ln, CR10 / Larmer Ln taken from JD Engineering 2020 Report

Distribution at CR10 / King St, Fallis Ln / Tapley Quarter Ln, Fallis Ln / Centennial Ln taken from Asurza Engineers 2023 traffic counts

348 Trips “IN”

220 Trips “OUT”

Distribution of Trips Generated by "Development B" PM Peak Hour

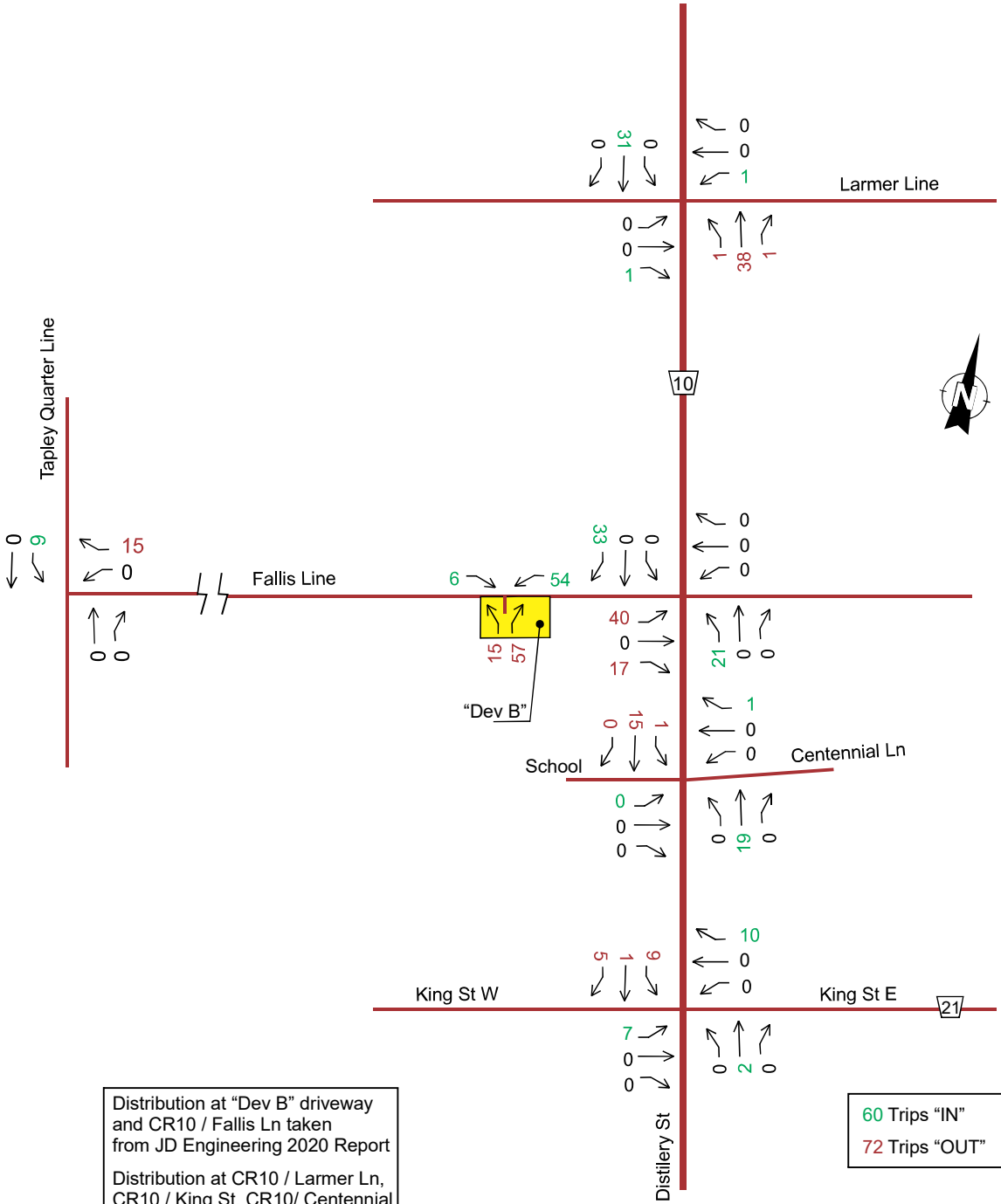


Distribution at "Dev B" driveway and CR10 / Fallis Ln taken from JD Engineering 2020 Report

Distribution at CR10 / Larmer Ln, CR10 / King St, CR10/ Centennial Ln, Fallis Ln / Tapley Quarter Ln taken from Asurza Engineers 2023 traffic counts

00% Trips "IN"
00% Trips "OUT"

Trips Generated by “Development B”
PM Peak Hour - 2027 (100% Build-out)

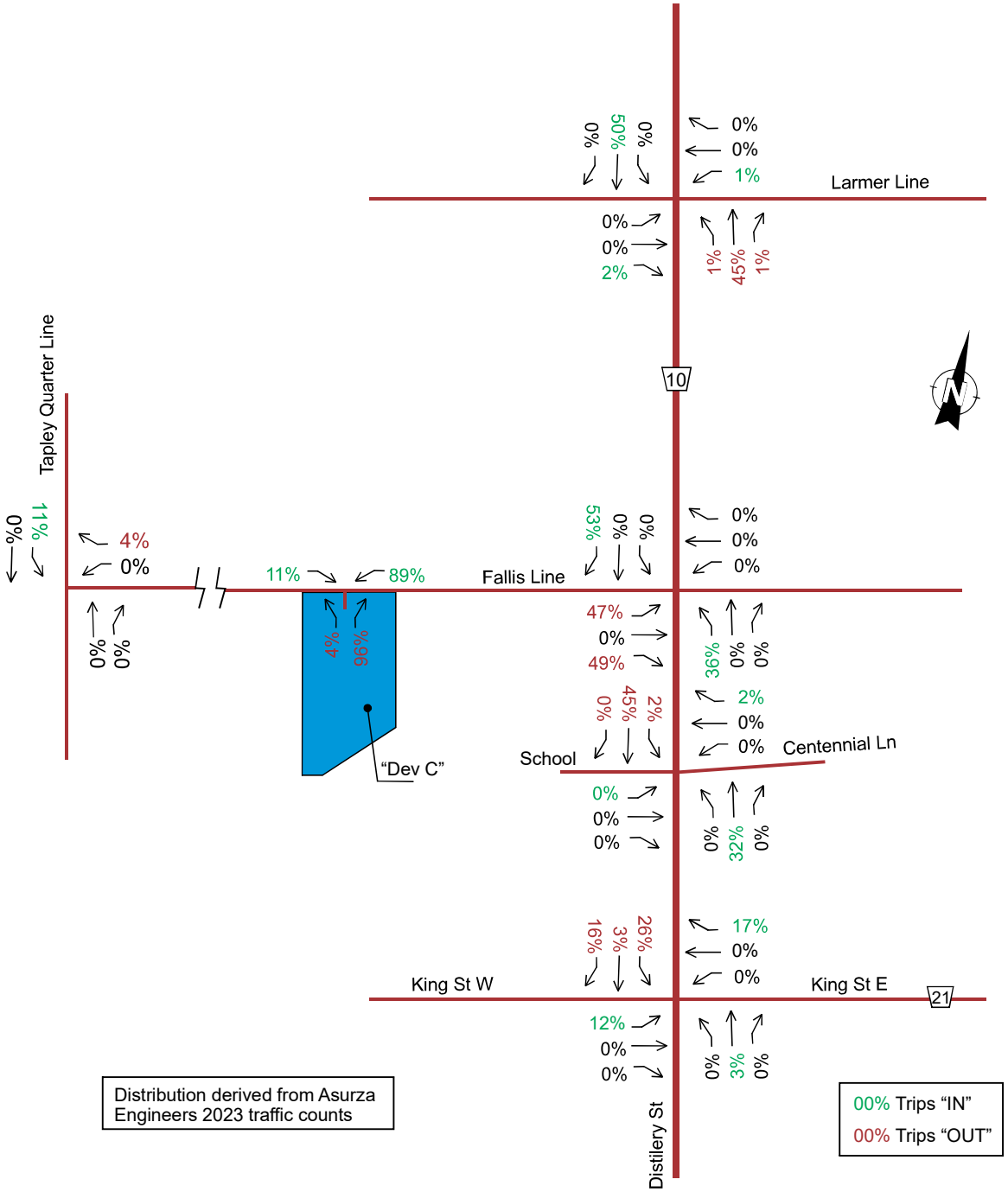


Distribution at “Dev B” driveway and CR10 / Fallis Ln taken from JD Engineering 2020 Report

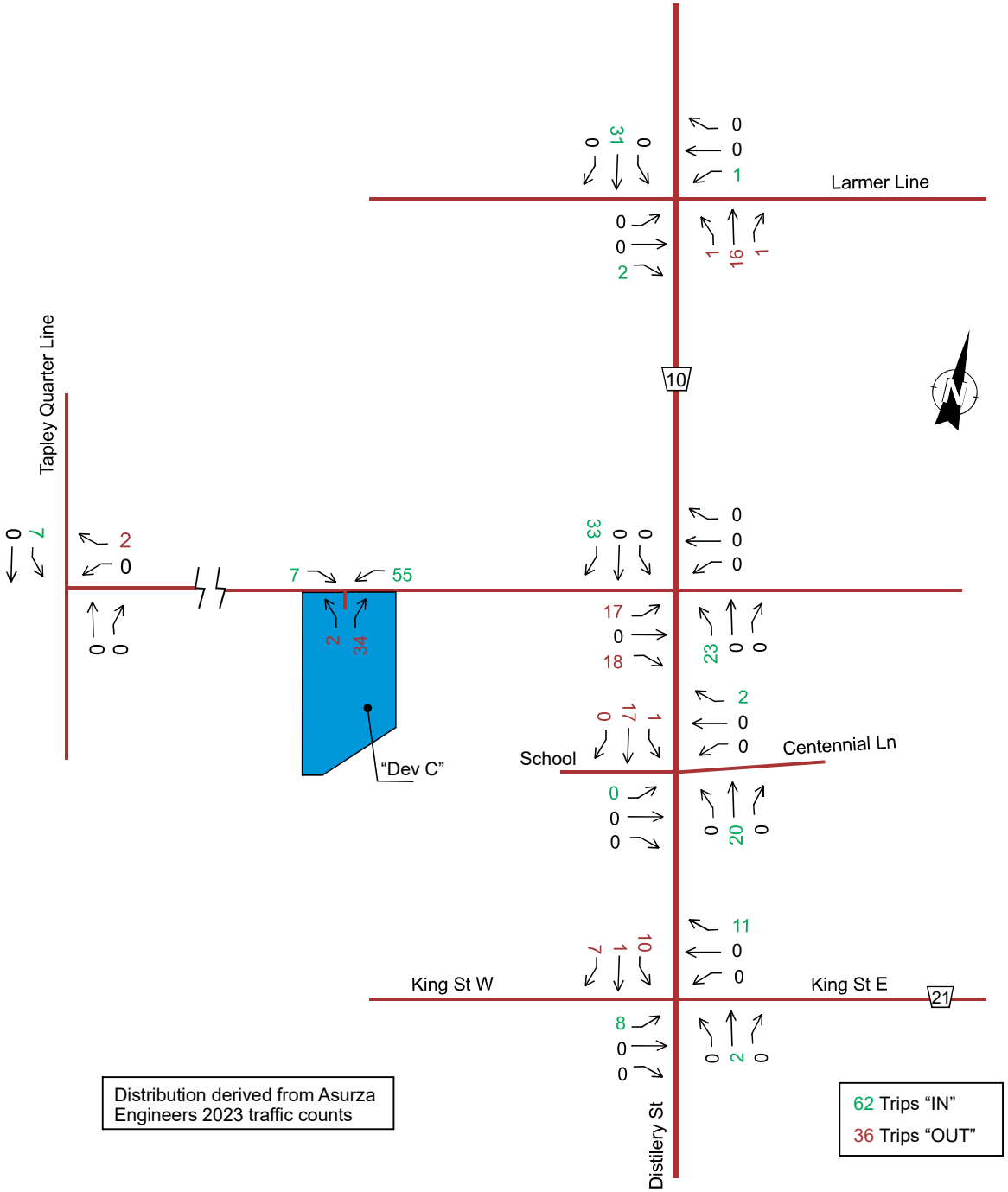
Distribution at CR10 / Larmer Ln, CR10 / King St, CR10/ Centennial Ln, Fallis Ln / Tapley Quarter Ln taken from Asurza Engineers 2023 traffic counts

60 Trips “IN”
72 Trips “OUT”

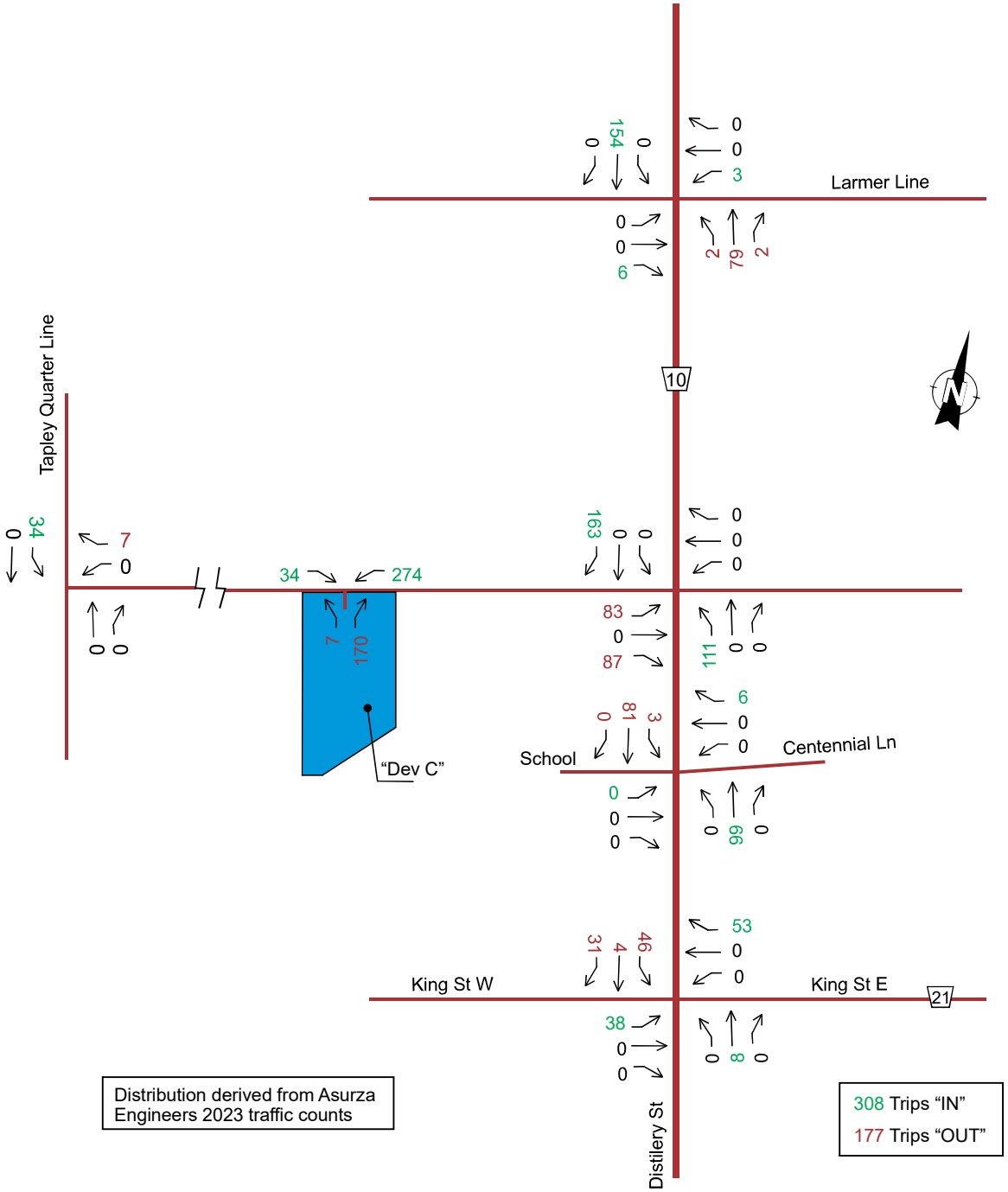
Distribution of Trips Generated by "Development C" PM Peak Hour



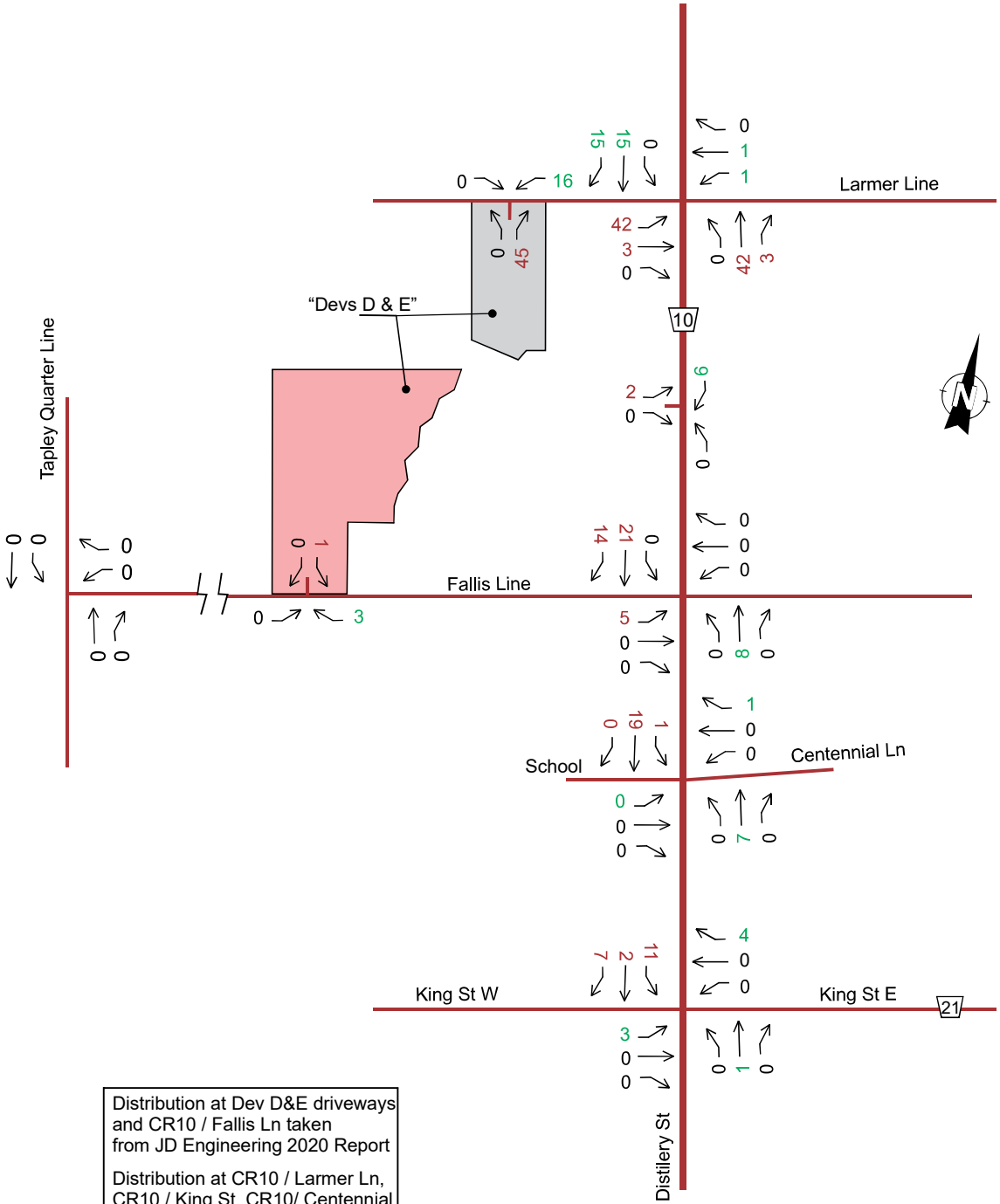
Trips Generated by “Development C”
PM Peak Hour - 2027 & 2031 (20% Build-out)



Trips Generated by “Development C”
PM Peak Hour - 2036 (100% Build-out)



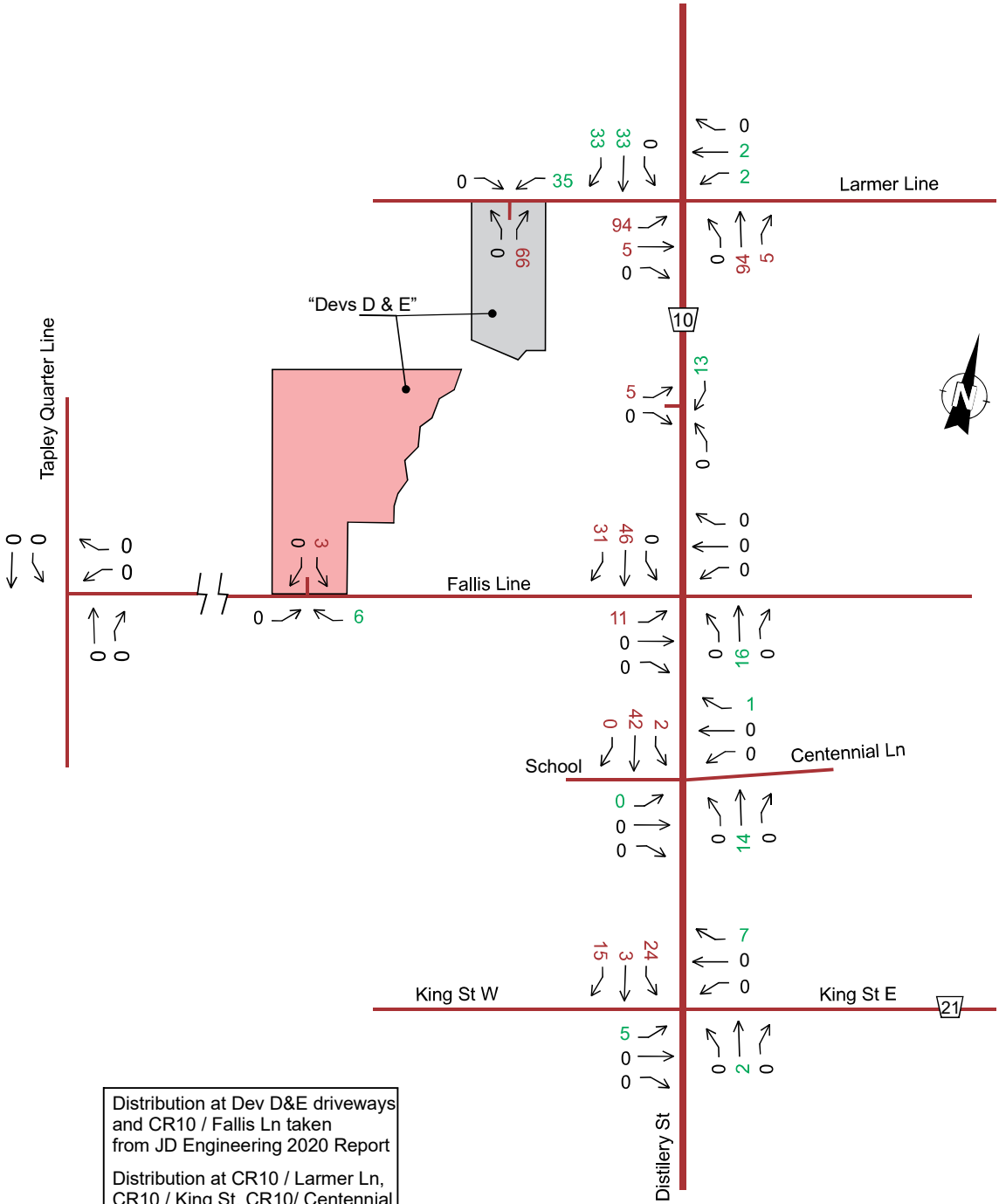
Trips Generated by "Developments D & E"
PM Peak Hour - 2031 (50% & 20% Build-out)



Distribution at Dev D&E driveways and CR10 / Fallis Ln taken from JD Engineering 2020 Report

Distribution at CR10 / Larmer Ln, CR10 / King St, CR10/ Centennial Ln, Fallis Ln / Tapley Quarter Ln taken from Asurza Engineers 2023 traffic counts

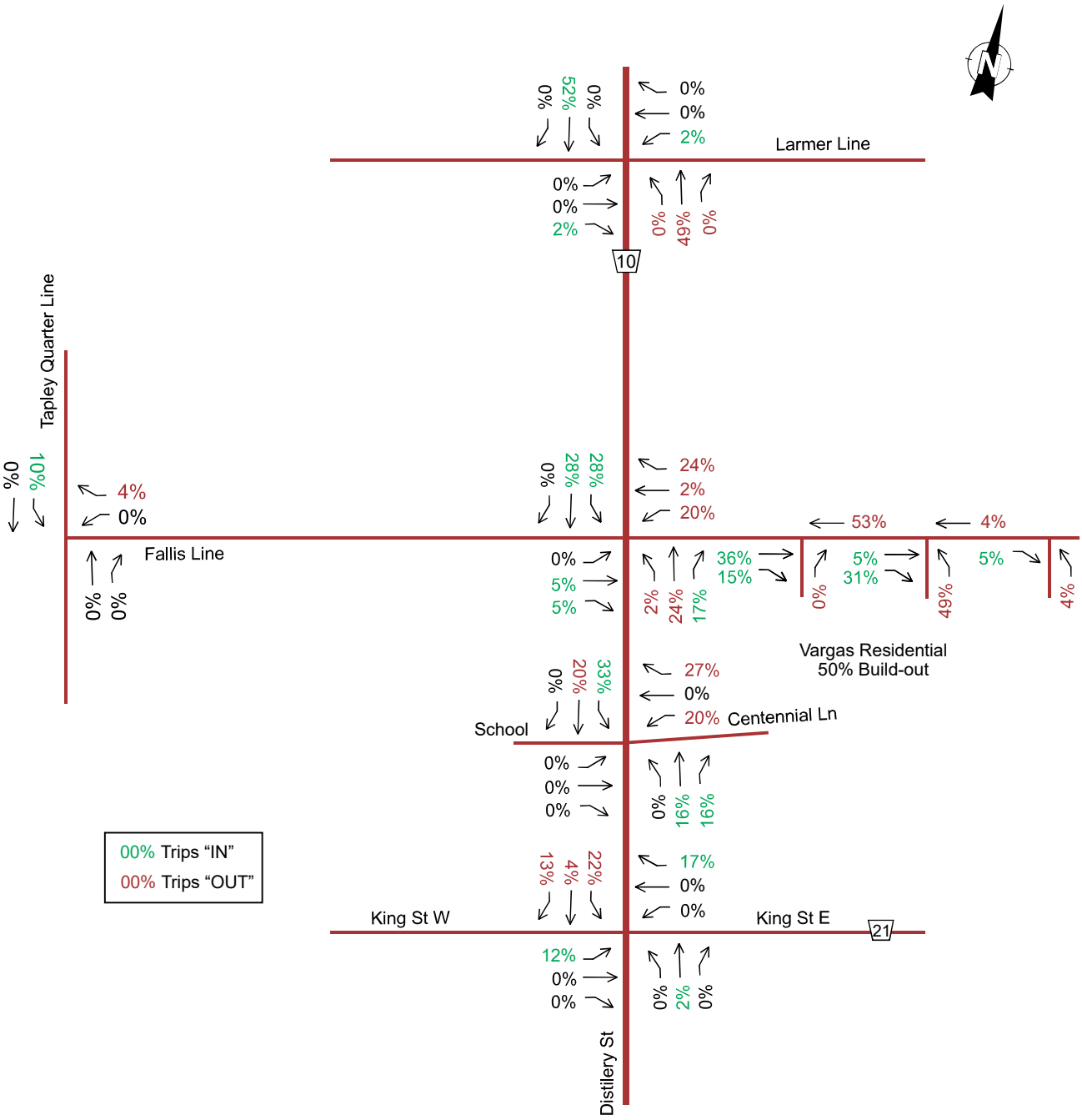
Trips Generated by “Developments D & E”
PM Peak Hour - 2036 (100% & 50% Build-out)



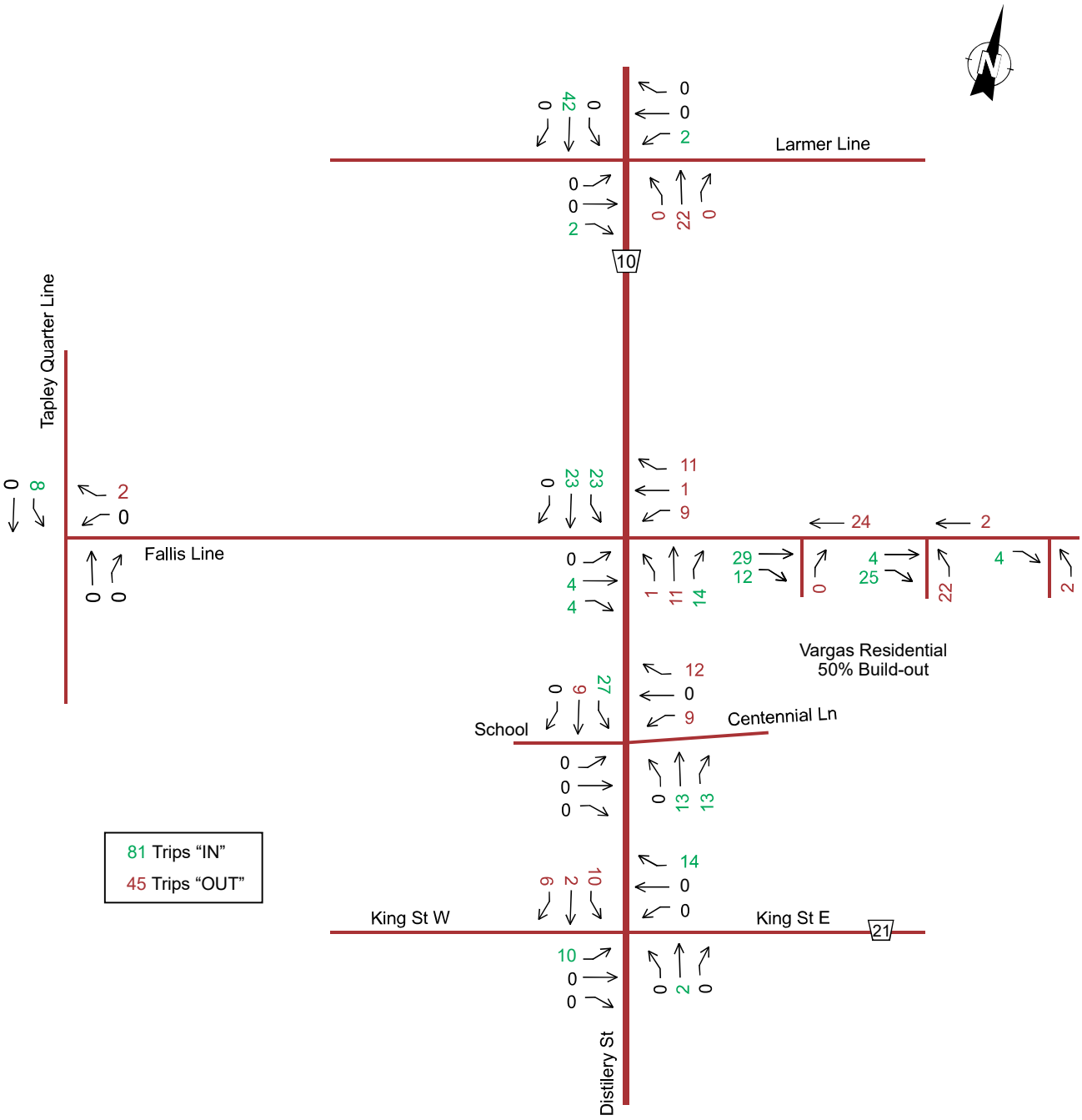
Distribution at Dev D&E driveways and CR10 / Fallis Ln taken from JD Engineering 2020 Report

Distribution at CR10 / Larmer Ln, CR10 / King St, CR10/ Centennial Ln, Fallis Ln / Tapley Quarter Ln taken from Asurza Engineers 2023 traffic counts

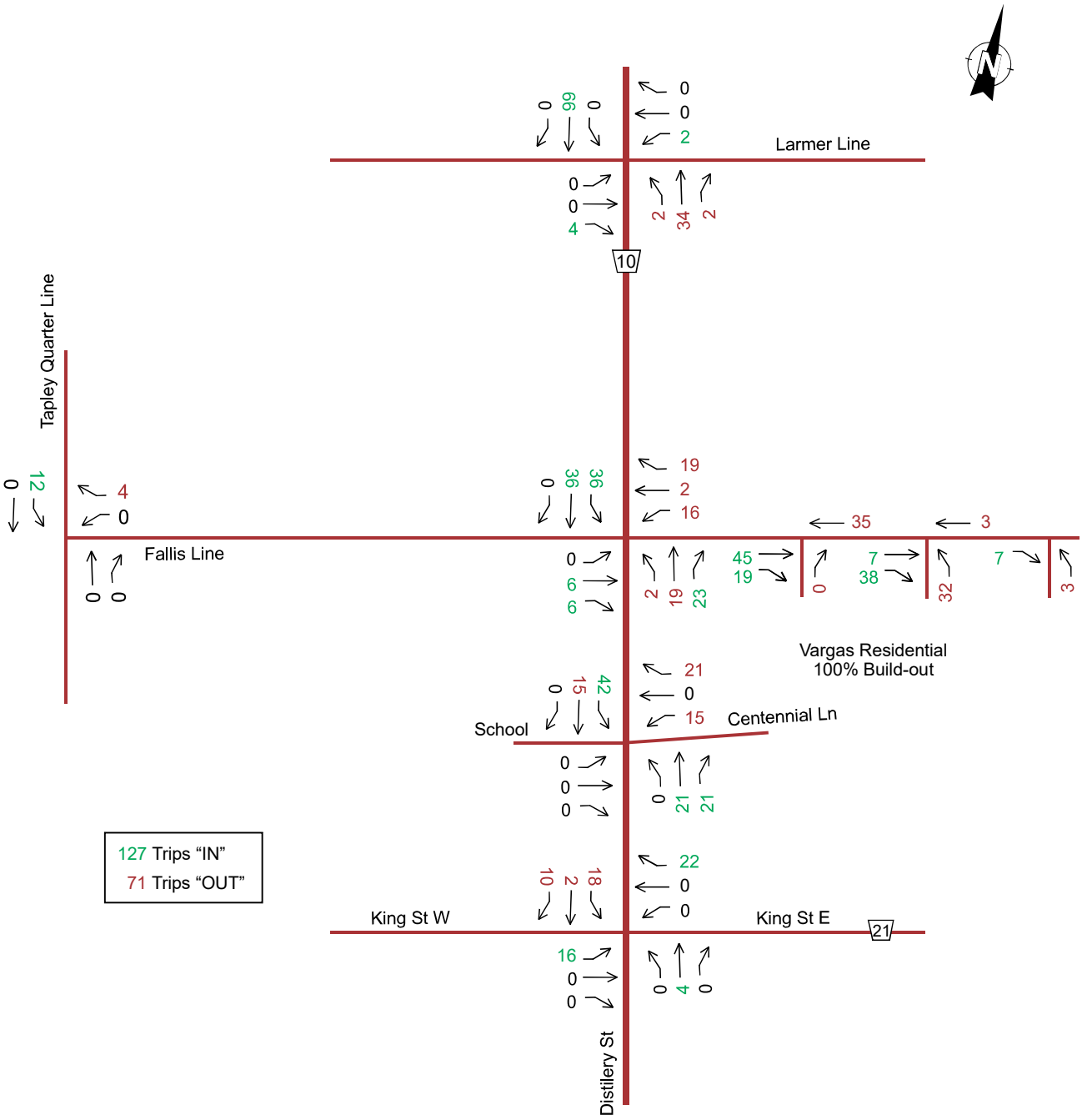
Distribution of Trips Generated by "Development F (Vargas Residential)" PM Peak Hour



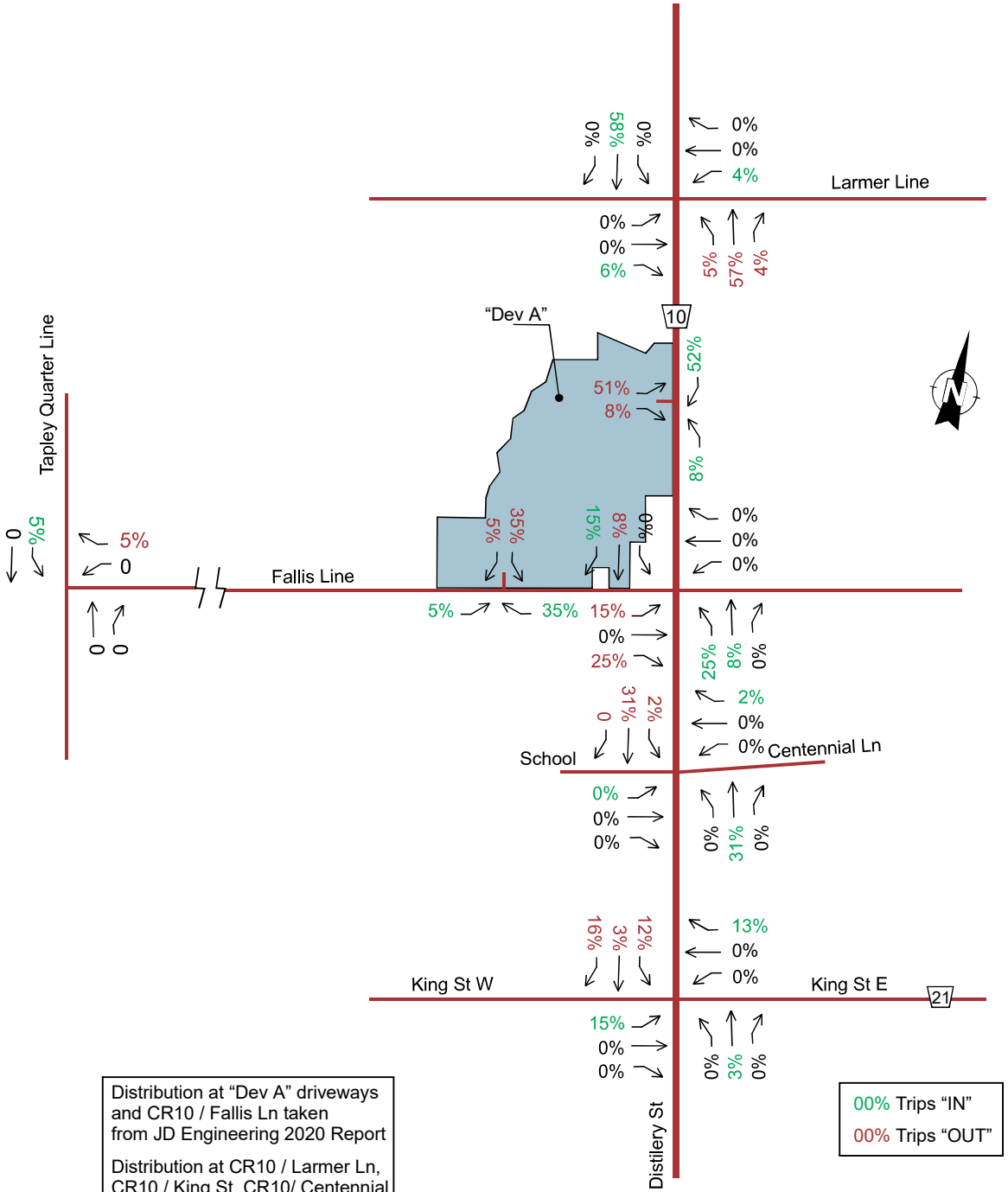
Trips Generated by "Development F (Vargas Residential)"
PM Peak Hour - 2027 (50% Build-out)



Trips Generated by "Development F (Vargas Residential)"
PM Peak Hour - 2031 (100% Build-out)



Distribution of Trips Generated by "Development A" SAT Peak Hour

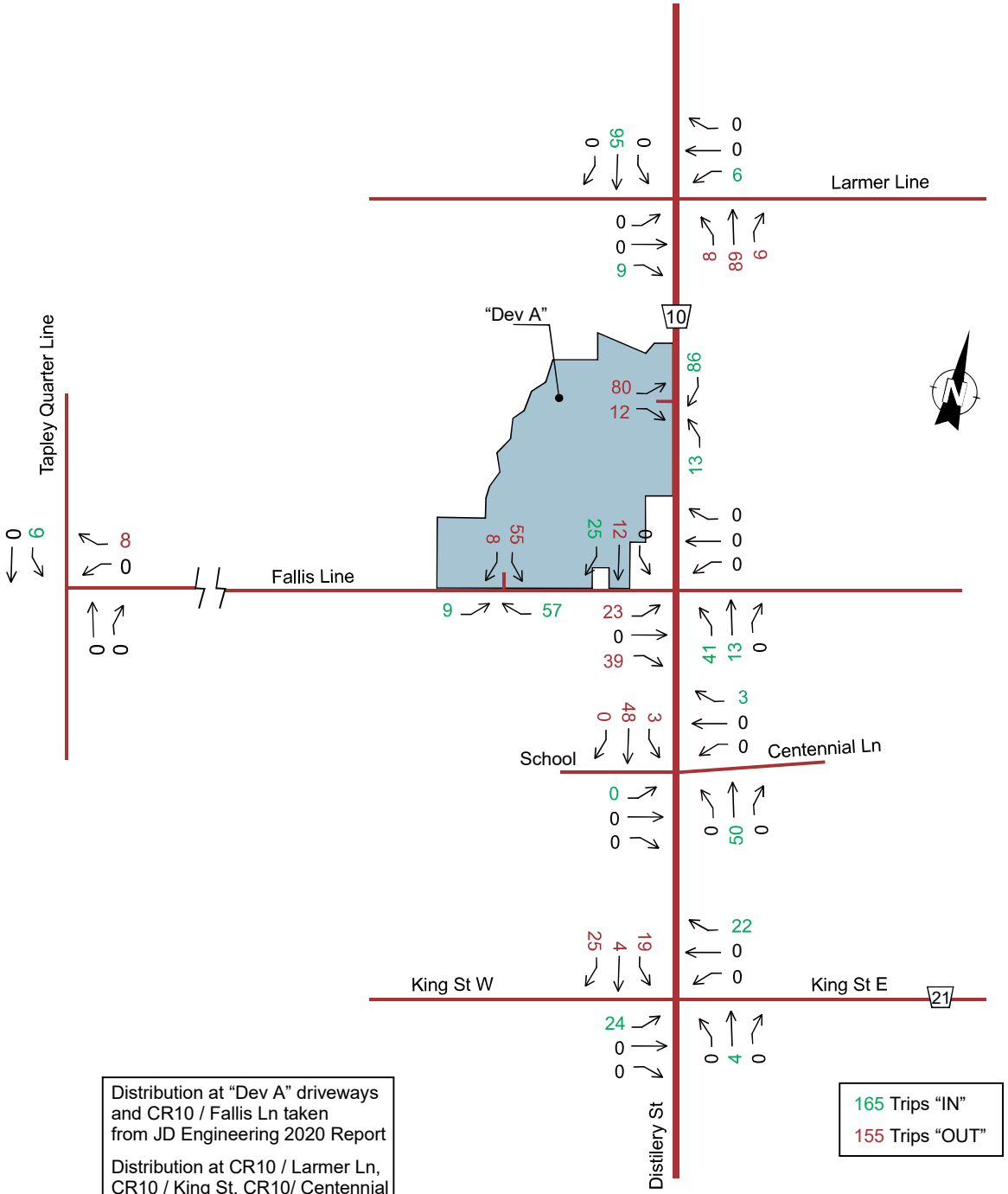


Distribution at "Dev A" driveways and CR10 / Fallis Ln taken from JD Engineering 2020 Report

Distribution at CR10 / Larmer Ln, CR10 / King St, CR10/ Centennial Ln, Fallis Ln / Tapley Quarter Ln taken from Asurza Engineers 2023 traffic counts

00% Trips "IN"
00% Trips "OUT"

Trips Generated by “Development A”
SAT Peak Hour - 2027 (50% Build-out)



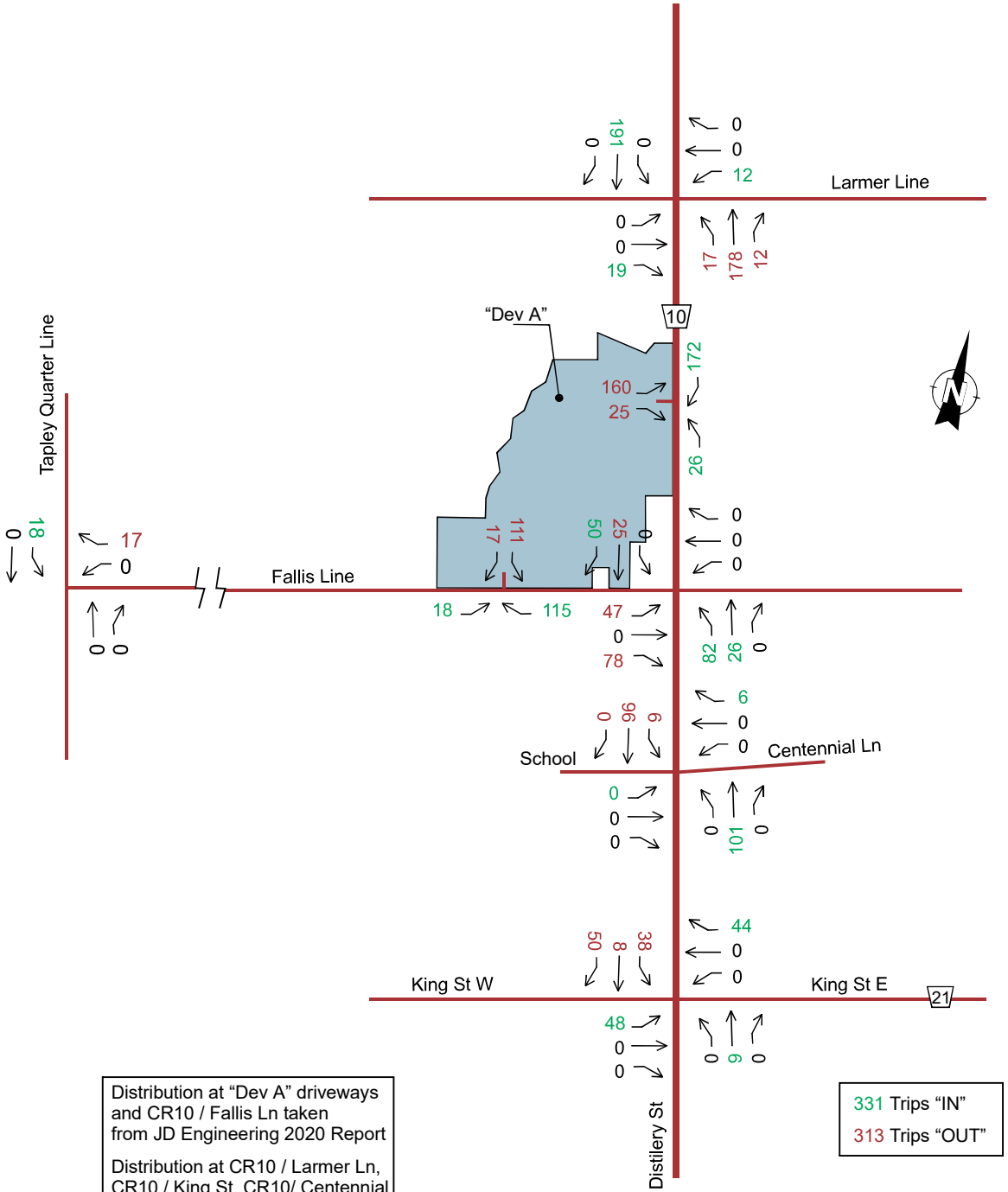
Distribution at “Dev A” driveways and CR10 / Fallis Ln taken from JD Engineering 2020 Report

Distribution at CR10 / Larmer Ln, CR10 / King St, CR10/ Centennial Ln, Fallis Ln / Tapley Quarter Ln taken from Asurza Engineers 2023 traffic counts

165 Trips “IN”

155 Trips “OUT”

Trips Generated by “Development A”
SAT Peak Hour - 2031 (100% Build-out)



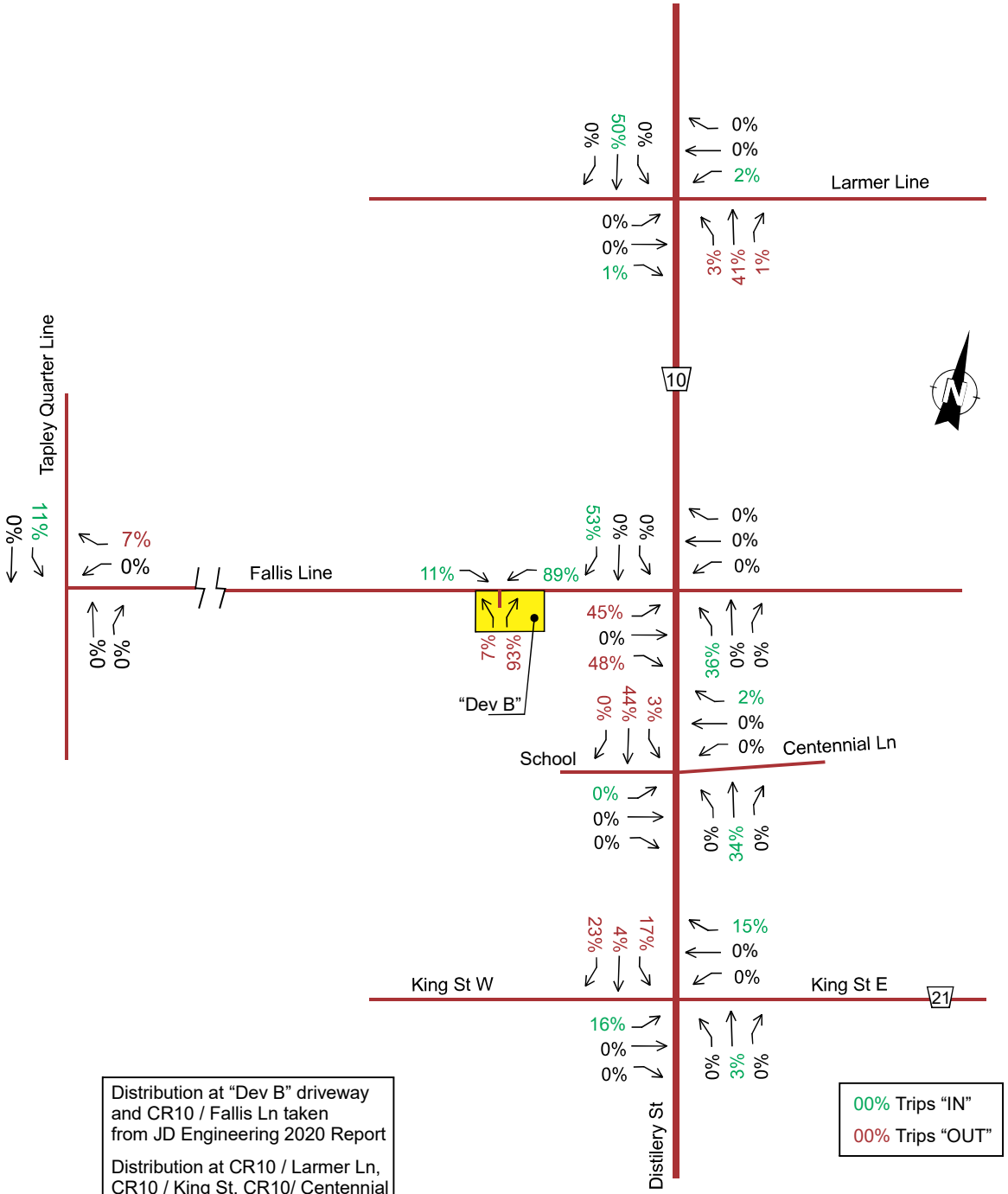
Distribution at “Dev A” driveways and CR10 / Fallis Ln taken from JD Engineering 2020 Report

Distribution at CR10 / Larmer Ln, CR10 / King St, CR10/ Centennial Ln, Fallis Ln / Tapley Quarter Ln taken from Asurza Engineers 2023 traffic counts

331 Trips “IN”

313 Trips “OUT”

Distribution of Trips Generated by "Development B" SAT Peak Hour

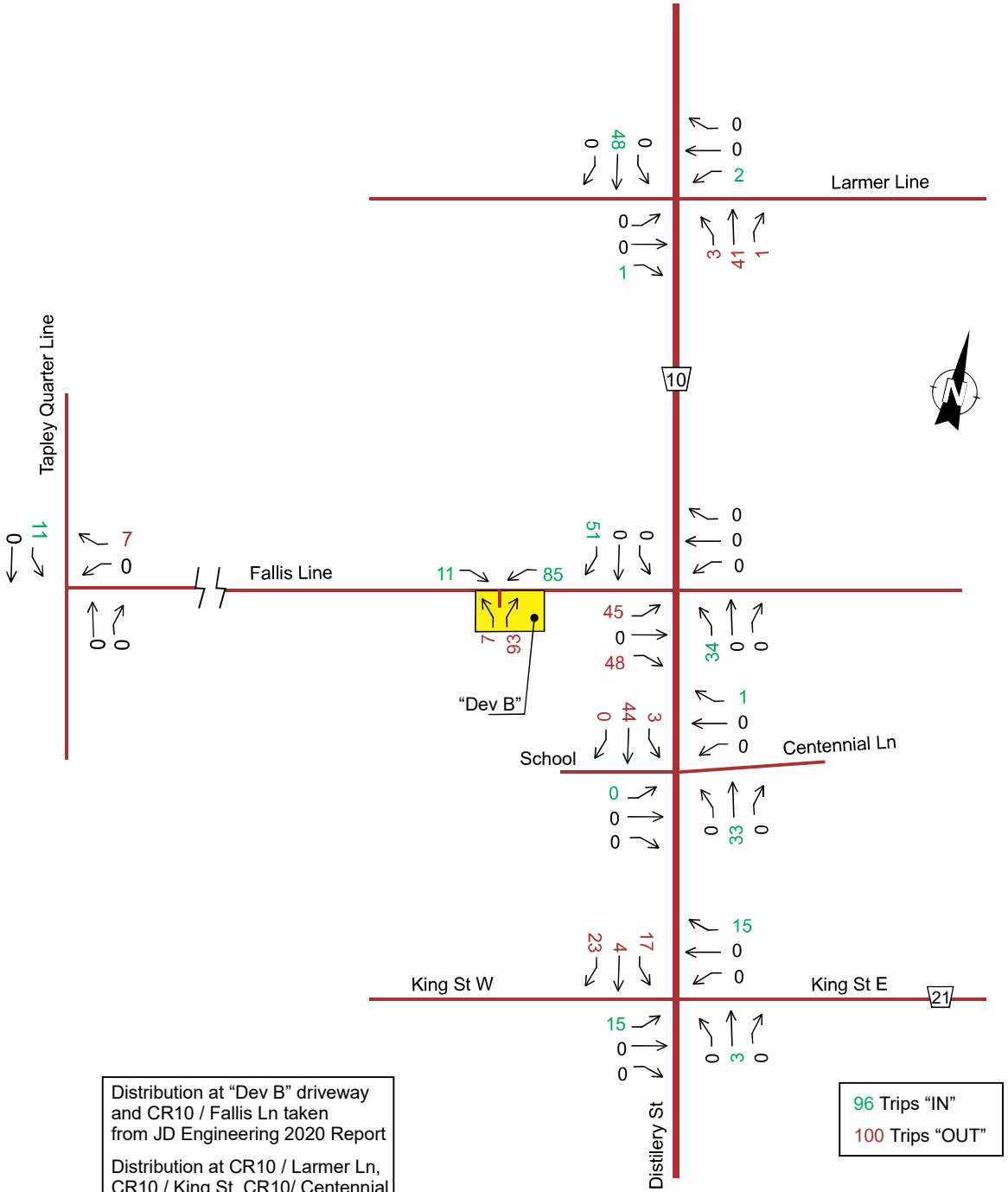


Distribution at "Dev B" driveway and CR10 / Fallis Ln taken from JD Engineering 2020 Report

Distribution at CR10 / Larmer Ln, CR10 / King St, CR10/ Centennial Ln, Fallis Ln / Tapley Quarter Ln taken from Asurza Engineers 2023 traffic counts

00% Trips "IN"
00% Trips "OUT"

Trips Generated by “Development B”
SAT Peak Hour - 2027 (100% Build-out)

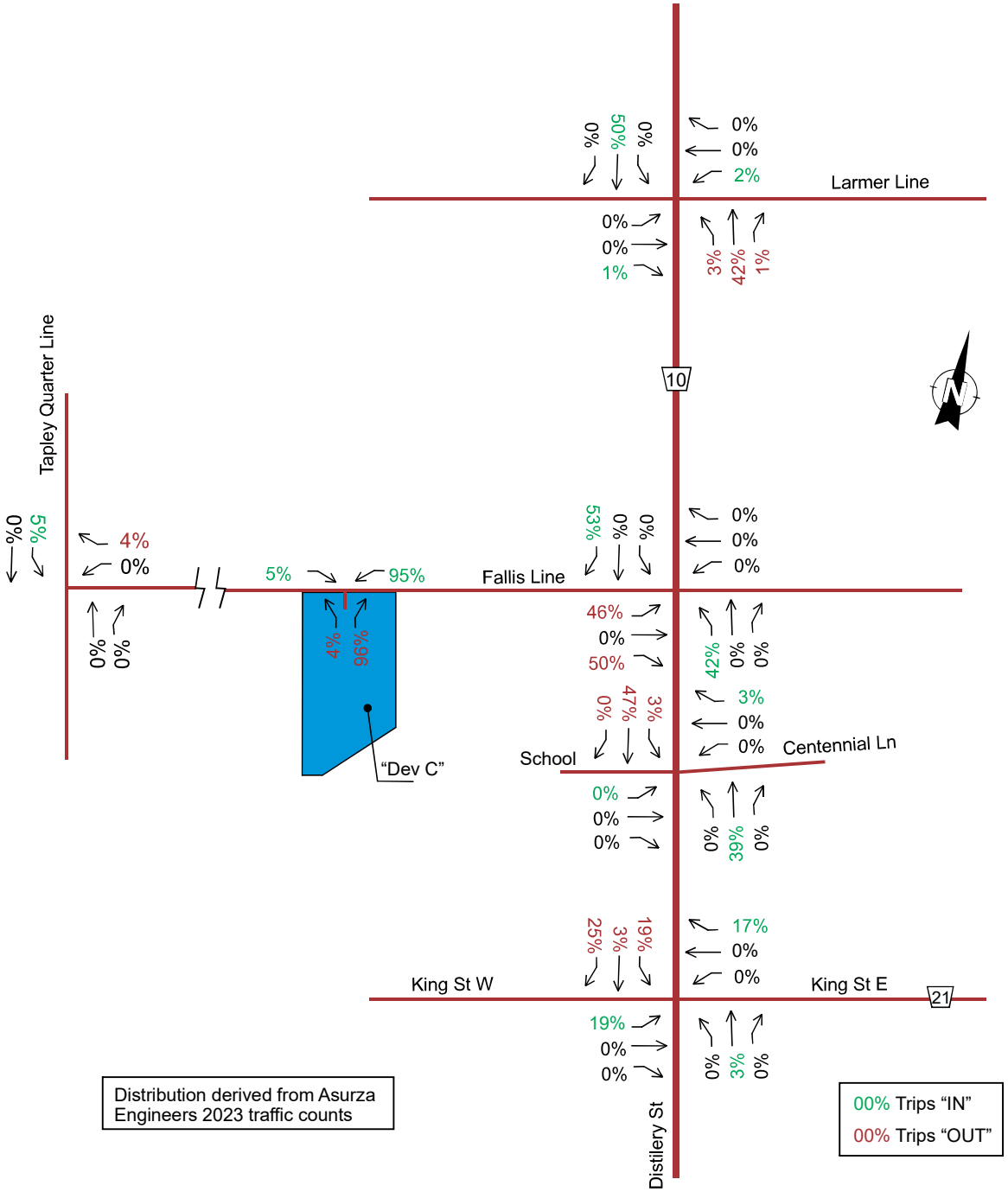


Distribution at “Dev B” driveway and CR10 / Fallis Ln taken from JD Engineering 2020 Report

Distribution at CR10 / Larmer Ln, CR10 / King St, CR10/ Centennial Ln, Fallis Ln / Tapley Quarter Ln taken from Asurza Engineers 2023 traffic counts

96 Trips “IN”
100 Trips “OUT”

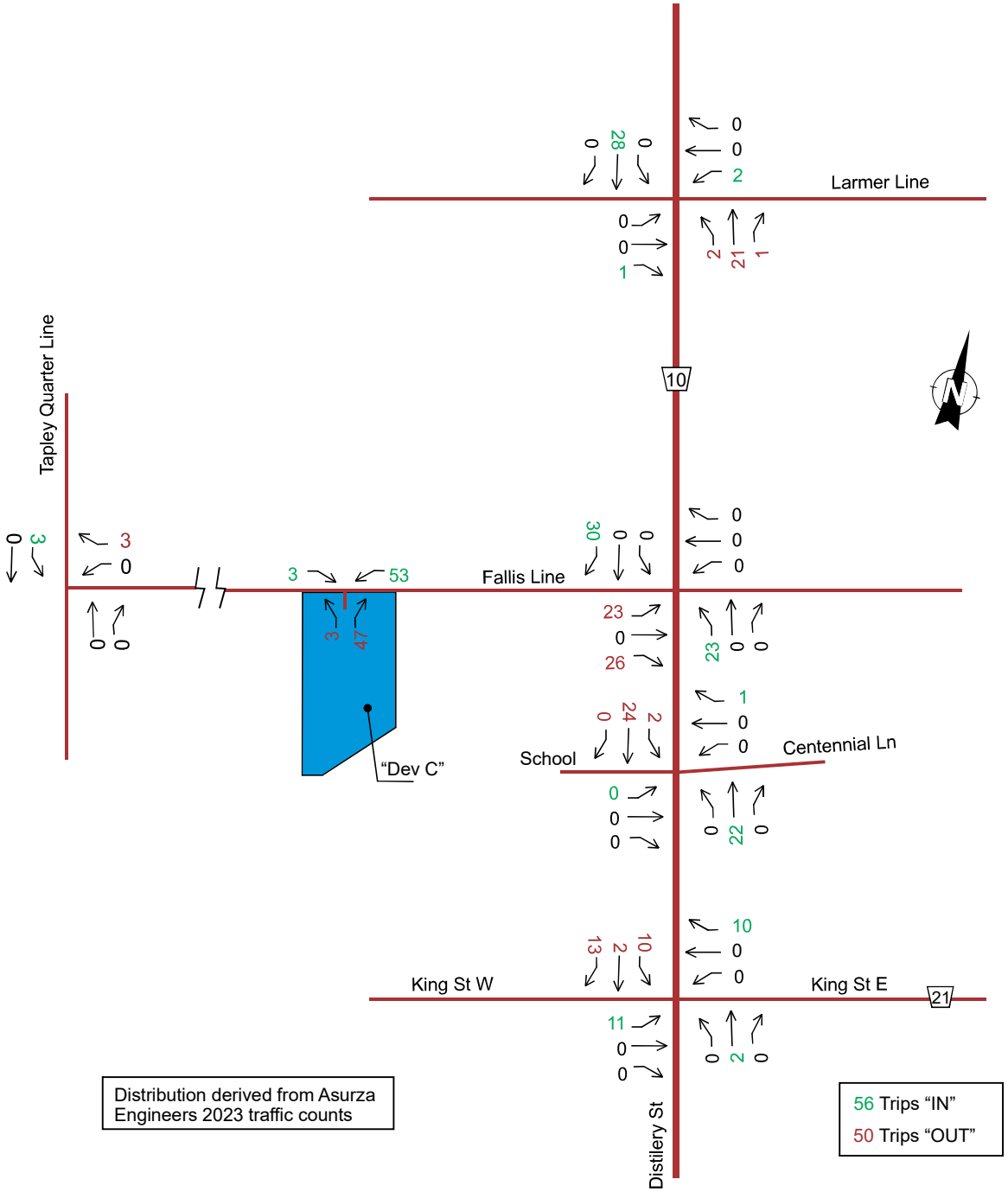
Distribution of Trips Generated by "Development C" SAT Peak Hour



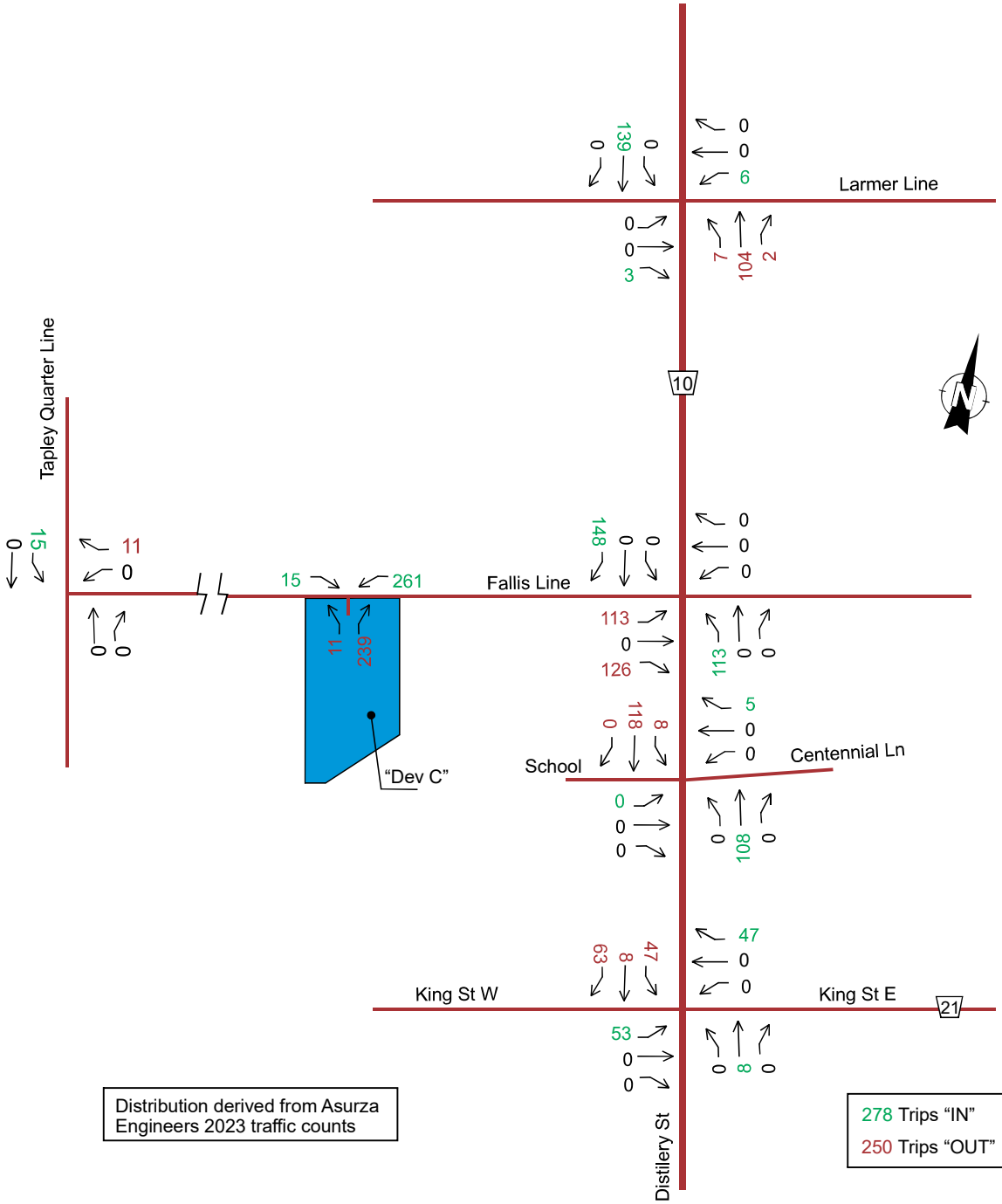
Distribution derived from Asurza Engineers 2023 traffic counts

00% Trips "IN"
00% Trips "OUT"

Trips Generated by “Development C”
SAT Peak Hour - 2027 & 2031 (20% Build-out)



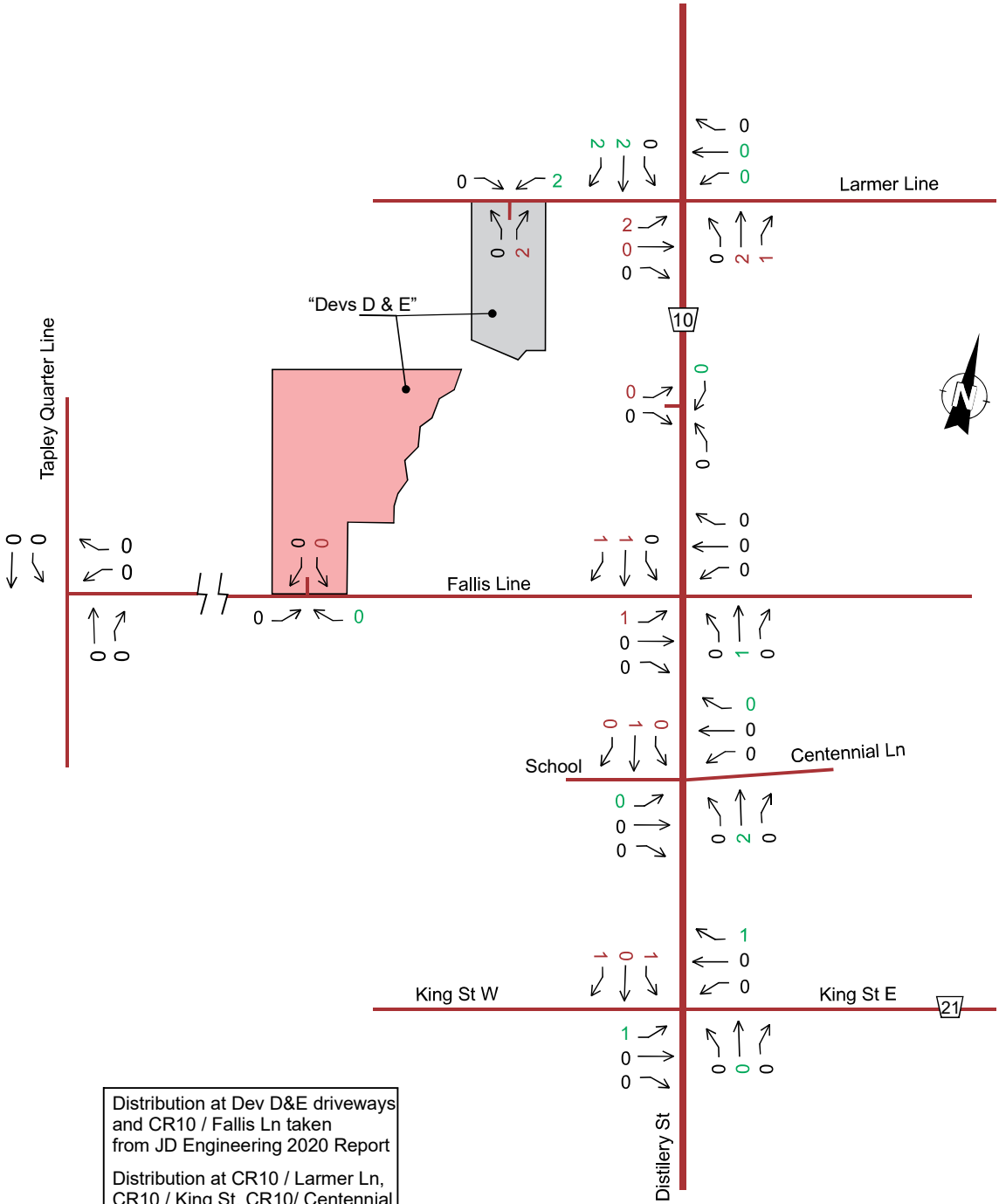
Trips Generated by “Development C”
SAT Peak Hour - 2031 (100% Build-out)



Distribution derived from Asurza Engineers 2023 traffic counts

278 Trips “IN”
250 Trips “OUT”

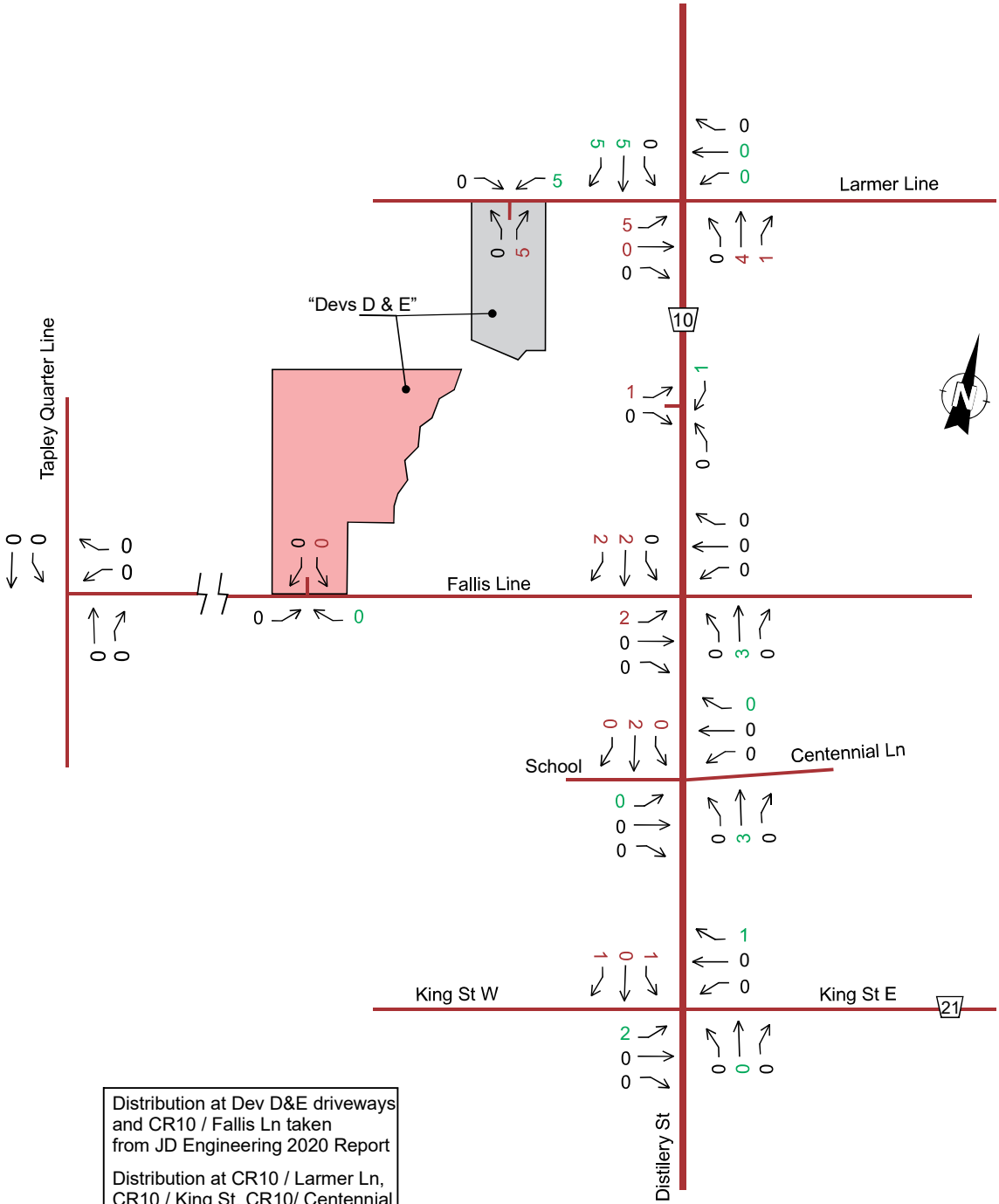
Trips Generated by "Developments D & E"
SAT Peak Hour - 2031 (50% & 20% Build-out)



Distribution at Dev D&E driveways and CR10 / Fallis Ln taken from JD Engineering 2020 Report

Distribution at CR10 / Larmer Ln, CR10 / King St, CR10/ Centennial Ln, Fallis Ln / Tapley Quarter Ln taken from Asurza Engineers 2023 traffic counts

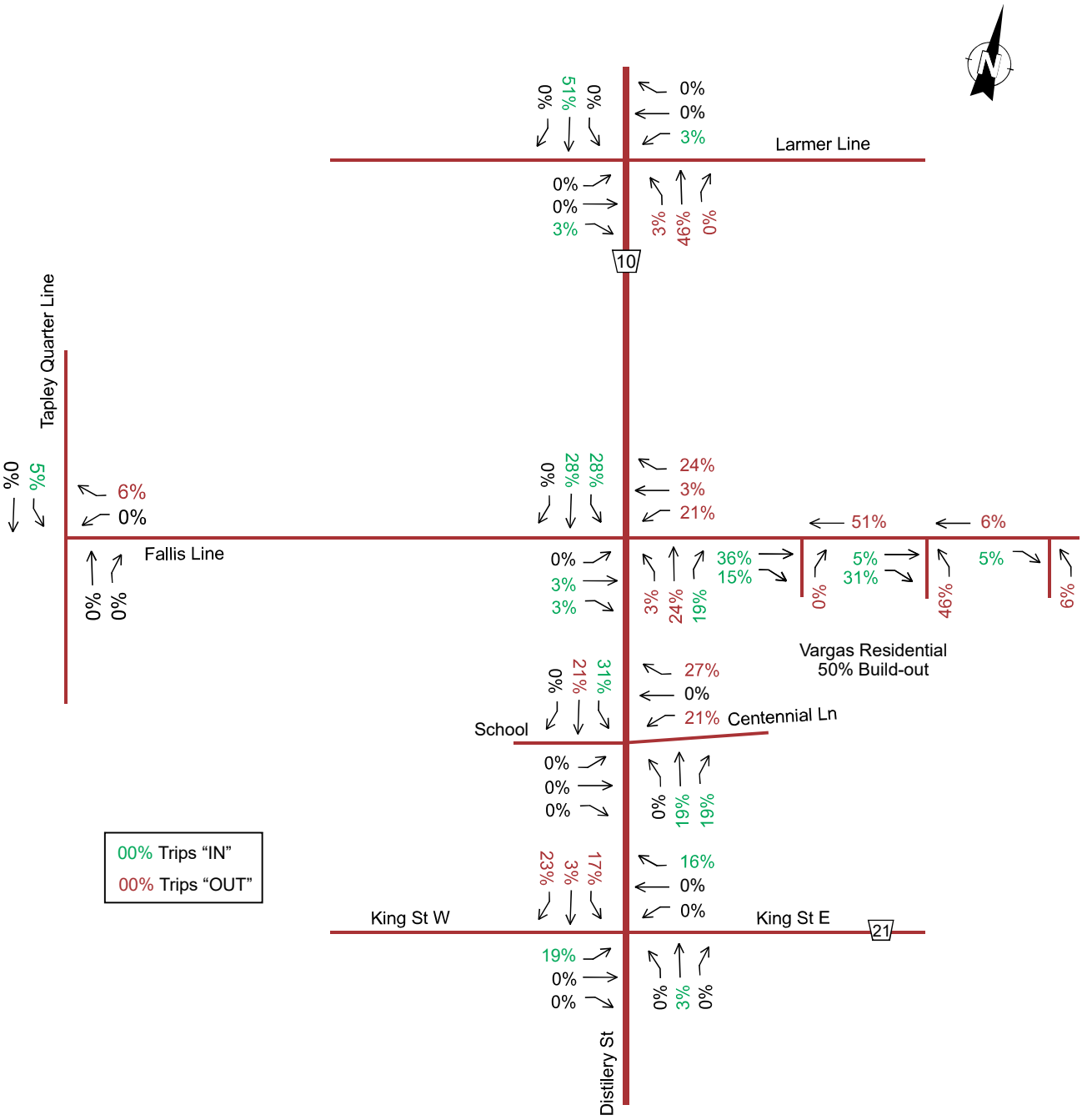
Trips Generated by “Developments D & E”
SAT Peak Hour - 2036 (100% and 50% Build-out)



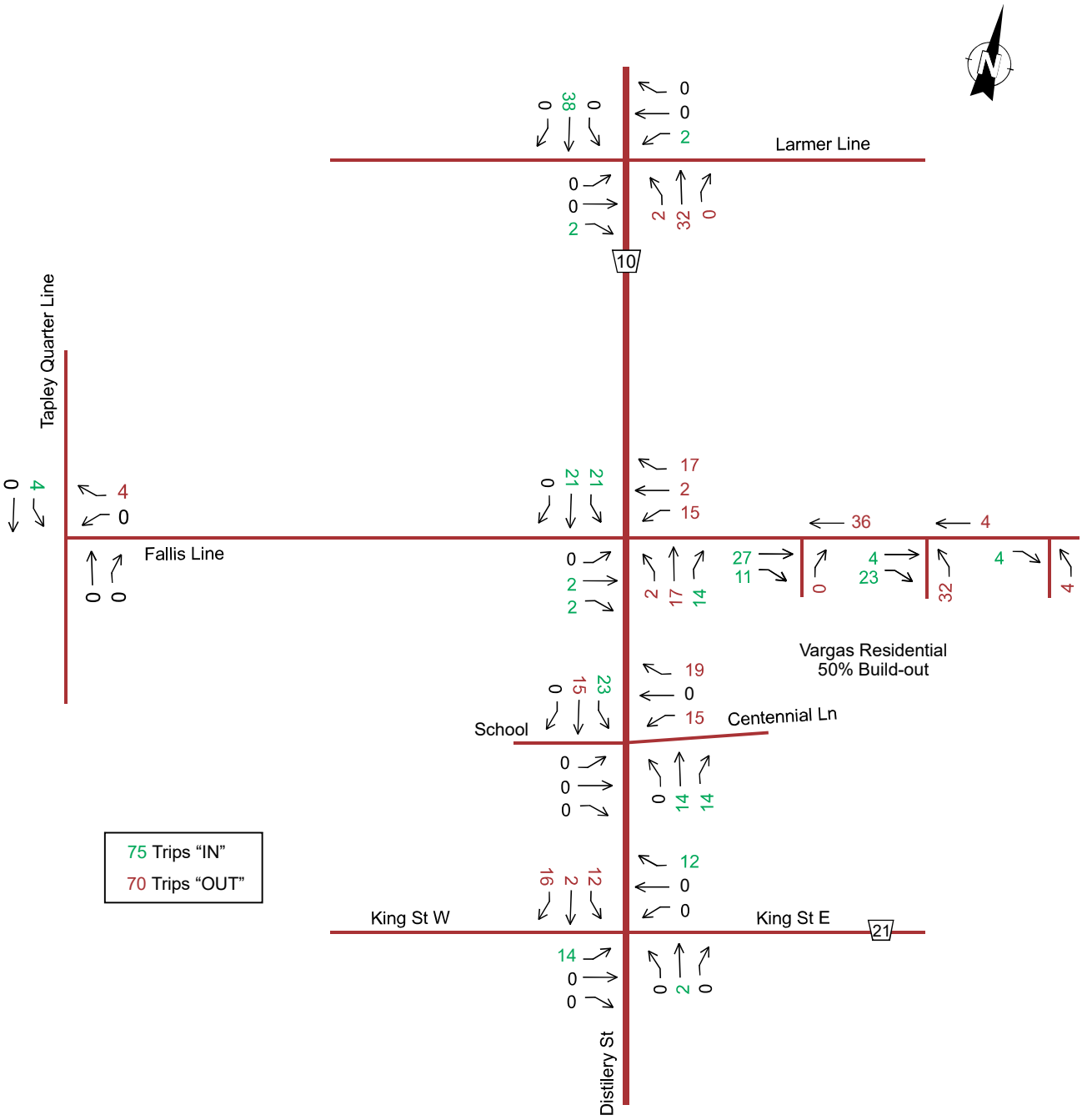
Distribution at Dev D&E driveways and CR10 / Fallis Ln taken from JD Engineering 2020 Report

Distribution at CR10 / Larmer Ln, CR10 / King St, CR10/ Centennial Ln, Fallis Ln / Tapley Quarter Ln taken from Asurza Engineers 2023 traffic counts

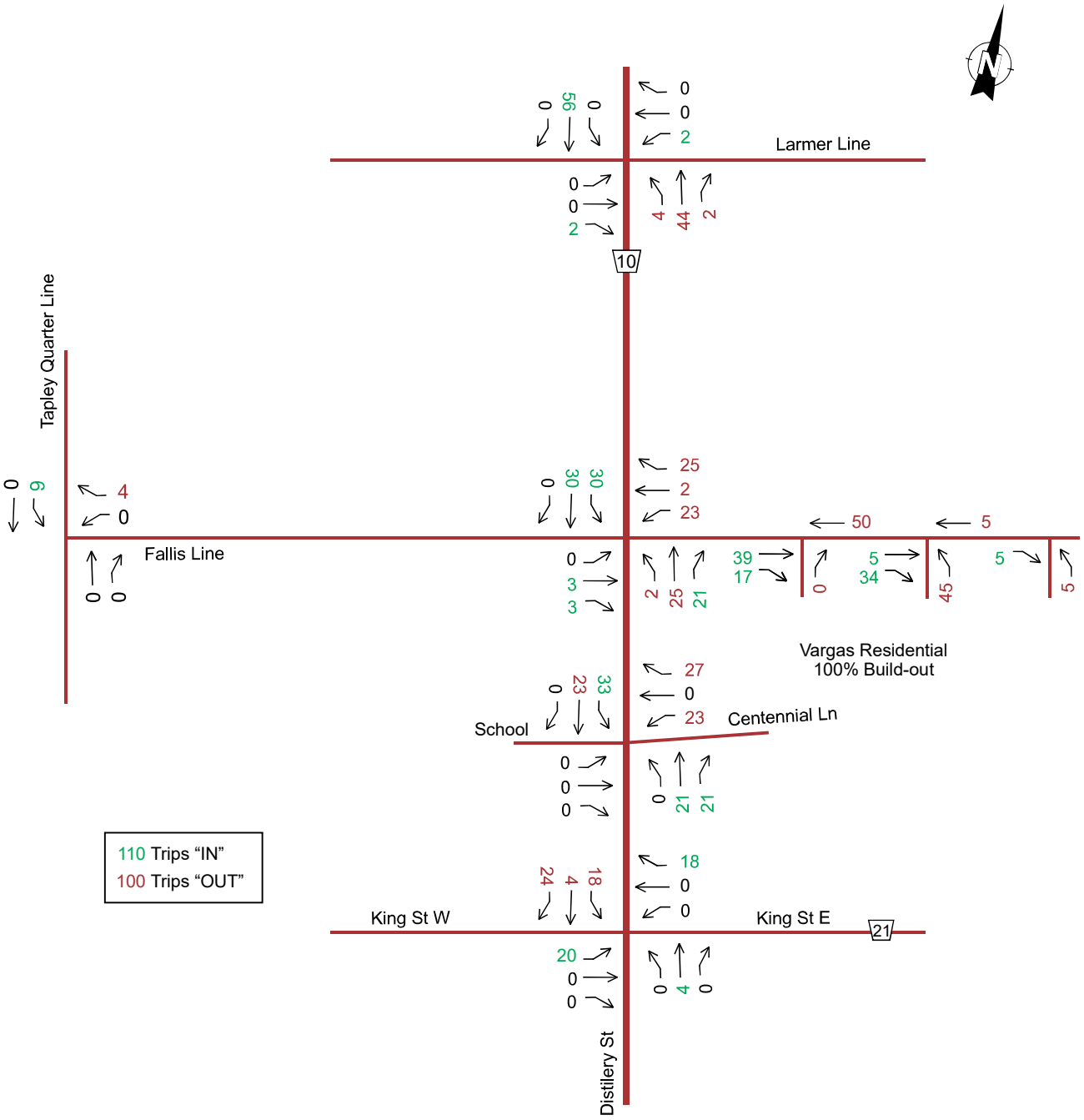
Distribution of Trips Generated by "Development F (Vargas Residential)" SAT Peak Hour



Trips Generated by "Development F (Vargas Residential)"
SAT Peak Hour - 2027 (50% Build-out)



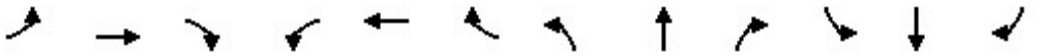
Trips Generated by "Development F (Vargas Residential)"
SAT Peak Hour - 2031 (100% Build-out)



Appendix E

Synchro Reports,

Background Volumes, 2027



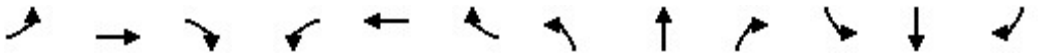
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	145	1	207	15	4	21	157	269	6	7	217	105
Future Volume (vph)	145	1	207	15	4	21	157	269	6	7	217	105
Satd. Flow (prot)	1722	1587	0	1825	1677	0	1807	1865	1633	1825	1902	1306
Flt Permitted	0.736			0.370			0.502			0.552		
Satd. Flow (perm)	1334	1587	0	711	1677	0	955	1865	1633	1060	1902	1306
Satd. Flow (RTOR)		269			27				63			136
Peak Hour Factor	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77
Heavy Vehicles (%)	6%	0%	3%	0%	0%	0%	1%	3%	0%	0%	1%	25%
Adj. Flow (vph)	188	1	269	19	5	27	204	349	8	9	282	136
Shared Lane Traffic (%)												
Lane Group Flow (vph)	188	270	0	19	32	0	204	349	8	9	282	136
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		3.7			3.7			3.7			3.7	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		1.6			1.6			1.6			1.6	
Two way Left Turn Lane												
Headway Factor	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99
Turning Speed (k/h)	24		14	24		14	24		14	24		14
Turn Type	Perm	NA		Perm	NA		pm+pt	NA	Perm	pm+pt	NA	Perm
Protected Phases		4			8		5	2		1	6	
Permitted Phases	4			8			2		2	6		6
Detector Phase	4	4		8	8		5	2	2	1	6	6
Switch Phase												
Minimum Initial (s)	7.0	7.0		7.0	7.0		7.0	10.0	10.0	7.0	10.0	10.0
Minimum Split (s)	20.0	20.0		20.0	20.0		11.0	20.0	20.0	11.0	20.0	20.0
Total Split (s)	36.0	36.0		36.0	36.0		15.0	39.0	39.0	15.0	39.0	39.0
Total Split (%)	40.0%	40.0%		40.0%	40.0%		16.7%	43.3%	43.3%	16.7%	43.3%	43.3%
Yellow Time (s)	3.7	3.7		3.7	3.7		3.5	3.7	3.7	3.5	3.7	3.7
All-Red Time (s)	1.0	1.0		1.0	1.0		0.0	1.0	1.0	0.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.7	4.7		4.7	4.7		3.5	4.7	4.7	3.5	4.7	4.7
Lead/Lag							Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?							Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None		None	None		None	Max	Max	None	Max	Max
Act Effct Green (s)	15.7	15.7		15.7	15.7		49.0	46.0	46.0	42.9	34.6	34.6
Actuated g/C Ratio	0.22	0.22		0.22	0.22		0.67	0.63	0.63	0.59	0.47	0.47
v/c Ratio	0.66	0.49		0.12	0.08		0.27	0.30	0.01	0.01	0.31	0.20
Control Delay	37.6	6.6		24.5	10.8		6.4	9.0	0.0	6.0	14.7	3.8
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	37.6	6.6		24.5	10.8		6.4	9.0	0.0	6.0	14.7	3.8
LOS	D	A		C	B		A	A	A	A	B	A
Approach Delay		19.3			15.9			7.9			11.1	
Approach LOS		B			B			A			B	
Queue Length 50th (m)	23.8	0.1		2.1	0.5		8.5	16.9	0.0	0.3	22.7	0.0
Queue Length 95th (m)	35.8	8.9		6.1	5.2		18.1	44.2	0.0	1.8	39.5	6.2
Internal Link Dist (m)		182.6			89.4			840.6			255.9	
Turn Bay Length (m)	70.0			45.0			150.0		100.0	110.0		110.0

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Base Capacity (vph)	576	839		307	740		776	1173	1051	806	901	690
Starvation Cap Reductn	0	0		0	0		0	0	0	0	0	0
Spillback Cap Reductn	0	0		0	0		0	0	0	0	0	0
Storage Cap Reductn	0	0		0	0		0	0	0	0	0	0
Reduced v/c Ratio	0.33	0.32		0.06	0.04		0.26	0.30	0.01	0.01	0.31	0.20

Intersection Summary	
Cycle Length: 90	
Actuated Cycle Length: 73	
Natural Cycle: 55	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.66	
Intersection Signal Delay: 12.6	Intersection LOS: B
Intersection Capacity Utilization 46.0%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 6: CR10 & Fallis Line/Fallis Line Driveway





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	105	4	122	9	1	11	150	279	14	23	324	125
Future Volume (vph)	105	4	122	9	1	11	150	279	14	23	324	125
Satd. Flow (prot)	1706	1641	0	1825	1656	0	1789	1902	1633	1825	1921	1585
Flt Permitted	0.749			0.665			0.458			0.575		
Satd. Flow (perm)	1345	1641	0	1278	1656	0	863	1902	1633	1105	1921	1585
Satd. Flow (RTOR)		133			12				63			136
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	7%	0%	0%	0%	0%	0%	2%	1%	0%	0%	0%	3%
Adj. Flow (vph)	114	4	133	10	1	12	163	303	15	25	352	136
Shared Lane Traffic (%)												
Lane Group Flow (vph)	114	137	0	10	13	0	163	303	15	25	352	136
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		3.7			3.7			3.7			3.7	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		1.6			1.6			1.6			1.6	
Two way Left Turn Lane												
Headway Factor	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99
Turning Speed (k/h)	24		14	24		14	24		14	24		14
Turn Type	Perm	NA		Perm	NA		pm+pt	NA	Perm	pm+pt	NA	Perm
Protected Phases		4			8		5	2		1	6	
Permitted Phases	4			8			2		2	6		6
Detector Phase	4	4		8	8		5	2	2	1	6	6
Switch Phase												
Minimum Initial (s)	7.0	7.0		7.0	7.0		7.0	10.0	10.0	7.0	10.0	10.0
Minimum Split (s)	20.0	20.0		20.0	20.0		11.0	20.0	20.0	11.0	20.0	20.0
Total Split (s)	36.0	36.0		36.0	36.0		15.0	39.0	39.0	15.0	39.0	39.0
Total Split (%)	40.0%	40.0%		40.0%	40.0%		16.7%	43.3%	43.3%	16.7%	43.3%	43.3%
Yellow Time (s)	3.7	3.7		3.7	3.7		3.5	3.7	3.7	3.5	3.7	3.7
All-Red Time (s)	1.0	1.0		1.0	1.0		0.0	1.0	1.0	0.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.7	4.7		4.7	4.7		3.5	4.7	4.7	3.5	4.7	4.7
Lead/Lag							Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?							Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None		None	None		None	Max	Max	None	Max	Max
Act Effct Green (s)	11.1	11.1		11.1	11.1		47.2	42.4	42.4	42.7	34.4	34.4
Actuated g/C Ratio	0.17	0.17		0.17	0.17		0.71	0.63	0.63	0.64	0.51	0.51
v/c Ratio	0.51	0.36		0.05	0.05		0.22	0.25	0.01	0.03	0.36	0.15
Control Delay	34.1	8.3		23.7	13.5		4.4	7.9	0.0	4.0	11.9	2.7
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	34.1	8.3		23.7	13.5		4.4	7.9	0.0	4.0	11.9	2.7
LOS	C	A		C	B		A	A	A	A	B	A
Approach Delay		20.0			17.9			6.5			9.1	
Approach LOS		C			B			A			A	
Queue Length 50th (m)	13.1	0.4		1.1	0.1		5.0	10.9	0.0	0.7	24.1	0.0
Queue Length 95th (m)	27.6	13.0		4.6	4.2		12.9	37.7	0.0	3.0	49.3	8.1
Internal Link Dist (m)		182.6			89.4			840.6			255.9	
Turn Bay Length (m)	70.0			45.0			150.0		100.0	110.0		110.0

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Base Capacity (vph)	631	841		600	783		773	1206	1059	898	988	881
Starvation Cap Reductn	0	0		0	0		0	0	0	0	0	0
Spillback Cap Reductn	0	0		0	0		0	0	0	0	0	0
Storage Cap Reductn	0	0		0	0		0	0	0	0	0	0
Reduced v/c Ratio	0.18	0.16		0.02	0.02		0.21	0.25	0.01	0.03	0.36	0.15

Intersection Summary	
Cycle Length: 90	
Actuated Cycle Length: 66.9	
Natural Cycle: 55	
Control Type: Semi Act-Uncoord	
Maximum v/c Ratio: 0.51	
Intersection Signal Delay: 10.4	Intersection LOS: B
Intersection Capacity Utilization 49.0%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 6: CR10 & Fallis Line/Fallis Line Driveway



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	128	2	149	15	2	17	126	220	14	21	228	136
Future Volume (vph)	128	2	149	15	2	17	126	220	14	21	228	136
Satd. Flow (prot)	1825	1637	0	1825	1660	0	1825	1921	1633	1825	1921	1633
Flt Permitted	0.744			0.577			0.534			0.604		
Satd. Flow (perm)	1429	1637	0	1108	1660	0	1026	1921	1633	1160	1921	1633
Satd. Flow (RTOR)		169			19				63			155
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Heavy Vehicles (%)	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Adj. Flow (vph)	145	2	169	17	2	19	143	250	16	24	259	155
Shared Lane Traffic (%)												
Lane Group Flow (vph)	145	171	0	17	21	0	143	250	16	24	259	155
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		3.7			3.7			3.7			3.7	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		1.6			1.6			1.6			1.6	
Two way Left Turn Lane												
Headway Factor	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99
Turning Speed (k/h)	24		14	24		14	24		14	24		14
Turn Type	Perm	NA		Perm	NA		pm+pt	NA	Perm	pm+pt	NA	Perm
Protected Phases		4			8		5	2		1	6	
Permitted Phases	4			8			2		2	6		6
Detector Phase	4	4		8	8		5	2	2	1	6	6
Switch Phase												
Minimum Initial (s)	7.0	7.0		7.0	7.0		7.0	10.0	10.0	7.0	10.0	10.0
Minimum Split (s)	20.0	20.0		20.0	20.0		11.0	20.0	20.0	11.0	20.0	20.0
Total Split (s)	36.0	36.0		36.0	36.0		15.0	39.0	39.0	15.0	39.0	39.0
Total Split (%)	40.0%	40.0%		40.0%	40.0%		16.7%	43.3%	43.3%	16.7%	43.3%	43.3%
Yellow Time (s)	3.7	3.7		3.7	3.7		3.5	3.7	3.7	3.5	3.7	3.7
All-Red Time (s)	1.0	1.0		1.0	1.0		0.0	1.0	1.0	0.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.7	4.7		4.7	4.7		3.5	4.7	4.7	3.5	4.7	4.7
Lead/Lag							Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?							Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None		None	None		None	Max	Max	None	Max	Max
Act Effct Green (s)	12.3	12.3		12.3	12.3		46.8	42.2	42.2	42.7	34.5	34.5
Actuated g/C Ratio	0.18	0.18		0.18	0.18		0.69	0.62	0.62	0.63	0.51	0.51
v/c Ratio	0.56	0.39		0.08	0.07		0.18	0.21	0.02	0.03	0.27	0.17
Control Delay	34.0	7.4		23.5	11.8		4.7	8.3	0.0	4.5	11.6	2.8
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	34.0	7.4		23.5	11.8		4.7	8.3	0.0	4.5	11.6	2.8
LOS	C	A		C	B		A	A	A	A	B	A
Approach Delay		19.6			17.0			6.7			8.1	
Approach LOS		B			B			A			A	
Queue Length 50th (m)	16.8	0.2		1.8	0.2		4.7	9.4	0.0	0.7	17.2	0.0
Queue Length 95th (m)	32.4	13.0		6.4	5.0		12.7	32.7	0.0	3.3	37.1	8.6
Internal Link Dist (m)		182.6			89.4			840.6			255.9	
Turn Bay Length (m)	70.0			45.0			150.0		100.0	110.0		110.0

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Base Capacity (vph)	661	848		512	778		850	1194	1038	913	975	905
Starvation Cap Reductn	0	0		0	0		0	0	0	0	0	0
Spillback Cap Reductn	0	0		0	0		0	0	0	0	0	0
Storage Cap Reductn	0	0		0	0		0	0	0	0	0	0
Reduced v/c Ratio	0.22	0.20		0.03	0.03		0.17	0.21	0.02	0.03	0.27	0.17

Intersection Summary	
Cycle Length: 90	
Actuated Cycle Length: 67.9	
Natural Cycle: 55	
Control Type: Semi Act-Uncoord	
Maximum v/c Ratio: 0.56	
Intersection Signal Delay: 10.9	Intersection LOS: B
Intersection Capacity Utilization 43.9%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 6: CR10 & Fallis Line/Fallis Line Driveway





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	13	3	35	23	5	4	22	475	21	3	305	3
Future Volume (Veh/h)	13	3	35	23	5	4	22	475	21	3	305	3
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Hourly flow rate (vph)	15	3	40	26	6	5	25	540	24	3	347	3
Pedestrians												
Lane Width (m)												
Walking Speed (m/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (m)												
pX, platoon unblocked												
vC, conflicting volume	952	968	348	996	958	552	350			564		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	952	968	348	996	958	552	350			564		
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	4.1			4.4		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.5		
p0 queue free %	93	99	94	87	98	99	98			100		
cM capacity (veh/h)	230	250	688	206	253	537	1220			870		

Direction, Lane #	EB 1	WB 1	NB 1	NB 2	SB 1	SB 2
Volume Total	58	37	25	564	3	350
Volume Left	15	26	25	0	3	0
Volume Right	40	5	0	24	0	3
cSH	429	233	1220	1700	870	1700
Volume to Capacity	0.14	0.16	0.02	0.33	0.00	0.21
Queue Length 95th (m)	3.5	4.2	0.5	0.0	0.1	0.0
Control Delay (s)	14.7	23.4	8.0	0.0	9.2	0.0
Lane LOS	B	C	A		A	
Approach Delay (s)	14.7	23.4	0.3		0.1	
Approach LOS	B	C				

Intersection Summary				
Average Delay	1.9			
Intersection Capacity Utilization	37.2%	ICU Level of Service	A	
Analysis Period (min)	15			



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	4	3	1	435	326	19
Future Volume (Veh/h)	4	3	1	435	326	19
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.77	0.77	0.77	0.77	0.77	0.77
Hourly flow rate (vph)	5	4	1	565	423	25
Pedestrians						
Lane Width (m)						
Walking Speed (m/s)						
Percent Blockage						
Right turn flare (veh)						
Median type				None	None	
Median storage veh)						
Upstream signal (m)				280		
pX, platoon unblocked	0.85					
vC, conflicting volume	1002	436	448			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	912	436	448			
tC, single (s)	6.4	6.2	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	98	99	100			
cM capacity (veh/h)	259	625	1123			

Direction, Lane #	EB 1	EB 2	NB 1	NB 2	SB 1
Volume Total	5	4	1	565	448
Volume Left	5	0	1	0	0
Volume Right	0	4	0	0	25
cSH	259	625	1123	1700	1700
Volume to Capacity	0.02	0.01	0.00	0.33	0.26
Queue Length 95th (m)	0.4	0.1	0.0	0.0	0.0
Control Delay (s)	19.2	10.8	8.2	0.0	0.0
Lane LOS	C	B	A		
Approach Delay (s)	15.4		0.0		0.0
Approach LOS	C				

Intersection Summary				
Average Delay	0.1			
Intersection Capacity Utilization	32.9%	ICU Level of Service	A	
Analysis Period (min)	15			



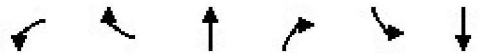
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Stop			Stop	
Traffic Volume (vph)	100	26	2	7	48	166	0	21	6	165	35	93
Future Volume (vph)	100	26	2	7	48	166	0	21	6	165	35	93
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85
Hourly flow rate (vph)	118	31	2	8	56	195	0	25	7	194	41	109

Direction, Lane #	EB 1	WB 1	NB 1	SB 1	SB 2
Volume Total (vph)	151	259	32	194	150
Volume Left (vph)	118	8	0	194	0
Volume Right (vph)	2	195	7	0	109
Hadj (s)	0.24	-0.34	-0.04	0.58	-0.48
Departure Headway (s)	5.5	4.8	5.6	6.2	5.1
Degree Utilization, x	0.23	0.34	0.05	0.33	0.21
Capacity (veh/h)	613	712	579	553	667
Control Delay (s)	10.1	10.3	8.9	11.1	8.3
Approach Delay (s)	10.1	10.3	8.9	9.9	
Approach LOS	B	B	A	A	

Intersection Summary				
Delay	10.0			
Level of Service	B			
Intersection Capacity Utilization	46.0%	ICU Level of Service	A	
Analysis Period (min)	15			

Intersection: 12: Distillery Rd/CR10 & King St (CR21)

Movement	EB	WB	NB	SB	SB
Directions Served	LTR	LTR	LTR	L	TR
Maximum Queue (m)	24.1	28.8	15.7	23.1	21.0
Average Queue (m)	12.3	16.0	6.4	14.4	12.0
95th Queue (m)	20.2	24.9	14.4	20.9	18.7
Link Distance (m)	518.3	494.8	260.2		493.8
Upstream Blk Time (%)					
Queuing Penalty (veh)					
Storage Bay Dist (m)				12.0	
Storage Blk Time (%)				8	5
Queuing Penalty (veh)				10	9



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	0	96	59	1	44	37
Future Volume (Veh/h)	0	96	59	1	44	37
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Peak Hour Factor	0.80	0.80	0.80	0.80	0.80	0.80
Hourly flow rate (vph)	0	120	74	1	55	46
Pedestrians						
Lane Width (m)						
Walking Speed (m/s)						
Percent Blockage						
Right turn flare (veh)						
Median type			None			None
Median storage veh)						
Upstream signal (m)						
pX, platoon unblocked						
vC, conflicting volume	230	74			75	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	230	74			75	
tC, single (s)	6.4	6.2			4.2	
tC, 2 stage (s)						
tF (s)	3.5	3.3			2.3	
p0 queue free %	100	88			96	
cM capacity (veh/h)	733	979			1446	

Direction, Lane #	WB 1	NB 1	SB 1
Volume Total	120	75	101
Volume Left	0	0	55
Volume Right	120	1	0
cSH	979	1700	1446
Volume to Capacity	0.12	0.04	0.04
Queue Length 95th (m)	3.2	0.0	0.9
Control Delay (s)	9.2	0.0	4.3
Lane LOS	A		A
Approach Delay (s)	9.2	0.0	4.3
Approach LOS	A		

Intersection Summary			
Average Delay	5.2		
Intersection Capacity Utilization	23.7%	ICU Level of Service	A
Analysis Period (min)	15		



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	84	13	4	435	332	27
Future Volume (Veh/h)	84	13	4	435	332	27
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	91	14	4	473	361	29
Pedestrians						
Lane Width (m)						
Walking Speed (m/s)						
Percent Blockage						
Right turn flare (veh)						
Median type				None	None	
Median storage veh)						
Upstream signal (m)				400		
pX, platoon unblocked	0.97					
vC, conflicting volume	842	361	390			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	820	361	390			
tC, single (s)	6.4	6.2	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	73	98	100			
cM capacity (veh/h)	332	684	1169			

Direction, Lane #	EB 1	EB 2	NB 1	NB 2	SB 1	SB 2
Volume Total	91	14	4	473	361	29
Volume Left	91	0	4	0	0	0
Volume Right	0	14	0	0	0	29
cSH	332	684	1169	1700	1700	1700
Volume to Capacity	0.27	0.02	0.00	0.28	0.21	0.02
Queue Length 95th (m)	8.3	0.5	0.1	0.0	0.0	0.0
Control Delay (s)	19.9	10.4	8.1	0.0	0.0	0.0
Lane LOS	C	B	A			
Approach Delay (s)	18.6		0.1		0.0	
Approach LOS	C					

Intersection Summary				
Average Delay	2.0			
Intersection Capacity Utilization	34.2%	ICU Level of Service		A
Analysis Period (min)	15			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	8	6	25	15	2	7	28	414	19	15	519	15
Future Volume (Veh/h)	8	6	25	15	2	7	28	414	19	15	519	15
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Hourly flow rate (vph)	9	7	27	16	2	8	31	455	21	16	570	16
Pedestrians												
Lane Width (m)												
Walking Speed (m/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (m)												
pX, platoon unblocked												
vC, conflicting volume	1136	1148	578	1160	1146	466	586			476		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	1136	1148	578	1160	1146	466	586			476		
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.3	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.4	2.2			2.2		
p0 queue free %	95	96	95	90	99	99	97			99		
cM capacity (veh/h)	171	191	519	155	192	573	999			1097		

Direction, Lane #	EB 1	WB 1	NB 1	NB 2	SB 1	SB 2
Volume Total	43	26	31	476	16	586
Volume Left	9	16	31	0	16	0
Volume Right	27	8	0	21	0	16
cSH	304	204	999	1700	1097	1700
Volume to Capacity	0.14	0.13	0.03	0.28	0.01	0.34
Queue Length 95th (m)	3.7	3.3	0.7	0.0	0.3	0.0
Control Delay (s)	18.8	25.2	8.7	0.0	8.3	0.0
Lane LOS	C	D	A		A	
Approach Delay (s)	18.8	25.2	0.5		0.2	
Approach LOS	C	D				

Intersection Summary				
Average Delay	1.6			
Intersection Capacity Utilization	38.3%	ICU Level of Service	A	
Analysis Period (min)	15			



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	17	14	1	395	458	22
Future Volume (Veh/h)	17	14	1	395	458	22
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	18	15	1	429	498	24
Pedestrians						
Lane Width (m)						
Walking Speed (m/s)						
Percent Blockage						
Right turn flare (veh)						
Median type				None	None	
Median storage veh)						
Upstream signal (m)				280		
pX, platoon unblocked	0.99					
vC, conflicting volume	941	510	522			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	938	510	522			
tC, single (s)	6.4	6.2	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	94	97	100			
cM capacity (veh/h)	294	567	1055			

Direction, Lane #	EB 1	EB 2	NB 1	NB 2	SB 1
Volume Total	18	15	1	429	522
Volume Left	18	0	1	0	0
Volume Right	0	15	0	0	24
cSH	294	567	1055	1700	1700
Volume to Capacity	0.06	0.03	0.00	0.25	0.31
Queue Length 95th (m)	1.5	0.6	0.0	0.0	0.0
Control Delay (s)	18.0	11.5	8.4	0.0	0.0
Lane LOS	C	B	A		
Approach Delay (s)	15.1		0.0		0.0
Approach LOS	C				

Intersection Summary			
Average Delay	0.5		
Intersection Capacity Utilization	35.4%	ICU Level of Service	A
Analysis Period (min)	15		



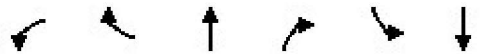
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Stop			Stop	
Traffic Volume (vph)	123	47	4	0	43	184	1	42	7	209	13	145
Future Volume (vph)	123	47	4	0	43	184	1	42	7	209	13	145
Peak Hour Factor	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83
Hourly flow rate (vph)	148	57	5	0	52	222	1	51	8	252	16	175

Direction, Lane #	EB 1	WB 1	NB 1	SB 1	SB 2
Volume Total (vph)	210	274	60	252	191
Volume Left (vph)	148	0	1	252	0
Volume Right (vph)	5	222	8	0	175
Hadj (s)	0.15	-0.44	-0.08	0.52	-0.64
Departure Headway (s)	5.8	5.1	6.0	6.5	5.3
Degree Utilization, x	0.34	0.39	0.10	0.45	0.28
Capacity (veh/h)	579	655	517	532	649
Control Delay (s)	11.7	11.4	9.7	13.5	9.1
Approach Delay (s)	11.7	11.4	9.7	11.6	
Approach LOS	B	B	A	B	

Intersection Summary				
Delay	11.5			
Level of Service	B			
Intersection Capacity Utilization	51.4%	ICU Level of Service	A	
Analysis Period (min)	15			

Intersection: 12: Distillery Rd/CR10 & King St (CR21)

Movement	EB	WB	NB	SB	SB
Directions Served	LTR	LTR	LTR	L	TR
Maximum Queue (m)	25.2	25.3	10.7	28.8	23.3
Average Queue (m)	12.9	14.5	7.3	15.5	13.5
95th Queue (m)	20.7	22.4	13.6	24.7	21.6
Link Distance (m)	518.3	494.8	260.2		493.8
Upstream Blk Time (%)					
Queuing Penalty (veh)					
Storage Bay Dist (m)				12.0	
Storage Blk Time (%)				11	7
Queuing Penalty (veh)				17	14



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	4	51	45	7	93	71
Future Volume (Veh/h)	4	51	45	7	93	71
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96
Hourly flow rate (vph)	4	53	47	7	97	74
Pedestrians						
Lane Width (m)						
Walking Speed (m/s)						
Percent Blockage						
Right turn flare (veh)						
Median type			None			None
Median storage veh)						
Upstream signal (m)						
pX, platoon unblocked						
vC, conflicting volume	318	50			54	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	318	50			54	
tC, single (s)	6.4	6.2			4.1	
tC, 2 stage (s)						
tF (s)	3.5	3.3			2.2	
p0 queue free %	99	95			94	
cM capacity (veh/h)	636	1012			1551	

Direction, Lane #	WB 1	NB 1	SB 1
Volume Total	57	54	171
Volume Left	4	0	97
Volume Right	53	7	0
cSH	972	1700	1551
Volume to Capacity	0.06	0.03	0.06
Queue Length 95th (m)	1.4	0.0	1.5
Control Delay (s)	8.9	0.0	4.5
Lane LOS	A		A
Approach Delay (s)	8.9	0.0	4.5
Approach LOS	A		

Intersection Summary			
Average Delay	4.5		
Intersection Capacity Utilization	25.6%	ICU Level of Service	A
Analysis Period (min)	15		



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	54	8	14	398	472	90
Future Volume (Veh/h)	54	8	14	398	472	90
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	59	9	15	433	513	98
Pedestrians						
Lane Width (m)						
Walking Speed (m/s)						
Percent Blockage						
Right turn flare (veh)						
Median type				None	None	
Median storage veh)						
Upstream signal (m)				400		
pX, platoon unblocked						
vC, conflicting volume	976	513	611			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	976	513	611			
tC, single (s)	6.4	6.2	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	78	98	98			
cM capacity (veh/h)	274	561	968			

Direction, Lane #	EB 1	EB 2	NB 1	NB 2	SB 1	SB 2
Volume Total	59	9	15	433	513	98
Volume Left	59	0	15	0	0	0
Volume Right	0	9	0	0	0	98
cSH	274	561	968	1700	1700	1700
Volume to Capacity	0.22	0.02	0.02	0.25	0.30	0.06
Queue Length 95th (m)	6.1	0.4	0.4	0.0	0.0	0.0
Control Delay (s)	21.7	11.5	8.8	0.0	0.0	0.0
Lane LOS	C	B	A			
Approach Delay (s)	20.3		0.3		0.0	
Approach LOS	C					

Intersection Summary			
Average Delay	1.3		
Intersection Capacity Utilization	34.8%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	9	9	22	20	3	9	26	391	19	6	425	8
Future Volume (Veh/h)	9	9	22	20	3	9	26	391	19	6	425	8
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Hourly flow rate (vph)	9	9	22	20	3	9	27	399	19	6	434	8
Pedestrians												
Lane Width (m)												
Walking Speed (m/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (m)												
pX, platoon unblocked												
vC, conflicting volume	914	922	438	935	916	408	442			418		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	914	922	438	935	916	408	442			418		
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	96	97	96	91	99	99	98			99		
cM capacity (veh/h)	245	264	623	228	266	647	1129			1152		

Direction, Lane #	EB 1	WB 1	NB 1	NB 2	SB 1	SB 2
Volume Total	40	32	27	418	6	442
Volume Left	9	20	27	0	6	0
Volume Right	22	9	0	19	0	8
cSH	377	283	1129	1700	1152	1700
Volume to Capacity	0.11	0.11	0.02	0.25	0.01	0.26
Queue Length 95th (m)	2.7	2.9	0.6	0.0	0.1	0.0
Control Delay (s)	15.7	19.3	8.3	0.0	8.1	0.0
Lane LOS	C	C	A		A	
Approach Delay (s)	15.7	19.3	0.5		0.1	
Approach LOS	C	C				

Intersection Summary				
Average Delay	1.6			
Intersection Capacity Utilization	33.8%	ICU Level of Service		A
Analysis Period (min)	15			



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	1	2	1	365	383	1
Future Volume (Veh/h)	1	2	1	365	383	1
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88
Hourly flow rate (vph)	1	2	1	415	435	1
Pedestrians						
Lane Width (m)						
Walking Speed (m/s)						
Percent Blockage						
Right turn flare (veh)						
Median type				None	None	
Median storage veh)						
Upstream signal (m)				280		
pX, platoon unblocked						
vC, conflicting volume	852	436	436			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	852	436	436			
tC, single (s)	6.4	6.2	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	100	100	100			
cM capacity (veh/h)	332	625	1134			

Direction, Lane #	EB 1	EB 2	NB 1	NB 2	SB 1
Volume Total	1	2	1	415	436
Volume Left	1	0	1	0	0
Volume Right	0	2	0	0	1
cSH	332	625	1134	1700	1700
Volume to Capacity	0.00	0.00	0.00	0.24	0.26
Queue Length 95th (m)	0.1	0.1	0.0	0.0	0.0
Control Delay (s)	15.9	10.8	8.2	0.0	0.0
Lane LOS	C	B	A		
Approach Delay (s)	12.5		0.0		0.0
Approach LOS	B				

Intersection Summary				
Average Delay	0.1			
Intersection Capacity Utilization	30.2%	ICU Level of Service	A	
Analysis Period (min)	15			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Stop			Stop	
Traffic Volume (vph)	140	48	12	8	48	137	11	39	11	145	22	172
Future Volume (vph)	140	48	12	8	48	137	11	39	11	145	22	172
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Hourly flow rate (vph)	149	51	13	9	51	146	12	41	12	154	23	183

Direction, Lane #	EB 1	WB 1	NB 1	SB 1	SB 2
Volume Total (vph)	213	206	65	154	206
Volume Left (vph)	149	9	12	154	0
Volume Right (vph)	13	146	12	0	183
Hadj (s)	0.10	-0.42	-0.07	0.50	-0.62
Departure Headway (s)	5.4	4.9	5.6	6.2	5.1
Degree Utilization, x	0.32	0.28	0.10	0.27	0.29
Capacity (veh/h)	626	682	578	550	672
Control Delay (s)	10.9	9.8	9.2	10.2	8.9
Approach Delay (s)	10.9	9.8	9.2	9.5	
Approach LOS	B	A	A	A	

Intersection Summary				
Delay	9.9			
Level of Service	A			
Intersection Capacity Utilization	47.1%	ICU Level of Service	A	
Analysis Period (min)	15			

Intersection: 12: Distillery Rd/CR10 & King St (CR21)

Movement	EB	WB	NB	SB	SB
Directions Served	LTR	LTR	LTR	L	TR
Maximum Queue (m)	20.8	23.1	12.1	19.0	27.2
Average Queue (m)	12.5	13.0	8.3	12.3	14.5
95th Queue (m)	19.5	20.1	13.7	18.5	22.4
Link Distance (m)	518.3	494.8	260.2		493.8
Upstream Blk Time (%)					
Queuing Penalty (veh)					
Storage Bay Dist (m)				12.0	
Storage Blk Time (%)				7	10
Queuing Penalty (veh)				13	14



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	0	44	48	1	51	40
Future Volume (Veh/h)	0	44	48	1	51	40
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89
Hourly flow rate (vph)	0	49	54	1	57	45
Pedestrians						
Lane Width (m)						
Walking Speed (m/s)						
Percent Blockage						
Right turn flare (veh)						
Median type			None			None
Median storage veh)						
Upstream signal (m)						
pX, platoon unblocked						
vC, conflicting volume	214	54			55	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	214	54			55	
tC, single (s)	6.4	6.2			4.1	
tC, 2 stage (s)						
tF (s)	3.5	3.3			2.2	
p0 queue free %	100	95			96	
cM capacity (veh/h)	751	1018			1563	

Direction, Lane #	WB 1	NB 1	SB 1
Volume Total	49	55	102
Volume Left	0	0	57
Volume Right	49	1	0
cSH	1018	1700	1563
Volume to Capacity	0.05	0.03	0.04
Queue Length 95th (m)	1.2	0.0	0.9
Control Delay (s)	8.7	0.0	4.3
Lane LOS	A		A
Approach Delay (s)	8.7	0.0	4.3
Approach LOS	A		

Intersection Summary			
Average Delay	4.2		
Intersection Capacity Utilization	21.6%	ICU Level of Service	A
Analysis Period (min)	15		



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	80	12	13	353	372	86
Future Volume (Veh/h)	80	12	13	353	372	86
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	87	13	14	384	404	93
Pedestrians						
Lane Width (m)						
Walking Speed (m/s)						
Percent Blockage						
Right turn flare (veh)						
Median type				None	None	
Median storage veh)						
Upstream signal (m)				400		
pX, platoon unblocked						
vC, conflicting volume	816	404	497			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	816	404	497			
tC, single (s)	6.4	6.2	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	75	98	99			
cM capacity (veh/h)	342	647	1067			

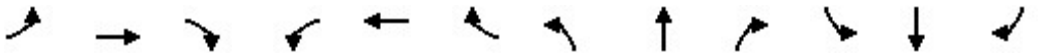
Direction, Lane #	EB 1	EB 2	NB 1	NB 2	SB 1	SB 2
Volume Total	87	13	14	384	404	93
Volume Left	87	0	14	0	0	0
Volume Right	0	13	0	0	0	93
cSH	342	647	1067	1700	1700	1700
Volume to Capacity	0.25	0.02	0.01	0.23	0.24	0.05
Queue Length 95th (m)	7.5	0.5	0.3	0.0	0.0	0.0
Control Delay (s)	19.1	10.7	8.4	0.0	0.0	0.0
Lane LOS	C	B	A			
Approach Delay (s)	18.0		0.3		0.0	
Approach LOS	C					

Intersection Summary				
Average Delay	1.9			
Intersection Capacity Utilization	30.7%	ICU Level of Service		A
Analysis Period (min)	15			

Appendix F

Synchro Reports,

Background Volumes 2030



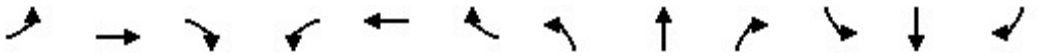
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	145	1	207	15	4	21	157	284	6	7	229	105
Future Volume (vph)	145	1	207	15	4	21	157	284	6	7	229	105
Satd. Flow (prot)	1722	1587	0	1825	1677	0	1807	1865	1633	1825	1902	1306
Flt Permitted	0.736			0.370			0.489			0.542		
Satd. Flow (perm)	1334	1587	0	711	1677	0	930	1865	1633	1041	1902	1306
Satd. Flow (RTOR)		269			27				63			136
Peak Hour Factor	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77
Heavy Vehicles (%)	6%	0%	3%	0%	0%	0%	1%	3%	0%	0%	1%	25%
Adj. Flow (vph)	188	1	269	19	5	27	204	369	8	9	297	136
Shared Lane Traffic (%)												
Lane Group Flow (vph)	188	270	0	19	32	0	204	369	8	9	297	136
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		3.7			3.7			3.7			3.7	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		1.6			1.6			1.6			1.6	
Two way Left Turn Lane												
Headway Factor	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99
Turning Speed (k/h)	24		14	24		14	24		14	24		14
Turn Type	Perm	NA		Perm	NA		pm+pt	NA	Perm	pm+pt	NA	Perm
Protected Phases		4			8		5	2		1	6	
Permitted Phases	4			8			2		2	6		6
Detector Phase	4	4		8	8		5	2	2	1	6	6
Switch Phase												
Minimum Initial (s)	7.0	7.0		7.0	7.0		7.0	10.0	10.0	7.0	10.0	10.0
Minimum Split (s)	20.0	20.0		20.0	20.0		11.0	20.0	20.0	11.0	20.0	20.0
Total Split (s)	36.0	36.0		36.0	36.0		15.0	39.0	39.0	15.0	39.0	39.0
Total Split (%)	40.0%	40.0%		40.0%	40.0%		16.7%	43.3%	43.3%	16.7%	43.3%	43.3%
Yellow Time (s)	3.7	3.7		3.7	3.7		3.5	3.7	3.7	3.5	3.7	3.7
All-Red Time (s)	1.0	1.0		1.0	1.0		0.0	1.0	1.0	0.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.7	4.7		4.7	4.7		3.5	4.7	4.7	3.5	4.7	4.7
Lead/Lag							Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?							Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None		None	None		None	Max	Max	None	Max	Max
Act Effct Green (s)	15.7	15.7		15.7	15.7		49.0	46.0	46.0	42.9	34.6	34.6
Actuated g/C Ratio	0.22	0.22		0.22	0.22		0.67	0.63	0.63	0.59	0.47	0.47
v/c Ratio	0.66	0.49		0.12	0.08		0.28	0.31	0.01	0.01	0.33	0.20
Control Delay	37.6	6.6		24.5	10.8		6.4	9.2	0.0	6.0	14.9	3.8
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	37.6	6.6		24.5	10.8		6.4	9.2	0.0	6.0	14.9	3.8
LOS	D	A		C	B		A	A	A	A	B	A
Approach Delay		19.3			15.9			8.1			11.3	
Approach LOS		B			B			A			B	
Queue Length 50th (m)	23.8	0.1		2.1	0.5		8.5	18.2	0.0	0.3	24.1	0.0
Queue Length 95th (m)	35.8	8.9		6.1	5.2		18.1	46.8	0.0	1.8	41.7	6.2
Internal Link Dist (m)		182.6			89.4			840.6			257.5	
Turn Bay Length (m)	70.0			45.0			150.0		100.0	110.0		110.0

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Base Capacity (vph)	576	839		307	740		763	1173	1051	797	901	690
Starvation Cap Reductn	0	0		0	0		0	0	0	0	0	0
Spillback Cap Reductn	0	0		0	0		0	0	0	0	0	0
Storage Cap Reductn	0	0		0	0		0	0	0	0	0	0
Reduced v/c Ratio	0.33	0.32		0.06	0.04		0.27	0.31	0.01	0.01	0.33	0.20

Intersection Summary	
Cycle Length: 90	
Actuated Cycle Length: 73	
Natural Cycle: 55	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.66	
Intersection Signal Delay: 12.6	Intersection LOS: B
Intersection Capacity Utilization 46.6%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 6: CR10 & Fallis Line/Fallis Line Driveway





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	105	4	122	9	1	11	150	294	14	23	342	125
Future Volume (vph)	105	4	122	9	1	11	150	294	14	23	342	125
Satd. Flow (prot)	1706	1641	0	1825	1656	0	1789	1902	1633	1825	1921	1585
Flt Permitted	0.749			0.665			0.442			0.567		
Satd. Flow (perm)	1345	1641	0	1278	1656	0	832	1902	1633	1089	1921	1585
Satd. Flow (RTOR)		133			12				63			136
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	7%	0%	0%	0%	0%	0%	2%	1%	0%	0%	0%	3%
Adj. Flow (vph)	114	4	133	10	1	12	163	320	15	25	372	136
Shared Lane Traffic (%)												
Lane Group Flow (vph)	114	137	0	10	13	0	163	320	15	25	372	136
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		3.7			3.7			3.7			3.7	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		1.6			1.6			1.6			1.6	
Two way Left Turn Lane												
Headway Factor	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99
Turning Speed (k/h)	24		14	24		14	24		14	24		14
Turn Type	Perm	NA		Perm	NA		pm+pt	NA	Perm	pm+pt	NA	Perm
Protected Phases		4			8		5	2		1	6	
Permitted Phases	4			8			2		2	6		6
Detector Phase	4	4		8	8		5	2	2	1	6	6
Switch Phase												
Minimum Initial (s)	7.0	7.0		7.0	7.0		7.0	10.0	10.0	7.0	10.0	10.0
Minimum Split (s)	20.0	20.0		20.0	20.0		11.0	20.0	20.0	11.0	20.0	20.0
Total Split (s)	36.0	36.0		36.0	36.0		15.0	39.0	39.0	15.0	39.0	39.0
Total Split (%)	40.0%	40.0%		40.0%	40.0%		16.7%	43.3%	43.3%	16.7%	43.3%	43.3%
Yellow Time (s)	3.7	3.7		3.7	3.7		3.5	3.7	3.7	3.5	3.7	3.7
All-Red Time (s)	1.0	1.0		1.0	1.0		0.0	1.0	1.0	0.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.7	4.7		4.7	4.7		3.5	4.7	4.7	3.5	4.7	4.7
Lead/Lag							Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?							Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None		None	None		None	Max	Max	None	Max	Max
Act Effct Green (s)	11.1	11.1		11.1	11.1		47.2	42.4	42.4	42.7	34.4	34.4
Actuated g/C Ratio	0.17	0.17		0.17	0.17		0.71	0.63	0.63	0.64	0.51	0.51
v/c Ratio	0.51	0.36		0.05	0.05		0.23	0.27	0.01	0.03	0.38	0.15
Control Delay	34.1	8.3		23.7	13.5		4.4	8.0	0.0	4.0	12.1	2.7
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	34.1	8.3		23.7	13.5		4.4	8.0	0.0	4.0	12.1	2.7
LOS	C	A		C	B		A	A	A	A	B	A
Approach Delay		20.0			17.9			6.6			9.4	
Approach LOS		C			B			A			A	
Queue Length 50th (m)	13.1	0.4		1.1	0.1		5.0	11.7	0.0	0.7	25.9	0.0
Queue Length 95th (m)	27.6	13.0		4.6	4.2		12.9	40.0	0.0	3.0	52.5	8.1
Internal Link Dist (m)		182.6			89.4			840.6			257.5	
Turn Bay Length (m)	70.0			45.0			150.0		100.0	110.0		110.0

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Base Capacity (vph)	631	841		600	783		756	1206	1059	889	988	881
Starvation Cap Reductn	0	0		0	0		0	0	0	0	0	0
Spillback Cap Reductn	0	0		0	0		0	0	0	0	0	0
Storage Cap Reductn	0	0		0	0		0	0	0	0	0	0
Reduced v/c Ratio	0.18	0.16		0.02	0.02		0.22	0.27	0.01	0.03	0.38	0.15

Intersection Summary	
Cycle Length: 90	
Actuated Cycle Length: 66.9	
Natural Cycle: 55	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.51	
Intersection Signal Delay: 10.5	Intersection LOS: B
Intersection Capacity Utilization 50.0%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 6: CR10 & Fallis Line/Fallis Line Driveway



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	128	2	149	15	2	17	126	232	14	21	239	136
Future Volume (vph)	128	2	149	15	2	17	126	232	14	21	239	136
Satd. Flow (prot)	1825	1637	0	1825	1660	0	1825	1921	1633	1825	1921	1633
Flt Permitted	0.744			0.577			0.522			0.596		
Satd. Flow (perm)	1429	1637	0	1108	1660	0	1003	1921	1633	1145	1921	1633
Satd. Flow (RTOR)		169			19				63			155
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Heavy Vehicles (%)	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Adj. Flow (vph)	145	2	169	17	2	19	143	264	16	24	272	155
Shared Lane Traffic (%)												
Lane Group Flow (vph)	145	171	0	17	21	0	143	264	16	24	272	155
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		3.7			3.7			3.7			3.7	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		1.6			1.6			1.6			1.6	
Two way Left Turn Lane												
Headway Factor	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99
Turning Speed (k/h)	24		14	24		14	24		14	24		14
Turn Type	Perm	NA		Perm	NA		pm+pt	NA	Perm	pm+pt	NA	Perm
Protected Phases		4			8		5	2		1	6	
Permitted Phases	4			8			2		2	6		6
Detector Phase	4	4		8	8		5	2	2	1	6	6
Switch Phase												
Minimum Initial (s)	7.0	7.0		7.0	7.0		7.0	10.0	10.0	7.0	10.0	10.0
Minimum Split (s)	20.0	20.0		20.0	20.0		11.0	20.0	20.0	11.0	20.0	20.0
Total Split (s)	36.0	36.0		36.0	36.0		15.0	39.0	39.0	15.0	39.0	39.0
Total Split (%)	40.0%	40.0%		40.0%	40.0%		16.7%	43.3%	43.3%	16.7%	43.3%	43.3%
Yellow Time (s)	3.7	3.7		3.7	3.7		3.5	3.7	3.7	3.5	3.7	3.7
All-Red Time (s)	1.0	1.0		1.0	1.0		0.0	1.0	1.0	0.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.7	4.7		4.7	4.7		3.5	4.7	4.7	3.5	4.7	4.7
Lead/Lag							Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?							Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None		None	None		None	Max	Max	None	Max	Max
Act Effct Green (s)	12.3	12.3		12.3	12.3		46.8	42.2	42.2	42.7	34.5	34.5
Actuated g/C Ratio	0.18	0.18		0.18	0.18		0.69	0.62	0.62	0.63	0.51	0.51
v/c Ratio	0.56	0.39		0.08	0.07		0.18	0.22	0.02	0.03	0.28	0.17
Control Delay	34.0	7.4		23.5	11.8		4.7	8.4	0.0	4.5	11.7	2.8
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	34.0	7.4		23.5	11.8		4.7	8.4	0.0	4.5	11.7	2.8
LOS	C	A		C	B		A	A	A	A	B	A
Approach Delay		19.6			17.0			6.8			8.3	
Approach LOS		B			B			A			A	
Queue Length 50th (m)	16.8	0.2		1.8	0.2		4.7	10.1	0.0	0.7	18.2	0.0
Queue Length 95th (m)	32.4	13.0		6.4	5.0		12.7	34.4	0.0	3.3	38.8	8.6
Internal Link Dist (m)		182.6			89.4			840.6			257.5	
Turn Bay Length (m)	70.0			45.0			150.0		100.0	110.0		110.0

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Base Capacity (vph)	661	848		512	778		839	1194	1038	905	975	905
Starvation Cap Reductn	0	0		0	0		0	0	0	0	0	0
Spillback Cap Reductn	0	0		0	0		0	0	0	0	0	0
Storage Cap Reductn	0	0		0	0		0	0	0	0	0	0
Reduced v/c Ratio	0.22	0.20		0.03	0.03		0.17	0.22	0.02	0.03	0.28	0.17

Intersection Summary	
Cycle Length: 90	
Actuated Cycle Length: 67.9	
Natural Cycle: 55	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.56	
Intersection Signal Delay: 10.9	Intersection LOS: B
Intersection Capacity Utilization 44.5%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 6: CR10 & Fallis Line/Fallis Line Driveway



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	13	3	35	23	5	4	22	492	21	3	317	3
Future Volume (Veh/h)	13	3	35	23	5	4	22	492	21	3	317	3
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Hourly flow rate (vph)	15	3	40	26	6	5	25	559	24	3	360	3
Pedestrians												
Lane Width (m)												
Walking Speed (m/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (m)												
pX, platoon unblocked												
vC, conflicting volume	984	1000	362	1028	990	571	363			583		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	984	1000	362	1028	990	571	363			583		
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	4.1			4.4		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.5		
p0 queue free %	93	99	94	87	98	99	98			100		
cM capacity (veh/h)	219	239	676	196	242	524	1207			855		

Direction, Lane #	EB 1	WB 1	NB 1	NB 2	SB 1	SB 2
Volume Total	58	37	25	583	3	363
Volume Left	15	26	25	0	3	0
Volume Right	40	5	0	24	0	3
cSH	413	221	1207	1700	855	1700
Volume to Capacity	0.14	0.17	0.02	0.34	0.00	0.21
Queue Length 95th (m)	3.7	4.5	0.5	0.0	0.1	0.0
Control Delay (s)	15.1	24.5	8.0	0.0	9.2	0.0
Lane LOS	C	C	A		A	
Approach Delay (s)	15.1	24.5	0.3		0.1	
Approach LOS	C	C				

Intersection Summary				
Average Delay	1.9			
Intersection Capacity Utilization	38.1%	ICU Level of Service		A
Analysis Period (min)	15			



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	4	3	1	450	338	19
Future Volume (Veh/h)	4	3	1	450	338	19
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.77	0.77	0.77	0.77	0.77	0.92
Hourly flow rate (vph)	5	4	1	584	439	21
Pedestrians						
Lane Width (m)						
Walking Speed (m/s)						
Percent Blockage						
Right turn flare (veh)						
Median type				None	None	
Median storage veh)						
Upstream signal (m)				282		
pX, platoon unblocked	0.84					
vC, conflicting volume	1036	450	460			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	946	450	460			
tC, single (s)	6.4	6.2	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	98	99	100			
cM capacity (veh/h)	245	614	1112			

Direction, Lane #	EB 1	EB 2	NB 1	NB 2	SB 1
Volume Total	5	4	1	584	460
Volume Left	5	0	1	0	0
Volume Right	0	4	0	0	21
cSH	245	614	1112	1700	1700
Volume to Capacity	0.02	0.01	0.00	0.34	0.27
Queue Length 95th (m)	0.5	0.1	0.0	0.0	0.0
Control Delay (s)	20.0	10.9	8.2	0.0	0.0
Lane LOS	C	B	A		
Approach Delay (s)	16.0		0.0		0.0
Approach LOS	C				

Intersection Summary			
Average Delay	0.1		
Intersection Capacity Utilization	33.7%	ICU Level of Service	A
Analysis Period (min)	15		



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Stop			Stop	
Traffic Volume (vph)	104	28	2	8	51	173	0	21	7	171	36	96
Future Volume (vph)	104	28	2	8	51	173	0	21	7	171	36	96
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85
Hourly flow rate (vph)	122	33	2	9	60	204	0	25	8	201	42	113

Direction, Lane #	EB 1	WB 1	NB 1	SB 1	SB 2
Volume Total (vph)	157	273	33	201	155
Volume Left (vph)	122	9	0	201	0
Volume Right (vph)	2	204	8	0	113
Hadj (s)	0.24	-0.34	-0.06	0.58	-0.49
Departure Headway (s)	5.6	4.8	5.6	6.3	5.2
Degree Utilization, x	0.24	0.37	0.05	0.35	0.22
Capacity (veh/h)	605	703	557	547	659
Control Delay (s)	10.3	10.6	9.0	11.4	8.5
Approach Delay (s)	10.3	10.6	9.0	10.1	
Approach LOS	B	B	A	B	

Intersection Summary				
Delay	10.3			
Level of Service	B			
Intersection Capacity Utilization	47.3%	ICU Level of Service	A	
Analysis Period (min)	15			

Intersection: 12: Distillery Rd/CR10 & King St (CR21)

Movement	EB	WB	NB	SB	SB
Directions Served	LTR	LTR	LTR	L	TR
Maximum Queue (m)	19.3	27.2	15.6	28.5	27.2
Average Queue (m)	12.1	15.6	5.6	15.1	12.1
95th Queue (m)	19.0	23.8	13.9	23.3	20.2
Link Distance (m)	518.3	494.8	260.2		493.8
Upstream Blk Time (%)					
Queuing Penalty (veh)					
Storage Bay Dist (m)				12.0	
Storage Blk Time (%)				8	5
Queuing Penalty (veh)				10	9



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	0	96	59	1	44	37
Future Volume (Veh/h)	0	96	59	1	44	37
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Peak Hour Factor	0.80	0.80	0.80	0.80	0.80	0.80
Hourly flow rate (vph)	0	120	74	1	55	46
Pedestrians						
Lane Width (m)						
Walking Speed (m/s)						
Percent Blockage						
Right turn flare (veh)						
Median type			None			None
Median storage veh)						
Upstream signal (m)						
pX, platoon unblocked						
vC, conflicting volume	230	74			75	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	230	74			75	
tC, single (s)	6.4	6.2			4.2	
tC, 2 stage (s)						
tF (s)	3.5	3.3			2.3	
p0 queue free %	100	88			96	
cM capacity (veh/h)	733	979			1446	

Direction, Lane #	WB 1	NB 1	SB 1
Volume Total	120	75	101
Volume Left	0	0	55
Volume Right	120	1	0
cSH	979	1700	1446
Volume to Capacity	0.12	0.04	0.04
Queue Length 95th (m)	3.2	0.0	0.9
Control Delay (s)	9.2	0.0	4.3
Lane LOS	A		A
Approach Delay (s)	9.2	0.0	4.3
Approach LOS	A		

Intersection Summary			
Average Delay	5.2		
Intersection Capacity Utilization	23.7%	ICU Level of Service	A
Analysis Period (min)	15		



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	84	13	4	446	344	27
Future Volume (Veh/h)	84	13	4	446	344	27
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	91	14	4	485	374	29
Pedestrians						
Lane Width (m)						
Walking Speed (m/s)						
Percent Blockage						
Right turn flare (veh)						
Median type				None	None	
Median storage veh)						
Upstream signal (m)						
pX, platoon unblocked						
vC, conflicting volume	867	374	403			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	867	374	403			
tC, single (s)	6.4	6.2	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	72	98	100			
cM capacity (veh/h)	322	672	1156			

Direction, Lane #	EB 1	EB 2	NB 1	NB 2	SB 1	SB 2
Volume Total	91	14	4	485	374	29
Volume Left	91	0	4	0	0	0
Volume Right	0	14	0	0	0	29
cSH	322	672	1156	1700	1700	1700
Volume to Capacity	0.28	0.02	0.00	0.29	0.22	0.02
Queue Length 95th (m)	8.6	0.5	0.1	0.0	0.0	0.0
Control Delay (s)	20.5	10.5	8.1	0.0	0.0	0.0
Lane LOS	C	B	A			
Approach Delay (s)	19.2		0.1		0.0	
Approach LOS	C					

Intersection Summary				
Average Delay	2.1			
Intersection Capacity Utilization	34.8%	ICU Level of Service		A
Analysis Period (min)	15			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	8	6	25	15	2	7	28	431	19	15	538	15
Future Volume (Veh/h)	8	6	25	15	2	7	28	431	19	15	538	15
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Hourly flow rate (vph)	9	7	27	16	2	8	31	474	21	16	591	16
Pedestrians												
Lane Width (m)												
Walking Speed (m/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (m)												
pX, platoon unblocked												
vC, conflicting volume	1176	1188	599	1200	1186	484	607			495		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	1176	1188	599	1200	1186	484	607			495		
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.3	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.4	2.2			2.2		
p0 queue free %	94	96	95	89	99	99	97			99		
cM capacity (veh/h)	160	181	505	145	182	559	981			1079		

Direction, Lane #	EB 1	WB 1	NB 1	NB 2	SB 1	SB 2
Volume Total	43	26	31	495	16	607
Volume Left	9	16	31	0	16	0
Volume Right	27	8	0	21	0	16
cSH	290	192	981	1700	1079	1700
Volume to Capacity	0.15	0.14	0.03	0.29	0.01	0.36
Queue Length 95th (m)	3.9	3.5	0.7	0.0	0.3	0.0
Control Delay (s)	19.6	26.7	8.8	0.0	8.4	0.0
Lane LOS	C	D	A		A	
Approach Delay (s)	19.6	26.7	0.5		0.2	
Approach LOS	C	D				

Intersection Summary				
Average Delay	1.6			
Intersection Capacity Utilization	39.3%	ICU Level of Service		A
Analysis Period (min)	15			



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	17	14	1	410	476	22
Future Volume (Veh/h)	17	14	1	410	476	22
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.66
Hourly flow rate (vph)	18	15	1	446	517	33
Pedestrians						
Lane Width (m)						
Walking Speed (m/s)						
Percent Blockage						
Right turn flare (veh)						
Median type				None	None	
Median storage veh)						
Upstream signal (m)				282		
pX, platoon unblocked	0.98					
vC, conflicting volume	982	534	550			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	973	534	550			
tC, single (s)	6.4	6.2	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	94	97	100			
cM capacity (veh/h)	277	550	1030			

Direction, Lane #	EB 1	EB 2	NB 1	NB 2	SB 1
Volume Total	18	15	1	446	550
Volume Left	18	0	1	0	0
Volume Right	0	15	0	0	33
cSH	277	550	1030	1700	1700
Volume to Capacity	0.06	0.03	0.00	0.26	0.32
Queue Length 95th (m)	1.6	0.6	0.0	0.0	0.0
Control Delay (s)	18.9	11.7	8.5	0.0	0.0
Lane LOS	C	B	A		
Approach Delay (s)	15.6		0.0		0.0
Approach LOS	C				

Intersection Summary			
Average Delay	0.5		
Intersection Capacity Utilization	36.4%	ICU Level of Service	A
Analysis Period (min)	15		



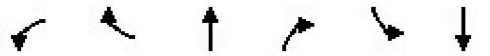
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Stop			Stop	
Traffic Volume (vph)	128	50	4	0	45	191	1	44	8	220	14	152
Future Volume (vph)	128	50	4	0	45	191	1	44	8	220	14	152
Peak Hour Factor	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83
Hourly flow rate (vph)	154	60	5	0	54	230	1	53	10	265	17	183

Direction, Lane #	EB 1	WB 1	NB 1	SB 1	SB 2
Volume Total (vph)	219	284	64	265	200
Volume Left (vph)	154	0	1	265	0
Volume Right (vph)	5	230	10	0	183
Hadj (s)	0.15	-0.44	-0.09	0.52	-0.64
Departure Headway (s)	5.9	5.2	6.1	6.5	5.4
Degree Utilization, x	0.36	0.41	0.11	0.48	0.30
Capacity (veh/h)	569	643	505	526	638
Control Delay (s)	12.2	11.9	9.9	14.3	9.4
Approach Delay (s)	12.2	11.9	9.9	12.2	
Approach LOS	B	B	A	B	

Intersection Summary				
Delay	12.0			
Level of Service	B			
Intersection Capacity Utilization	53.0%	ICU Level of Service	A	
Analysis Period (min)	15			

Intersection: 12: Distillery Rd/CR10 & King St (CR21)

Movement	EB	WB	NB	SB	SB
Directions Served	LTR	LTR	LTR	L	TR
Maximum Queue (m)	19.2	26.6	14.4	29.6	19.3
Average Queue (m)	12.6	15.3	7.4	16.5	13.3
95th Queue (m)	18.7	23.9	14.2	25.2	20.0
Link Distance (m)	518.3	494.8	260.2		493.8
Upstream Blk Time (%)					
Queuing Penalty (veh)					
Storage Bay Dist (m)				12.0	
Storage Blk Time (%)				13	8
Queuing Penalty (veh)				21	17



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	4	51	45	7	93	71
Future Volume (Veh/h)	4	51	45	7	93	71
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96
Hourly flow rate (vph)	4	53	47	7	97	74
Pedestrians						
Lane Width (m)						
Walking Speed (m/s)						
Percent Blockage						
Right turn flare (veh)						
Median type			None			None
Median storage veh)						
Upstream signal (m)						
pX, platoon unblocked						
vC, conflicting volume	318	50			54	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	318	50			54	
tC, single (s)	6.4	6.2			4.1	
tC, 2 stage (s)						
tF (s)	3.5	3.3			2.2	
p0 queue free %	99	95			94	
cM capacity (veh/h)	636	1012			1551	

Direction, Lane #	WB 1	NB 1	SB 1
Volume Total	57	54	171
Volume Left	4	0	97
Volume Right	53	7	0
cSH	972	1700	1551
Volume to Capacity	0.06	0.03	0.06
Queue Length 95th (m)	1.4	0.0	1.5
Control Delay (s)	8.9	0.0	4.5
Lane LOS	A		A
Approach Delay (s)	8.9	0.0	4.5
Approach LOS	A		

Intersection Summary			
Average Delay	4.5		
Intersection Capacity Utilization	25.6%	ICU Level of Service	A
Analysis Period (min)	15		



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	54	8	14	396	490	90
Future Volume (Veh/h)	54	8	14	396	490	90
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	59	9	15	430	533	98
Pedestrians						
Lane Width (m)						
Walking Speed (m/s)						
Percent Blockage						
Right turn flare (veh)						
Median type				None	None	
Median storage veh)						
Upstream signal (m)						
pX, platoon unblocked						
vC, conflicting volume	993	533	631			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	993	533	631			
tC, single (s)	6.4	6.2	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	78	98	98			
cM capacity (veh/h)	268	547	951			

Direction, Lane #	EB 1	EB 2	NB 1	NB 2	SB 1	SB 2
Volume Total	59	9	15	430	533	98
Volume Left	59	0	15	0	0	0
Volume Right	0	9	0	0	0	98
cSH	268	547	951	1700	1700	1700
Volume to Capacity	0.22	0.02	0.02	0.25	0.31	0.06
Queue Length 95th (m)	6.2	0.4	0.4	0.0	0.0	0.0
Control Delay (s)	22.2	11.7	8.8	0.0	0.0	0.0
Lane LOS	C	B	A			
Approach Delay (s)	20.8		0.3		0.0	
Approach LOS	C					

Intersection Summary			
Average Delay	1.4		
Intersection Capacity Utilization	35.8%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	9	9	22	20	3	9	26	404	19	6	439	8
Future Volume (Veh/h)	9	9	22	20	3	9	26	404	19	6	439	8
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Hourly flow rate (vph)	9	9	22	20	3	9	27	412	19	6	448	8
Pedestrians												
Lane Width (m)												
Walking Speed (m/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (m)												
pX, platoon unblocked												
vC, conflicting volume	940	949	452	962	944	422	456			431		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	940	949	452	962	944	422	456			431		
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	96	96	96	91	99	99	98			99		
cM capacity (veh/h)	235	255	612	218	257	636	1115			1139		

Direction, Lane #	EB 1	WB 1	NB 1	NB 2	SB 1	SB 2
Volume Total	40	32	27	431	6	456
Volume Left	9	20	27	0	6	0
Volume Right	22	9	0	19	0	8
cSH	365	272	1115	1700	1139	1700
Volume to Capacity	0.11	0.12	0.02	0.25	0.01	0.27
Queue Length 95th (m)	2.8	3.0	0.6	0.0	0.1	0.0
Control Delay (s)	16.1	20.0	8.3	0.0	8.2	0.0
Lane LOS	C	C	A		A	
Approach Delay (s)	16.1	20.0	0.5		0.1	
Approach LOS	C	C				

Intersection Summary				
Average Delay	1.6			
Intersection Capacity Utilization	34.5%	ICU Level of Service		A
Analysis Period (min)	15			



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	1	2	1	377	394	1
Future Volume (Veh/h)	1	2	1	377	394	1
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88
Hourly flow rate (vph)	1	2	1	428	448	1
Pedestrians						
Lane Width (m)						
Walking Speed (m/s)						
Percent Blockage						
Right turn flare (veh)						
Median type				None	None	
Median storage veh)						
Upstream signal (m)				282		
pX, platoon unblocked						
vC, conflicting volume	878	448	449			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	878	448	449			
tC, single (s)	6.4	6.2	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	100	100	100			
cM capacity (veh/h)	321	615	1122			

Direction, Lane #	EB 1	EB 2	NB 1	NB 2	SB 1
Volume Total	1	2	1	428	449
Volume Left	1	0	1	0	0
Volume Right	0	2	0	0	1
cSH	321	615	1122	1700	1700
Volume to Capacity	0.00	0.00	0.00	0.25	0.26
Queue Length 95th (m)	0.1	0.1	0.0	0.0	0.0
Control Delay (s)	16.3	10.9	8.2	0.0	0.0
Lane LOS	C	B	A		
Approach Delay (s)	12.7		0.0		0.0
Approach LOS	B				

Intersection Summary				
Average Delay	0.1			
Intersection Capacity Utilization	30.8%	ICU Level of Service	A	
Analysis Period (min)	15			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Stop			Stop	
Traffic Volume (vph)	145	51	13	9	51	142	12	41	12	151	23	177
Future Volume (vph)	145	51	13	9	51	142	12	41	12	151	23	177
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Hourly flow rate (vph)	154	54	14	10	54	151	13	44	13	161	24	188

Direction, Lane #	EB 1	WB 1	NB 1	SB 1	SB 2
Volume Total (vph)	222	215	70	161	212
Volume Left (vph)	154	10	13	161	0
Volume Right (vph)	14	151	13	0	188
Hadj (s)	0.10	-0.41	-0.07	0.50	-0.62
Departure Headway (s)	5.5	5.0	5.7	6.3	5.1
Degree Utilization, x	0.34	0.30	0.11	0.28	0.30
Capacity (veh/h)	618	670	557	544	663
Control Delay (s)	11.2	10.1	9.4	10.5	9.2
Approach Delay (s)	11.2	10.1	9.4	9.7	
Approach LOS	B	B	A	A	

Intersection Summary				
Delay	10.2			
Level of Service	B			
Intersection Capacity Utilization	48.4%	ICU Level of Service	A	
Analysis Period (min)	15			

Intersection: 12: Distillery Rd/CR10 & King St (CR21)

Movement	EB	WB	NB	SB	SB
Directions Served	LTR	LTR	LTR	L	TR
Maximum Queue (m)	20.5	25.3	13.4	21.5	21.8
Average Queue (m)	13.2	13.3	8.3	13.0	13.7
95th Queue (m)	19.4	20.7	13.2	19.9	20.9
Link Distance (m)	518.3	494.8	260.2		493.8
Upstream Blk Time (%)					
Queuing Penalty (veh)					
Storage Bay Dist (m)				12.0	
Storage Blk Time (%)				8	9
Queuing Penalty (veh)				15	13



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	0	44	48	1	51	40
Future Volume (Veh/h)	0	44	48	1	51	40
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89
Hourly flow rate (vph)	0	49	54	1	57	45
Pedestrians						
Lane Width (m)						
Walking Speed (m/s)						
Percent Blockage						
Right turn flare (veh)						
Median type			None			None
Median storage veh)						
Upstream signal (m)						
pX, platoon unblocked						
vC, conflicting volume	214	54			55	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	214	54			55	
tC, single (s)	6.4	6.2			4.1	
tC, 2 stage (s)						
tF (s)	3.5	3.3			2.2	
p0 queue free %	100	95			96	
cM capacity (veh/h)	751	1018			1563	

Direction, Lane #	WB 1	NB 1	SB 1
Volume Total	49	55	102
Volume Left	0	0	57
Volume Right	49	1	0
cSH	1018	1700	1563
Volume to Capacity	0.05	0.03	0.04
Queue Length 95th (m)	1.2	0.0	0.9
Control Delay (s)	8.7	0.0	4.3
Lane LOS	A		A
Approach Delay (s)	8.7	0.0	4.3
Approach LOS	A		

Intersection Summary			
Average Delay		4.2	
Intersection Capacity Utilization		21.6%	ICU Level of Service
Analysis Period (min)		15	



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	80	12	13	364	383	86
Future Volume (Veh/h)	80	12	13	364	383	86
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	87	13	14	396	416	93
Pedestrians						
Lane Width (m)						
Walking Speed (m/s)						
Percent Blockage						
Right turn flare (veh)						
Median type				None	None	
Median storage veh)						
Upstream signal (m)						
pX, platoon unblocked						
vC, conflicting volume	840	416	509			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	840	416	509			
tC, single (s)	6.4	6.2	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	74	98	99			
cM capacity (veh/h)	331	637	1056			

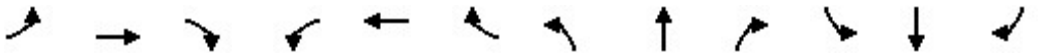
Direction, Lane #	EB 1	EB 2	NB 1	NB 2	SB 1	SB 2
Volume Total	87	13	14	396	416	93
Volume Left	87	0	14	0	0	0
Volume Right	0	13	0	0	0	93
cSH	331	637	1056	1700	1700	1700
Volume to Capacity	0.26	0.02	0.01	0.23	0.24	0.05
Queue Length 95th (m)	7.9	0.5	0.3	0.0	0.0	0.0
Control Delay (s)	19.7	10.8	8.5	0.0	0.0	0.0
Lane LOS	C	B	A			
Approach Delay (s)	18.6		0.3		0.0	
Approach LOS	C					

Intersection Summary				
Average Delay	1.9			
Intersection Capacity Utilization	31.3%	ICU Level of Service		A
Analysis Period (min)	15			

Appendix G

Synchro Reports,

Background Volumes 2035

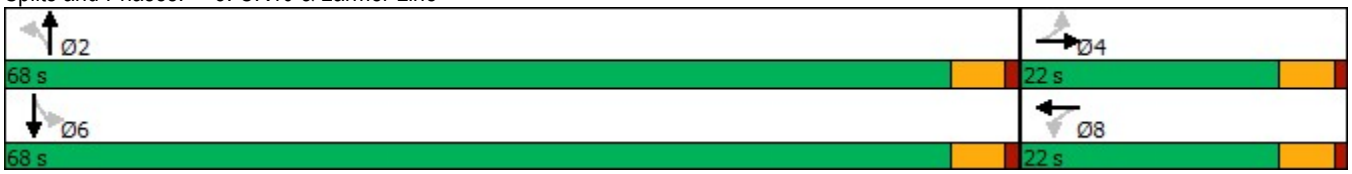


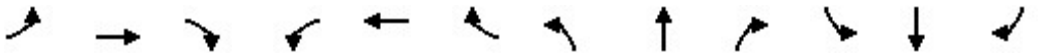
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	23	4	44	35	8	4	35	650	32	3	435	56
Future Volume (vph)	23	4	44	35	8	4	35	650	32	3	435	56
Satd. Flow (prot)	0	1682	0	0	1828	0	1825	1851	0	1372	1872	0
Flt Permitted		0.901			0.779		0.436			0.328		
Satd. Flow (perm)	0	1540	0	0	1477	0	838	1851	0	474	1872	0
Satd. Flow (RTOR)		50			5			7			17	
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Heavy Vehicles (%)	0%	0%	5%	0%	0%	0%	0%	2%	25%	33%	1%	0%
Adj. Flow (vph)	26	5	50	40	9	5	40	739	36	3	494	64
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	81	0	0	54	0	40	775	0	3	558	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		0.0			0.0			3.7			3.7	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		1.6			1.6			1.6			1.6	
Two way Left Turn Lane												
Headway Factor	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99
Turning Speed (k/h)	24		14	24		14	24		14	24		14
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Detector Phase	4	4		8	8		2	2		6	6	
Switch Phase												
Minimum Initial (s)	7.0	7.0		7.0	7.0		10.0	10.0		10.0	10.0	
Minimum Split (s)	20.7	20.7		20.7	20.7		20.7	20.7		20.7	20.7	
Total Split (s)	22.0	22.0		22.0	22.0		68.0	68.0		68.0	68.0	
Total Split (%)	24.4%	24.4%		24.4%	24.4%		75.6%	75.6%		75.6%	75.6%	
Yellow Time (s)	3.7	3.7		3.7	3.7		3.7	3.7		3.7	3.7	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)		0.0			0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)		4.7			4.7		4.7	4.7		4.7	4.7	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	None	None		None	None		Max	Max		Max	Max	
Act Effct Green (s)		8.6			8.6		67.2	67.2		67.2	67.2	
Actuated g/C Ratio		0.10			0.10		0.82	0.82		0.82	0.82	
v/c Ratio		0.40			0.34		0.06	0.51		0.01	0.36	
Control Delay		22.2			37.2		2.6	4.7		2.7	3.4	
Queue Delay		0.0			0.0		0.0	0.0		0.0	0.0	
Total Delay		22.2			37.2		2.6	4.7		2.7	3.4	
LOS		C			D		A	A		A	A	
Approach Delay		22.2			37.2			4.6			3.4	
Approach LOS		C			D			A			A	
Queue Length 50th (m)		4.5			7.2		1.0	32.1		0.1	18.6	
Queue Length 95th (m)		16.2			17.1		3.4	60.2		0.6	35.3	
Internal Link Dist (m)		154.3			49.6			358.3			158.9	
Turn Bay Length (m)							110.0			110.0		

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Base Capacity (vph)		364			315		687	1519		388	1538	
Starvation Cap Reductn		0			0		0	0		0	0	
Spillback Cap Reductn		0			0		0	0		0	0	
Storage Cap Reductn		0			0		0	0		0	0	
Reduced v/c Ratio		0.22			0.17		0.06	0.51		0.01	0.36	

Intersection Summary			
Cycle Length: 90			
Actuated Cycle Length: 82			
Natural Cycle: 60			
Control Type: Semi Act-Uncoord			
Maximum v/c Ratio: 0.51			
Intersection Signal Delay: 6.3		Intersection LOS: A	
Intersection Capacity Utilization 49.8%		ICU Level of Service A	
Analysis Period (min) 15			

Splits and Phases: 3: CR10 & Larmer Line





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	198	1	271	22	6	31	207	352	9	11	272	130
Future Volume (vph)	198	1	271	22	6	31	207	352	9	11	272	130
Satd. Flow (prot)	1722	1586	0	1825	1681	0	1807	1865	1633	1825	1902	1306
Flt Permitted	0.726			0.281			0.421			0.500		
Satd. Flow (perm)	1316	1586	0	540	1681	0	801	1865	1633	961	1902	1306
Satd. Flow (RTOR)		352			40				63			169
Peak Hour Factor	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77
Heavy Vehicles (%)	6%	0%	3%	0%	0%	0%	1%	3%	0%	0%	1%	25%
Adj. Flow (vph)	257	1	352	29	8	40	269	457	12	14	353	169
Shared Lane Traffic (%)												
Lane Group Flow (vph)	257	353	0	29	48	0	269	457	12	14	353	169
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		3.7			3.7			3.7			3.7	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		1.6			1.6			1.6			1.6	
Two way Left Turn Lane												
Headway Factor	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99
Turning Speed (k/h)	24		14	24		14	24		14	24		14
Turn Type	Perm	NA		Perm	NA		pm+pt	NA	Perm	pm+pt	NA	Perm
Protected Phases		4			8		5	2		1	6	
Permitted Phases	4			8			2		2	6		6
Detector Phase	4	4		8	8		5	2	2	1	6	6
Switch Phase												
Minimum Initial (s)	7.0	7.0		7.0	7.0		7.0	10.0	10.0	7.0	10.0	10.0
Minimum Split (s)	20.0	20.0		20.0	20.0		11.0	20.0	20.0	11.0	20.0	20.0
Total Split (s)	36.0	36.0		36.0	36.0		15.0	39.0	39.0	15.0	39.0	39.0
Total Split (%)	40.0%	40.0%		40.0%	40.0%		16.7%	43.3%	43.3%	16.7%	43.3%	43.3%
Yellow Time (s)	3.7	3.7		3.7	3.7		3.5	3.7	3.7	3.5	3.7	3.7
All-Red Time (s)	1.0	1.0		1.0	1.0		0.0	1.0	1.0	0.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.7	4.7		4.7	4.7		3.5	4.7	4.7	3.5	4.7	4.7
Lead/Lag							Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?							Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None		None	None		None	Max	Max	None	Max	Max
Act Effct Green (s)	20.9	20.9		20.9	20.9		50.1	47.0	47.0	43.0	34.7	34.7
Actuated g/C Ratio	0.26	0.26		0.26	0.26		0.63	0.59	0.59	0.54	0.44	0.44
v/c Ratio	0.74	0.52		0.20	0.10		0.42	0.41	0.01	0.02	0.42	0.25
Control Delay	39.9	5.6		25.5	9.0		9.8	12.7	0.0	8.2	19.3	4.2
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	39.9	5.6		25.5	9.0		9.8	12.7	0.0	8.2	19.3	4.2
LOS	D	A		C	A		A	B	A	A	B	A
Approach Delay		20.1			15.2			11.5			14.2	
Approach LOS		C			B			B			B	
Queue Length 50th (m)	35.6	0.1		3.4	0.9		15.7	31.6	0.0	0.7	36.4	0.0
Queue Length 95th (m)	48.3	8.2		8.2	6.0		29.5	69.4	0.0	3.0	56.9	7.2
Internal Link Dist (m)		182.6			89.4			840.6			255.9	
Turn Bay Length (m)	70.0			45.0			150.0		100.0	110.0		110.0

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Base Capacity (vph)	524	844		215	694		653	1105	993	702	831	666
Starvation Cap Reductn	0	0		0	0		0	0	0	0	0	0
Spillback Cap Reductn	0	0		0	0		0	0	0	0	0	0
Storage Cap Reductn	0	0		0	0		0	0	0	0	0	0
Reduced v/c Ratio	0.49	0.42		0.13	0.07		0.41	0.41	0.01	0.02	0.42	0.25

Intersection Summary	
Cycle Length: 90	
Actuated Cycle Length: 79.3	
Natural Cycle: 60	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.74	
Intersection Signal Delay: 15.0	Intersection LOS: B
Intersection Capacity Utilization 55.2%	ICU Level of Service B
Analysis Period (min) 15	

Splits and Phases: 6: CR10 & Fallis Line/Fallis Line Driveway



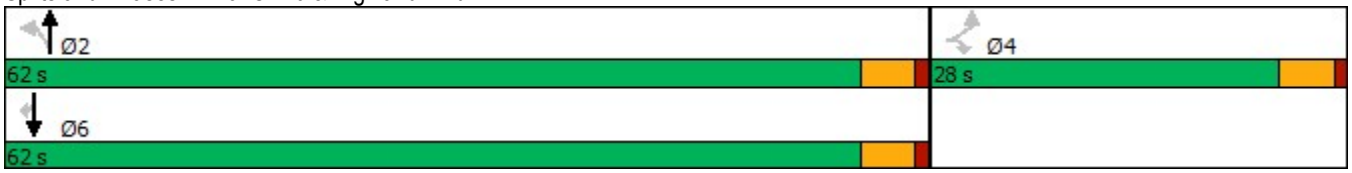


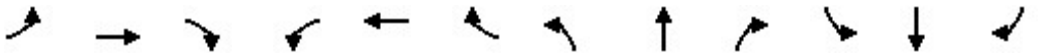
Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	169	26	9	576	403	55
Future Volume (vph)	169	26	9	576	403	55
Satd. Flow (prot)	1789	1601	1789	1883	1883	1601
Flt Permitted	0.950		0.473			
Satd. Flow (perm)	1789	1601	891	1883	1883	1601
Satd. Flow (RTOR)		28				60
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	184	28	10	626	438	60
Shared Lane Traffic (%)						
Lane Group Flow (vph)	184	28	10	626	438	60
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(m)	3.7			3.7	3.7	
Link Offset(m)	0.0			0.0	0.0	
Crosswalk Width(m)	1.6			1.6	1.6	
Two way Left Turn Lane						
Headway Factor	0.99	0.99	0.99	0.99	0.99	0.99
Turning Speed (k/h)	24	14	24			14
Turn Type	Perm	Perm	Perm	NA	NA	Perm
Protected Phases				2	6	
Permitted Phases	4	4	2			6
Detector Phase	4	4	2	2	6	6
Switch Phase						
Minimum Initial (s)	7.0	7.0	10.0	10.0	10.0	10.0
Minimum Split (s)	20.0	20.0	20.0	20.0	20.0	20.0
Total Split (s)	28.0	28.0	62.0	62.0	62.0	62.0
Total Split (%)	31.1%	31.1%	68.9%	68.9%	68.9%	68.9%
Yellow Time (s)	3.7	3.7	3.7	3.7	3.7	3.7
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.7	4.7	4.7	4.7	4.7	4.7
Lead/Lag						
Lead-Lag Optimize?						
Recall Mode	None	None	Min	Min	Min	Min
Act Effct Green (s)	10.1	10.1	22.7	22.7	22.7	22.7
Actuated g/C Ratio	0.24	0.24	0.53	0.53	0.53	0.53
v/c Ratio	0.43	0.07	0.02	0.62	0.43	0.07
Control Delay	17.7	7.2	5.3	10.6	8.0	2.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	17.7	7.2	5.3	10.6	8.0	2.1
LOS	B	A	A	B	A	A
Approach Delay	16.3			10.5	7.3	
Approach LOS	B			B	A	
Queue Length 50th (m)	9.3	0.0	0.3	25.6	15.6	0.0
Queue Length 95th (m)	29.1	4.6	1.9	60.5	37.1	3.5
Internal Link Dist (m)	95.6			95.8	121.8	
Turn Bay Length (m)	75.0		85.0			85.0
Base Capacity (vph)	1005	912	891	1883	1883	1601

Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.18	0.03	0.01	0.33	0.23	0.04

Intersection Summary	
Cycle Length: 90	
Actuated Cycle Length: 42.5	
Natural Cycle: 45	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.62	
Intersection Signal Delay: 10.2	Intersection LOS: B
Intersection Capacity Utilization 47.5%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 26: CR10 & Highland Blvd



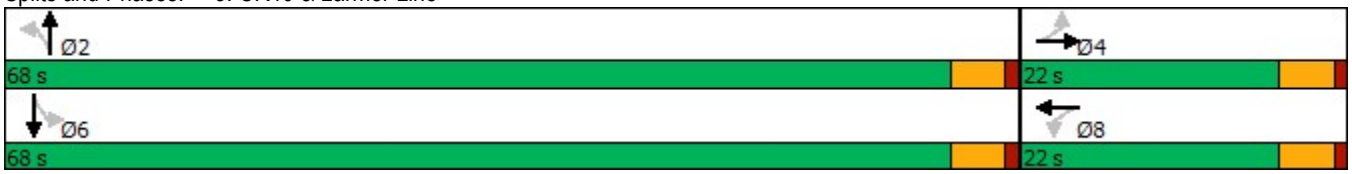


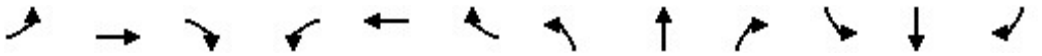
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	50	9	37	23	3	7	37	576	28	15	714	30
Future Volume (vph)	50	9	37	23	3	7	37	576	28	15	714	30
Satd. Flow (prot)	0	1776	0	0	1746	0	1825	1890	0	1825	1891	0
Flt Permitted		0.818			0.734		0.302			0.377		
Satd. Flow (perm)	0	1490	0	0	1327	0	580	1890	0	724	1891	0
Satd. Flow (RTOR)		31			8			7			6	
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Heavy Vehicles (%)	0%	0%	0%	0%	0%	14%	0%	1%	0%	0%	1%	0%
Adj. Flow (vph)	55	10	41	25	3	8	41	633	31	16	785	33
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	106	0	0	36	0	41	664	0	16	818	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		0.0			0.0			3.7			3.7	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		1.6			1.6			1.6			1.6	
Two way Left Turn Lane												
Headway Factor	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99
Turning Speed (k/h)	24		14	24		14	24		14	24		14
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Detector Phase	4	4		8	8		2	2		6	6	
Switch Phase												
Minimum Initial (s)	7.0	7.0		7.0	7.0		10.0	10.0		10.0	10.0	
Minimum Split (s)	20.7	20.7		20.7	20.7		20.7	20.7		20.7	20.7	
Total Split (s)	22.0	22.0		22.0	22.0		68.0	68.0		68.0	68.0	
Total Split (%)	24.4%	24.4%		24.4%	24.4%		75.6%	75.6%		75.6%	75.6%	
Yellow Time (s)	3.7	3.7		3.7	3.7		3.7	3.7		3.7	3.7	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)		0.0			0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)		4.7			4.7		4.7	4.7		4.7	4.7	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	None	None		None	None		Max	Max		Max	Max	
Act Effct Green (s)		9.9			9.9		67.3	67.3		67.3	67.3	
Actuated g/C Ratio		0.12			0.12		0.81	0.81		0.81	0.81	
v/c Ratio		0.52			0.22		0.09	0.43		0.03	0.54	
Control Delay		33.9			30.1		3.5	4.5		3.1	5.6	
Queue Delay		0.0			0.0		0.0	0.0		0.0	0.0	
Total Delay		33.9			30.1		3.5	4.5		3.1	5.6	
LOS		C			C		A	A		A	A	
Approach Delay		33.9			30.1			4.5			5.5	
Approach LOS		C			C			A			A	
Queue Length 50th (m)		11.1			4.0		1.2	27.6		0.5	39.1	
Queue Length 95th (m)		26.0			12.2		4.4	56.7		2.1	80.7	
Internal Link Dist (m)		154.3			49.6			358.3			158.9	
Turn Bay Length (m)							110.0			110.0		

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Base Capacity (vph)		334			281		468	1527		584	1528	
Starvation Cap Reductn		0			0		0	0		0	0	
Spillback Cap Reductn		0			0		0	0		0	0	
Storage Cap Reductn		0			0		0	0		0	0	
Reduced v/c Ratio		0.32			0.13		0.09	0.43		0.03	0.54	

Intersection Summary			
Cycle Length: 90			
Actuated Cycle Length: 83.3			
Natural Cycle: 60			
Control Type: Semi Act-Uncoord			
Maximum v/c Ratio: 0.54			
Intersection Signal Delay: 7.4		Intersection LOS: A	
Intersection Capacity Utilization 53.1%		ICU Level of Service A	
Analysis Period (min) 15			

Splits and Phases: 3: CR10 & Larmer Line





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	128	6	154	16	2	19	194	352	23	36	417	167
Future Volume (vph)	128	6	154	16	2	19	194	352	23	36	417	167
Satd. Flow (prot)	1706	1644	0	1825	1658	0	1789	1902	1633	1825	1921	1585
Flt Permitted	0.742			0.569			0.369			0.535		
Satd. Flow (perm)	1332	1644	0	1093	1658	0	695	1902	1633	1028	1921	1585
Satd. Flow (RTOR)		167			21				63			182
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	7%	0%	0%	0%	0%	0%	2%	1%	0%	0%	0%	3%
Adj. Flow (vph)	139	7	167	17	2	21	211	383	25	39	453	182
Shared Lane Traffic (%)												
Lane Group Flow (vph)	139	174	0	17	23	0	211	383	25	39	453	182
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		3.7			3.7			3.7			3.7	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		1.6			1.6			1.6			1.6	
Two way Left Turn Lane												
Headway Factor	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99
Turning Speed (k/h)	24		14	24		14	24		14	24		14
Turn Type	Perm	NA		Perm	NA		pm+pt	NA	Perm	pm+pt	NA	Perm
Protected Phases		4			8		5	2		1	6	
Permitted Phases	4			8			2		2	6		6
Detector Phase	4	4		8	8		5	2	2	1	6	6
Switch Phase												
Minimum Initial (s)	7.0	7.0		7.0	7.0		7.0	10.0	10.0	7.0	10.0	10.0
Minimum Split (s)	20.0	20.0		20.0	20.0		11.0	20.0	20.0	11.0	20.0	20.0
Total Split (s)	36.0	36.0		36.0	36.0		15.0	39.0	39.0	15.0	39.0	39.0
Total Split (%)	40.0%	40.0%		40.0%	40.0%		16.7%	43.3%	43.3%	16.7%	43.3%	43.3%
Yellow Time (s)	3.7	3.7		3.7	3.7		3.5	3.7	3.7	3.5	3.7	3.7
All-Red Time (s)	1.0	1.0		1.0	1.0		0.0	1.0	1.0	0.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.7	4.7		4.7	4.7		3.5	4.7	4.7	3.5	4.7	4.7
Lead/Lag							Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?							Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None		None	None		None	Max	Max	None	Max	Max
Act Effct Green (s)	12.5	12.5		12.5	12.5		47.9	41.1	41.1	42.8	34.5	34.5
Actuated g/C Ratio	0.18	0.18		0.18	0.18		0.69	0.59	0.59	0.62	0.50	0.50
v/c Ratio	0.58	0.40		0.09	0.07		0.34	0.34	0.03	0.05	0.47	0.21
Control Delay	36.0	8.0		24.2	11.8		5.7	10.2	0.4	4.6	14.6	2.8
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	36.0	8.0		24.2	11.8		5.7	10.2	0.4	4.6	14.6	2.8
LOS	D	A		C	B		A	B	A	A	B	A
Approach Delay		20.4			17.1			8.3			10.9	
Approach LOS		C			B			A			B	
Queue Length 50th (m)	16.4	0.7		1.8	0.2		7.4	26.7	0.0	1.2	35.2	0.0
Queue Length 95th (m)	33.3	14.8		6.7	5.5		18.3	52.1	0.7	4.6	72.0	10.0
Internal Link Dist (m)		182.6			89.4			840.6			255.9	
Turn Bay Length (m)	70.0			45.0			150.0		100.0	110.0		110.0

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Base Capacity (vph)	606	840		498	766		669	1132	997	833	959	882
Starvation Cap Reductn	0	0		0	0		0	0	0	0	0	0
Spillback Cap Reductn	0	0		0	0		0	0	0	0	0	0
Storage Cap Reductn	0	0		0	0		0	0	0	0	0	0
Reduced v/c Ratio	0.23	0.21		0.03	0.03		0.32	0.34	0.03	0.05	0.47	0.21

Intersection Summary	
Cycle Length: 90	
Actuated Cycle Length: 69.1	
Natural Cycle: 55	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.58	
Intersection Signal Delay: 11.9	Intersection LOS: B
Intersection Capacity Utilization 57.6%	ICU Level of Service B
Analysis Period (min) 15	

Splits and Phases: 6: CR10 & Fallis Line/Fallis Line Driveway



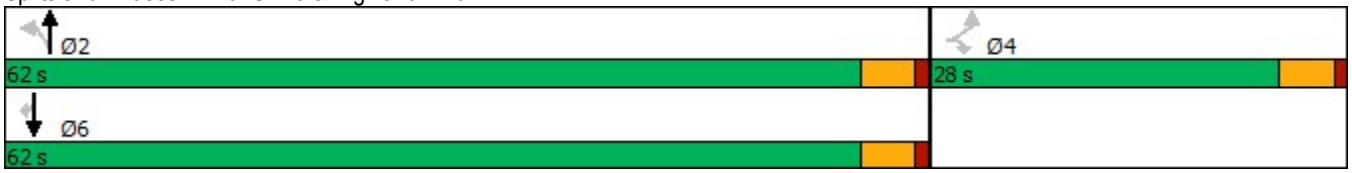


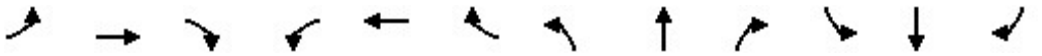
Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	108	16	28	488	612	181
Future Volume (vph)	108	16	28	488	612	181
Satd. Flow (prot)	1789	1601	1789	1883	1883	1601
Flt Permitted	0.950		0.337			
Satd. Flow (perm)	1789	1601	635	1883	1883	1601
Satd. Flow (RTOR)		17				197
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	117	17	30	530	665	197
Shared Lane Traffic (%)						
Lane Group Flow (vph)	117	17	30	530	665	197
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(m)	3.7			3.7	3.7	
Link Offset(m)	0.0			0.0	0.0	
Crosswalk Width(m)	1.6			1.6	1.6	
Two way Left Turn Lane						
Headway Factor	0.99	0.99	0.99	0.99	0.99	0.99
Turning Speed (k/h)	97	97	97			97
Turn Type	Perm	Perm	Perm	NA	NA	Perm
Protected Phases				2	6	
Permitted Phases	4	4	2			6
Detector Phase	4	4	2	2	6	6
Switch Phase						
Minimum Initial (s)	7.0	7.0	10.0	10.0	10.0	10.0
Minimum Split (s)	20.0	20.0	20.0	20.0	20.0	20.0
Total Split (s)	28.0	28.0	62.0	62.0	62.0	62.0
Total Split (%)	31.1%	31.1%	68.9%	68.9%	68.9%	68.9%
Yellow Time (s)	3.7	3.7	3.7	3.7	3.7	3.7
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.7	4.7	4.7	4.7	4.7	4.7
Lead/Lag						
Lead-Lag Optimize?						
Recall Mode	None	None	Min	Min	Min	Min
Act Effct Green (s)	9.0	9.0	28.2	28.2	28.2	28.2
Actuated g/C Ratio	0.21	0.21	0.67	0.67	0.67	0.67
v/c Ratio	0.31	0.05	0.07	0.42	0.53	0.17
Control Delay	17.9	8.6	5.0	6.5	7.8	1.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	17.9	8.6	5.0	6.5	7.8	1.4
LOS	B	A	A	A	A	A
Approach Delay	16.7			6.5	6.3	
Approach LOS	B			A	A	
Queue Length 50th (m)	6.8	0.0	0.8	18.3	25.5	0.0
Queue Length 95th (m)	20.1	3.7	3.6	41.4	57.8	5.5
Internal Link Dist (m)	95.6			95.8	121.8	
Turn Bay Length (m)	75.0		85.0			85.0
Base Capacity (vph)	1022	922	635	1883	1883	1601

Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.11	0.02	0.05	0.28	0.35	0.12

Intersection Summary	
Cycle Length: 90	
Actuated Cycle Length: 42.3	
Natural Cycle: 50	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.53	
Intersection Signal Delay: 7.3	Intersection LOS: A
Intersection Capacity Utilization 46.0%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 26: CR10 & Highland Blvd



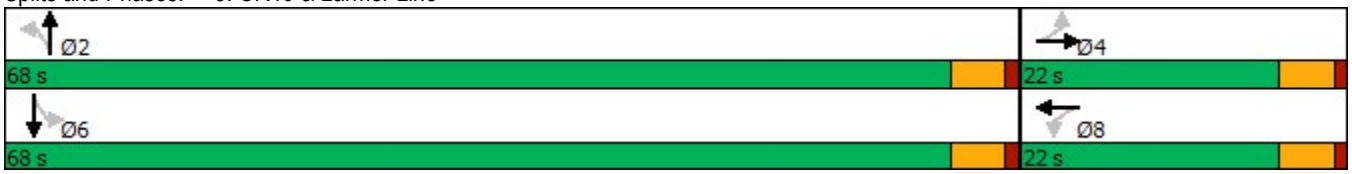


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	11	9	32	26	3	9	37	530	28	6	579	10
Future Volume (vph)	11	9	32	26	3	9	37	530	28	6	579	10
Satd. Flow (prot)	0	1742	0	0	1800	0	1825	1906	0	1825	1917	0
Flt Permitted		0.917			0.899		0.421			0.437		
Satd. Flow (perm)	0	1614	0	0	1674	0	809	1906	0	840	1917	0
Satd. Flow (RTOR)		33			9			7			2	
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Heavy Vehicles (%)	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Adj. Flow (vph)	11	9	33	27	3	9	38	541	29	6	591	10
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	53	0	0	39	0	38	570	0	6	601	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		0.0			0.0			3.7			3.7	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		1.6			1.6			1.6			1.6	
Two way Left Turn Lane												
Headway Factor	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99
Turning Speed (k/h)	24		14	24		14	24		14	24		14
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Detector Phase	4	4		8	8		2	2		6	6	
Switch Phase												
Minimum Initial (s)	7.0	7.0		7.0	7.0		10.0	10.0		10.0	10.0	
Minimum Split (s)	20.7	20.7		20.7	20.7		20.7	20.7		20.7	20.7	
Total Split (s)	22.0	22.0		22.0	22.0		68.0	68.0		68.0	68.0	
Total Split (%)	24.4%	24.4%		24.4%	24.4%		75.6%	75.6%		75.6%	75.6%	
Yellow Time (s)	3.7	3.7		3.7	3.7		3.7	3.7		3.7	3.7	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)		0.0			0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)		4.7			4.7		4.7	4.7		4.7	4.7	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	None	None		None	None		Max	Max		Max	Max	
Act Effct Green (s)		7.8			7.8		68.5	68.5		68.5	68.5	
Actuated g/C Ratio		0.10			0.10		0.87	0.87		0.87	0.87	
v/c Ratio		0.28			0.23		0.05	0.34		0.01	0.36	
Control Delay		22.0			30.7		2.2	2.7		2.2	2.8	
Queue Delay		0.0			0.0		0.0	0.0		0.0	0.0	
Total Delay		22.0			30.7		2.2	2.7		2.2	2.8	
LOS		C			C		A	A		A	A	
Approach Delay		22.0			30.7			2.7			2.8	
Approach LOS		C			C			A			A	
Queue Length 50th (m)		2.9			4.3		0.9	17.7		0.1	19.2	
Queue Length 95th (m)		12.8			13.0		3.0	33.5		0.9	36.3	
Internal Link Dist (m)		154.3			49.6			358.3			158.9	
Turn Bay Length (m)							110.0			110.0		

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Base Capacity (vph)		382			376		703	1657		730	1666	
Starvation Cap Reductn		0			0		0	0		0	0	
Spillback Cap Reductn		0			0		0	0		0	0	
Storage Cap Reductn		0			0		0	0		0	0	
Reduced v/c Ratio		0.14			0.10		0.05	0.34		0.01	0.36	

Intersection Summary			
Cycle Length: 90			
Actuated Cycle Length: 78.8			
Natural Cycle: 50			
Control Type: Semi Act-Uncoord			
Maximum v/c Ratio: 0.36			
Intersection Signal Delay: 4.3		Intersection LOS: A	
Intersection Capacity Utilization 44.7%		ICU Level of Service A	
Analysis Period (min) 15			

Splits and Phases: 3: CR10 & Larmer Line



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	153	3	189	23	2	25	167	275	21	30	284	162
Future Volume (vph)	153	3	189	23	2	25	167	275	21	30	284	162
Satd. Flow (prot)	1825	1637	0	1825	1652	0	1825	1921	1633	1825	1921	1633
Flt Permitted	0.738			0.470			0.471			0.570		
Satd. Flow (perm)	1418	1637	0	903	1652	0	905	1921	1633	1095	1921	1633
Satd. Flow (RTOR)		215			28				63			184
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Heavy Vehicles (%)	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Adj. Flow (vph)	174	3	215	26	2	28	190	313	24	34	323	184
Shared Lane Traffic (%)												
Lane Group Flow (vph)	174	218	0	26	30	0	190	313	24	34	323	184
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		3.7			3.7			3.7			3.7	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		1.6			1.6			1.6			1.6	
Two way Left Turn Lane												
Headway Factor	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99
Turning Speed (k/h)	24		14	24		14	24		14	24		14
Turn Type	Perm	NA		Perm	NA		pm+pt	NA	Perm	pm+pt	NA	Perm
Protected Phases		4			8		5	2		1	6	
Permitted Phases	4			8			2		2	6		6
Detector Phase	4	4		8	8		5	2	2	1	6	6
Switch Phase												
Minimum Initial (s)	7.0	7.0		7.0	7.0		7.0	10.0	10.0	7.0	10.0	10.0
Minimum Split (s)	20.0	20.0		20.0	20.0		11.0	20.0	20.0	11.0	20.0	20.0
Total Split (s)	36.0	36.0		36.0	36.0		15.0	39.0	39.0	15.0	39.0	39.0
Total Split (%)	40.0%	40.0%		40.0%	40.0%		16.7%	43.3%	43.3%	16.7%	43.3%	43.3%
Yellow Time (s)	3.7	3.7		3.7	3.7		3.5	3.7	3.7	3.5	3.7	3.7
All-Red Time (s)	1.0	1.0		1.0	1.0		0.0	1.0	1.0	0.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.7	4.7		4.7	4.7		3.5	4.7	4.7	3.5	4.7	4.7
Lead/Lag							Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?							Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None		None	None		None	Max	Max	None	Max	Max
Act Effct Green (s)	14.0	14.0		14.0	14.0		48.3	43.3	43.3	42.8	34.5	34.5
Actuated g/C Ratio	0.20	0.20		0.20	0.20		0.68	0.61	0.61	0.61	0.49	0.49
v/c Ratio	0.62	0.44		0.15	0.09		0.26	0.27	0.02	0.05	0.34	0.21
Control Delay	36.0	7.0		25.0	10.3		5.6	9.3	0.3	5.2	13.8	3.0
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	36.0	7.0		25.0	10.3		5.6	9.3	0.3	5.2	13.8	3.0
LOS	D	A		C	B		A	A	A	A	B	A
Approach Delay		19.8			17.1			7.6			9.6	
Approach LOS		B			B			A			A	
Queue Length 50th (m)	21.3	0.3		2.9	0.2		7.2	13.7	0.0	1.2	24.9	0.0
Queue Length 95th (m)	39.0	14.4		8.7	5.9		18.1	43.7	0.5	4.5	50.9	9.9
Internal Link Dist (m)		182.6			89.4			840.6			255.9	
Turn Bay Length (m)	70.0			45.0			150.0		100.0	110.0		110.0

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Base Capacity (vph)	631	848		402	751		770	1177	1025	848	938	891
Starvation Cap Reductn	0	0		0	0		0	0	0	0	0	0
Spillback Cap Reductn	0	0		0	0		0	0	0	0	0	0
Storage Cap Reductn	0	0		0	0		0	0	0	0	0	0
Reduced v/c Ratio	0.28	0.26		0.06	0.04		0.25	0.27	0.02	0.04	0.34	0.21

Intersection Summary	
Cycle Length: 90	
Actuated Cycle Length: 70.7	
Natural Cycle: 55	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.62	
Intersection Signal Delay: 11.8	Intersection LOS: B
Intersection Capacity Utilization 54.5%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 6: CR10 & Fallis Line/Fallis Line Driveway





Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	160	25	26	428	450	172
Future Volume (vph)	160	25	26	428	450	172
Satd. Flow (prot)	1789	1601	1789	1883	1883	1601
Flt Permitted	0.950		0.446			
Satd. Flow (perm)	1789	1601	840	1883	1883	1601
Satd. Flow (RTOR)		27				187
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	174	27	28	465	489	187
Shared Lane Traffic (%)						
Lane Group Flow (vph)	174	27	28	465	489	187
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(m)	3.7			3.7	3.7	
Link Offset(m)	0.0			0.0	0.0	
Crosswalk Width(m)	1.6			1.6	1.6	
Two way Left Turn Lane						
Headway Factor	0.99	0.99	0.99	0.99	0.99	0.99
Turning Speed (k/h)	97	97	97			97
Turn Type	Perm	Perm	Perm	NA	NA	Perm
Protected Phases				2	6	
Permitted Phases	4	4	2			6
Detector Phase	4	4	2	2	6	6
Switch Phase						
Minimum Initial (s)	7.0	7.0	10.0	10.0	10.0	10.0
Minimum Split (s)	20.0	20.0	20.0	20.0	20.0	20.0
Total Split (s)	28.0	28.0	62.0	62.0	62.0	62.0
Total Split (%)	31.1%	31.1%	68.9%	68.9%	68.9%	68.9%
Yellow Time (s)	3.7	3.7	3.7	3.7	3.7	3.7
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.7	4.7	4.7	4.7	4.7	4.7
Lead/Lag						
Lead-Lag Optimize?						
Recall Mode	None	None	Min	Min	Min	Min
Act Effct Green (s)	9.2	9.2	20.8	20.8	20.8	20.8
Actuated g/C Ratio	0.26	0.26	0.58	0.58	0.58	0.58
v/c Ratio	0.38	0.06	0.06	0.42	0.45	0.18
Control Delay	14.5	6.3	5.8	7.8	8.0	1.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	14.5	6.3	5.8	7.8	8.0	1.8
LOS	B	A	A	A	A	A
Approach Delay	13.4			7.7	6.3	
Approach LOS	B			A	A	
Queue Length 50th (m)	7.6	0.0	0.7	16.0	17.0	0.0
Queue Length 95th (m)	23.5	3.9	3.6	37.9	40.6	6.1
Internal Link Dist (m)	95.6			95.8	121.8	
Turn Bay Length (m)	75.0		85.0			85.0
Base Capacity (vph)	1195	1078	840	1883	1883	1601

Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.15	0.03	0.03	0.25	0.26	0.12

Intersection Summary	
Cycle Length: 90	
Actuated Cycle Length: 35.7	
Natural Cycle: 40	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.45	
Intersection Signal Delay: 7.9	Intersection LOS: A
Intersection Capacity Utilization 40.4%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 26: CR10 & Highland Blvd

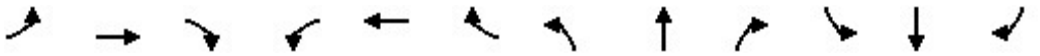




Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	4	3	1	581	410	19
Future Volume (Veh/h)	4	3	1	581	410	19
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.77	0.77	0.77	0.77	0.77	0.43
Hourly flow rate (vph)	5	4	1	755	532	44
Pedestrians						
Lane Width (m)						
Walking Speed (m/s)						
Percent Blockage						
Right turn flare (veh)						
Median type				None	None	
Median storage veh)						
Upstream signal (m)				280	120	
pX, platoon unblocked	0.81	0.86	0.86			
vC, conflicting volume	1311	554	576			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	870	396	422			
tC, single (s)	6.4	6.2	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	98	99	100			
cM capacity (veh/h)	263	564	984			

Direction, Lane #	EB 1	EB 2	NB 1	NB 2	SB 1
Volume Total	5	4	1	755	576
Volume Left	5	0	1	0	0
Volume Right	0	4	0	0	44
cSH	263	564	984	1700	1700
Volume to Capacity	0.02	0.01	0.00	0.44	0.34
Queue Length 95th (m)	0.4	0.2	0.0	0.0	0.0
Control Delay (s)	18.9	11.4	8.7	0.0	0.0
Lane LOS	C	B	A		
Approach Delay (s)	15.6		0.0		0.0
Approach LOS	C				

Intersection Summary			
Average Delay	0.1		
Intersection Capacity Utilization	40.6%	ICU Level of Service	A
Analysis Period (min)	15		



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Stop			Stop	
Traffic Volume (vph)	135	30	2	9	56	224	0	31	7	203	48	128
Future Volume (vph)	135	30	2	9	56	224	0	31	7	203	48	128
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85
Hourly flow rate (vph)	159	35	2	11	66	264	0	36	8	239	56	151

Direction, Lane #	EB 1	WB 1	NB 1	SB 1	SB 2
Volume Total (vph)	196	341	44	239	207
Volume Left (vph)	159	11	0	239	0
Volume Right (vph)	2	264	8	0	151
Hadj (s)	0.25	-0.36	-0.01	0.58	-0.49
Departure Headway (s)	6.0	5.2	6.3	6.7	5.6
Degree Utilization, x	0.33	0.49	0.08	0.44	0.32
Capacity (veh/h)	559	656	487	515	614
Control Delay (s)	11.9	13.2	9.8	13.6	10.0
Approach Delay (s)	11.9	13.2	9.8	11.9	
Approach LOS	B	B	A	B	

Intersection Summary				
Delay	12.3			
Level of Service	B			
Intersection Capacity Utilization	54.3%	ICU Level of Service	A	
Analysis Period (min)	15			

Intersection: 12: Distillery Rd/CR10 & King St (CR21)

Movement	EB	WB	NB	SB	SB
Directions Served	LTR	LTR	LTR	L	TR
Maximum Queue (m)	23.9	33.9	18.2	27.6	24.1
Average Queue (m)	13.3	18.4	7.6	16.1	13.9
95th Queue (m)	21.3	29.0	15.6	24.8	21.8
Link Distance (m)	518.3	494.8	260.2		493.8
Upstream Blk Time (%)					
Queuing Penalty (veh)					
Storage Bay Dist (m)				12.0	
Storage Blk Time (%)				10	8
Queuing Penalty (veh)				18	17



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	0	113	59	1	52	37
Future Volume (Veh/h)	0	113	59	1	52	37
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Peak Hour Factor	0.80	0.80	0.80	0.80	0.80	0.80
Hourly flow rate (vph)	0	141	74	1	65	46
Pedestrians						
Lane Width (m)						
Walking Speed (m/s)						
Percent Blockage						
Right turn flare (veh)						
Median type			None			None
Median storage veh)						
Upstream signal (m)						
pX, platoon unblocked						
vC, conflicting volume	250	74			75	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	250	74			75	
tC, single (s)	6.4	6.2			4.2	
tC, 2 stage (s)						
tF (s)	3.5	3.3			2.3	
p0 queue free %	100	86			96	
cM capacity (veh/h)	709	979			1446	

Direction, Lane #	WB 1	NB 1	SB 1
Volume Total	141	75	111
Volume Left	0	0	65
Volume Right	141	1	0
cSH	979	1700	1446
Volume to Capacity	0.14	0.04	0.04
Queue Length 95th (m)	3.8	0.0	1.1
Control Delay (s)	9.3	0.0	4.6
Lane LOS	A		A
Approach Delay (s)	9.3	0.0	4.6
Approach LOS	A		

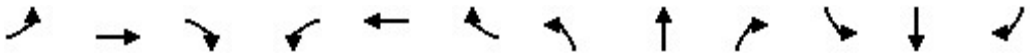
Intersection Summary			
Average Delay		5.6	
Intersection Capacity Utilization		25.2%	ICU Level of Service A
Analysis Period (min)		15	



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	17	14	1	499	606	22
Future Volume (Veh/h)	17	14	1	499	606	22
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	1.00	0.92
Hourly flow rate (vph)	18	15	1	542	606	24
Pedestrians						
Lane Width (m)						
Walking Speed (m/s)						
Percent Blockage						
Right turn flare (veh)						
Median type				None	None	
Median storage veh)						
Upstream signal (m)				280	120	
pX, platoon unblocked	0.82	0.78	0.78			
vC, conflicting volume	1162	618	630			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	890	375	390			
tC, single (s)	6.4	6.2	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	93	97	100			
cM capacity (veh/h)	259	530	925			

Direction, Lane #	EB 1	EB 2	NB 1	NB 2	SB 1
Volume Total	18	15	1	542	630
Volume Left	18	0	1	0	0
Volume Right	0	15	0	0	24
cSH	259	530	925	1700	1700
Volume to Capacity	0.07	0.03	0.00	0.32	0.37
Queue Length 95th (m)	1.7	0.7	0.0	0.0	0.0
Control Delay (s)	20.0	12.0	8.9	0.0	0.0
Lane LOS	C	B	A		
Approach Delay (s)	16.3		0.0		0.0
Approach LOS	C				

Intersection Summary			
Average Delay	0.5		
Intersection Capacity Utilization	43.2%	ICU Level of Service	A
Analysis Period (min)	15		



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Stop			Stop	
Traffic Volume (vph)	165	55	5	0	50	243	1	56	9	273	19	186
Future Volume (vph)	165	55	5	0	50	243	1	56	9	273	19	186
Peak Hour Factor	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83
Hourly flow rate (vph)	199	66	6	0	60	293	1	67	11	329	23	224

Direction, Lane #	EB 1	WB 1	NB 1	SB 1	SB 2
Volume Total (vph)	271	353	79	329	247
Volume Left (vph)	199	0	1	329	0
Volume Right (vph)	6	293	11	0	224
Hadj (s)	0.15	-0.46	-0.08	0.52	-0.63
Departure Headway (s)	6.5	5.8	7.0	7.1	5.9
Degree Utilization, x	0.49	0.57	0.15	0.65	0.41
Capacity (veh/h)	508	587	429	490	585
Control Delay (s)	15.7	16.3	11.3	21.2	11.8
Approach Delay (s)	15.7	16.3	11.3	17.1	
Approach LOS	C	C	B	C	

Intersection Summary				
Delay	16.2			
Level of Service	C			
Intersection Capacity Utilization	61.7%	ICU Level of Service	B	
Analysis Period (min)	15			

Intersection: 12: Distillery Rd/CR10 & King St (CR21)

Movement	EB	WB	NB	SB	SB
Directions Served	LTR	LTR	LTR	L	TR
Maximum Queue (m)	27.3	33.2	16.4	30.7	23.6
Average Queue (m)	15.8	18.7	8.9	18.7	14.0
95th Queue (m)	25.0	29.6	14.3	27.6	22.2
Link Distance (m)	518.3	494.8	260.2		493.8
Upstream Blk Time (%)					
Queuing Penalty (veh)					
Storage Bay Dist (m)				12.0	
Storage Blk Time (%)				17	9
Queuing Penalty (veh)				35	25



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	4	59	45	7	107	71
Future Volume (Veh/h)	4	59	45	7	107	71
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96
Hourly flow rate (vph)	4	61	47	7	111	74
Pedestrians						
Lane Width (m)						
Walking Speed (m/s)						
Percent Blockage						
Right turn flare (veh)						
Median type			None			None
Median storage veh)						
Upstream signal (m)						
pX, platoon unblocked						
vC, conflicting volume	346	50			54	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	346	50			54	
tC, single (s)	6.4	6.2			4.1	
tC, 2 stage (s)						
tF (s)	3.5	3.3			2.2	
p0 queue free %	99	94			93	
cM capacity (veh/h)	608	1012			1551	

Direction, Lane #	WB 1	NB 1	SB 1
Volume Total	65	54	185
Volume Left	4	0	111
Volume Right	61	7	0
cSH	972	1700	1551
Volume to Capacity	0.07	0.03	0.07
Queue Length 95th (m)	1.6	0.0	1.8
Control Delay (s)	9.0	0.0	4.7
Lane LOS	A		A
Approach Delay (s)	9.0	0.0	4.7
Approach LOS	A		

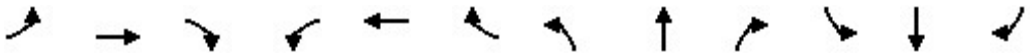
Intersection Summary			
Average Delay	4.8		
Intersection Capacity Utilization	26.9%	ICU Level of Service	A
Analysis Period (min)	15		



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	1	2	1	453	474	1
Future Volume (Veh/h)	1	2	1	453	474	1
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88
Hourly flow rate (vph)	1	2	1	515	539	1
Pedestrians						
Lane Width (m)						
Walking Speed (m/s)						
Percent Blockage						
Right turn flare (veh)						
Median type				None	None	
Median storage veh)						
Upstream signal (m)				280	120	
pX, platoon unblocked	0.86	0.84	0.84			
vC, conflicting volume	1056	540	540			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	843	350	351			
tC, single (s)	6.4	6.2	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	100	100	100			
cM capacity (veh/h)	290	583	1019			

Direction, Lane #	EB 1	EB 2	NB 1	NB 2	SB 1
Volume Total	1	2	1	515	540
Volume Left	1	0	1	0	0
Volume Right	0	2	0	0	1
cSH	290	583	1019	1700	1700
Volume to Capacity	0.00	0.00	0.00	0.30	0.32
Queue Length 95th (m)	0.1	0.1	0.0	0.0	0.0
Control Delay (s)	17.5	11.2	8.5	0.0	0.0
Lane LOS	C	B	A		
Approach Delay (s)	13.3		0.0		0.0
Approach LOS	B				

Intersection Summary			
Average Delay	0.0		
Intersection Capacity Utilization	35.0%	ICU Level of Service	A
Analysis Period (min)	15		



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Stop			Stop	
Traffic Volume (vph)	184	56	15	10	56	179	13	51	13	186	30	222
Future Volume (vph)	184	56	15	10	56	179	13	51	13	186	30	222
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Hourly flow rate (vph)	196	60	16	11	60	190	14	54	14	198	32	236

Direction, Lane #	EB 1	WB 1	NB 1	SB 1	SB 2
Volume Total (vph)	272	261	82	198	268
Volume Left (vph)	196	11	14	198	0
Volume Right (vph)	16	190	14	0	236
Hadj (s)	0.11	-0.43	-0.07	0.50	-0.62
Departure Headway (s)	5.9	5.4	6.3	6.7	5.5
Degree Utilization, x	0.45	0.39	0.14	0.37	0.41
Capacity (veh/h)	574	618	492	512	617
Control Delay (s)	13.5	11.9	10.3	12.3	11.2
Approach Delay (s)	13.5	11.9	10.3	11.7	
Approach LOS	B	B	B	B	

Intersection Summary				
Delay	12.1			
Level of Service	B			
Intersection Capacity Utilization	55.5%	ICU Level of Service	B	
Analysis Period (min)	15			

Intersection: 12: Distillery Rd/CR10 & King St (CR21)

Movement	EB	WB	NB	SB	SB
Directions Served	LTR	LTR	LTR	L	TR
Maximum Queue (m)	27.9	28.2	16.5	24.3	26.9
Average Queue (m)	15.8	15.0	9.1	14.3	16.4
95th Queue (m)	24.3	23.5	15.4	22.4	24.2
Link Distance (m)	518.3	494.8	260.2		493.8
Upstream Blk Time (%)					
Queuing Penalty (veh)					
Storage Bay Dist (m)				12.0	
Storage Blk Time (%)				10	13
Queuing Penalty (veh)				25	24



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	0	53	48	1	62	40
Future Volume (Veh/h)	0	53	48	1	62	40
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89
Hourly flow rate (vph)	0	60	54	1	70	45
Pedestrians						
Lane Width (m)						
Walking Speed (m/s)						
Percent Blockage						
Right turn flare (veh)						
Median type			None			None
Median storage veh)						
Upstream signal (m)						
pX, platoon unblocked						
vC, conflicting volume	240	54			55	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	240	54			55	
tC, single (s)	6.4	6.2			4.1	
tC, 2 stage (s)						
tF (s)	3.5	3.3			2.2	
p0 queue free %	100	94			96	
cM capacity (veh/h)	719	1018			1563	

Direction, Lane #	WB 1	NB 1	SB 1
Volume Total	60	55	115
Volume Left	0	0	70
Volume Right	60	1	0
cSH	1018	1700	1563
Volume to Capacity	0.06	0.03	0.04
Queue Length 95th (m)	1.4	0.0	1.1
Control Delay (s)	8.8	0.0	4.6
Lane LOS	A		A
Approach Delay (s)	8.8	0.0	4.6
Approach LOS	A		

Intersection Summary			
Average Delay	4.6		
Intersection Capacity Utilization	22.2%	ICU Level of Service	A
Analysis Period (min)	15		

ITE OTISS Output Summary
"Site Totals" Tables

2027 AM Peak Hour Phase 1

RESULTS

Site Totals	Entry	Exit	Total
Vehicle Trips Before Reduction	366	268	634
Internal Vehicle Trips	36	36	72
External Vehicle Trips	330	232	562
Internal Vehicle Trip Capture	10%	13%	12%
Pass-by Vehicle Trips	94	80	174
Diverted Vehicle Trips	0	0	0
Extra Reduced Vehicle Trips	0	0	0
New Vehicle Trips	236	152	388

2030 AM Peak Hour Phase 2

RESULTS

Site Totals	Entry	Exit	Total
Vehicle Trips Before Reduction	506	479	985
Internal Vehicle Trips	70	70	140
External Vehicle Trips	436	409	845
Internal Vehicle Trip Capture	14%	15%	15%
Pass-by Vehicle Trips	82	74	156
Diverted Vehicle Trips	0	0	0
Extra Reduced Vehicle Trips	0	0	0
New Vehicle Trips	354	335	689

2027 PM Peak Hour Phase 1

RESULTS

Site Totals	Entry	Exit	Total
Vehicle Trips Before Reduction	576	617	1193
Internal Vehicle Trips	65	65	130
External Vehicle Trips	511	552	1063
Internal Vehicle Trip Capture	11%	11%	11%
Pass-by Vehicle Trips	195	205	400
Diverted Vehicle Trips	0	0	0
Extra Reduced Vehicle Trips	0	0	0
New Vehicle Trips	316	347	663

2030 PM Peak Hour Phase 2

RESULTS

Site Totals	Entry	Exit	Total
Vehicle Trips Before Reduction	793	815	1608
Internal Vehicle Trips	145	145	290
External Vehicle Trips	648	670	1318
Internal Vehicle Trip Capture	18%	18%	18%
Pass-by Vehicle Trips	178	187	365
Diverted Vehicle Trips	0	0	0
Extra Reduced Vehicle Trips	0	0	0
New Vehicle Trips	470	483	953

2027 SAT Peak Hour Phase 1

RESULTS

Site Totals	Entry	Exit	Total
Vehicle Trips Before Reduction	607	586	1193
Internal Vehicle Trips	65	65	130
External Vehicle Trips	542	521	1063
Internal Vehicle Trip Capture	11%	11%	11%
Pass-by Vehicle Trips	168	157	325
Diverted Vehicle Trips	0	0	0
Extra Reduced Vehicle Trips	0	0	0
New Vehicle Trips	374	364	738

2030 SAT Peak Hour Phase 2

RESULTS

Site Totals	Entry	Exit	Total
Vehicle Trips Before Reduction	779	747	1526
Internal Vehicle Trips	122	122	244
External Vehicle Trips	657	625	1282
Internal Vehicle Trip Capture	16%	16%	16%
Pass-by Vehicle Trips	158	145	303
Diverted Vehicle Trips	0	0	0
Extra Reduced Vehicle Trips	0	0	0
New Vehicle Trips	499	480	979

Scenario - 3

Scenario Name: AM 2027
User Group:
Dev. phase: 1
No. of Years to Project Traffic : 0
Analyst Note:
Warning:

VEHICLE TRIPS BEFORE REDUCTION

Land Use & Data Source	Location	IV	Size	Time Period	Method	Entry	Exit	Total
					Rate/Equation	Split%	Split%	
821 - Shopping Plaza (40-150k) - Supermarket -	General	1000 Sq. Ft. GLA	116.03	Weekday, Peak Hour of	Average	254	156	410
Data Source: Trip Generation Manual, 11th Ed	Urban/Suburban			Adjacent Street Traffic,	3.53	62%	38%	
960 - Super Convenience Market/Gas Station	General	Vehicle Fueling Positions	8	Weekday, Peak Hour of	Average	112	112	224
Data Source: Trip Generation Manual, 10th Ed +	Urban/Suburban			Adjacent Street Traffic,	28.08	50%	50%	

VEHICLE TO PERSON TRIP CONVERSION

BASELINE SITE VEHICLE CHARACTERISTICS:

Land Use	Baseline Site Vehicle Mode Share		Baseline Site Vehicle Occupancy		Baseline Site Vehicle Directional Split	
	Entry (%)	Exit (%)	Entry	Exit	Entry (%)	Exit (%)
821 - Shopping Plaza (40-150k) - Supermarket - Yes	100	100	1	1	62	38
960 - Super Convenience Market/Gas Station	100	100	1	1	50	50

ESTIMATED BASELINE SITE PERSON TRIPS:

Land Use	Baseline Site Vehicle Mode Share		Baseline Site Vehicle Occupancy		Baseline Site Vehicle Directional Split	
	Entry (%)	Exit (%)	Entry	Exit	Entry (%)	Exit (%)
821 - Shopping Plaza (40-150k) - Supermarket - Yes	254	156	0	0	254	156
	410		0		410	
960 - Super Convenience Market/Gas Station	112	112	0	0	112	112
	224		0		224	

INTERNAL VEHICLE TRIP REDUCTION

LAND USE GROUP ASSIGNMENT:

Land Use	Land Use Group
821 - Shopping Plaza (40-150k) - Supermarket - Yes	Retail
960 - Super Convenience Market/Gas Station	Resturant

BALANCED PERSON TRIPS:

821 - Shopping Plaza (40-150k)-Supermarket - Yes

Persons Exit	PAF	UIPTC	Unconstrained Demand	==>>> BALANCED ==>>>	Unconstrained Demand	UIPTC	PAF	Persons Entry
156	1	13	20	20	56	50	1	112
Persons Entry	**PAF**	**UIPTC**	**Unconstrained Demand**	**<<<== BALANCED <<<==**	**Unconstrained Demand**	**UIPTC**	**PAF**	**Persons Exit**
254	1	8	20	16	16	14	1	112

960 - Super Convenience Market/Gas Station

INTERNAL PERSON TRIPS:

821 - Shopping Plaza (40-150k)-Supermarket - Yes

Internal Person Trips From	Entry	Exit	Total
960 - Super Convenience Market/Gas Station	16	20	36
Total Internal Person Trips	**16**	**20**	**36**

960 - Super Convenience Market/Gas Station

Internal Person Trips From	Entry	Exit	Total
821 - Shopping Plaza (40-150k)-Supermarket - Yes	20	16	36
Total Internal Person Trips	**20**	**16**	**36**

INTERNAL VEHICLE TRIPS AND CAPTURE:

821 - Shopping Plaza (40-150k)-Supermarket - Yes

Total Internal Person Trips	16	20	36
Vehicle Mode Share	100%	100%	-
Vehicle Occupancy	1.00	1.00	-

Total Vehicle Internal Trips	**16**	**20**	**36**
Total External Vehicle Trips	238	136	374
Internal Vehicle Trip Capture	**6%**	**13%**	**0%**
960 - Super Convenience Market/Gas Station			
Total Internal Person Trips	20	16	36
Vehicle Mode Share	100%	100%	-
Vehicle Occupancy	1.00	1.00	-
Total Vehicle Internal Trips	**20**	**16**	**36**
Total External Vehicle Trips	92	96	188
Internal Vehicle Trip Capture	**18%**	**14%**	**0%**

PASS-BY VEHICLE TRIP REDUCTION

Land Use	External Vehicle Trips		Pass-by Vehicle Trip %		Pass-by Vehicle Trips	
	Entry	Exit	Entry (%)	Exit (%)	Entry	Exit
821 - Shopping Plaza (40-150k) - Supermarket - Yes	238	136	15.00%	15.00%	36	20
960 - Super Convenience Market/Gas Station	92	96	63.00%	63.00%	58	60

DIVERTED VEHICLE TRIP REDUCTION

Land Use	External Vehicle Trips		Diverted Vehicle Trip %		Diverted Vehicle Trips	
	Entry	Exit	Entry (%)	Exit (%)	Entry	Exit
821 - Shopping Plaza (40-150k) - Supermarket - Yes	238	136	0.00%	0.00%	0	0
960 - Super Convenience Market/Gas Station	92	96	0.00%	0.00%	0	0

EXTRA VEHICLE TRIP REDUCTION

Land Use	External Vehicle Trips		Diverted Vehicle Trip %		Diverted Vehicle Trips	
	Entry	Exit	Entry (%)	Exit (%)	Entry	Exit
821 - Shopping Plaza (40-150k) - Supermarket - Yes	238	136	0.00%	0.00%	0	0
960 - Super Convenience Market/Gas Station	92	96	0.00%	0.00%	0	0

NEW VEHICLE TRIPS

Land Use	New Vehicle Trips		
	Entry	Exit	Total
821 - Shopping Plaza (40-150k) - Supermarket - Yes	202	116	318
960 - Super Convenience Market/Gas Station	34	36	70

RESULTS

Site Totals	Entry	Exit	Total
Vehicle Trips Before Reduction	366	268	634
Internal Vehicle Trips	36	36	72
External Vehicle Trips	330	232	562
Internal Vehicle Trip Capture	10%	13%	12%
Pass-by Vehicle Trips	94	80	174
Diverted Vehicle Trips	0	0	0
Extra Reduced Vehicle Trips	0	0	0
New Vehicle Trips	236	152	388

Scenario - 1

Scenario Name: AM 2030
User Group:
Dev. phase: 2
No. of Years to Project Traffic: 0
Analyst Note:
Warning:

VEHICLE TRIPS BEFORE REDUCTION

Land Use & Data Source	Location	IV	Size	Time Period	Method	Entry	Exit	Total
					Rate/Equation	Split%	Split%	
821 - Shopping Plaza (40-150k) - Supermarket -	General	1000 Sq. Ft. GLA	116.03	Weekday, Peak Hour of	Average	254	156	410
Data Source: Trip Generation Manual, 11th Ed	Urban/Suburban			Adjacent Street Traffic,	3.53	62%	38%	
960 - Super Convenience Market/Gas Station	General	Vehicle Fueling Positions	8	Weekday, Peak Hour of	Average	112	112	224
Data Source: Trip Generation Manual, 10th Ed +	Urban/Suburban			Adjacent Street Traffic,	28.08	50%	50%	
220 - Multifamily Housing (Low-Rise) - Not Close	General	Dwelling Units	45	Weekday, Peak Hour of	Best Fit (LIN)	9	28	37
Data Source: Trip Generation Manual, 11th Ed	Urban/Suburban			Adjacent Street Traffic,	T = 0.31(X) + 22.85	24%	76%	
221 - Multifamily Housing (Mid-Rise) - Not Close	General	Dwelling Units	131	Weekday, Peak Hour of	Best Fit (LIN)	11	35	46
Data Source: Trip Generation Manual, 11th Ed	Urban/Suburban			Adjacent Street Traffic,	T = 0.44(X) - 11.61	23%	77%	
210 - Single-Family Detached Housing	General	Dwelling Units	159	Weekday, Peak Hour	Best Fit (LOG)	28	85	113
Data Source: Trip Generation Manual, 11th Ed	Urban/Suburban			of Adjacent Street	Ln(T) =0.91Ln(X) + 0.12	25%	75%	
215 - Single-Family Attached Housing	General	Dwelling Units	148	Weekday, Peak Hour of	Best Fit (LIN)	18	53	71
Data Source: Trip Generation Manual, 11th Ed	Urban/Suburban			Adjacent Street Traffic,	T = 0.52(X) - 5.70	25%	75%	
710 - General Office Building	General	1000 Sq. Ft. GFA	44.67	Weekday, Peak Hour of	Best Fit (LOG)	74	10	84
Data Source: Trip Generation Manual, 11th Ed	Urban/Suburban			Adjacent Street Traffic,	Ln(T) =0.86Ln(X) + 1.16	88%	12%	

VEHICLE TO PERSON TRIP CONVERSION

BASELINE SITE VEHICLE CHARACTERISTICS:

Land Use	Baseline Site Vehicle Mode Share		Baseline Site Vehicle Occupancy		Baseline Site Vehicle Directional Split	
	Entry (%)	Exit (%)	Entry	Exit	Entry (%)	Exit (%)
821 - Shopping Plaza (40-150k) - Supermarket - Yes	100	100	1	1	62	38
960 - Super Convenience Market/Gas Station	100	100	1	1	50	50
220 - Multifamily Housing (Low-Rise) - Not Close to Rail Transit	100	100	1	1	24	76
221 - Multifamily Housing (Mid-Rise) - Not Close to Rail Transit	100	100	1	1	23	77
210 - Single-Family Detached Housing	100	100	1	1	25	75
215 - Single-Family Attached Housing	100	100	1	1	25	75
710 - General Office Building	99	100	1.1	1.1	88	12

ESTIMATED BASELINE SITE PERSON TRIPS:

Land Use	Baseline Site Vehicle Mode Share		Baseline Site Vehicle Occupancy		Baseline Site Vehicle Directional Split	
	Entry (%)	Exit (%)	Entry	Exit	Entry (%)	Exit (%)
821 - Shopping Plaza (40-150k) - Supermarket - Yes	254	156	0	0	254	156
	410		0		410	
960 - Super Convenience Market/Gas Station	112	112	0	0	112	112
	224		0		224	
220 - Multifamily Housing (Low-Rise) - Not Close to Rail Transit	9	28	0	0	9	28
	37		0		37	
221 - Multifamily Housing (Mid-Rise) - Not Close to Rail Transit	11	35	0	0	11	35
	46		0		46	
210 - Single-Family Detached Housing	28	85	0	0	28	85
	113		0		113	
215 - Single-Family Attached Housing	18	53	0	0	18	53
	71		0		71	
710 - General Office Building	81	11	1	0	82	11
	92		1		93	

INTERNAL VEHICLE TRIP REDUCTION

LAND USE GROUP ASSIGNMENT:

Land Use	Land Use Group

821 - Shopping Plaza (40-150k) - Supermarket - Yes	Retail
960 - Super Convenience Market/Gas Station	Resturant
220 - Multifamily Housing (Low-Rise) - Not Close to Rail Transit	Residential
221 - Multifamily Housing (Mid-Rise) - Not Close to Rail Transit	Residential
210 - Single-Family Detached Housing	Residential
215 - Single-Family Attached Housing	Residential
710 - General Office Building	Office

BALANCED PERSON TRIPS:

821 - Shopping Plaza (40-150k)-Supermarket - Yes										960 - Super Convenience Market/Gas Station			
Persons Exit	PAF	UIPTC	**Unconstrained Demand**	**==>>> BALANCED ==>>>**	**Unconstrained Demand**	UIPTC	PAF	**Persons Entry**					
156	1	13	**20**	**20**	**56**	50	1	**112**					
Persons Entry	**PAF**	**UIPTC**	**Unconstrained Demand**	**<<<== BALANCED <<<==**	**Unconstrained Demand**	**UIPTC**	**PAF**	**Persons Exit**					
254	**1**	**8**	**20**	**16**	**16**	**14**	**1**	**112**					
821 - Shopping Plaza (40-150k)-Supermarket - Yes										220 - Multifamily Housing (Low-Rise)-Not Close to Rail Transit			
Persons Exit	**PAF**	**UIPTC**	**Unconstrained Demand**	**==>>> BALANCED ==>>>**	**Unconstrained Demand**	**UIPTC**	**PAF**	**Persons Entry**					
156	1	3.5	**5**	**0**	**0**	0.5	1	**9**					
Persons Entry	**PAF**	**UIPTC**	**Unconstrained Demand**	**<<<== BALANCED <<<==**	**Unconstrained Demand**	**UIPTC**	**PAF**	**Persons Exit**					
254	1	4.25	**11**	**0**	**0**	0.25	1	**28**					
821 - Shopping Plaza (40-150k)-Supermarket - Yes										221 - Multifamily Housing (Mid-Rise)-Not Close to Rail Transit			
Persons Exit	**PAF**	**UIPTC**	**Unconstrained Demand**	**==>>> BALANCED ==>>>**	**Unconstrained Demand**	**UIPTC**	**PAF**	**Persons Entry**					
156	**1**	**3.5**	**5**	**0**	**0**	**0.5**	**1**	**11**					
Persons Entry	PAF	UIPTC	**Unconstrained Demand**	**<<<== BALANCED <<<==**	**Unconstrained Demand**	UIPTC	PAF	**Persons Exit**					
254	**1**	**4.25**	**11**	**0**	**0**	**0.25**	**1**	**35**					
821 - Shopping Plaza (40-150k)-Supermarket - Yes										210 - Single-Family Detached Housing			
Persons Exit	PAF	UIPTC	**Unconstrained Demand**	**==>>> BALANCED ==>>>**	**Unconstrained Demand**	UIPTC	PAF	**Persons Entry**					
156	**1**	**3.5**	**5**	**0**	**0**	**0.5**	**1**	**28**					
Persons Entry	**PAF**	**UIPTC**	**Unconstrained Demand**	**<<<== BALANCED <<<==**	**Unconstrained Demand**	**UIPTC**	**PAF**	**Persons Exit**					
254	**1**	**4.25**	**11**	**0**	**0**	**0.25**	**1**	**85**					
821 - Shopping Plaza (40-150k)-Supermarket - Yes										215 - Single-Family Attached Housing			
Persons Exit	PAF	UIPTC	**Unconstrained Demand**	**==>>> BALANCED ==>>>**	**Unconstrained Demand**	UIPTC	PAF	**Persons Entry**					
156	**1**	**3.5**	**5**	**0**	**0**	**0.5**	**1**	**18**					
Persons Entry	PAF	UIPTC	**Unconstrained Demand**	**<<<== BALANCED <<<==**	**Unconstrained Demand**	UIPTC	PAF	**Persons Exit**					
254	**1**	**4.25**	**11**	**0**	**0**	**0.25**	**1**	**53**					
821 - Shopping Plaza (40-150k)-Supermarket - Yes										710 - General Office Building			
Persons Exit	**PAF**	**UIPTC**	**Unconstrained Demand**	**==>>> BALANCED ==>>>**	**Unconstrained Demand**	**UIPTC**	**PAF**	**Persons Entry**					
156	1	29	**45**	**3**	**3**	4	1	**82**					
Persons Entry	**PAF**	**UIPTC**	**Unconstrained Demand**	**<<<== BALANCED <<<==**	**Unconstrained Demand**	**UIPTC**	**PAF**	**Persons Exit**					
254	1	32	**81**	**3**	**3**	28	1	**11**					
960 - Super Convenience Market/Gas Station										220 - Multifamily Housing (Low-Rise)-Not Close to Rail Transit			
Persons Exit	**PAF**	**UIPTC**	**Unconstrained Demand**	**==>>> BALANCED ==>>>**	**Unconstrained Demand**	**UIPTC**	**PAF**	**Persons Entry**					
112	**1**	**1**	**1**	**0**	**0**	**1.25**	**1**	**9**					
Persons Entry	**PAF**	**UIPTC**	**Unconstrained Demand**	**<<<== BALANCED <<<==**	**Unconstrained Demand**	**UIPTC**	**PAF**	**Persons Exit**					
112	**1**	**5**	**6**	**1**	**1**	**5**	**1**	**28**					
960 - Super Convenience Market/Gas Station										221 - Multifamily Housing (Mid-Rise)-Not Close to Rail Transit			
Persons Exit	**PAF**	**UIPTC**	**Unconstrained Demand**	**==>>> BALANCED ==>>>**	**Unconstrained Demand**	**UIPTC**	**PAF**	**Persons Entry**					
112	**1**	**1**	**1**	**0**	**0**	**1.25**	**1**	**11**					
Persons Entry	**PAF**	**UIPTC**	**Unconstrained Demand**	**<<<== BALANCED <<<==**	**Unconstrained Demand**	**UIPTC**	**PAF**	**Persons Exit**					
112	**1**	**5**	**6**	**2**	**2**	**5**	**1**	**35**					
960 - Super Convenience Market/Gas Station										210 - Single-Family Detached Housing			
Persons Exit	**PAF**	**UIPTC**	**Unconstrained Demand**	**==>>> BALANCED ==>>>**	**Unconstrained Demand**	**UIPTC**	**PAF**	**Persons Entry**					
112	**1**	**1**	**1**	**0**	**0**	**1.25**	**1**	**28**					
Persons Entry	**PAF**	**UIPTC**	**Unconstrained Demand**	**<<<== BALANCED <<<==**	**Unconstrained Demand**	**UIPTC**	**PAF**	**Persons Exit**					
112	**1**	**5**	**6**	**4**	**4**	**5**	**1**	**85**					
960 - Super Convenience Market/Gas Station										215 - Single-Family Attached Housing			
Persons Exit	**PAF**	**UIPTC**	**Unconstrained Demand**	**==>>> BALANCED ==>>>**	**Unconstrained Demand**	**UIPTC**	**PAF**	**Persons Entry**					
112	**1**	**1**	**1**	**0**	**0**	**1.25**	**1**	**18**					
Persons Entry	**PAF**	**UIPTC**	**Unconstrained Demand**	**<<<== BALANCED <<<==**	**Unconstrained Demand**	**UIPTC**	**PAF**	**Persons Exit**					
112	**1**	**5**	**6**	**3**	**3**	**5**	**1**	**53**					
960 - Super Convenience Market/Gas Station										710 - General Office Building			
Persons Exit	**PAF**	**UIPTC**	**Unconstrained Demand**	**==>>> BALANCED ==>>>**	**Unconstrained Demand**	**UIPTC**	**PAF**	**Persons Entry**					
112	**1**	**31**	**35**	**11**	**11**	**14**	**1**	**82**					
Persons Entry	**PAF**	**UIPTC**	**Unconstrained Demand**	**<<<== BALANCED <<<==**	**Unconstrained Demand**	**UIPTC**	**PAF**	**Persons Exit**					
112	**1**	**23**	**26**	**7**	**7**	**63**	**1**	**11**					
220 - Multifamily Housing (Low-Rise)-Not Close to Rail Transit										221 - Multifamily Housing (Mid-Rise)-Not Close to Rail Transit			

Persons Exit	PAF	UIPTC	Unconstrained Demand	==>>> BALANCED ==>>>	Unconstrained Demand	UIPTC	PAF	Persons Entry
28	1	0	0	0	0	0	1	11
Persons Entry	PAF	UIPTC	Unconstrained Demand	<<<== BALANCED <<<==	Unconstrained Demand	UIPTC	PAF	Persons Exit
9	1	0	0	0	0	0	1	35
220 - Multifamily Housing (Low-Rise)-Not Close to Rail Transit						210 - Single-Family Detached Housing		
Persons Exit	PAF	UIPTC	Unconstrained Demand	==>>> BALANCED ==>>>	Unconstrained Demand	UIPTC	PAF	Persons Entry
28	1	0	0	0	0	0	1	28
Persons Entry	PAF	UIPTC	Unconstrained Demand	<<<== BALANCED <<<==	Unconstrained Demand	UIPTC	PAF	Persons Exit
9	1	0	0	0	0	0	1	85
220 - Multifamily Housing (Low-Rise)-Not Close to Rail Transit						215 - Single-Family Attached Housing		
Persons Exit	PAF	UIPTC	Unconstrained Demand	==>>> BALANCED ==>>>	Unconstrained Demand	UIPTC	PAF	Persons Entry
28	1	0	0	0	0	0	1	18
Persons Entry	PAF	UIPTC	Unconstrained Demand	<<<== BALANCED <<<==	Unconstrained Demand	UIPTC	PAF	Persons Exit
9	1	0	0	0	0	0	1	53
220 - Multifamily Housing (Low-Rise)-Not Close to Rail Transit						710 - General Office Building		
Persons Exit	PAF	UIPTC	Unconstrained Demand	==>>> BALANCED ==>>>	Unconstrained Demand	UIPTC	PAF	Persons Entry
28	1	0.5	0	0	1	0.75	1	82
Persons Entry	PAF	UIPTC	Unconstrained Demand	<<<== BALANCED <<<==	Unconstrained Demand	UIPTC	PAF	Persons Exit
9	1	0	0	0	0	0.25	1	11
221 - Multifamily Housing (Mid-Rise)-Not Close to Rail Transit						210 - Single-Family Detached Housing		
Persons Exit	PAF	UIPTC	Unconstrained Demand	==>>> BALANCED ==>>>	Unconstrained Demand	UIPTC	PAF	Persons Entry
35	1	0	0	0	0	0	1	28
Persons Entry	PAF	UIPTC	Unconstrained Demand	<<<== BALANCED <<<==	Unconstrained Demand	UIPTC	PAF	Persons Exit
11	1	0	0	0	0	0	1	85
221 - Multifamily Housing (Mid-Rise)-Not Close to Rail Transit						215 - Single-Family Attached Housing		
Persons Exit	PAF	UIPTC	Unconstrained Demand	==>>> BALANCED ==>>>	Unconstrained Demand	UIPTC	PAF	Persons Entry
35	1	0	0	0	0	0	1	18
Persons Entry	PAF	UIPTC	Unconstrained Demand	<<<== BALANCED <<<==	Unconstrained Demand	UIPTC	PAF	Persons Exit
11	1	0	0	0	0	0	1	53
221 - Multifamily Housing (Mid-Rise)-Not Close to Rail Transit						710 - General Office Building		
Persons Exit	PAF	UIPTC	Unconstrained Demand	==>>> BALANCED ==>>>	Unconstrained Demand	UIPTC	PAF	Persons Entry
35	1	0.5	0	0	1	0.75	1	82
Persons Entry	PAF	UIPTC	Unconstrained Demand	<<<== BALANCED <<<==	Unconstrained Demand	UIPTC	PAF	Persons Exit
11	1	0	0	0	0	0.25	1	11
210 - Single-Family Detached Housing						215 - Single-Family Attached Housing		
Persons Exit	PAF	UIPTC	Unconstrained Demand	==>>> BALANCED ==>>>	Unconstrained Demand	UIPTC	PAF	Persons Entry
85	1	0	0	0	0	0	1	18
Persons Entry	PAF	UIPTC	Unconstrained Demand	<<<== BALANCED <<<==	Unconstrained Demand	UIPTC	PAF	Persons Exit
28	1	0	0	0	0	0	1	53
210 - Single-Family Detached Housing						710 - General Office Building		
Persons Exit	PAF	UIPTC	Unconstrained Demand	==>>> BALANCED ==>>>	Unconstrained Demand	UIPTC	PAF	Persons Entry
85	1	0.5	0	0	1	0.75	1	82
Persons Entry	PAF	UIPTC	Unconstrained Demand	<<<== BALANCED <<<==	Unconstrained Demand	UIPTC	PAF	Persons Exit
28	1	0	0	0	0	0.25	1	11
215 - Single-Family Attached Housing						710 - General Office Building		
Persons Exit	PAF	UIPTC	Unconstrained Demand	==>>> BALANCED ==>>>	Unconstrained Demand	UIPTC	PAF	Persons Entry
53	1	0.5	0	0	1	0.75	1	82
Persons Entry	PAF	UIPTC	Unconstrained Demand	<<<== BALANCED <<<==	Unconstrained Demand	UIPTC	PAF	Persons Exit
18	1	0	0	0	0	0.25	1	11

INTERNAL PERSON TRIPS:

821 - Shopping Plaza (40-150k)-Supermarket - Yes

Internal Person Trips From	Entry	Exit	Total
960 - Super Convenience Market/Gas Station	16	20	36
220 - Multifamily Housing (Low-Rise)-Not Close to Rail Transit	0	0	0
221 - Multifamily Housing (Mid-Rise)-Not Close to Rail Transit	0	0	0
210 - Single-Family Detached Housing	0	0	0
215 - Single-Family Attached Housing	0	0	0
710 - General Office Building	3	3	6
Total Internal Person Trips	**19**	**23**	**42**

960 - Super Convenience Market/Gas Station

Internal Person Trips From	Entry	Exit	Total
821 - Shopping Plaza (40-150k)-Supermarket - Yes	20	16	36
220 - Multifamily Housing (Low-Rise)-Not Close to Rail Transit	1	0	2

221 - Multifamily Housing (Mid-Rise)-Not Close to Rail Transit	2	0	2
210 - Single-Family Detached Housing	4	0	5
215 - Single-Family Attached Housing	3	0	3
710 - General Office Building	7	11	18
Total Internal Person Trips	**37**	**27**	**64**

220 - Multifamily Housing (Low-Rise)-Not Close to Rail Transit

Internal Person Trips From	Entry	Exit	Total
821 - Shopping Plaza (40-150k)-Supermarket - Yes	0	0	0
960 - Super Convenience Market/Gas Station	0	1	2
221 - Multifamily Housing (Mid-Rise)-Not Close to Rail Transit	0	0	0
210 - Single-Family Detached Housing	0	0	0
215 - Single-Family Attached Housing	0	0	0
710 - General Office Building	0	0	0
Total Internal Person Trips	**0**	**1**	**1**

221 - Multifamily Housing (Mid-Rise)-Not Close to Rail Transit

Internal Person Trips From	Entry	Exit	Total
821 - Shopping Plaza (40-150k)-Supermarket - Yes	0	0	0
960 - Super Convenience Market/Gas Station	0	2	2
220 - Multifamily Housing (Low-Rise)-Not Close to Rail Transit	0	0	0
210 - Single-Family Detached Housing	0	0	0
215 - Single-Family Attached Housing	0	0	0
710 - General Office Building	0	0	0
Total Internal Person Trips	**0**	**2**	**2**

210 - Single-Family Detached Housing

Internal Person Trips From	Entry	Exit	Total
821 - Shopping Plaza (40-150k)-Supermarket - Yes	0	0	0
960 - Super Convenience Market/Gas Station	0	4	5
220 - Multifamily Housing (Low-Rise)-Not Close to Rail Transit	0	0	0
221 - Multifamily Housing (Mid-Rise)-Not Close to Rail Transit	0	0	0
215 - Single-Family Attached Housing	0	0	0
710 - General Office Building	0	0	0
Total Internal Person Trips	**0**	**4**	**4**

215 - Single-Family Attached Housing

Internal Person Trips From	Entry	Exit	Total
821 - Shopping Plaza (40-150k)-Supermarket - Yes	0	0	0
960 - Super Convenience Market/Gas Station	0	3	3
220 - Multifamily Housing (Low-Rise)-Not Close to Rail Transit	0	0	0
221 - Multifamily Housing (Mid-Rise)-Not Close to Rail Transit	0	0	0
210 - Single-Family Detached Housing	0	0	0
710 - General Office Building	0	0	0
Total Internal Person Trips	**0**	**3**	**3**

710 - General Office Building

Internal Person Trips From	Entry	Exit	Total
821 - Shopping Plaza (40-150k)-Supermarket - Yes	3	3	6
960 - Super Convenience Market/Gas Station	11	7	18
220 - Multifamily Housing (Low-Rise)-Not Close to Rail Transit	0	0	0
221 - Multifamily Housing (Mid-Rise)-Not Close to Rail Transit	0	0	0
210 - Single-Family Detached Housing	0	0	0
215 - Single-Family Attached Housing	0	0	0
Total Internal Person Trips	**14**	**10**	**24**

INTERNAL VEHICLE TRIPS AND CAPTURE:

821 - Shopping Plaza (40-150k)-Supermarket - Yes

Total Internal Person Trips	19	23	42
Vehicle Mode Share	100%	100%	-
Vehicle Occupancy	1.00	1.00	-
Total Vehicle Internal Trips	**19**	**23**	**42**
Total External Vehicle Trips	235	133	368
Internal Vehicle Trip Capture	**7%**	**15%**	**0%**

960 - Super Convenience Market/Gas Station

Total Internal Person Trips	37	27	64
Vehicle Mode Share	100%	100%	-
Vehicle Occupancy	1.00	1.00	-
Total Vehicle Internal Trips	**37**	**27**	**64**
Total External Vehicle Trips	75	85	160

Internal Vehicle Trip Capture	**33%**	**24%**	**0%**
220 - Multifamily Housing (Low-Rise)-Not Close to Rail Transit			
Total Internal Person Trips	0	1	1
Vehicle Mode Share	100%	100%	-
Vehicle Occupancy	1.00	1.00	-
Total Vehicle Internal Trips	**0**	**1**	**1**
Total External Vehicle Trips	9	27	36
Internal Vehicle Trip Capture	**0%**	**4%**	**0%**
221 - Multifamily Housing (Mid-Rise)-Not Close to Rail Transit			
Total Internal Person Trips	0	2	2
Vehicle Mode Share	100%	100%	-
Vehicle Occupancy	1.00	1.00	-
Total Vehicle Internal Trips	**0**	**2**	**2**
Total External Vehicle Trips	11	33	44
Internal Vehicle Trip Capture	**0%**	**6%**	**0%**
210 - Single-Family Detached Housing			
Total Internal Person Trips	0	4	4
Vehicle Mode Share	100%	100%	-
Vehicle Occupancy	1.00	1.00	-
Total Vehicle Internal Trips	**0**	**4**	**4**
Total External Vehicle Trips	28	81	109
Internal Vehicle Trip Capture	**0%**	**5%**	**0%**
215 - Single-Family Attached Housing			
Total Internal Person Trips	0	3	3
Vehicle Mode Share	100%	100%	-
Vehicle Occupancy	1.00	1.00	-
Total Vehicle Internal Trips	**0**	**3**	**3**
Total External Vehicle Trips	18	50	68
Internal Vehicle Trip Capture	**0%**	**6%**	**0%**
710 - General Office Building			
Total Internal Person Trips	14	10	24
Vehicle Mode Share	100%	100%	-
Vehicle Occupancy	1.00	1.00	-
Total Vehicle Internal Trips	**14**	**10**	**24**
Total External Vehicle Trips	60	0	60
Internal Vehicle Trip Capture	**19%**	**100%**	**0%**

PASS-BY VEHICLE TRIP REDUCTION

	External Vehicle Trips		Pass-by Vehicle Trip %		Pass-by Vehicle Trips	
Land Use	Entry	Exit	Entry (%)	Exit (%)	Entry	Exit
821 - Shopping Plaza (40-150k) - Supermarket - Yes	235	133	15.00%	15.00%	35	20
960 - Super Convenience Market/Gas Station	75	85	63.00%	63.00%	47	54
220 - Multifamily Housing (Low-Rise) - Not Close to Rail Transit	9	27	0.00%	0.00%	0	0
221 - Multifamily Housing (Mid-Rise) - Not Close to Rail Transit	11	33	0.00%	0.00%	0	0
210 - Single-Family Detached Housing	28	81	0.00%	0.00%	0	0
215 - Single-Family Attached Housing	18	50	0.00%	0.00%	0	0
710 - General Office Building	60	0	0.00%	0.00%	0	0

DIVERTED VEHICLE TRIP REDUCTION

	External Vehicle Trips		Diverted Vehicle Trip %		Diverted Vehicle Trips	
Land Use	Entry	Exit	Entry (%)	Exit (%)	Entry	Exit
821 - Shopping Plaza (40-150k) - Supermarket - Yes	235	133	0.00%	0.00%	0	0
960 - Super Convenience Market/Gas Station	75	85	0.00%	0.00%	0	0
220 - Multifamily Housing (Low-Rise) - Not Close to Rail Transit	9	27	0.00%	0.00%	0	0
221 - Multifamily Housing (Mid-Rise) - Not Close to Rail Transit	11	33	0.00%	0.00%	0	0
210 - Single-Family Detached Housing	28	81	0.00%	0.00%	0	0
215 - Single-Family Attached Housing	18	50	0.00%	0.00%	0	0
710 - General Office Building	60	0	0.00%	0.00%	0	0

EXTRA VEHICLE TRIP REDUCTION

Land Use	External Vehicle Trips		Diverted Vehicle Trip %		Diverted Vehicle Trips	
	Entry	Exit	Entry (%)	Exit (%)	Entry	Exit
821 - Shopping Plaza (40-150k) - Supermarket - Yes	235	133	0.00%	0.00%	0	0
960 - Super Convenience Market/Gas Station	75	85	0.00%	0.00%	0	0
220 - Multifamily Housing (Low-Rise) - Not Close to Rail Transit	9	27	0.00%	0.00%	0	0
221 - Multifamily Housing (Mid-Rise) - Not Close to Rail Transit	11	33	0.00%	0.00%	0	0
210 - Single-Family Detached Housing	28	81	0.00%	0.00%	0	0
215 - Single-Family Attached Housing	18	50	0.00%	0.00%	0	0
710 - General Office Building	60	0	0.00%	0.00%	0	0

NEW VEHICLE TRIPS

Land Use	New Vehicle Trips		
	Entry	Exit	Total
821 - Shopping Plaza (40-150k) - Supermarket - Yes	200	113	313
960 - Super Convenience Market/Gas Station	28	31	59
220 - Multifamily Housing (Low-Rise) - Not Close to Rail Transit	9	27	36
221 - Multifamily Housing (Mid-Rise) - Not Close to Rail Transit	11	33	44
210 - Single-Family Detached Housing	28	81	109
215 - Single-Family Attached Housing	18	50	68
710 - General Office Building	60	0	60

RESULTS

Site Totals	Entry	Exit	Total
Vehicle Trips Before Reduction	506	479	985
Internal Vehicle Trips	70	70	140
External Vehicle Trips	436	409	845
Internal Vehicle Trip Capture	14%	15%	15%
Pass-by Vehicle Trips	82	74	156
Diverted Vehicle Trips	0	0	0
Extra Reduced Vehicle Trips	0	0	0
New Vehicle Trips	354	335	689

Scenario - 4

Scenario Name: PM 2027
User Group:
Dev. phase: 1
No. of Years to Project Traffic : 0
Analyst Note:
Warning:

VEHICLE TRIPS BEFORE REDUCTION

Land Use & Data Source	Location	IV	Size	Time Period	Method	Entry	Exit	Total
					Rate/Equation	Split%	Split%	
821 - Shopping Plaza (40-150k) - Supermarket -	General	1000 Sq. Ft. GLA	116.03	Weekday, Peak Hour of	Best Fit (LIN)	484	525	1009
Data Source: Trip Generation Manual, 11th Ed	Urban/Suburban			Adjacent Street Traffic,	T = 7.67(X) + 118.86	48%	52%	
960 - Super Convenience Market/Gas Station	General	Vehicle Fueling Positions	8	Weekday, Peak Hour of	Average	92	92	184
Data Source: Trip Generation Manual, 10th Ed +	Urban/Suburban			Adjacent Street Traffic,	22.96	50%	50%	

VEHICLE TO PERSON TRIP CONVERSION

BASELINE SITE VEHICLE CHARACTERISTICS:

Land Use	Baseline Site Vehicle Mode Share		Baseline Site Vehicle Occupancy		Baseline Site Vehicle Directional Split	
	Entry (%)	Exit (%)	Entry	Exit	Entry (%)	Exit (%)
821 - Shopping Plaza (40-150k) - Supermarket - Yes	100	100	1	1	48	52
960 - Super Convenience Market/Gas Station	100	100	1	1	50	50

ESTIMATED BASELINE SITE PERSON TRIPS:

Land Use	Baseline Site Vehicle Mode Share		Baseline Site Vehicle Occupancy		Baseline Site Vehicle Directional Split	
	Entry (%)	Exit (%)	Entry	Exit	Entry (%)	Exit (%)
821 - Shopping Plaza (40-150k) - Supermarket - Yes	484	525	0	0	484	525
	1009		0		1009	
960 - Super Convenience Market/Gas Station	92	92	0	0	92	92
	184		0		184	

INTERNAL VEHICLE TRIP REDUCTION

LAND USE GROUP ASSIGNMENT:

Land Use	Land Use Group
821 - Shopping Plaza (40-150k) - Supermarket - Yes	Retail
960 - Super Convenience Market/Gas Station	Resturant

BALANCED PERSON TRIPS:

821 - Shopping Plaza (40-150k)-Supermarket - Yes

Persons Exit	PAF	UIPTC	Unconstrained Demand	==>>> BALANCED ==>>>	Unconstrained Demand	UIPTC	PAF	Persons Entry
525	1	29	152	27	27	29	1	92
Persons Entry	**PAF**	**UIPTC**	**Unconstrained Demand**	**<<<== BALANCED <<<==**	**Unconstrained Demand**	**UIPTC**	**PAF**	**Persons Exit**
484	1	50	242	38	38	41	1	92

960 - Super Convenience Market/Gas Station

INTERNAL PERSON TRIPS:

821 - Shopping Plaza (40-150k)-Supermarket - Yes

Internal Person Trips From	Entry	Exit	Total
960 - Super Convenience Market/Gas Station	38	27	64
Total Internal Person Trips	**38**	**27**	**65**

960 - Super Convenience Market/Gas Station

Internal Person Trips From	Entry	Exit	Total
821 - Shopping Plaza (40-150k)-Supermarket - Yes	27	38	64
Total Internal Person Trips	**27**	**38**	**65**

INTERNAL VEHICLE TRIPS AND CAPTURE:

821 - Shopping Plaza (40-150k)-Supermarket - Yes

Total Internal Person Trips	38	27	65
Vehicle Mode Share	100%	100%	-
Vehicle Occupancy	1.00	1.00	-

Total Vehicle Internal Trips	**38**	**27**	**65**
Total External Vehicle Trips	446	498	944
Internal Vehicle Trip Capture	**8%**	**5%**	**0%**
960 - Super Convenience Market/Gas Station			
Total Internal Person Trips	27	38	65
Vehicle Mode Share	100%	100%	-
Vehicle Occupancy	1.00	1.00	-
Total Vehicle Internal Trips	**27**	**38**	**65**
Total External Vehicle Trips	65	54	119
Internal Vehicle Trip Capture	**29%**	**41%**	**0%**

PASS-BY VEHICLE TRIP REDUCTION

Land Use	External Vehicle Trips		Pass-by Vehicle Trip %		Pass-by Vehicle Trips	
	Entry	Exit	Entry (%)	Exit (%)	Entry	Exit
821 - Shopping Plaza (40-150k) - Supermarket - Yes	446	498	34.00%	34.00%	152	169
960 - Super Convenience Market/Gas Station	65	54	66.00%	66.00%	43	36

DIVERTED VEHICLE TRIP REDUCTION

Land Use	External Vehicle Trips		Diverted Vehicle Trip %		Diverted Vehicle Trips	
	Entry	Exit	Entry (%)	Exit (%)	Entry	Exit
821 - Shopping Plaza (40-150k) - Supermarket - Yes	446	498	0.00%	0.00%	0	0
960 - Super Convenience Market/Gas Station	65	54	0.00%	0.00%	0	0

EXTRA VEHICLE TRIP REDUCTION

Land Use	External Vehicle Trips		Diverted Vehicle Trip %		Diverted Vehicle Trips	
	Entry	Exit	Entry (%)	Exit (%)	Entry	Exit
821 - Shopping Plaza (40-150k) - Supermarket - Yes	446	498	0.00%	0.00%	0	0
960 - Super Convenience Market/Gas Station	65	54	0.00%	0.00%	0	0

NEW VEHICLE TRIPS

Land Use	New Vehicle Trips		
	Entry	Exit	Total
821 - Shopping Plaza (40-150k) - Supermarket - Yes	294	329	623
960 - Super Convenience Market/Gas Station	22	18	40

RESULTS

Site Totals	Entry	Exit	Total
Vehicle Trips Before Reduction	576	617	1193
Internal Vehicle Trips	65	65	130
External Vehicle Trips	511	552	1063
Internal Vehicle Trip Capture	11%	11%	11%
Pass-by Vehicle Trips	195	205	400
Diverted Vehicle Trips	0	0	0
Extra Reduced Vehicle Trips	0	0	0
New Vehicle Trips	316	347	663

Scenario - 6

Scenario Name: PM 2030
User Group:
Dev. phase: 2
No. of Years to Project Traffic: 0
Analyst Note:
Warning:

VEHICLE TRIPS BEFORE REDUCTION

Land Use & Data Source	Location	IV	Size	Time Period	Method	Entry	Exit	Total
					Rate/Equation	Split%	Split%	
821 - Shopping Plaza (40-150k) - Supermarket -	General	1000 Sq. Ft. GLA	116.03	Weekday, Peak Hour of	Best Fit (LIN)	484	525	1009
Data Source: Trip Generation Manual, 11th Ed	Urban/Suburban			Adjacent Street Traffic,	T = 7.67(X) + 118.86	48%	52%	
960 - Super Convenience Market/Gas Station	General	Vehicle Fueling Positions	8	Weekday, Peak Hour of	Average	92	92	184
Data Source: Trip Generation Manual, 10th Ed +	Urban/Suburban			Adjacent Street Traffic,	22.96	50%	50%	
220 - Multifamily Housing (Low-Rise) - Not Close	General	Dwelling Units	45	Weekday, Peak Hour of	Best Fit (LIN)	25	15	40
Data Source: Trip Generation Manual, 11th Ed	Urban/Suburban			Adjacent Street Traffic,	T = 0.43(X) + 20.55	63%	37%	
221 - Multifamily Housing (Mid-Rise) - Not Close	General	Dwelling Units	131	Weekday, Peak Hour of	Best Fit (LIN)	31	20	51
Data Source: Trip Generation Manual, 11th Ed	Urban/Suburban			Adjacent Street Traffic,	T = 0.39(X) + 0.34	61%	39%	
210 - Single-Family Detached Housing	General	Dwelling Units	159	Weekday, Peak Hour	Best Fit (LOG)	97	57	154
Data Source: Trip Generation Manual, 11th Ed	Urban/Suburban			of Adjacent Street	Ln(T) =0.94Ln(X) + 0.27	63%	37%	
215 - Single-Family Attached Housing	General	Dwelling Units	148	Weekday, Peak Hour of	Best Fit (LIN)	50	35	85
Data Source: Trip Generation Manual, 11th Ed	Urban/Suburban			Adjacent Street Traffic,	T = 0.60(X) - 3.93	59%	41%	
710 - General Office Building	General	1000 Sq. Ft. GFA	44.67	Weekday, Peak Hour of	Best Fit (LOG)	14	71	85
Data Source: Trip Generation Manual, 11th Ed	Urban/Suburban			Adjacent Street Traffic,	Ln(T) =0.83Ln(X) + 1.29	17%	83%	

VEHICLE TO PERSON TRIP CONVERSION

BASELINE SITE VEHICLE CHARACTERISTICS:

Land Use	Baseline Site Vehicle Mode Share		Baseline Site Vehicle Occupancy		Baseline Site Vehicle Directional Split	
	Entry (%)	Exit (%)	Entry	Exit	Entry (%)	Exit (%)
821 - Shopping Plaza (40-150k) - Supermarket - Yes	100	100	1	1	48	52
960 - Super Convenience Market/Gas Station	100	100	1	1	50	50
220 - Multifamily Housing (Low-Rise) - Not Close to Rail Transit	100	100	1	1	63	37
221 - Multifamily Housing (Mid-Rise) - Not Close to Rail Transit	100	100	1	1	61	39
210 - Single-Family Detached Housing	100	100	1	1	63	37
215 - Single-Family Attached Housing	100	100	1	1	59	41
710 - General Office Building	100	99	1.1	1.1	17	83

ESTIMATED BASELINE SITE PERSON TRIPS:

Land Use	Baseline Site Vehicle Mode Share		Baseline Site Vehicle Occupancy		Baseline Site Vehicle Directional Split	
	Entry (%)	Exit (%)	Entry	Exit	Entry (%)	Exit (%)
821 - Shopping Plaza (40-150k) - Supermarket - Yes	484	525	0	0	484	525
	1009		0		1009	
960 - Super Convenience Market/Gas Station	92	92	0	0	92	92
	184		0		184	
220 - Multifamily Housing (Low-Rise) - Not Close to Rail Transit	25	15	0	0	25	15
	40		0		40	
221 - Multifamily Housing (Mid-Rise) - Not Close to Rail Transit	31	20	0	0	31	20
	51		0		51	
210 - Single-Family Detached Housing	97	57	0	0	97	57
	154		0		154	
215 - Single-Family Attached Housing	50	35	0	0	50	35
	85		0		85	
710 - General Office Building	16	78	0	1	16	79
	94		1		95	

INTERNAL VEHICLE TRIP REDUCTION

LAND USE GROUP ASSIGNMENT:

Land Use	Land Use Group

821 - Shopping Plaza (40-150k) - Supermarket - Yes	Retail
960 - Super Convenience Market/Gas Station	Resturant
220 - Multifamily Housing (Low-Rise) - Not Close to Rail Transit	Residential
221 - Multifamily Housing (Mid-Rise) - Not Close to Rail Transit	Residential
210 - Single-Family Detached Housing	Residential
215 - Single-Family Attached Housing	Residential
710 - General Office Building	Office

BALANCED PERSON TRIPS:

821 - Shopping Plaza (40-150k)-Supermarket - Yes							960 - Super Convenience Market/Gas Station		
Persons Exit	PAF	UIPTC	**Unconstrained Demand**	**==>>> BALANCED ==>>>**	**Unconstrained Demand**	UIPTC	PAF	**Persons Entry**	
525	1	29	**152**	**27**	**27**	29	1	**92**	
Persons Entry	**PAF**	**UIPTC**	**Unconstrained Demand**	**<<<== BALANCED <<<==**	**Unconstrained Demand**	**UIPTC**	**PAF**	**Persons Exit**	
484	**1**	**50**	**242**	**38**	**38**	**41**	**1**	**92**	
821 - Shopping Plaza (40-150k)-Supermarket - Yes						220 - Multifamily Housing (Low-Rise)-Not Close to Rail Transit			
Persons Exit	**PAF**	**UIPTC**	**Unconstrained Demand**	**==>>> BALANCED ==>>>**	**Unconstrained Demand**	**UIPTC**	**PAF**	**Persons Entry**	
525	1	6.5	**34**	**3**	**3**	11.5	1	**25**	
Persons Entry	**PAF**	**UIPTC**	**Unconstrained Demand**	**<<<== BALANCED <<<==**	**Unconstrained Demand**	**UIPTC**	**PAF**	**Persons Exit**	
484	1	2.5	**12**	**2**	**2**	10.5	1	**15**	
821 - Shopping Plaza (40-150k)-Supermarket - Yes						221 - Multifamily Housing (Mid-Rise)-Not Close to Rail Transit			
Persons Exit	**PAF**	**UIPTC**	**Unconstrained Demand**	**==>>> BALANCED ==>>>**	**Unconstrained Demand**	**UIPTC**	**PAF**	**Persons Entry**	
525	**1**	**6.5**	**34**	**4**	**4**	**11.5**	**1**	**31**	
Persons Entry	PAF	UIPTC	**Unconstrained Demand**	**<<<== BALANCED <<<==**	**Unconstrained Demand**	UIPTC	PAF	**Persons Exit**	
484	**1**	**2.5**	**12**	**2**	**2**	**10.5**	**1**	**20**	
821 - Shopping Plaza (40-150k)-Supermarket - Yes						210 - Single-Family Detached Housing			
Persons Exit	PAF	UIPTC	**Unconstrained Demand**	**==>>> BALANCED ==>>>**	**Unconstrained Demand**	UIPTC	PAF	**Persons Entry**	
525	**1**	**6.5**	**34**	**11**	**11**	**11.5**	**1**	**97**	
Persons Entry	**PAF**	**UIPTC**	**Unconstrained Demand**	**<<<== BALANCED <<<==**	**Unconstrained Demand**	**UIPTC**	**PAF**	**Persons Exit**	
484	**1**	**2.5**	**12**	**6**	**6**	**10.5**	**1**	**57**	
821 - Shopping Plaza (40-150k)-Supermarket - Yes						215 - Single-Family Attached Housing			
Persons Exit	PAF	UIPTC	**Unconstrained Demand**	**==>>> BALANCED ==>>>**	**Unconstrained Demand**	UIPTC	PAF	**Persons Entry**	
525	**1**	**6.5**	**34**	**6**	**6**	**11.5**	**1**	**50**	
Persons Entry	PAF	UIPTC	**Unconstrained Demand**	**<<<== BALANCED <<<==**	**Unconstrained Demand**	UIPTC	PAF	**Persons Exit**	
484	**1**	**2.5**	**12**	**4**	**4**	**10.5**	**1**	**35**	
821 - Shopping Plaza (40-150k)-Supermarket - Yes						710 - General Office Building			
Persons Exit	**PAF**	**UIPTC**	**Unconstrained Demand**	**==>>> BALANCED ==>>>**	**Unconstrained Demand**	**UIPTC**	**PAF**	**Persons Entry**	
525	1	2	**10**	**5**	**5**	31	1	**16**	
Persons Entry	**PAF**	**UIPTC**	**Unconstrained Demand**	**<<<== BALANCED <<<==**	**Unconstrained Demand**	**UIPTC**	**PAF**	**Persons Exit**	
484	1	8	**39**	**16**	**16**	20	1	**78**	
960 - Super Convenience Market/Gas Station						220 - Multifamily Housing (Low-Rise)-Not Close to Rail Transit			
Persons Exit	**PAF**	**UIPTC**	**Unconstrained Demand**	**==>>> BALANCED ==>>>**	**Unconstrained Demand**	**UIPTC**	**PAF**	**Persons Entry**	
92	**1**	**4.5**	**4**	**1**	**1**	**4**	**1**	**25**	
Persons Entry	**PAF**	**UIPTC**	**Unconstrained Demand**	**<<<== BALANCED <<<==**	**Unconstrained Demand**	**UIPTC**	**PAF**	**Persons Exit**	
92	**1**	**3.5**	**3**	**1**	**1**	**5.25**	**1**	**15**	
960 - Super Convenience Market/Gas Station						221 - Multifamily Housing (Mid-Rise)-Not Close to Rail Transit			
Persons Exit	**PAF**	**UIPTC**	**Unconstrained Demand**	**==>>> BALANCED ==>>>**	**Unconstrained Demand**	**UIPTC**	**PAF**	**Persons Entry**	
92	**1**	**4.5**	**4**	**1**	**1**	**4**	**1**	**31**	
Persons Entry	**PAF**	**UIPTC**	**Unconstrained Demand**	**<<<== BALANCED <<<==**	**Unconstrained Demand**	**UIPTC**	**PAF**	**Persons Exit**	
92	**1**	**3.5**	**3**	**1**	**1**	**5.25**	**1**	**20**	
960 - Super Convenience Market/Gas Station						210 - Single-Family Detached Housing			
Persons Exit	**PAF**	**UIPTC**	**Unconstrained Demand**	**==>>> BALANCED ==>>>**	**Unconstrained Demand**	**UIPTC**	**PAF**	**Persons Entry**	
92	**1**	**4.5**	**4**	**4**	**4**	**4**	**1**	**97**	
Persons Entry	**PAF**	**UIPTC**	**Unconstrained Demand**	**<<<== BALANCED <<<==**	**Unconstrained Demand**	**UIPTC**	**PAF**	**Persons Exit**	
92	**1**	**3.5**	**3**	**3**	**3**	**5.25**	**1**	**57**	
960 - Super Convenience Market/Gas Station						215 - Single-Family Attached Housing			
Persons Exit	**PAF**	**UIPTC**	**Unconstrained Demand**	**==>>> BALANCED ==>>>**	**Unconstrained Demand**	**UIPTC**	**PAF**	**Persons Entry**	
92	**1**	**4.5**	**4**	**2**	**2**	**4**	**1**	**50**	
Persons Entry	**PAF**	**UIPTC**	**Unconstrained Demand**	**<<<== BALANCED <<<==**	**Unconstrained Demand**	**UIPTC**	**PAF**	**Persons Exit**	
92	**1**	**3.5**	**3**	**2**	**2**	**5.25**	**1**	**35**	
960 - Super Convenience Market/Gas Station						710 - General Office Building			
Persons Exit	**PAF**	**UIPTC**	**Unconstrained Demand**	**==>>> BALANCED ==>>>**	**Unconstrained Demand**	**UIPTC**	**PAF**	**Persons Entry**	
92	**1**	**3**	**3**	**3**	**5**	**30**	**1**	**16**	
Persons Entry	**PAF**	**UIPTC**	**Unconstrained Demand**	**<<<== BALANCED <<<==**	**Unconstrained Demand**	**UIPTC**	**PAF**	**Persons Exit**	
92	**1**	**2**	**2**	**2**	**3**	**4**	**1**	**78**	
220 - Multifamily Housing (Low-Rise)-Not Close to Rail Transit						221 - Multifamily Housing (Mid-Rise)-Not Close to Rail Transit			

Persons Exit	PAF	UIPTC	Unconstrained Demand	==>>> BALANCED ==>>>	Unconstrained Demand	UIPTC	PAF	Persons Entry
15	1	0	0	0	0	0	1	31
Persons Entry	**PAF**	**UIPTC**	**Unconstrained Demand**	**<<<== BALANCED <<<==**	**Unconstrained Demand**	UIPTC	PAF	**Persons Exit**
25	1	0	0	0	0	0	1	20
220 - Multifamily Housing (Low-Rise)-Not Close to Rail Transit						210 - Single-Family Detached Housing		
Persons Exit	**PAF**	**UIPTC**	**Unconstrained Demand**	**==>>> BALANCED ==>>>**	**Unconstrained Demand**	**UIPTC**	**PAF**	**Persons Entry**
15	1	0	0	0	0	0	1	97
Persons Entry	**PAF**	**UIPTC**	**Unconstrained Demand**	**<<<== BALANCED <<<==**	**Unconstrained Demand**	**UIPTC**	**PAF**	**Persons Exit**
25	1	0	0	0	0	0	1	57
220 - Multifamily Housing (Low-Rise)-Not Close to Rail Transit						215 - Single-Family Attached Housing		
Persons Exit	**PAF**	**UIPTC**	**Unconstrained Demand**	**==>>> BALANCED ==>>>**	**Unconstrained Demand**	**UIPTC**	**PAF**	**Persons Entry**
15	1	0	0	0	0	0	1	50
Persons Entry	**PAF**	**UIPTC**	**Unconstrained Demand**	**<<<== BALANCED <<<==**	**Unconstrained Demand**	UIPTC	PAF	**Persons Exit**
25	1	0	0	0	0	0	1	35
220 - Multifamily Housing (Low-Rise)-Not Close to Rail Transit						710 - General Office Building		
Persons Exit	**PAF**	**UIPTC**	**Unconstrained Demand**	**==>>> BALANCED ==>>>**	**Unconstrained Demand**	UIPTC	PAF	Persons Entry
15	1	1	0	0	2	14.25	1	16
Persons Entry	**PAF**	**UIPTC**	**Unconstrained Demand**	**<<<== BALANCED <<<==**	**Unconstrained Demand**	**UIPTC**	**PAF**	**Persons Exit**
25	1	1	0	0	0	0.5	1	78
221 - Multifamily Housing (Mid-Rise)-Not Close to Rail Transit						210 - Single-Family Detached Housing		
Persons Exit	**PAF**	**UIPTC**	**Unconstrained Demand**	**==>>> BALANCED ==>>>**	**Unconstrained Demand**	UIPTC	PAF	**Persons Entry**
20	1	0	0	0	0	0	1	97
Persons Entry	**PAF**	**UIPTC**	**Unconstrained Demand**	**<<<== BALANCED <<<==**	**Unconstrained Demand**	**UIPTC**	**PAF**	**Persons Exit**
31	1	0	0	0	0	0	1	57
221 - Multifamily Housing (Mid-Rise)-Not Close to Rail Transit						215 - Single-Family Attached Housing		
Persons Exit	**PAF**	**UIPTC**	**Unconstrained Demand**	**==>>> BALANCED ==>>>**	**Unconstrained Demand**	**UIPTC**	**PAF**	**Persons Entry**
20	1	0	0	0	0	0	1	50
Persons Entry	**PAF**	**UIPTC**	**Unconstrained Demand**	**<<<== BALANCED <<<==**	**Unconstrained Demand**	**UIPTC**	**PAF**	**Persons Exit**
31	1	0	0	0	0	0	1	35
221 - Multifamily Housing (Mid-Rise)-Not Close to Rail Transit						710 - General Office Building		
Persons Exit	**PAF**	**UIPTC**	**Unconstrained Demand**	**==>>> BALANCED ==>>>**	Unconstrained Demand	UIPTC	**PAF**	**Persons Entry**
20	1	1	0	0	2	14.25	1	16
Persons Entry	**PAF**	**UIPTC**	**Unconstrained Demand**	**<<<== BALANCED <<<==**	Unconstrained Demand	UIPTC	**PAF**	**Persons Exit**
31	1	1	0	0	0	0.5	1	78
210 - Single-Family Detached Housing						215 - Single-Family Attached Housing		
Persons Exit	**PAF**	**UIPTC**	**Unconstrained Demand**	**==>>> BALANCED ==>>>**	**Unconstrained Demand**	**UIPTC**	**PAF**	**Persons Entry**
57	1	0	0	0	0	0	1	50
Persons Entry	**PAF**	**UIPTC**	**Unconstrained Demand**	**<<<== BALANCED <<<==**	**Unconstrained Demand**	**UIPTC**	**PAF**	**Persons Exit**
97	1	0	0	0	0	0	1	35
210 - Single-Family Detached Housing						710 - General Office Building		
Persons Exit	**PAF**	**UIPTC**	**Unconstrained Demand**	**==>>> BALANCED ==>>>**	Unconstrained Demand	UIPTC	**PAF**	**Persons Entry**
57	1	1	1	1	2	14.25	1	16
Persons Entry	**PAF**	**UIPTC**	**Unconstrained Demand**	**<<<== BALANCED <<<==**	**Unconstrained Demand**	**UIPTC**	**PAF**	**Persons Exit**
97	1	1	1	0	0	0.5	1	78
215 - Single-Family Attached Housing						710 - General Office Building		
Persons Exit	**PAF**	**UIPTC**	**Unconstrained Demand**	**==>>> BALANCED ==>>>**	**Unconstrained Demand**	**UIPTC**	**PAF**	**Persons Entry**
35	1	1	0	0	2	14.25	1	16
Persons Entry	**PAF**	**UIPTC**	**Unconstrained Demand**	**<<<== BALANCED <<<==**	Unconstrained Demand	UIPTC	**PAF**	**Persons Exit**
50	1	1	1	0	0	0.5	1	78

INTERNAL PERSON TRIPS:

821 - Shopping Plaza (40-150k)-Supermarket - Yes

Internal Person Trips From	Entry	Exit	Total
960 - Super Convenience Market/Gas Station	38	27	64
220 - Multifamily Housing (Low-Rise)-Not Close to Rail Transit	2	3	4
221 - Multifamily Housing (Mid-Rise)-Not Close to Rail Transit	2	4	6
210 - Single-Family Detached Housing	6	11	17
215 - Single-Family Attached Housing	4	6	9
710 - General Office Building	16	5	21
Total Internal Person Trips	**68**	**56**	**124**

960 - Super Convenience Market/Gas Station

Internal Person Trips From	Entry	Exit	Total
821 - Shopping Plaza (40-150k)-Supermarket - Yes	27	38	64
220 - Multifamily Housing (Low-Rise)-Not Close to Rail Transit	1	1	2

221 - Multifamily Housing (Mid-Rise)-Not Close to Rail Transit	1	1	2
210 - Single-Family Detached Housing	3	4	7
215 - Single-Family Attached Housing	2	2	4
710 - General Office Building	2	3	5
Total Internal Person Trips	**36**	**49**	**85**

220 - Multifamily Housing (Low-Rise)-Not Close to Rail Transit

Internal Person Trips From	Entry	Exit	Total
821 - Shopping Plaza (40-150k)-Supermarket - Yes	3	2	4
960 - Super Convenience Market/Gas Station	1	1	2
221 - Multifamily Housing (Mid-Rise)-Not Close to Rail Transit	0	0	0
210 - Single-Family Detached Housing	0	0	0
215 - Single-Family Attached Housing	0	0	0
710 - General Office Building	0	0	0
Total Internal Person Trips	**4**	**3**	**7**

221 - Multifamily Housing (Mid-Rise)-Not Close to Rail Transit

Internal Person Trips From	Entry	Exit	Total
821 - Shopping Plaza (40-150k)-Supermarket - Yes	4	2	6
960 - Super Convenience Market/Gas Station	1	1	2
220 - Multifamily Housing (Low-Rise)-Not Close to Rail Transit	0	0	0
210 - Single-Family Detached Housing	0	0	0
215 - Single-Family Attached Housing	0	0	0
710 - General Office Building	0	0	1
Total Internal Person Trips	**5**	**3**	**8**

210 - Single-Family Detached Housing

Internal Person Trips From	Entry	Exit	Total
821 - Shopping Plaza (40-150k)-Supermarket - Yes	11	6	17
960 - Super Convenience Market/Gas Station	4	3	7
220 - Multifamily Housing (Low-Rise)-Not Close to Rail Transit	0	0	0
221 - Multifamily Housing (Mid-Rise)-Not Close to Rail Transit	0	0	0
215 - Single-Family Attached Housing	0	0	0
710 - General Office Building	0	1	1
Total Internal Person Trips	**15**	**10**	**25**

215 - Single-Family Attached Housing

Internal Person Trips From	Entry	Exit	Total
821 - Shopping Plaza (40-150k)-Supermarket - Yes	6	4	9
960 - Super Convenience Market/Gas Station	2	2	4
220 - Multifamily Housing (Low-Rise)-Not Close to Rail Transit	0	0	0
221 - Multifamily Housing (Mid-Rise)-Not Close to Rail Transit	0	0	0
210 - Single-Family Detached Housing	0	0	0
710 - General Office Building	0	0	1
Total Internal Person Trips	**8**	**6**	**14**

710 - General Office Building

Internal Person Trips From	Entry	Exit	Total
821 - Shopping Plaza (40-150k)-Supermarket - Yes	5	16	21
960 - Super Convenience Market/Gas Station	3	2	5
220 - Multifamily Housing (Low-Rise)-Not Close to Rail Transit	0	0	0
221 - Multifamily Housing (Mid-Rise)-Not Close to Rail Transit	0	0	1
210 - Single-Family Detached Housing	1	0	1
215 - Single-Family Attached Housing	0	0	1
Total Internal Person Trips	**9**	**18**	**27**

INTERNAL VEHICLE TRIPS AND CAPTURE:

821 - Shopping Plaza (40-150k)-Supermarket - Yes

Total Internal Person Trips	68	56	124
Vehicle Mode Share	100%	100%	-
Vehicle Occupancy	1.00	1.00	-
Total Vehicle Internal Trips	**68**	**56**	**124**
Total External Vehicle Trips	416	469	885
Internal Vehicle Trip Capture	**14%**	**11%**	**0%**

960 - Super Convenience Market/Gas Station

Total Internal Person Trips	36	49	85
Vehicle Mode Share	100%	100%	-
Vehicle Occupancy	1.00	1.00	-
Total Vehicle Internal Trips	**36**	**49**	**85**
Total External Vehicle Trips	56	43	99

Internal Vehicle Trip Capture	**39%**	**53%**	**0%**
220 - Multifamily Housing (Low-Rise)-Not Close to Rail Transit			
Total Internal Person Trips	4	3	7
Vehicle Mode Share	100%	100%	-
Vehicle Occupancy	1.00	1.00	-
Total Vehicle Internal Trips	**4**	**3**	**7**
Total External Vehicle Trips	21	12	33
Internal Vehicle Trip Capture	**16%**	**20%**	**0%**
221 - Multifamily Housing (Mid-Rise)-Not Close to Rail Transit			
Total Internal Person Trips	5	3	8
Vehicle Mode Share	100%	100%	-
Vehicle Occupancy	1.00	1.00	-
Total Vehicle Internal Trips	**5**	**3**	**8**
Total External Vehicle Trips	26	17	43
Internal Vehicle Trip Capture	**16%**	**15%**	**0%**
210 - Single-Family Detached Housing			
Total Internal Person Trips	15	10	25
Vehicle Mode Share	100%	100%	-
Vehicle Occupancy	1.00	1.00	-
Total Vehicle Internal Trips	**15**	**10**	**25**
Total External Vehicle Trips	82	47	129
Internal Vehicle Trip Capture	**15%**	**18%**	**0%**
215 - Single-Family Attached Housing			
Total Internal Person Trips	8	6	14
Vehicle Mode Share	100%	100%	-
Vehicle Occupancy	1.00	1.00	-
Total Vehicle Internal Trips	**8**	**6**	**14**
Total External Vehicle Trips	42	29	71
Internal Vehicle Trip Capture	**16%**	**17%**	**0%**
710 - General Office Building			
Total Internal Person Trips	9	18	27
Vehicle Mode Share	100%	100%	-
Vehicle Occupancy	1.00	1.00	-
Total Vehicle Internal Trips	**9**	**18**	**27**
Total External Vehicle Trips	5	53	58
Internal Vehicle Trip Capture	**62%**	**25%**	**0%**

PASS-BY VEHICLE TRIP REDUCTION

	External Vehicle Trips		Pass-by Vehicle Trip %		Pass-by Vehicle Trips	
Land Use	Entry	Exit	Entry (%)	Exit (%)	Entry	Exit
821 - Shopping Plaza (40-150k) - Supermarket - Yes	416	469	34.00%	34.00%	141	159
960 - Super Convenience Market/Gas Station	56	43	66.00%	66.00%	37	28
220 - Multifamily Housing (Low-Rise) - Not Close to Rail Transit	21	12	0.00%	0.00%	0	0
221 - Multifamily Housing (Mid-Rise) - Not Close to Rail Transit	26	17	0.00%	0.00%	0	0
210 - Single-Family Detached Housing	82	47	0.00%	0.00%	0	0
215 - Single-Family Attached Housing	42	29	0.00%	0.00%	0	0
710 - General Office Building	5	53	0.00%	0.00%	0	0

DIVERTED VEHICLE TRIP REDUCTION

	External Vehicle Trips		Diverted Vehicle Trip %		Diverted Vehicle Trips	
Land Use	Entry	Exit	Entry (%)	Exit (%)	Entry	Exit
821 - Shopping Plaza (40-150k) - Supermarket - Yes	416	469	0.00%	0.00%	0	0
960 - Super Convenience Market/Gas Station	56	43	0.00%	0.00%	0	0
220 - Multifamily Housing (Low-Rise) - Not Close to Rail Transit	21	12	0.00%	0.00%	0	0
221 - Multifamily Housing (Mid-Rise) - Not Close to Rail Transit	26	17	0.00%	0.00%	0	0
210 - Single-Family Detached Housing	82	47	0.00%	0.00%	0	0
215 - Single-Family Attached Housing	42	29	0.00%	0.00%	0	0
710 - General Office Building	5	53	0.00%	0.00%	0	0

EXTRA VEHICLE TRIP REDUCTION

Land Use	External Vehicle Trips		Diverted Vehicle Trip %		Diverted Vehicle Trips	
	Entry	Exit	Entry (%)	Exit (%)	Entry	Exit
821 - Shopping Plaza (40-150k) - Supermarket - Yes	416	469	0.00%	0.00%	0	0
960 - Super Convenience Market/Gas Station	56	43	0.00%	0.00%	0	0
220 - Multifamily Housing (Low-Rise) - Not Close to Rail Transit	21	12	0.00%	0.00%	0	0
221 - Multifamily Housing (Mid-Rise) - Not Close to Rail Transit	26	17	0.00%	0.00%	0	0
210 - Single-Family Detached Housing	82	47	0.00%	0.00%	0	0
215 - Single-Family Attached Housing	42	29	0.00%	0.00%	0	0
710 - General Office Building	5	53	0.00%	0.00%	0	0

NEW VEHICLE TRIPS

Land Use	New Vehicle Trips		
	Entry	Exit	Total
821 - Shopping Plaza (40-150k) - Supermarket - Yes	275	310	585
960 - Super Convenience Market/Gas Station	19	15	34
220 - Multifamily Housing (Low-Rise) - Not Close to Rail Transit	21	12	33
221 - Multifamily Housing (Mid-Rise) - Not Close to Rail Transit	26	17	43
210 - Single-Family Detached Housing	82	47	129
215 - Single-Family Attached Housing	42	29	71
710 - General Office Building	5	53	58

RESULTS

Site Totals	Entry	Exit	Total
Vehicle Trips Before Reduction	793	815	1608
Internal Vehicle Trips	145	145	290
External Vehicle Trips	648	670	1318
Internal Vehicle Trip Capture	18%	18%	18%
Pass-by Vehicle Trips	178	187	365
Diverted Vehicle Trips	0	0	0
Extra Reduced Vehicle Trips	0	0	0
New Vehicle Trips	470	483	953

Scenario - 5

Scenario Name: SAT 2027
User Group:
Dev. phase: 1
No. of Years to Project Traffic : 0
Analyst Note:
Warning:

VEHICLE TRIPS BEFORE REDUCTION

Land Use & Data Source	Location	IV	Size	Time Period	Method	Entry	Exit	Total
					Rate/Equation	Split%	Split%	
821 - Shopping Plaza (40-150k) - Supermarket -	General	1000 Sq. Ft. GLA	116.03	Saturday, Peak Hour of	Best Fit (LIN)	514	493	1007
Data Source: Trip Generation Manual, 11th Ed	Urban/Suburban			Generator	T = 7.60(X) + 125.07	51%	49%	
960 - Super Convenience Market/Gas Station	General	Vehicle Fueling Positions	8	Saturday, Peak Hour of	Average	93	93	186
Data Source: Trip Generation Manual, 10th Ed +	Urban/Suburban			Generator	23.26	50%	50%	

VEHICLE TO PERSON TRIP CONVERSION

BASELINE SITE VEHICLE CHARACTERISTICS:

Land Use	Baseline Site Vehicle Mode Share		Baseline Site Vehicle Occupancy		Baseline Site Vehicle Directional Split	
	Entry (%)	Exit (%)	Entry	Exit	Entry (%)	Exit (%)
821 - Shopping Plaza (40-150k) - Supermarket - Yes	100	100	1	1	51	49
960 - Super Convenience Market/Gas Station	100	100	1	1	50	50

ESTIMATED BASELINE SITE PERSON TRIPS:

Land Use	Baseline Site Vehicle Mode Share		Baseline Site Vehicle Occupancy		Baseline Site Vehicle Directional Split	
	Entry (%)	Exit (%)	Entry	Exit	Entry (%)	Exit (%)
821 - Shopping Plaza (40-150k) - Supermarket - Yes	514	493	0	0	514	493
	1007		0		1007	
960 - Super Convenience Market/Gas Station	93	93	0	0	93	93
	186		0		186	

INTERNAL VEHICLE TRIP REDUCTION

LAND USE GROUP ASSIGNMENT:

Land Use	Land Use Group
821 - Shopping Plaza (40-150k) - Supermarket - Yes	Retail
960 - Super Convenience Market/Gas Station	Resturant

BALANCED PERSON TRIPS:

821 - Shopping Plaza (40-150k)-Supermarket - Yes

Persons Exit	PAF	UIPTC	Unconstrained Demand	==>>> BALANCED ==>>>	Unconstrained Demand	UIPTC	PAF	Persons Entry
493	1	29	143	27	27	29	1	93
Persons Entry	**PAF**	**UIPTC**	**Unconstrained Demand**	**<<<== BALANCED <<<==**	**Unconstrained Demand**	**UIPTC**	**PAF**	**Persons Exit**
514	1	50	257	38	38	41	1	93

960 - Super Convenience Market/Gas Station

INTERNAL PERSON TRIPS:

821 - Shopping Plaza (40-150k)-Supermarket - Yes

Internal Person Trips From	Entry	Exit	Total
960 - Super Convenience Market/Gas Station	38	27	65
Total Internal Person Trips	**38**	**27**	**65**

960 - Super Convenience Market/Gas Station

Internal Person Trips From	Entry	Exit	Total
821 - Shopping Plaza (40-150k)-Supermarket - Yes	27	38	65
Total Internal Person Trips	**27**	**38**	**65**

INTERNAL VEHICLE TRIPS AND CAPTURE:

821 - Shopping Plaza (40-150k)-Supermarket - Yes

Total Internal Person Trips	38	27	65
Vehicle Mode Share	100%	100%	-
Vehicle Occupancy	1.00	1.00	-

Total Vehicle Internal Trips	**38**	**27**	**65**
Total External Vehicle Trips	476	466	942
Internal Vehicle Trip Capture	**7%**	**5%**	**0%**
960 - Super Convenience Market/Gas Station			
Total Internal Person Trips	27	38	65
Vehicle Mode Share	100%	100%	-
Vehicle Occupancy	1.00	1.00	-
Total Vehicle Internal Trips	**27**	**38**	**65**
Total External Vehicle Trips	66	55	121
Internal Vehicle Trip Capture	**29%**	**41%**	**0%**

PASS-BY VEHICLE TRIP REDUCTION

Land Use	External Vehicle Trips		Pass-by Vehicle Trip %		Pass-by Vehicle Trips	
	Entry	Exit	Entry (%)	Exit (%)	Entry	Exit
821 - Shopping Plaza (40-150k) - Supermarket - Yes	476	466	26.00%	26.00%	124	121
960 - Super Convenience Market/Gas Station	66	55	66.00%	66.00%	44	36

DIVERTED VEHICLE TRIP REDUCTION

Land Use	External Vehicle Trips		Diverted Vehicle Trip %		Diverted Vehicle Trips	
	Entry	Exit	Entry (%)	Exit (%)	Entry	Exit
821 - Shopping Plaza (40-150k) - Supermarket - Yes	476	466	0.00%	0.00%	0	0
960 - Super Convenience Market/Gas Station	66	55	0.00%	0.00%	0	0

EXTRA VEHICLE TRIP REDUCTION

Land Use	External Vehicle Trips		Diverted Vehicle Trip %		Diverted Vehicle Trips	
	Entry	Exit	Entry (%)	Exit (%)	Entry	Exit
821 - Shopping Plaza (40-150k) - Supermarket - Yes	476	466	0.00%	0.00%	0	0
960 - Super Convenience Market/Gas Station	66	55	0.00%	0.00%	0	0

NEW VEHICLE TRIPS

Land Use	New Vehicle Trips		
	Entry	Exit	Total
821 - Shopping Plaza (40-150k) - Supermarket - Yes	352	345	697
960 - Super Convenience Market/Gas Station	22	19	41

RESULTS

Site Totals	Entry	Exit	Total
Vehicle Trips Before Reduction	607	586	1193
Internal Vehicle Trips	65	65	130
External Vehicle Trips	542	521	1063
Internal Vehicle Trip Capture	11%	11%	11%
Pass-by Vehicle Trips	168	157	325
Diverted Vehicle Trips	0	0	0
Extra Reduced Vehicle Trips	0	0	0
New Vehicle Trips	374	364	738

Scenario - 2

Scenario Name: SAT 2030
User Group:
Dev. phase: 2
No. of Years to Project Traffic: 0
Analyst Note:
Warning:

VEHICLE TRIPS BEFORE REDUCTION

Land Use & Data Source	Location	IV	Size	Time Period	Method	Entry	Exit	Total
					Rate/Equation	Split%	Split%	
821 - Shopping Plaza (40-150k) - Supermarket -	General	1000 Sq. Ft. GLA	116.03	Saturday, Peak Hour of	Best Fit (LIN)	514	493	1007
Data Source: Trip Generation Manual, 11th Ed	Urban/Suburban			Generator	T = 7.60(X) + 125.07	51%	49%	
960 - Super Convenience Market/Gas Station	General	Vehicle Fueling Positions	8	Saturday, Peak Hour of	Average	93	93	186
Data Source: Trip Generation Manual, 10th Ed +	Urban/Suburban			Generator	23.26	50%	50%	
220 - Multifamily Housing (Low-Rise) - Not Close	General	Dwelling Units	45	Saturday, Peak Hour of	Average	9	9	18
Data Source: Trip Generation Manual, 11th Ed	Urban/Suburban			Generator	0.41	50%	50%	
221 - Multifamily Housing (Mid-Rise) - Not Close	General	Dwelling Units	131	Saturday, Peak Hour of	Best Fit (LOG)	27	26	53
Data Source: Trip Generation Manual, 11th Ed	Urban/Suburban			Generator	Ln(T) =1.00Ln(X) - 0.91	51%	49%	
210 - Single-Family Detached Housing	General	Dwelling Units	159	Saturday, Peak Hour of	Best Fit (LIN)	79	67	146
Data Source: Trip Generation Manual, 11th Ed	Urban/Suburban			Generator	T = 0.86(X) + 9.72	54%	46%	
215 - Single-Family Attached Housing	General	Dwelling Units	148	Saturday, Peak Hour of	Best Fit (LOG)	44	48	92
Data Source: Trip Generation Manual, 11th Ed	Urban/Suburban			Generator	Ln(T) =0.82Ln(X) + 0.43	48%	52%	
710 - General Office Building	General	1000 Sq. Ft. GFA	44.67	Saturday, Peak Hour of	Average	13	11	24
Data Source: Trip Generation Manual, 11th Ed	Urban/Suburban			Generator	0.53	54%	46%	

VEHICLE TO PERSON TRIP CONVERSION

BASELINE SITE VEHICLE CHARACTERISTICS:

Land Use	Baseline Site Vehicle Mode Share		Baseline Site Vehicle Occupancy		Baseline Site Vehicle Directional Split	
	Entry (%)	Exit (%)	Entry	Exit	Entry (%)	Exit (%)
821 - Shopping Plaza (40-150k) - Supermarket - Yes	100	100	1	1	51	49
960 - Super Convenience Market/Gas Station	100	100	1	1	50	50
220 - Multifamily Housing (Low-Rise) - Not Close to Rail Transit	100	100	1	1	50	50
221 - Multifamily Housing (Mid-Rise) - Not Close to Rail Transit	100	100	1	1	51	49
210 - Single-Family Detached Housing	100	100	1	1	54	46
215 - Single-Family Attached Housing	100	100	1	1	48	52
710 - General Office Building	100	100	1	1	54	46

ESTIMATED BASELINE SITE PERSON TRIPS:

Land Use	Baseline Site Vehicle Mode Share		Baseline Site Vehicle Occupancy		Baseline Site Vehicle Directional Split	
	Entry (%)	Exit (%)	Entry	Exit	Entry (%)	Exit (%)
821 - Shopping Plaza (40-150k) - Supermarket - Yes	514	493	0	0	514	493
	1007		0		1007	
960 - Super Convenience Market/Gas Station	93	93	0	0	93	93
	186		0		186	
220 - Multifamily Housing (Low-Rise) - Not Close to Rail Transit	9	9	0	0	9	9
	18		0		18	
221 - Multifamily Housing (Mid-Rise) - Not Close to Rail Transit	27	26	0	0	27	26
	53		0		53	
210 - Single-Family Detached Housing	79	67	0	0	79	67
	146		0		146	
215 - Single-Family Attached Housing	44	48	0	0	44	48
	92		0		92	
710 - General Office Building	13	11	0	0	13	11
	24		0		24	

INTERNAL VEHICLE TRIP REDUCTION

LAND USE GROUP ASSIGNMENT:

Land Use	Land Use Group

821 - Shopping Plaza (40-150k) - Supermarket - Yes	Retail
960 - Super Convenience Market/Gas Station	Resturant
220 - Multifamily Housing (Low-Rise) - Not Close to Rail Transit	Residential
221 - Multifamily Housing (Mid-Rise) - Not Close to Rail Transit	Residential
210 - Single-Family Detached Housing	Residential
215 - Single-Family Attached Housing	Residential
710 - General Office Building	Office

BALANCED PERSON TRIPS:

821 - Shopping Plaza (40-150k)-Supermarket - Yes									960 - Super Convenience Market/Gas Station			
Persons Exit	PAF	UIPTC	**Unconstrained Demand**	**==>>> BALANCED ==>>>**	**Unconstrained Demand**	UIPTC	PAF	**Persons Entry**				
493	1	29	**143**	**27**	**27**	29	1	**93**				
Persons Entry	**PAF**	**UIPTC**	**Unconstrained Demand**	**<<<== BALANCED <<<==**	**Unconstrained Demand**	**UIPTC**	**PAF**	**Persons Exit**				
514	**1**	**50**	**257**	**38**	**38**	**41**	**1**	**93**				
821 - Shopping Plaza (40-150k)-Supermarket - Yes									220 - Multifamily Housing (Low-Rise)-Not Close to Rail Transit			
Persons Exit	**PAF**	**UIPTC**	**Unconstrained Demand**	**==>>> BALANCED ==>>>**	**Unconstrained Demand**	**UIPTC**	**PAF**	**Persons Entry**				
493	1	6.5	**32**	**1**	**1**	11.5	1	**9**				
Persons Entry	**PAF**	**UIPTC**	**Unconstrained Demand**	**<<<== BALANCED <<<==**	**Unconstrained Demand**	**UIPTC**	**PAF**	**Persons Exit**				
514	1	2.5	**13**	**1**	**1**	10.5	1	**9**				
821 - Shopping Plaza (40-150k)-Supermarket - Yes									221 - Multifamily Housing (Mid-Rise)-Not Close to Rail Transit			
Persons Exit	**PAF**	**UIPTC**	**Unconstrained Demand**	**==>>> BALANCED ==>>>**	**Unconstrained Demand**	**UIPTC**	**PAF**	**Persons Entry**				
493	**1**	**6.5**	**32**	**3**	**3**	**11.5**	**1**	**27**				
Persons Entry	PAF	UIPTC	**Unconstrained Demand**	**<<<== BALANCED <<<==**	**Unconstrained Demand**	UIPTC	PAF	**Persons Exit**				
514	**1**	**2.5**	**13**	**3**	**3**	**10.5**	**1**	**26**				
821 - Shopping Plaza (40-150k)-Supermarket - Yes									210 - Single-Family Detached Housing			
Persons Exit	PAF	UIPTC	**Unconstrained Demand**	**==>>> BALANCED ==>>>**	**Unconstrained Demand**	UIPTC	PAF	**Persons Entry**				
493	**1**	**6.5**	**32**	**9**	**9**	**11.5**	**1**	**79**				
Persons Entry	**PAF**	**UIPTC**	**Unconstrained Demand**	**<<<== BALANCED <<<==**	**Unconstrained Demand**	**UIPTC**	**PAF**	**Persons Exit**				
514	**1**	**2.5**	**13**	**7**	**7**	**10.5**	**1**	**67**				
821 - Shopping Plaza (40-150k)-Supermarket - Yes									215 - Single-Family Attached Housing			
Persons Exit	PAF	UIPTC	**Unconstrained Demand**	**==>>> BALANCED ==>>>**	**Unconstrained Demand**	UIPTC	PAF	**Persons Entry**				
493	**1**	**6.5**	**32**	**5**	**5**	**11.5**	**1**	**44**				
Persons Entry	PAF	UIPTC	**Unconstrained Demand**	**<<<== BALANCED <<<==**	**Unconstrained Demand**	UIPTC	PAF	**Persons Exit**				
514	**1**	**2.5**	**13**	**5**	**5**	**10.5**	**1**	**48**				
821 - Shopping Plaza (40-150k)-Supermarket - Yes									710 - General Office Building			
Persons Exit	**PAF**	**UIPTC**	**Unconstrained Demand**	**==>>> BALANCED ==>>>**	**Unconstrained Demand**	**UIPTC**	**PAF**	**Persons Entry**				
493	1	2	**10**	**4**	**4**	31	1	**13**				
Persons Entry	**PAF**	**UIPTC**	**Unconstrained Demand**	**<<<== BALANCED <<<==**	**Unconstrained Demand**	**UIPTC**	**PAF**	**Persons Exit**				
514	1	8	**41**	**2**	**2**	20	1	**11**				
960 - Super Convenience Market/Gas Station									220 - Multifamily Housing (Low-Rise)-Not Close to Rail Transit			
Persons Exit	**PAF**	**UIPTC**	**Unconstrained Demand**	**==>>> BALANCED ==>>>**	**Unconstrained Demand**	**UIPTC**	**PAF**	**Persons Entry**				
93	**1**	**4.5**	**4**	**0**	**0**	**4**	**1**	**9**				
Persons Entry	**PAF**	**UIPTC**	**Unconstrained Demand**	**<<<== BALANCED <<<==**	**Unconstrained Demand**	**UIPTC**	**PAF**	**Persons Exit**				
93	**1**	**3.5**	**3**	**0**	**0**	**5.25**	**1**	**9**				
960 - Super Convenience Market/Gas Station									221 - Multifamily Housing (Mid-Rise)-Not Close to Rail Transit			
Persons Exit	**PAF**	**UIPTC**	**Unconstrained Demand**	**==>>> BALANCED ==>>>**	**Unconstrained Demand**	**UIPTC**	**PAF**	**Persons Entry**				
93	**1**	**4.5**	**4**	**1**	**1**	**4**	**1**	**27**				
Persons Entry	**PAF**	**UIPTC**	**Unconstrained Demand**	**<<<== BALANCED <<<==**	**Unconstrained Demand**	**UIPTC**	**PAF**	**Persons Exit**				
93	**1**	**3.5**	**3**	**1**	**1**	**5.25**	**1**	**26**				
960 - Super Convenience Market/Gas Station									210 - Single-Family Detached Housing			
Persons Exit	**PAF**	**UIPTC**	**Unconstrained Demand**	**==>>> BALANCED ==>>>**	**Unconstrained Demand**	**UIPTC**	**PAF**	**Persons Entry**				
93	**1**	**4.5**	**4**	**3**	**3**	**4**	**1**	**79**				
Persons Entry	**PAF**	**UIPTC**	**Unconstrained Demand**	**<<<== BALANCED <<<==**	**Unconstrained Demand**	**UIPTC**	**PAF**	**Persons Exit**				
93	**1**	**3.5**	**3**	**3**	**4**	**5.25**	**1**	**67**				
960 - Super Convenience Market/Gas Station									215 - Single-Family Attached Housing			
Persons Exit	**PAF**	**UIPTC**	**Unconstrained Demand**	**==>>> BALANCED ==>>>**	**Unconstrained Demand**	**UIPTC**	**PAF**	**Persons Entry**				
93	**1**	**4.5**	**4**	**2**	**2**	**4**	**1**	**44**				
Persons Entry	**PAF**	**UIPTC**	**Unconstrained Demand**	**<<<== BALANCED <<<==**	**Unconstrained Demand**	**UIPTC**	**PAF**	**Persons Exit**				
93	**1**	**3.5**	**3**	**3**	**3**	**5.25**	**1**	**48**				
960 - Super Convenience Market/Gas Station									710 - General Office Building			
Persons Exit	**PAF**	**UIPTC**	**Unconstrained Demand**	**==>>> BALANCED ==>>>**	**Unconstrained Demand**	**UIPTC**	**PAF**	**Persons Entry**				
93	**1**	**3**	**3**	**3**	**4**	**30**	**1**	**13**				
Persons Entry	**PAF**	**UIPTC**	**Unconstrained Demand**	**<<<== BALANCED <<<==**	**Unconstrained Demand**	**UIPTC**	**PAF**	**Persons Exit**				
93	**1**	**2**	**2**	**0**	**0**	**4**	**1**	**11**				
220 - Multifamily Housing (Low-Rise)-Not Close to Rail Transit									221 - Multifamily Housing (Mid-Rise)-Not Close to Rail Transit			

Persons Exit	PAF	UIPTC	Unconstrained Demand	==>>> BALANCED ==>>>	Unconstrained Demand	UIPTC	PAF	Persons Entry
9	1	0	0	0	0	0	1	27
Persons Entry	PAF	UIPTC	Unconstrained Demand	<<<== BALANCED <<<==	Unconstrained Demand	UIPTC	PAF	Persons Exit
9	1	0	0	0	0	0	1	26
220 - Multifamily Housing (Low-Rise)-Not Close to Rail Transit						210 - Single-Family Detached Housing		
Persons Exit	PAF	UIPTC	Unconstrained Demand	==>>> BALANCED ==>>>	Unconstrained Demand	UIPTC	PAF	Persons Entry
9	1	0	0	0	0	0	1	79
Persons Entry	PAF	UIPTC	Unconstrained Demand	<<<== BALANCED <<<==	Unconstrained Demand	UIPTC	PAF	Persons Exit
9	1	0	0	0	0	0	1	67
220 - Multifamily Housing (Low-Rise)-Not Close to Rail Transit						215 - Single-Family Attached Housing		
Persons Exit	PAF	UIPTC	Unconstrained Demand	==>>> BALANCED ==>>>	Unconstrained Demand	UIPTC	PAF	Persons Entry
9	1	0	0	0	0	0	1	44
Persons Entry	PAF	UIPTC	Unconstrained Demand	<<<== BALANCED <<<==	Unconstrained Demand	UIPTC	PAF	Persons Exit
9	1	0	0	0	0	0	1	48
220 - Multifamily Housing (Low-Rise)-Not Close to Rail Transit						710 - General Office Building		
Persons Exit	PAF	UIPTC	Unconstrained Demand	==>>> BALANCED ==>>>	Unconstrained Demand	UIPTC	PAF	Persons Entry
9	1	1	0	0	2	14.25	1	13
Persons Entry	PAF	UIPTC	Unconstrained Demand	<<<== BALANCED <<<==	Unconstrained Demand	UIPTC	PAF	Persons Exit
9	1	1	0	0	0	0.5	1	11
221 - Multifamily Housing (Mid-Rise)-Not Close to Rail Transit						210 - Single-Family Detached Housing		
Persons Exit	PAF	UIPTC	Unconstrained Demand	==>>> BALANCED ==>>>	Unconstrained Demand	UIPTC	PAF	Persons Entry
26	1	0	0	0	0	0	1	79
Persons Entry	PAF	UIPTC	Unconstrained Demand	<<<== BALANCED <<<==	Unconstrained Demand	UIPTC	PAF	Persons Exit
27	1	0	0	0	0	0	1	67
221 - Multifamily Housing (Mid-Rise)-Not Close to Rail Transit						215 - Single-Family Attached Housing		
Persons Exit	PAF	UIPTC	Unconstrained Demand	==>>> BALANCED ==>>>	Unconstrained Demand	UIPTC	PAF	Persons Entry
26	1	0	0	0	0	0	1	44
Persons Entry	PAF	UIPTC	Unconstrained Demand	<<<== BALANCED <<<==	Unconstrained Demand	UIPTC	PAF	Persons Exit
27	1	0	0	0	0	0	1	48
221 - Multifamily Housing (Mid-Rise)-Not Close to Rail Transit						710 - General Office Building		
Persons Exit	PAF	UIPTC	Unconstrained Demand	==>>> BALANCED ==>>>	Unconstrained Demand	UIPTC	PAF	Persons Entry
26	1	1	0	0	2	14.25	1	13
Persons Entry	PAF	UIPTC	Unconstrained Demand	<<<== BALANCED <<<==	Unconstrained Demand	UIPTC	PAF	Persons Exit
27	1	1	0	0	0	0.5	1	11
210 - Single-Family Detached Housing						215 - Single-Family Attached Housing		
Persons Exit	PAF	UIPTC	Unconstrained Demand	==>>> BALANCED ==>>>	Unconstrained Demand	UIPTC	PAF	Persons Entry
67	1	0	0	0	0	0	1	44
Persons Entry	PAF	UIPTC	Unconstrained Demand	<<<== BALANCED <<<==	Unconstrained Demand	UIPTC	PAF	Persons Exit
79	1	0	0	0	0	0	1	48
210 - Single-Family Detached Housing						710 - General Office Building		
Persons Exit	PAF	UIPTC	Unconstrained Demand	==>>> BALANCED ==>>>	Unconstrained Demand	UIPTC	PAF	Persons Entry
67	1	1	1	1	2	14.25	1	13
Persons Entry	PAF	UIPTC	Unconstrained Demand	<<<== BALANCED <<<==	Unconstrained Demand	UIPTC	PAF	Persons Exit
79	1	1	1	0	0	0.5	1	11
215 - Single-Family Attached Housing						710 - General Office Building		
Persons Exit	PAF	UIPTC	Unconstrained Demand	==>>> BALANCED ==>>>	Unconstrained Demand	UIPTC	PAF	Persons Entry
48	1	1	0	0	2	14.25	1	13
Persons Entry	PAF	UIPTC	Unconstrained Demand	<<<== BALANCED <<<==	Unconstrained Demand	UIPTC	PAF	Persons Exit
44	1	1	0	0	0	0.5	1	11

INTERNAL PERSON TRIPS:

821 - Shopping Plaza (40-150k)-Supermarket - Yes

Internal Person Trips From	Entry	Exit	Total
960 - Super Convenience Market/Gas Station	38	27	65
220 - Multifamily Housing (Low-Rise)-Not Close to Rail Transit	1	1	2
221 - Multifamily Housing (Mid-Rise)-Not Close to Rail Transit	3	3	6
210 - Single-Family Detached Housing	7	9	16
215 - Single-Family Attached Housing	5	5	10
710 - General Office Building	2	4	6
Total Internal Person Trips	**56**	**49**	**105**

960 - Super Convenience Market/Gas Station

Internal Person Trips From	Entry	Exit	Total
821 - Shopping Plaza (40-150k)-Supermarket - Yes	27	38	65
220 - Multifamily Housing (Low-Rise)-Not Close to Rail Transit	0	0	1

221 - Multifamily Housing (Mid-Rise)-Not Close to Rail Transit	1	1	2
210 - Single-Family Detached Housing	3	3	6
215 - Single-Family Attached Housing	3	2	4
710 - General Office Building	0	3	3
Total Internal Person Trips	**34**	**47**	**81**

220 - Multifamily Housing (Low-Rise)-Not Close to Rail Transit

Internal Person Trips From	Entry	Exit	Total
821 - Shopping Plaza (40-150k)-Supermarket - Yes	1	1	2
960 - Super Convenience Market/Gas Station	0	0	1
221 - Multifamily Housing (Mid-Rise)-Not Close to Rail Transit	0	0	0
210 - Single-Family Detached Housing	0	0	0
215 - Single-Family Attached Housing	0	0	0
710 - General Office Building	0	0	0
Total Internal Person Trips	**1**	**1**	**2**

221 - Multifamily Housing (Mid-Rise)-Not Close to Rail Transit

Internal Person Trips From	Entry	Exit	Total
821 - Shopping Plaza (40-150k)-Supermarket - Yes	3	3	6
960 - Super Convenience Market/Gas Station	1	1	2
220 - Multifamily Housing (Low-Rise)-Not Close to Rail Transit	0	0	0
210 - Single-Family Detached Housing	0	0	0
215 - Single-Family Attached Housing	0	0	0
710 - General Office Building	0	0	0
Total Internal Person Trips	**4**	**4**	**8**

210 - Single-Family Detached Housing

Internal Person Trips From	Entry	Exit	Total
821 - Shopping Plaza (40-150k)-Supermarket - Yes	9	7	16
960 - Super Convenience Market/Gas Station	3	3	6
220 - Multifamily Housing (Low-Rise)-Not Close to Rail Transit	0	0	0
221 - Multifamily Housing (Mid-Rise)-Not Close to Rail Transit	0	0	0
215 - Single-Family Attached Housing	0	0	0
710 - General Office Building	0	1	1
Total Internal Person Trips	**12**	**11**	**23**

215 - Single-Family Attached Housing

Internal Person Trips From	Entry	Exit	Total
821 - Shopping Plaza (40-150k)-Supermarket - Yes	5	5	10
960 - Super Convenience Market/Gas Station	2	3	4
220 - Multifamily Housing (Low-Rise)-Not Close to Rail Transit	0	0	0
221 - Multifamily Housing (Mid-Rise)-Not Close to Rail Transit	0	0	0
210 - Single-Family Detached Housing	0	0	0
710 - General Office Building	0	0	1
Total Internal Person Trips	**7**	**8**	**15**

710 - General Office Building

Internal Person Trips From	Entry	Exit	Total
821 - Shopping Plaza (40-150k)-Supermarket - Yes	4	2	6
960 - Super Convenience Market/Gas Station	3	0	3
220 - Multifamily Housing (Low-Rise)-Not Close to Rail Transit	0	0	0
221 - Multifamily Housing (Mid-Rise)-Not Close to Rail Transit	0	0	0
210 - Single-Family Detached Housing	1	0	1
215 - Single-Family Attached Housing	0	0	1
Total Internal Person Trips	**8**	**2**	**10**

INTERNAL VEHICLE TRIPS AND CAPTURE:

821 - Shopping Plaza (40-150k)-Supermarket - Yes

Total Internal Person Trips	56	49	105
Vehicle Mode Share	100%	100%	-
Vehicle Occupancy	1.00	1.00	-
Total Vehicle Internal Trips	**56**	**49**	**105**
Total External Vehicle Trips	458	444	902
Internal Vehicle Trip Capture	**11%**	**10%**	**0%**

960 - Super Convenience Market/Gas Station

Total Internal Person Trips	34	47	81
Vehicle Mode Share	100%	100%	-
Vehicle Occupancy	1.00	1.00	-
Total Vehicle Internal Trips	**34**	**47**	**81**
Total External Vehicle Trips	59	46	105

Internal Vehicle Trip Capture	**37%**	**51%**	**0%**
220 - Multifamily Housing (Low-Rise)-Not Close to Rail Transit			
Total Internal Person Trips	1	1	2
Vehicle Mode Share	100%	100%	-
Vehicle Occupancy	1.00	1.00	-
Total Vehicle Internal Trips	**1**	**1**	**2**
Total External Vehicle Trips	8	8	16
Internal Vehicle Trip Capture	**11%**	**11%**	**0%**
221 - Multifamily Housing (Mid-Rise)-Not Close to Rail Transit			
Total Internal Person Trips	4	4	8
Vehicle Mode Share	100%	100%	-
Vehicle Occupancy	1.00	1.00	-
Total Vehicle Internal Trips	**4**	**4**	**8**
Total External Vehicle Trips	23	22	45
Internal Vehicle Trip Capture	**15%**	**15%**	**0%**
210 - Single-Family Detached Housing			
Total Internal Person Trips	12	11	23
Vehicle Mode Share	100%	100%	-
Vehicle Occupancy	1.00	1.00	-
Total Vehicle Internal Trips	**12**	**11**	**23**
Total External Vehicle Trips	67	56	123
Internal Vehicle Trip Capture	**15%**	**16%**	**0%**
215 - Single-Family Attached Housing			
Total Internal Person Trips	7	8	15
Vehicle Mode Share	100%	100%	-
Vehicle Occupancy	1.00	1.00	-
Total Vehicle Internal Trips	**7**	**8**	**15**
Total External Vehicle Trips	37	40	77
Internal Vehicle Trip Capture	**16%**	**17%**	**0%**
710 - General Office Building			
Total Internal Person Trips	8	2	10
Vehicle Mode Share	100%	100%	-
Vehicle Occupancy	1.00	1.00	-
Total Vehicle Internal Trips	**8**	**2**	**10**
Total External Vehicle Trips	5	9	14
Internal Vehicle Trip Capture	**63%**	**18%**	**0%**

PASS-BY VEHICLE TRIP REDUCTION

	External Vehicle Trips		Pass-by Vehicle Trip %		Pass-by Vehicle Trips	
Land Use	Entry	Exit	Entry (%)	Exit (%)	Entry	Exit
821 - Shopping Plaza (40-150k) - Supermarket - Yes	458	444	26.00%	26.00%	119	115
960 - Super Convenience Market/Gas Station	59	46	66.00%	66.00%	39	30
220 - Multifamily Housing (Low-Rise) - Not Close to Rail Transit	8	8	0.00%	0.00%	0	0
221 - Multifamily Housing (Mid-Rise) - Not Close to Rail Transit	23	22	0.00%	0.00%	0	0
210 - Single-Family Detached Housing	67	56	0.00%	0.00%	0	0
215 - Single-Family Attached Housing	37	40	0.00%	0.00%	0	0
710 - General Office Building	5	9	0.00%	0.00%	0	0

DIVERTED VEHICLE TRIP REDUCTION

	External Vehicle Trips		Diverted Vehicle Trip %		Diverted Vehicle Trips	
Land Use	Entry	Exit	Entry (%)	Exit (%)	Entry	Exit
821 - Shopping Plaza (40-150k) - Supermarket - Yes	458	444	0.00%	0.00%	0	0
960 - Super Convenience Market/Gas Station	59	46	0.00%	0.00%	0	0
220 - Multifamily Housing (Low-Rise) - Not Close to Rail Transit	8	8	0.00%	0.00%	0	0
221 - Multifamily Housing (Mid-Rise) - Not Close to Rail Transit	23	22	0.00%	0.00%	0	0
210 - Single-Family Detached Housing	67	56	0.00%	0.00%	0	0
215 - Single-Family Attached Housing	37	40	0.00%	0.00%	0	0
710 - General Office Building	5	9	0.00%	0.00%	0	0

EXTRA VEHICLE TRIP REDUCTION

Land Use	External Vehicle Trips		Diverted Vehicle Trip %		Diverted Vehicle Trips	
	Entry	Exit	Entry (%)	Exit (%)	Entry	Exit
821 - Shopping Plaza (40-150k) - Supermarket - Yes	458	444	0.00%	0.00%	0	0
960 - Super Convenience Market/Gas Station	59	46	0.00%	0.00%	0	0
220 - Multifamily Housing (Low-Rise) - Not Close to Rail Transit	8	8	0.00%	0.00%	0	0
221 - Multifamily Housing (Mid-Rise) - Not Close to Rail Transit	23	22	0.00%	0.00%	0	0
210 - Single-Family Detached Housing	67	56	0.00%	0.00%	0	0
215 - Single-Family Attached Housing	37	40	0.00%	0.00%	0	0
710 - General Office Building	5	9	0.00%	0.00%	0	0

NEW VEHICLE TRIPS

Land Use	New Vehicle Trips		
	Entry	Exit	Total
821 - Shopping Plaza (40-150k) - Supermarket - Yes	339	329	668
960 - Super Convenience Market/Gas Station	20	16	36
220 - Multifamily Housing (Low-Rise) - Not Close to Rail Transit	8	8	16
221 - Multifamily Housing (Mid-Rise) - Not Close to Rail Transit	23	22	45
210 - Single-Family Detached Housing	67	56	123
215 - Single-Family Attached Housing	37	40	77
710 - General Office Building	5	9	14

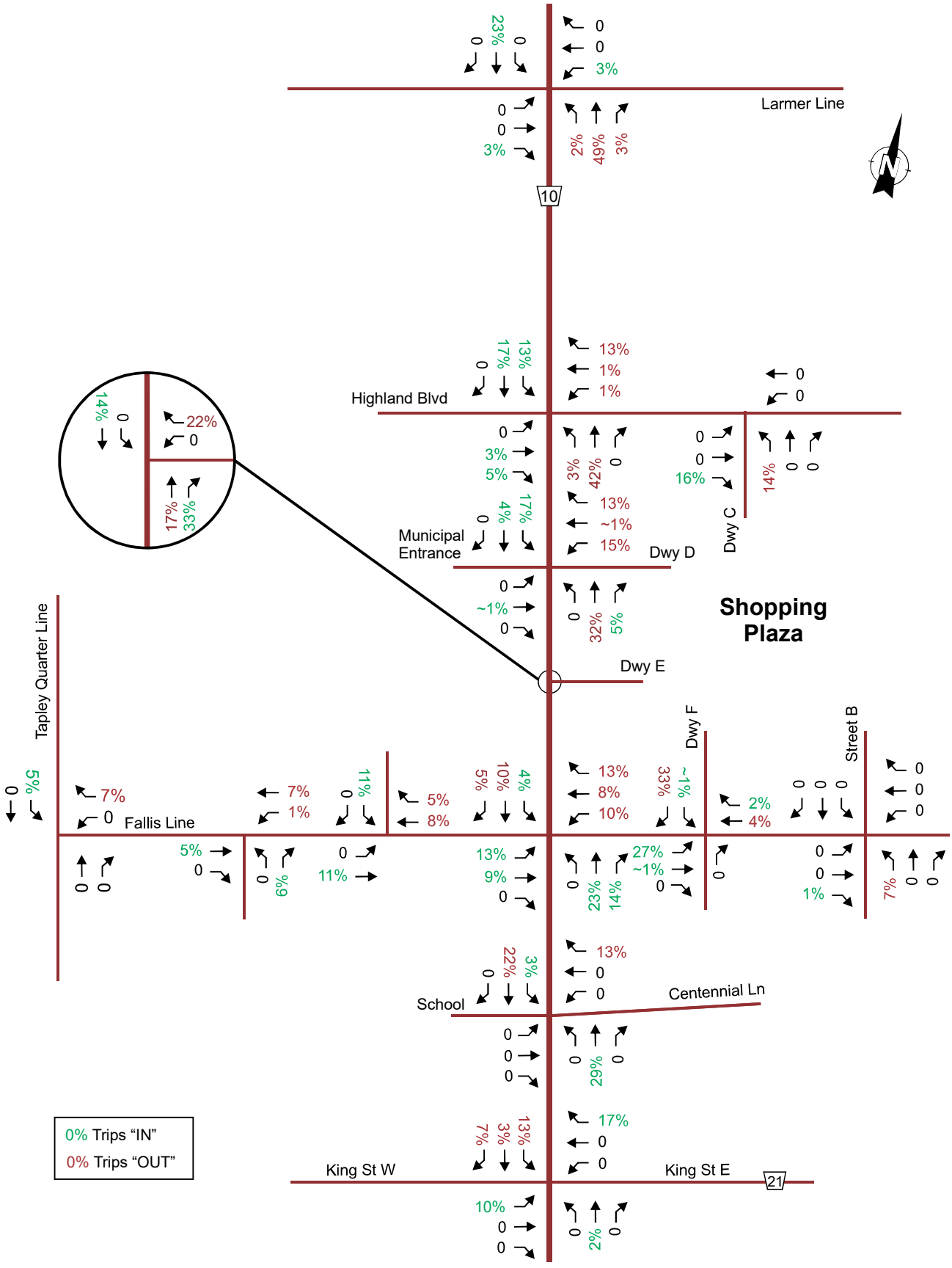
RESULTS

Site Totals	Entry	Exit	Total
Vehicle Trips Before Reduction	779	747	1526
Internal Vehicle Trips	122	122	244
External Vehicle Trips	657	625	1282
Internal Vehicle Trip Capture	16%	16%	16%
Pass-by Vehicle Trips	158	145	303
Diverted Vehicle Trips	0	0	0
Extra Reduced Vehicle Trips	0	0	0
New Vehicle Trips	499	480	979

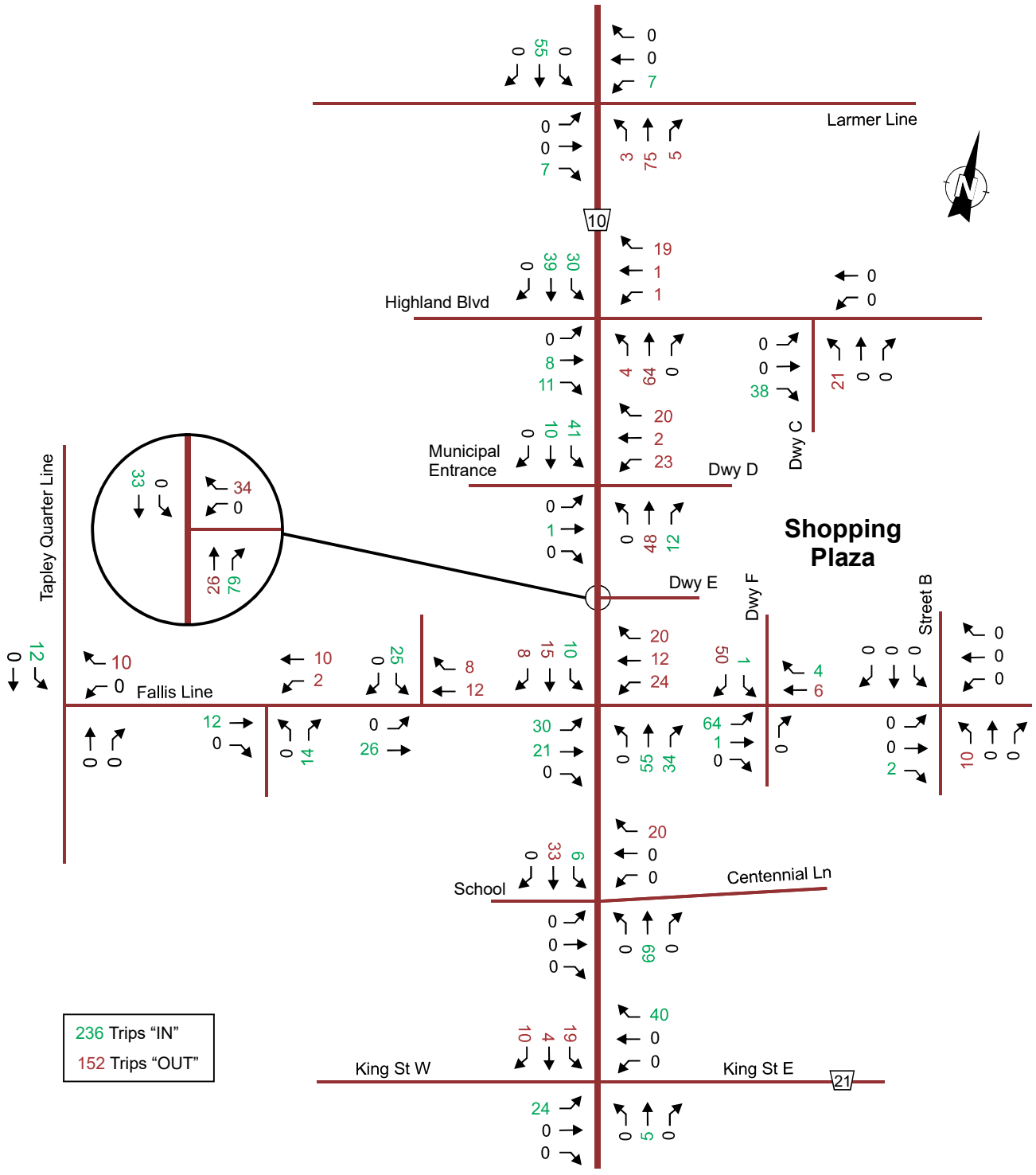
Appendix I

Trip Distribution

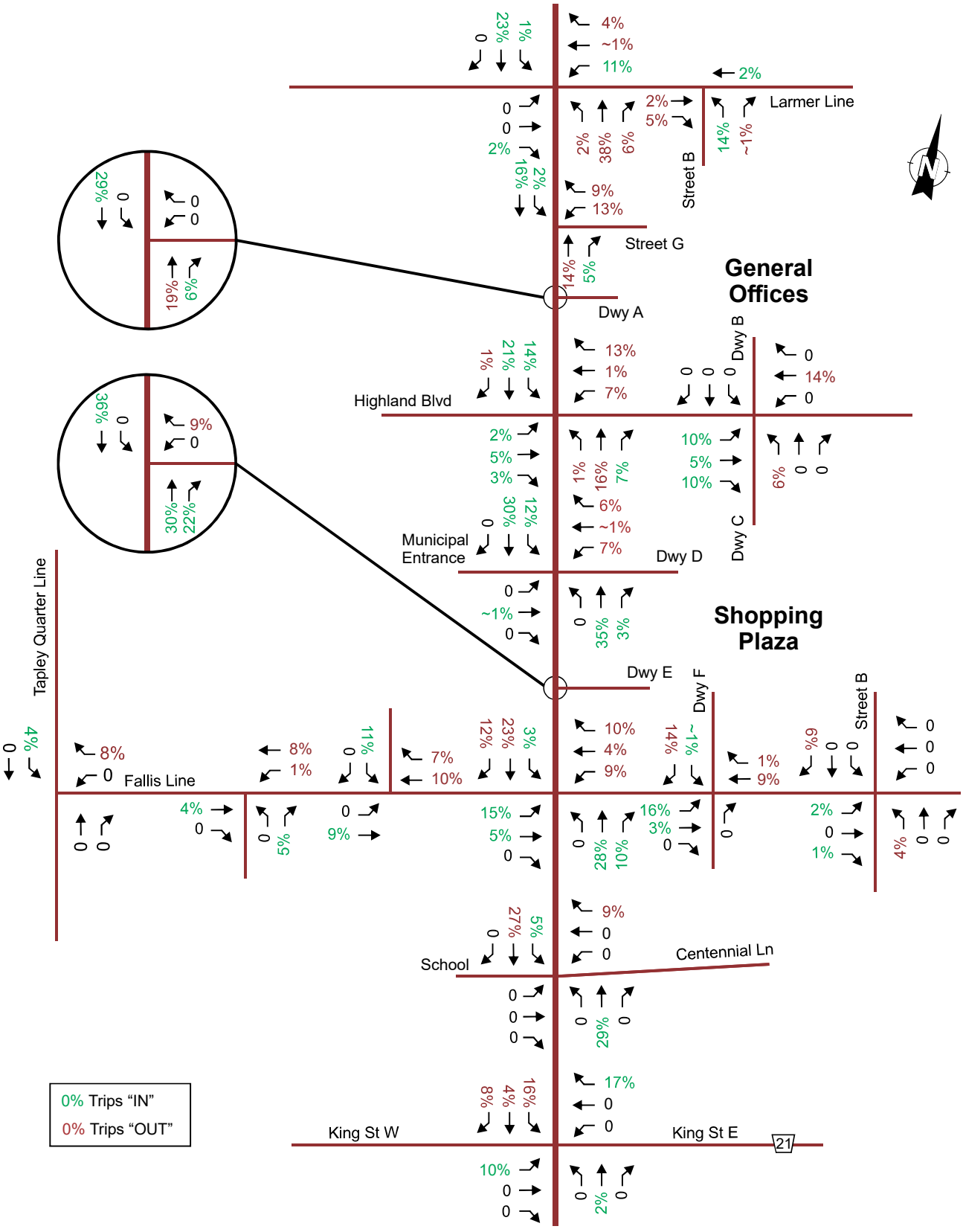
Site Generated Trip Distribution, AM Peak Hour, 2027



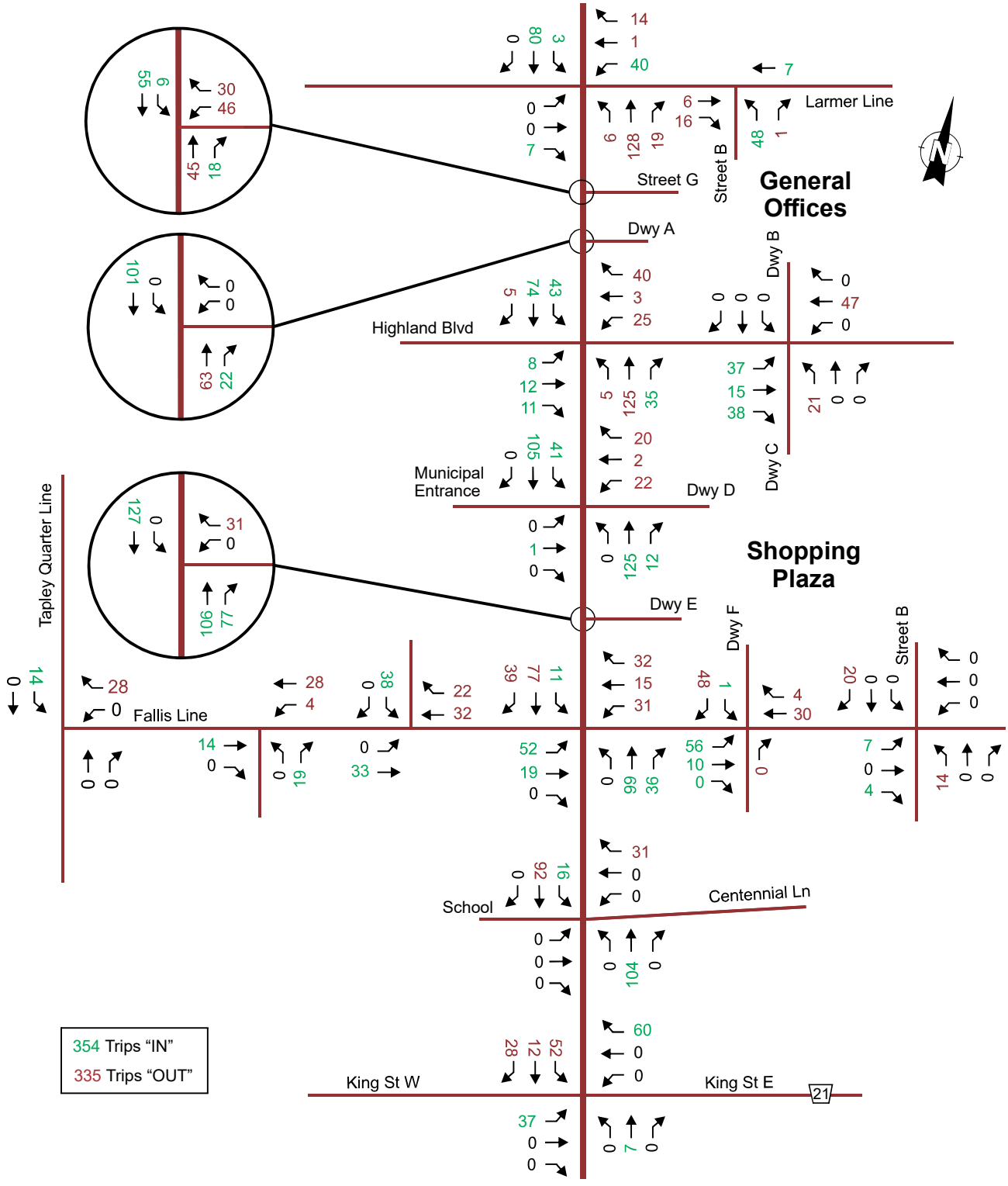
Site Generated Trips, AM Peak Hour, 2027



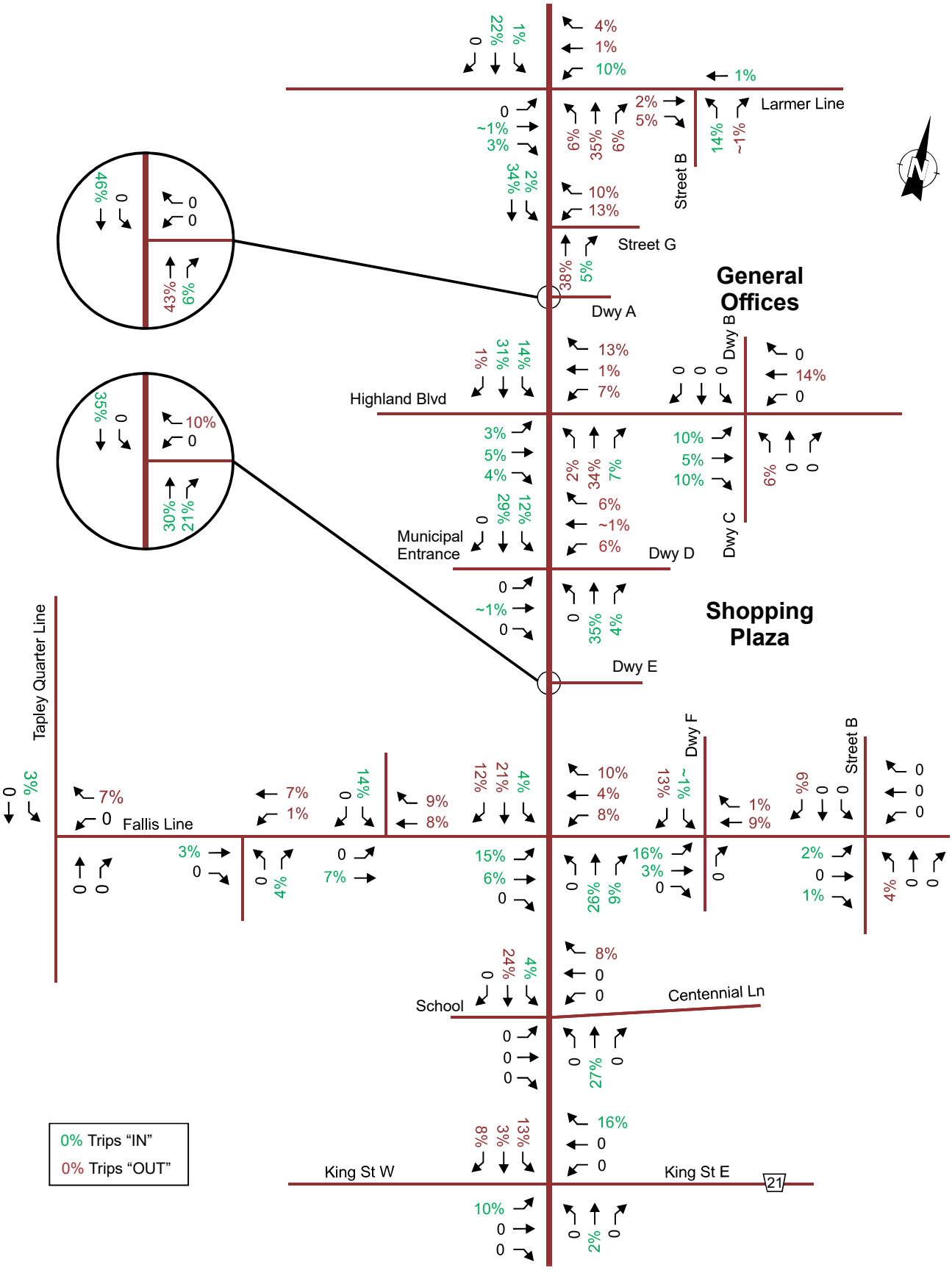
Site Generated Trip Distribution, AM Peak Hour, 2030



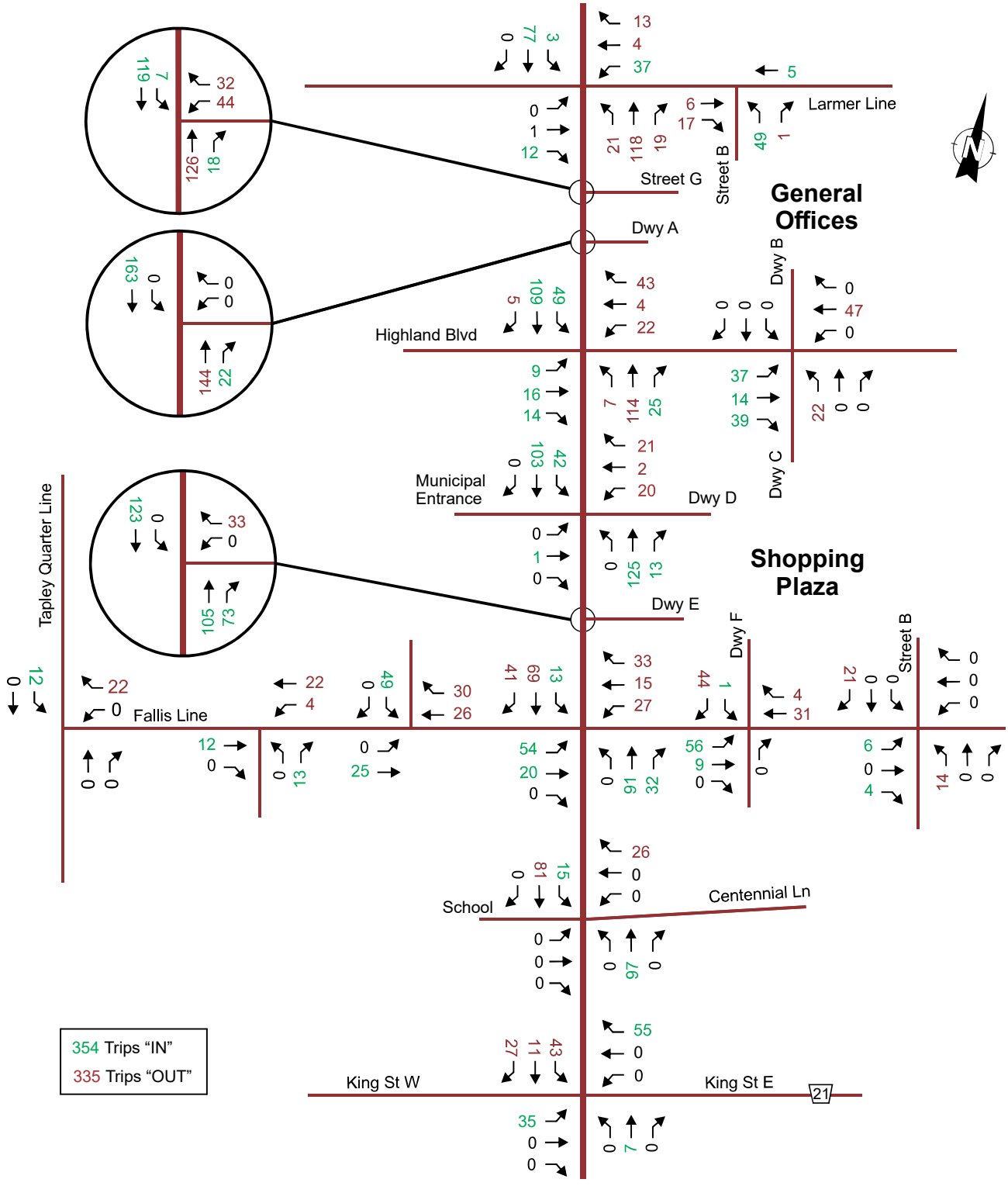
Site Generated Trips, AM Peak Hour, 2030



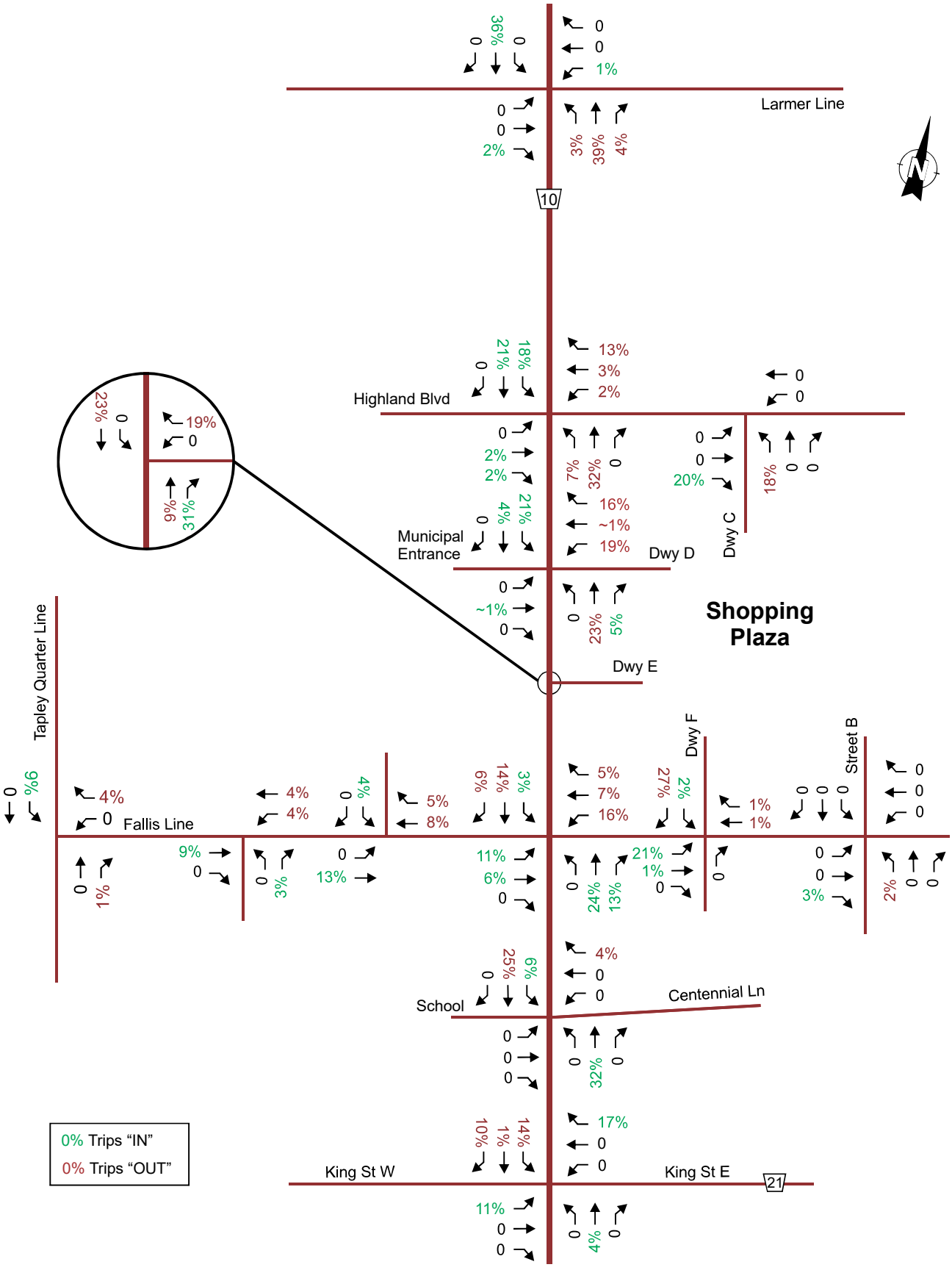
Site Generated Trip Distribution, AM Peak Hour, 2035



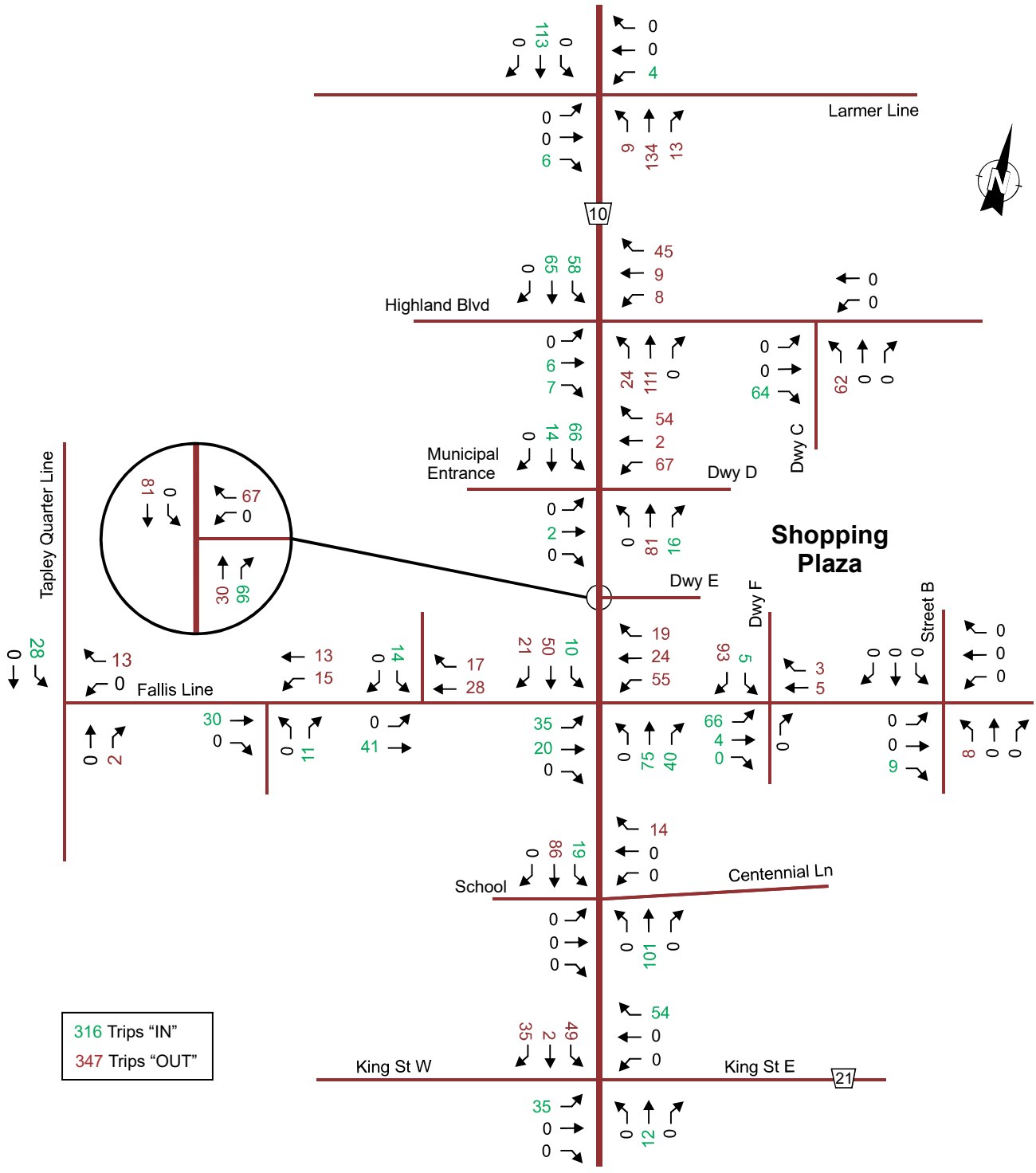
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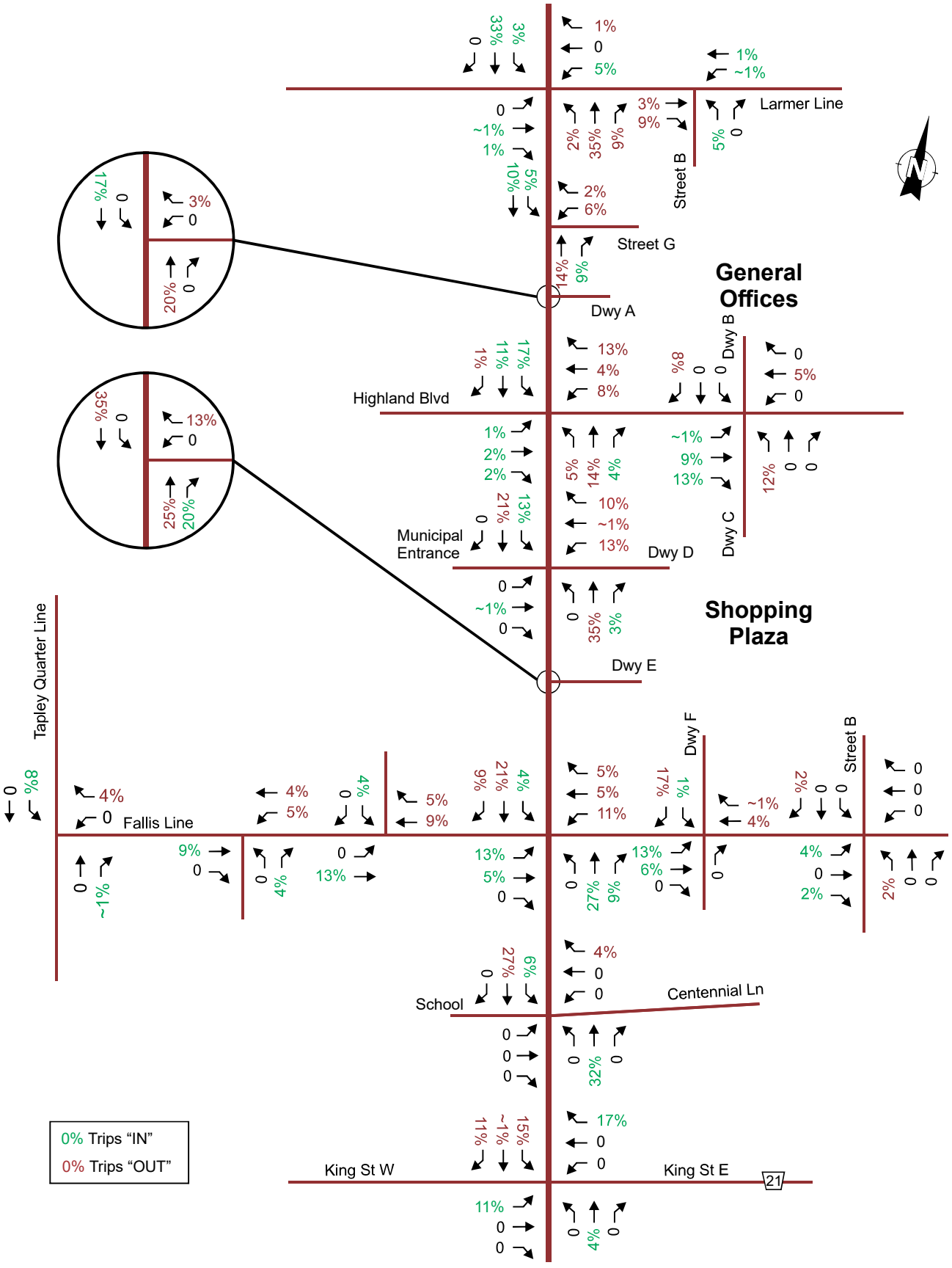
Site Generated Trip Distribution, PM Peak Hour, 2027



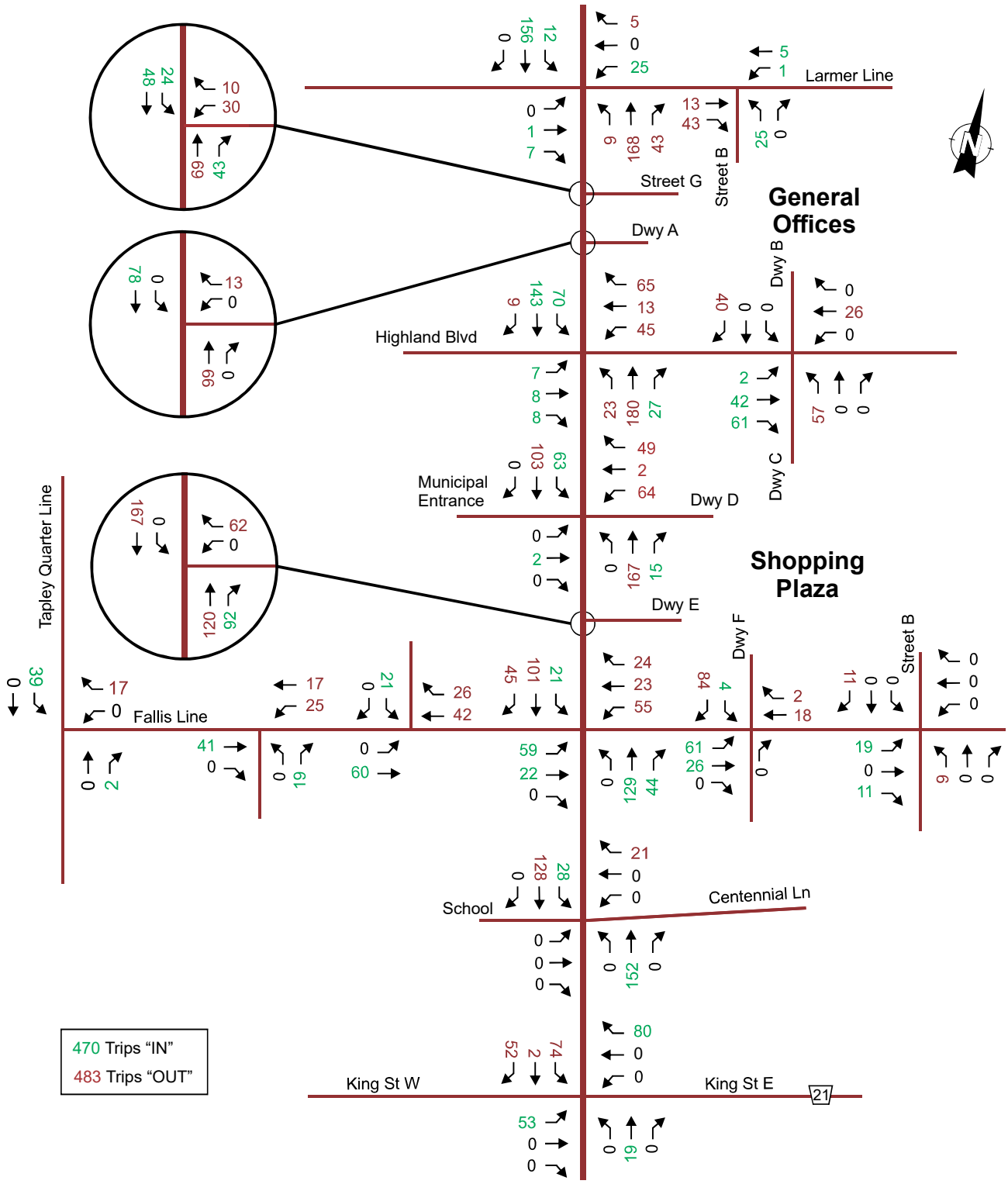
Site Generated Trips, PM Peak Hour, 2027



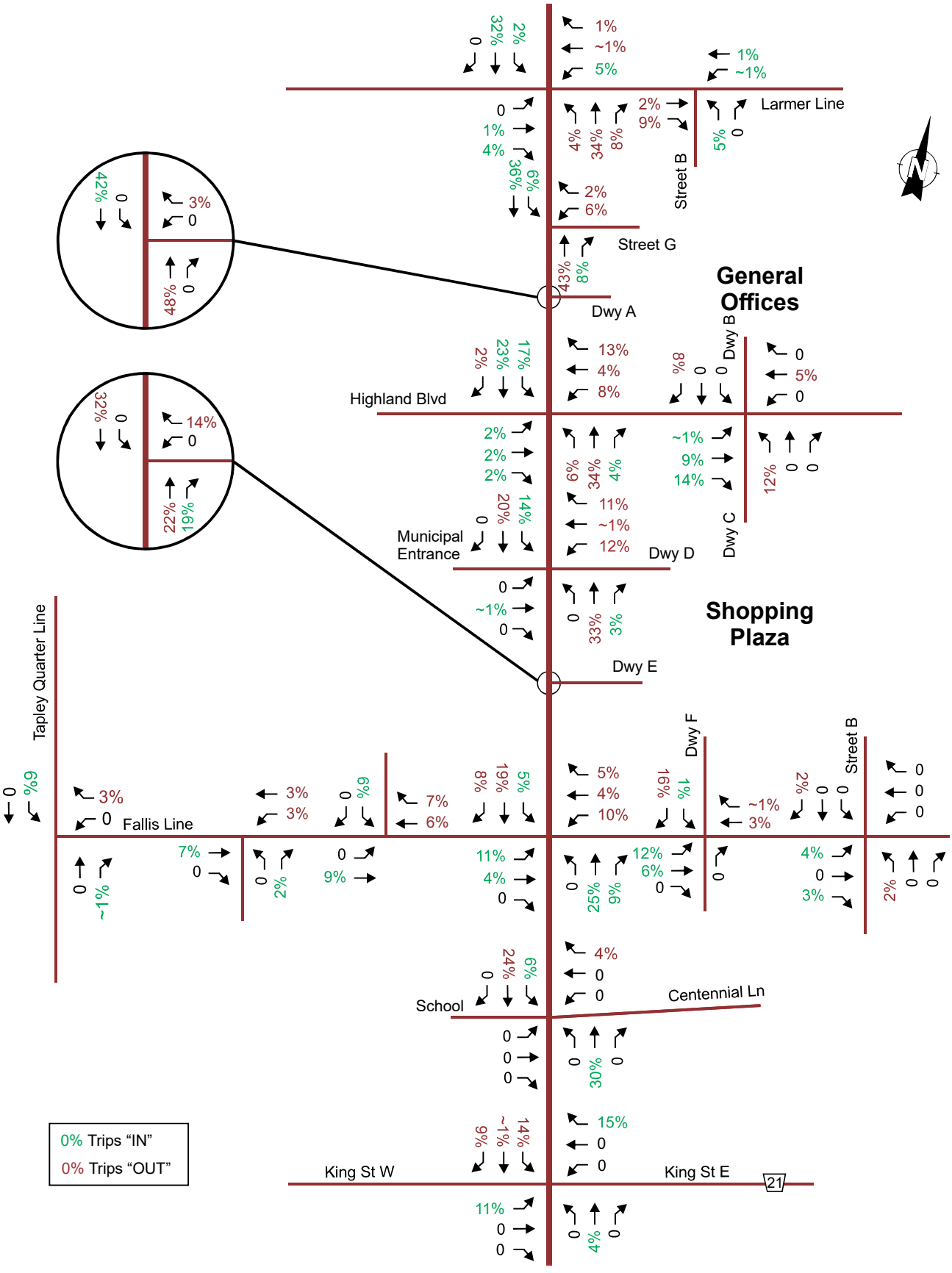
Site Generated Trip Distribution, PM Peak Hour, 2030



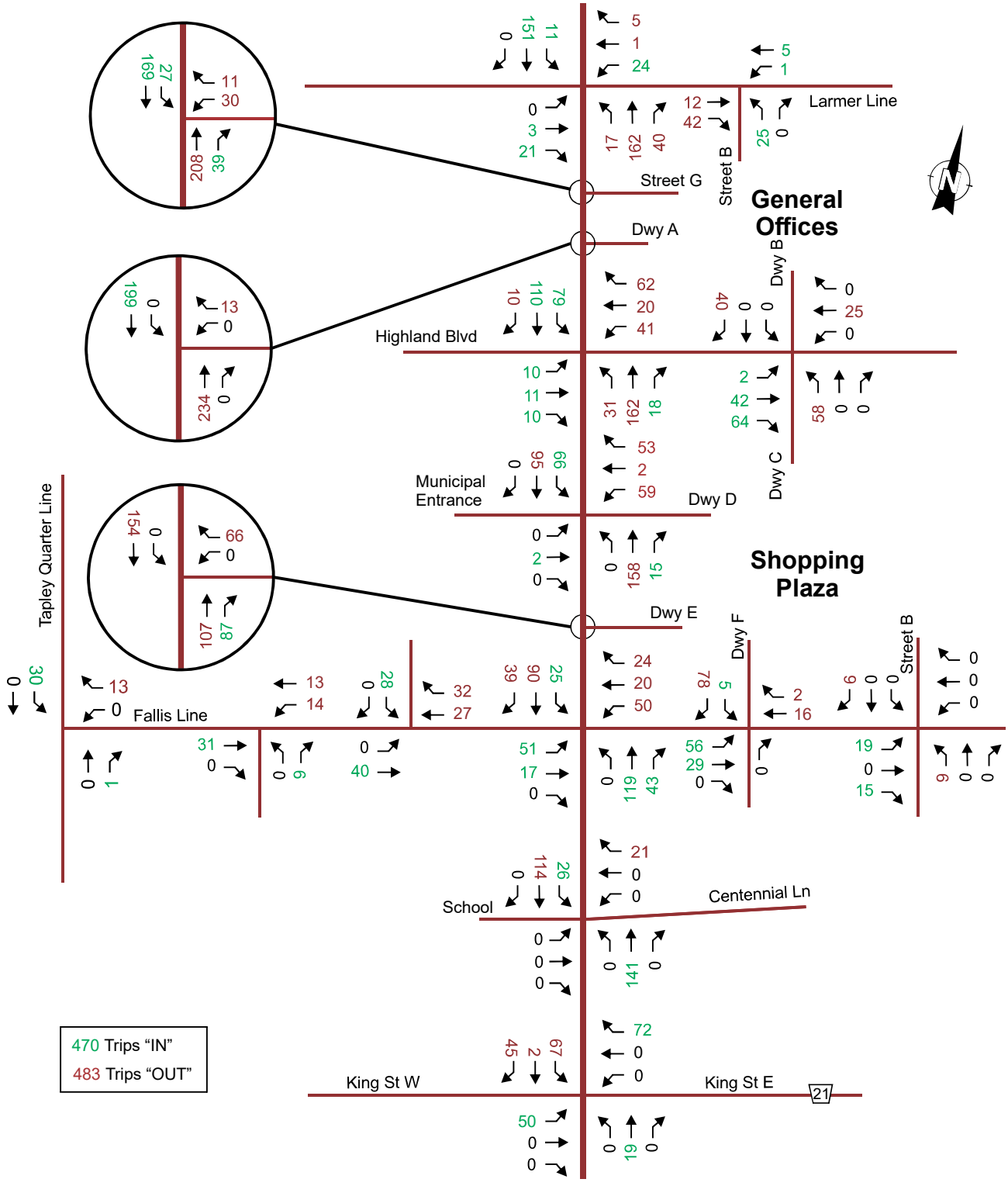
Site Generated Trips, PM Peak Hour, 2030



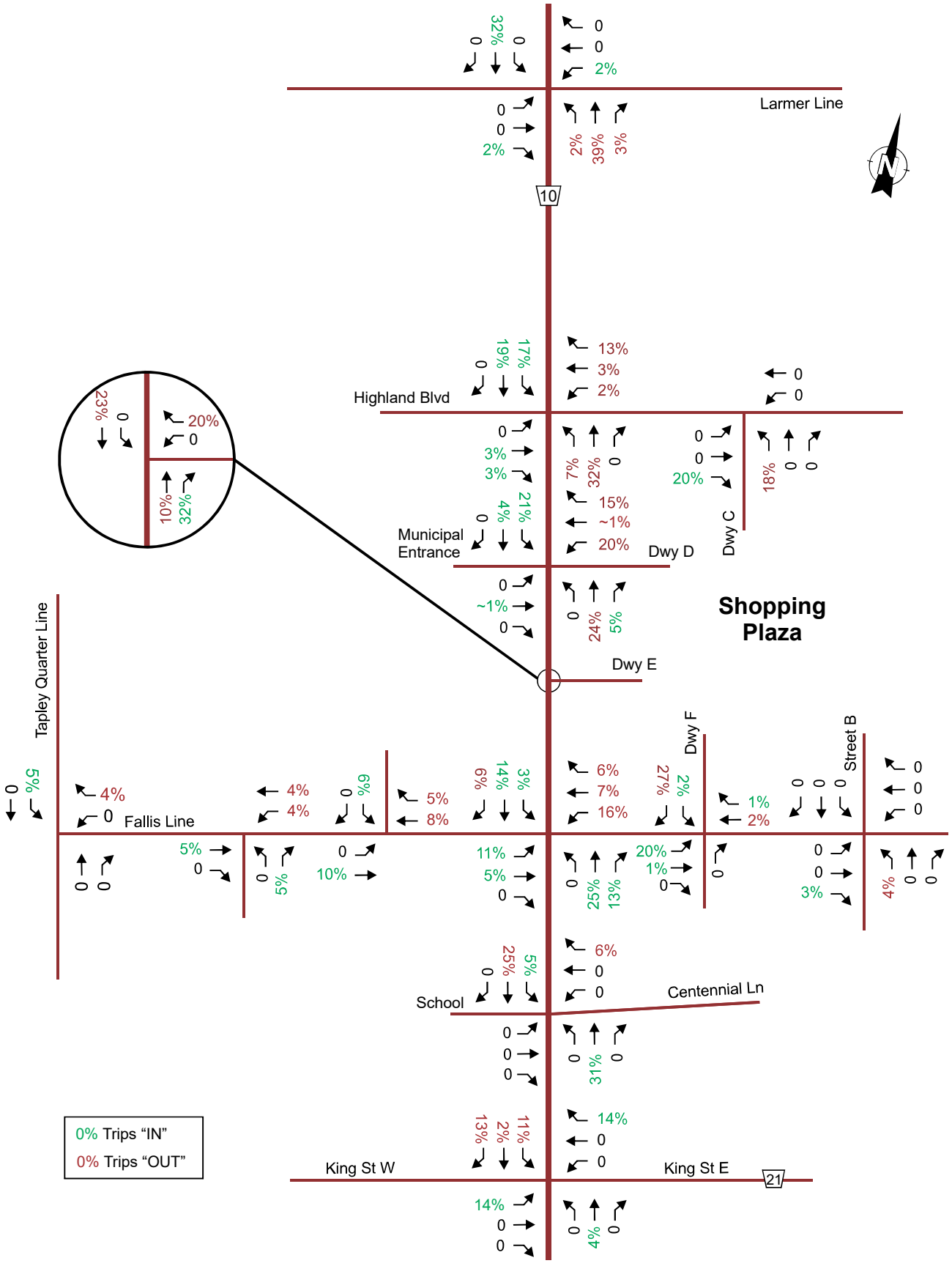
Site Generated Trip Distribution, PM Peak Hour, 2035



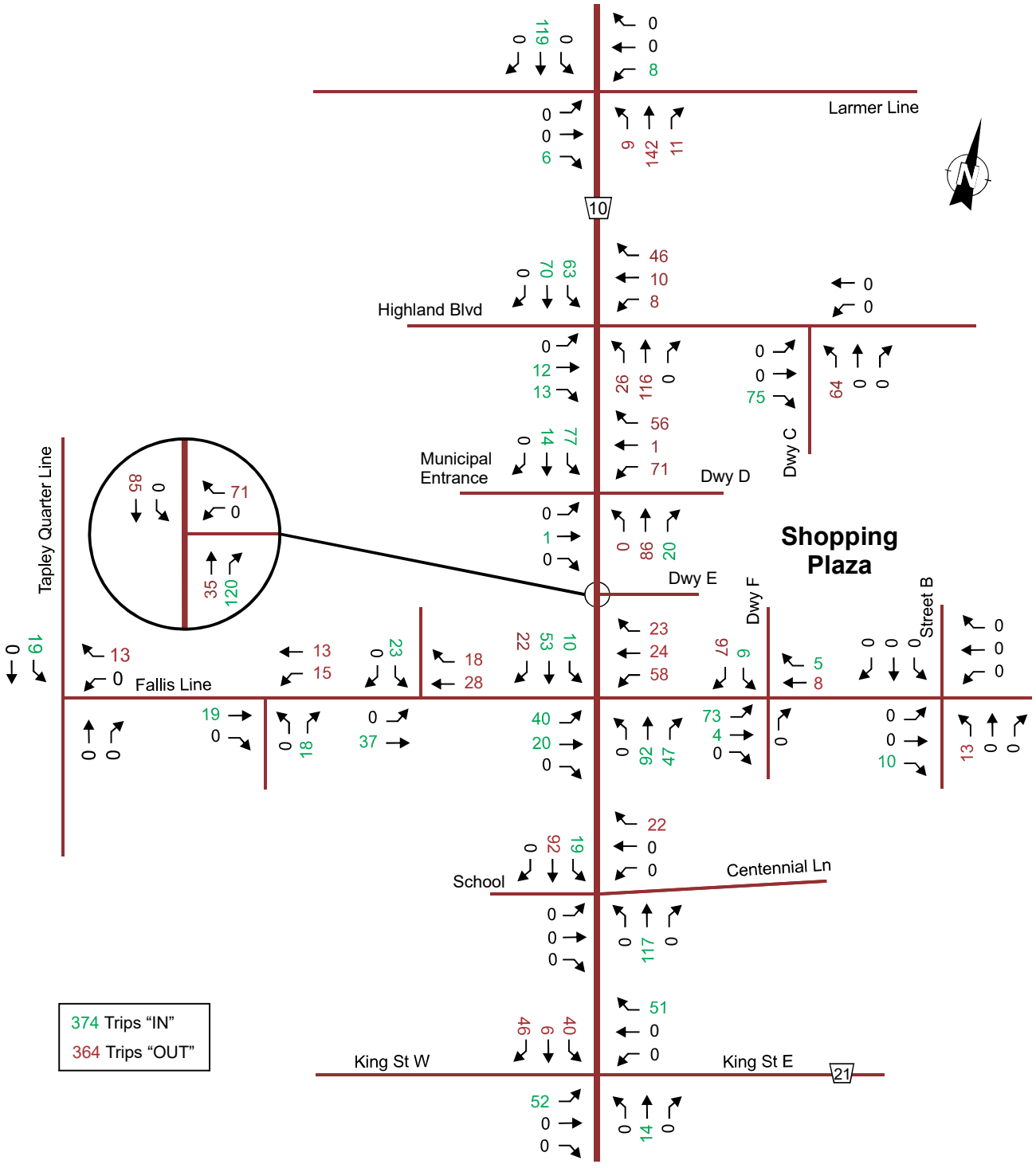
Site Generated Trips, PM Peak Hour, 2035



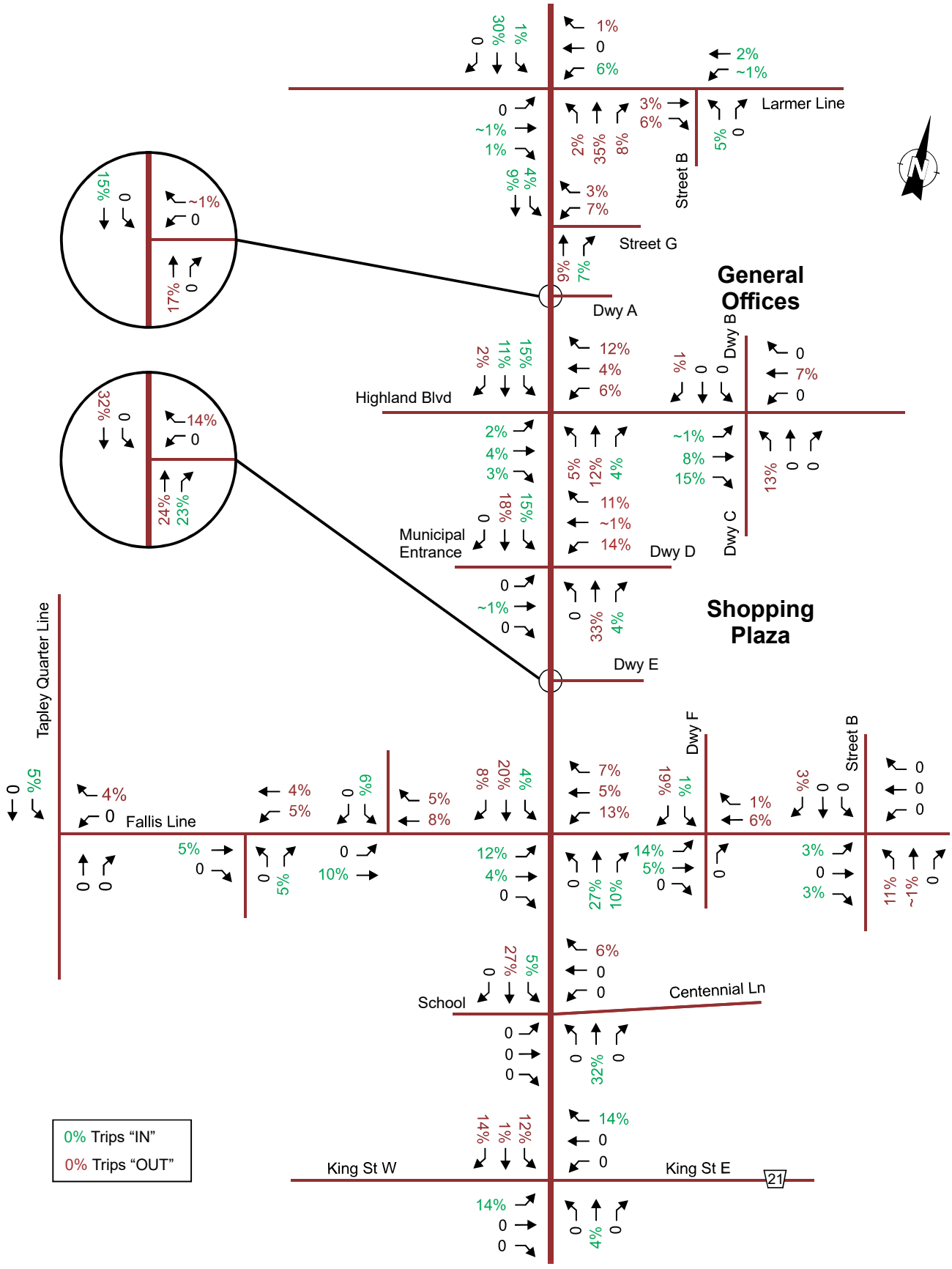
Site Generated Trip Distribution, SAT Peak Hour, 2027



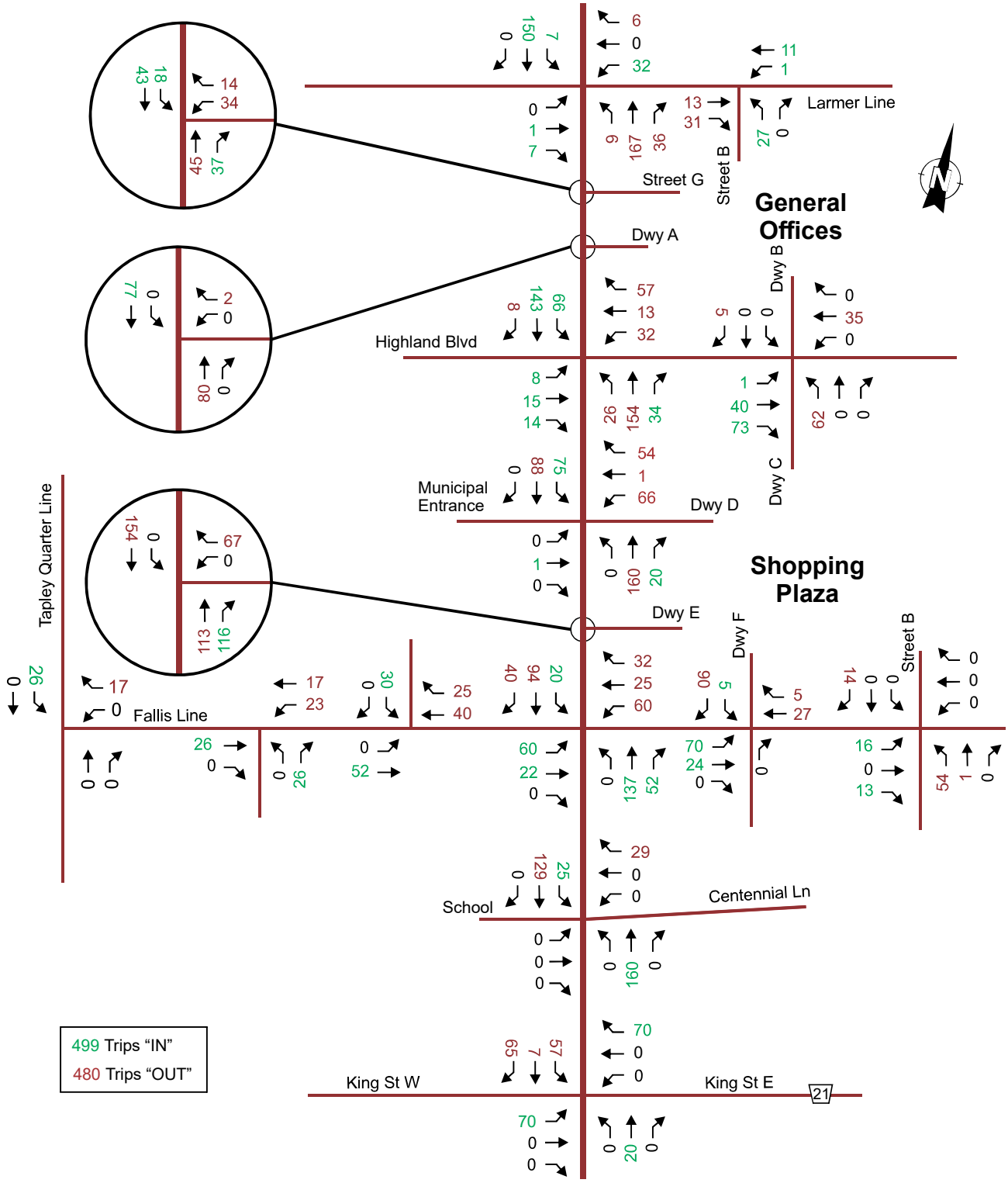
Site Generated Trips, SAT Peak Hour, 2027



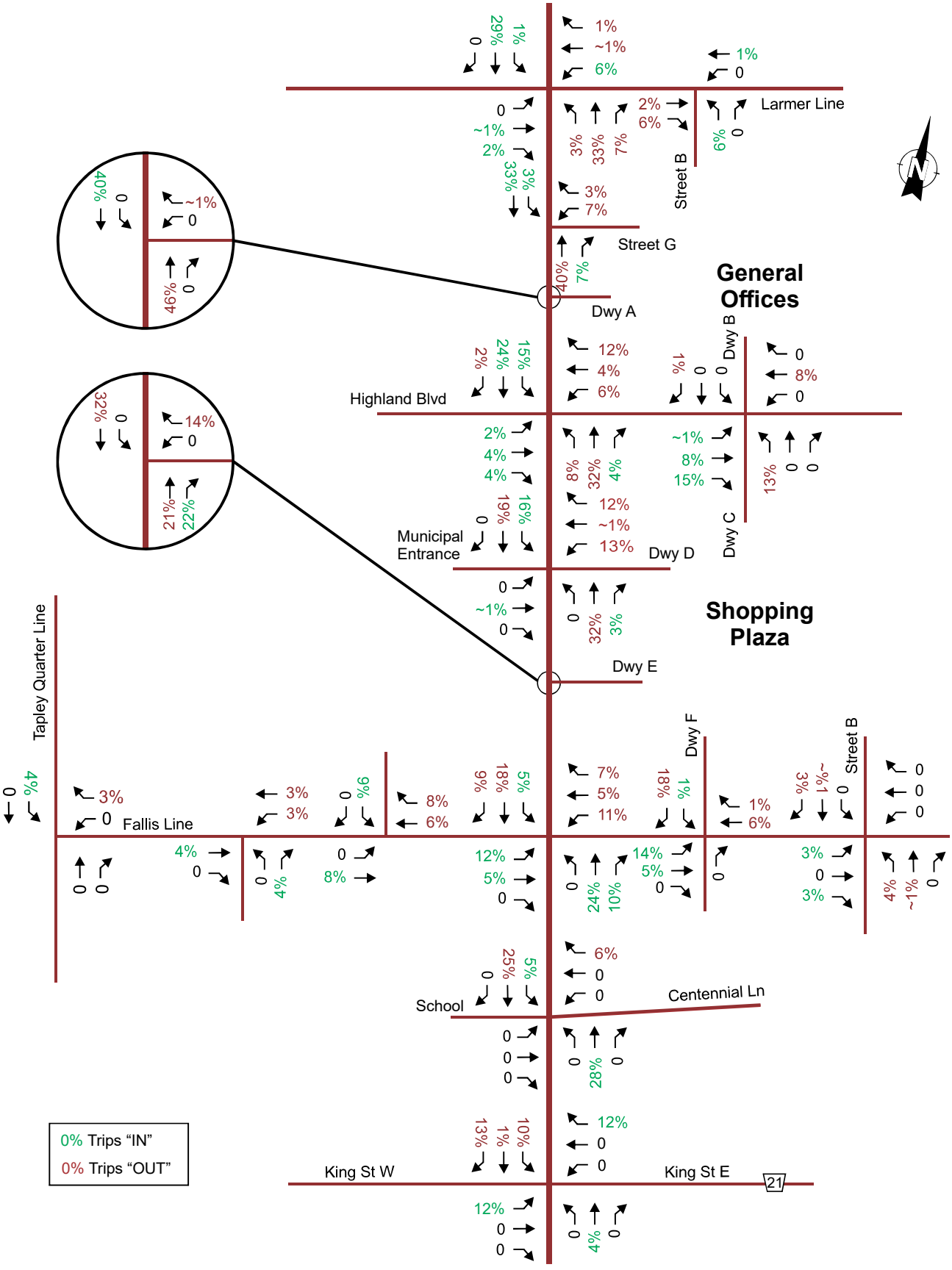
Site Generated Trip Distribution, SAT Peak Hour, 2030



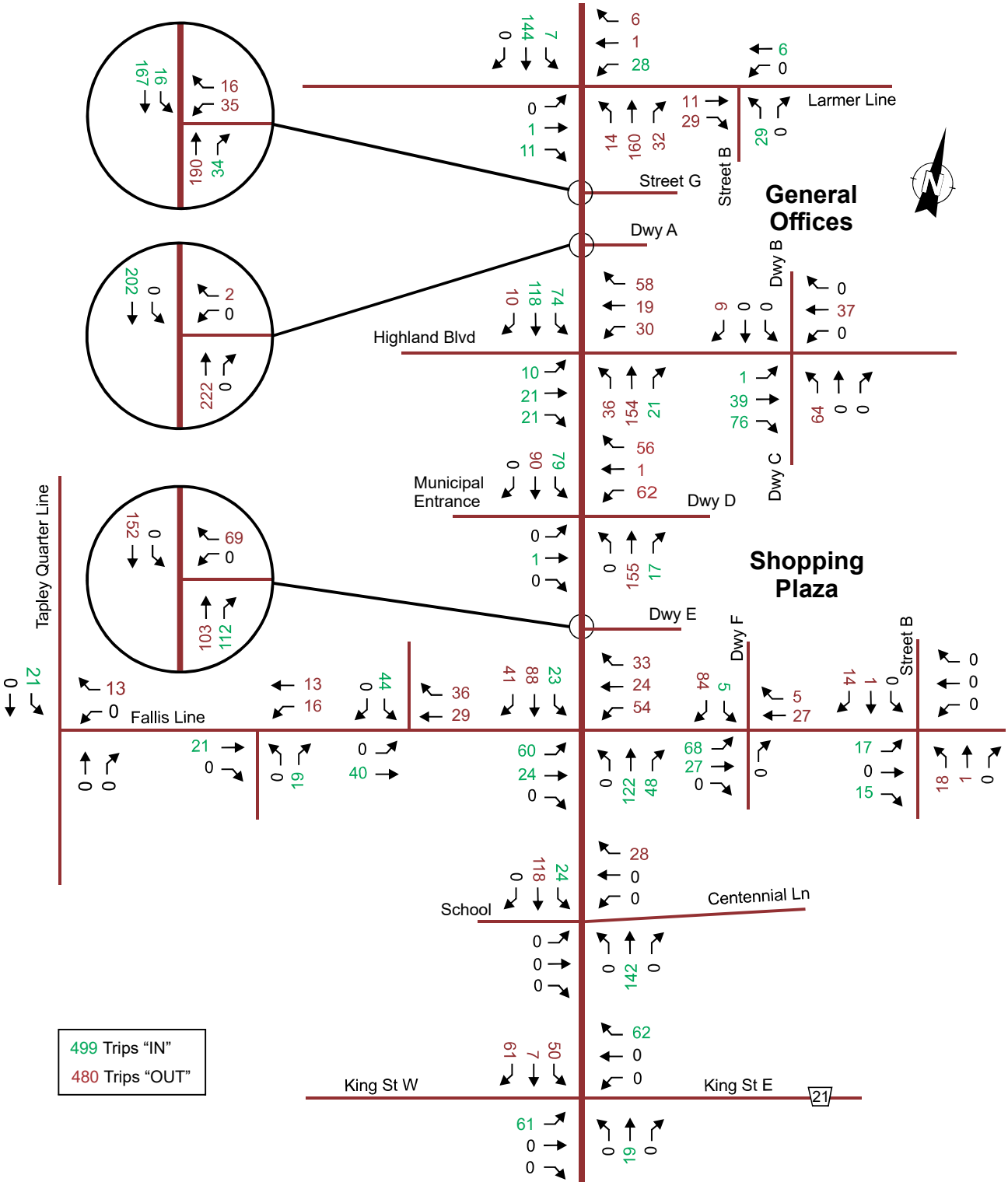
Site Generated Trips, SAT Peak Hour, 2030



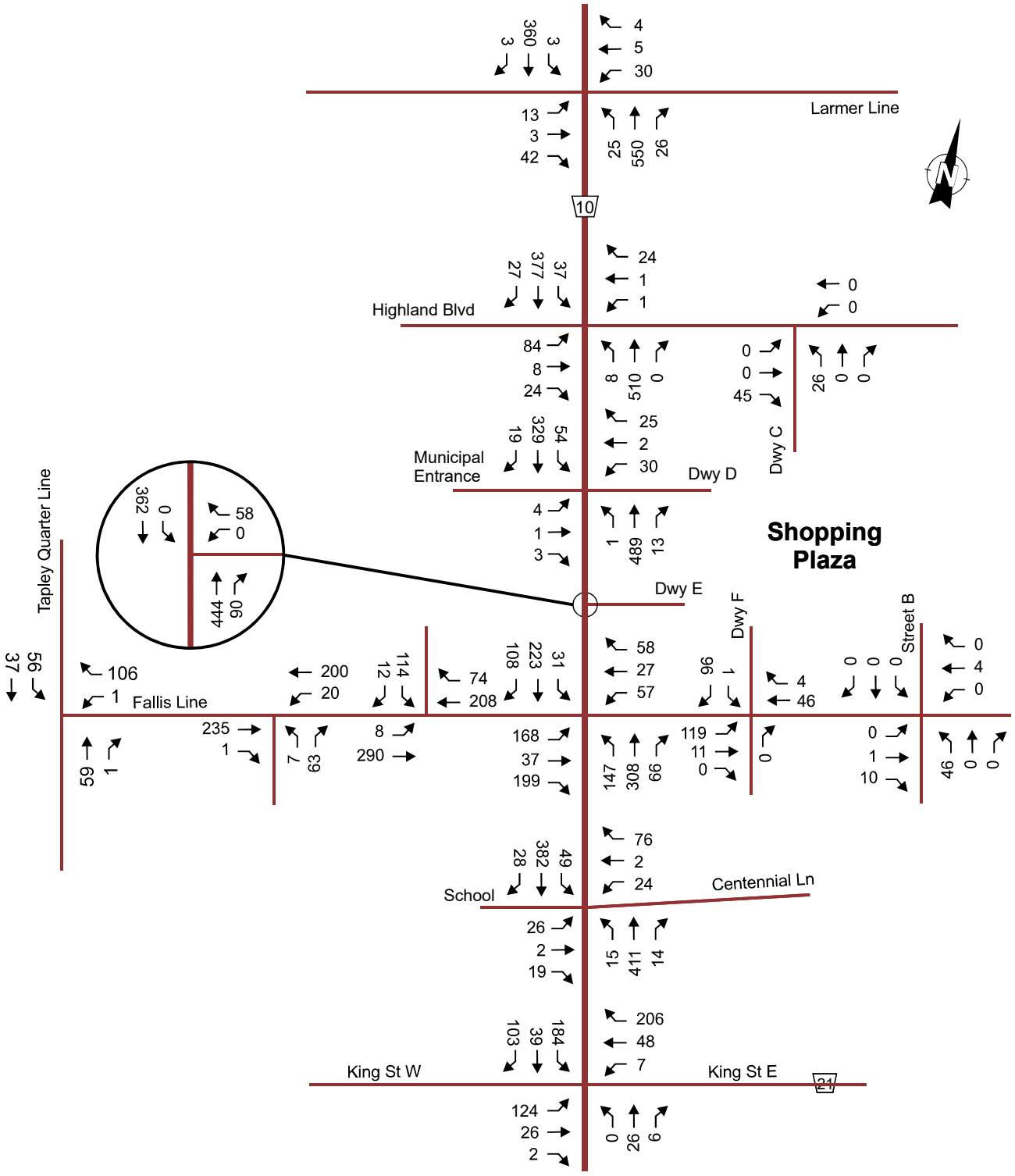
Site Generated Trip Distribution, SAT Peak Hour, 2035



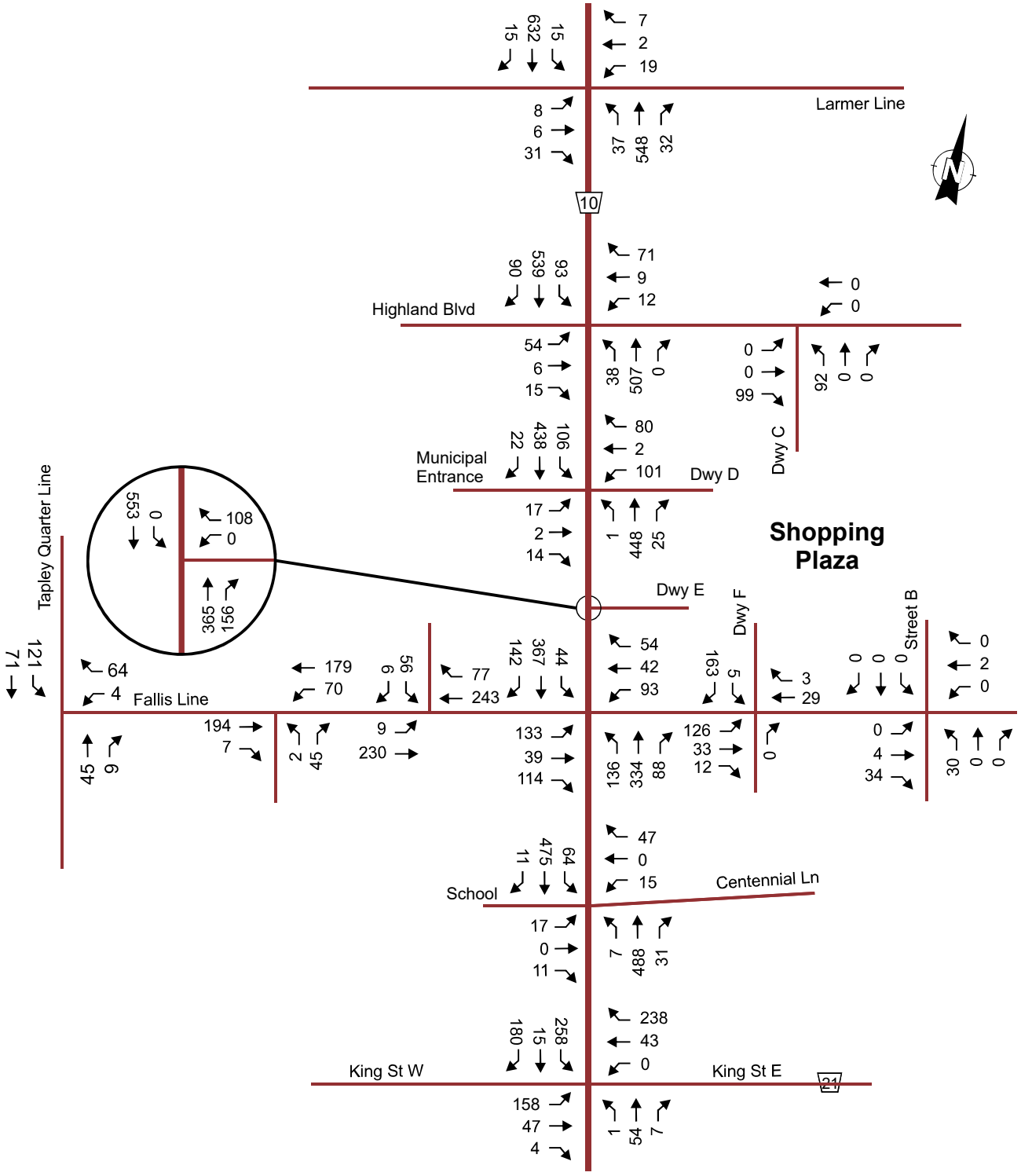
Site Generated Trips, SAT Peak Hour, 2035



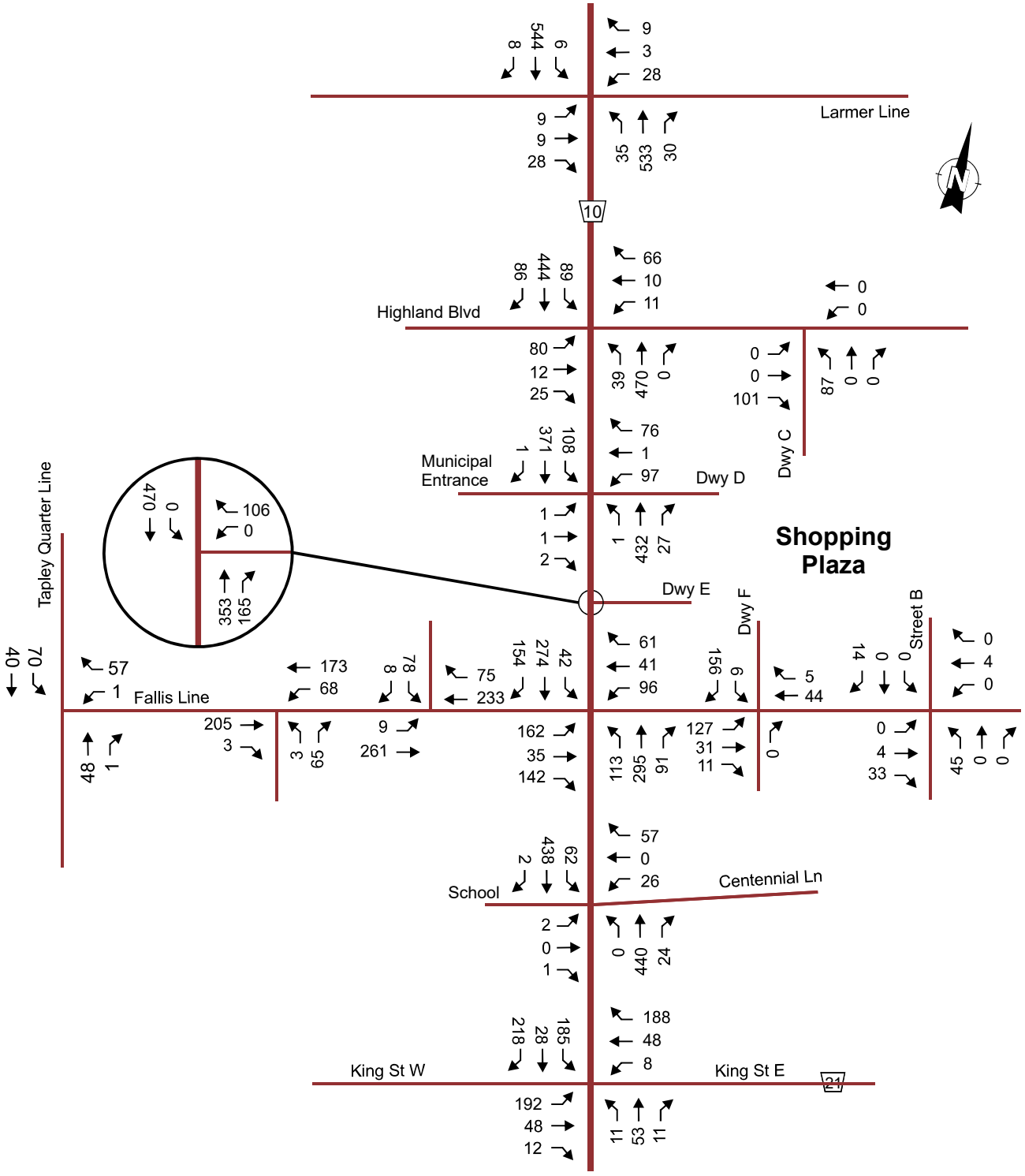
Total Volumes, AM Peak Hour, 2027



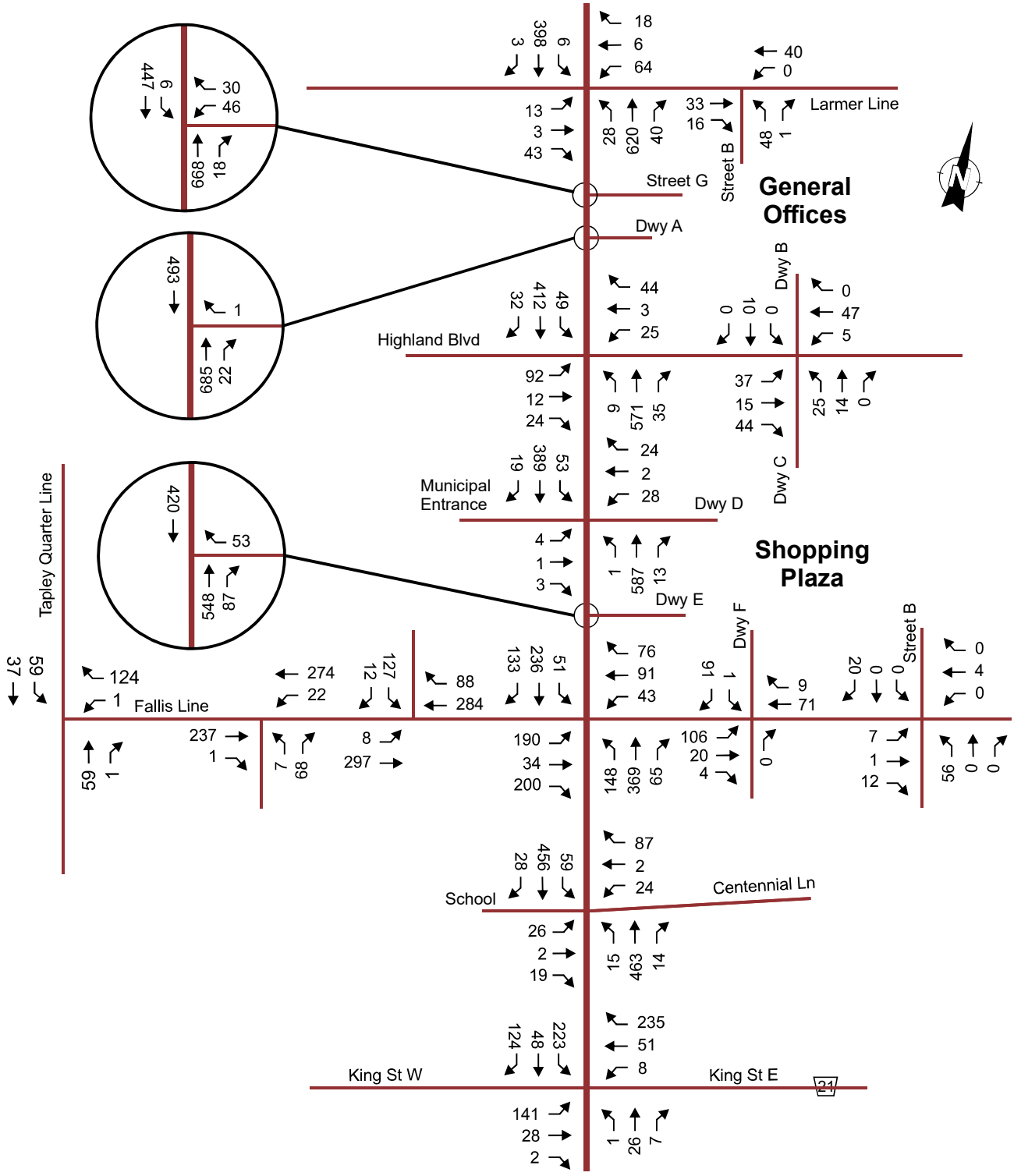
Total Volumes, PM Peak Hour, 2027



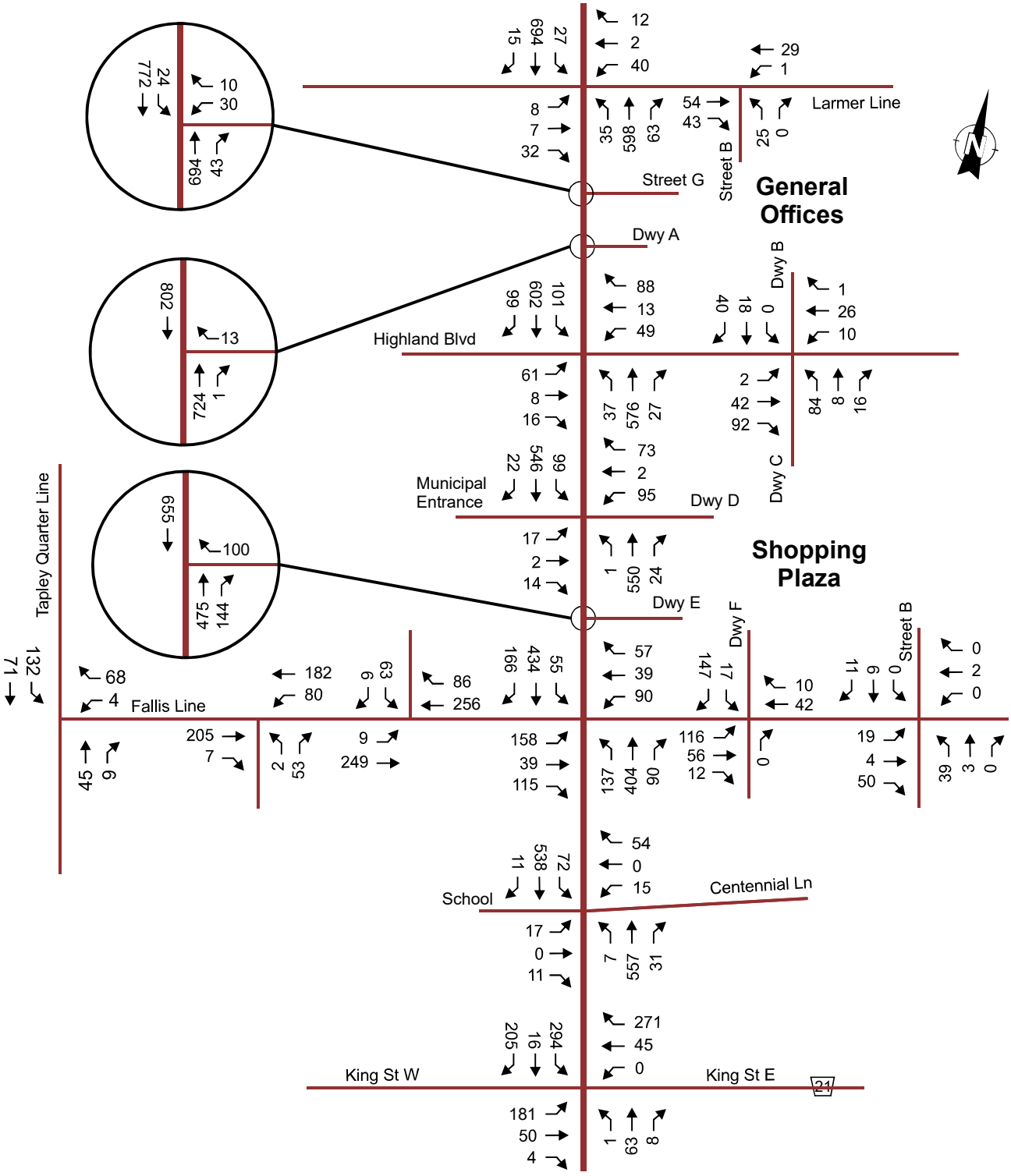
Total Volumes, SAT Peak Hour, 2027



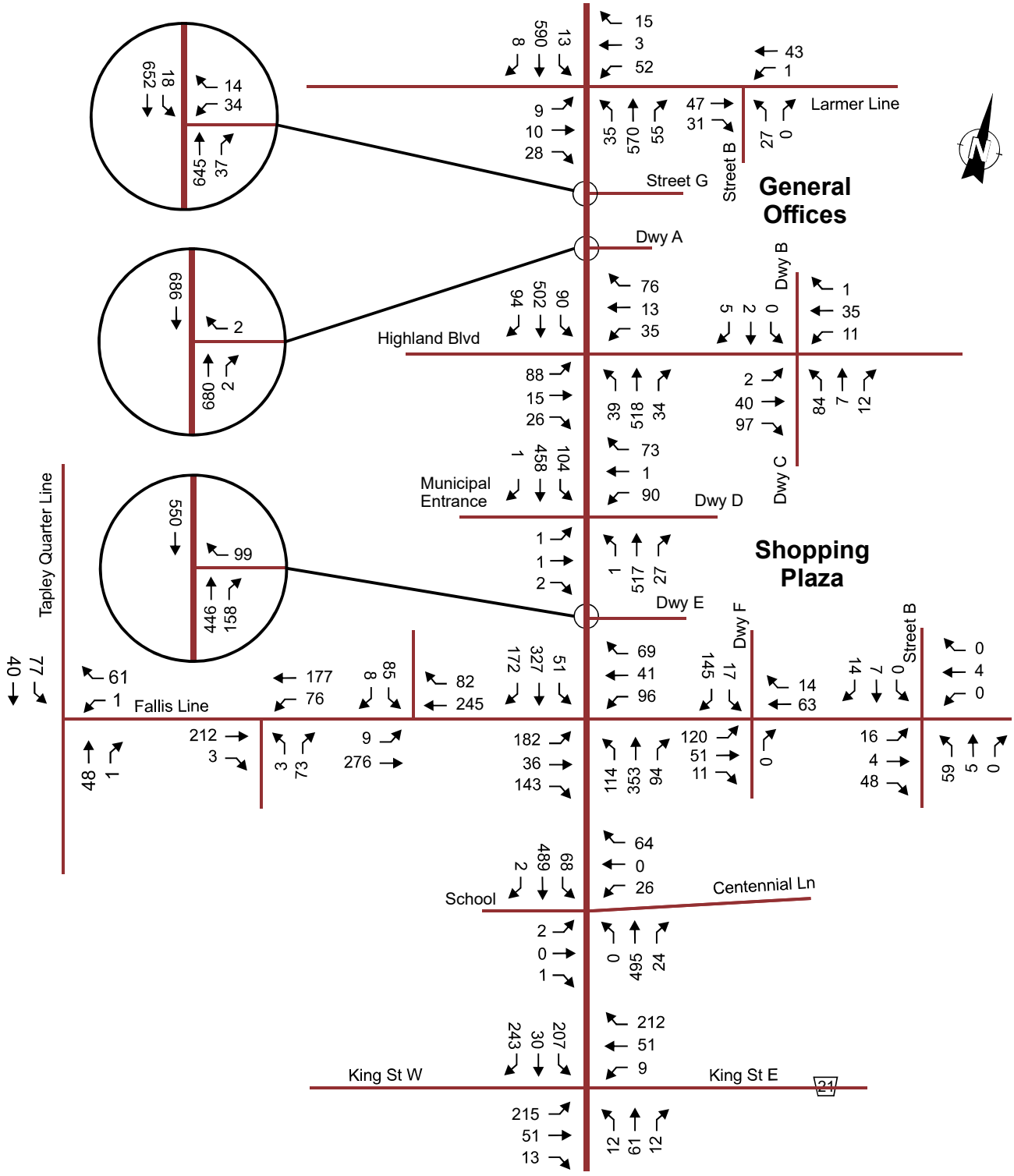
Total Volumes, AM Peak Hour, 2030



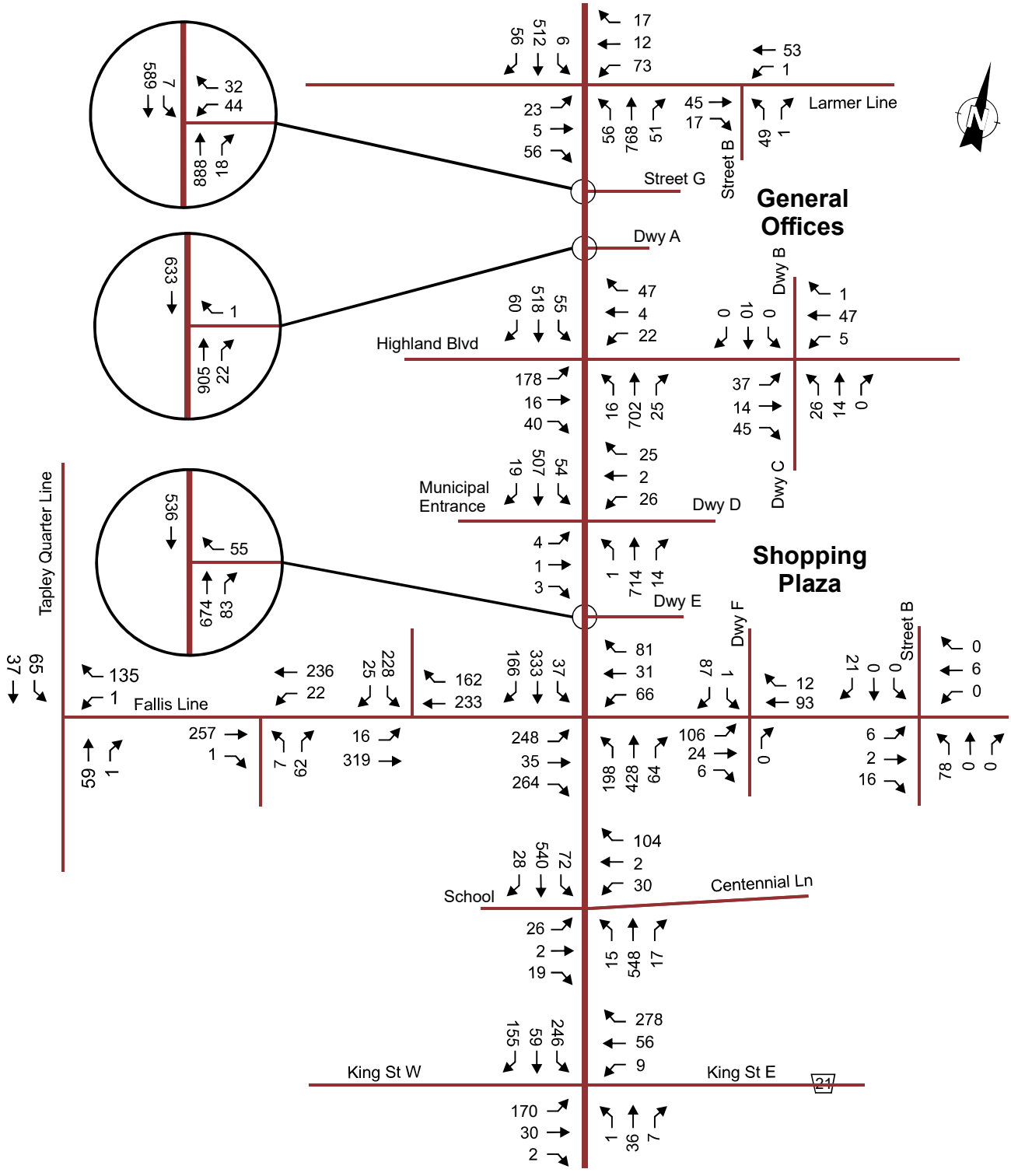
Total Volumes, PM Peak Hour, 2030



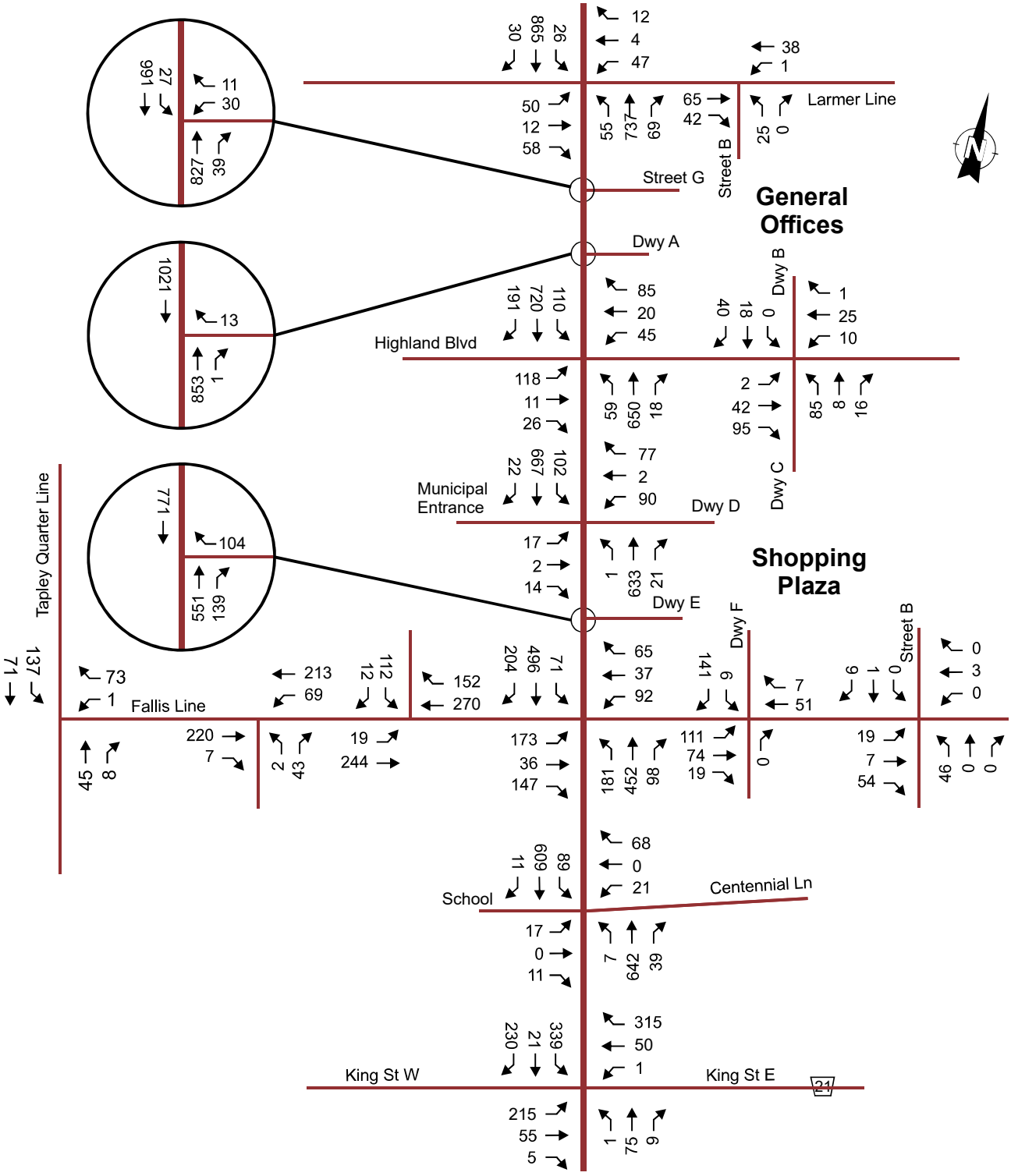
Total Volumes, SAT Peak Hour, 2030



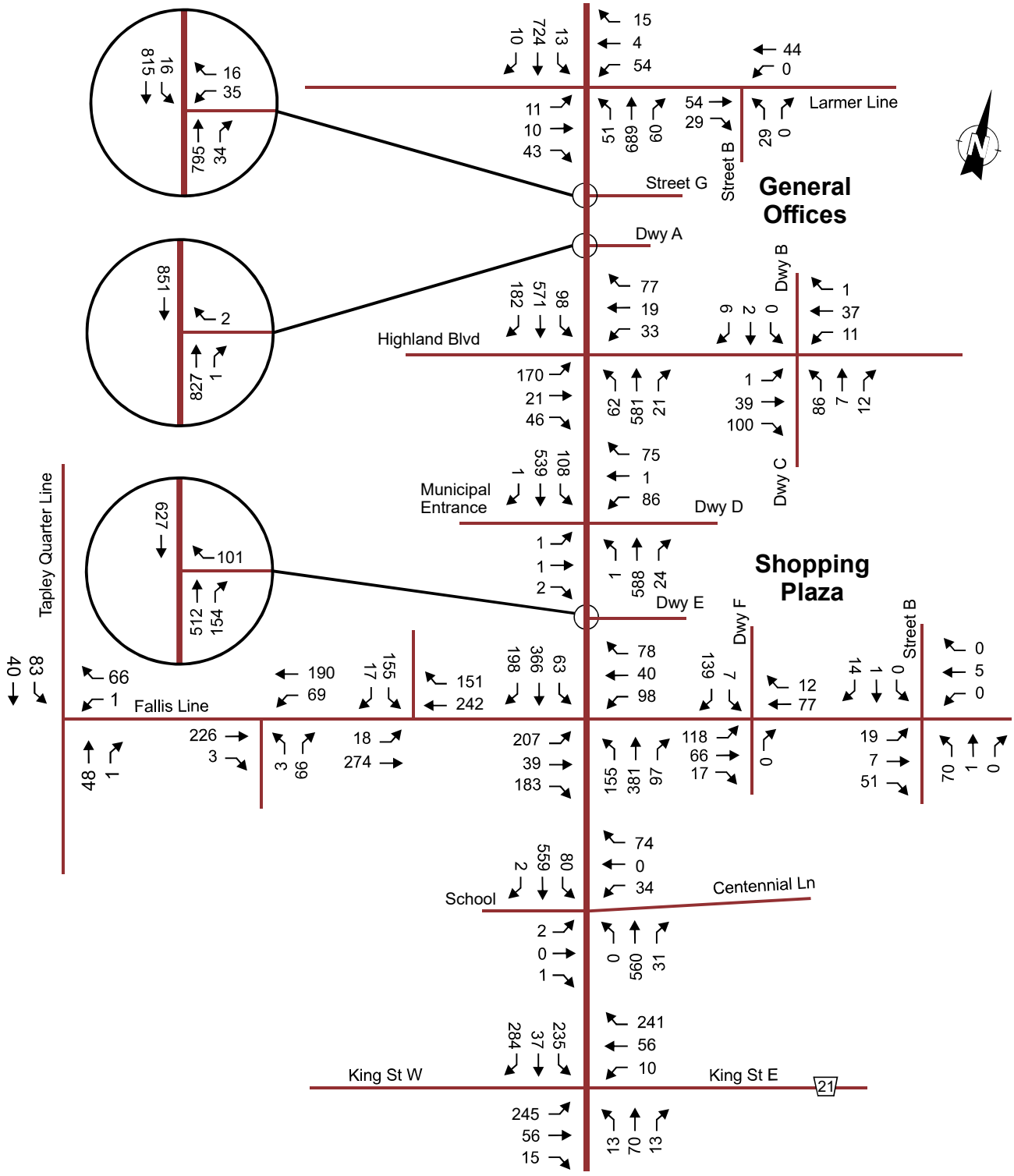
Total Volumes, AM Peak Hour, 2035



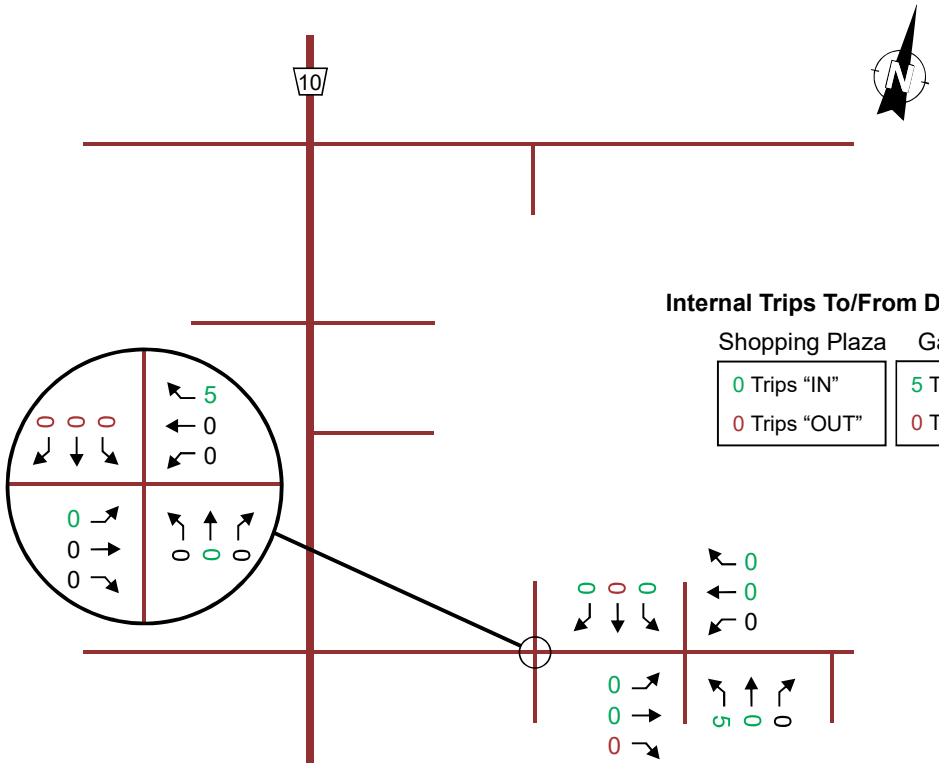
Total Volumes, PM Peak Hour, 2035



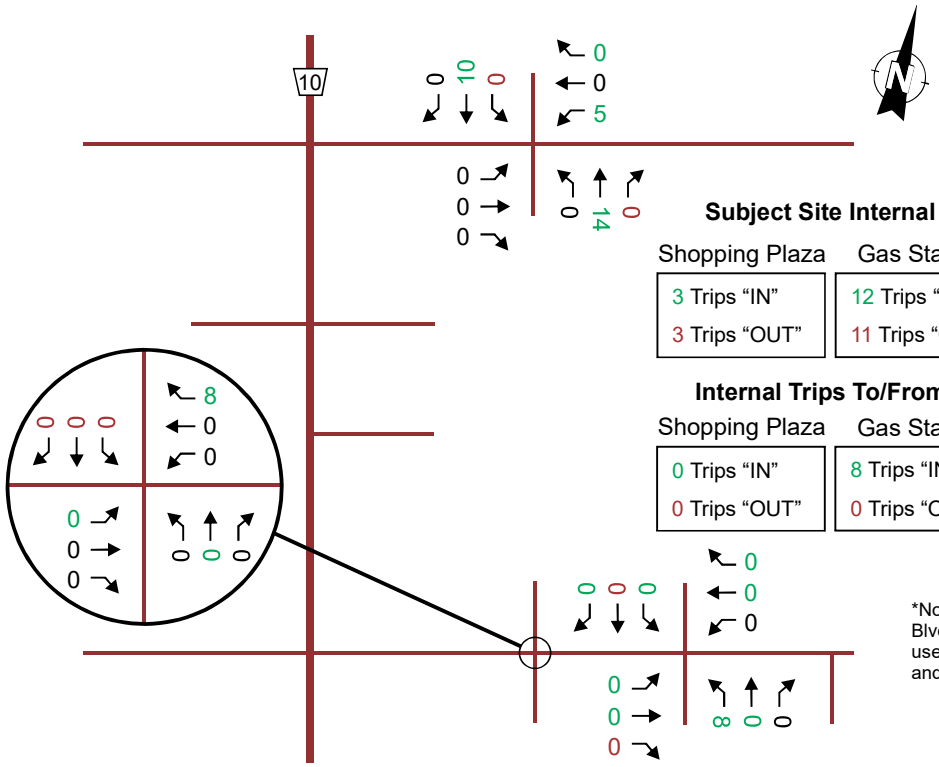
Total Volumes, SAT Peak Hour, 2035



Internal Trip Distribution, AM Peak Hour, 2027
Subject Site Phase 1 + Development "F" 50%


10
5
0
0
0

Internal Trip Distribution, AM Peak Hour, 2035
Subject Site Phase 2 + Vargas Residential 100%



Subject Site Internal Trips Interaction*

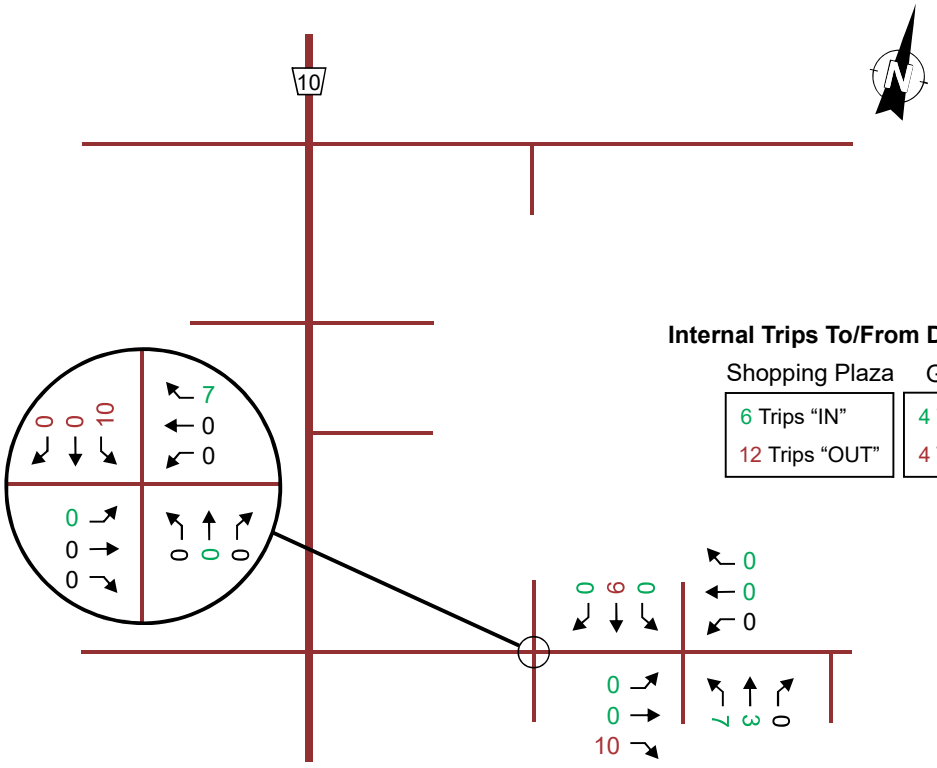
Shopping Plaza	Gas Station	General Offices
3 Trips "IN"	12 Trips "IN"	14 Trips "IN"
3 Trips "OUT"	11 Trips "OUT"	10 Trips "OUT"

Internal Trips To/From Development "F"

Shopping Plaza	Gas Station	General Offices
0 Trips "IN"	8 Trips "IN"	0 Trips "IN"
0 Trips "OUT"	0 Trips "OUT"	0 Trips "OUT"

*Note: Only trips using Highland Blvd are shown, the remainder use internal roadways (Street B and within Shopping Plaza)

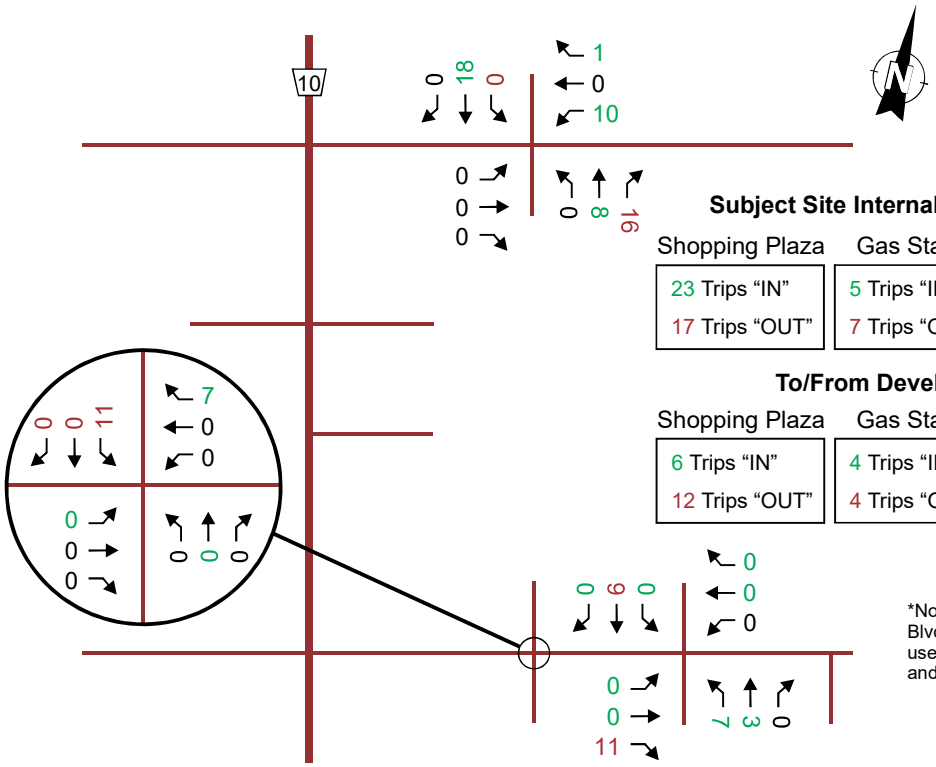
Internal Trip Distribution, PM Peak Hour, 2027
Subject Site Phase 1 + Development "F" 50%



Internal Trips To/From Development "F"

Shopping Plaza	Gas Station
6 Trips "IN"	4 Trips "IN"
12 Trips "OUT"	4 Trips "OUT"

Internal Trip Distribution, PM Peak Hour, 2030
Subject Site Phase 2 + Development "F" 50%



Subject Site Internal Trips Interaction*

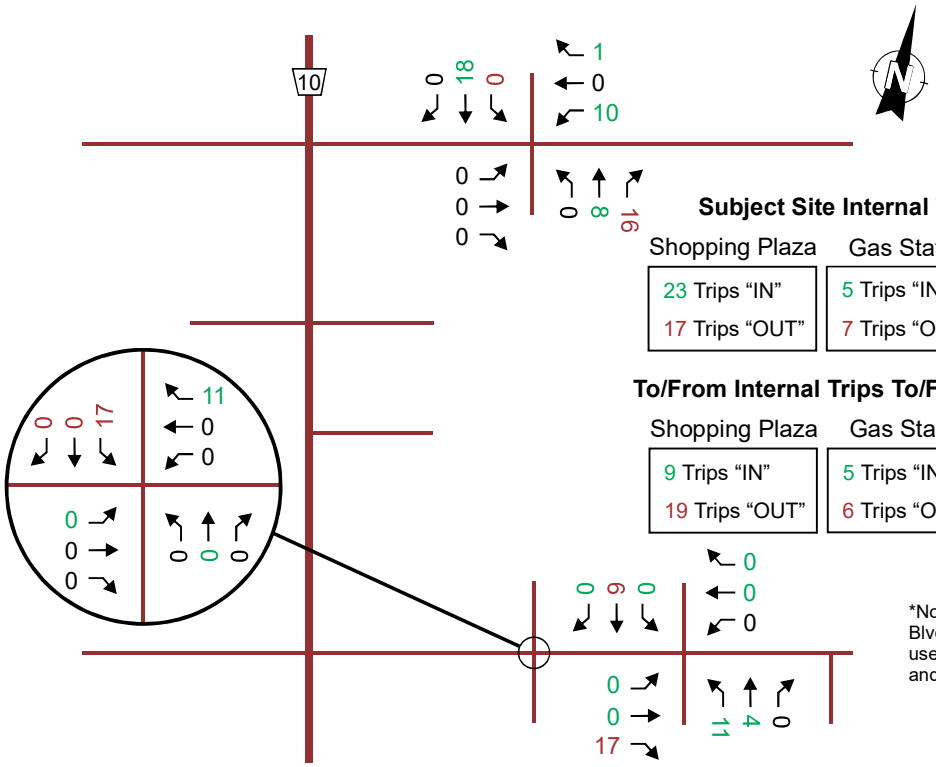
Shopping Plaza	Gas Station	General Offices
23 Trips "IN"	5 Trips "IN"	9 Trips "IN"
17 Trips "OUT"	7 Trips "OUT"	18 Trips "OUT"

To/From Development "F"

Shopping Plaza	Gas Station	General Offices
6 Trips "IN"	4 Trips "IN"	0 Trips "IN"
12 Trips "OUT"	4 Trips "OUT"	1 Trips "OUT"

*Note: Only trips using Highland Blvd are shown, the remainder use internal roadways (Street B and within Shopping Plaza)

Internal Trip Distribution, PM Peak Hour, 2035
Subject Site Phase 2 + Development "F" 100%



Subject Site Internal Trips Interaction*

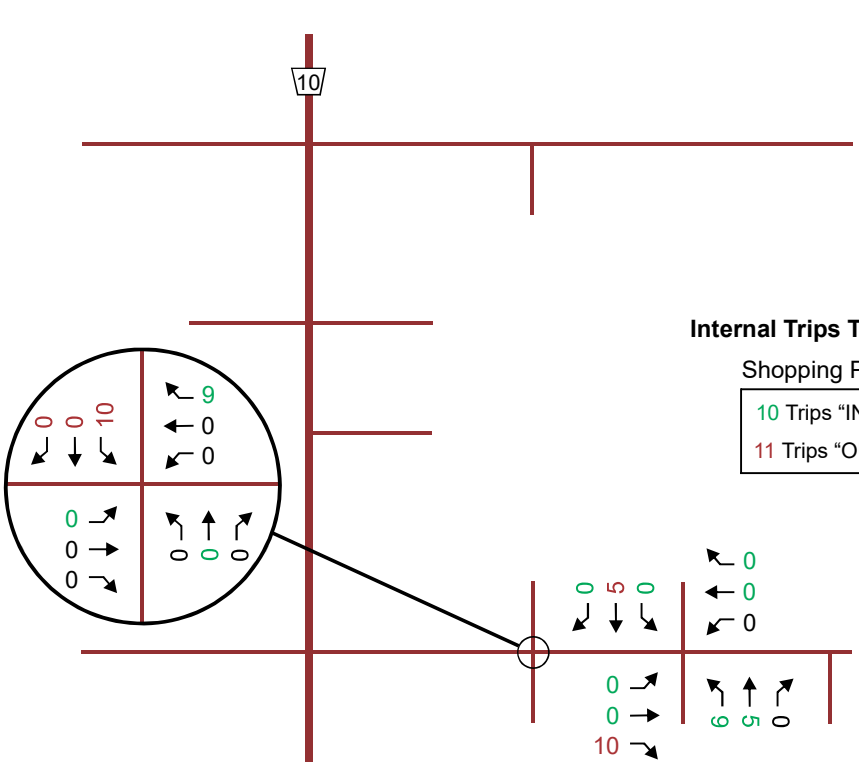
Shopping Plaza	Gas Station	General Offices
23 Trips "IN"	5 Trips "IN"	9 Trips "IN"
17 Trips "OUT"	7 Trips "OUT"	18 Trips "OUT"

To/From Internal Trips To/From Development "F"

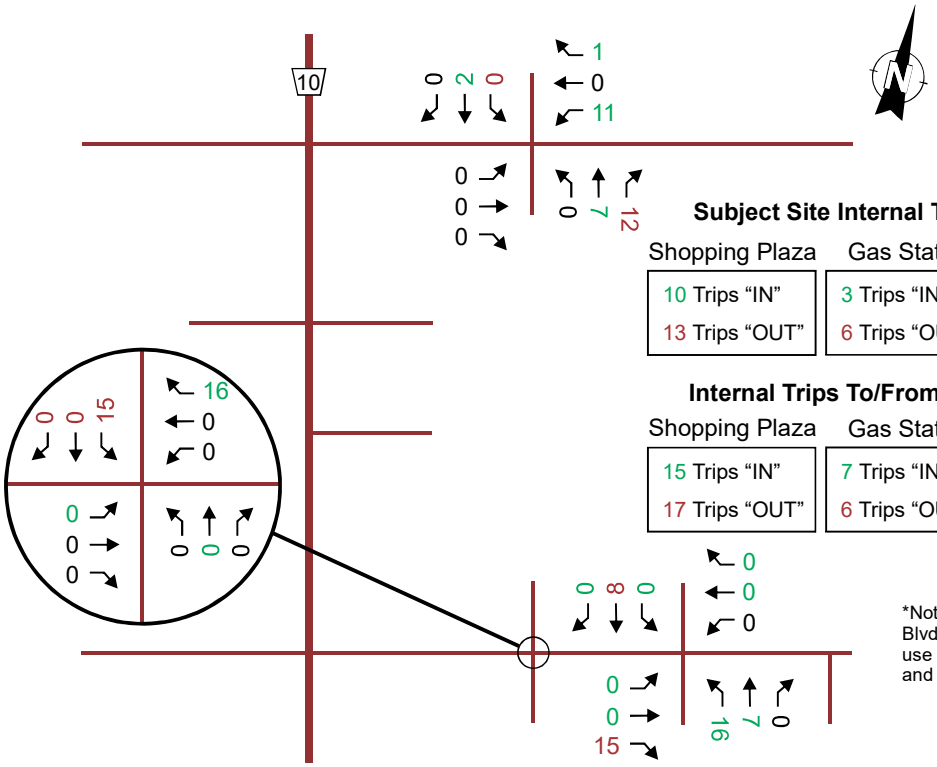
Shopping Plaza	Gas Station	General Offices
9 Trips "IN"	5 Trips "IN"	1 Trips "IN"
19 Trips "OUT"	6 Trips "OUT"	1 Trips "OUT"

*Note: Only trips using Highland Blvd are shown, the remainder use internal roadways (Street B and within Shopping Plaza)

Internal Trip Distribution, SAT Peak Hour, 2027
Subject Site Phase 1 + Development "F" 50%


10
9
0
0
0
0
10
0
0
0
0

Internal Trip Distribution, SAT Peak Hour, 2035
Subject Site Phase 2 + Development "F" 50%



Subject Site Internal Trips Interaction*

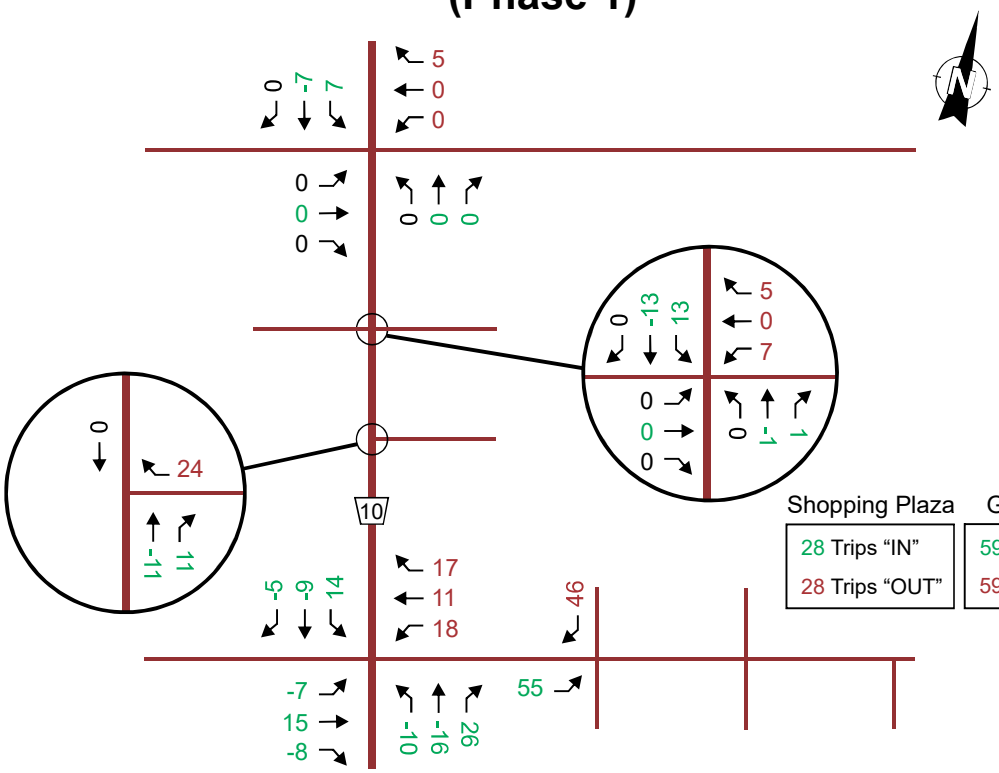
Shopping Plaza	Gas Station	General Offices
10 Trips "IN"	3 Trips "IN"	8 Trips "IN"
13 Trips "OUT"	6 Trips "OUT"	2 Trips "OUT"

Internal Trips To/From Development "F"

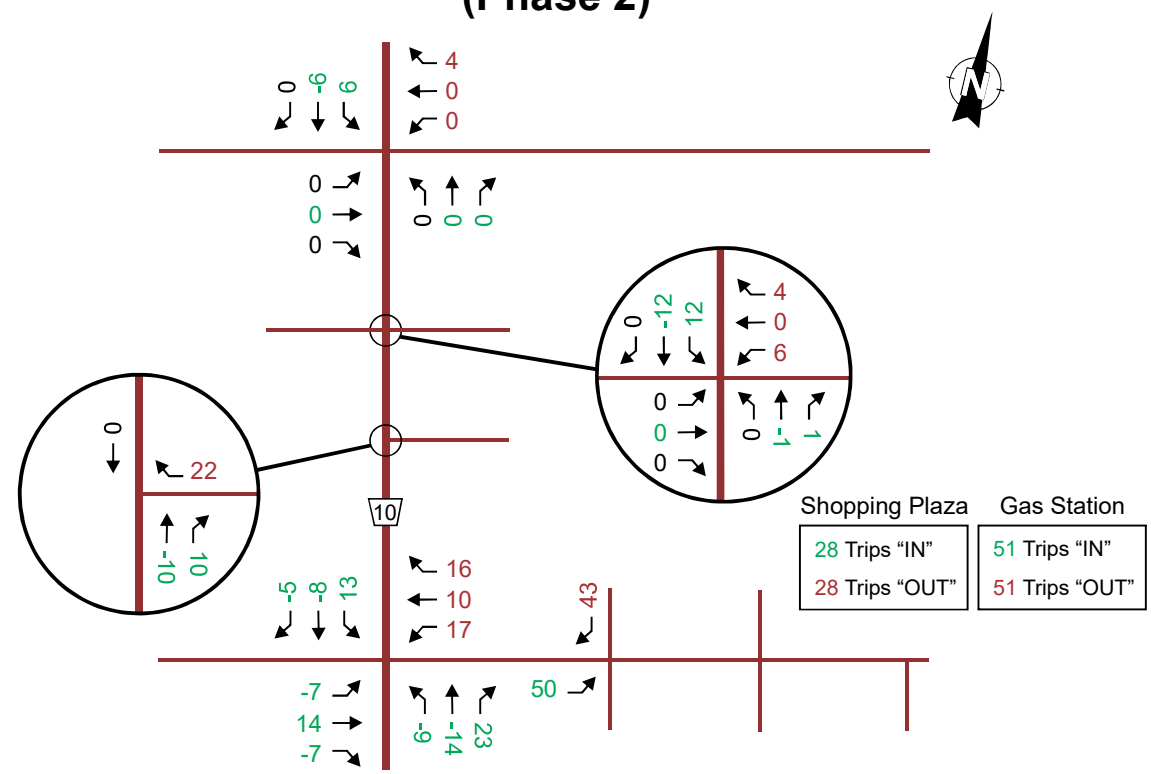
Shopping Plaza	Gas Station	General Offices
15 Trips "IN"	7 Trips "IN"	1 Trips "IN"
17 Trips "OUT"	6 Trips "OUT"	0 Trips "OUT"

*Note: Only trips using Highland Blvd are shown, the remainder use internal roadways (Street B and within Shopping Plaza)

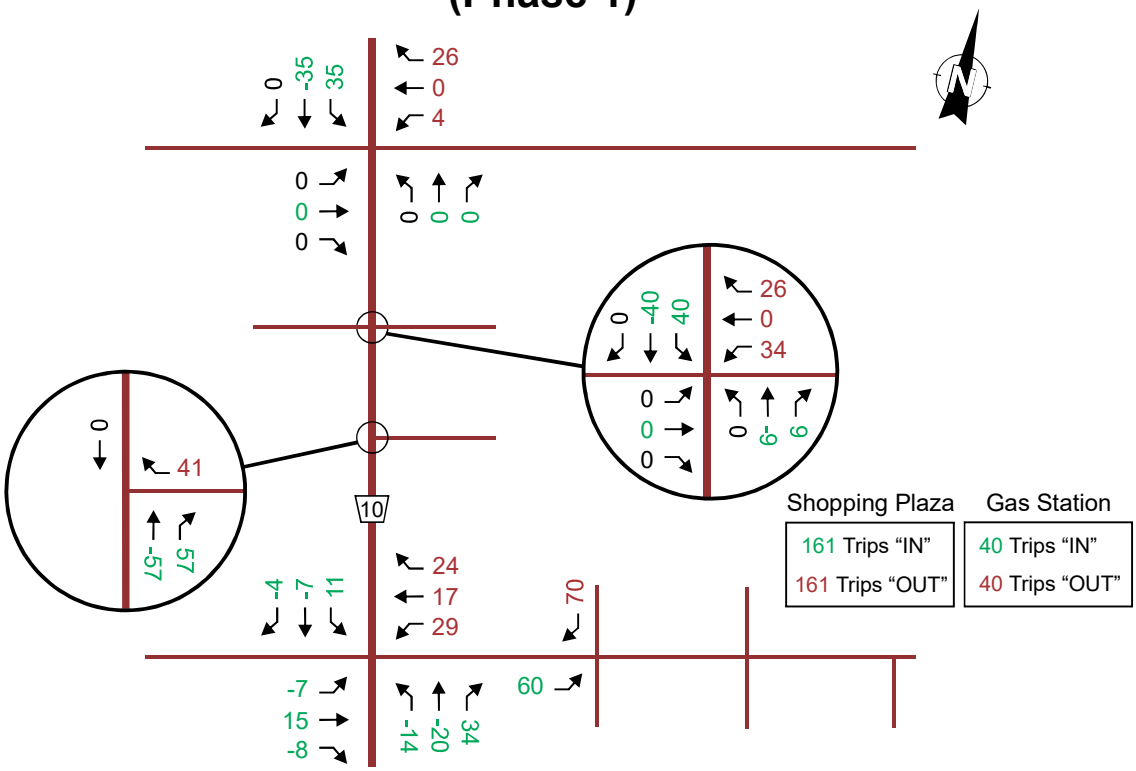
Pass-by Trip Distribution, AM Peak Hour, 2027 (Phase 1)



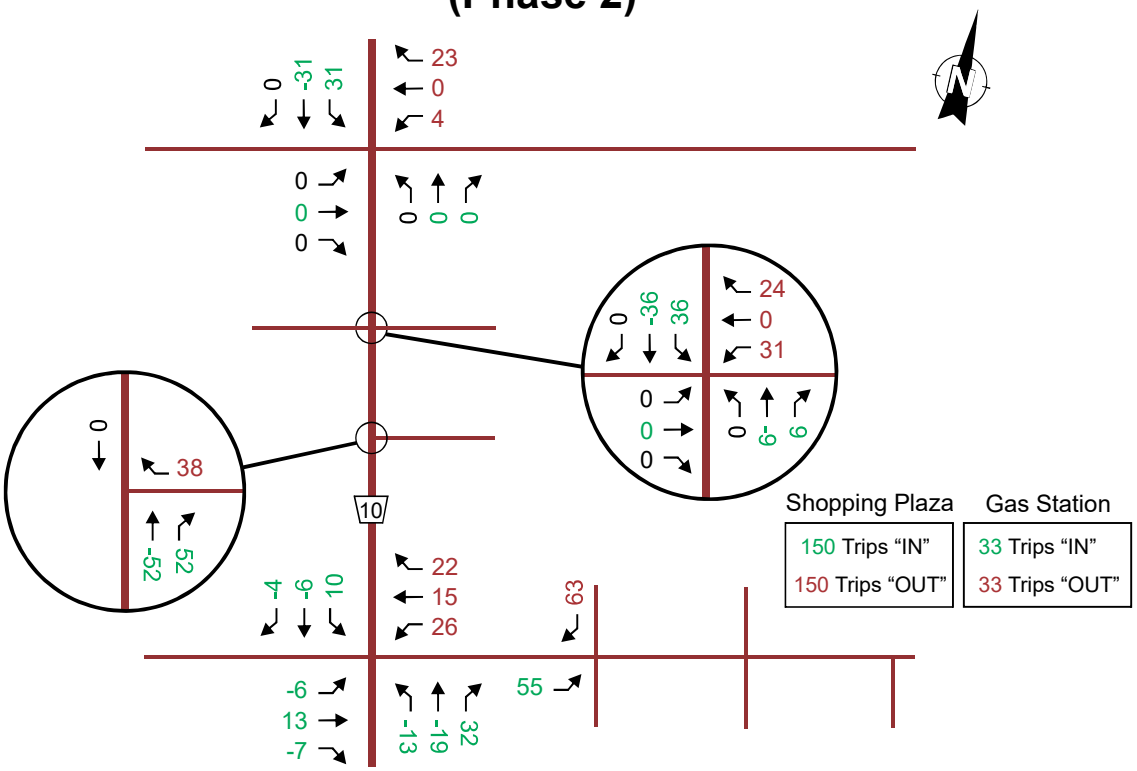
Pass-by Trip Distribution, AM Peak Hour, 2030 (Phase 2)



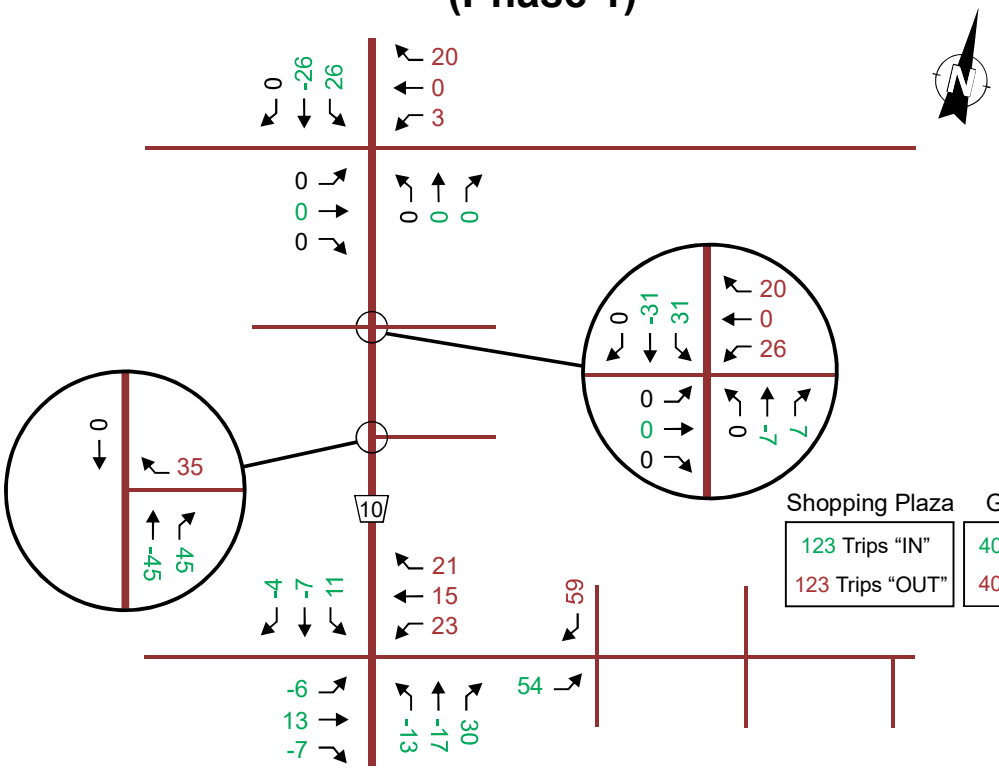
Pass-by Trip Distribution, PM Peak Hour, 2027 (Phase 1)



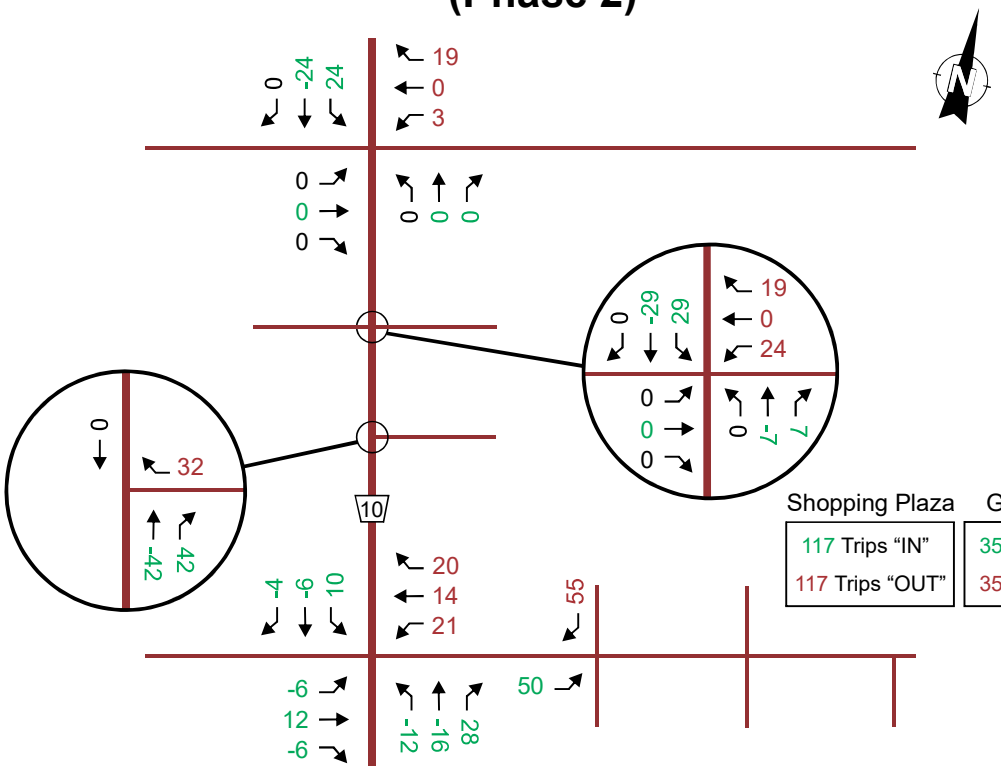
Pass-by Trip Distribution, PM Peak Hour, 2030 (Phase 2)



Pass-by Trip Distribution, SAT Peak Hour, 2027 (Phase 1)



Pass-by Trip Distribution, SAT Peak Hour, 2030 (Phase 2)



Appendix J

Synchro Reports,

Total Volumes, 2027

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	168	37	199	57	27	58	147	308	66	31	223	108
Future Volume (vph)	168	37	199	57	27	58	147	308	66	31	223	108
Satd. Flow (prot)	1722	1638	0	1825	1725	0	1807	1865	1633	1825	1902	1306
Flt Permitted	0.686			0.353			0.484			0.524		
Satd. Flow (perm)	1243	1638	0	678	1725	0	921	1865	1633	1007	1902	1306
Satd. Flow (RTOR)		258			75				86			140
Peak Hour Factor	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77
Heavy Vehicles (%)	6%	0%	3%	0%	0%	0%	1%	3%	0%	0%	1%	25%
Adj. Flow (vph)	218	48	258	74	35	75	191	400	86	40	290	140
Shared Lane Traffic (%)												
Lane Group Flow (vph)	218	306	0	74	110	0	191	400	86	40	290	140
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		3.7			3.7			3.7			3.7	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		1.6			1.6			1.6			1.6	
Two way Left Turn Lane												
Headway Factor	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99
Turning Speed (k/h)	24		14	24		14	24		14	24		14
Turn Type	Perm	NA		Perm	NA		pm+pt	NA	Perm	pm+pt	NA	Perm
Protected Phases		4			8		5	2		1	6	
Permitted Phases	4			8			2		2	6		6
Detector Phase	4	4		8	8		5	2	2	1	6	6
Switch Phase												
Minimum Initial (s)	7.0	7.0		7.0	7.0		7.0	10.0	10.0	7.0	10.0	10.0
Minimum Split (s)	20.0	20.0		20.0	20.0		11.0	20.0	20.0	11.0	20.0	20.0
Total Split (s)	36.0	36.0		36.0	36.0		15.0	39.0	39.0	15.0	39.0	39.0
Total Split (%)	40.0%	40.0%		40.0%	40.0%		16.7%	43.3%	43.3%	16.7%	43.3%	43.3%
Yellow Time (s)	3.7	3.7		3.7	3.7		3.5	3.7	3.7	3.5	3.7	3.7
All-Red Time (s)	1.0	1.0		1.0	1.0		0.0	1.0	1.0	0.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.7	4.7		4.7	4.7		3.5	4.7	4.7	3.5	4.7	4.7
Lead/Lag							Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?							Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None		None	None		None	Max	Max	None	Max	Max
Act Effct Green (s)	19.0	19.0		19.0	19.0		48.6	41.7	41.7	43.1	34.7	34.7
Actuated g/C Ratio	0.25	0.25		0.25	0.25		0.64	0.55	0.55	0.57	0.46	0.46
v/c Ratio	0.70	0.51		0.44	0.23		0.27	0.39	0.09	0.06	0.33	0.21
Control Delay	38.6	8.2		32.3	10.1		7.9	14.5	3.9	7.5	16.7	4.1
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	38.6	8.2		32.3	10.1		7.9	14.5	3.9	7.5	16.7	4.1
LOS	D	A		C	B		A	B	A	A	B	A
Approach Delay		20.9			19.0			11.3			12.2	
Approach LOS		C			B			B			B	
Queue Length 50th (m)	28.1	5.3		8.8	3.8		9.7	35.6	0.0	1.9	25.4	0.0
Queue Length 95th (m)	41.3	14.3		17.2	11.1		20.8	59.2	5.4	5.9	45.7	6.8
Internal Link Dist (m)		1217.2			89.4			840.6			175.9	
Turn Bay Length (m)	70.0			45.0			150.0		100.0	110.0		110.0

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Base Capacity (vph)	517	832		282	761		726	1020	932	751	867	671
Starvation Cap Reductn	0	0		0	0		0	0	0	0	0	0
Spillback Cap Reductn	0	0		0	0		0	0	0	0	0	0
Storage Cap Reductn	0	0		0	0		0	0	0	0	0	0
Reduced v/c Ratio	0.42	0.37		0.26	0.14		0.26	0.39	0.09	0.05	0.33	0.21

Intersection Summary	
Cycle Length: 90	
Actuated Cycle Length: 76.2	
Natural Cycle: 55	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.70	
Intersection Signal Delay: 15.0	Intersection LOS: B
Intersection Capacity Utilization 57.2%	ICU Level of Service B
Analysis Period (min) 15	

Splits and Phases: 6: CR10 & Fallis Line

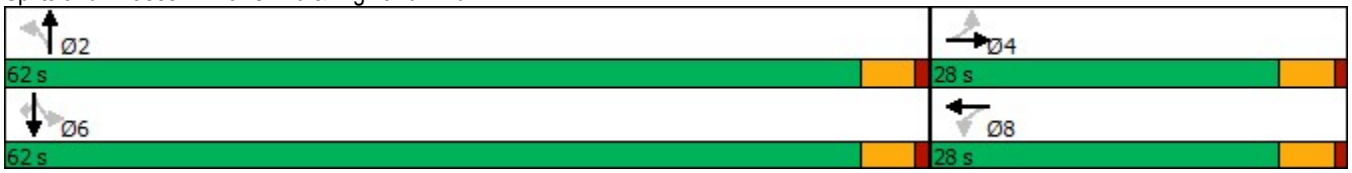


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	84	8	24	1	1	24	8	510	0	37	377	27
Future Volume (vph)	84	8	24	1	1	24	8	510	0	37	377	27
Satd. Flow (prot)	1789	1674	0	1789	1612	0	1789	1883	0	1789	1883	1601
Flt Permitted	0.740			0.734			0.521			0.406		
Satd. Flow (perm)	1394	1674	0	1382	1612	0	981	1883	0	765	1883	1601
Satd. Flow (RTOR)		26			26							29
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	91	9	26	1	1	26	9	554	0	40	410	29
Shared Lane Traffic (%)												
Lane Group Flow (vph)	91	35	0	1	27	0	9	554	0	40	410	29
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		3.7			3.7			3.7			3.7	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		1.6			1.6			1.6			1.6	
Two way Left Turn Lane												
Headway Factor	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99
Turning Speed (k/h)	24		14	24		14	24		14	24		14
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	Perm
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		6
Detector Phase	4	4		8	8		2	2		6	6	6
Switch Phase												
Minimum Initial (s)	7.0	7.0		7.0	7.0		10.0	10.0		10.0	10.0	10.0
Minimum Split (s)	20.7	20.7		20.7	20.7		20.7	20.7		20.7	20.7	20.7
Total Split (s)	28.0	28.0		28.0	28.0		62.0	62.0		62.0	62.0	62.0
Total Split (%)	31.1%	31.1%		31.1%	31.1%		68.9%	68.9%		68.9%	68.9%	68.9%
Yellow Time (s)	3.7	3.7		3.7	3.7		3.7	3.7		3.7	3.7	3.7
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	0.0
Total Lost Time (s)	4.7	4.7		4.7	4.7		4.7	4.7		4.7	4.7	4.7
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	None	None		None	None		Min	Min		Min	Min	Min
Act Effct Green (s)	8.5	8.5		8.5	8.5		23.3	23.3		23.3	23.3	23.3
Actuated g/C Ratio	0.23	0.23		0.23	0.23		0.62	0.62		0.62	0.62	0.62
v/c Ratio	0.29	0.09		0.00	0.07		0.01	0.47		0.08	0.35	0.03
Control Delay	15.2	7.6		12.0	6.8		4.9	7.6		5.5	6.4	2.4
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	0.0
Total Delay	15.2	7.6		12.0	6.8		4.9	7.6		5.5	6.4	2.4
LOS	B	A		B	A		A	A		A	A	A
Approach Delay		13.1			6.9			7.5			6.1	
Approach LOS		B			A			A			A	
Queue Length 50th (m)	3.9	0.4		0.1	0.1		0.2	18.4		1.0	12.3	0.0
Queue Length 95th (m)	14.2	5.2		0.8	4.1		1.5	43.8		4.4	29.8	2.2
Internal Link Dist (m)		107.2			102.5			127.2			974.1	
Turn Bay Length (m)	75.0			75.0			25.0			110.0		120.0
Base Capacity (vph)	893	1082		886	1043		981	1883		765	1883	1601

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Starvation Cap Reductn	0	0		0	0		0	0		0	0	0
Spillback Cap Reductn	0	0		0	0		0	0		0	0	0
Storage Cap Reductn	0	0		0	0		0	0		0	0	0
Reduced v/c Ratio	0.10	0.03		0.00	0.03		0.01	0.29		0.05	0.22	0.02

Intersection Summary	
Cycle Length: 90	
Actuated Cycle Length: 37.3	
Natural Cycle: 45	
Control Type: Semi Act-Uncoord	
Maximum v/c Ratio: 0.47	
Intersection Signal Delay: 7.5	Intersection LOS: A
Intersection Capacity Utilization 49.9%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 26: CR10 & Highland Blvd



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	133	39	114	93	42	54	136	334	88	44	367	142
Future Volume (vph)	133	39	114	93	42	54	136	334	88	44	367	142
Satd. Flow (prot)	1706	1706	0	1825	1760	0	1789	1902	1633	1825	1921	1585
Flt Permitted	0.689			0.598			0.412			0.545		
Satd. Flow (perm)	1237	1706	0	1149	1760	0	776	1902	1633	1047	1921	1585
Satd. Flow (RTOR)		124			59				96			154
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	7%	0%	0%	0%	0%	0%	2%	1%	0%	0%	0%	3%
Adj. Flow (vph)	145	42	124	101	46	59	148	363	96	48	399	154
Shared Lane Traffic (%)												
Lane Group Flow (vph)	145	166	0	101	105	0	148	363	96	48	399	154
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		3.7			3.7			3.7			3.7	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		1.6			1.6			1.6			1.6	
Two way Left Turn Lane												
Headway Factor	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99
Turning Speed (k/h)	24		14	24		14	24		14	24		14
Turn Type	Perm	NA		Perm	NA		pm+pt	NA	Perm	pm+pt	NA	Perm
Protected Phases		4			8		5	2		1	6	
Permitted Phases	4			8			2		2	6		6
Detector Phase	4	4		8	8		5	2	2	1	6	6
Switch Phase												
Minimum Initial (s)	7.0	7.0		7.0	7.0		7.0	10.0	10.0	7.0	10.0	10.0
Minimum Split (s)	20.0	20.0		20.0	20.0		11.0	20.0	20.0	11.0	20.0	20.0
Total Split (s)	36.0	36.0		36.0	36.0		15.0	39.0	39.0	15.0	39.0	39.0
Total Split (%)	40.0%	40.0%		40.0%	40.0%		16.7%	43.3%	43.3%	16.7%	43.3%	43.3%
Yellow Time (s)	3.7	3.7		3.7	3.7		3.5	3.7	3.7	3.5	3.7	3.7
All-Red Time (s)	1.0	1.0		1.0	1.0		0.0	1.0	1.0	0.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.7	4.7		4.7	4.7		3.5	4.7	4.7	3.5	4.7	4.7
Lead/Lag							Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?							Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None		None	None		None	Max	Max	None	Max	Max
Act Effct Green (s)	13.4	13.4		13.4	13.4		46.6	40.2	40.2	42.8	34.5	34.5
Actuated g/C Ratio	0.19	0.19		0.19	0.19		0.67	0.58	0.58	0.62	0.50	0.50
v/c Ratio	0.61	0.39		0.45	0.27		0.23	0.33	0.10	0.07	0.42	0.18
Control Delay	36.7	10.8		31.5	13.9		5.4	10.8	2.9	4.9	13.9	3.0
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	36.7	10.8		31.5	13.9		5.4	10.8	2.9	4.9	13.9	3.0
LOS	D	B		C	B		A	B	A	A	B	A
Approach Delay		22.9			22.5			8.2			10.4	
Approach LOS		C			C			A			B	
Queue Length 50th (m)	16.9	4.4		11.4	4.9		5.3	25.7	0.0	1.6	29.4	0.0
Queue Length 95th (m)	34.5	18.7		25.3	16.4		14.3	51.9	6.9	5.8	63.6	9.4
Internal Link Dist (m)		1217.2			89.4			840.6			175.9	
Turn Bay Length (m)	70.0			45.0			150.0		100.0	110.0		110.0

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Base Capacity (vph)	564	845		523	834		702	1107	991	840	959	868
Starvation Cap Reductn	0	0		0	0		0	0	0	0	0	0
Spillback Cap Reductn	0	0		0	0		0	0	0	0	0	0
Storage Cap Reductn	0	0		0	0		0	0	0	0	0	0
Reduced v/c Ratio	0.26	0.20		0.19	0.13		0.21	0.33	0.10	0.06	0.42	0.18

Intersection Summary	
Cycle Length: 90	
Actuated Cycle Length: 69.1	
Natural Cycle: 55	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.61	
Intersection Signal Delay: 13.3	Intersection LOS: B
Intersection Capacity Utilization 56.8%	ICU Level of Service B
Analysis Period (min) 15	

Splits and Phases: 6: CR10 & Fallis Line



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	54	6	15	12	9	71	38	507	0	93	539	90
Future Volume (vph)	54	6	15	12	9	71	38	507	0	93	539	90
Satd. Flow (prot)	1789	1688	0	1789	1633	0	1789	1883	0	1789	1883	1601
Flt Permitted	0.851			0.851			0.403			0.428		
Satd. Flow (perm)	1603	1688	0	1603	1633	0	759	1883	0	806	1883	1601
Satd. Flow (RTOR)		16			77							98
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	59	7	16	13	10	77	41	551	0	101	586	98
Shared Lane Traffic (%)												
Lane Group Flow (vph)	59	23	0	13	87	0	41	551	0	101	586	98
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		3.7			3.7			3.7			3.7	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		1.6			1.6			1.6			1.6	
Two way Left Turn Lane												
Headway Factor	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99
Turning Speed (k/h)	97		97	97		97	97		97	97		97
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	Perm
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		6
Detector Phase	4	4		8	8		2	2		6	6	6
Switch Phase												
Minimum Initial (s)	7.0	7.0		7.0	7.0		10.0	10.0		10.0	10.0	10.0
Minimum Split (s)	20.7	20.7		20.7	20.7		20.7	20.7		20.7	20.7	20.7
Total Split (s)	28.0	28.0		28.0	28.0		62.0	62.0		62.0	62.0	62.0
Total Split (%)	31.1%	31.1%		31.1%	31.1%		68.9%	68.9%		68.9%	68.9%	68.9%
Yellow Time (s)	3.7	3.7		3.7	3.7		3.7	3.7		3.7	3.7	3.7
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	0.0
Total Lost Time (s)	4.7	4.7		4.7	4.7		4.7	4.7		4.7	4.7	4.7
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	None	None		None	None		Min	Min		Min	Min	Min
Act Effct Green (s)	7.9	7.9		7.9	7.9		25.3	25.3		25.3	25.3	25.3
Actuated g/C Ratio	0.22	0.22		0.22	0.22		0.72	0.72		0.72	0.72	0.72
v/c Ratio	0.17	0.06		0.04	0.21		0.08	0.41		0.17	0.43	0.08
Control Delay	13.9	9.1		12.9	6.5		4.8	5.9		5.4	6.1	1.6
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	0.0
Total Delay	13.9	9.1		12.9	6.5		4.8	5.9		5.4	6.1	1.6
LOS	B	A		B	A		A	A		A	A	A
Approach Delay		12.6			7.4			5.8			5.5	
Approach LOS		B			A			A			A	
Queue Length 50th (m)	2.5	0.3		0.5	0.4		1.0	17.3		2.6	18.9	0.0
Queue Length 95th (m)	10.6	4.4		3.8	8.3		4.2	39.9		8.8	43.6	3.7
Internal Link Dist (m)		107.2			102.5			127.2			974.1	
Turn Bay Length (m)	75.0			75.0			25.0			110.0		120.0
Base Capacity (vph)	1082	1144		1082	1127		759	1883		806	1883	1601

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Starvation Cap Reductn	0	0		0	0		0	0		0	0	0
Spillback Cap Reductn	0	0		0	0		0	0		0	0	0
Storage Cap Reductn	0	0		0	0		0	0		0	0	0
Reduced v/c Ratio	0.05	0.02		0.01	0.08		0.05	0.29		0.13	0.31	0.06

Intersection Summary	
Cycle Length: 90	
Actuated Cycle Length: 35.3	
Natural Cycle: 50	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.43	
Intersection Signal Delay: 6.1	Intersection LOS: A
Intersection Capacity Utilization 58.1%	ICU Level of Service B
Analysis Period (min) 15	

Splits and Phases: 26: CR10 & Highland Blvd



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	162	35	142	96	41	61	113	295	91	42	274	154
Future Volume (vph)	162	35	142	96	41	61	113	295	91	42	274	154
Satd. Flow (prot)	1825	1691	0	1825	1750	0	1825	1921	1633	1825	1921	1633
Flt Permitted	0.682			0.540			0.500			0.554		
Satd. Flow (perm)	1310	1691	0	1037	1750	0	961	1921	1633	1064	1921	1633
Satd. Flow (RTOR)		161			69				103			175
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Heavy Vehicles (%)	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Adj. Flow (vph)	184	40	161	109	47	69	128	335	103	48	311	175
Shared Lane Traffic (%)												
Lane Group Flow (vph)	184	201	0	109	116	0	128	335	103	48	311	175
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		3.7			3.7			3.7			3.7	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		1.6			1.6			1.6			1.6	
Two way Left Turn Lane												
Headway Factor	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99
Turning Speed (k/h)	24		14	24		14	24		14	24		14
Turn Type	Perm	NA		Perm	NA		pm+pt	NA	Perm	pm+pt	NA	Perm
Protected Phases		4			8		5	2		1	6	
Permitted Phases	4			8			2		2	6		6
Detector Phase	4	4		8	8		5	2	2	1	6	6
Switch Phase												
Minimum Initial (s)	7.0	7.0		7.0	7.0		7.0	10.0	10.0	7.0	10.0	10.0
Minimum Split (s)	20.0	20.0		20.0	20.0		11.0	20.0	20.0	11.0	20.0	20.0
Total Split (s)	36.0	36.0		36.0	36.0		15.0	39.0	39.0	15.0	39.0	39.0
Total Split (%)	40.0%	40.0%		40.0%	40.0%		16.7%	43.3%	43.3%	16.7%	43.3%	43.3%
Yellow Time (s)	3.7	3.7		3.7	3.7		3.5	3.7	3.7	3.5	3.7	3.7
All-Red Time (s)	1.0	1.0		1.0	1.0		0.0	1.0	1.0	0.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.7	4.7		4.7	4.7		3.5	4.7	4.7	3.5	4.7	4.7
Lead/Lag							Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?							Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None		None	None		None	Max	Max	None	Max	Max
Act Effct Green (s)	15.2	15.2		15.2	15.2		44.0	38.0	38.0	41.6	35.0	35.0
Actuated g/C Ratio	0.22	0.22		0.22	0.22		0.64	0.55	0.55	0.61	0.51	0.51
v/c Ratio	0.64	0.40		0.48	0.26		0.18	0.31	0.11	0.07	0.32	0.19
Control Delay	35.5	9.2		31.4	12.5		6.0	11.8	3.2	5.7	13.4	3.1
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	35.5	9.2		31.4	12.5		6.0	11.8	3.2	5.7	13.4	3.1
LOS	D	A		C	B		A	B	A	A	B	A
Approach Delay		21.8			21.7			8.9			9.4	
Approach LOS		C			C			A			A	
Queue Length 50th (m)	21.9	4.2		12.5	5.0		5.0	24.7	0.0	1.8	22.8	0.0
Queue Length 95th (m)	41.0	18.2		26.3	16.2		14.0	50.5	7.3	6.4	50.4	10.0
Internal Link Dist (m)		1217.2			89.4			840.6			175.9	
Turn Bay Length (m)	70.0			45.0			150.0		100.0	110.0		110.0

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Base Capacity (vph)	609	873		482	851		779	1064	950	822	979	918
Starvation Cap Reductn	0	0		0	0		0	0	0	0	0	0
Spillback Cap Reductn	0	0		0	0		0	0	0	0	0	0
Storage Cap Reductn	0	0		0	0		0	0	0	0	0	0
Reduced v/c Ratio	0.30	0.23		0.23	0.14		0.16	0.31	0.11	0.06	0.32	0.19

Intersection Summary	
Cycle Length: 90	
Actuated Cycle Length: 68.7	
Natural Cycle: 55	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.64	
Intersection Signal Delay: 13.6	Intersection LOS: B
Intersection Capacity Utilization 52.9%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 6: CR10 & Fallis Line



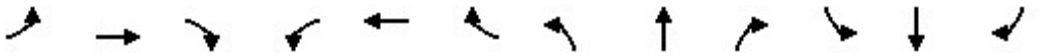
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	80	12	25	11	10	66	39	470	0	89	444	86
Future Volume (vph)	80	12	25	11	10	66	39	470	0	89	444	86
Satd. Flow (prot)	1789	1693	0	1789	1639	0	1789	1883	0	1789	1883	1601
Flt Permitted	0.816			0.816			0.475			0.453		
Satd. Flow (perm)	1537	1693	0	1537	1639	0	895	1883	0	853	1883	1601
Satd. Flow (RTOR)		27			72							93
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	87	13	27	12	11	72	42	511	0	97	483	93
Shared Lane Traffic (%)												
Lane Group Flow (vph)	87	40	0	12	83	0	42	511	0	97	483	93
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		3.7			3.7			3.7			3.7	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		1.6			1.6			1.6			1.6	
Two way Left Turn Lane												
Headway Factor	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99
Turning Speed (k/h)	97		97	97		97	97		97	97		97
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	Perm
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		6
Detector Phase	4	4		8	8		2	2		6	6	6
Switch Phase												
Minimum Initial (s)	7.0	7.0		7.0	7.0		10.0	10.0		10.0	10.0	10.0
Minimum Split (s)	20.0	20.0		20.0	20.0		20.0	20.0		20.0	20.0	20.0
Total Split (s)	28.0	28.0		28.0	28.0		62.0	62.0		62.0	62.0	62.0
Total Split (%)	31.1%	31.1%		31.1%	31.1%		68.9%	68.9%		68.9%	68.9%	68.9%
Yellow Time (s)	3.7	3.7		3.7	3.7		3.7	3.7		3.7	3.7	3.7
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	0.0
Total Lost Time (s)	4.7	4.7		4.7	4.7		4.7	4.7		4.7	4.7	4.7
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	None	None		None	None		Min	Min		Min	Min	Min
Act Effct Green (s)	8.3	8.3		8.3	8.3		22.5	22.5		22.5	22.5	22.5
Actuated g/C Ratio	0.25	0.25		0.25	0.25		0.69	0.69		0.69	0.69	0.69
v/c Ratio	0.22	0.09		0.03	0.18		0.07	0.39		0.16	0.37	0.08
Control Delay	12.6	7.4		11.2	5.8		5.3	6.4		6.0	6.2	1.8
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	0.0
Total Delay	12.6	7.4		11.2	5.8		5.3	6.4		6.0	6.2	1.8
LOS	B	A		B	A		A	A		A	A	A
Approach Delay		11.0			6.4			6.3			5.6	
Approach LOS		B			A			A			A	
Queue Length 50th (m)	3.4	0.5		0.4	0.4		1.0	16.4		2.6	15.2	0.0
Queue Length 95th (m)	12.8	5.5		3.3	7.5		4.4	39.3		9.0	36.3	4.0
Internal Link Dist (m)		107.2			102.5			127.2			974.1	
Turn Bay Length (m)	75.0			75.0			25.0			110.0		120.0
Base Capacity (vph)	1131	1253		1131	1226		895	1883		853	1883	1601

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Starvation Cap Reductn	0	0		0	0		0	0		0	0	0
Spillback Cap Reductn	0	0		0	0		0	0		0	0	0
Storage Cap Reductn	0	0		0	0		0	0		0	0	0
Reduced v/c Ratio	0.08	0.03		0.01	0.07		0.05	0.27		0.11	0.26	0.06

Intersection Summary	
Cycle Length: 90	
Actuated Cycle Length: 32.6	
Natural Cycle: 40	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.39	
Intersection Signal Delay: 6.4	Intersection LOS: A
Intersection Capacity Utilization 55.9%	ICU Level of Service B
Analysis Period (min) 15	

Splits and Phases: 26: CR10 & Highland Blvd

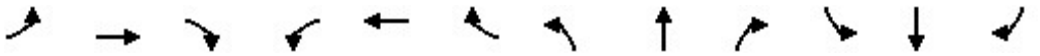




Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	13	3	42	30	5	4	25	550	26	3	360	3
Future Volume (Veh/h)	13	3	42	30	5	4	25	550	26	3	360	3
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Hourly flow rate (vph)	15	3	48	34	6	5	28	625	30	3	409	3
Pedestrians												
Lane Width (m)												
Walking Speed (m/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (m)												
pX, platoon unblocked												
vC, conflicting volume	1106	1128	410	1160	1114	640	412			655		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	1106	1128	410	1160	1114	640	412			655		
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	4.1			4.4		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.5		
p0 queue free %	92	99	92	78	97	99	98			100		
cM capacity (veh/h)	180	200	635	156	204	479	1158			801		

Direction, Lane #	EB 1	WB 1	NB 1	NB 2	SB 1	SB 2
Volume Total	66	45	28	655	3	412
Volume Left	15	34	28	0	3	0
Volume Right	48	5	0	30	0	3
cSH	379	174	1158	1700	801	1700
Volume to Capacity	0.17	0.26	0.02	0.39	0.00	0.24
Queue Length 95th (m)	4.7	7.5	0.6	0.0	0.1	0.0
Control Delay (s)	16.5	32.7	8.2	0.0	9.5	0.0
Lane LOS	C	D	A		A	
Approach Delay (s)	16.5	32.7	0.3		0.1	
Approach LOS	C	D				

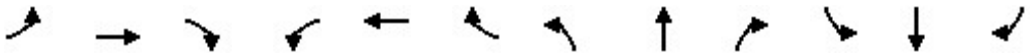
Intersection Summary				
Average Delay	2.3			
Intersection Capacity Utilization	43.2%	ICU Level of Service		A
Analysis Period (min)	15			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	4	1	3	30	2	25	1	489	13	54	329	19
Future Volume (Veh/h)	4	1	3	30	2	25	1	489	13	54	329	19
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	4	1	3	33	2	27	1	532	14	59	358	21
Pedestrians												
Lane Width (m)												
Walking Speed (m/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (m)								280			151	
pX, platoon unblocked	0.96	0.96	0.93	0.96	0.96	0.92	0.93			0.92		
vC, conflicting volume	1048	1034	368	1020	1038	539	379			546		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	869	854	287	840	858	457	298			465		
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	98	100	100	87	99	95	100			94		
cM capacity (veh/h)	237	266	706	258	265	556	1189			1011		

Direction, Lane #	EB 1	EB 2	WB 1	WB 2	NB 1	NB 2	SB 1	SB 2
Volume Total	4	4	33	29	1	546	59	379
Volume Left	4	0	33	0	1	0	59	0
Volume Right	0	3	0	27	0	14	0	21
cSH	237	499	258	517	1189	1700	1011	1700
Volume to Capacity	0.02	0.01	0.13	0.06	0.00	0.32	0.06	0.22
Queue Length 95th (m)	0.4	0.2	3.3	1.4	0.0	0.0	1.4	0.0
Control Delay (s)	20.5	12.3	21.0	12.4	8.0	0.0	8.8	0.0
Lane LOS	C	B	C	B	A		A	
Approach Delay (s)	16.4		17.0		0.0		1.2	
Approach LOS	C		C					

Intersection Summary				
Average Delay	1.6			
Intersection Capacity Utilization	48.2%	ICU Level of Service	A	
Analysis Period (min)	15			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Stop			Stop	
Traffic Volume (vph)	124	26	2	7	48	206	0	26	6	184	39	103
Future Volume (vph)	124	26	2	7	48	206	0	26	6	184	39	103
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85
Hourly flow rate (vph)	146	31	2	8	56	242	0	31	7	216	46	121

Direction, Lane #	EB 1	WB 1	NB 1	SB 1	SB 2
Volume Total (vph)	179	306	38	216	167
Volume Left (vph)	146	8	0	216	0
Volume Right (vph)	2	242	7	0	121
Hadj (s)	0.25	-0.37	-0.01	0.58	-0.48
Departure Headway (s)	5.7	5.0	6.0	6.4	5.4
Degree Utilization, x	0.29	0.42	0.06	0.39	0.25
Capacity (veh/h)	586	686	522	532	636
Control Delay (s)	11.0	11.5	9.4	12.3	8.9
Approach Delay (s)	11.0	11.5	9.4	10.8	
Approach LOS	B	B	A	B	

Intersection Summary				
Delay	11.0			
Level of Service	B			
Intersection Capacity Utilization	50.8%	ICU Level of Service	A	
Analysis Period (min)	15			

Intersection: 12: Distillery Rd/CR10 & King St (CR21)

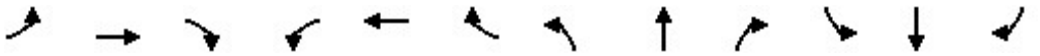
Movement	EB	WB	NB	SB	SB
Directions Served	LTR	LTR	LTR	L	TR
Maximum Queue (m)	26.8	30.2	16.1	29.3	18.9
Average Queue (m)	13.1	17.6	6.4	15.1	11.0
95th Queue (m)	21.6	27.6	14.6	24.0	17.2
Link Distance (m)	518.3	494.8	260.2		493.8
Upstream Blk Time (%)					
Queuing Penalty (veh)					
Storage Bay Dist (m)				50.0	
Storage Blk Time (%)					
Queuing Penalty (veh)					



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	1	106	59	1	56	37
Future Volume (Veh/h)	1	106	59	1	56	37
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Peak Hour Factor	0.80	0.80	0.80	0.80	0.80	0.80
Hourly flow rate (vph)	1	132	74	1	70	46
Pedestrians						
Lane Width (m)						
Walking Speed (m/s)						
Percent Blockage						
Right turn flare (veh)						
Median type			None			None
Median storage veh)						
Upstream signal (m)						
pX, platoon unblocked						
vC, conflicting volume	260	74			75	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	260	74			75	
tC, single (s)	6.4	6.2			4.2	
tC, 2 stage (s)						
tF (s)	3.5	3.3			2.3	
p0 queue free %	100	87			95	
cM capacity (veh/h)	697	979			1446	

Direction, Lane #	WB 1	NB 1	SB 1
Volume Total	133	75	116
Volume Left	1	0	70
Volume Right	132	1	0
cSH	976	1700	1446
Volume to Capacity	0.14	0.04	0.05
Queue Length 95th (m)	3.6	0.0	1.2
Control Delay (s)	9.3	0.0	4.7
Lane LOS	A		A
Approach Delay (s)	9.3	0.0	4.7
Approach LOS	A		

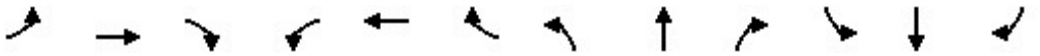
Intersection Summary			
Average Delay	5.5		
Intersection Capacity Utilization	25.0%	ICU Level of Service	A
Analysis Period (min)	15		



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	8	6	31	19	2	7	37	548	32	15	632	15
Future Volume (Veh/h)	8	6	31	19	2	7	37	548	32	15	632	15
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Hourly flow rate (vph)	9	7	34	21	2	8	41	602	35	16	695	16
Pedestrians												
Lane Width (m)												
Walking Speed (m/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (m)												
pX, platoon unblocked												
vC, conflicting volume	1428	1454	703	1466	1444	620	711			637		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	1428	1454	703	1466	1444	620	711			637		
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.3	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.4	2.2			2.2		
p0 queue free %	91	94	92	77	98	98	95			98		
cM capacity (veh/h)	105	123	441	90	125	467	898			956		

Direction, Lane #	EB 1	WB 1	NB 1	NB 2	SB 1	SB 2
Volume Total	50	31	41	637	16	711
Volume Left	9	21	41	0	16	0
Volume Right	34	8	0	35	0	16
cSH	228	117	898	1700	956	1700
Volume to Capacity	0.22	0.27	0.05	0.37	0.02	0.42
Queue Length 95th (m)	6.2	7.6	1.1	0.0	0.4	0.0
Control Delay (s)	25.2	46.7	9.2	0.0	8.8	0.0
Lane LOS	D	E	A		A	
Approach Delay (s)	25.2	46.7	0.6		0.2	
Approach LOS	D	E				

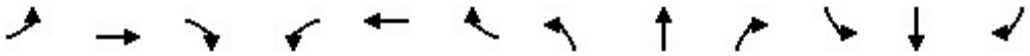
Intersection Summary				
Average Delay	2.2			
Intersection Capacity Utilization	45.5%	ICU Level of Service	A	
Analysis Period (min)	15			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	17	2	14	101	2	80	1	448	25	106	438	22
Future Volume (Veh/h)	17	2	14	101	2	80	1	448	25	106	438	22
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	18	2	15	110	2	87	1	487	27	115	476	24
Pedestrians												
Lane Width (m)												
Walking Speed (m/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (m)								280			151	
pX, platoon unblocked	0.89	0.89	0.89	0.89	0.89		0.89					
vC, conflicting volume	1295	1234	488	1224	1232	500	500			514		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	1271	1203	369	1192	1201	500	382			514		
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	82	99	98	15	99	85	100			89		
cM capacity (veh/h)	100	147	609	130	147	570	1062			1052		

Direction, Lane #	EB 1	EB 2	WB 1	WB 2	NB 1	NB 2	SB 1	SB 2
Volume Total	18	17	110	89	1	514	115	500
Volume Left	18	0	110	0	1	0	115	0
Volume Right	0	15	0	87	0	27	0	24
cSH	100	445	130	536	1062	1700	1052	1700
Volume to Capacity	0.18	0.04	0.85	0.17	0.00	0.30	0.11	0.29
Queue Length 95th (m)	4.7	0.9	40.4	4.5	0.0	0.0	2.8	0.0
Control Delay (s)	48.5	13.4	107.1	13.1	8.4	0.0	8.8	0.0
Lane LOS	E	B	F	B	A		A	
Approach Delay (s)	31.5		65.0		0.0		1.7	
Approach LOS	D		F					

Intersection Summary				
Average Delay	11.0			
Intersection Capacity Utilization	53.2%	ICU Level of Service		A
Analysis Period (min)	15			



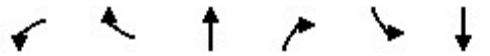
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Stop			Stop	
Traffic Volume (vph)	158	47	4	0	43	238	1	54	7	258	15	180
Future Volume (vph)	158	47	4	0	43	238	1	54	7	258	15	180
Peak Hour Factor	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83
Hourly flow rate (vph)	190	57	5	0	52	287	1	65	8	311	18	217

Direction, Lane #	EB 1	WB 1	NB 1	SB 1	SB 2
Volume Total (vph)	252	339	74	311	235
Volume Left (vph)	190	0	1	311	0
Volume Right (vph)	5	287	8	0	217
Hadj (s)	0.16	-0.46	-0.06	0.52	-0.65
Departure Headway (s)	6.4	5.6	6.8	6.9	5.8
Degree Utilization, x	0.45	0.53	0.14	0.60	0.38
Capacity (veh/h)	530	606	448	500	601
Control Delay (s)	14.4	14.8	10.9	18.6	11.0
Approach Delay (s)	14.4	14.8	10.9	15.3	
Approach LOS	B	B	B	C	

Intersection Summary				
Delay	14.7			
Level of Service	B			
Intersection Capacity Utilization	59.4%	ICU Level of Service	B	
Analysis Period (min)	15			

Intersection: 12: Distillery Rd/CR10 & King St (CR21)

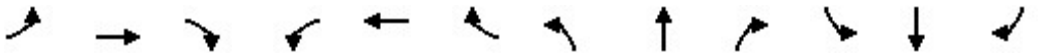
Movement	EB	WB	NB	SB	SB
Directions Served	LTR	LTR	LTR	L	TR
Maximum Queue (m)	27.3	31.6	16.4	31.6	23.0
Average Queue (m)	15.8	18.2	8.4	17.9	13.9
95th Queue (m)	24.2	27.4	14.9	26.6	20.7
Link Distance (m)	518.3	494.8	260.2		493.8
Upstream Blk Time (%)					
Queuing Penalty (veh)					
Storage Bay Dist (m)				50.0	
Storage Blk Time (%)					
Queuing Penalty (veh)					



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	4	64	45	9	121	71
Future Volume (Veh/h)	4	64	45	9	121	71
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96
Hourly flow rate (vph)	4	67	47	9	126	74
Pedestrians						
Lane Width (m)						
Walking Speed (m/s)						
Percent Blockage						
Right turn flare (veh)						
Median type			None			None
Median storage veh)						
Upstream signal (m)						
pX, platoon unblocked						
vC, conflicting volume	378	52			56	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	378	52			56	
tC, single (s)	6.4	6.2			4.1	
tC, 2 stage (s)						
tF (s)	3.5	3.3			2.2	
p0 queue free %	99	93			92	
cM capacity (veh/h)	577	1011			1549	

Direction, Lane #	WB 1	NB 1	SB 1
Volume Total	71	56	200
Volume Left	4	0	126
Volume Right	67	9	0
cSH	970	1700	1549
Volume to Capacity	0.07	0.03	0.08
Queue Length 95th (m)	1.8	0.0	2.0
Control Delay (s)	9.0	0.0	5.0
Lane LOS	A		A
Approach Delay (s)	9.0	0.0	5.0
Approach LOS	A		

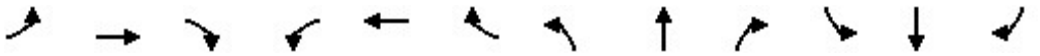
Intersection Summary			
Average Delay	5.0		
Intersection Capacity Utilization	27.9%	ICU Level of Service	A
Analysis Period (min)	15		



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	9	9	28	28	3	9	35	533	30	6	544	8
Future Volume (Veh/h)	9	9	28	28	3	9	35	533	30	6	544	8
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Hourly flow rate (vph)	9	9	29	29	3	9	36	544	31	6	555	8
Pedestrians												
Lane Width (m)												
Walking Speed (m/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (m)												
pX, platoon unblocked												
vC, conflicting volume	1198	1218	559	1232	1206	560	563			575		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	1198	1218	559	1232	1206	560	563			575		
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	94	95	95	79	98	98	96			99		
cM capacity (veh/h)	154	175	532	137	177	532	1019			1008		

Direction, Lane #	EB 1	WB 1	NB 1	NB 2	SB 1	SB 2
Volume Total	47	41	36	575	6	563
Volume Left	9	29	36	0	6	0
Volume Right	29	9	0	31	0	8
cSH	286	167	1019	1700	1008	1700
Volume to Capacity	0.16	0.25	0.04	0.34	0.01	0.33
Queue Length 95th (m)	4.4	7.0	0.8	0.0	0.1	0.0
Control Delay (s)	20.0	33.5	8.7	0.0	8.6	0.0
Lane LOS	C	D	A		A	
Approach Delay (s)	20.0	33.5	0.5		0.1	
Approach LOS	C	D				

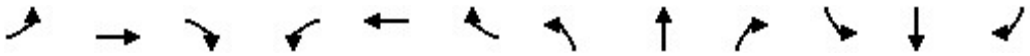
Intersection Summary				
Average Delay	2.1			
Intersection Capacity Utilization	42.9%	ICU Level of Service		A
Analysis Period (min)	15			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	1	1	2	97	1	76	1	432	27	108	371	1
Future Volume (Veh/h)	1	1	2	97	1	76	1	432	27	108	371	1
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.88	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	1	1	2	105	1	83	1	470	29	117	403	1
Pedestrians												
Lane Width (m)												
Walking Speed (m/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (m)								280			151	
pX, platoon unblocked	0.97	0.97	0.97	0.97	0.97		0.97					
vC, conflicting volume	1193	1138	404	1126	1124	484	404			499		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	1183	1127	369	1114	1113	484	370			499		
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	99	99	100	36	99	86	100			89		
cM capacity (veh/h)	127	176	660	163	180	582	1164			1065		

Direction, Lane #	EB 1	EB 2	WB 1	WB 2	NB 1	NB 2	SB 1	SB 2
Volume Total	1	3	105	84	1	499	117	404
Volume Left	1	0	105	0	1	0	117	0
Volume Right	0	2	0	83	0	29	0	1
cSH	127	345	163	567	1164	1700	1065	1700
Volume to Capacity	0.01	0.01	0.64	0.15	0.00	0.29	0.11	0.24
Queue Length 95th (m)	0.2	0.2	27.4	3.9	0.0	0.0	2.8	0.0
Control Delay (s)	33.5	15.5	60.0	12.4	8.1	0.0	8.8	0.0
Lane LOS	D	C	F	B	A		A	
Approach Delay (s)	20.0		38.8		0.0		2.0	
Approach LOS	C		E					

Intersection Summary				
Average Delay	7.0			
Intersection Capacity Utilization	52.4%	ICU Level of Service		A
Analysis Period (min)	15			



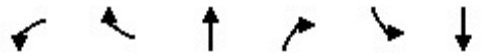
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Stop			Stop	
Traffic Volume (vph)	192	48	12	8	48	188	11	53	11	185	28	218
Future Volume (vph)	192	48	12	8	48	188	11	53	11	185	28	218
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Hourly flow rate (vph)	204	51	13	9	51	200	12	56	12	197	30	232

Direction, Lane #	EB 1	WB 1	NB 1	SB 1	SB 2
Volume Total (vph)	268	260	80	197	262
Volume Left (vph)	204	9	12	197	0
Volume Right (vph)	13	200	12	0	232
Hadj (s)	0.12	-0.45	-0.06	0.50	-0.62
Departure Headway (s)	5.9	5.3	6.2	6.6	5.5
Degree Utilization, x	0.44	0.39	0.14	0.36	0.40
Capacity (veh/h)	576	625	495	514	620
Control Delay (s)	13.3	11.7	10.3	12.2	10.9
Approach Delay (s)	13.3	11.7	10.3	11.5	
Approach LOS	B	B	B	B	

Intersection Summary				
Delay	11.9			
Level of Service	B			
Intersection Capacity Utilization	55.3%	ICU Level of Service	B	
Analysis Period (min)	15			

Intersection: 12: Distillery Rd/CR10 & King St (CR21)

Movement	EB	WB	NB	SB	SB
Directions Served	LTR	LTR	LTR	L	TR
Maximum Queue (m)	24.4	25.8	17.6	20.6	22.0
Average Queue (m)	15.3	15.2	8.6	13.9	15.2
95th Queue (m)	22.7	22.7	15.2	20.4	21.2
Link Distance (m)	518.3	494.8	260.2		493.8
Upstream Blk Time (%)					
Queuing Penalty (veh)					
Storage Bay Dist (m)				50.0	
Storage Blk Time (%)					
Queuing Penalty (veh)					



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	1	57	48	1	70	40
Future Volume (Veh/h)	1	57	48	1	70	40
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89
Hourly flow rate (vph)	1	64	54	1	79	45
Pedestrians						
Lane Width (m)						
Walking Speed (m/s)						
Percent Blockage						
Right turn flare (veh)						
Median type			None			None
Median storage veh)						
Upstream signal (m)						
pX, platoon unblocked						
vC, conflicting volume	258	54			55	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	258	54			55	
tC, single (s)	6.4	6.2			4.1	
tC, 2 stage (s)						
tF (s)	3.5	3.3			2.2	
p0 queue free %	100	94			95	
cM capacity (veh/h)	698	1018			1563	

Direction, Lane #	WB 1	NB 1	SB 1
Volume Total	65	55	124
Volume Left	1	0	79
Volume Right	64	1	0
cSH	1011	1700	1563
Volume to Capacity	0.06	0.03	0.05
Queue Length 95th (m)	1.6	0.0	1.2
Control Delay (s)	8.8	0.0	4.9
Lane LOS	A		A
Approach Delay (s)	8.8	0.0	4.9
Approach LOS	A		

Intersection Summary			
Average Delay	4.8		
Intersection Capacity Utilization	22.9%	ICU Level of Service	A
Analysis Period (min)	15		

Appendix K

Synchro Reports,

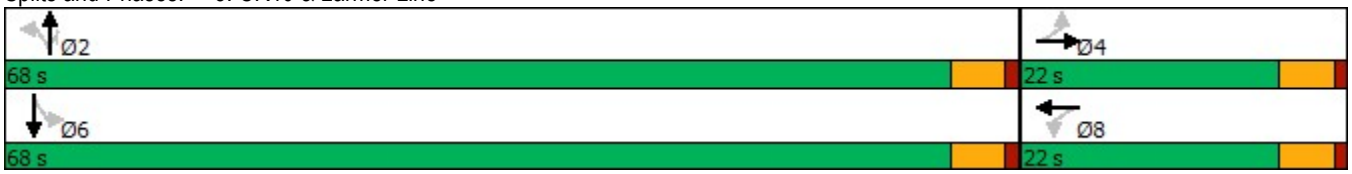
Total Volumes, 2030

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	13	3	43	64	6	18	28	620	40	6	398	3
Future Volume (vph)	13	3	43	64	6	18	28	620	40	6	398	3
Satd. Flow (prot)	0	1651	0	0	1804	0	1825	1883	1306	1372	1900	0
Flt Permitted		0.930			0.816		0.489			0.354		
Satd. Flow (perm)	0	1553	0	0	1525	0	939	1883	1306	511	1900	0
Satd. Flow (RTOR)		49			12				45		1	
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Heavy Vehicles (%)	0%	0%	5%	0%	0%	0%	0%	2%	25%	33%	1%	0%
Adj. Flow (vph)	15	3	49	73	7	20	32	705	45	7	452	3
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	67	0	0	100	0	32	705	45	7	455	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		0.0			0.0			3.7			3.7	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		1.6			1.6			1.6			1.6	
Two way Left Turn Lane												
Headway Factor	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99
Turning Speed (k/h)	24		14	24		14	24		14	24		14
Turn Type	Perm	NA		Perm	NA		Perm	NA	Perm	Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2		2	6		
Detector Phase	4	4		8	8		2	2	2	6	6	
Switch Phase												
Minimum Initial (s)	7.0	7.0		7.0	7.0		10.0	10.0	10.0	10.0	10.0	
Minimum Split (s)	20.7	20.7		20.7	20.7		20.7	20.7	20.7	20.7	20.7	
Total Split (s)	22.0	22.0		22.0	22.0		68.0	68.0	68.0	68.0	68.0	
Total Split (%)	24.4%	24.4%		24.4%	24.4%		75.6%	75.6%	75.6%	75.6%	75.6%	
Yellow Time (s)	3.7	3.7		3.7	3.7		3.7	3.7	3.7	3.7	3.7	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0	1.0	1.0	1.0	
Lost Time Adjust (s)		0.0			0.0		0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)		4.7			4.7		4.7	4.7	4.7	4.7	4.7	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	None	None		None	None		Max	Max	Max	Max	Max	
Act Effct Green (s)		10.6			10.6		67.3	67.3	67.3	67.3	67.3	
Actuated g/C Ratio		0.13			0.13		0.80	0.80	0.80	0.80	0.80	
v/c Ratio		0.28			0.50		0.04	0.47	0.04	0.02	0.30	
Control Delay		17.2			38.2		3.2	5.2	1.2	3.3	3.8	
Queue Delay		0.0			0.0		0.0	0.0	0.0	0.0	0.0	
Total Delay		17.2			38.2		3.2	5.2	1.2	3.3	3.8	
LOS		B			D		A	A	A	A	A	
Approach Delay		17.2			38.2			4.8			3.8	
Approach LOS		B			D			A			A	
Queue Length 50th (m)		2.6			13.1		1.0	32.7	0.0	0.2	17.3	
Queue Length 95th (m)		12.8			26.6		3.5	63.5	2.4	1.3	34.5	
Internal Link Dist (m)		65.2			101.5			655.7			158.9	
Turn Bay Length (m)							110.0		110.0	110.0		

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Base Capacity (vph)		358			323		752	1509	1056	409	1523	
Starvation Cap Reductn		0			0		0	0	0	0	0	
Spillback Cap Reductn		0			0		0	0	0	0	0	
Storage Cap Reductn		0			0		0	0	0	0	0	
Reduced v/c Ratio		0.19			0.31		0.04	0.47	0.04	0.02	0.30	

Intersection Summary	
Cycle Length: 90	
Actuated Cycle Length: 84	
Natural Cycle: 55	
Control Type: Semi Act-Uncoord	
Maximum v/c Ratio: 0.50	
Intersection Signal Delay: 7.5	Intersection LOS: A
Intersection Capacity Utilization 52.1%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 3: CR10 & Larmer Line



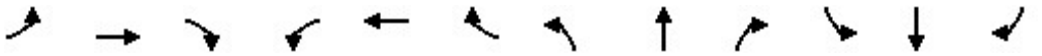
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	190	34	200	43	91	76	148	369	65	51	236	133
Future Volume (vph)	190	34	200	43	91	76	148	369	65	51	236	133
Satd. Flow (prot)	1722	1633	0	1825	1790	0	1807	1865	1633	1825	1902	1306
Flt Permitted	0.539			0.407			0.451			0.392		
Satd. Flow (perm)	977	1633	0	782	1790	0	858	1865	1633	753	1902	1306
Satd. Flow (RTOR)		260			51				84			173
Peak Hour Factor	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77
Heavy Vehicles (%)	6%	0%	3%	0%	0%	0%	1%	3%	0%	0%	1%	25%
Adj. Flow (vph)	247	44	260	56	118	99	192	479	84	66	306	173
Shared Lane Traffic (%)												
Lane Group Flow (vph)	247	304	0	56	217	0	192	479	84	66	306	173
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		3.7			3.7			3.7			3.7	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		1.6			1.6			1.6			1.6	
Two way Left Turn Lane												
Headway Factor	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99
Turning Speed (k/h)	24		14	24		14	24		14	24		14
Turn Type	Perm	NA		Perm	NA		pm+pt	NA	Perm	pm+pt	NA	Perm
Protected Phases		4			8		5	2		1	6	
Permitted Phases	4			8			2		2	6		6
Detector Phase	4	4		8	8		5	2	2	1	6	6
Switch Phase												
Minimum Initial (s)	7.0	7.0		7.0	7.0		7.0	10.0	10.0	7.0	10.0	10.0
Minimum Split (s)	20.0	20.0		20.0	20.0		11.0	20.0	20.0	11.0	20.0	20.0
Total Split (s)	36.0	36.0		36.0	36.0		15.0	39.0	39.0	15.0	39.0	39.0
Total Split (%)	40.0%	40.0%		40.0%	40.0%		16.7%	43.3%	43.3%	16.7%	43.3%	43.3%
Yellow Time (s)	3.7	3.7		3.7	3.7		3.5	3.7	3.7	3.5	3.7	3.7
All-Red Time (s)	1.0	1.0		1.0	1.0		0.0	1.0	1.0	0.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.7	4.7		4.7	4.7		3.5	4.7	4.7	3.5	4.7	4.7
Lead/Lag							Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?							Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None		None	None		None	Max	Max	None	Max	Max
Act Effct Green (s)	24.2	24.2		24.2	24.2		48.3	39.3	39.3	43.4	34.7	34.7
Actuated g/C Ratio	0.30	0.30		0.30	0.30		0.59	0.48	0.48	0.53	0.43	0.43
v/c Ratio	0.85	0.46		0.24	0.38		0.31	0.53	0.10	0.13	0.38	0.26
Control Delay	54.0	7.0		24.2	18.8		10.0	20.2	4.3	9.3	19.7	4.3
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	54.0	7.0		24.2	18.8		10.0	20.2	4.3	9.3	19.7	4.3
LOS	D	A		C	B		A	C	A	A	B	A
Approach Delay		28.1			19.9			15.8			13.6	
Approach LOS		C			B			B			B	
Queue Length 50th (m)	35.8	4.9		6.5	19.8		13.1	55.1	0.0	4.2	33.5	0.0
Queue Length 95th (m)	52.0	13.5		13.2	30.2		21.4	75.9	5.5	8.8	49.2	7.3
Internal Link Dist (m)		1217.2			89.4			840.6			175.9	
Turn Bay Length (m)	70.0			45.0			150.0		100.0	110.0		110.0

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Base Capacity (vph)	379	793		303	726		650	899	831	590	809	655
Starvation Cap Reductn	0	0		0	0		0	0	0	0	0	0
Spillback Cap Reductn	0	0		0	0		0	0	0	0	0	0
Storage Cap Reductn	0	0		0	0		0	0	0	0	0	0
Reduced v/c Ratio	0.65	0.38		0.18	0.30		0.30	0.53	0.10	0.11	0.38	0.26

Intersection Summary	
Cycle Length: 90	
Actuated Cycle Length: 81.5	
Natural Cycle: 60	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.85	
Intersection Signal Delay: 18.9	Intersection LOS: B
Intersection Capacity Utilization 60.3%	ICU Level of Service B
Analysis Period (min) 15	

Splits and Phases: 6: CR10 & Fallis Line





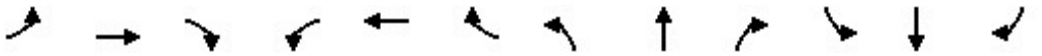
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	92	12	24	25	3	44	9	571	35	49	412	32
Future Volume (vph)	92	12	24	25	3	44	9	571	35	49	412	32
Satd. Flow (prot)	1789	1695	0	1789	1618	0	1789	1866	0	1789	1883	1601
Flt Permitted	0.724			0.732			0.487			0.329		
Satd. Flow (perm)	1364	1695	0	1379	1618	0	917	1866	0	620	1883	1601
Satd. Flow (RTOR)		26			48			7				35
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	100	13	26	27	3	48	10	621	38	53	448	35
Shared Lane Traffic (%)												
Lane Group Flow (vph)	100	39	0	27	51	0	10	659	0	53	448	35
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		3.7			3.7			3.7			3.7	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		1.6			1.6			1.6			1.6	
Two way Left Turn Lane												
Headway Factor	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99
Turning Speed (k/h)	24		14	24		14	24		14	24		14
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	Perm
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		6
Detector Phase	4	4		8	8		2	2		6	6	6
Switch Phase												
Minimum Initial (s)	7.0	7.0		7.0	7.0		10.0	10.0		10.0	10.0	10.0
Minimum Split (s)	20.7	20.7		20.7	20.7		20.7	20.7		20.7	20.7	20.7
Total Split (s)	28.0	28.0		28.0	28.0		62.0	62.0		62.0	62.0	62.0
Total Split (%)	31.1%	31.1%		31.1%	31.1%		68.9%	68.9%		68.9%	68.9%	68.9%
Yellow Time (s)	3.7	3.7		3.7	3.7		3.7	3.7		3.7	3.7	3.7
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	0.0
Total Lost Time (s)	4.7	4.7		4.7	4.7		4.7	4.7		4.7	4.7	4.7
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	None	None		None	None		Min	Min		Min	Min	Min
Act Effct Green (s)	9.1	9.1		9.1	9.1		24.8	24.8		24.8	24.8	24.8
Actuated g/C Ratio	0.23	0.23		0.23	0.23		0.63	0.63		0.63	0.63	0.63
v/c Ratio	0.32	0.10		0.09	0.12		0.02	0.56		0.14	0.38	0.03
Control Delay	17.4	9.2		14.6	6.9		4.8	8.6		6.1	6.6	2.2
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	0.0
Total Delay	17.4	9.2		14.6	6.9		4.8	8.6		6.1	6.6	2.2
LOS	B	A		B	A		A	A		A	A	A
Approach Delay		15.1			9.6			8.5			6.3	
Approach LOS		B			A			A			A	
Queue Length 50th (m)	4.8	0.6		1.2	0.2		0.3	24.9		1.4	14.5	0.0
Queue Length 95th (m)	18.0	6.5		6.8	6.4		1.8	60.3		6.1	35.2	2.5
Internal Link Dist (m)		107.2			102.5			127.2			104.9	
Turn Bay Length (m)	75.0			75.0			25.0			110.0		120.0
Base Capacity (vph)	838	1051		847	1012		917	1866		620	1883	1601

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Starvation Cap Reductn	0	0		0	0		0	0		0	0	0
Spillback Cap Reductn	0	0		0	0		0	0		0	0	0
Storage Cap Reductn	0	0		0	0		0	0		0	0	0
Reduced v/c Ratio	0.12	0.04		0.03	0.05		0.01	0.35		0.09	0.24	0.02

Intersection Summary	
Cycle Length: 90	
Actuated Cycle Length: 39.3	
Natural Cycle: 55	
Control Type: Semi Act-Uncoord	
Maximum v/c Ratio: 0.56	
Intersection Signal Delay: 8.4	Intersection LOS: A
Intersection Capacity Utilization 60.3%	ICU Level of Service B
Analysis Period (min) 15	

Splits and Phases: 26: CR10 & Highland Blvd



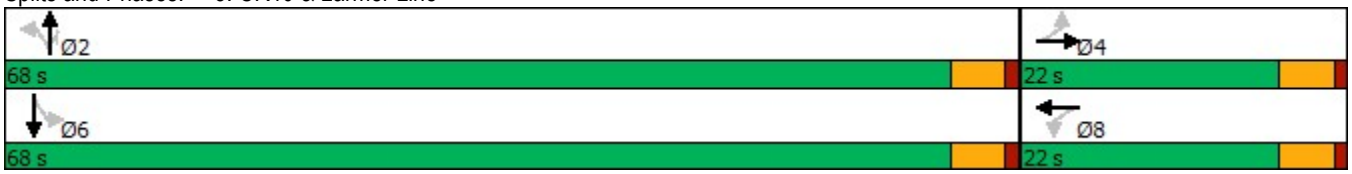


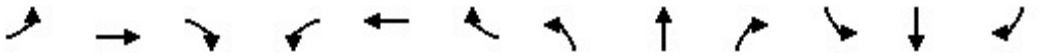
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	8	7	32	40	2	12	35	598	63	27	694	15
Future Volume (vph)	8	7	32	40	2	12	35	598	63	27	694	15
Satd. Flow (prot)	0	1731	0	0	1743	0	1825	1902	1633	1825	1897	0
Flt Permitted		0.950			0.877		0.333			0.391		
Satd. Flow (perm)	0	1659	0	0	1585	0	640	1902	1633	751	1897	0
Satd. Flow (RTOR)		35			13				69		3	
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Heavy Vehicles (%)	0%	0%	0%	0%	0%	14%	0%	1%	0%	0%	1%	0%
Adj. Flow (vph)	9	8	35	44	2	13	38	657	69	30	763	16
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	52	0	0	59	0	38	657	69	30	779	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		0.0			0.0			3.7			3.7	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		1.6			1.6			1.6			1.6	
Two way Left Turn Lane												
Headway Factor	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99
Turning Speed (k/h)	24		14	24		14	24		14	24		14
Turn Type	Perm	NA		Perm	NA		Perm	NA	Perm	Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2		2	6		
Detector Phase	4	4		8	8		2	2	2	6	6	
Switch Phase												
Minimum Initial (s)	7.0	7.0		7.0	7.0		10.0	10.0	10.0	10.0	10.0	
Minimum Split (s)	20.7	20.7		20.7	20.7		20.7	20.7	20.7	20.7	20.7	
Total Split (s)	22.0	22.0		22.0	22.0		68.0	68.0	68.0	68.0	68.0	
Total Split (%)	24.4%	24.4%		24.4%	24.4%		75.6%	75.6%	75.6%	75.6%	75.6%	
Yellow Time (s)	3.7	3.7		3.7	3.7		3.7	3.7	3.7	3.7	3.7	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0	1.0	1.0	1.0	
Lost Time Adjust (s)		0.0			0.0		0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)		4.7			4.7		4.7	4.7	4.7	4.7	4.7	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	None	None		None	None		Max	Max	Max	Max	Max	
Act Effct Green (s)		8.6			8.6		68.6	68.6	68.6	68.6	68.6	
Actuated g/C Ratio		0.11			0.11		0.86	0.86	0.86	0.86	0.86	
v/c Ratio		0.25			0.32		0.07	0.40	0.05	0.05	0.48	
Control Delay		19.7			32.1		2.7	3.4	0.8	2.6	4.0	
Queue Delay		0.0			0.0		0.0	0.0	0.0	0.0	0.0	
Total Delay		19.7			32.1		2.7	3.4	0.8	2.6	4.0	
LOS		B			C		A	A	A	A	A	
Approach Delay		19.7			32.1			3.2			4.0	
Approach LOS		B			C			A			A	
Queue Length 50th (m)		2.4			6.7		1.0	24.2	0.0	0.8	31.7	
Queue Length 95th (m)		12.0			17.3		3.5	48.3	2.5	2.9	63.7	
Internal Link Dist (m)		65.2			101.5			655.7			158.9	
Turn Bay Length (m)							110.0		110.0	110.0		

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Base Capacity (vph)		389			356		551	1637	1415	646	1633	
Starvation Cap Reductn		0			0		0	0	0	0	0	
Spillback Cap Reductn		0			0		0	0	0	0	0	
Storage Cap Reductn		0			0		0	0	0	0	0	
Reduced v/c Ratio		0.13			0.17		0.07	0.40	0.05	0.05	0.48	

Intersection Summary			
Cycle Length: 90			
Actuated Cycle Length: 79.7			
Natural Cycle: 60			
Control Type: Semi Act-Uncoord			
Maximum v/c Ratio: 0.48			
Intersection Signal Delay: 5.1		Intersection LOS: A	
Intersection Capacity Utilization 55.0%		ICU Level of Service A	
Analysis Period (min) 15			

Splits and Phases: 3: CR10 & Larmer Line





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	158	39	115	90	39	57	137	404	90	55	434	166
Future Volume (vph)	158	39	115	90	39	57	137	404	90	55	434	166
Satd. Flow (prot)	1706	1706	0	1825	1750	0	1789	1902	1633	1825	1921	1585
Flt Permitted	0.690			0.601			0.346			0.490		
Satd. Flow (perm)	1239	1706	0	1155	1750	0	652	1902	1633	941	1921	1585
Satd. Flow (RTOR)		125			62				98			180
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	7%	0%	0%	0%	0%	0%	2%	1%	0%	0%	0%	3%
Adj. Flow (vph)	172	42	125	98	42	62	149	439	98	60	472	180
Shared Lane Traffic (%)												
Lane Group Flow (vph)	172	167	0	98	104	0	149	439	98	60	472	180
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		3.7			3.7			3.7			3.7	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		1.6			1.6			1.6			1.6	
Two way Left Turn Lane												
Headway Factor	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99
Turning Speed (k/h)	24		14	24		14	24		14	24		14
Turn Type	Perm	NA		Perm	NA		pm+pt	NA	Perm	pm+pt	NA	Perm
Protected Phases		4			8		5	2		1	6	
Permitted Phases	4			8			2		2	6		6
Detector Phase	4	4		8	8		5	2	2	1	6	6
Switch Phase												
Minimum Initial (s)	7.0	7.0		7.0	7.0		7.0	10.0	10.0	7.0	10.0	10.0
Minimum Split (s)	20.0	20.0		20.0	20.0		11.0	20.0	20.0	11.0	20.0	20.0
Total Split (s)	36.0	36.0		36.0	36.0		15.0	39.0	39.0	15.0	39.0	39.0
Total Split (%)	40.0%	40.0%		40.0%	40.0%		16.7%	43.3%	43.3%	16.7%	43.3%	43.3%
Yellow Time (s)	3.7	3.7		3.7	3.7		3.5	3.7	3.7	3.5	3.7	3.7
All-Red Time (s)	1.0	1.0		1.0	1.0		0.0	1.0	1.0	0.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.7	4.7		4.7	4.7		3.5	4.7	4.7	3.5	4.7	4.7
Lead/Lag							Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?							Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None		None	None		None	Max	Max	None	Max	Max
Act Effct Green (s)	15.2	15.2		15.2	15.2		47.0	40.5	40.5	43.0	34.6	34.6
Actuated g/C Ratio	0.21	0.21		0.21	0.21		0.66	0.57	0.57	0.60	0.49	0.49
v/c Ratio	0.65	0.36		0.40	0.25		0.26	0.41	0.10	0.09	0.51	0.21
Control Delay	37.6	10.0		28.8	12.5		6.5	12.7	3.2	5.8	16.5	3.2
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	37.6	10.0		28.8	12.5		6.5	12.7	3.2	5.8	16.5	3.2
LOS	D	B		C	B		A	B	A	A	B	A
Approach Delay		24.0			20.4			10.0			12.2	
Approach LOS		C			C			B			B	
Queue Length 50th (m)	20.7	4.5		11.1	4.5		5.9	34.7	0.0	2.3	39.1	0.0
Queue Length 95th (m)	40.7	18.4		24.4	15.8		16.4	71.9	7.6	7.8	85.5	10.9
Internal Link Dist (m)		1217.2			89.4			840.6			175.9	
Turn Bay Length (m)	70.0			45.0			150.0		100.0	110.0		110.0

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Base Capacity (vph)	548	825		511	809		622	1080	969	764	932	861
Starvation Cap Reductn	0	0		0	0		0	0	0	0	0	0
Spillback Cap Reductn	0	0		0	0		0	0	0	0	0	0
Storage Cap Reductn	0	0		0	0		0	0	0	0	0	0
Reduced v/c Ratio	0.31	0.20		0.19	0.13		0.24	0.41	0.10	0.08	0.51	0.21

Intersection Summary	
Cycle Length: 90	
Actuated Cycle Length: 71.3	
Natural Cycle: 55	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.65	
Intersection Signal Delay: 14.4	Intersection LOS: B
Intersection Capacity Utilization 60.5%	ICU Level of Service B
Analysis Period (min) 15	

Splits and Phases: 6: CR10 & Fallis Line



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	61	8	16	49	13	88	37	576	27	101	602	99
Future Volume (vph)	61	8	16	49	13	88	37	576	27	101	602	99
Satd. Flow (prot)	1789	1699	0	1789	1637	0	1789	1870	0	1789	1883	1601
Flt Permitted	0.686			0.740			0.335			0.334		
Satd. Flow (perm)	1292	1699	0	1394	1637	0	631	1870	0	629	1883	1601
Satd. Flow (RTOR)		17			96			5				108
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	66	9	17	53	14	96	40	626	29	110	654	108
Shared Lane Traffic (%)												
Lane Group Flow (vph)	66	26	0	53	110	0	40	655	0	110	654	108
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		3.7			3.7			3.7			3.7	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		1.6			1.6			1.6			1.6	
Two way Left Turn Lane												
Headway Factor	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99
Turning Speed (k/h)	97		97	97		97	97		97	97		97
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	Perm
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		6
Detector Phase	4	4		8	8		2	2		6	6	6
Switch Phase												
Minimum Initial (s)	7.0	7.0		7.0	7.0		10.0	10.0		10.0	10.0	10.0
Minimum Split (s)	20.7	20.7		20.7	20.7		20.7	20.7		20.7	20.7	20.7
Total Split (s)	28.0	28.0		28.0	28.0		62.0	62.0		62.0	62.0	62.0
Total Split (%)	31.1%	31.1%		31.1%	31.1%		68.9%	68.9%		68.9%	68.9%	68.9%
Yellow Time (s)	3.7	3.7		3.7	3.7		3.7	3.7		3.7	3.7	3.7
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	0.0
Total Lost Time (s)	4.7	4.7		4.7	4.7		4.7	4.7		4.7	4.7	4.7
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	None	None		None	None		Min	Min		Min	Min	Min
Act Effct Green (s)	8.3	8.3		8.3	8.3		23.5	23.5		23.5	23.5	23.5
Actuated g/C Ratio	0.22	0.22		0.22	0.22		0.63	0.63		0.63	0.63	0.63
v/c Ratio	0.23	0.07		0.17	0.25		0.10	0.56		0.28	0.55	0.10
Control Delay	16.3	10.0		15.4	7.0		5.3	8.1		7.4	8.1	1.5
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	0.0
Total Delay	16.3	10.0		15.4	7.0		5.3	8.1		7.4	8.1	1.5
LOS	B	A		B	A		A	A		A	A	A
Approach Delay		14.5			9.8			8.0			7.2	
Approach LOS		B			A			A			A	
Queue Length 50th (m)	3.1	0.4		2.5	0.6		1.0	23.0		3.1	23.1	0.0
Queue Length 95th (m)	12.9	5.1		10.8	10.2		4.3	53.9		11.1	54.0	4.0
Internal Link Dist (m)		107.2			102.5			127.2			104.9	
Turn Bay Length (m)	75.0			75.0			25.0			110.0		120.0
Base Capacity (vph)	832	1100		897	1088		631	1870		629	1883	1601

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Starvation Cap Reductn	0	0		0	0		0	0		0	0	0
Spillback Cap Reductn	0	0		0	0		0	0		0	0	0
Storage Cap Reductn	0	0		0	0		0	0		0	0	0
Reduced v/c Ratio	0.08	0.02		0.06	0.10		0.06	0.35		0.17	0.35	0.07

Intersection Summary	
Cycle Length: 90	
Actuated Cycle Length: 37.4	
Natural Cycle: 55	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.56	
Intersection Signal Delay: 8.1	Intersection LOS: A
Intersection Capacity Utilization 62.1%	ICU Level of Service B
Analysis Period (min) 15	

Splits and Phases: 26: CR10 & Highland Blvd

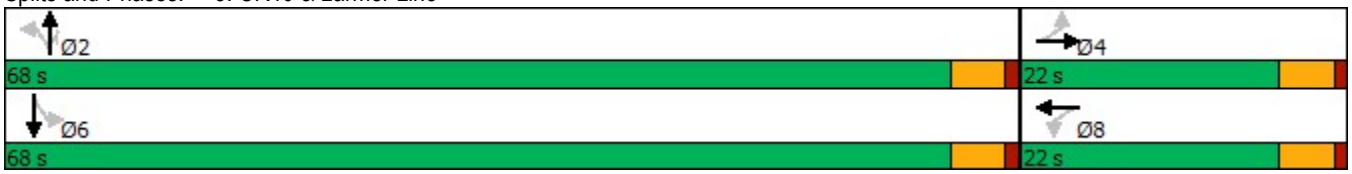


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	9	10	28	52	3	15	35	570	55	13	590	8
Future Volume (vph)	9	10	28	52	3	15	35	570	55	13	590	8
Satd. Flow (prot)	0	1748	0	0	1798	0	1825	1921	1633	1825	1917	0
Flt Permitted		0.945			0.793		0.407			0.422		
Satd. Flow (perm)	0	1667	0	0	1479	0	782	1921	1633	811	1917	0
Satd. Flow (RTOR)		29			13				56		2	
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Heavy Vehicles (%)	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Adj. Flow (vph)	9	10	29	53	3	15	36	582	56	13	602	8
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	48	0	0	71	0	36	582	56	13	610	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		0.0			0.0			3.7			3.7	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		1.6			1.6			1.6			1.6	
Two way Left Turn Lane												
Headway Factor	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99
Turning Speed (k/h)	24		14	24		14	24		14	24		14
Turn Type	Perm	NA		Perm	NA		Perm	NA	Perm	Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2		2	6		
Detector Phase	4	4		8	8		2	2	2	6	6	
Switch Phase												
Minimum Initial (s)	7.0	7.0		7.0	7.0		10.0	10.0	10.0	10.0	10.0	
Minimum Split (s)	20.7	20.7		20.7	20.7		20.7	20.7	20.7	20.7	20.7	
Total Split (s)	22.0	22.0		22.0	22.0		68.0	68.0	68.0	68.0	68.0	
Total Split (%)	24.4%	24.4%		24.4%	24.4%		75.6%	75.6%	75.6%	75.6%	75.6%	
Yellow Time (s)	3.7	3.7		3.7	3.7		3.7	3.7	3.7	3.7	3.7	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0	1.0	1.0	1.0	
Lost Time Adjust (s)		0.0			0.0		0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)		4.7			4.7		4.7	4.7	4.7	4.7	4.7	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	None	None		None	None		Max	Max	Max	Max	Max	
Act Effct Green (s)		9.1			9.1		67.2	67.2	67.2	67.2	67.2	
Actuated g/C Ratio		0.11			0.11		0.81	0.81	0.81	0.81	0.81	
v/c Ratio		0.23			0.41		0.06	0.37	0.04	0.02	0.39	
Control Delay		20.6			35.8		2.9	3.8	0.9	2.7	3.9	
Queue Delay		0.0			0.0		0.0	0.0	0.0	0.0	0.0	
Total Delay		20.6			35.8		2.9	3.8	0.9	2.7	3.9	
LOS		C			D		A	A	A	A	A	
Approach Delay		20.6			35.8			3.5			3.9	
Approach LOS		C			D			A			A	
Queue Length 50th (m)		2.7			8.5		1.0	21.2	0.0	0.4	22.7	
Queue Length 95th (m)		12.0			20.4		3.5	42.5	2.3	1.7	45.4	
Internal Link Dist (m)		65.2			101.5			655.7			158.9	
Turn Bay Length (m)							110.0		110.0	110.0		

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Base Capacity (vph)		372			320		637	1565	1341	661	1563	
Starvation Cap Reductn		0			0		0	0	0	0	0	
Spillback Cap Reductn		0			0		0	0	0	0	0	
Storage Cap Reductn		0			0		0	0	0	0	0	
Reduced v/c Ratio		0.13			0.22		0.06	0.37	0.04	0.02	0.39	

Intersection Summary	
Cycle Length: 90	
Actuated Cycle Length: 82.5	
Natural Cycle: 50	
Control Type: Semi Act-Uncoord	
Maximum v/c Ratio: 0.41	
Intersection Signal Delay: 5.8	Intersection LOS: A
Intersection Capacity Utilization 50.0%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 3: CR10 & Larmer Line



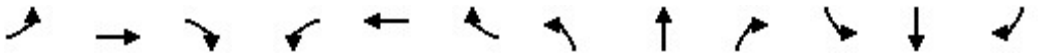
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	182	36	143	96	41	69	114	353	94	51	327	172
Future Volume (vph)	182	36	143	96	41	69	114	353	94	51	327	172
Satd. Flow (prot)	1825	1691	0	1825	1741	0	1825	1921	1633	1825	1921	1633
Flt Permitted	0.677			0.542			0.440			0.489		
Satd. Flow (perm)	1301	1691	0	1041	1741	0	845	1921	1633	939	1921	1633
Satd. Flow (RTOR)		163			78				107			195
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Heavy Vehicles (%)	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Adj. Flow (vph)	207	41	163	109	47	78	130	401	107	58	372	195
Shared Lane Traffic (%)												
Lane Group Flow (vph)	207	204	0	109	125	0	130	401	107	58	372	195
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		3.7			3.7			3.7			3.7	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		1.6			1.6			1.6			1.6	
Two way Left Turn Lane												
Headway Factor	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99
Turning Speed (k/h)	24		14	24		14	24		14	24		14
Turn Type	Perm	NA		Perm	NA		pm+pt	NA	Perm	pm+pt	NA	Perm
Protected Phases		4			8		5	2		1	6	
Permitted Phases	4			8			2		2	6		6
Detector Phase	4	4		8	8		5	2	2	1	6	6
Switch Phase												
Minimum Initial (s)	7.0	7.0		7.0	7.0		7.0	10.0	10.0	7.0	10.0	10.0
Minimum Split (s)	20.0	20.0		20.0	20.0		11.0	20.0	20.0	11.0	20.0	20.0
Total Split (s)	36.0	36.0		36.0	36.0		15.0	39.0	39.0	15.0	39.0	39.0
Total Split (%)	40.0%	40.0%		40.0%	40.0%		16.7%	43.3%	43.3%	16.7%	43.3%	43.3%
Yellow Time (s)	3.7	3.7		3.7	3.7		3.5	3.7	3.7	3.5	3.7	3.7
All-Red Time (s)	1.0	1.0		1.0	1.0		0.0	1.0	1.0	0.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.7	4.7		4.7	4.7		3.5	4.7	4.7	3.5	4.7	4.7
Lead/Lag							Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?							Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None		None	None		None	Max	Max	None	Max	Max
Act Effct Green (s)	16.7	16.7		16.7	16.7		44.3	38.2	38.2	41.8	35.1	35.1
Actuated g/C Ratio	0.24	0.24		0.24	0.24		0.63	0.54	0.54	0.59	0.50	0.50
v/c Ratio	0.67	0.39		0.44	0.26		0.20	0.39	0.11	0.09	0.39	0.21
Control Delay	36.3	8.7		29.6	11.5		6.8	13.5	3.4	6.4	15.2	3.2
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	36.3	8.7		29.6	11.5		6.8	13.5	3.4	6.4	15.2	3.2
LOS	D	A		C	B		A	B	A	A	B	A
Approach Delay		22.6			19.9			10.4			10.6	
Approach LOS		C			B			B			B	
Queue Length 50th (m)	25.3	4.3		12.5	5.0		5.5	32.6	0.0	2.4	30.1	0.0
Queue Length 95th (m)	46.4	18.2		26.2	16.4		15.4	65.9	7.8	8.0	64.7	10.9
Internal Link Dist (m)		1217.2			89.4			840.6			175.9	
Turn Bay Length (m)	70.0			45.0			150.0		100.0	110.0		110.0

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Base Capacity (vph)	590	857		473	833		707	1040	933	744	956	910
Starvation Cap Reductn	0	0		0	0		0	0	0	0	0	0
Spillback Cap Reductn	0	0		0	0		0	0	0	0	0	0
Storage Cap Reductn	0	0		0	0		0	0	0	0	0	0
Reduced v/c Ratio	0.35	0.24		0.23	0.15		0.18	0.39	0.11	0.08	0.39	0.21

Intersection Summary	
Cycle Length: 90	
Actuated Cycle Length: 70.5	
Natural Cycle: 55	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.67	
Intersection Signal Delay: 14.3	Intersection LOS: B
Intersection Capacity Utilization 56.0%	ICU Level of Service B
Analysis Period (min) 15	

Splits and Phases: 6: CR10 & Fallis Line





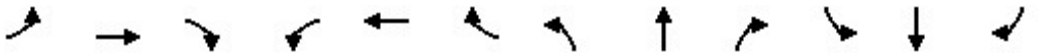
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	88	15	26	35	13	76	39	518	34	90	502	94
Future Volume (vph)	88	15	26	35	13	76	39	518	34	90	502	94
Satd. Flow (prot)	1789	1705	0	1789	1642	0	1789	1866	0	1789	1883	1601
Flt Permitted	0.784			0.784			0.427			0.387		
Satd. Flow (perm)	1477	1705	0	1477	1642	0	804	1866	0	729	1883	1601
Satd. Flow (RTOR)		28			83			7				102
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	96	16	28	38	14	83	42	563	37	98	546	102
Shared Lane Traffic (%)												
Lane Group Flow (vph)	96	44	0	38	97	0	42	600	0	98	546	102
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		3.7			3.7			3.7			3.7	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		1.6			1.6			1.6			1.6	
Two way Left Turn Lane												
Headway Factor	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99
Turning Speed (k/h)	97		97	97		97	97		97	97		97
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	Perm
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		6
Detector Phase	4	4		8	8		2	2		6	6	6
Switch Phase												
Minimum Initial (s)	7.0	7.0		7.0	7.0		10.0	10.0		10.0	10.0	10.0
Minimum Split (s)	20.0	20.0		20.0	20.0		20.0	20.0		20.0	20.0	20.0
Total Split (s)	28.0	28.0		28.0	28.0		62.0	62.0		62.0	62.0	62.0
Total Split (%)	31.1%	31.1%		31.1%	31.1%		68.9%	68.9%		68.9%	68.9%	68.9%
Yellow Time (s)	3.7	3.7		3.7	3.7		3.7	3.7		3.7	3.7	3.7
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	0.0
Total Lost Time (s)	4.7	4.7		4.7	4.7		4.7	4.7		4.7	4.7	4.7
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	None	None		None	None		Min	Min		Min	Min	Min
Act Effct Green (s)	9.0	9.0		9.0	9.0		24.8	24.8		24.8	24.8	24.8
Actuated g/C Ratio	0.26	0.26		0.26	0.26		0.71	0.71		0.71	0.71	0.71
v/c Ratio	0.25	0.10		0.10	0.20		0.07	0.45		0.19	0.41	0.09
Control Delay	14.4	8.5		13.2	6.4		5.3	6.8		6.3	6.4	1.7
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	0.0
Total Delay	14.4	8.5		13.2	6.4		5.3	6.8		6.3	6.4	1.7
LOS	B	A		B	A		A	A		A	A	A
Approach Delay		12.6			8.3			6.7			5.8	
Approach LOS		B			A			A			A	
Queue Length 50th (m)	4.2	0.7		1.6	0.6		1.1	21.1		2.8	18.7	0.0
Queue Length 95th (m)	15.9	6.6		7.9	9.1		4.7	51.3		10.1	45.2	4.3
Internal Link Dist (m)		107.2			102.5			127.2			104.9	
Turn Bay Length (m)	75.0			75.0			25.0			110.0		120.0
Base Capacity (vph)	1046	1215		1046	1187		804	1866		729	1883	1601

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Starvation Cap Reductn	0	0		0	0		0	0		0	0	0
Spillback Cap Reductn	0	0		0	0		0	0		0	0	0
Storage Cap Reductn	0	0		0	0		0	0		0	0	0
Reduced v/c Ratio	0.09	0.04		0.04	0.08		0.05	0.32		0.13	0.29	0.06

Intersection Summary	
Cycle Length: 90	
Actuated Cycle Length: 34.9	
Natural Cycle: 45	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.45	
Intersection Signal Delay: 6.9	Intersection LOS: A
Intersection Capacity Utilization 60.9%	ICU Level of Service B
Analysis Period (min) 15	

Splits and Phases: 26: CR10 & Highland Blvd

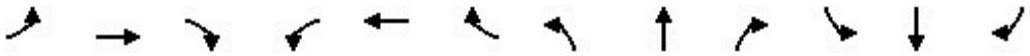




Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	4	1	3	28	2	24	1	587	13	53	389	19
Future Volume (Veh/h)	4	1	3	28	2	24	1	587	13	53	389	19
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.77	0.92	0.92
Hourly flow rate (vph)	4	1	3	30	2	26	1	638	14	69	423	21
Pedestrians												
Lane Width (m)												
Walking Speed (m/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (m)								280			151	
pX, platoon unblocked	0.87	0.87	0.91	0.87	0.87	0.82	0.91			0.82		
vC, conflicting volume	1238	1226	434	1212	1229	645	444			652		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	969	954	329	938	958	463	341			472		
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	98	100	100	85	99	95	100			92		
cM capacity (veh/h)	181	207	653	198	206	494	1120			899		

Direction, Lane #	EB 1	EB 2	WB 1	WB 2	NB 1	NB 2	SB 1	SB 2
Volume Total	4	4	30	28	1	652	69	444
Volume Left	4	0	30	0	1	0	69	0
Volume Right	0	3	0	26	0	14	0	21
cSH	181	425	198	449	1120	1700	899	1700
Volume to Capacity	0.02	0.01	0.15	0.06	0.00	0.38	0.08	0.26
Queue Length 95th (m)	0.5	0.2	4.0	1.5	0.0	0.0	1.9	0.0
Control Delay (s)	25.4	13.6	26.4	13.5	8.2	0.0	9.3	0.0
Lane LOS	D	B	D	B	A		A	
Approach Delay (s)	19.5		20.2		0.0		1.3	
Approach LOS	C		C					

Intersection Summary				
Average Delay	1.6			
Intersection Capacity Utilization	53.2%	ICU Level of Service	A	
Analysis Period (min)	15			



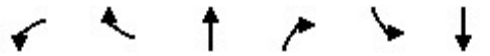
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Stop			Stop	
Traffic Volume (vph)	141	28	2	8	51	235	1	26	7	223	48	124
Future Volume (vph)	141	28	2	8	51	235	1	26	7	223	48	124
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85
Hourly flow rate (vph)	166	33	2	9	60	276	1	31	8	262	56	146

Direction, Lane #	EB 1	WB 1	NB 1	SB 1	SB 2
Volume Total (vph)	201	345	40	262	202
Volume Left (vph)	166	9	1	262	0
Volume Right (vph)	2	276	8	0	146
Hadj (s)	0.26	-0.37	-0.02	0.58	-0.48
Departure Headway (s)	6.1	5.2	6.4	6.7	5.6
Degree Utilization, x	0.34	0.50	0.07	0.49	0.31
Capacity (veh/h)	554	652	480	514	612
Control Delay (s)	12.2	13.4	9.9	14.7	10.0
Approach Delay (s)	12.2	13.4	9.9	12.6	
Approach LOS	B	B	A	B	

Intersection Summary				
Delay	12.7			
Level of Service	B			
Intersection Capacity Utilization	56.0%	ICU Level of Service	B	
Analysis Period (min)	15			

Intersection: 12: Distillery Rd/CR10 & King St (CR21)

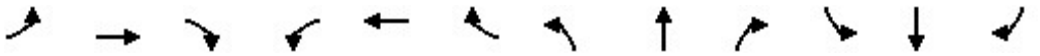
Movement	EB	WB	NB	SB	SB
Directions Served	LTR	LTR	LTR	L	TR
Maximum Queue (m)	27.9	33.1	14.6	29.5	22.8
Average Queue (m)	14.3	18.0	7.0	16.2	12.6
95th Queue (m)	23.7	28.3	14.5	25.6	20.0
Link Distance (m)	518.3	494.8	260.2		493.8
Upstream Blk Time (%)					
Queuing Penalty (veh)					
Storage Bay Dist (m)				50.0	
Storage Blk Time (%)					
Queuing Penalty (veh)					



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	1	124	59	1	59	37
Future Volume (Veh/h)	1	124	59	1	59	37
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Peak Hour Factor	0.80	0.80	0.80	0.80	0.80	0.80
Hourly flow rate (vph)	1	155	74	1	74	46
Pedestrians						
Lane Width (m)						
Walking Speed (m/s)						
Percent Blockage						
Right turn flare (veh)						
Median type			None			None
Median storage veh)						
Upstream signal (m)						
pX, platoon unblocked						
vC, conflicting volume	268	74			75	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	268	74			75	
tC, single (s)	6.4	6.2			4.2	
tC, 2 stage (s)						
tF (s)	3.5	3.3			2.3	
p0 queue free %	100	84			95	
cM capacity (veh/h)	688	979			1446	

Direction, Lane #	WB 1	NB 1	SB 1
Volume Total	156	75	120
Volume Left	1	0	74
Volume Right	155	1	0
cSH	976	1700	1446
Volume to Capacity	0.16	0.04	0.05
Queue Length 95th (m)	4.3	0.0	1.2
Control Delay (s)	9.4	0.0	4.9
Lane LOS	A		A
Approach Delay (s)	9.4	0.0	4.9
Approach LOS	A		

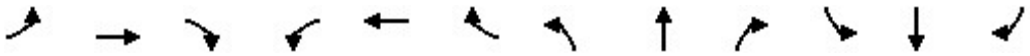
Intersection Summary			
Average Delay	5.8		
Intersection Capacity Utilization	26.3%	ICU Level of Service	A
Analysis Period (min)	15		



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	17	2	14	95	2	73	1	550	24	99	546	22
Future Volume (Veh/h)	17	2	14	95	2	73	1	550	24	99	546	22
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	18	2	15	103	2	79	1	598	26	108	593	24
Pedestrians												
Lane Width (m)												
Walking Speed (m/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (m)								280			151	
pX, platoon unblocked	0.83	0.83	0.81	0.83	0.83	0.96	0.81			0.96		
vC, conflicting volume	1501	1447	605	1438	1446	611	617			624		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	1379	1314	391	1303	1313	569	406			583		
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	77	98	97	0	98	84	100			89		
cM capacity (veh/h)	77	116	534	100	116	498	939			947		

Direction, Lane #	EB 1	EB 2	WB 1	WB 2	NB 1	NB 2	SB 1	SB 2
Volume Total	18	17	103	81	1	624	108	617
Volume Left	18	0	103	0	1	0	108	0
Volume Right	0	15	0	79	0	26	0	24
cSH	77	375	100	461	939	1700	947	1700
Volume to Capacity	0.23	0.05	1.03	0.18	0.00	0.37	0.11	0.36
Queue Length 95th (m)	6.2	1.1	48.8	4.8	0.0	0.0	2.9	0.0
Control Delay (s)	65.2	15.0	178.1	14.5	8.8	0.0	9.3	0.0
Lane LOS	F	C	F	B	A		A	
Approach Delay (s)	40.8		106.1		0.0		1.4	
Approach LOS	E		F					

Intersection Summary				
Average Delay	14.0			
Intersection Capacity Utilization	57.8%	ICU Level of Service		B
Analysis Period (min)	15			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Stop			Stop	
Traffic Volume (vph)	181	50	4	0	45	271	1	63	8	294	16	205
Future Volume (vph)	181	50	4	0	45	271	1	63	8	294	16	205
Peak Hour Factor	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83
Hourly flow rate (vph)	218	60	5	0	54	327	1	76	10	354	19	247

Direction, Lane #	EB 1	WB 1	NB 1	SB 1	SB 2
Volume Total (vph)	283	381	87	354	266
Volume Left (vph)	218	0	1	354	0
Volume Right (vph)	5	327	10	0	247
Hadj (s)	0.16	-0.47	-0.07	0.52	-0.65
Departure Headway (s)	6.8	6.0	7.4	7.3	6.1
Degree Utilization, x	0.54	0.64	0.18	0.72	0.45
Capacity (veh/h)	491	571	404	477	569
Control Delay (s)	17.4	19.0	12.0	25.9	13.0
Approach Delay (s)	17.4	19.0	12.0	20.3	
Approach LOS	C	C	B	C	

Intersection Summary				
Delay	18.8			
Level of Service	C			
Intersection Capacity Utilization	64.9%	ICU Level of Service		C
Analysis Period (min)	15			

Intersection: 12: Distillery Rd/CR10 & King St (CR21)

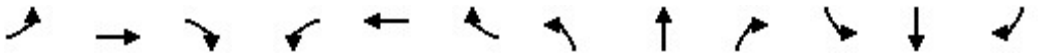
Movement	EB	WB	NB	SB	SB
Directions Served	LTR	LTR	LTR	L	TR
Maximum Queue (m)	29.9	33.4	14.7	31.8	23.1
Average Queue (m)	15.5	19.1	8.7	18.8	14.5
95th Queue (m)	24.8	29.0	14.7	27.8	21.6
Link Distance (m)	518.3	494.8	260.2		493.8
Upstream Blk Time (%)					
Queuing Penalty (veh)					
Storage Bay Dist (m)				50.0	
Storage Blk Time (%)					
Queuing Penalty (veh)					



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	4	68	45	9	132	71
Future Volume (Veh/h)	4	68	45	9	132	71
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96
Hourly flow rate (vph)	4	71	47	9	138	74
Pedestrians						
Lane Width (m)						
Walking Speed (m/s)						
Percent Blockage						
Right turn flare (veh)						
Median type			None			None
Median storage veh)						
Upstream signal (m)						
pX, platoon unblocked						
vC, conflicting volume	402	52			56	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	402	52			56	
tC, single (s)	6.4	6.2			4.1	
tC, 2 stage (s)						
tF (s)	3.5	3.3			2.2	
p0 queue free %	99	93			91	
cM capacity (veh/h)	554	1011			1549	

Direction, Lane #	WB 1	NB 1	SB 1
Volume Total	75	56	212
Volume Left	4	0	138
Volume Right	71	9	0
cSH	968	1700	1549
Volume to Capacity	0.08	0.03	0.09
Queue Length 95th (m)	1.9	0.0	2.2
Control Delay (s)	9.0	0.0	5.2
Lane LOS	A		A
Approach Delay (s)	9.0	0.0	5.2
Approach LOS	A		

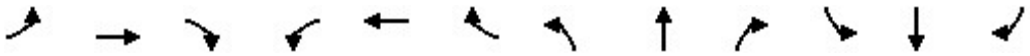
Intersection Summary			
Average Delay		5.2	
Intersection Capacity Utilization		28.8%	ICU Level of Service
Analysis Period (min)		15	



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	1	1	2	90	1	73	1	517	27	104	458	1
Future Volume (Veh/h)	1	1	2	90	1	73	1	517	27	104	458	1
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	1	1	2	98	1	79	1	562	29	113	498	1
Pedestrians												
Lane Width (m)												
Walking Speed (m/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (m)								280			151	
pX, platoon unblocked	0.91	0.91	0.91	0.91	0.91	1.00	0.91			1.00		
vC, conflicting volume	1368	1318	498	1305	1304	576	499			591		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	1347	1292	400	1278	1277	574	401			588		
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	99	99	100	17	99	85	100			89		
cM capacity (veh/h)	91	132	596	118	134	517	1064			984		

Direction, Lane #	EB 1	EB 2	WB 1	WB 2	NB 1	NB 2	SB 1	SB 2
Volume Total	1	3	98	80	1	591	113	499
Volume Left	1	0	98	0	1	0	113	0
Volume Right	0	2	0	79	0	29	0	1
cSH	91	274	118	499	1064	1700	984	1700
Volume to Capacity	0.01	0.01	0.83	0.16	0.00	0.35	0.11	0.29
Queue Length 95th (m)	0.3	0.3	37.6	4.3	0.0	0.0	2.9	0.0
Control Delay (s)	45.2	18.3	111.1	13.6	8.4	0.0	9.1	0.0
Lane LOS	E	C	F	B	A		A	
Approach Delay (s)	25.0		67.3		0.0		1.7	
Approach LOS	D		F					

Intersection Summary				
Average Delay	9.5			
Intersection Capacity Utilization	56.3%	ICU Level of Service		B
Analysis Period (min)	15			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Stop			Stop	
Traffic Volume (vph)	215	51	13	9	51	212	12	61	12	207	30	243
Future Volume (vph)	215	51	13	9	51	212	12	61	12	207	30	243
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Hourly flow rate (vph)	229	54	14	10	54	226	13	65	13	220	32	259

Direction, Lane #	EB 1	WB 1	NB 1	SB 1	SB 2
Volume Total (vph)	297	290	91	220	291
Volume Left (vph)	229	10	13	220	0
Volume Right (vph)	14	226	13	0	259
Hadj (s)	0.13	-0.46	-0.06	0.50	-0.62
Departure Headway (s)	6.2	5.7	6.7	6.9	5.8
Degree Utilization, x	0.51	0.46	0.17	0.42	0.47
Capacity (veh/h)	550	593	458	495	593
Control Delay (s)	15.5	13.3	11.0	13.8	12.6
Approach Delay (s)	15.5	13.3	11.0	13.1	
Approach LOS	C	B	B	B	

Intersection Summary				
Delay	13.6			
Level of Service	B			
Intersection Capacity Utilization	59.8%	ICU Level of Service	B	
Analysis Period (min)	15			

Intersection: 12: Distillery Rd/CR10 & King St (CR21)

Movement	EB	WB	NB	SB	SB
Directions Served	LTR	LTR	LTR	L	TR
Maximum Queue (m)	28.0	27.0	16.6	24.9	28.6
Average Queue (m)	17.3	16.2	9.5	14.4	16.0
95th Queue (m)	25.4	24.6	15.3	22.0	23.0
Link Distance (m)	518.3	494.8	260.2		493.8
Upstream Blk Time (%)					
Queuing Penalty (veh)					
Storage Bay Dist (m)				50.0	
Storage Blk Time (%)					
Queuing Penalty (veh)					



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	1	61	48	1	77	40
Future Volume (Veh/h)	1	61	48	1	77	40
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89
Hourly flow rate (vph)	1	69	54	1	87	45
Pedestrians						
Lane Width (m)						
Walking Speed (m/s)						
Percent Blockage						
Right turn flare (veh)						
Median type			None			None
Median storage veh)						
Upstream signal (m)						
pX, platoon unblocked						
vC, conflicting volume	274	54			55	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	274	54			55	
tC, single (s)	6.4	6.2			4.1	
tC, 2 stage (s)						
tF (s)	3.5	3.3			2.2	
p0 queue free %	100	93			94	
cM capacity (veh/h)	680	1018			1563	

Direction, Lane #	WB 1	NB 1	SB 1
Volume Total	70	55	132
Volume Left	1	0	87
Volume Right	69	1	0
cSH	1011	1700	1563
Volume to Capacity	0.07	0.03	0.06
Queue Length 95th (m)	1.7	0.0	1.3
Control Delay (s)	8.8	0.0	5.0
Lane LOS	A		A
Approach Delay (s)	8.8	0.0	5.0
Approach LOS	A		

Intersection Summary			
Average Delay	5.0		
Intersection Capacity Utilization	23.5%	ICU Level of Service	A
Analysis Period (min)	15		

Appendix L

Synchro Reports,

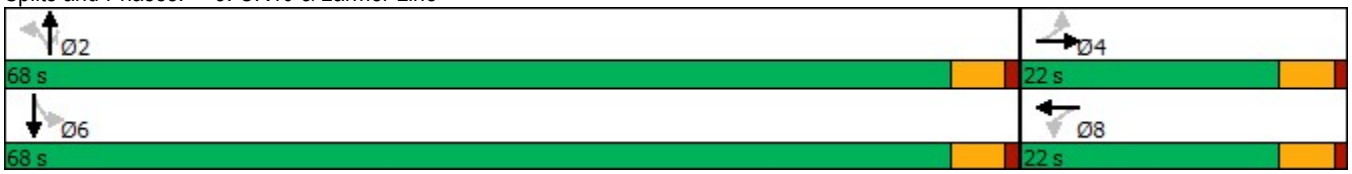
Total Volumes, 2035

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	23	5	56	73	12	17	56	768	51	6	512	56
Future Volume (vph)	23	5	56	73	12	17	56	768	51	6	512	56
Satd. Flow (prot)	0	1670	0	0	1813	0	1825	1883	1306	1372	1875	0
Flt Permitted		0.902			0.734		0.379			0.267		
Satd. Flow (perm)	0	1526	0	0	1379	0	728	1883	1306	386	1875	0
Satd. Flow (RTOR)		64			10				58		15	
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Heavy Vehicles (%)	0%	0%	5%	0%	0%	0%	0%	2%	25%	33%	1%	0%
Adj. Flow (vph)	26	6	64	83	14	19	64	873	58	7	582	64
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	96	0	0	116	0	64	873	58	7	646	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		0.0			0.0			3.7			3.7	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		1.6			1.6			1.6			1.6	
Two way Left Turn Lane												
Headway Factor	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99
Turning Speed (k/h)	24		14	24		14	24		14	24		14
Turn Type	Perm	NA		Perm	NA		Perm	NA	Perm	Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2		2	6		
Detector Phase	4	4		8	8		2	2	2	6	6	
Switch Phase												
Minimum Initial (s)	7.0	7.0		7.0	7.0		10.0	10.0	10.0	10.0	10.0	
Minimum Split (s)	20.7	20.7		20.7	20.7		20.7	20.7	20.7	20.7	20.7	
Total Split (s)	22.0	22.0		22.0	22.0		68.0	68.0	68.0	68.0	68.0	
Total Split (%)	24.4%	24.4%		24.4%	24.4%		75.6%	75.6%	75.6%	75.6%	75.6%	
Yellow Time (s)	3.7	3.7		3.7	3.7		3.7	3.7	3.7	3.7	3.7	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0	1.0	1.0	1.0	
Lost Time Adjust (s)		0.0			0.0		0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)		4.7			4.7		4.7	4.7	4.7	4.7	4.7	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	None	None		None	None		Max	Max	Max	Max	Max	
Act Effct Green (s)		11.7			11.7		65.1	65.1	65.1	65.1	65.1	
Actuated g/C Ratio		0.14			0.14		0.79	0.79	0.79	0.79	0.79	
v/c Ratio		0.35			0.57		0.11	0.59	0.06	0.02	0.44	
Control Delay		17.8			41.9		4.2	7.3	1.3	3.8	5.3	
Queue Delay		0.0			0.0		0.0	0.0	0.0	0.0	0.0	
Total Delay		17.8			41.9		4.2	7.3	1.3	3.8	5.3	
LOS		B			D		A	A	A	A	A	
Approach Delay		17.8			41.9			6.8			5.3	
Approach LOS		B			D			A			A	
Queue Length 50th (m)		4.6			16.2		2.3	52.1	0.0	0.2	30.5	
Queue Length 95th (m)		16.7			31.3		6.9	101.4	2.9	1.5	59.8	
Internal Link Dist (m)		65.2			101.5			655.7			158.9	
Turn Bay Length (m)							110.0		110.0	110.0		

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Base Capacity (vph)		374			300		575	1488	1044	305	1485	
Starvation Cap Reductn		0			0		0	0	0	0	0	
Spillback Cap Reductn		0			0		0	0	0	0	0	
Storage Cap Reductn		0			0		0	0	0	0	0	
Reduced v/c Ratio		0.26			0.39		0.11	0.59	0.06	0.02	0.44	

Intersection Summary	
Cycle Length: 90	
Actuated Cycle Length: 82.3	
Natural Cycle: 60	
Control Type: Semi Act-Uncoord	
Maximum v/c Ratio: 0.59	
Intersection Signal Delay: 9.0	Intersection LOS: A
Intersection Capacity Utilization 66.7%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 3: CR10 & Larmer Line



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	248	35	264	66	31	81	198	428	64	37	333	166
Future Volume (vph)	248	35	264	66	31	81	198	428	64	37	333	166
Satd. Flow (prot)	1722	1623	0	1825	1712	0	1807	1865	1633	1825	1902	1306
Flt Permitted	0.651			0.299			0.321			0.353		
Satd. Flow (perm)	1180	1623	0	574	1712	0	611	1865	1633	678	1902	1306
Satd. Flow (RTOR)		343			105				83			216
Peak Hour Factor	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77
Heavy Vehicles (%)	6%	0%	3%	0%	0%	0%	1%	3%	0%	0%	1%	25%
Adj. Flow (vph)	322	45	343	86	40	105	257	556	83	48	432	216
Shared Lane Traffic (%)												
Lane Group Flow (vph)	322	388	0	86	145	0	257	556	83	48	432	216
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		3.7			3.7			3.7			3.7	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		1.6			1.6			1.6			1.6	
Two way Left Turn Lane												
Headway Factor	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99
Turning Speed (k/h)	24		14	24		14	24		14	24		14
Turn Type	Perm	NA		Perm	NA		pm+pt	NA	Perm	pm+pt	NA	Perm
Protected Phases		4			8		5	2		1	6	
Permitted Phases	4			8			2		2	6		6
Detector Phase	4	4		8	8		5	2	2	1	6	6
Switch Phase												
Minimum Initial (s)	7.0	7.0		7.0	7.0		7.0	10.0	10.0	7.0	10.0	10.0
Minimum Split (s)	20.0	20.0		20.0	20.0		11.0	20.0	20.0	11.0	20.0	20.0
Total Split (s)	36.0	36.0		36.0	36.0		15.0	39.0	39.0	15.0	39.0	39.0
Total Split (%)	40.0%	40.0%		40.0%	40.0%		16.7%	43.3%	43.3%	16.7%	43.3%	43.3%
Yellow Time (s)	3.7	3.7		3.7	3.7		3.5	3.7	3.7	3.5	3.7	3.7
All-Red Time (s)	1.0	1.0		1.0	1.0		0.0	1.0	1.0	0.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.7	4.7		4.7	4.7		3.5	4.7	4.7	3.5	4.7	4.7
Lead/Lag							Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?							Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None		None	None		None	Max	Max	None	Max	Max
Act Effct Green (s)	26.8	26.8		26.8	26.8		50.1	42.8	42.8	43.0	34.6	34.6
Actuated g/C Ratio	0.31	0.31		0.31	0.31		0.59	0.50	0.50	0.50	0.41	0.41
v/c Ratio	0.87	0.52		0.48	0.24		0.50	0.59	0.10	0.11	0.56	0.33
Control Delay	51.6	6.7		33.3	8.3		13.0	21.2	4.2	9.7	24.3	4.3
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	51.6	6.7		33.3	8.3		13.0	21.2	4.2	9.7	24.3	4.3
LOS	D	A		C	A		B	C	A	A	C	A
Approach Delay		27.1			17.6			17.3			17.1	
Approach LOS		C			B			B			B	
Queue Length 50th (m)	49.3	5.2		11.3	4.6		21.2	75.7	0.0	3.5	58.7	0.0
Queue Length 95th (m)	65.4	13.7		20.6	12.2		28.1	89.7	5.4	6.9	71.1	7.5
Internal Link Dist (m)		1217.2			89.4			840.6			175.9	
Turn Bay Length (m)	70.0			45.0			150.0		100.0	110.0		110.0

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Base Capacity (vph)	436	816		212	699		522	937	861	532	771	658
Starvation Cap Reductn	0	0		0	0		0	0	0	0	0	0
Spillback Cap Reductn	0	0		0	0		0	0	0	0	0	0
Storage Cap Reductn	0	0		0	0		0	0	0	0	0	0
Reduced v/c Ratio	0.74	0.48		0.41	0.21		0.49	0.59	0.10	0.09	0.56	0.33

Intersection Summary	
Cycle Length: 90	
Actuated Cycle Length: 85.2	
Natural Cycle: 60	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.87	
Intersection Signal Delay: 20.0	Intersection LOS: B
Intersection Capacity Utilization 67.6%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 6: CR10 & Fallis Line



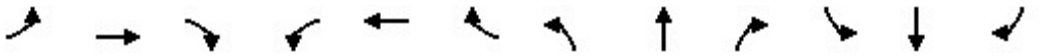
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	178	16	40	22	4	47	16	702	25	55	518	60
Future Volume (vph)	178	16	40	22	4	47	16	702	25	55	518	60
Satd. Flow (prot)	1789	1680	0	1789	1622	0	1789	1874	0	1789	1883	1601
Flt Permitted	0.721			0.718			0.370			0.213		
Satd. Flow (perm)	1358	1680	0	1352	1622	0	697	1874	0	401	1883	1601
Satd. Flow (RTOR)		43			51			4				65
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	193	17	43	24	4	51	17	763	27	60	563	65
Shared Lane Traffic (%)												
Lane Group Flow (vph)	193	60	0	24	55	0	17	790	0	60	563	65
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		3.7			3.7			3.7			3.7	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		1.6			1.6			1.6			1.6	
Two way Left Turn Lane												
Headway Factor	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99
Turning Speed (k/h)	24		14	24		14	24		14	24		14
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	Perm
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		6
Detector Phase	4	4		8	8		2	2		6	6	6
Switch Phase												
Minimum Initial (s)	7.0	7.0		7.0	7.0		10.0	10.0		10.0	10.0	10.0
Minimum Split (s)	20.0	20.0		20.0	20.0		20.0	20.0		20.0	20.0	20.0
Total Split (s)	28.0	28.0		28.0	28.0		62.0	62.0		62.0	62.0	62.0
Total Split (%)	31.1%	31.1%		31.1%	31.1%		68.9%	68.9%		68.9%	68.9%	68.9%
Yellow Time (s)	3.7	3.7		3.7	3.7		3.7	3.7		3.7	3.7	3.7
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	0.0
Total Lost Time (s)	4.7	4.7		4.7	4.7		4.7	4.7		4.7	4.7	4.7
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	None	None		None	None		Min	Min		Min	Min	Min
Act Effct Green (s)	13.8	13.8		13.8	13.8		32.0	32.0		32.0	32.0	32.0
Actuated g/C Ratio	0.25	0.25		0.25	0.25		0.57	0.57		0.57	0.57	0.57
v/c Ratio	0.58	0.13		0.07	0.13		0.04	0.73		0.26	0.52	0.07
Control Delay	27.4	10.3		19.3	8.1		6.4	14.2		10.4	9.7	2.1
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	0.0
Total Delay	27.4	10.3		19.3	8.1		6.4	14.2		10.4	9.7	2.1
LOS	C	B		B	A		A	B		B	A	A
Approach Delay		23.3			11.5			14.0			9.1	
Approach LOS		C			B			B			A	
Queue Length 50th (m)	14.6	1.1		1.6	0.3		0.6	46.3		2.4	27.4	0.0
Queue Length 95th (m)	44.7	10.3		8.1	8.2		3.4	116.7		11.0	68.7	4.3
Internal Link Dist (m)		107.2			102.5			127.2			104.9	
Turn Bay Length (m)	75.0			20.0			25.0			110.0		120.0
Base Capacity (vph)	601	768		598	746		648	1743		373	1752	1494

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Starvation Cap Reductn	0	0		0	0		0	0		0	0	0
Spillback Cap Reductn	0	0		0	0		0	0		0	0	0
Storage Cap Reductn	0	0		0	0		0	0		0	0	0
Reduced v/c Ratio	0.32	0.08		0.04	0.07		0.03	0.45		0.16	0.32	0.04

Intersection Summary	
Cycle Length: 90	
Actuated Cycle Length: 55.8	
Natural Cycle: 60	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.73	
Intersection Signal Delay: 13.3	Intersection LOS: B
Intersection Capacity Utilization 70.1%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 26: CR10 & Highland Blvd



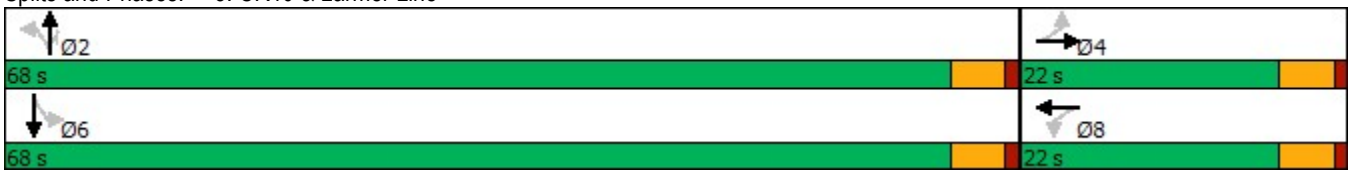


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	50	12	58	47	4	12	55	737	69	26	865	30
Future Volume (vph)	50	12	58	47	4	12	55	737	69	26	865	30
Satd. Flow (prot)	0	1760	0	0	1759	0	1825	1902	1633	1825	1893	0
Flt Permitted		0.866			0.655		0.213			0.294		
Satd. Flow (perm)	0	1556	0	0	1195	0	409	1902	1633	565	1893	0
Satd. Flow (RTOR)		47			11				76		5	
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Heavy Vehicles (%)	0%	0%	0%	0%	0%	14%	0%	1%	0%	0%	1%	0%
Adj. Flow (vph)	55	13	64	52	4	13	60	810	76	29	951	33
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	132	0	0	69	0	60	810	76	29	984	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		0.0			0.0			3.7			3.7	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		1.6			1.6			1.6			1.6	
Two way Left Turn Lane												
Headway Factor	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99
Turning Speed (k/h)	24		14	24		14	24		14	24		14
Turn Type	Perm	NA		Perm	NA		Perm	NA	Perm	Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2		2	6		
Detector Phase	4	4		8	8		2	2	2	6	6	
Switch Phase												
Minimum Initial (s)	7.0	7.0		7.0	7.0		10.0	10.0	10.0	10.0	10.0	
Minimum Split (s)	20.7	20.7		20.7	20.7		20.7	20.7	20.7	20.7	20.7	
Total Split (s)	22.0	22.0		22.0	22.0		68.0	68.0	68.0	68.0	68.0	
Total Split (%)	24.4%	24.4%		24.4%	24.4%		75.6%	75.6%	75.6%	75.6%	75.6%	
Yellow Time (s)	3.7	3.7		3.7	3.7		3.7	3.7	3.7	3.7	3.7	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0	1.0	1.0	1.0	
Lost Time Adjust (s)		0.0			0.0		0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)		4.7			4.7		4.7	4.7	4.7	4.7	4.7	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	None	None		None	None		Max	Max	Max	Max	Max	
Act Effct Green (s)		10.5			10.5		63.4	63.4	63.4	63.4	63.4	
Actuated g/C Ratio		0.13			0.13		0.76	0.76	0.76	0.76	0.76	
v/c Ratio		0.56			0.43		0.19	0.56	0.06	0.07	0.68	
Control Delay		31.5			37.4		5.2	6.5	1.0	3.7	8.6	
Queue Delay		0.0			0.0		0.0	0.0	0.0	0.0	0.0	
Total Delay		31.5			37.4		5.2	6.5	1.0	3.7	8.6	
LOS		C			D		A	A	A	A	A	
Approach Delay		31.5			37.4			6.0			8.5	
Approach LOS		C			D			A			A	
Queue Length 50th (m)		12.7			8.6		2.0	40.3	0.0	0.9	58.3	
Queue Length 95th (m)		29.2			20.4		7.5	85.4	3.2	3.6	127.1	
Internal Link Dist (m)		65.2			101.5			655.7			158.9	
Turn Bay Length (m)							110.0		110.0	110.0		

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Base Capacity (vph)		360			257		311	1447	1260	429	1441	
Starvation Cap Reductn		0			0		0	0	0	0	0	
Spillback Cap Reductn		0			0		0	0	0	0	0	
Storage Cap Reductn		0			0		0	0	0	0	0	
Reduced v/c Ratio		0.37			0.27		0.19	0.56	0.06	0.07	0.68	

Intersection Summary			
Cycle Length: 90			
Actuated Cycle Length: 83.3			
Natural Cycle: 60			
Control Type: Semi Act-Uncoord			
Maximum v/c Ratio: 0.68			
Intersection Signal Delay: 9.7		Intersection LOS: A	
Intersection Capacity Utilization 62.1%		ICU Level of Service B	
Analysis Period (min) 15			

Splits and Phases: 3: CR10 & Larmer Line



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	173	36	147	92	37	65	181	452	98	71	496	204
Future Volume (vph)	173	36	147	92	37	65	181	452	98	71	496	204
Satd. Flow (prot)	1706	1689	0	1825	1737	0	1789	1902	1633	1825	1921	1585
Flt Permitted	0.685			0.539			0.285			0.412		
Satd. Flow (perm)	1230	1689	0	1035	1737	0	537	1902	1633	791	1921	1585
Satd. Flow (RTOR)		160			71				107			222
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	7%	0%	0%	0%	0%	0%	2%	1%	0%	0%	0%	3%
Adj. Flow (vph)	188	39	160	100	40	71	197	491	107	77	539	222
Shared Lane Traffic (%)												
Lane Group Flow (vph)	188	199	0	100	111	0	197	491	107	77	539	222
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		3.7			3.7			3.7			3.7	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		1.6			1.6			1.6			1.6	
Two way Left Turn Lane												
Headway Factor	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99
Turning Speed (k/h)	24		14	24		14	24		14	24		14
Turn Type	Perm	NA		Perm	NA		pm+pt	NA	Perm	pm+pt	NA	Perm
Protected Phases		4			8		5	2		1	6	
Permitted Phases	4			8			2		2	6		6
Detector Phase	4	4		8	8		5	2	2	1	6	6
Switch Phase												
Minimum Initial (s)	7.0	7.0		7.0	7.0		7.0	10.0	10.0	7.0	10.0	10.0
Minimum Split (s)	20.0	20.0		20.0	20.0		11.0	20.0	20.0	11.0	20.0	20.0
Total Split (s)	36.0	36.0		36.0	36.0		15.0	39.0	39.0	15.0	39.0	39.0
Total Split (%)	40.0%	40.0%		40.0%	40.0%		16.7%	43.3%	43.3%	16.7%	43.3%	43.3%
Yellow Time (s)	3.7	3.7		3.7	3.7		3.5	3.7	3.7	3.5	3.7	3.7
All-Red Time (s)	1.0	1.0		1.0	1.0		0.0	1.0	1.0	0.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.7	4.7		4.7	4.7		3.5	4.7	4.7	3.5	4.7	4.7
Lead/Lag							Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?							Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None		None	None		None	Max	Max	None	Max	Max
Act Effct Green (s)	16.5	16.5		16.5	16.5		47.4	38.7	38.7	43.2	34.6	34.6
Actuated g/C Ratio	0.23	0.23		0.23	0.23		0.65	0.53	0.53	0.59	0.47	0.47
v/c Ratio	0.68	0.39		0.43	0.25		0.39	0.49	0.12	0.13	0.59	0.26
Control Delay	38.8	8.9		30.1	11.5		8.2	15.4	3.3	6.6	19.3	3.2
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	38.8	8.9		30.1	11.5		8.2	15.4	3.3	6.6	19.3	3.2
LOS	D	A		C	B		A	B	A	A	B	A
Approach Delay		23.4			20.3			12.0			13.9	
Approach LOS		C			C			B			B	
Queue Length 50th (m)	23.5	4.2		11.7	4.3		8.7	42.1	0.0	3.2	50.8	0.0
Queue Length 95th (m)	44.5	19.0		25.2	15.8		22.6	87.6	8.3	10.1	105.6	12.4
Internal Link Dist (m)		1217.2			89.4			840.6			175.9	
Turn Bay Length (m)	70.0			45.0			150.0		100.0	110.0		110.0

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Base Capacity (vph)	530	820		447	790		553	1006	914	673	909	866
Starvation Cap Reductn	0	0		0	0		0	0	0	0	0	0
Spillback Cap Reductn	0	0		0	0		0	0	0	0	0	0
Storage Cap Reductn	0	0		0	0		0	0	0	0	0	0
Reduced v/c Ratio	0.35	0.24		0.22	0.14		0.36	0.49	0.12	0.11	0.59	0.26

Intersection Summary	
Cycle Length: 90	
Actuated Cycle Length: 73.2	
Natural Cycle: 60	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.68	
Intersection Signal Delay: 15.5	Intersection LOS: B
Intersection Capacity Utilization 68.0%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 6: CR10 & Fallis Line



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	118	11	26	45	20	85	59	650	18	110	720	191
Future Volume (vph)	118	11	26	45	20	85	59	650	18	110	720	191
Satd. Flow (prot)	1789	1686	0	1789	1656	0	1789	1876	0	1789	1883	1601
Flt Permitted	0.684			0.731			0.256			0.291		
Satd. Flow (perm)	1288	1686	0	1377	1656	0	482	1876	0	548	1883	1601
Satd. Flow (RTOR)		28			92			3				208
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	128	12	28	49	22	92	64	707	20	120	783	208
Shared Lane Traffic (%)												
Lane Group Flow (vph)	128	40	0	49	114	0	64	727	0	120	783	208
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		3.7			3.7			3.7			3.7	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		1.6			1.6			1.6			1.6	
Two way Left Turn Lane												
Headway Factor	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99
Turning Speed (k/h)	97		97	97		97	97		97	97		97
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	Perm
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		6
Detector Phase	4	4		8	8		2	2		6	6	6
Switch Phase												
Minimum Initial (s)	7.0	7.0		7.0	7.0		10.0	10.0		10.0	10.0	10.0
Minimum Split (s)	20.0	20.0		20.0	20.0		20.0	20.0		20.0	20.0	20.0
Total Split (s)	28.0	28.0		28.0	28.0		62.0	62.0		62.0	62.0	62.0
Total Split (%)	31.1%	31.1%		31.1%	31.1%		68.9%	68.9%		68.9%	68.9%	68.9%
Yellow Time (s)	3.7	3.7		3.7	3.7		3.7	3.7		3.7	3.7	3.7
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	0.0
Total Lost Time (s)	4.7	4.7		4.7	4.7		4.7	4.7		4.7	4.7	4.7
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	None	None		None	None		Min	Min		Min	Min	Min
Act Effct Green (s)	11.4	11.4		11.4	11.4		32.6	32.6		32.6	32.6	32.6
Actuated g/C Ratio	0.23	0.23		0.23	0.23		0.67	0.67		0.67	0.67	0.67
v/c Ratio	0.43	0.10		0.15	0.25		0.20	0.58		0.33	0.62	0.18
Control Delay	24.4	11.5		20.0	8.9		7.5	9.3		9.3	10.1	1.4
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	0.0
Total Delay	24.4	11.5		20.0	8.9		7.5	9.3		9.3	10.1	1.4
LOS	C	B		B	A		A	A		A	B	A
Approach Delay		21.3			12.3			9.1			8.4	
Approach LOS		C			B			A			A	
Queue Length 50th (m)	8.9	0.8		3.2	1.4		2.2	34.7		4.5	39.4	0.0
Queue Length 95th (m)	30.0	8.1		13.5	13.8		9.1	84.9		17.1	96.7	6.4
Internal Link Dist (m)		107.2			102.5			127.2			104.9	
Turn Bay Length (m)	75.0			20.0			25.0			110.0		120.0
Base Capacity (vph)	676	898		722	913		459	1788		522	1795	1536

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Starvation Cap Reductn	0	0		0	0		0	0		0	0	0
Spillback Cap Reductn	0	0		0	0		0	0		0	0	0
Storage Cap Reductn	0	0		0	0		0	0		0	0	0
Reduced v/c Ratio	0.19	0.04		0.07	0.12		0.14	0.41		0.23	0.44	0.14

Intersection Summary	
Cycle Length: 90	
Actuated Cycle Length: 49	
Natural Cycle: 55	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.62	
Intersection Signal Delay: 9.9	Intersection LOS: A
Intersection Capacity Utilization 71.2%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 26: CR10 & Highland Blvd

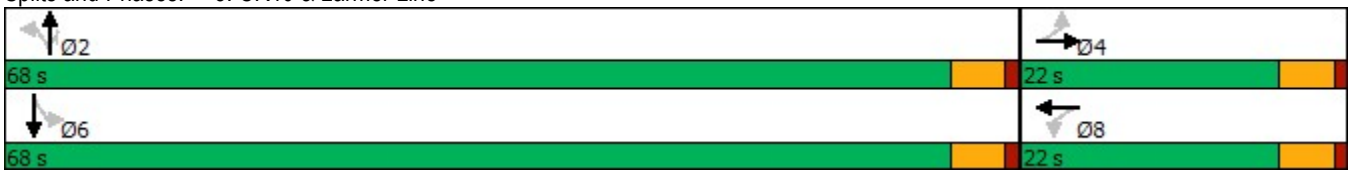


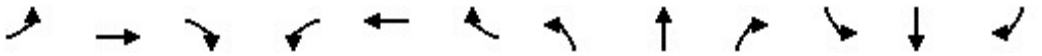
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	11	10	43	54	4	15	51	689	60	13	724	10
Future Volume (vph)	11	10	43	54	4	15	51	689	60	13	724	10
Satd. Flow (prot)	0	1732	0	0	1802	0	1825	1921	1633	1825	1917	0
Flt Permitted		0.950			0.833		0.337			0.359		
Satd. Flow (perm)	0	1659	0	0	1557	0	647	1921	1633	690	1917	0
Satd. Flow (RTOR)		44			13				61		2	
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Heavy Vehicles (%)	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Adj. Flow (vph)	11	10	44	55	4	15	52	703	61	13	739	10
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	65	0	0	74	0	52	703	61	13	749	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		0.0			0.0			3.7			3.7	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		1.6			1.6			1.6			1.6	
Two way Left Turn Lane												
Headway Factor	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99
Turning Speed (k/h)	24		14	24		14	24		14	24		14
Turn Type	Perm	NA		Perm	NA		Perm	NA	Perm	Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2		2	6		
Detector Phase	4	4		8	8		2	2	2	6	6	
Switch Phase												
Minimum Initial (s)	7.0	7.0		7.0	7.0		10.0	10.0	10.0	10.0	10.0	
Minimum Split (s)	20.7	20.7		20.7	20.7		20.7	20.7	20.7	20.7	20.7	
Total Split (s)	22.0	22.0		22.0	22.0		68.0	68.0	68.0	68.0	68.0	
Total Split (%)	24.4%	24.4%		24.4%	24.4%		75.6%	75.6%	75.6%	75.6%	75.6%	
Yellow Time (s)	3.7	3.7		3.7	3.7		3.7	3.7	3.7	3.7	3.7	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0	1.0	1.0	1.0	
Lost Time Adjust (s)		0.0			0.0		0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)		4.7			4.7		4.7	4.7	4.7	4.7	4.7	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	None	None		None	None		Max	Max	Max	Max	Max	
Act Effct Green (s)		9.3			9.3		67.2	67.2	67.2	67.2	67.2	
Actuated g/C Ratio		0.11			0.11		0.81	0.81	0.81	0.81	0.81	
v/c Ratio		0.29			0.40		0.10	0.45	0.05	0.02	0.48	
Control Delay		18.9			35.0		3.3	4.5	0.9	2.8	4.7	
Queue Delay		0.0			0.0		0.0	0.0	0.0	0.0	0.0	
Total Delay		18.9			35.0		3.3	4.5	0.9	2.8	4.7	
LOS		B			C		A	A	A	A	A	
Approach Delay		18.9			35.0			4.1			4.7	
Approach LOS		B			C			A			A	
Queue Length 50th (m)		3.0			8.9		1.5	28.9	0.0	0.4	31.9	
Queue Length 95th (m)		13.7			21.0		5.0	57.8	2.5	1.7	64.0	
Internal Link Dist (m)		65.2			101.5			655.7			158.9	
Turn Bay Length (m)							110.0		110.0	110.0		

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Base Capacity (vph)		381			335		525	1561	1339	561	1559	
Starvation Cap Reductn		0			0		0	0	0	0	0	
Spillback Cap Reductn		0			0		0	0	0	0	0	
Storage Cap Reductn		0			0		0	0	0	0	0	
Reduced v/c Ratio		0.17			0.22		0.10	0.45	0.05	0.02	0.48	

Intersection Summary	
Cycle Length: 90	
Actuated Cycle Length: 82.7	
Natural Cycle: 60	
Control Type: Semi Act-Uncoord	
Maximum v/c Ratio: 0.48	
Intersection Signal Delay: 6.3	Intersection LOS: A
Intersection Capacity Utilization 61.0%	ICU Level of Service B
Analysis Period (min) 15	

Splits and Phases: 3: CR10 & Larmer Line





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	207	39	183	98	40	78	155	381	97	63	366	198
Future Volume (vph)	207	39	183	98	40	78	155	381	97	63	366	198
Satd. Flow (prot)	1825	1683	0	1825	1729	0	1825	1921	1633	1825	1921	1633
Flt Permitted	0.671			0.458			0.375			0.450		
Satd. Flow (perm)	1289	1683	0	880	1729	0	720	1921	1633	864	1921	1633
Satd. Flow (RTOR)		208			89				110			225
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Heavy Vehicles (%)	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Adj. Flow (vph)	235	44	208	111	45	89	176	433	110	72	416	225
Shared Lane Traffic (%)												
Lane Group Flow (vph)	235	252	0	111	134	0	176	433	110	72	416	225
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		3.7			3.7			3.7			3.7	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		1.6			1.6			1.6			1.6	
Two way Left Turn Lane												
Headway Factor	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99
Turning Speed (k/h)	24		14	24		14	24		14	24		14
Turn Type	Perm	NA		Perm	NA		pm+pt	NA	Perm	pm+pt	NA	Perm
Protected Phases		4			8		5	2		1	6	
Permitted Phases	4			8			2		2	6		6
Detector Phase	4	4		8	8		5	2	2	1	6	6
Switch Phase												
Minimum Initial (s)	7.0	7.0		7.0	7.0		7.0	10.0	10.0	7.0	10.0	10.0
Minimum Split (s)	20.0	20.0		20.0	20.0		11.0	20.0	20.0	11.0	20.0	20.0
Total Split (s)	36.0	36.0		36.0	36.0		15.0	39.0	39.0	15.0	39.0	39.0
Total Split (%)	40.0%	40.0%		40.0%	40.0%		16.7%	43.3%	43.3%	16.7%	43.3%	43.3%
Yellow Time (s)	3.7	3.7		3.7	3.7		3.5	3.7	3.7	3.5	3.7	3.7
All-Red Time (s)	1.0	1.0		1.0	1.0		0.0	1.0	1.0	0.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.7	4.7		4.7	4.7		3.5	4.7	4.7	3.5	4.7	4.7
Lead/Lag							Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?							Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None		None	None		None	Max	Max	None	Max	Max
Act Effct Green (s)	19.4	19.4		19.4	19.4		47.2	38.7	38.7	43.4	34.8	34.8
Actuated g/C Ratio	0.25	0.25		0.25	0.25		0.62	0.51	0.51	0.57	0.46	0.46
v/c Ratio	0.72	0.43		0.50	0.26		0.31	0.44	0.12	0.12	0.47	0.26
Control Delay	38.5	7.9		32.0	10.1		8.5	16.5	3.8	7.7	18.7	3.5
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	38.5	7.9		32.0	10.1		8.5	16.5	3.8	7.7	18.7	3.5
LOS	D	A		C	B		A	B	A	A	B	A
Approach Delay		22.7			20.0			12.6			12.8	
Approach LOS		C			B			B			B	
Queue Length 50th (m)	30.3	4.8		13.4	4.9		8.6	38.5	0.0	3.3	38.5	0.0
Queue Length 95th (m)	53.1	19.5		27.7	16.3		22.9	80.4	8.6	10.7	81.2	12.3
Internal Link Dist (m)		1217.2			89.4			840.6			175.9	
Turn Bay Length (m)	70.0			45.0			150.0		100.0	110.0		110.0

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Base Capacity (vph)	537	822		366	772		626	976	884	683	877	867
Starvation Cap Reductn	0	0		0	0		0	0	0	0	0	0
Spillback Cap Reductn	0	0		0	0		0	0	0	0	0	0
Storage Cap Reductn	0	0		0	0		0	0	0	0	0	0
Reduced v/c Ratio	0.44	0.31		0.30	0.17		0.28	0.44	0.12	0.11	0.47	0.26

Intersection Summary	
Cycle Length: 90	
Actuated Cycle Length: 76.1	
Natural Cycle: 60	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.72	
Intersection Signal Delay: 15.7	Intersection LOS: B
Intersection Capacity Utilization 62.1%	ICU Level of Service B
Analysis Period (min) 15	

Splits and Phases: 6: CR10 & Fallis Line



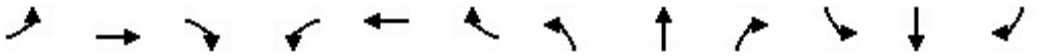
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	170	21	46	33	19	77	62	581	21	98	571	182
Future Volume (vph)	170	21	46	33	19	77	62	581	21	98	571	182
Satd. Flow (prot)	1789	1689	0	1789	1657	0	1789	1874	0	1789	1883	1601
Flt Permitted	0.689			0.709			0.312			0.286		
Satd. Flow (perm)	1298	1689	0	1335	1657	0	588	1874	0	539	1883	1601
Satd. Flow (RTOR)		50			84			4				198
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	185	23	50	36	21	84	67	632	23	107	621	198
Shared Lane Traffic (%)												
Lane Group Flow (vph)	185	73	0	36	105	0	67	655	0	107	621	198
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		3.7			3.7			3.7			3.7	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		1.6			1.6			1.6			1.6	
Two way Left Turn Lane												
Headway Factor	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99
Turning Speed (k/h)	97		97	97		97	97		97	97		97
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	Perm
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		6
Detector Phase	4	4		8	8		2	2		6	6	6
Switch Phase												
Minimum Initial (s)	7.0	7.0		7.0	7.0		10.0	10.0		10.0	10.0	10.0
Minimum Split (s)	20.0	20.0		20.0	20.0		20.0	20.0		20.0	20.0	20.0
Total Split (s)	28.0	28.0		28.0	28.0		62.0	62.0		62.0	62.0	62.0
Total Split (%)	31.1%	31.1%		31.1%	31.1%		68.9%	68.9%		68.9%	68.9%	68.9%
Yellow Time (s)	3.7	3.7		3.7	3.7		3.7	3.7		3.7	3.7	3.7
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	0.0
Total Lost Time (s)	4.7	4.7		4.7	4.7		4.7	4.7		4.7	4.7	4.7
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	None	None		None	None		Min	Min		Min	Min	Min
Act Effct Green (s)	12.4	12.4		12.4	12.4		24.8	24.8		24.8	24.8	24.8
Actuated g/C Ratio	0.26	0.26		0.26	0.26		0.53	0.53		0.53	0.53	0.53
v/c Ratio	0.54	0.15		0.10	0.21		0.22	0.66		0.38	0.63	0.21
Control Delay	22.8	8.6		15.7	7.3		8.8	12.4		12.1	11.7	1.9
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	0.0
Total Delay	22.8	8.6		15.7	7.3		8.8	12.4		12.1	11.7	1.9
LOS	C	A		B	A		A	B		B	B	A
Approach Delay		18.8			9.4			12.1			9.6	
Approach LOS		B			A			B			A	
Queue Length 50th (m)	11.6	1.3		2.0	1.1		2.4	31.7		4.2	29.4	0.0
Queue Length 95th (m)	35.7	10.0		9.0	11.4		9.9	79.6		16.9	73.4	7.2
Internal Link Dist (m)		107.2			102.5			127.2			104.9	
Turn Bay Length (m)	75.0			20.0			25.0			110.0		120.0
Base Capacity (vph)	675	903		695	903		571	1821		524	1829	1561

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Starvation Cap Reductn	0	0		0	0		0	0		0	0	0
Spillback Cap Reductn	0	0		0	0		0	0		0	0	0
Storage Cap Reductn	0	0		0	0		0	0		0	0	0
Reduced v/c Ratio	0.27	0.08		0.05	0.12		0.12	0.36		0.20	0.34	0.13

Intersection Summary	
Cycle Length: 90	
Actuated Cycle Length: 47	
Natural Cycle: 50	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.66	
Intersection Signal Delay: 11.6	Intersection LOS: B
Intersection Capacity Utilization 68.0%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 26: CR10 & Highland Blvd





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	4	1	3	26	2	25	1	714	14	54	507	19
Future Volume (Veh/h)	4	1	3	26	2	25	1	714	14	54	507	19
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.77
Hourly flow rate (vph)	4	1	3	28	2	27	1	776	15	59	551	25
Pedestrians												
Lane Width (m)												
Walking Speed (m/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (m)								280			151	
pX, platoon unblocked	0.81	0.81	0.82	0.81	0.81	0.72	0.82			0.72		
vC, conflicting volume	1488	1474	564	1458	1480	784	576			791		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	994	978	362	957	984	508	378			518		
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	97	99	99	84	99	93	100			92		
cM capacity (veh/h)	159	187	565	179	185	408	981			757		

Direction, Lane #	EB 1	EB 2	WB 1	WB 2	NB 1	NB 2	SB 1	SB 2
Volume Total	4	4	28	29	1	791	59	576
Volume Left	4	0	28	0	1	0	59	0
Volume Right	0	3	0	27	0	15	0	25
cSH	159	375	179	377	981	1700	757	1700
Volume to Capacity	0.03	0.01	0.16	0.08	0.00	0.47	0.08	0.34
Queue Length 95th (m)	0.6	0.2	4.1	1.9	0.0	0.0	1.9	0.0
Control Delay (s)	28.2	14.7	28.8	15.3	8.7	0.0	10.2	0.0
Lane LOS	D	B	D	C	A		B	
Approach Delay (s)	21.4		22.0		0.0		0.9	
Approach LOS	C		C					

Intersection Summary				
Average Delay	1.4			
Intersection Capacity Utilization	59.6%	ICU Level of Service		B
Analysis Period (min)	15			

Summary of All Intervals

Run Number	1	2	3	4	5	6	7
Start Time	6:57	6:57	6:57	6:57	6:57	6:57	6:57
End Time	7:57	7:57	7:57	7:57	7:57	7:57	7:57
Total Time (min)	60	60	60	60	60	60	60
Time Recorded (min)	50	50	50	50	50	50	50
# of Intervals	2	2	2	2	2	2	2
# of Recorded Intervals	1	1	1	1	1	1	1
Vehs Entered	2642	2623	2520	2657	2607	2640	2674
Vehs Exited	2627	2616	2534	2630	2639	2631	2681
Starting Vehs	139	135	117	111	157	118	133
Ending Vehs	154	142	103	138	125	127	126
Travel Distance (km)	4862	4696	4447	4834	4705	4714	4900
Travel Time (hr)	114.2	107.6	103.0	113.2	108.9	110.1	114.6
Total Delay (hr)	25.3	22.2	22.0	25.2	23.1	24.5	25.2
Total Stops	3784	3571	3464	3801	3656	3698	3829
Fuel Used (l)	397.2	384.4	365.0	401.0	384.0	388.6	403.0

Summary of All Intervals

Run Number	8	9	10	Avg
Start Time	6:57	6:57	6:57	6:57
End Time	7:57	7:57	7:57	7:57
Total Time (min)	60	60	60	60
Time Recorded (min)	50	50	50	50
# of Intervals	2	2	2	2
# of Recorded Intervals	1	1	1	1
Vehs Entered	2602	2579	2605	2610
Vehs Exited	2586	2606	2637	2619
Starting Vehs	136	165	163	122
Ending Vehs	152	138	131	121
Travel Distance (km)	4771	4721	4827	4748
Travel Time (hr)	110.6	110.2	112.0	110.4
Total Delay (hr)	23.5	24.0	24.1	23.9
Total Stops	3687	3677	3690	3681
Fuel Used (l)	390.5	387.9	394.6	389.6

Interval #0 Information Seeding

Start Time	6:57
End Time	7:07
Total Time (min)	10

Volumes adjusted by Growth Factors.

No data recorded this interval.

Interval #1 Information Recording

Start Time	7:07
End Time	7:57
Total Time (min)	50

Volumes adjusted by Growth Factors.

Run Number	1	2	3	4	5	6	7
Vehs Entered	2642	2623	2520	2657	2607	2640	2674
Vehs Exited	2627	2616	2534	2630	2639	2631	2681
Starting Vehs	139	135	117	111	157	118	133
Ending Vehs	154	142	103	138	125	127	126
Travel Distance (km)	4862	4696	4447	4834	4705	4714	4900
Travel Time (hr)	114.2	107.6	103.0	113.2	108.9	110.1	114.6
Total Delay (hr)	25.3	22.2	22.0	25.2	23.1	24.5	25.2
Total Stops	3784	3571	3464	3801	3656	3698	3829
Fuel Used (l)	397.2	384.4	365.0	401.0	384.0	388.6	403.0

Interval #1 Information Recording

Start Time	7:07
End Time	7:57
Total Time (min)	50

Volumes adjusted by Growth Factors.

Run Number	8	9	10	Avg
Vehs Entered	2602	2579	2605	2610
Vehs Exited	2586	2606	2637	2619
Starting Vehs	136	165	163	122
Ending Vehs	152	138	131	121
Travel Distance (km)	4771	4721	4827	4748
Travel Time (hr)	110.6	110.2	112.0	110.4
Total Delay (hr)	23.5	24.0	24.1	23.9
Total Stops	3687	3677	3690	3681
Fuel Used (l)	390.5	387.9	394.6	389.6

11: CR10 & Municipal Entrance/Driveway D Performance by movement

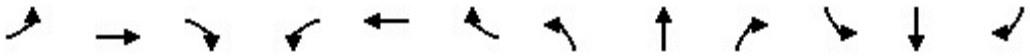
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Denied Del/Veh (s)	0.1	0.1	0.1	4.2	0.1	0.2	0.0	0.0	0.0	0.1	0.0	0.0
Total Del/Veh (s)	16.3	13.6	5.9	20.8	10.3	6.4	3.4	1.3	0.1	8.6	2.4	1.8

11: CR10 & Municipal Entrance/Driveway D Performance by movement

Movement	All
Denied Del/Veh (s)	0.1
Total Del/Veh (s)	2.5

Intersection: 11: CR10 & Municipal Entrance/Driveway D

Movement	EB	EB	WB	WB	NB	NB	SB	SB
Directions Served	L	TR	L	TR	L	TR	L	TR
Maximum Queue (m)	8.5	8.7	16.0	18.2	2.6	2.6	18.1	0.7
Average Queue (m)	1.0	1.4	5.9	6.3	0.1	0.1	6.7	0.0
95th Queue (m)	5.6	6.5	14.6	15.2	1.9	1.4	15.6	0.7
Link Distance (m)	22.0	22.0		148.7		67.2		136.9
Upstream Blk Time (%)								
Queuing Penalty (veh)								
Storage Bay Dist (m)			30.0		50.0		15.0	
Storage Blk Time (%)							1	
Queuing Penalty (veh)							4	



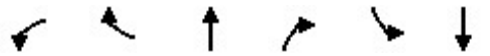
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Stop			Stop	
Traffic Volume (vph)	170	30	2	9	56	278	1	36	7	246	59	155
Future Volume (vph)	170	30	2	9	56	278	1	36	7	246	59	155
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85
Hourly flow rate (vph)	200	35	2	11	66	327	1	42	8	289	69	182

Direction, Lane #	EB 1	WB 1	NB 1	SB 1	SB 2
Volume Total (vph)	237	404	51	289	251
Volume Left (vph)	200	11	1	289	0
Volume Right (vph)	2	327	8	0	182
Hadj (s)	0.26	-0.38	0.01	0.58	-0.48
Departure Headway (s)	6.5	5.6	7.1	7.1	6.0
Degree Utilization, x	0.43	0.63	0.10	0.57	0.42
Capacity (veh/h)	518	616	424	487	575
Control Delay (s)	14.4	17.7	10.8	18.0	12.1
Approach Delay (s)	14.4	17.7	10.8	15.2	
Approach LOS	B	C	B	C	

Intersection Summary				
Delay	15.7			
Level of Service	C			
Intersection Capacity Utilization	62.0%	ICU Level of Service	B	
Analysis Period (min)	15			

Intersection: 12: Distillery Rd/CR10 & King St (CR21)

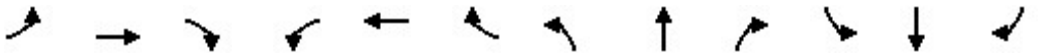
Movement	EB	WB	NB	SB	SB
Directions Served	LTR	LTR	LTR	L	TR
Maximum Queue (m)	35.0	41.3	22.3	29.0	24.4
Average Queue (m)	16.3	21.6	8.7	16.7	14.7
95th Queue (m)	27.5	34.0	17.4	25.7	22.4
Link Distance (m)	518.3	494.8	260.2		493.8
Upstream Blk Time (%)					
Queuing Penalty (veh)					
Storage Bay Dist (m)				50.0	
Storage Blk Time (%)					
Queuing Penalty (veh)					



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	1	135	59	1	65	37
Future Volume (Veh/h)	1	135	59	1	65	37
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Peak Hour Factor	0.80	0.80	0.80	0.80	0.80	0.80
Hourly flow rate (vph)	1	169	74	1	81	46
Pedestrians						
Lane Width (m)						
Walking Speed (m/s)						
Percent Blockage						
Right turn flare (veh)						
Median type			None			None
Median storage veh)						
Upstream signal (m)						
pX, platoon unblocked						
vC, conflicting volume	282	74			75	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	282	74			75	
tC, single (s)	6.4	6.2			4.2	
tC, 2 stage (s)						
tF (s)	3.5	3.3			2.3	
p0 queue free %	100	83			94	
cM capacity (veh/h)	672	979			1446	

Direction, Lane #	WB 1	NB 1	SB 1
Volume Total	170	75	127
Volume Left	1	0	81
Volume Right	169	1	0
cSH	976	1700	1446
Volume to Capacity	0.17	0.04	0.06
Queue Length 95th (m)	4.8	0.0	1.4
Control Delay (s)	9.5	0.0	5.0
Lane LOS	A		A
Approach Delay (s)	9.5	0.0	5.0
Approach LOS	A		

Intersection Summary			
Average Delay	6.0		
Intersection Capacity Utilization	27.3%	ICU Level of Service	A
Analysis Period (min)	15		



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	17	2	14	90	2	77	1	633	21	102	667	22
Future Volume (Veh/h)	17	2	14	90	2	77	1	633	21	102	667	22
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	18	2	15	98	2	84	1	688	23	111	725	24
Pedestrians												
Lane Width (m)												
Walking Speed (m/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (m)								280			151	
pX, platoon unblocked	0.78	0.78	0.73	0.78	0.78	0.89	0.73			0.89		
vC, conflicting volume	1734	1672	737	1664	1672	700	749			711		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	1496	1417	449	1407	1417	605	466			618		
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	68	98	97	0	98	81	100			87		
cM capacity (veh/h)	57	93	446	78	93	445	803			861		

Direction, Lane #	EB 1	EB 2	WB 1	WB 2	NB 1	NB 2	SB 1	SB 2
Volume Total	18	17	98	86	1	711	111	749
Volume Left	18	0	98	0	1	0	111	0
Volume Right	0	15	0	84	0	23	0	24
cSH	57	308	78	409	803	1700	861	1700
Volume to Capacity	0.32	0.06	1.26	0.21	0.00	0.42	0.13	0.44
Queue Length 95th (m)	8.5	1.3	56.7	6.0	0.0	0.0	3.4	0.0
Control Delay (s)	94.7	17.4	283.0	16.1	9.5	0.0	9.8	0.0
Lane LOS	F	C	F	C	A		A	
Approach Delay (s)	57.2		158.3		0.0		1.3	
Approach LOS	F		F					

Intersection Summary				
Average Delay	18.0			
Intersection Capacity Utilization	61.9%	ICU Level of Service		B
Analysis Period (min)	15			

Summary of All Intervals

Run Number	1	2	3	4	5	6	7
Start Time	6:57	6:57	6:57	6:57	6:57	6:57	6:57
End Time	7:57	7:57	7:57	7:57	7:57	7:57	7:57
Total Time (min)	60	60	60	60	60	60	60
Time Recorded (min)	50	50	50	50	50	50	50
# of Intervals	2	2	2	2	2	2	2
# of Recorded Intervals	1	1	1	1	1	1	1
Vehs Entered	3007	2933	3026	3066	2965	2998	3097
Vehs Exited	3042	2922	3003	3040	2999	3012	3099
Starting Vehs	175	165	149	155	186	158	167
Ending Vehs	140	176	172	181	152	144	165
Travel Distance (km)	5478	5323	5425	5483	5447	5433	5548
Travel Time (hr)	136.9	130.9	135.2	136.8	135.5	135.4	137.7
Total Delay (hr)	30.1	27.5	29.0	29.7	29.0	29.4	29.8
Total Stops	4229	4175	4238	4237	4154	4267	4338
Fuel Used (l)	445.9	431.4	437.8	444.2	440.4	441.4	448.1

Summary of All Intervals

Run Number	8	9	10	Avg
Start Time	6:57	6:57	6:57	6:57
End Time	7:57	7:57	7:57	7:57
Total Time (min)	60	60	60	60
Time Recorded (min)	50	50	50	50
# of Intervals	2	2	2	2
# of Recorded Intervals	1	1	1	1
Vehs Entered	2955	3074	3078	3018
Vehs Exited	2943	3056	3098	3018
Starting Vehs	162	153	168	153
Ending Vehs	174	171	148	151
Travel Distance (km)	5389	5487	5566	5458
Travel Time (hr)	133.8	137.1	139.0	135.8
Total Delay (hr)	28.7	30.4	30.7	29.4
Total Stops	4129	4232	4424	4243
Fuel Used (l)	435.3	445.7	453.1	442.3

Interval #0 Information Seeding

Start Time	6:57
End Time	7:07
Total Time (min)	10

Volumes adjusted by Growth Factors.
No data recorded this interval.

Interval #1 Information Recording

Start Time	7:07
End Time	7:57
Total Time (min)	50

Volumes adjusted by Growth Factors.

Run Number	1	2	3	4	5	6	7
Vehs Entered	3007	2933	3026	3066	2965	2998	3097
Vehs Exited	3042	2922	3003	3040	2999	3012	3099
Starting Vehs	175	165	149	155	186	158	167
Ending Vehs	140	176	172	181	152	144	165
Travel Distance (km)	5478	5323	5425	5483	5447	5433	5548
Travel Time (hr)	136.9	130.9	135.2	136.8	135.5	135.4	137.7
Total Delay (hr)	30.1	27.5	29.0	29.7	29.0	29.4	29.8
Total Stops	4229	4175	4238	4237	4154	4267	4338
Fuel Used (l)	445.9	431.4	437.8	444.2	440.4	441.4	448.1

Interval #1 Information Recording

Start Time	7:07
End Time	7:57
Total Time (min)	50

Volumes adjusted by Growth Factors.

Run Number	8	9	10	Avg
Vehs Entered	2955	3074	3078	3018
Vehs Exited	2943	3056	3098	3018
Starting Vehs	162	153	168	153
Ending Vehs	174	171	148	151
Travel Distance (km)	5389	5487	5566	5458
Travel Time (hr)	133.8	137.1	139.0	135.8
Total Delay (hr)	28.7	30.4	30.7	29.4
Total Stops	4129	4232	4424	4243
Fuel Used (l)	435.3	445.7	453.1	442.3

11: CR10 & Municipal Entrance/Driveway D Performance by movement

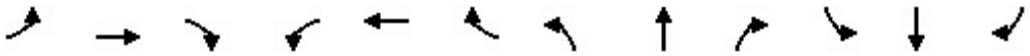
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Denied Del/Veh (s)	0.2	0.1	0.1	3.8	0.4	0.4	0.0	0.0	0.0	0.1	0.0	0.0
Total Del/Veh (s)	27.9	25.4	8.8	32.8	19.4	10.6	3.7	0.9	0.9	8.1	2.0	2.0

11: CR10 & Municipal Entrance/Driveway D Performance by movement

Movement	All
Denied Del/Veh (s)	0.2
Total Del/Veh (s)	4.3

Intersection: 11: CR10 & Municipal Entrance/Driveway D

Movement	EB	EB	WB	WB	NB	NB	SB
Directions Served	L	TR	L	TR	L	TR	L
Maximum Queue (m)	14.5	11.4	30.3	37.0	1.8	3.4	23.8
Average Queue (m)	4.1	3.9	15.0	12.1	0.1	0.1	9.8
95th Queue (m)	12.6	11.4	26.3	24.6	1.4	2.3	19.2
Link Distance (m)	22.0	22.0		148.7		67.2	
Upstream Blk Time (%)	0						
Queuing Penalty (veh)	0						
Storage Bay Dist (m)			30.0		50.0		15.0
Storage Blk Time (%)			2	0			2
Queuing Penalty (veh)			1	0			11



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Stop			Stop	
Traffic Volume (vph)	215	55	5	1	50	315	1	75	9	339	21	230
Future Volume (vph)	215	55	5	1	50	315	1	75	9	339	21	230
Peak Hour Factor	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83
Hourly flow rate (vph)	259	66	6	1	60	380	1	90	11	408	25	277

Direction, Lane #	EB 1	WB 1	NB 1	SB 1	SB 2
Volume Total (vph)	331	441	102	408	302
Volume Left (vph)	259	1	1	408	0
Volume Right (vph)	6	380	11	0	277
Hadj (s)	0.17	-0.47	-0.06	0.52	-0.64
Departure Headway (s)	7.5	6.6	8.4	8.0	6.8
Degree Utilization, x	0.69	0.81	0.24	0.91	0.57
Capacity (veh/h)	460	524	379	445	523
Control Delay (s)	25.4	32.2	14.1	49.5	17.2
Approach Delay (s)	25.4	32.2	14.1	35.8	
Approach LOS	D	D	B	E	

Intersection Summary				
Delay	31.2			
Level of Service	D			
Intersection Capacity Utilization	72.7%	ICU Level of Service	C	
Analysis Period (min)	15			

Intersection: 12: Distillery Rd/CR10 & King St (CR21)

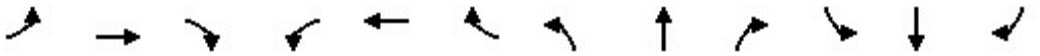
Movement	EB	WB	NB	SB	SB
Directions Served	LTR	LTR	LTR	L	TR
Maximum Queue (m)	34.7	41.7	16.4	43.1	25.1
Average Queue (m)	18.6	22.0	9.4	22.1	14.9
95th Queue (m)	29.4	36.8	15.5	35.5	21.9
Link Distance (m)	518.3	494.8	260.2		493.8
Upstream Blk Time (%)					
Queuing Penalty (veh)					
Storage Bay Dist (m)				50.0	
Storage Blk Time (%)				0	
Queuing Penalty (veh)				0	



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	1	73	45	8	137	71
Future Volume (Veh/h)	1	73	45	8	137	71
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96
Hourly flow rate (vph)	1	76	47	8	143	74
Pedestrians						
Lane Width (m)						
Walking Speed (m/s)						
Percent Blockage						
Right turn flare (veh)						
Median type			None			None
Median storage veh)						
Upstream signal (m)						
pX, platoon unblocked						
vC, conflicting volume	411	51			55	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	411	51			55	
tC, single (s)	6.4	6.2			4.1	
tC, 2 stage (s)						
tF (s)	3.5	3.3			2.2	
p0 queue free %	100	92			91	
cM capacity (veh/h)	545	1011			1550	

Direction, Lane #	WB 1	NB 1	SB 1
Volume Total	77	55	217
Volume Left	1	0	143
Volume Right	76	8	0
cSH	1000	1700	1550
Volume to Capacity	0.08	0.03	0.09
Queue Length 95th (m)	1.9	0.0	2.3
Control Delay (s)	8.9	0.0	5.2
Lane LOS	A		A
Approach Delay (s)	8.9	0.0	5.2
Approach LOS	A		

Intersection Summary			
Average Delay		5.2	
Intersection Capacity Utilization		29.2%	ICU Level of Service
Analysis Period (min)		15	



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	1	1	2	86	1	75	1	588	24	108	539	1
Future Volume (Veh/h)	1	1	2	86	1	75	1	588	24	108	539	1
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	1	1	2	93	1	82	1	639	26	117	586	1
Pedestrians												
Lane Width (m)												
Walking Speed (m/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (m)								280			151	
pX, platoon unblocked	0.82	0.82	0.80	0.82	0.82	0.94	0.80			0.94		
vC, conflicting volume	1544	1488	586	1476	1475	652	587			665		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	1399	1330	353	1317	1315	601	354			615		
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	99	99	100	6	99	83	100			87		
cM capacity (veh/h)	73	111	554	99	113	472	969			910		

Direction, Lane #	EB 1	EB 2	WB 1	WB 2	NB 1	NB 2	SB 1	SB 2
Volume Total	1	3	93	83	1	665	117	587
Volume Left	1	0	93	0	1	0	117	0
Volume Right	0	2	0	82	0	26	0	1
cSH	73	238	99	455	969	1700	910	1700
Volume to Capacity	0.01	0.01	0.94	0.18	0.00	0.39	0.13	0.35
Queue Length 95th (m)	0.3	0.3	42.2	5.0	0.0	0.0	3.3	0.0
Control Delay (s)	55.2	20.3	152.7	14.7	8.7	0.0	9.5	0.0
Lane LOS	F	C	F	B	A		A	
Approach Delay (s)	29.0		87.6		0.0		1.6	
Approach LOS	D		F					

Intersection Summary				
Average Delay	10.8			
Intersection Capacity Utilization	59.8%	ICU Level of Service		B
Analysis Period (min)	15			

Summary of All Intervals

Run Number	1	2	3	4	5	6	7
Start Time	6:57	6:57	6:57	6:57	6:57	6:57	6:57
End Time	7:57	7:57	7:57	7:57	7:57	7:57	7:57
Total Time (min)	60	60	60	60	60	60	60
Time Recorded (min)	50	50	50	50	50	50	50
# of Intervals	2	2	2	2	2	2	2
# of Recorded Intervals	1	1	1	1	1	1	1
Vehs Entered	2785	2863	2824	2799	2750	2785	2876
Vehs Exited	2788	2881	2831	2777	2813	2768	2884
Starting Vehs	137	165	152	137	182	124	145
Ending Vehs	134	147	145	159	119	141	137
Travel Distance (km)	4857	5063	4978	4823	4916	4900	4970
Travel Time (hr)	118.2	122.4	121.4	116.6	118.9	119.3	120.2
Total Delay (hr)	24.5	25.0	25.1	23.4	24.0	24.8	24.4
Total Stops	3978	4154	4111	3955	4062	4083	4010
Fuel Used (l)	393.1	408.3	401.2	388.8	398.8	395.1	401.8

Summary of All Intervals

Run Number	8	9	10	Avg
Start Time	6:57	6:57	6:57	6:57
End Time	7:57	7:57	7:57	7:57
Total Time (min)	60	60	60	60
Time Recorded (min)	50	50	50	50
# of Intervals	2	2	2	2
# of Recorded Intervals	1	1	1	1
Vehs Entered	2830	2824	2874	2821
Vehs Exited	2826	2824	2850	2823
Starting Vehs	136	140	133	139
Ending Vehs	140	140	157	134
Travel Distance (km)	4920	4884	5023	4933
Travel Time (hr)	120.3	119.2	122.5	119.9
Total Delay (hr)	25.4	25.0	25.3	24.7
Total Stops	4160	4004	4165	4067
Fuel Used (l)	397.8	396.8	406.6	398.8

Interval #0 Information Seeding

Start Time	6:57
End Time	7:07
Total Time (min)	10

Volumes adjusted by Growth Factors.

No data recorded this interval.

Interval #1 Information Recording

Start Time	7:07
End Time	7:57
Total Time (min)	50

Volumes adjusted by Growth Factors.

Run Number	1	2	3	4	5	6	7
Vehs Entered	2785	2863	2824	2799	2750	2785	2876
Vehs Exited	2788	2881	2831	2777	2813	2768	2884
Starting Vehs	137	165	152	137	182	124	145
Ending Vehs	134	147	145	159	119	141	137
Travel Distance (km)	4857	5063	4978	4823	4916	4900	4970
Travel Time (hr)	118.2	122.4	121.4	116.6	118.9	119.3	120.2
Total Delay (hr)	24.5	25.0	25.1	23.4	24.0	24.8	24.4
Total Stops	3978	4154	4111	3955	4062	4083	4010
Fuel Used (l)	393.1	408.3	401.2	388.8	398.8	395.1	401.8

Interval #1 Information Recording

Start Time	7:07
End Time	7:57
Total Time (min)	50

Volumes adjusted by Growth Factors.

Run Number	8	9	10	Avg
Vehs Entered	2830	2824	2874	2821
Vehs Exited	2826	2824	2850	2823
Starting Vehs	136	140	133	139
Ending Vehs	140	140	157	134
Travel Distance (km)	4920	4884	5023	4933
Travel Time (hr)	120.3	119.2	122.5	119.9
Total Delay (hr)	25.4	25.0	25.3	24.7
Total Stops	4160	4004	4165	4067
Fuel Used (l)	397.8	396.8	406.6	398.8

11: CR10 & Municipal Entrance/Driveway D Performance by movement

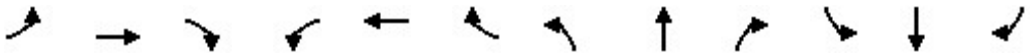
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Denied Del/Veh (s)	0.2	0.1	0.1	3.9	0.1	0.4		0.0	0.0	0.1	0.0	0.0
Total Del/Veh (s)	29.2	27.3	8.9	24.1	16.4	9.3		0.9	0.8	8.1	1.9	2.0

11: CR10 & Municipal Entrance/Driveway D Performance by movement

Movement	All
Denied Del/Veh (s)	0.3
Total Del/Veh (s)	3.7

Intersection: 11: CR10 & Municipal Entrance/Driveway D

Movement	EB	EB	WB	WB	NB	NB	SB
Directions Served	L	TR	L	TR	L	TR	L
Maximum Queue (m)	3.3	7.7	27.5	26.7	0.9	3.6	24.6
Average Queue (m)	0.1	1.0	13.7	10.8	0.0	0.1	9.6
95th Queue (m)	1.9	5.5	24.2	19.9	1.0	2.2	19.4
Link Distance (m)	22.0	22.0		148.7		67.2	
Upstream Blk Time (%)							
Queuing Penalty (veh)							
Storage Bay Dist (m)			30.0		50.0		15.0
Storage Blk Time (%)			1	0			2
Queuing Penalty (veh)			1	0			9



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Stop			Stop	
Traffic Volume (vph)	245	56	15	10	56	241	13	70	13	235	37	284
Future Volume (vph)	245	56	15	10	56	241	13	70	13	235	37	284
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Hourly flow rate (vph)	261	60	16	11	60	256	14	74	14	250	39	302

Direction, Lane #	EB 1	WB 1	NB 1	SB 1	SB 2
Volume Total (vph)	337	327	102	250	341
Volume Left (vph)	261	11	14	250	0
Volume Right (vph)	16	256	14	0	302
Hadj (s)	0.13	-0.46	-0.05	0.50	-0.62
Departure Headway (s)	6.6	6.1	7.3	7.4	6.2
Degree Utilization, x	0.62	0.55	0.21	0.51	0.59
Capacity (veh/h)	511	555	412	470	551
Control Delay (s)	19.8	16.5	12.2	16.6	16.5
Approach Delay (s)	19.8	16.5	12.2	16.6	
Approach LOS	C	C	B	C	

Intersection Summary				
Delay	17.0			
Level of Service	C			
Intersection Capacity Utilization	65.5%	ICU Level of Service	C	
Analysis Period (min)	15			

Intersection: 12: Distillery Rd/CR10 & King St (CR21)

Movement	EB	WB	NB	SB	SB
Directions Served	LTR	LTR	LTR	L	TR
Maximum Queue (m)	36.2	44.4	18.6	28.6	30.5
Average Queue (m)	18.6	19.3	10.5	16.3	18.1
95th Queue (m)	30.3	31.9	16.8	25.2	27.4
Link Distance (m)	518.3	494.8	260.2		493.8
Upstream Blk Time (%)					
Queuing Penalty (veh)					
Storage Bay Dist (m)				50.0	
Storage Blk Time (%)					
Queuing Penalty (veh)					



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	1	66	48	1	83	40
Future Volume (Veh/h)	1	66	48	1	83	40
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89
Hourly flow rate (vph)	1	74	54	1	93	45
Pedestrians						
Lane Width (m)						
Walking Speed (m/s)						
Percent Blockage						
Right turn flare (veh)						
Median type			None			None
Median storage veh)						
Upstream signal (m)						
pX, platoon unblocked						
vC, conflicting volume	286	54			55	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	286	54			55	
tC, single (s)	6.4	6.2			4.1	
tC, 2 stage (s)						
tF (s)	3.5	3.3			2.2	
p0 queue free %	100	93			94	
cM capacity (veh/h)	667	1018			1563	

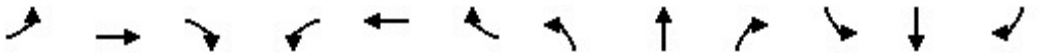
Direction, Lane #	WB 1	NB 1	SB 1
Volume Total	75	55	138
Volume Left	1	0	93
Volume Right	74	1	0
cSH	1011	1700	1563
Volume to Capacity	0.07	0.03	0.06
Queue Length 95th (m)	1.8	0.0	1.4
Control Delay (s)	8.8	0.0	5.2
Lane LOS	A		A
Approach Delay (s)	8.8	0.0	5.2
Approach LOS	A		

Intersection Summary			
Average Delay		5.1	
Intersection Capacity Utilization		24.2%	ICU Level of Service A
Analysis Period (min)		15	

Appendix M

Synchro Reports,

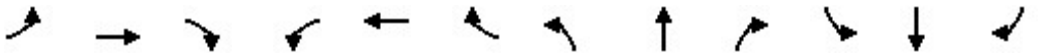
Volumes at Accesses, 2035



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	106	23	6	0	92	12	0	0	0	1	0	87
Future Volume (Veh/h)	106	23	6	0	92	12	0	0	0	1	0	87
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	115	25	7	0	100	13	0	0	0	1	0	95
Pedestrians												
Lane Width (m)												
Walking Speed (m/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (m)		113										
pX, platoon unblocked												
vC, conflicting volume	113			32			460	372	28	362	368	106
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	113			32			460	372	28	362	368	106
tC, single (s)	4.1			4.1			7.1	6.5	6.2	7.1	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	92			100			100	100	100	100	100	90
cM capacity (veh/h)	1476			1580			433	515	1046	559	517	948

Direction, Lane #	EB 1	EB 2	WB 1	NB 1	SB 1
Volume Total	115	32	113	0	96
Volume Left	115	0	0	0	1
Volume Right	0	7	13	0	95
cSH	1476	1700	1700	1700	941
Volume to Capacity	0.08	0.02	0.07	0.00	0.10
Queue Length 95th (m)	1.9	0.0	0.0	0.0	2.6
Control Delay (s)	7.6	0.0	0.0	0.0	9.3
Lane LOS	A			A	A
Approach Delay (s)	6.0		0.0	0.0	9.3
Approach LOS				A	A

Intersection Summary				
Average Delay	5.0			
Intersection Capacity Utilization	24.6%	ICU Level of Service		A
Analysis Period (min)	15			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	6	2	16	0	6	0	77	0	0	0	0	21
Future Volume (Veh/h)	6	2	16	0	6	0	77	0	0	0	0	21
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	7	2	17	0	7	0	84	0	0	0	0	23
Pedestrians												
Lane Width (m)												
Walking Speed (m/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (m)		210										
pX, platoon unblocked												
vC, conflicting volume	7			19			54	32	10	32	40	7
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	7			19			54	32	10	32	40	7
tC, single (s)	4.1			4.1			7.1	6.5	6.2	7.1	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	100			100			91	100	100	100	100	98
cM capacity (veh/h)	1614			1597			920	858	1071	973	848	1075

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	26	7	84	23
Volume Left	7	0	84	0
Volume Right	17	0	0	23
cSH	1614	1597	920	1075
Volume to Capacity	0.00	0.00	0.09	0.02
Queue Length 95th (m)	0.1	0.0	2.3	0.5
Control Delay (s)	2.0	0.0	9.3	8.4
Lane LOS	A		A	A
Approach Delay (s)	2.0	0.0	9.3	8.4
Approach LOS			A	A

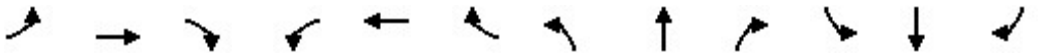
Intersection Summary				
Average Delay	7.3			
Intersection Capacity Utilization	24.5%	ICU Level of Service	A	
Analysis Period (min)	15			



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	0	55	674	83	0	536
Future Volume (Veh/h)	0	55	674	83	0	536
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	0	60	733	90	0	583
Pedestrians						
Lane Width (m)						
Walking Speed (m/s)						
Percent Blockage						
Right turn flare (veh)						
Median type			None			None
Median storage veh)						
Upstream signal (m)			200			231
pX, platoon unblocked	0.77	0.70			0.70	
vC, conflicting volume	1316	733			823	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	812	397			527	
tC, single (s)	6.4	6.2			4.1	
tC, 2 stage (s)						
tF (s)	3.5	3.3			2.2	
p0 queue free %	100	87			100	
cM capacity (veh/h)	269	454			724	

Direction, Lane #	WB 1	NB 1	NB 2	SB 1
Volume Total	60	733	90	583
Volume Left	0	0	0	0
Volume Right	60	0	90	0
cSH	454	1700	1700	1700
Volume to Capacity	0.13	0.43	0.05	0.34
Queue Length 95th (m)	3.4	0.0	0.0	0.0
Control Delay (s)	14.1	0.0	0.0	0.0
Lane LOS	B			
Approach Delay (s)	14.1	0.0		0.0
Approach LOS	B			

Intersection Summary			
Average Delay	0.6		
Intersection Capacity Utilization	45.5%	ICU Level of Service	A
Analysis Period (min)	15		



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	37	14	45	5	47	0	26	14	0	0	10	0
Future Volume (Veh/h)	37	14	45	5	47	0	26	14	0	0	10	0
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	40	15	49	5	51	0	28	15	0	0	11	0
Pedestrians												
Lane Width (m)												
Walking Speed (m/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (m)		126										
pX, platoon unblocked												
vC, conflicting volume	51			64			186	180	40	188	205	51
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	51			64			186	180	40	188	205	51
tC, single (s)	4.1			4.1			7.1	6.5	6.2	7.1	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	97			100			96	98	100	100	98	100
cM capacity (veh/h)	1555			1538			748	693	1032	743	672	1017

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	104	56	43	11
Volume Left	40	5	28	0
Volume Right	49	0	0	0
cSH	1555	1538	728	672
Volume to Capacity	0.03	0.00	0.06	0.02
Queue Length 95th (m)	0.6	0.1	1.4	0.4
Control Delay (s)	3.0	0.7	10.3	10.5
Lane LOS	A	A	B	B
Approach Delay (s)	3.0	0.7	10.3	10.5
Approach LOS			B	B

Intersection Summary				
Average Delay	4.2			
Intersection Capacity Utilization	27.7%	ICU Level of Service	A	
Analysis Period (min)	15			



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	44	32	888	18	7	589
Future Volume (Veh/h)	44	32	888	18	7	589
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	48	35	965	20	8	640
Pedestrians						
Lane Width (m)						
Walking Speed (m/s)						
Percent Blockage						
Right turn flare (veh)						
Median type			None			None
Median storage veh)						
Upstream signal (m)			319			
pX, platoon unblocked	0.62	0.62			0.62	
vC, conflicting volume	1631	975			985	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	1713	648			664	
tC, single (s)	6.4	6.2			4.1	
tC, 2 stage (s)						
tF (s)	3.5	3.3			2.2	
p0 queue free %	21	88			99	
cM capacity (veh/h)	60	290			570	

Direction, Lane #	WB 1	WB 2	NB 1	SB 1	SB 2
Volume Total	48	35	985	8	640
Volume Left	48	0	0	8	0
Volume Right	0	35	20	0	0
cSH	60	290	1700	570	1700
Volume to Capacity	0.79	0.12	0.58	0.01	0.38
Queue Length 95th (m)	26.9	3.1	0.0	0.3	0.0
Control Delay (s)	171.6	19.1	0.0	11.4	0.0
Lane LOS	F	C		B	
Approach Delay (s)	107.3		0.0	0.1	
Approach LOS	F				

Intersection Summary			
Average Delay	5.2		
Intersection Capacity Utilization	57.8%	ICU Level of Service	B
Analysis Period (min)	15		

Summary of All Intervals

Run Number	1	2	3	4	5	6	7
Start Time	6:57	6:57	6:57	6:57	6:57	6:57	6:57
End Time	7:57	7:57	7:57	7:57	7:57	7:57	7:57
Total Time (min)	60	60	60	60	60	60	60
Time Recorded (min)	50	50	50	50	50	50	50
# of Intervals	2	2	2	2	2	2	2
# of Recorded Intervals	1	1	1	1	1	1	1
Vehs Entered	2637	2628	2511	2659	2626	2639	2673
Vehs Exited	2630	2630	2531	2636	2647	2628	2677
Starting Vehs	139	135	117	111	157	118	133
Ending Vehs	146	133	97	134	136	129	129
Travel Distance (km)	4879	4703	4446	4836	4742	4711	4894
Travel Time (hr)	114.0	107.4	101.9	113.4	110.3	110.1	114.7
Total Delay (hr)	24.9	21.9	20.9	25.2	23.8	24.5	25.5
Total Stops	3771	3538	3379	3789	3672	3727	3792
Fuel Used (l)	398.1	385.0	363.1	401.3	388.0	388.9	403.1

Summary of All Intervals

Run Number	8	9	10	Avg
Start Time	6:57	6:57	6:57	6:57
End Time	7:57	7:57	7:57	7:57
Total Time (min)	60	60	60	60
Time Recorded (min)	50	50	50	50
# of Intervals	2	2	2	2
# of Recorded Intervals	1	1	1	1
Vehs Entered	2602	2601	2614	2618
Vehs Exited	2587	2629	2651	2625
Starting Vehs	136	166	163	123
Ending Vehs	151	138	126	125
Travel Distance (km)	4767	4761	4816	4755
Travel Time (hr)	111.4	111.1	111.5	110.6
Total Delay (hr)	24.3	24.2	23.7	23.9
Total Stops	3732	3635	3675	3670
Fuel Used (l)	391.9	390.7	394.4	390.5

Interval #0 Information Seeding

Start Time	6:57
End Time	7:07
Total Time (min)	10

Volumes adjusted by Growth Factors.

No data recorded this interval.

Interval #1 Information Recording

Start Time	7:07
End Time	7:57
Total Time (min)	50

Volumes adjusted by Growth Factors.

Run Number	1	2	3	4	5	6	7
Vehs Entered	2637	2628	2511	2659	2626	2639	2673
Vehs Exited	2630	2630	2531	2636	2647	2628	2677
Starting Vehs	139	135	117	111	157	118	133
Ending Vehs	146	133	97	134	136	129	129
Travel Distance (km)	4879	4703	4446	4836	4742	4711	4894
Travel Time (hr)	114.0	107.4	101.9	113.4	110.3	110.1	114.7
Total Delay (hr)	24.9	21.9	20.9	25.2	23.8	24.5	25.5
Total Stops	3771	3538	3379	3789	3672	3727	3792
Fuel Used (l)	398.1	385.0	363.1	401.3	388.0	388.9	403.1

Interval #1 Information Recording

Start Time	7:07
End Time	7:57
Total Time (min)	50

Volumes adjusted by Growth Factors.

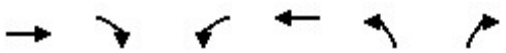
Run Number	8	9	10	Avg
Vehs Entered	2602	2601	2614	2618
Vehs Exited	2587	2629	2651	2625
Starting Vehs	136	166	163	123
Ending Vehs	151	138	126	125
Travel Distance (km)	4767	4761	4816	4755
Travel Time (hr)	111.4	111.1	111.5	110.6
Total Delay (hr)	24.3	24.2	23.7	23.9
Total Stops	3732	3635	3675	3670
Fuel Used (l)	391.9	390.7	394.4	390.5

54: CR10 & Street G Performance by movement

Movement	WBL	WBR	NBT	NBR	SBL	SBT	All
Denied Del/Veh (s)	4.0	0.3	0.0	0.0	0.0	0.0	0.1
Total Del/Veh (s)	21.6	7.9	1.7	0.6	8.3	2.8	2.8

Intersection: 54: CR10 & Street G

Movement	WB	WB	NB	SB
Directions Served	L	R	TR	L
Maximum Queue (m)	21.8	18.1	0.6	7.8
Average Queue (m)	9.3	7.1	0.0	1.1
95th Queue (m)	18.4	15.6	0.7	5.7
Link Distance (m)		105.2	177.2	
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (m)	30.0			50.0
Storage Blk Time (%)	0			
Queuing Penalty (veh)	0			



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Sign Control	Stop			Stop	Stop	
Traffic Volume (vph)	45	17	0	53	49	1
Future Volume (vph)	45	17	0	53	49	1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	49	18	0	58	53	1

Direction, Lane #	EB 1	WB 1	NB 1
Volume Total (vph)	67	58	54
Volume Left (vph)	0	0	53
Volume Right (vph)	18	0	1
Hadj (s)	-0.13	0.03	0.22
Departure Headway (s)	4.0	4.1	4.4
Degree Utilization, x	0.07	0.07	0.07
Capacity (veh/h)	890	855	791
Control Delay (s)	7.3	7.4	7.7
Approach Delay (s)	7.3	7.4	7.7
Approach LOS	A	A	A

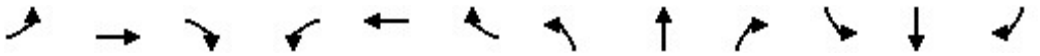
Intersection Summary			
Delay	7.4		
Level of Service	A		
Intersection Capacity Utilization	13.4%	ICU Level of Service	A
Analysis Period (min)	15		



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	0	1	905	22	0	633
Future Volume (Veh/h)	0	1	905	22	0	633
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	0	1	984	24	0	688
Pedestrians						
Lane Width (m)						
Walking Speed (m/s)						
Percent Blockage						
Right turn flare (veh)						
Median type			None			None
Median storage veh)						
Upstream signal (m)			129			
pX, platoon unblocked	0.59	0.59			0.59	
vC, conflicting volume	1684	996			1008	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	1814	641			661	
tC, single (s)	6.4	6.2			4.1	
tC, 2 stage (s)						
tF (s)	3.5	3.3			2.2	
p0 queue free %	100	100			100	
cM capacity (veh/h)	50	279			544	

Direction, Lane #	WB 1	NB 1	SB 1
Volume Total	1	1008	688
Volume Left	0	0	0
Volume Right	1	24	0
cSH	279	1700	1700
Volume to Capacity	0.00	0.59	0.40
Queue Length 95th (m)	0.1	0.0	0.0
Control Delay (s)	18.0	0.0	0.0
Lane LOS	C		
Approach Delay (s)	18.0	0.0	0.0
Approach LOS	C		

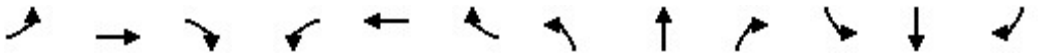
Intersection Summary			
Average Delay	0.0		
Intersection Capacity Utilization	59.0%	ICU Level of Service	B
Analysis Period (min)	15		



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	111	74	19	0	51	13	0	0	0	22	0	141
Future Volume (Veh/h)	111	74	19	0	51	13	0	0	0	22	0	141
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	121	80	21	0	55	14	0	0	0	24	0	153
Pedestrians												
Lane Width (m)												
Walking Speed (m/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (m)		113										
pX, platoon unblocked												
vC, conflicting volume	69			101			548	402	90	384	405	62
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	69			101			548	402	90	384	405	62
tC, single (s)	4.1			4.1			7.1	6.5	6.2	7.1	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	92			100			100	100	100	96	100	85
cM capacity (veh/h)	1532			1491			356	495	967	540	493	1003

Direction, Lane #	EB 1	EB 2	WB 1	NB 1	SB 1
Volume Total	121	101	69	0	177
Volume Left	121	0	0	0	24
Volume Right	0	21	14	0	153
cSH	1532	1700	1700	1700	898
Volume to Capacity	0.08	0.06	0.04	0.00	0.20
Queue Length 95th (m)	2.0	0.0	0.0	0.0	5.5
Control Delay (s)	7.6	0.0	0.0	0.0	10.0
Lane LOS	A			A	A
Approach Delay (s)	4.1		0.0	0.0	10.0
Approach LOS				A	A

Intersection Summary				
Average Delay	5.7			
Intersection Capacity Utilization	29.4%	ICU Level of Service		A
Analysis Period (min)	15			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	19	7	70	0	3	0	52	4	0	0	9	9
Future Volume (Veh/h)	19	7	70	0	3	0	52	4	0	0	9	9
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	21	8	76	0	3	0	57	4	0	0	10	10
Pedestrians												
Lane Width (m)												
Walking Speed (m/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (m)		210										
pX, platoon unblocked												
vC, conflicting volume	3			84			106	91	46	93	129	3
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	3			84			106	91	46	93	129	3
tC, single (s)	4.1			4.1			7.1	6.5	6.2	7.1	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	99			100			93	99	100	100	99	99
cM capacity (veh/h)	1619			1513			848	789	1023	878	752	1081

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	105	3	61	20
Volume Left	21	0	57	0
Volume Right	76	0	0	10
cSH	1619	1513	844	887
Volume to Capacity	0.01	0.00	0.07	0.02
Queue Length 95th (m)	0.3	0.0	1.8	0.5
Control Delay (s)	1.5	0.0	9.6	9.2
Lane LOS	A		A	A
Approach Delay (s)	1.5	0.0	9.6	9.2
Approach LOS			A	A

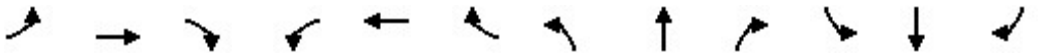
Intersection Summary				
Average Delay	4.9			
Intersection Capacity Utilization	28.8%	ICU Level of Service	A	
Analysis Period (min)	15			



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	0	104	551	139	0	771
Future Volume (Veh/h)	0	104	551	139	0	771
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	0	113	599	151	0	838
Pedestrians						
Lane Width (m)						
Walking Speed (m/s)						
Percent Blockage						
Right turn flare (veh)						
Median type			None			None
Median storage veh)						
Upstream signal (m)			200			231
pX, platoon unblocked	0.82	0.86			0.86	
vC, conflicting volume	1437	599			750	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	1030	447			624	
tC, single (s)	6.4	6.2			4.1	
tC, 2 stage (s)						
tF (s)	3.5	3.3			2.2	
p0 queue free %	100	78			100	
cM capacity (veh/h)	213	523			819	

Direction, Lane #	WB 1	NB 1	NB 2	SB 1
Volume Total	113	599	151	838
Volume Left	0	0	0	0
Volume Right	113	0	151	0
cSH	523	1700	1700	1700
Volume to Capacity	0.22	0.35	0.09	0.49
Queue Length 95th (m)	6.2	0.0	0.0	0.0
Control Delay (s)	13.8	0.0	0.0	0.0
Lane LOS	B			
Approach Delay (s)	13.8	0.0		0.0
Approach LOS	B			

Intersection Summary			
Average Delay	0.9		
Intersection Capacity Utilization	43.9%	ICU Level of Service	A
Analysis Period (min)	15		



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	2	42	95	10	25	1	85	8	16	0	18	40
Future Volume (Veh/h)	2	42	95	10	25	1	85	8	16	0	18	40
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	2	46	103	11	27	1	92	9	17	0	20	43
Pedestrians												
Lane Width (m)												
Walking Speed (m/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (m)		126										
pX, platoon unblocked												
vC, conflicting volume	28			149			204	152	98	172	202	28
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	28			149			204	152	98	172	202	28
tC, single (s)	4.1			4.1			7.1	6.5	6.2	7.1	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	100			99			87	99	98	100	97	96
cM capacity (veh/h)	1585			1432			702	734	959	764	688	1048

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	151	39	118	63
Volume Left	2	11	92	0
Volume Right	103	1	17	43
cSH	1585	1432	733	898
Volume to Capacity	0.00	0.01	0.16	0.07
Queue Length 95th (m)	0.0	0.2	4.3	1.7
Control Delay (s)	0.1	2.2	10.9	9.3
Lane LOS	A	A	B	A
Approach Delay (s)	0.1	2.2	10.9	9.3
Approach LOS			B	A

Intersection Summary				
Average Delay	5.3			
Intersection Capacity Utilization	27.7%	ICU Level of Service	A	
Analysis Period (min)	15			



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	30	11	827	39	27	991
Future Volume (Veh/h)	30	11	827	39	27	991
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	33	12	899	42	29	1077
Pedestrians						
Lane Width (m)						
Walking Speed (m/s)						
Percent Blockage						
Right turn flare (veh)						
Median type			None			None
Median storage veh)						
Upstream signal (m)			319			
pX, platoon unblocked	0.74	0.74			0.74	
vC, conflicting volume	2055	920			941	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	2246	720			748	
tC, single (s)	6.4	6.2			4.1	
tC, 2 stage (s)						
tF (s)	3.5	3.3			2.2	
p0 queue free %	0	96			95	
cM capacity (veh/h)	33	318			640	

Direction, Lane #	WB 1	WB 2	NB 1	SB 1	SB 2
Volume Total	33	12	941	29	1077
Volume Left	33	0	0	29	0
Volume Right	0	12	42	0	0
cSH	33	318	1700	640	1700
Volume to Capacity	1.01	0.04	0.55	0.05	0.63
Queue Length 95th (m)	26.9	0.9	0.0	1.1	0.0
Control Delay (s)	341.5	16.8	0.0	10.9	0.0
Lane LOS	F	C		B	
Approach Delay (s)	254.9		0.0	0.3	
Approach LOS	F				

Intersection Summary			
Average Delay	5.6		
Intersection Capacity Utilization	62.2%	ICU Level of Service	B
Analysis Period (min)	15		

Summary of All Intervals

Run Number	1	2	3	4	5	6	7
Start Time	6:57	6:57	6:57	6:57	6:57	6:57	6:57
End Time	7:57	7:57	7:57	7:57	7:57	7:57	7:57
Total Time (min)	60	60	60	60	60	60	60
Time Recorded (min)	50	50	50	50	50	50	50
# of Intervals	2	2	2	2	2	2	2
# of Recorded Intervals	1	1	1	1	1	1	1
Vehs Entered	3009	2934	3005	3064	2944	2997	3110
Vehs Exited	3033	2932	2976	3043	2980	3013	3111
Starting Vehs	175	164	149	159	186	158	167
Ending Vehs	151	166	178	180	150	142	166
Travel Distance (km)	5471	5291	5326	5451	5417	5429	5597
Travel Time (hr)	136.8	130.7	132.6	136.2	134.9	135.5	139.6
Total Delay (hr)	30.3	28.0	28.3	29.7	28.9	29.5	30.8
Total Stops	4239	4078	4208	4238	4140	4281	4362
Fuel Used (l)	445.9	428.5	430.0	442.7	437.2	440.6	452.6

Summary of All Intervals

Run Number	8	9	10	Avg
Start Time	6:57	6:57	6:57	6:57
End Time	7:57	7:57	7:57	7:57
Total Time (min)	60	60	60	60
Time Recorded (min)	50	50	50	50
# of Intervals	2	2	2	2
# of Recorded Intervals	1	1	1	1
Vehs Entered	2889	3078	3084	3007
Vehs Exited	2898	3058	3104	3015
Starting Vehs	162	153	167	153
Ending Vehs	153	173	147	148
Travel Distance (km)	5303	5478	5575	5434
Travel Time (hr)	132.4	137.4	139.5	135.6
Total Delay (hr)	28.9	30.8	31.2	29.6
Total Stops	4184	4250	4376	4236
Fuel Used (l)	429.2	446.1	453.9	440.7

Interval #0 Information Seeding

Start Time	6:57
End Time	7:07
Total Time (min)	10

Volumes adjusted by Growth Factors.
No data recorded this interval.

Interval #1 Information Recording

Start Time	7:07
End Time	7:57
Total Time (min)	50

Volumes adjusted by Growth Factors.

Run Number	1	2	3	4	5	6	7
Vehs Entered	3009	2934	3005	3064	2944	2997	3110
Vehs Exited	3033	2932	2976	3043	2980	3013	3111
Starting Vehs	175	164	149	159	186	158	167
Ending Vehs	151	166	178	180	150	142	166
Travel Distance (km)	5471	5291	5326	5451	5417	5429	5597
Travel Time (hr)	136.8	130.7	132.6	136.2	134.9	135.5	139.6
Total Delay (hr)	30.3	28.0	28.3	29.7	28.9	29.5	30.8
Total Stops	4239	4078	4208	4238	4140	4281	4362
Fuel Used (l)	445.9	428.5	430.0	442.7	437.2	440.6	452.6

Interval #1 Information Recording

Start Time	7:07
End Time	7:57
Total Time (min)	50

Volumes adjusted by Growth Factors.

Run Number	8	9	10	Avg
Vehs Entered	2889	3078	3084	3007
Vehs Exited	2898	3058	3104	3015
Starting Vehs	162	153	167	153
Ending Vehs	153	173	147	148
Travel Distance (km)	5303	5478	5575	5434
Travel Time (hr)	132.4	137.4	139.5	135.6
Total Delay (hr)	28.9	30.8	31.2	29.6
Total Stops	4184	4250	4376	4236
Fuel Used (l)	429.2	446.1	453.9	440.7

54: CR10 & Street G Performance by movement

Movement	WBL	WBR	NBT	NBR	SBL	SBT	All
Denied Del/Veh (s)	4.1	0.1	0.0	0.0	0.2	0.1	0.1
Total Del/Veh (s)	34.1	10.2	1.1	1.0	11.4	4.9	3.8

Intersection: 54: CR10 & Street G

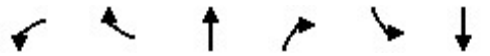
Movement	WB	WB	NB	SB
Directions Served	L	R	TR	L
Maximum Queue (m)	21.5	9.9	2.2	13.1
Average Queue (m)	8.2	3.2	0.2	4.1
95th Queue (m)	18.4	10.3	2.5	12.2
Link Distance (m)		105.2	177.2	
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (m)	30.0			50.0
Storage Blk Time (%)	0			
Queuing Penalty (veh)	0			



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	65	42	1	38	25	0
Future Volume (Veh/h)	65	42	1	38	25	0
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	71	46	1	41	27	0
Pedestrians						
Lane Width (m)						
Walking Speed (m/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None			None		
Median storage veh)						
Upstream signal (m)	126					
pX, platoon unblocked						
vC, conflicting volume			117		137	94
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			117		137	94
tC, single (s)			4.1		6.4	6.2
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			100		97	100
cM capacity (veh/h)			1471		856	963

Direction, Lane #	EB 1	WB 1	NB 1
Volume Total	117	42	27
Volume Left	0	1	27
Volume Right	46	0	0
cSH	1700	1471	856
Volume to Capacity	0.07	0.00	0.03
Queue Length 95th (m)	0.0	0.0	0.7
Control Delay (s)	0.0	0.2	9.3
Lane LOS		A	A
Approach Delay (s)	0.0	0.2	9.3
Approach LOS			A

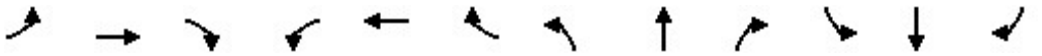
Intersection Summary			
Average Delay	1.4		
Intersection Capacity Utilization	16.0%	ICU Level of Service	A
Analysis Period (min)	15		



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	0	13	853	1	0	1021
Future Volume (Veh/h)	0	13	853	1	0	1021
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	0	14	927	1	0	1110
Pedestrians						
Lane Width (m)						
Walking Speed (m/s)						
Percent Blockage						
Right turn flare (veh)						
Median type			None			None
Median storage veh)						
Upstream signal (m)			129			
pX, platoon unblocked	0.71	0.71			0.71	
vC, conflicting volume	2038	928			928	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	2252	699			700	
tC, single (s)	6.4	6.2			4.1	
tC, 2 stage (s)						
tF (s)	3.5	3.3			2.2	
p0 queue free %	100	96			100	
cM capacity (veh/h)	33	314			641	

Direction, Lane #	WB 1	NB 1	SB 1
Volume Total	14	928	1110
Volume Left	0	0	0
Volume Right	14	1	0
cSH	314	1700	1700
Volume to Capacity	0.04	0.55	0.65
Queue Length 95th (m)	1.1	0.0	0.0
Control Delay (s)	17.0	0.0	0.0
Lane LOS	C		
Approach Delay (s)	17.0	0.0	0.0
Approach LOS	C		

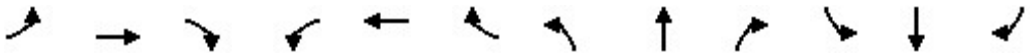
Intersection Summary			
Average Delay	0.1		
Intersection Capacity Utilization	57.1%	ICU Level of Service	B
Analysis Period (min)	15		



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	118	66	17	0	77	21	0	0	0	20	0	139
Future Volume (Veh/h)	118	66	17	0	77	21	0	0	0	20	0	139
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	128	72	18	0	84	23	0	0	0	22	0	151
Pedestrians												
Lane Width (m)												
Walking Speed (m/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (m)		113										
pX, platoon unblocked												
vC, conflicting volume	107			90			584	444	81	424	442	96
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	107			90			584	444	81	424	442	96
tC, single (s)	4.1			4.1			7.1	6.5	6.2	7.1	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	91			100			100	100	100	96	100	84
cM capacity (veh/h)	1484			1505			333	465	979	505	466	961

Direction, Lane #	EB 1	EB 2	WB 1	NB 1	SB 1
Volume Total	128	90	107	0	173
Volume Left	128	0	0	0	22
Volume Right	0	18	23	0	151
cSH	1484	1700	1700	1700	862
Volume to Capacity	0.09	0.05	0.06	0.00	0.20
Queue Length 95th (m)	2.1	0.0	0.0	0.0	5.7
Control Delay (s)	7.7	0.0	0.0	0.0	10.2
Lane LOS	A			A	B
Approach Delay (s)	4.5		0.0	0.0	10.2
Approach LOS				A	B

Intersection Summary				
Average Delay	5.5			
Intersection Capacity Utilization	29.6%	ICU Level of Service		A
Analysis Period (min)	15			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	17	5	64	0	5	0	79	8	0	0	9	14
Future Volume (Veh/h)	17	5	64	0	5	0	79	8	0	0	9	14
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	18	5	70	0	5	0	86	9	0	0	10	15
Pedestrians												
Lane Width (m)												
Walking Speed (m/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (m)		210										
pX, platoon unblocked												
vC, conflicting volume	5			75			101	81	40	86	116	5
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	5			75			101	81	40	86	116	5
tC, single (s)	4.1			4.1			7.1	6.5	6.2	7.1	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	99			100			90	99	100	100	99	99
cM capacity (veh/h)	1616			1524			852	800	1031	885	766	1078

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	93	5	95	25
Volume Left	18	0	86	0
Volume Right	70	0	0	15
cSH	1616	1524	847	927
Volume to Capacity	0.01	0.00	0.11	0.03
Queue Length 95th (m)	0.3	0.0	2.9	0.6
Control Delay (s)	1.5	0.0	9.8	9.0
Lane LOS	A		A	A
Approach Delay (s)	1.5	0.0	9.8	9.0
Approach LOS			A	A

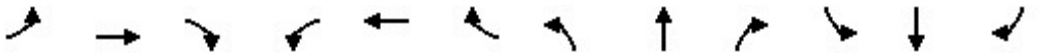
Intersection Summary				
Average Delay	5.9			
Intersection Capacity Utilization	29.9%	ICU Level of Service	A	
Analysis Period (min)	15			



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	0	101	512	154	0	627
Future Volume (Veh/h)	0	101	512	154	0	627
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	0	110	557	167	0	682
Pedestrians						
Lane Width (m)						
Walking Speed (m/s)						
Percent Blockage						
Right turn flare (veh)						
Median type			None			None
Median storage veh)						
Upstream signal (m)			200			231
pX, platoon unblocked	0.89	0.88			0.88	
vC, conflicting volume	1239	557			724	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	895	425			616	
tC, single (s)	6.4	6.2			4.1	
tC, 2 stage (s)						
tF (s)	3.5	3.3			2.2	
p0 queue free %	100	80			100	
cM capacity (veh/h)	276	552			846	

Direction, Lane #	WB 1	NB 1	NB 2	SB 1
Volume Total	110	557	167	682
Volume Left	0	0	0	0
Volume Right	110	0	167	0
cSH	552	1700	1700	1700
Volume to Capacity	0.20	0.33	0.10	0.40
Queue Length 95th (m)	5.6	0.0	0.0	0.0
Control Delay (s)	13.1	0.0	0.0	0.0
Lane LOS	B			
Approach Delay (s)	13.1	0.0		0.0
Approach LOS	B			

Intersection Summary			
Average Delay	1.0		
Intersection Capacity Utilization	39.9%	ICU Level of Service	A
Analysis Period (min)	15		



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	1	39	100	11	37	1	86	7	12	0	2	6
Future Volume (Veh/h)	1	39	100	11	37	1	86	7	12	0	2	6
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	1	42	109	12	40	1	93	8	13	0	2	7
Pedestrians												
Lane Width (m)												
Walking Speed (m/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (m)		126										
pX, platoon unblocked												
vC, conflicting volume	41			151			171	164	96	180	218	40
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	41			151			171	164	96	180	218	40
tC, single (s)	4.1			4.1			7.1	6.5	6.2	7.1	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	100			99			88	99	99	100	100	99
cM capacity (veh/h)	1568			1430			780	722	960	759	674	1031

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	152	53	114	9
Volume Left	1	12	93	0
Volume Right	109	1	13	7
cSH	1568	1430	792	922
Volume to Capacity	0.00	0.01	0.14	0.01
Queue Length 95th (m)	0.0	0.2	3.8	0.2
Control Delay (s)	0.1	1.8	10.3	8.9
Lane LOS	A	A	B	A
Approach Delay (s)	0.1	1.8	10.3	8.9
Approach LOS			B	A

Intersection Summary				
Average Delay	4.1			
Intersection Capacity Utilization	29.4%	ICU Level of Service	A	
Analysis Period (min)	15			



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	35	16	795	34	16	815
Future Volume (Veh/h)	35	16	795	34	16	815
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	38	17	864	37	17	886
Pedestrians						
Lane Width (m)						
Walking Speed (m/s)						
Percent Blockage						
Right turn flare (veh)						
Median type			None			None
Median storage veh)						
Upstream signal (m)			319			
pX, platoon unblocked	0.75	0.75			0.75	
vC, conflicting volume	1802	882			901	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	1902	679			704	
tC, single (s)	6.4	6.2			4.1	
tC, 2 stage (s)						
tF (s)	3.5	3.3			2.2	
p0 queue free %	32	95			97	
cM capacity (veh/h)	56	340			673	

Direction, Lane #	WB 1	WB 2	NB 1	SB 1	SB 2
Volume Total	38	17	901	17	886
Volume Left	38	0	0	17	0
Volume Right	0	17	37	0	0
cSH	56	340	1700	673	1700
Volume to Capacity	0.68	0.05	0.53	0.03	0.52
Queue Length 95th (m)	21.5	1.2	0.0	0.6	0.0
Control Delay (s)	156.7	16.2	0.0	10.5	0.0
Lane LOS	F	C		B	
Approach Delay (s)	113.3		0.0	0.2	
Approach LOS	F				

Intersection Summary			
Average Delay	3.4		
Intersection Capacity Utilization	53.9%	ICU Level of Service	A
Analysis Period (min)	15		

Summary of All Intervals

Run Number	1	2	3	4	5	6	7
Start Time	6:57	6:57	6:57	6:57	6:57	6:57	6:57
End Time	7:57	7:57	7:57	7:57	7:57	7:57	7:57
Total Time (min)	60	60	60	60	60	60	60
Time Recorded (min)	50	50	50	50	50	50	50
# of Intervals	2	2	2	2	2	2	2
# of Recorded Intervals	1	1	1	1	1	1	1
Vehs Entered	2771	2857	2805	2802	2773	2790	2896
Vehs Exited	2774	2872	2812	2780	2831	2774	2900
Starting Vehs	137	165	153	141	181	124	145
Ending Vehs	134	150	146	163	123	140	141
Travel Distance (km)	4833	5075	4947	4811	4978	4888	5027
Travel Time (hr)	118.3	123.2	119.9	117.2	121.1	119.1	121.8
Total Delay (hr)	25.0	25.5	24.3	24.1	24.9	24.9	24.9
Total Stops	4058	4154	4047	3981	4118	4061	4004
Fuel Used (l)	391.9	409.2	397.6	387.6	404.4	394.1	407.2

Summary of All Intervals

Run Number	8	9	10	Avg
Start Time	6:57	6:57	6:57	6:57
End Time	7:57	7:57	7:57	7:57
Total Time (min)	60	60	60	60
Time Recorded (min)	50	50	50	50
# of Intervals	2	2	2	2
# of Recorded Intervals	1	1	1	1
Vehs Entered	2813	2833	2867	2818
Vehs Exited	2813	2830	2842	2824
Starting Vehs	136	140	133	140
Ending Vehs	136	143	158	138
Travel Distance (km)	4846	4908	5023	4934
Travel Time (hr)	118.0	119.4	123.0	120.1
Total Delay (hr)	24.5	25.0	25.7	24.9
Total Stops	4097	3987	4195	4071
Fuel Used (l)	390.4	398.6	406.8	398.8

Interval #0 Information Seeding

Start Time	6:57
End Time	7:07
Total Time (min)	10

Volumes adjusted by Growth Factors.

No data recorded this interval.

Interval #1 Information Recording

Start Time	7:07
End Time	7:57
Total Time (min)	50

Volumes adjusted by Growth Factors.

Run Number	1	2	3	4	5	6	7
Vehs Entered	2771	2857	2805	2802	2773	2790	2896
Vehs Exited	2774	2872	2812	2780	2831	2774	2900
Starting Vehs	137	165	153	141	181	124	145
Ending Vehs	134	150	146	163	123	140	141
Travel Distance (km)	4833	5075	4947	4811	4978	4888	5027
Travel Time (hr)	118.3	123.2	119.9	117.2	121.1	119.1	121.8
Total Delay (hr)	25.0	25.5	24.3	24.1	24.9	24.9	24.9
Total Stops	4058	4154	4047	3981	4118	4061	4004
Fuel Used (l)	391.9	409.2	397.6	387.6	404.4	394.1	407.2

Interval #1 Information Recording

Start Time	7:07
End Time	7:57
Total Time (min)	50

Volumes adjusted by Growth Factors.

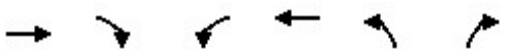
Run Number	8	9	10	Avg
Vehs Entered	2813	2833	2867	2818
Vehs Exited	2813	2830	2842	2824
Starting Vehs	136	140	133	140
Ending Vehs	136	143	158	138
Travel Distance (km)	4846	4908	5023	4934
Travel Time (hr)	118.0	119.4	123.0	120.1
Total Delay (hr)	24.5	25.0	25.7	24.9
Total Stops	4097	3987	4195	4071
Fuel Used (l)	390.4	398.6	406.8	398.8

54: CR10 & Street G Performance by movement

Movement	WBL	WBR	NBT	NBR	SBL	SBT	All
Denied Del/Veh (s)	4.2	0.2	0.0	0.0	0.0	0.0	0.1
Total Del/Veh (s)	25.2	9.7	1.0	0.9	10.7	4.1	3.1

Intersection: 54: CR10 & Street G

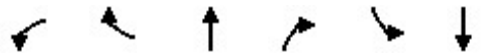
Movement	WB	WB	SB
Directions Served	L	R	L
Maximum Queue (m)	21.5	11.2	9.2
Average Queue (m)	7.9	3.6	2.2
95th Queue (m)	18.1	11.4	8.5
Link Distance (m)		105.2	
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (m)	30.0		50.0
Storage Blk Time (%)	0		
Queuing Penalty (veh)	0		



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Sign Control	Stop			Stop	Stop	
Traffic Volume (vph)	54	29	0	44	29	0
Future Volume (vph)	54	29	0	44	29	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	59	32	0	48	32	0

Direction, Lane #	EB 1	WB 1	NB 1
Volume Total (vph)	91	48	32
Volume Left (vph)	0	0	32
Volume Right (vph)	32	0	0
Hadj (s)	-0.18	0.03	0.23
Departure Headway (s)	3.8	4.1	4.4
Degree Utilization, x	0.10	0.05	0.04
Capacity (veh/h)	921	865	781
Control Delay (s)	7.3	7.3	7.6
Approach Delay (s)	7.3	7.3	7.6
Approach LOS	A	A	A

Intersection Summary			
Delay	7.3		
Level of Service	A		
Intersection Capacity Utilization	14.6%	ICU Level of Service	A
Analysis Period (min)	15		



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	0	2	827	1	0	851
Future Volume (Veh/h)	0	2	827	1	0	851
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	0	2	899	1	0	925
Pedestrians						
Lane Width (m)						
Walking Speed (m/s)						
Percent Blockage						
Right turn flare (veh)						
Median type			None			None
Median storage veh)						
Upstream signal (m)			129			
pX, platoon unblocked	0.68	0.68			0.68	
vC, conflicting volume	1824	900			900	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	1977	618			618	
tC, single (s)	6.4	6.2			4.1	
tC, 2 stage (s)						
tF (s)	3.5	3.3			2.2	
p0 queue free %	100	99			100	
cM capacity (veh/h)	46	333			655	

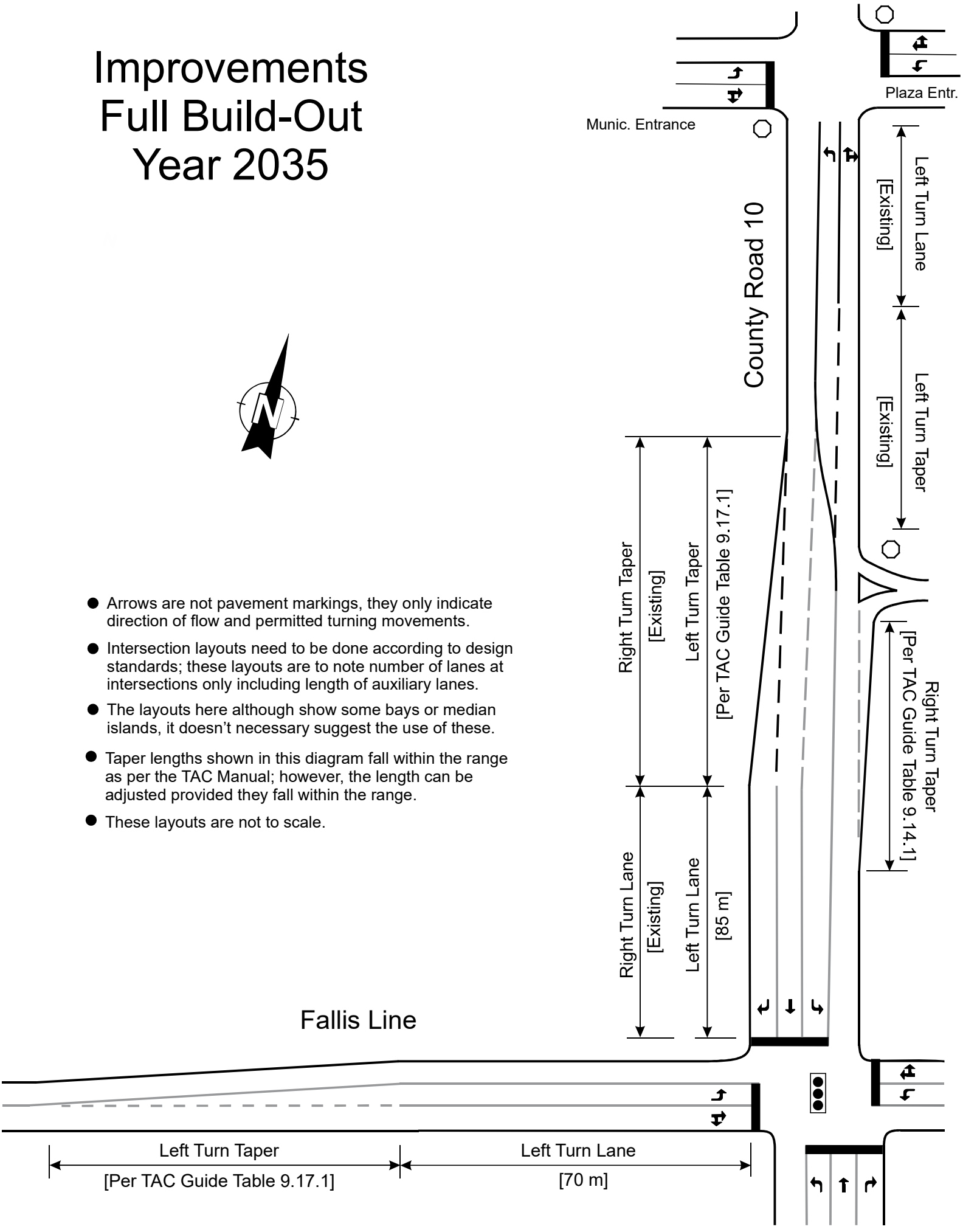
Direction, Lane #	WB 1	NB 1	SB 1
Volume Total	2	900	925
Volume Left	0	0	0
Volume Right	2	1	0
cSH	333	1700	1700
Volume to Capacity	0.01	0.53	0.54
Queue Length 95th (m)	0.1	0.0	0.0
Control Delay (s)	15.9	0.0	0.0
Lane LOS	C		
Approach Delay (s)	15.9	0.0	0.0
Approach LOS	C		

Intersection Summary			
Average Delay	0.0		
Intersection Capacity Utilization	53.6%	ICU Level of Service	A
Analysis Period (min)	15		

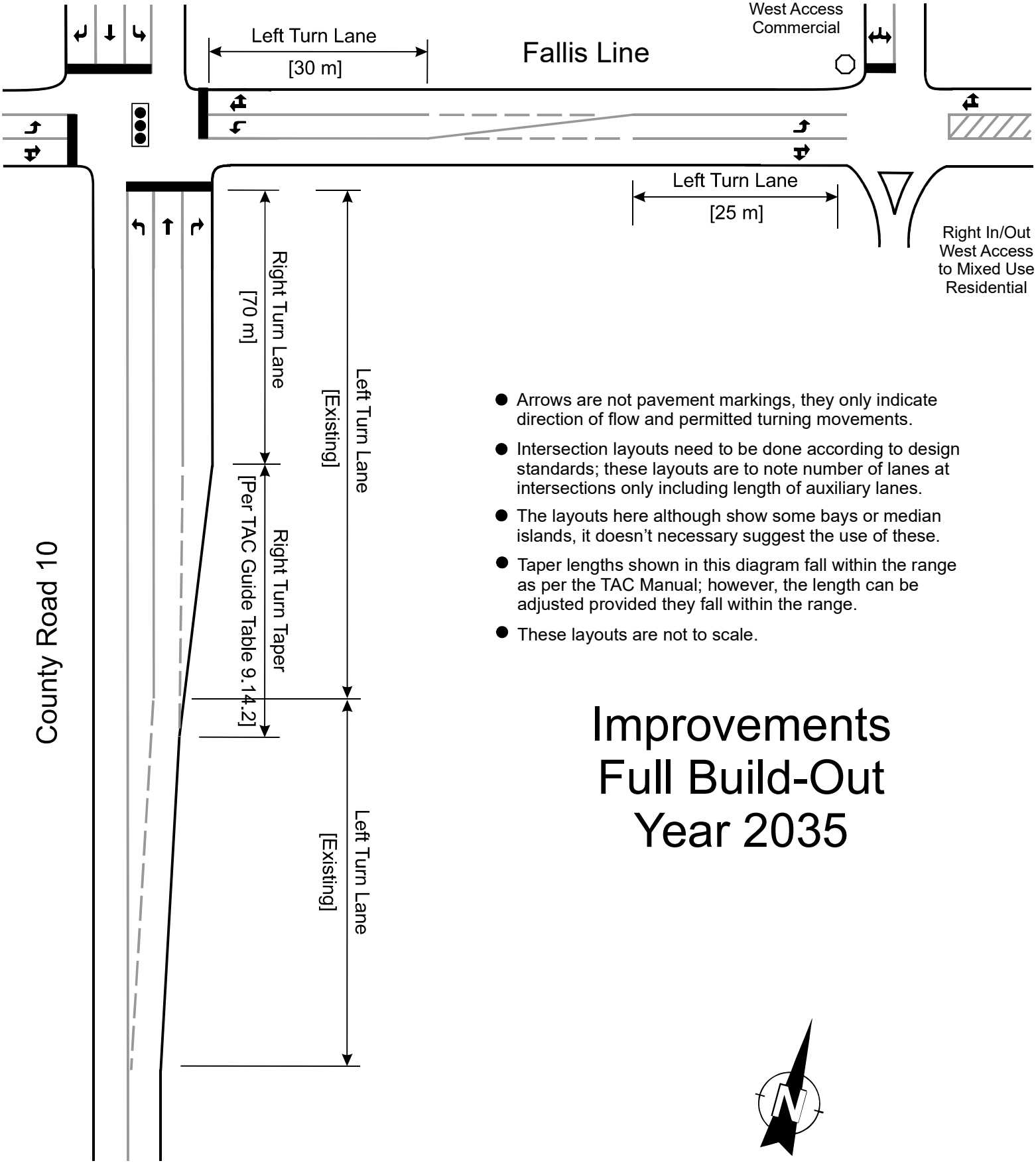
Appendix N

Proposed Intersection and Entrance Configurations

Improvements Full Build-Out Year 2035

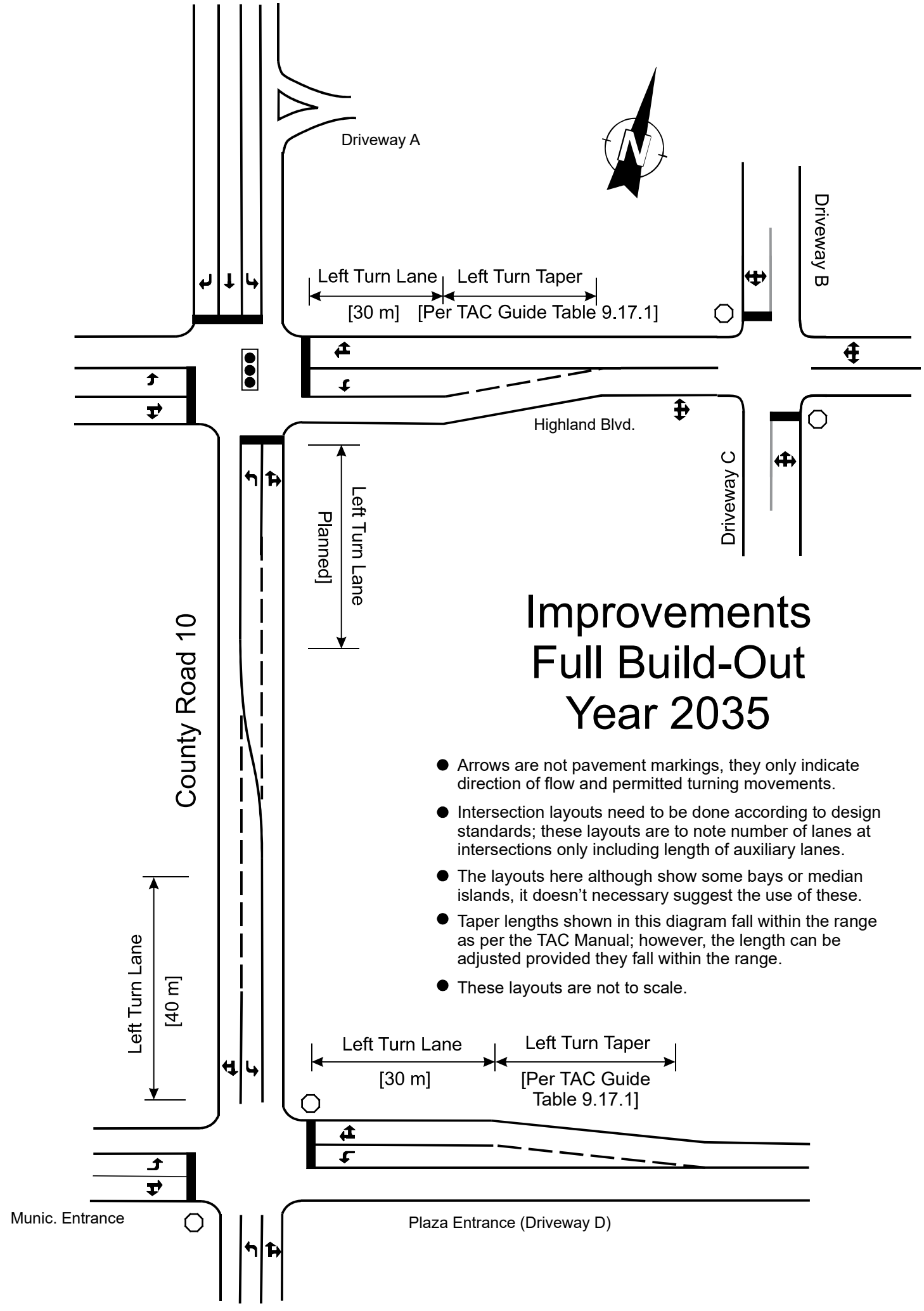


- Arrows are not pavement markings, they only indicate direction of flow and permitted turning movements.
- Intersection layouts need to be done according to design standards; these layouts are to note number of lanes at intersections only including length of auxiliary lanes.
- The layouts here although show some bays or median islands, it doesn't necessary suggest the use of these.
- Taper lengths shown in this diagram fall within the range as per the TAC Manual; however, the length can be adjusted provided they fall within the range.
- These layouts are not to scale.



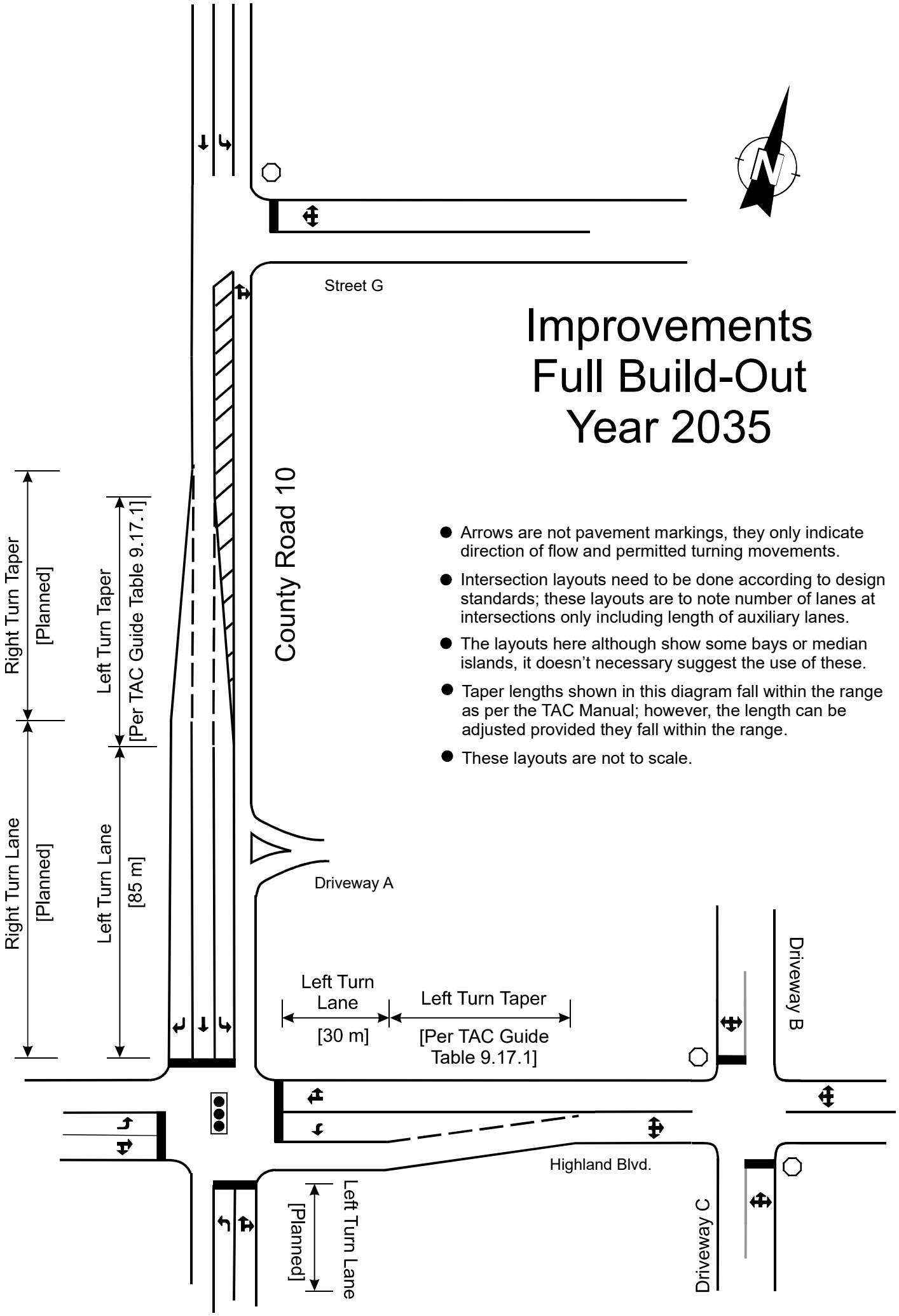
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Improvements
Full Build-Out
Year 2035



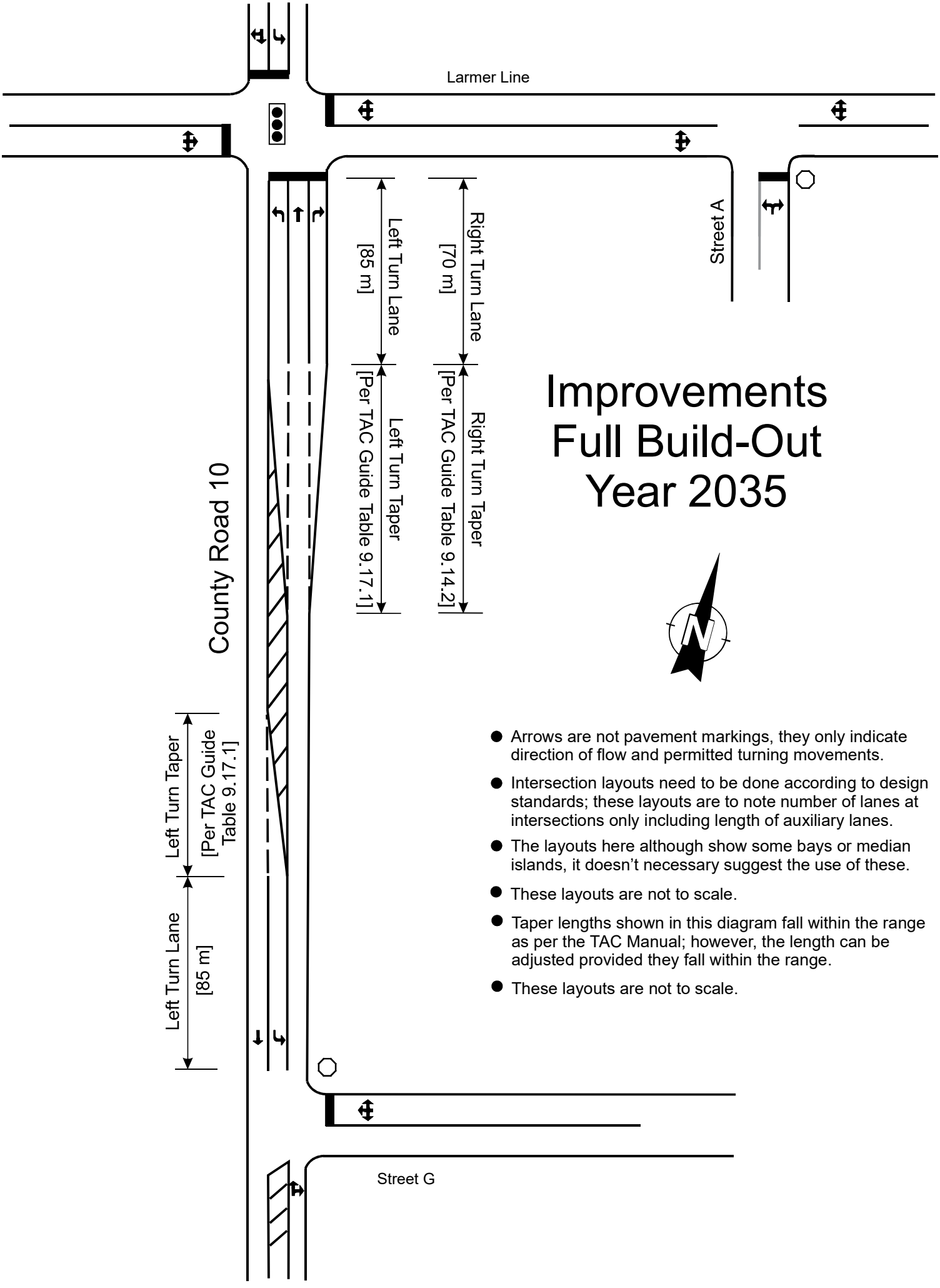
Improvements Full Build-Out Year 2035

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Improvements Full Build-Out Year 2035

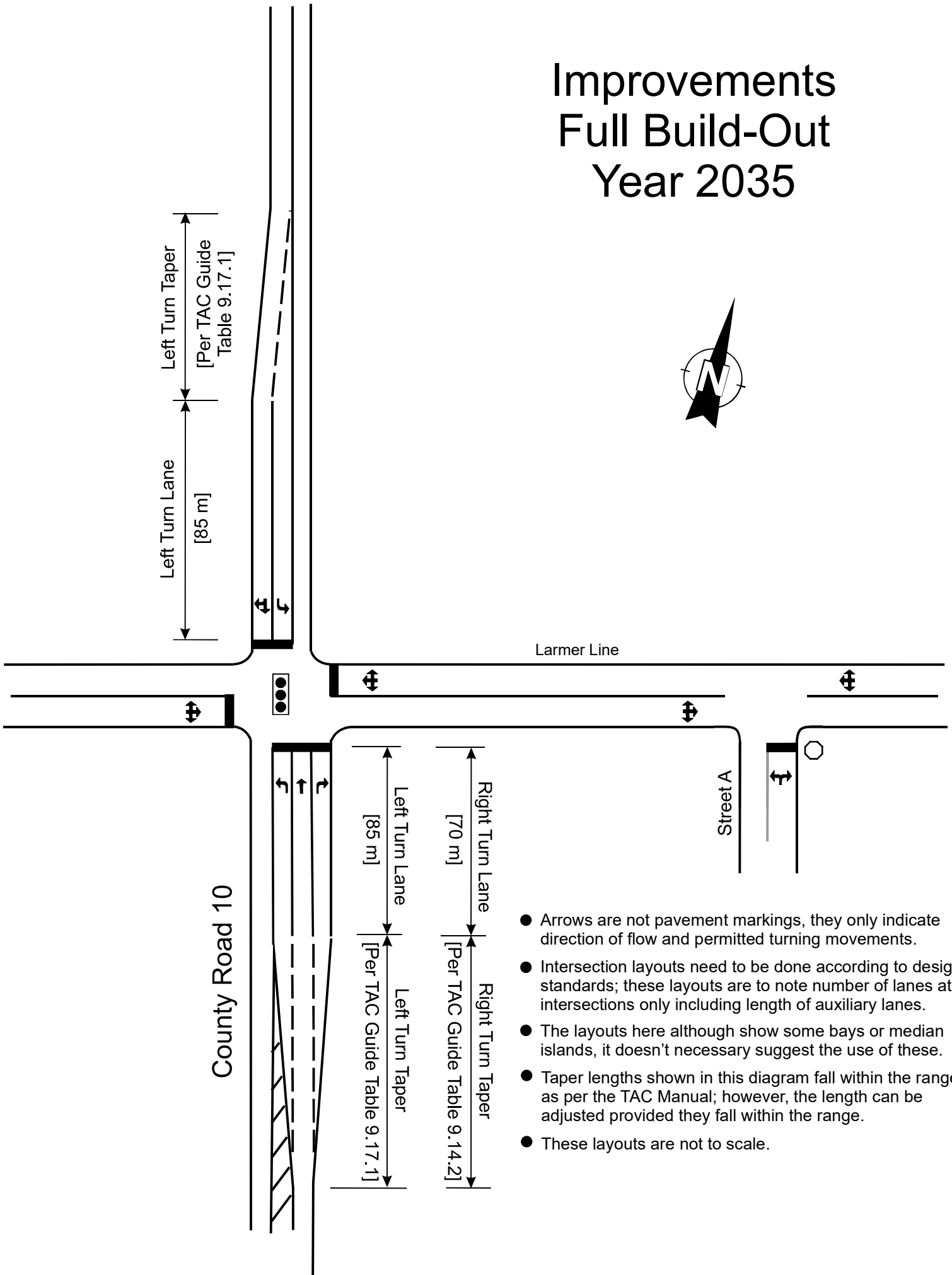
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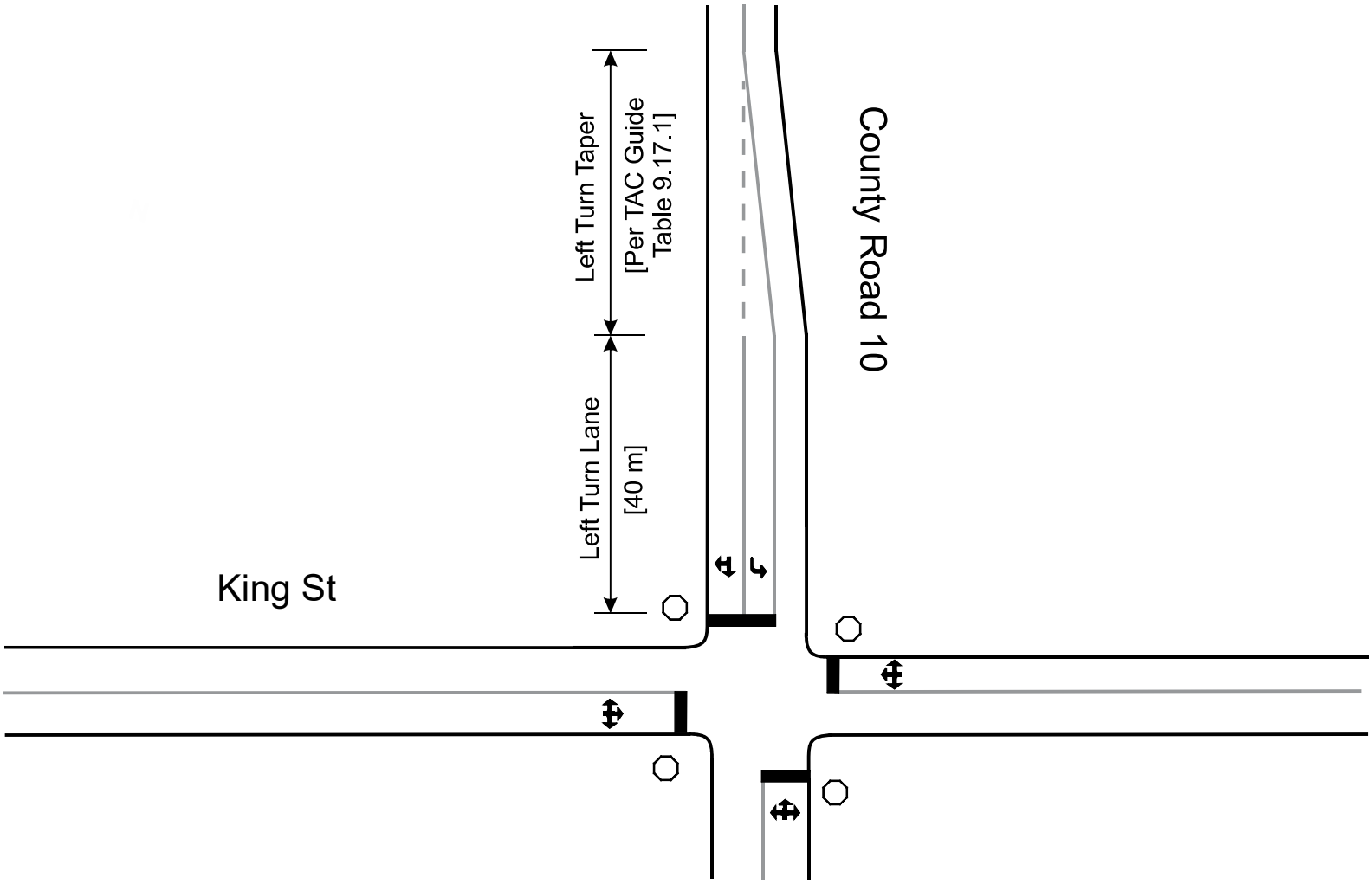
Improvements Full Build-Out Year 2035

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Improvements Full Build-Out Year 2035



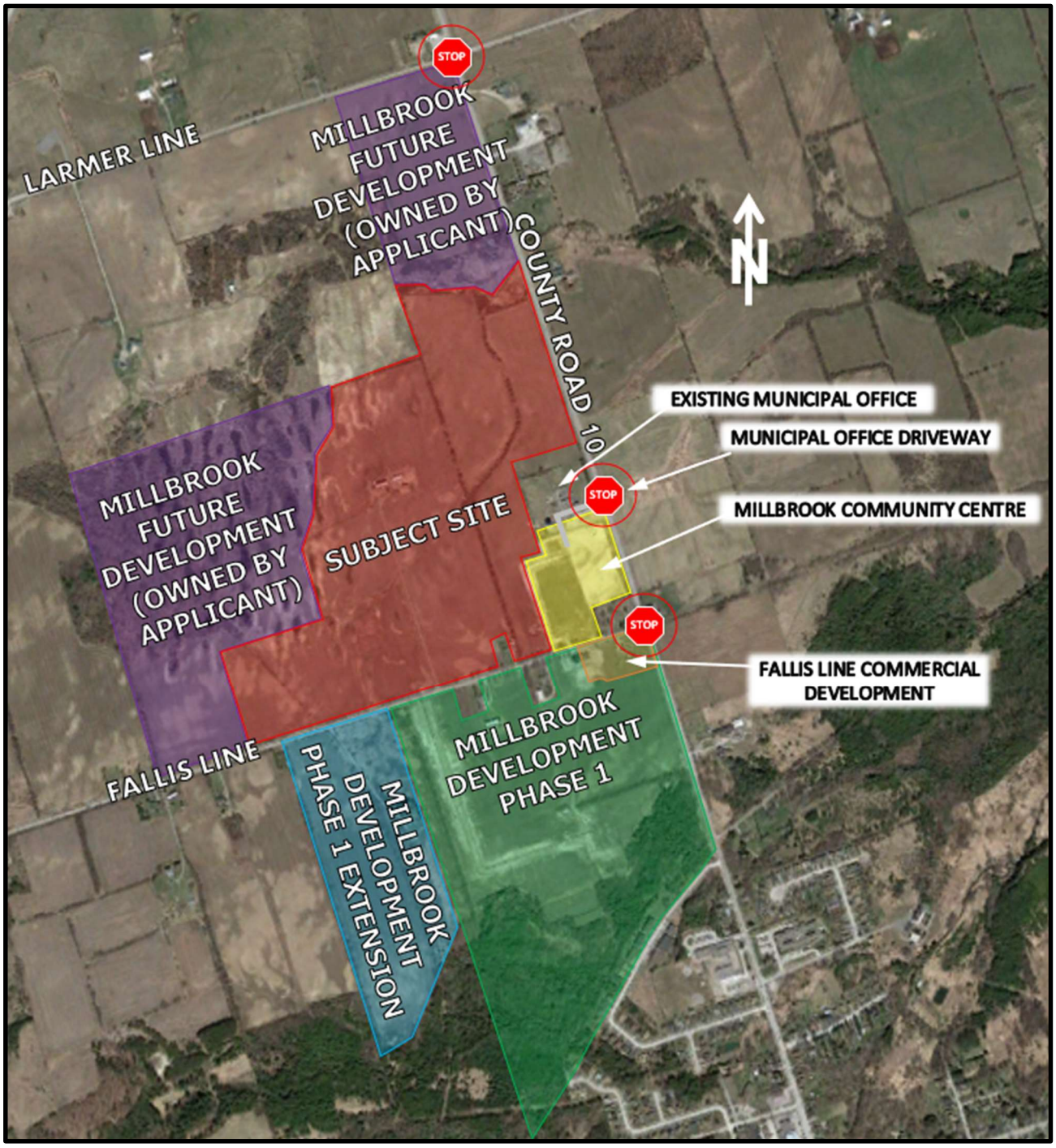
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Improvements
Full Build-Out
Year 2035

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- These layouts are not to scale.

Figure 1 – Proposed Site Location and Study Area



2.2 Transit Access

There is currently no municipal transit system available within the study area. The 2015 Township Official Plan has recommended steps toward implementing a preliminary transit system. Since this process is still in the early phases, we have conservatively assumed that the proposed development will not have access to transit.

2.3 Other Developments within the Study Area

2.3.1 Adjacent Development Description

Based on discussions with the Township, only planned developments within Millbrook will have a notable impact on the traffic volumes in the study area. All other development outside the study area will be accounted for in the background traffic growth rate, as outlined in Section 2.6.

Millbrook Development Phase 1 (by the Developer)
As noted in Section 1.1, 240 units are currently built-out and occupancy will occur shortly for Millbrook Development Phase 1. We have assumed that Millbrook Development Phase 1 will be fully built-out and occupied by 2021. The unit breakdown of the Millbrook Development Phase 1 for the 2021 horizon year is summarized below:

Anticipated (2021) Occupancy of the Millbrook Development Phase 1

• Single Detached		269 units
• Townhouse		65 units
	Total	**334 units**

Millbrook Future Development (by the Developer)
An additional review of the anticipated ultimate development of the future development lands (owned by the Developer) has also been reviewed for long-range planning purposes [Millbrook Future Development]. The following ultimate development statistics have been assumed for the Millbrook Future Development:

Assumed Ultimate Development of the Millbrook Future Development for Horizon Year 2031

• Institutional	9.9 ha.
• Urban Employment	12.13 ha.

Fallis Line Commercial Development (by the Developer)
Towerhill Development Ltd. is also moving ahead with a proposed commercial development on the property municipally known as 919 Fallis Line, located at the southwest corner of the intersection of Fallis Line / County Road 10 [Fallis Line Commercial Development]. The proposed commercial development includes a general office building (13,412sq.ft. GFA) and a fast-food restaurant (5,000sq.ft. GFA). It is anticipated that build-out and occupancy of this development will occur by 2019. JD Engineering prepared a traffic brief (dated September 2017) for the Fallis Line Commercial Development [919 Fallis Line Traffic Brief].

Millbrook Community Centre (by the Township)
The Township is moving ahead with the proposed Millbrook Community Centre on a parcel of land located directly south of the existing Township Municipal Office. The Millbrook Community Centre will have a total gross floor area of 50,130 square feet, that will include an ice rink, community hall, multi-use rooms within the building and a play area with future splash pad directly north of the proposed building. It is anticipated that build-out will occur by 2019. JD Engineering prepared a traffic impact study (dated October 2017) for the Millbrook Community Centre [Community Centre TIS].

Millbrook Development Phase 1 Extension (by Others)
Based on correspondence with the Township there is a proposed residential extension to the Millbrook Development Phase 1 parcel located just west of the Millbrook Development south of Fallis Line [Millbrook Development Phase 1 Extension]. This property is not owned by Towerhill Development Ltd. The proposed residential development includes the construction of 65 single detached units. It is anticipated that build-out and occupancy of this development will occur by 2021. Azsura Engineers prepared a traffic letter (dated September 2017) for the Millbrook Development Phase 1 Extension [Azsura Traffic Letter].

Section 2.3.2 and 2.3.3 outline the methodology applied to account for the additional traffic in the study area, as a result of the Millbrook Development Phase 1, Millbrook Future Development, Fallis Line Commercial Development Millbrook Community Centre, and Millbrook Development Phase 1 Extension. Sections 2.3.4 provides the calculation of the traffic generation for each of the adjacent developments.

2.3.2 Adjacent Development Traffic Generation Methodology

Although traffic impact studies are available for the Fallis Line Commercial Development, Millbrook Development Phase 1 and Millbrook Development Phase 1 Extension, adjustments to the traffic generation for the developments are required to reflect updated information; furthermore, a traffic impact study is not available for the Future Development; consequently the traffic generated for this development has been estimated as part of this analysis. The traffic generation for these proposed developments have been calculated based on the data provided in the Institute of Transportation Engineers [ITE] *Trip Generation Manual* (10th Edition) [ITE Trip Generation Manual]. The following ITE land uses have been applied to estimate the traffic from mentioned adjacent developments:

- ITE land use 210 (Single-Family Detached Housing);
- ITE land use 220 (Multifamily Housing (Low-Rise));
- ITE land use 770 (Business Park); and
- ITE land use 933 (Fast-Food Restaurant without Drive-Through Window).

The AM and PM peak hour traffic generation for the Fallis Line Commercial Development, Millbrook Development Phase 1 and Millbrook Development Phase 1 Extension do not exactly align with the AM, PM and SAT peak hour in the traffic counts; consequently, we have applied the peak hour of adjacent street traffic values provided in the ITE Trip Generation Manual.

For the Millbrook Future Development although the peak hours of traffic generation for the Millbrook Future Development is not anticipated to exactly align with the peak hour of traffic on the adjacent streets, for the purposes of this analysis we have conservatively applied the peak hour of traffic generator rates.

No transportation modal split reduction has been applied to the traffic generation calculations.

2.3.3 Adjacent Development Traffic Assignment Methodology

The traffic assignment for the fast-food and office component of the Fallis Line Commercial Development has been estimated based on the 919 Fallis Line Traffic Brief.

We have assumed the Millbrook Future Development will follow the same traffic assignment as the office component of the Fallis Line Commercial Development as identified in the 919 Fallis Line Traffic Brief. The 919 Fallis Line Traffic Brief assumed 20% of all traffic generated by the office component of the development would be generated within the Millbrook community, with half of this traffic (10%) being generated within the existing Millbrook community and the other half (10%) generated within the proposed Millbrook Development. Excerpts from this study have been included in **Appendix B.**

The Community Centre TIS estimated the traffic assignment for the Millbrook Community Centre, based on the planned residential development in the area for the 2019 build-out year. The Community Centre TIS assumed 25% of the Millbrook Development Phase 1 was built-out and occupied. Since the residential distribution in the Community Centre TIS did not include all residential units in Phase 1 and Phase 2 of the Millbrook Development (assumed for 2023 build-out), the traffic assignment has been adjusted to reflect the ultimate build-out of the Subject Site. Furthermore, it is anticipated an additional driveway from the Millbrook Community Centre onto Street 'I' would be constructed upon the build-out of the Subject Site, which will also impact the traffic distribution in the area.

The revised distribution was selected based on the probable route of travel between the residential areas and the Millbrook Community Centre, assuming that people will select their route primarily based on travel time. **Table 1** illustrates the estimated residential capture for the Millbrook Community Centre with the surrounding residential development.

Table 1 – Millbrook Community Centre Residential Capture Distribution

Travel Direction (to/from)	Percentage of Total Residential Capture
Tapley	13%
Millbrook	25%
Carmel / South Monaghan / Bailieboro	4%
Cavan	4%
Fraserville / Cedar Valley	6%
Millbrook Development Phase 1	19%
Millbrook Development Phase 2	29%
Total	**100%**

Table 2 illustrates the estimated distribution of ingress and egress traffic for the Millbrook Community Centre.

Table 2 – Millbrook Community Centre Trip Distribution

Travel Direction (to/from)	Percentage of Total Traffic Generation
North via CR10	4%
South via CR10	29%
West via Fallis Line	4%
West via Larmer Line	8%
East via Larmer Line	6%
Via Millbrook Development Phase 1 Roadways	19%
Via Millbrook Development Phase 2 Roadways	29%
Total	100%

The traffic assignment used for Millbrook Development Phase 1 in the Millbrook TIS will be applied to both the Millbrook Development Phase 1 and the Millbrook Development Phase 1 Extension (excerpts attached in **Appendix B**). The Millbrook TIS applied 2006 Transportation Tomorrow Survey [TTS] data using the TTS Internet Data Retrieval System [IDRS]. The estimated distribution of trips generated by the Millbrook Development Phase 1 and the Millbrook Development Phase 1 Extension is illustrated in **Table 3**.

Table 3 - Millbrook Development Phase 1 Traffic Distribution

Travel Direction (to/from)	Percentage of Total Traffic Generation
North via County Road 10	59%
Southeast via County Road 10	28%
Southwest via Fallis Line	10%
East via Larmer Line	3%
Total	**100%**

2.3.4 Adjacent Development Traffic Calculation

2.3.4.1 Fallis Line Commercial Development

The traffic generation for the office component of the Fallis Line Commercial Development was obtained from the 919 Fallis Line Traffic Brief (excerpts provided in **Appendix B**).

The statistics and land use for the fast-food restaurant component of the proposed development have been updated since the 919 Fallis Line Traffic Brief. The traffic generation for the fast-food component of the Fallis Line Commercial Development has been calculated based on the data provided in the ITE Trip Generation Manual.

The estimated trip generation of the fast-food component of the Fallis Line Commercial Development is illustrated below in **Table 4.**

Table 4 – Estimated Traffic Generation of the Fallis Line Commercial Development

Development	Size	AM Peak Hour			PM Peak Hour			SAT Peak Hour		
		IN	OUT	TOTAL	IN	OUT	TOTAL	IN	OUT	TOTAL
General Office Building ITE Land Use: 710*	13,412 sq.ft.	34	5	39	16	78	94	3	3	6
Fast-Food Restaurant without Drive-Through Window ITE Land Use: 933	5,000 sq.ft.	64	62	126	74	68	142	139	134	273
TOTAL TRIP GENERATION		**98**	**67**	**165**	**90**	**146**	**236**	**142**	**137**	**279**
INTERNAL CAPTURE**		-3	-3	-6	-3	-3	-6	-2	-2	-4
NET GENERATION		**95**	**64**	**159**	**87**	**143**	**230**	**140**	**135**	**275**
PASS-BY TRIPS (ITE Land Use: 932)***		0	0	0	-30	-30	-60	0	0	0
TOTAL SITE		**95**	**64**	**159**	**57**	**113**	**170**	**140**	**135**	**275**

* The traffic generated was estimated in the 919 Fallis Line Traffic Brief (excerpts provided in **Appendix B).**
** The internal capture rate has been calculated using the methodology outlined in Section 7 of the ITE Trip Generation Handbook (2nd Edition). Calculations are provided in **Appendix I.**
*** Since ITE pass-by data were not available for ITE land use 933, the ITE pass-by data for ITE land use 932 (High-Turnover (Sit-Down) Restaurant were applied. Pass-by trips for the AM, PM and SAT are 0%, 43% and 0% respectively.

Using the traffic distribution pattern noted in Section 2.3.3, the traffic assignment for the Fallis Line Commercial Development for the AM, PM and SAT peak hour and has been illustrated in **Figure 3.**

2.3.4.2 Millbrook Community Centre

For the purposes of this report, the traffic generated for the Millbrook Community Centre was estimated based on the Community Centre TIS (excerpts are provided in **Appendix B**). It is noted the primary

access to the proposed Millbrook Community Centre will be via a proposed connection to the existing driveway for the Township Municipal Office, onto County Road 10 [Municipal Office Driveway].

Using the traffic distribution pattern noted in Section 2.3.3, the traffic assignment for the Millbrook Community Centre for the AM, PM and SAT peak hour was calculated and has been illustrated in **Figure 4.**

2.3.4.3 Millbrook Development Phase 1

The traffic generation for the Millbrook Development Phase 1 has been calculated using the unit count outlined above. The estimated trip generation of the Millbrook Development Phase 1 is illustrated below in **Table 5.**

Table 5 – Estimated Traffic Generation of Millbrook Development Phase 1

Development	Size	AM Peak Hour			PM Peak Hour			SAT Peak Hour		
		IN	OUT	TOTAL	IN	OUT	TOTAL	IN	OUT	TOTAL
Single-Family Detached Housing ITE Land Use: 210	269 units	50	150	200	168	99	267	136	115	251
Multifamily Housing (Low-Rise) ITE Land Use: 220	65 units	7	25	32	26	15	41	23	23	46
TOTAL TRIP GENERATION	**334 units**	**57**	**175**	**232**	**194**	**114**	**306**	**159**	**138**	**297**

Using the traffic distribution pattern noted in Section 2.3.3, the traffic assignment for the Millbrook Development Phase 1 was calculated for the AM, PM and SAT peak hour and has been illustrated in **Figure 5.**

2.3.4.4 Millbrook Development Phase 1 Extension

The traffic generation for the Millbrook Development Phase 1 Extension is based on the Azsura Traffic Letter for the AM and PM peak hour (excerpts are attached in **Appendix B**). For the purposes of this report, the estimated traffic generation in the SAT peak hour for the Millbrook Development Phase 1 Extension has been calculated based on the data provided in the ITE Trip Generation Manual.

The trip generation for the Millbrook Development Phase 1 Extension from the Azsura Traffic Letter and the estimated traffic generated for the SAT peak hour is illustrated below in **Table 6.**

Table 6 – Estimated Traffic Generation of Millbrook Development Phase 1 Extension

Development	Size	AM Peak Hour*			PM Peak Hour*			SAT Peak Hour**		
		IN	OUT	TOTAL	IN	OUT	TOTAL	IN	OUT	TOTAL
Single-Family Detached Housing ITE Land Use: 210	65 units	14	41	55	45	26	71	39	34	73

* The traffic generated was estimated in the Azsura Traffic Brief (excerpts provided in **Appendix B).**
** The traffic generated was estimated based on the ITE Trip Generation Manual.

Using the traffic distribution pattern noted in Section 2.3.3, the traffic assignment for the Millbrook Development Phase 1 Extension was calculated for the AM, PM and SAT peak hour and has been illustrated in **Figure 6.**

2.3.4.5 Millbrook Future Development

The traffic generation for the Millbrook Future Development has been calculated using the statistics outlined above. For the purposes of this report, we have assumed the gross floor area will be 25% of the total area. The estimated trip generation of the Future Millbrook Development is illustrated below in **Table 7.**

Table 7 – Estimated Traffic Generation of Millbrook Future Development

Development	Size	AM Peak Hour			PM Peak Hour			SAT Peak Hour*		
		IN	OUT	TOTAL	IN	OUT	TOTAL	IN	OUT	TOTAL
Business Park ITE Land Use: 770	592,822 sq.ft.	679	120	799	191	542	733	24	23	47

*The ITE Trip Generation Manual did not provide a traffic generation rate for the SAT peak hour for this land use; we have assumed that the ratio of SAT to PM peak hour trips for the Business Park will be the same as the ratio of SAT to PM peak hour trips calculated for the General Office Building in Section 2.3.4.1 (6%).

Using the traffic distribution pattern noted in Section 2.3.2, the traffic assignment for the Millbrook Future Development was calculated for the AM, PM and SAT peak hour and has been illustrated in **Figure 7.**

The total adjacent traffic volumes for the 2023, 2026 and 2031 horizon year in the AM and PM peak hour in **Figures 8** and **9.**

Figure 3 – Fallis Line Commercial Development Traffic Volumes (2019)

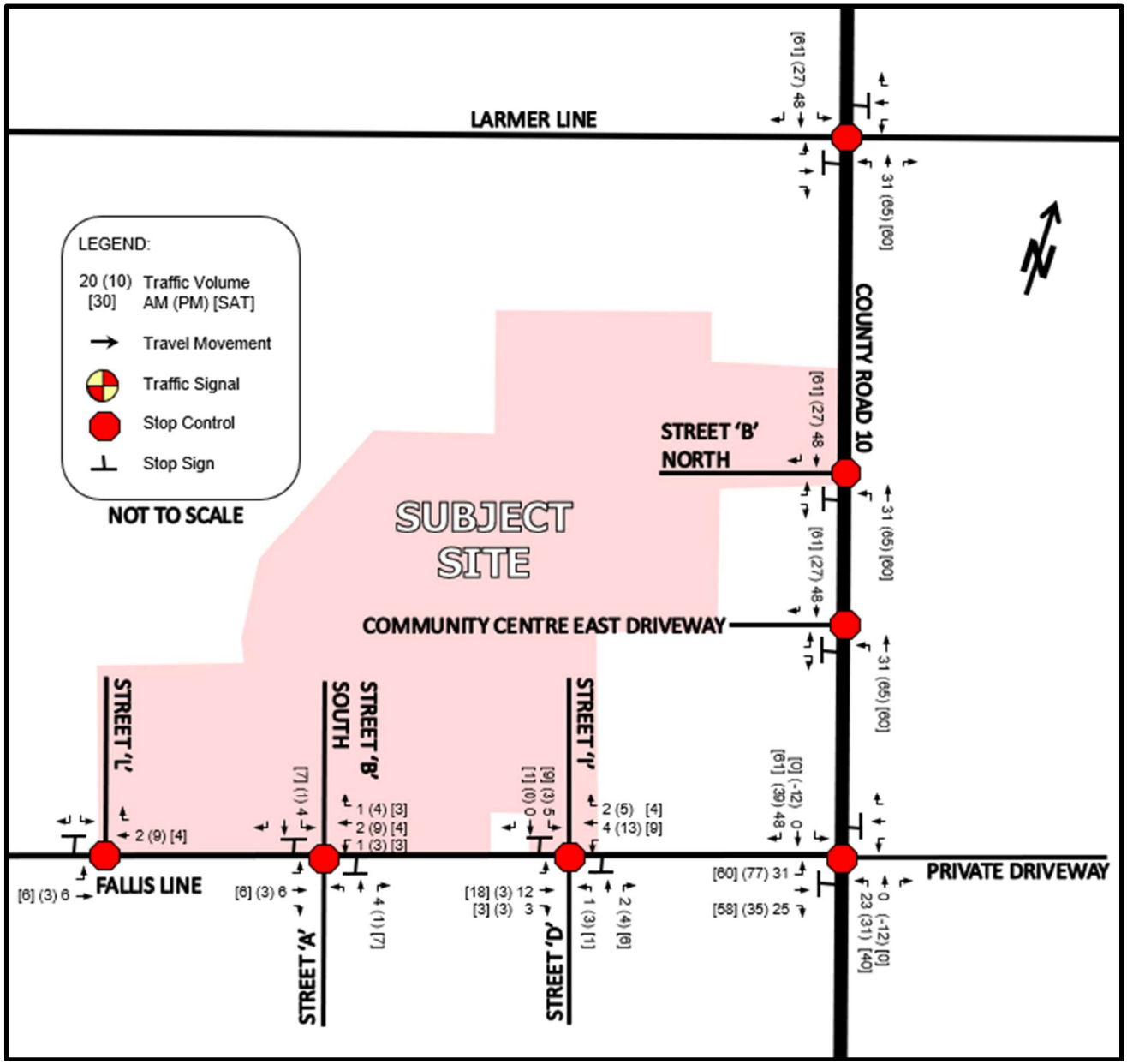


Figure 6 – Millbrook Development Phase 1 Extension Traffic Volumes (2021)

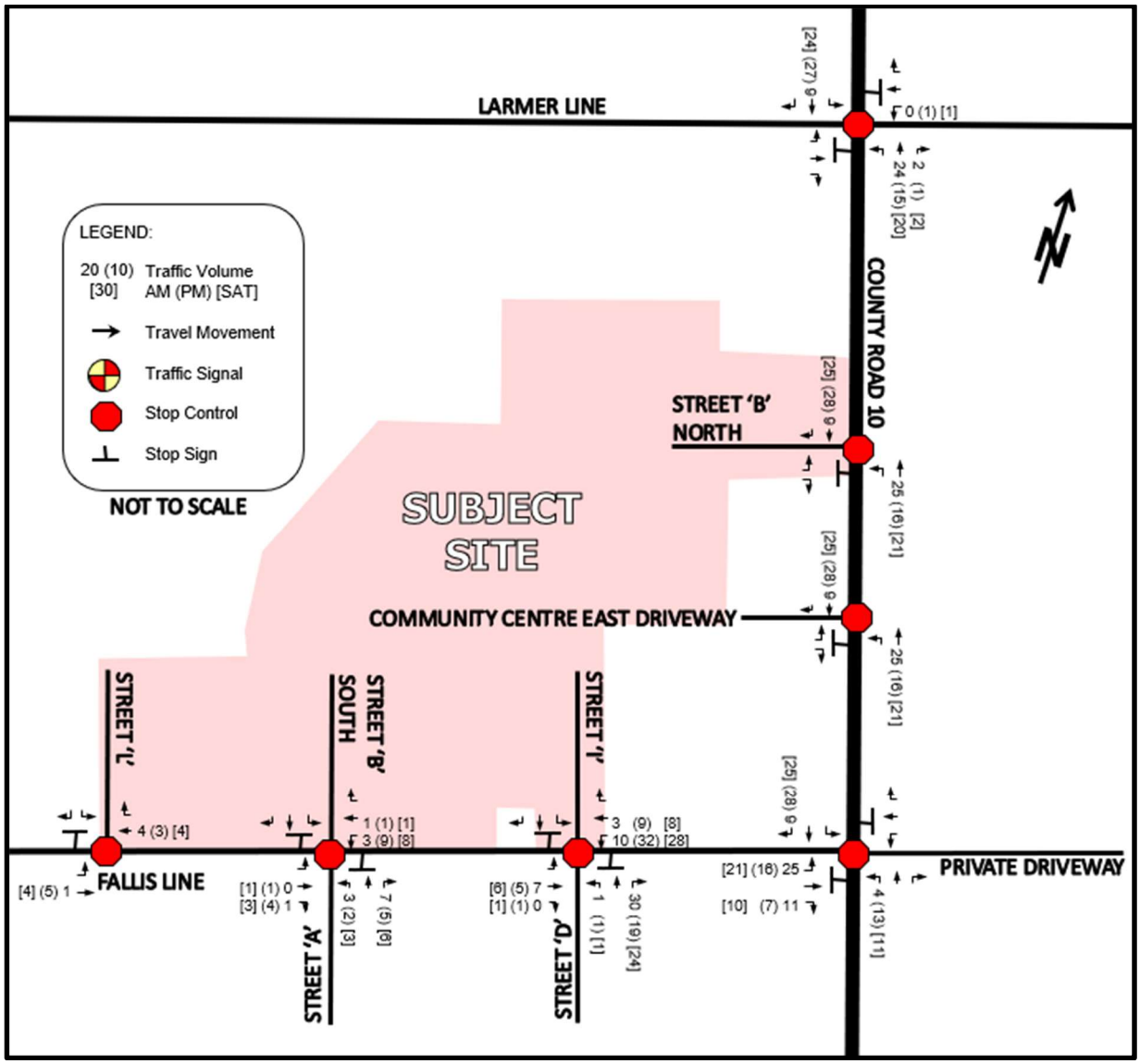


Figure 7 – Millbrook Future Development Traffic Volumes (2031)

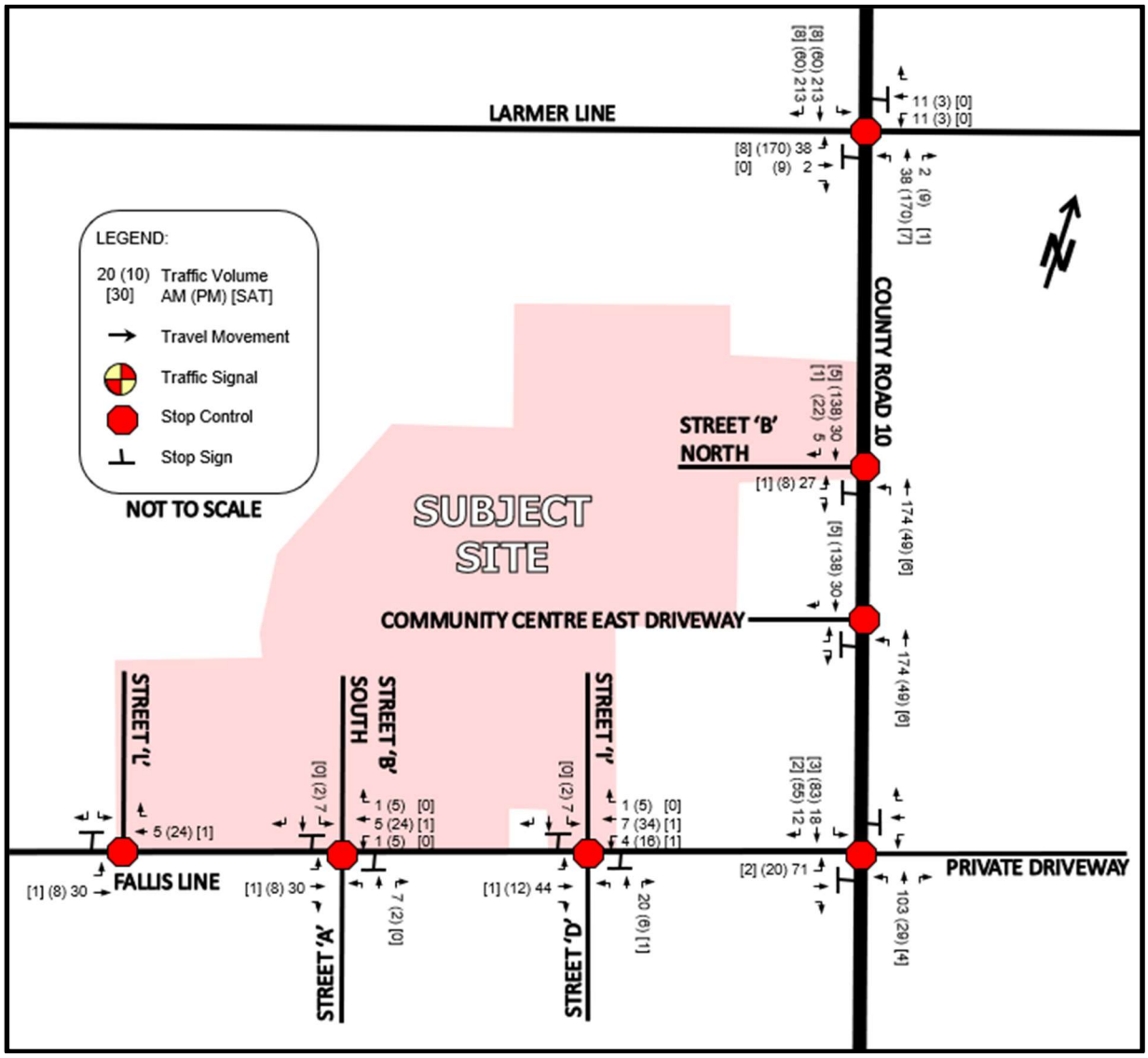


Table 16 – Background (2031) LOS with Improvements

Location (N-S Street / E-W Street)	Weekday AM Peak Hour			Weekday PM Peak Hour			Weekend SAT Peak Hour		
	V/C	Delay (s)	LOS	V/C	Delay (s)	LOS	V/C	Delay (s)	LOS
County Road 10 / Larmer Line (signalized)	-	11.1	B	-	17.0	B	-	5.4	A
EB	0.48	34.4	C	0.77	49.2	D	0.33	29.9	C
NBL	0.30	29.1	C	0.12	23.9	C	0.23	33.4	C
NBT	0.03	3.8	A	0.04	7.2	A	0.03	2.8	A
SBT	0.42	5.4	A	0.53	11.0	B	0.27	3.0	A
SBR	0.64	8.3	A	0.59	12.0	B	0.30	3.2	A

The results of the LOS analysis indicate that all intersections in the study area are operating within the typical design limits noted in Section 3.1.

For right turn movements at the unsignalized intersections in the study area, the criteria outlined in Appendix G of the VDOT RDM were applied. Based on the above noted criteria, a right turn lane is not warranted at any of the unsignalized intersections in the study area.

Based on the Ontario Traffic Manual Book 12 *Signal Justification*, traffic signals are not warranted at any of the unsignalized intersections in the study area (results are provided in **Appendix H**).

The anticipated 95th percentile queue can be accommodated for all proposed storage lanes in the study area.

No additional improvements are recommended within the study area for the background (2031) scenario.

4 Proposed Development Traffic Generation and Assignment

4.1 Traffic Generation for Subject Site

The traffic generation for the Subject Site has been calculated based on the data provided in the ITE Trip Generation Manual. The following ITE land uses have been applied to estimate the traffic from the proposed development:

- ITE land use 210 (Single-Family Detached Housing);
- ITE land use 220 (Multifamily Housing (Low-Rise));
- ITE land use 221 (Multifamily Housing (Mid-Rise)); and
- ITE land use 520 (Elementary School)[1].

The estimated trip generation of the proposed development is illustrated below in **Table 17**. The AM, PM and SAT peak hour traffic generation for the proposed development does not exactly align with the AM, PM and SAT peak hour in the traffic counts; consequently, we have applied the peak hour of adjacent street traffic values provided in the ITE Trip Generation Manual.

[1] Based on correspondence with the Kawartha Pine Ridge District School board, it has not yet been confirmed whether the institutional block will be an elementary school or middle school; however, based on future school projections, an elementary school would likely have more students (350 students). Consequently, for the purpose of this analysis, we have conservatively assumed the institutional block will be an elementary school.

Table 17 - Estimated Traffic Generation of Proposed Development

Development	Size	AM Peak Hour			PM Peak Hour			SAT Peak Hour*		
		IN	OUT	TOTAL	IN	OUT	TOTAL	IN	OUT	TOTAL
Single-Family Detached Housing ITE Land Use: 210	328 units	61	182	243	205	120	325	165	141	306
Multifamily Housing (Low-Rise) ITE Land Use: 220	245 units	26	87	113	87	51	138	116	116	232
Multifamily Housing (Mid-Rise) ITE Land Use: 221	192 units	18	52	70	52	33	85	42	43	85
Total Residential	765 units	105	321	426	344	204	548	323	300	623
Elementary School** ITE Land Use: 520	350 students	114	98	212	26	28	54	26	28	54
TOTAL TRIP GENERATION		**219**	**419**	**638**	**370**	**232**	**602**	**349**	**328**	**677**

*There are no SAT peak hour ITE trip generation rates for the ITE Elementary School land use (ITE#520). Consequently, we have assumed the trip generation in the SAT peak hour to be equivalent to the PM peak hour.
** We have applied a 10% reduction in the ITE trip generation rates for the ITE Elementary School land use (ITE#520) to account for internal trips within the proposed development.

No transportation modal split reduction has been applied to the above-noted traffic generation calculation.

4.2 Traffic Assignment for Subject Site

The traffic assignment used for the proposed development in the Millbrook TIS will be applied to the residential component of the proposed development (excerpts attached in **Appendix B**). The Millbrook TIS applied 2006 TTS data using the TTS IDRS. The estimated distribution of trips generated by the residential component of the proposed development is illustrated in **Table 18**.

Table 18 - Millbrook Development Phase 2 Residential Traffic Distribution

Travel Direction (to/from)	Percentage of Total Traffic Generation
North via County Road 10	59%
Southeast via County Road 10	28%
Southwest via Fallis Line	5%
Southwest via Larmer Line	5%
East via Larmer Line	3%
Total	**100%**

There are 35 single-detached residential units with frontage on Fallis Line (20 units just west of Street 'B' South and 15 units just east of Street 'B' South). The distribution of traffic has been adjusted to reflect the trips generated from these residential units directly onto Fallis Line.

Using the above noted traffic distribution, the traffic assignment for the residential component of the proposed development was calculated for the AM, PM and SAT peak hour and has been illustrated in **Figure 15.**

The distribution of elementary school traffic from the proposed development is based on the estimated origin / destination of trips generated by the proposed elementary school. Given that the proposed elementary school is anticipated to have a catchment area similar to the existing Millbrook/South Cavan

Public School, the main origins and destinations would be from residential areas within this area. The resulting traffic distribution pattern, based on the above noted assumptions, for the AM, PM and SAT peak hours is illustrated in **Table 19**.

Table 19 - Millbrook Development Phase 2 School Traffic Distribution

Travel Direction (to/from)	Percentage of Total Traffic Generation
North via County Road 10	5%
Southeast via County Road 10	65%
Southwest via Fallis Line	10%
Southwest via Larmer Line	10%
East via Larmer Line	10%
Total	**100%**

Using the above noted traffic distribution, the traffic assignment for the school component of the proposed development was calculated for the AM, PM and SAT peak hour and has been illustrated in **Figure 16.**

Figure 15 – Proposed Development Residential Traffic Assignment

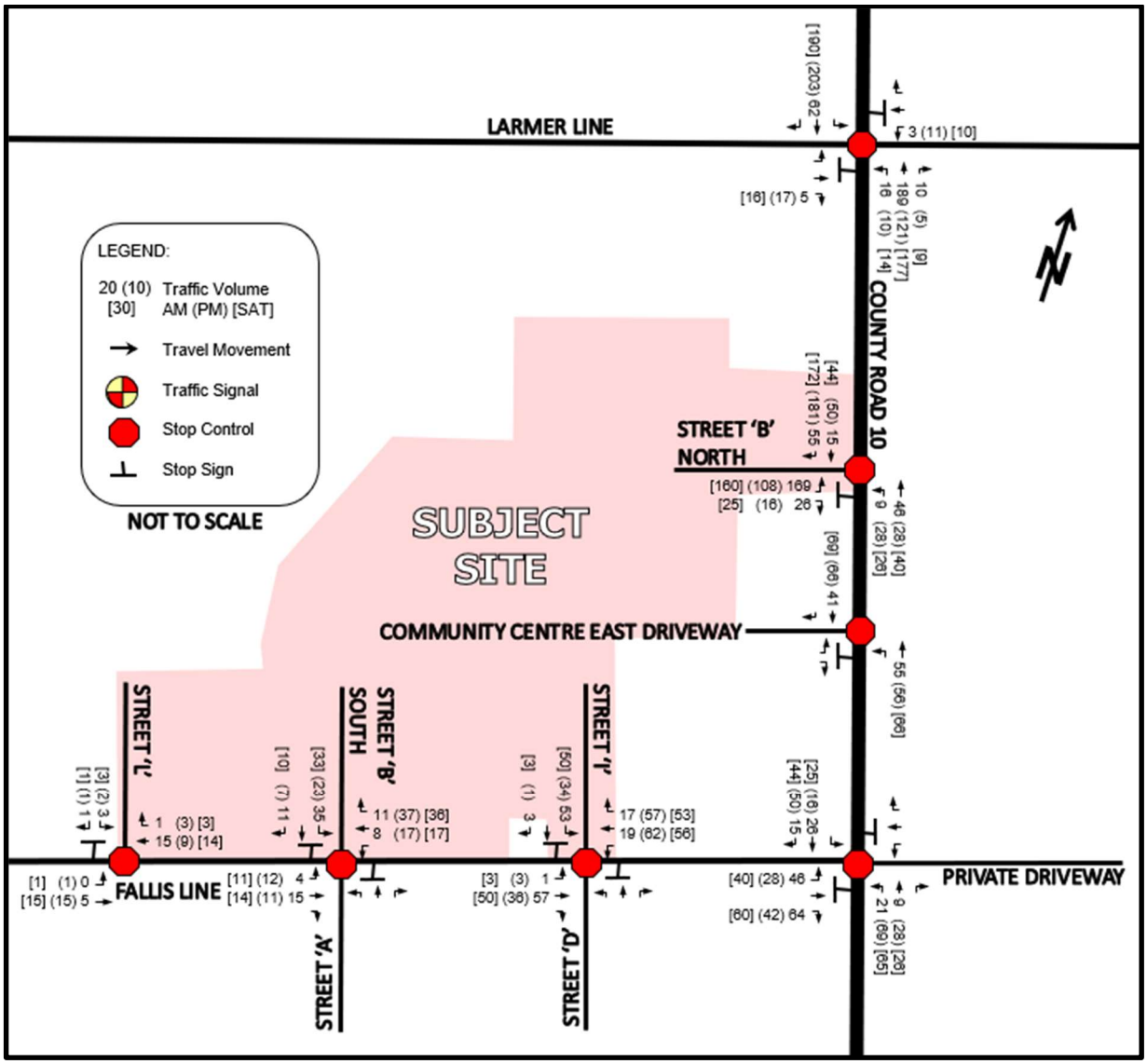
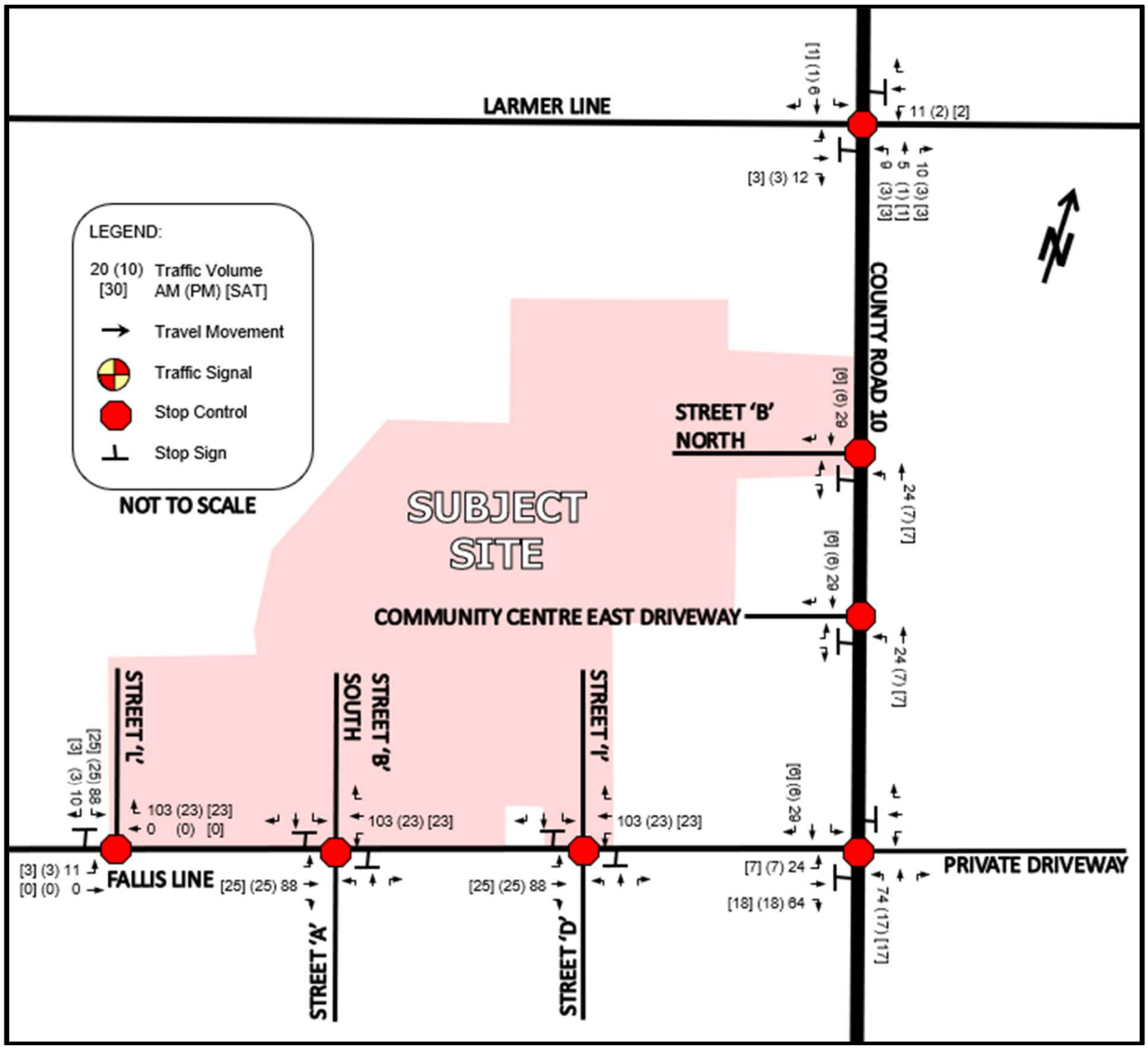


Figure 16 – Proposed Development School Traffic Assignment



4.3 Total Horizon Year Traffic Volumes with the Proposed Development

For the total (2023, 2026 and 2031) horizon years with development traffic volume, the proposed development traffic was added to the background (2023, 2026 and 2031) traffic volume. The resulting total (2023, 2026 and 2031) horizon years with proposed traffic volume for the AM, PM and SAT peak hour are illustrated in **Figure 17, 18** and **19.**

The presence of other developments in Millbrook that are approved or in construction will be included in this study. The estimated construction horizons were ascertained though communications with the Township. The sketch of these developments is shown in ***Exhibit 2***.

Nearby Developments in the Study Area

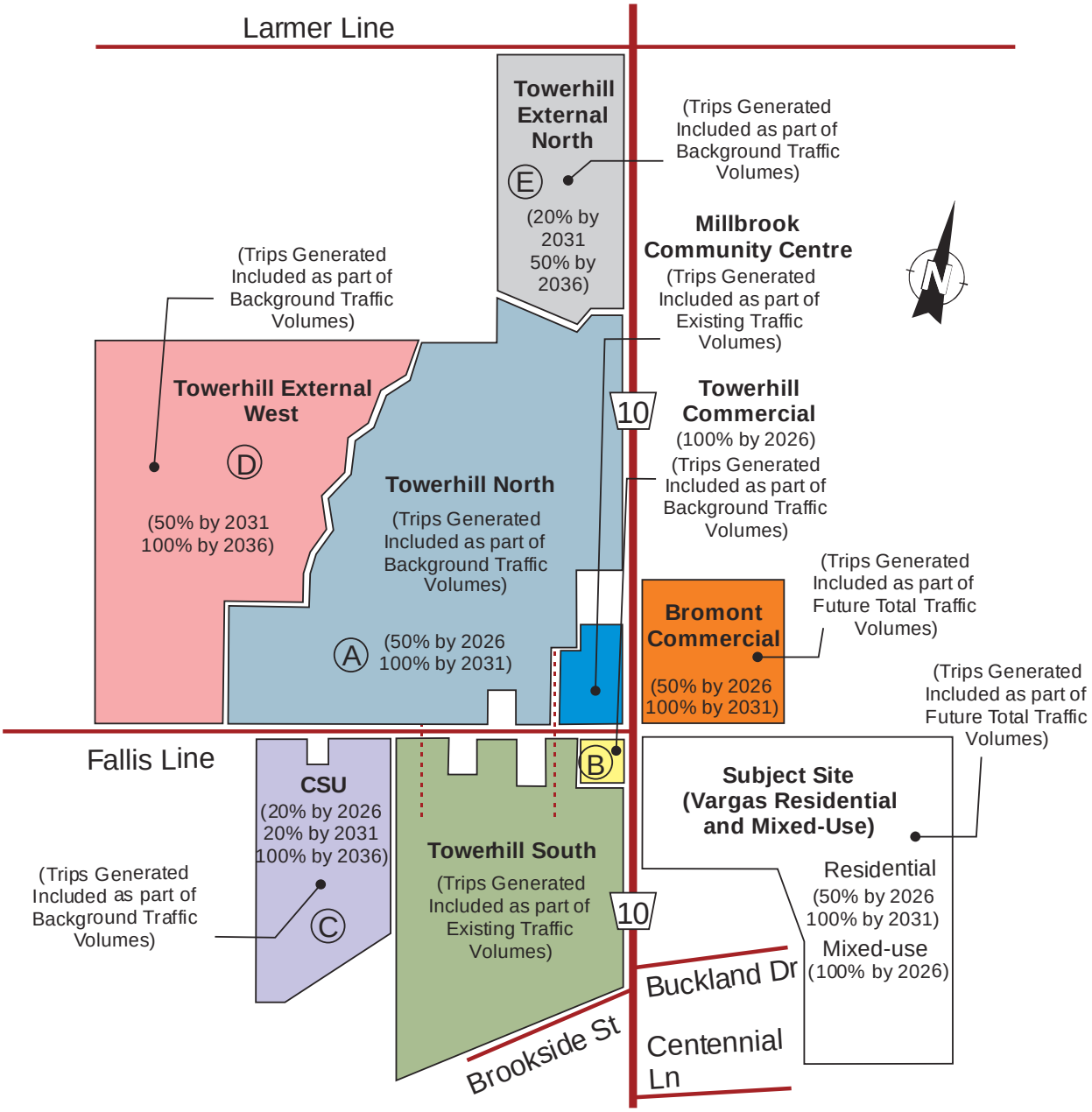


Exhibit 2: *Nearby Developments in the Study Area.*

Included in the analysis are the following study area intersections:

- County Road 10 / King Street
- County Road 10 / Fallis Line
- County Road 10 / Larmer Line
- County Road 10 / Centennial Lane
- Fallis Line / Tapley Quarter Line

2.2 The Site

The subject site for the proposed residential development is a vacant parcel of land located on the southeast quadrant of the County Road 10 / Fallis Line intersection. Immediately north of the site is parcel of land proposed for a commercial plaza, see ***Exhibit 3***.

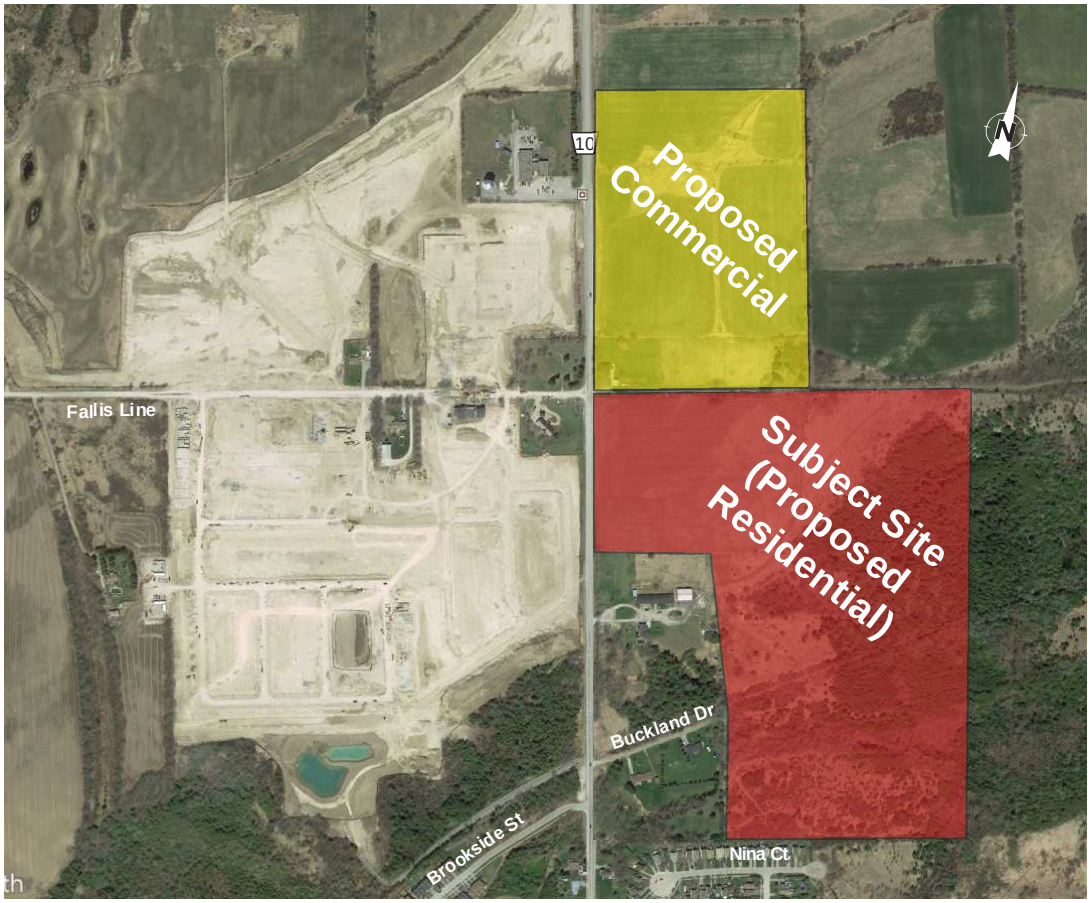


Exhibit 3: *The Site*.

4 Proposed Development Traffic Forecasting

4.1 Traffic Impact Study Methodology

The traffic impact analysis was completed in accordance with the methodologies published by the Transportation Research Board (TRB) and the Transportation Impact Analysis for Site Developments published by the Institute of Transportation Engineers (ITE).

The estimation of trips generated by the proposed development were derived from the Trip Generation Manual, 11th Edition, published by the Institute of Transportation Engineers.

4.2 Site Trip Generation

The land uses which most closely describe the proposed residential development are the following:

- Single-Family Detached Housing – Land Use 210
- Multifamily Housing (Low Rise) – Land Use 220
- Mid-rise Residential w/ 1st Floor Commercial – Land Use 231

As previously mentioned, the traffic impact analysis for both the subject residential development and the nearby proposed commercial plaza will be performed both separately as well as in conjunction. The land uses which most closely describe the commercial plaza are the following:

- General Office Building – Land Use 710
- Supermarket – Land Use 850
- Department Store – Land Use 875

- Walk-in Bank – Land Use 911
- Fine Dining Restaurant – Land Use 931
- Fast Food Restaurant w/ Drive-thru Window – Land Use 934
- Coffee / Donut Shop w/ Drive-thru Window – Land Use 937
- Automated Car Wash – Land Use 948
- Super Convenience Market / Gas Station – Land Use 960

For further information regarding the commercial plaza, please see *Appendix A – Draft Site Plans*.

The ITE trip generation rates for the above land uses are shown in ***Table 6:***

TRIP GENERATION RATES BY LAND USE - RESIDENTIAL DEVELOPMENT										
ITE	ITE	Unit of	AM Peak Hr. of Adj. Street			PM Peak Hr. of Adj. Street			SAT Peak Hr. of Adj. Street		
Code	Land Use	Measure	Rate	In	Out	Rate	In	Out	Rate	In	Out
210	Single-Family Detached Housing	Dwelling Units	Eq.	25%	75%	Eq.	63%	37%	Eq.	54%	46%
220	Multifamily Housing (Low Rise)	Dwelling Units	Eq.	24%	76%	Eq.	63%	37%	0.41	50%	50%
231	Low-Rise Residential with Ground Floor Commercial	Dwelling Units	0.30	28%	72%	0.36	70%	30%	0.86	50%	50%

TRIP GENERATION RATES BY LAND USE - COMMERCIAL DEVELOPMENT										
ITE	ITE	Unit of	AM Peak Hr. of Adj. Street			PM Peak Hr. of Adj. Street			SAT Peak Hr. of Adj. Street		
Code	Land Use	Measure	Rate	In	Out	Rate	In	Out	Rate	In	Out
710	General Office Building	GFA	Eq.	88%	12%	Eq.	17%	83%	0.53	54%	46%
850	Supermarket	GFA	2.86	59%	41%	Eq.	50%	50%	Eq.	50%	50%
875	Department Store	GFA	0.58	64%	36%	1.95	50%	50%	3.45	53%	47%
931	Fine Dining Restaurant	GFA	0.73	50%	50%	7.80	67%	33%	10.68	59%	41%
934	Fast-Food Restaurant with Drive-Thru Window	GFA	44.61	51%	49%	33.03	52%	48%	55.25	51%	49%
937	Coffee/Donut Shop with Drive-Thru Window	GFA	85.88	51%	49%	38.99	50%	50%	87.91	50%	50%
948	Automated Car Wash	Tunnels	0	--	--	77.50	50%	50%	41.00	46%	54%
960	Super Convenience Market / Gas Station	Fueling Positions	28.08	50%	50%	22.96	50%	50%	23.26	50%	50%

Table 6: *ITE Trip Rates per Land Use.*

For the purposes of this study, it is assumed that the subject residential development is 50% built by 2026 and fully built by 2031. The commercial plaza is assumed to have its Phase I completed by 2026, and to have its Phase II completed by 2031. The estimated number of trips generated by both developments by 2026 is shown in the following ***Table 7***:

ESTIMATED NUMBER OF TRIPS BY LAND USE - RESIDENTIAL DEVELOPMENT 50%, 2026											
ITE	ITE	Total	AM Peak Hr. of Adj. Street			PM Peak Hr. of Adj. Street			SAT Peak Hr. of Adj. Street		
Code	Land Use	Units	Trips	In	Out	Trips	In	Out	Trips	In	Out
210	Single Family Detached Housing	64	49	12	37	65	41	24	65	35	30
220	Multifamily Housing (Low Rise)	27	31	7	24	32	20	12	12	6	6
231	Mid-rise Residential w/ 1st Floor Commercial	80	24	7	17	29	20	9	68	34	34
NEW TRIPS BEFORE REDUCTIONS			104	26	78	126	81	45	145	75	70

ESTIMATED NUMBER OF TRIPS BY LAND USE - COMMERCIAL PLAZA PHASE 1, 2026											
ITE	ITE	Total	AM Peak Hr. of Adj. Street			PM Peak Hr. of Adj. Street			SAT Peak Hr. of Adj. Street		
Code	Land Use	Units	Trips	In	Out	Trips	In	Out	Trips	In	Out
710	General Office Building	11.65	26	23	3	28	5	23	6	3	3
850	Supermarket	25.71	73	43	30	258	129	129	258	129	129
931	Fine Dining Restaurant	5.07	2	1	1	24	16	8	34	20	14
934	Fast-Food Restaurant w/ Drive-Thru Window	5.51	245	125	120	182	95	87	304	155	149
948	Automated Car Wash	1	0	0	0	78	39	39	41	19	22
960	Super Convenience Market / Gas Station	8	224	112	112	184	92	92	186	93	93
NEW TRIPS BEFORE REDUCTIONS			570	304	266	754	376	378	829	419	410

ESTIMATED TRIP REDUCTION, 2026 (SEE APPENDIX G)									
Type of Reduced Trip	AM Peak Hr. of Adj. Street			PM Peak Hr. of Adj. Street			SAT Peak Hr. of Adj. Street		
	Trips	In	Out	Trips	In	Out	Trips	In	Out
Internal Trips	28	14	14	138	69	69	159	80	79
Pass-by Trips	254	127	127	265	138	127	323	166	157
NEW TRIPS (BOTH DEVELOPMENTS)	392	189	203	477	250	227	492	248	244

Table 7: *Trips Generated by the Proposed Developments, 2026.*

The estimated number of trips for the commercial development is shown in the following ***Table 8***:

ESTIMATED NUMBER OF TRIPS BY LAND USE - RESIDENTIAL DEVELOPMENT 100%, 2031											
ITE	ITE	Total	AM Peak Hr. of Adj. Street			PM Peak Hr. of Adj. Street			SAT Peak Hr. of Adj. Street		
Code	Land Use	Units	Trips	In	Out	Trips	In	Out	Trips	In	Out
210	Single Family Detached Housing	128	93	23	70	125	79	46	120	65	55
220	Multifamily Housing (Low Rise)	55	40	10	30	44	28	16	22	11	11
231	Mid-rise Residential w/ 1st Floor Commercial	80	24	7	17	29	20	9	68	34	34
NEW TRIPS BEFORE REDUCTIONS			157	40	117	198	127	71	210	110	100

ESTIMATED NUMBER OF TRIPS BY LAND USE - COMMERCIAL PLAZA PHASE 2, 2031											
ITE	ITE	Total	AM Peak Hr. of Adj. Street			PM Peak Hr. of Adj. Street			SAT Peak Hr. of Adj. Street		
Code	Land Use	Units	Trips	In	Out	Trips	In	Out	Trips	In	Out
710	General Office Building	70.87	125	110	15	125	21	104	37	20	17
850	Supermarket	25.71	73	43	30	258	129	129	334	167	167
875	Department Store	94.04	55	35	20	184	92	92	324	172	152
931	Fine Dining Restaurant	5.07	4	2	2	42	28	14	58	34	24
934	Fast-Food Restaurant with Drive-Thru Window	11.25	502	256	246	371	193	178	622	317	305
937	Coffee/Donut Shop with Drive-Thru Window	1.91	164	84	80	74	37	37	168	84	84
948	Automated Car Wash	1	0	0	0	78	39	39	41	19	22
960	Super Convenience Market / Gas Station	8	224	112	112	184	92	92	186	93	93
NEW TRIPS BEFORE REDUCTIONS			1147	642	505	1316	631	685	1770	906	864

ESTIMATED TRIP REDUCTION, 2031 (SEE APPENDIX G)									
Type of Reduced Trip	AM Peak Hr. of Adj. Street			PM Peak Hr. of Adj. Street			SAT Peak Hr. of Adj. Street		
	Trips	In	Out	Trips	In	Out	Trips	In	Out
Internal Trips	70	35	35	188	94	94	212	106	106
Pass-by Trips	453	229	224	406	212	194	605	311	294

NEW TRIPS (BOTH DEVELOPMENTS)	781	418	363	920	452	468	1163	599	564

Table 8: *Trips Generated by the Proposed Developments, 2031.*

According to the ITE Trip Generation Handbook, 3rd Edition, a key characteristic of a multi-use development is that trips among the various land uses can be made internally as opposed to beginning or ending on the road network. Pass-by trips are another phenomenon, made as intermediate stops from an origin to a primary trip destination. These trips already exist on the link passing the site but are temporarily attracted by the new development.

For a full breakdown of the trip generation, including the estimation of internal trips and pass-by trips, see *Appendix H – Trip Generation*.

It is estimated that the combined developments will generate a total of 392 new trips during the morning peak hour, 477 new trips during the afternoon peak hour, and 492 new trips during the Saturday peak hour for the year 2026 (50% Residential and Phase 1 Commercial).

It is estimated that the combined developments will generate a total of 781 trips during the morning peak hour, 920 trips during the afternoon peak hour, and 1163 trips during the Saturday peak hour for the year 2031 (100% Residential and Phase 2 Commercial).

4.3 Trip Distribution/Assignment

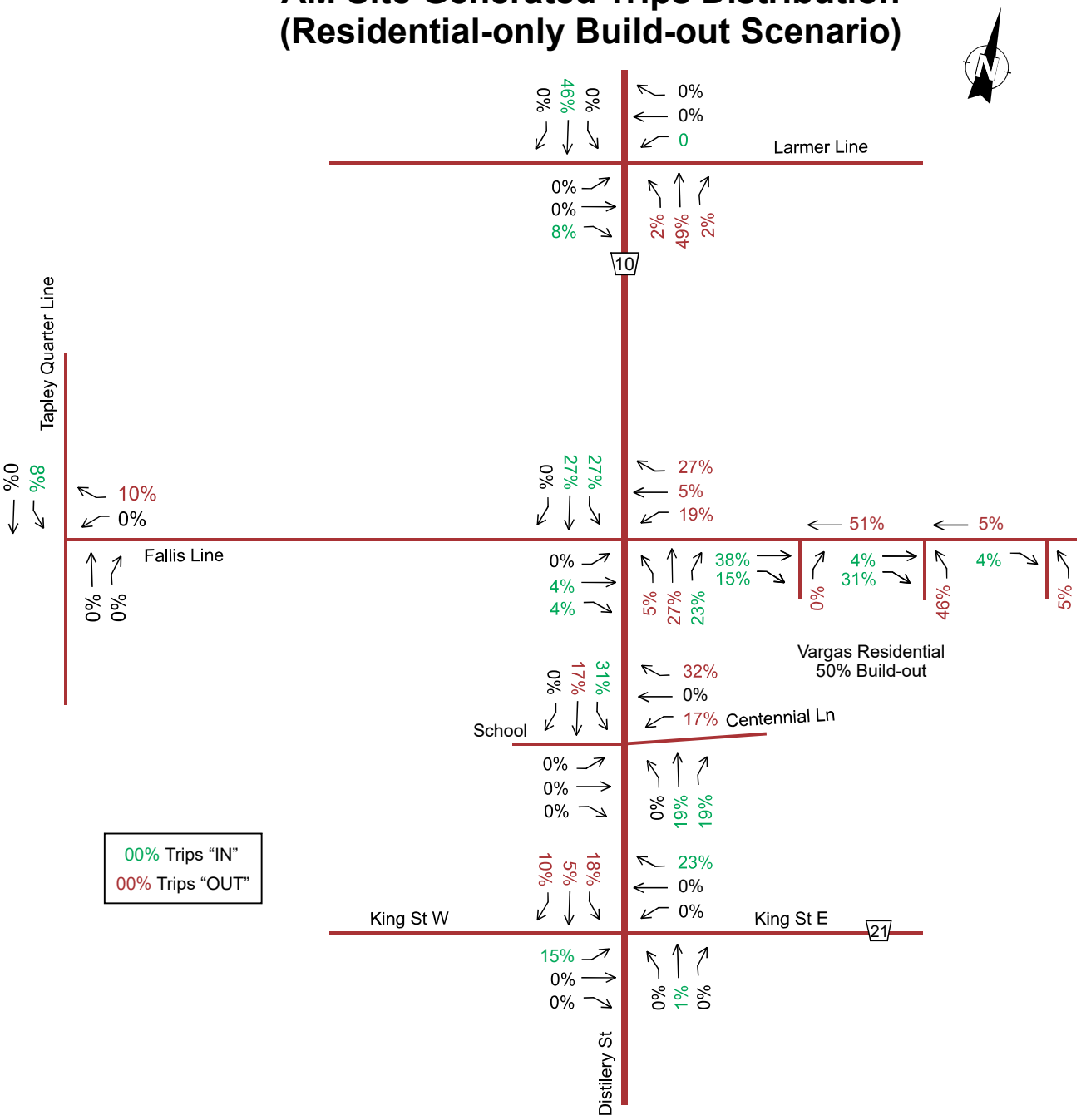
The number of vehicles entering and leaving the sites are distributed proportional to the existing directional traffic patterns.

The proportions of trips within the study area were independently distributed between the residential and the commercial development and were added to obtain the set of new trips. It should be noted that the trips generated on the west leg of Fallis Ln have been reduced, because the majority of these trips are coming from the developments on Fallis Ln, the volumes of which have already been captured as part of the background volumes. These trips are new for the subject developments, but not new for Fallis Ln itself.

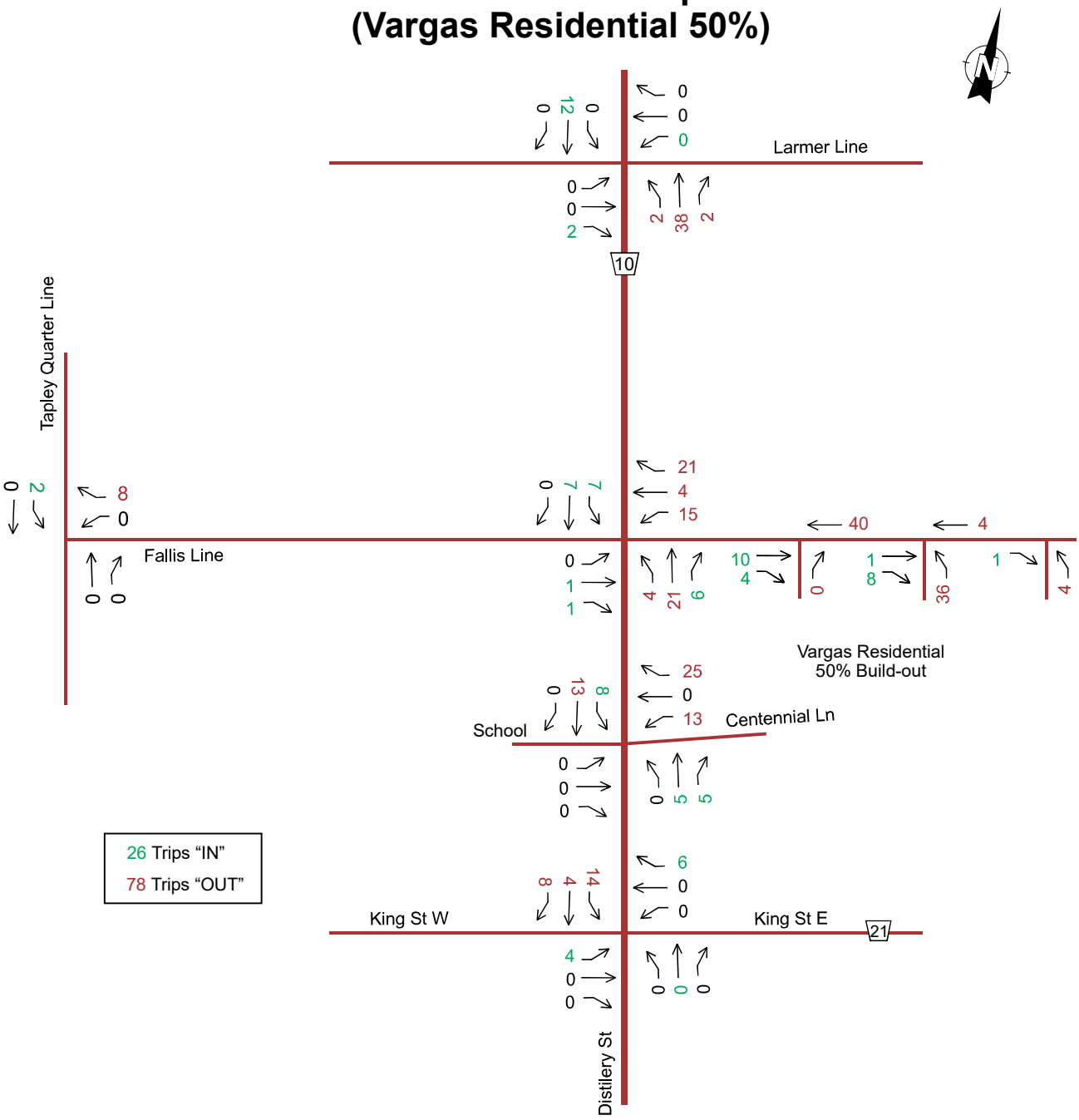
The unmodified trips generated, the new trips generated by each development individually, the proportions for each development, as well as the pass-by trip assignment, are all shown in *Appendix I – Trip Distribution*.

The new trips resulting from the combined build-outs are shown in the following ***Figures 17 to 22***:

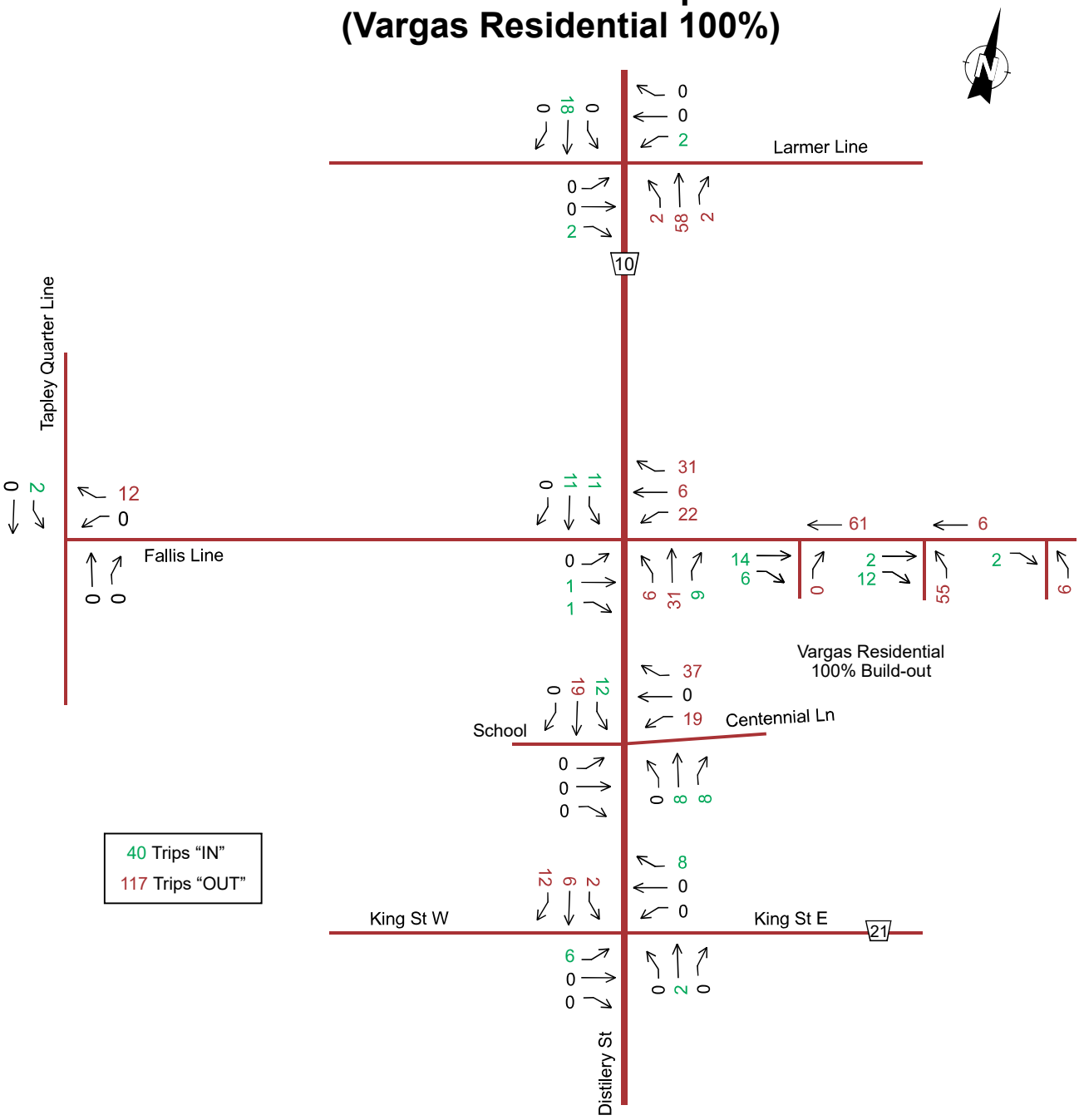
AM Site Generated Trips Distribution (Residential-only Build-out Scenario)



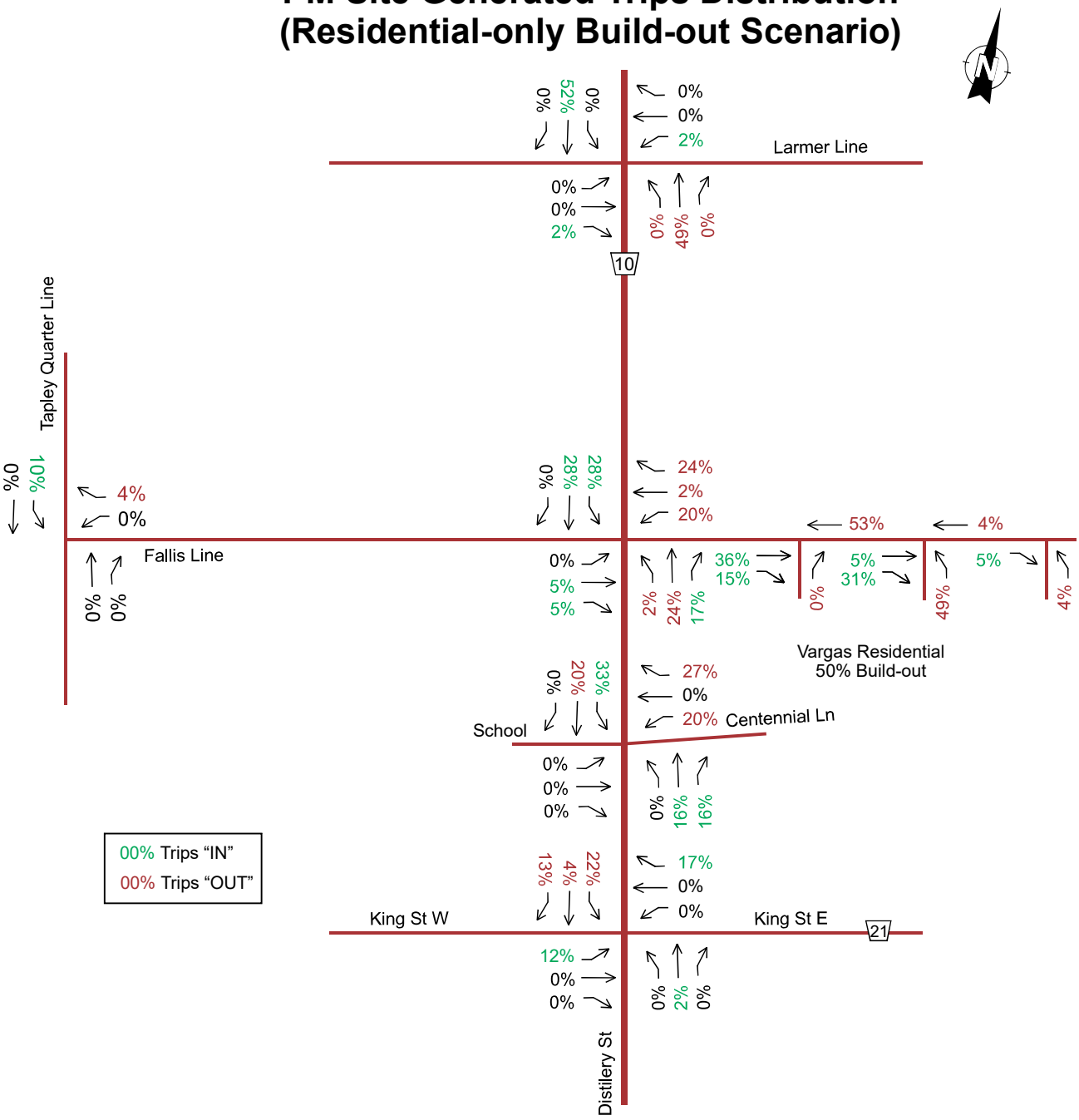
AM Site Generated Trips 2026
(Vargas Residential 50%)



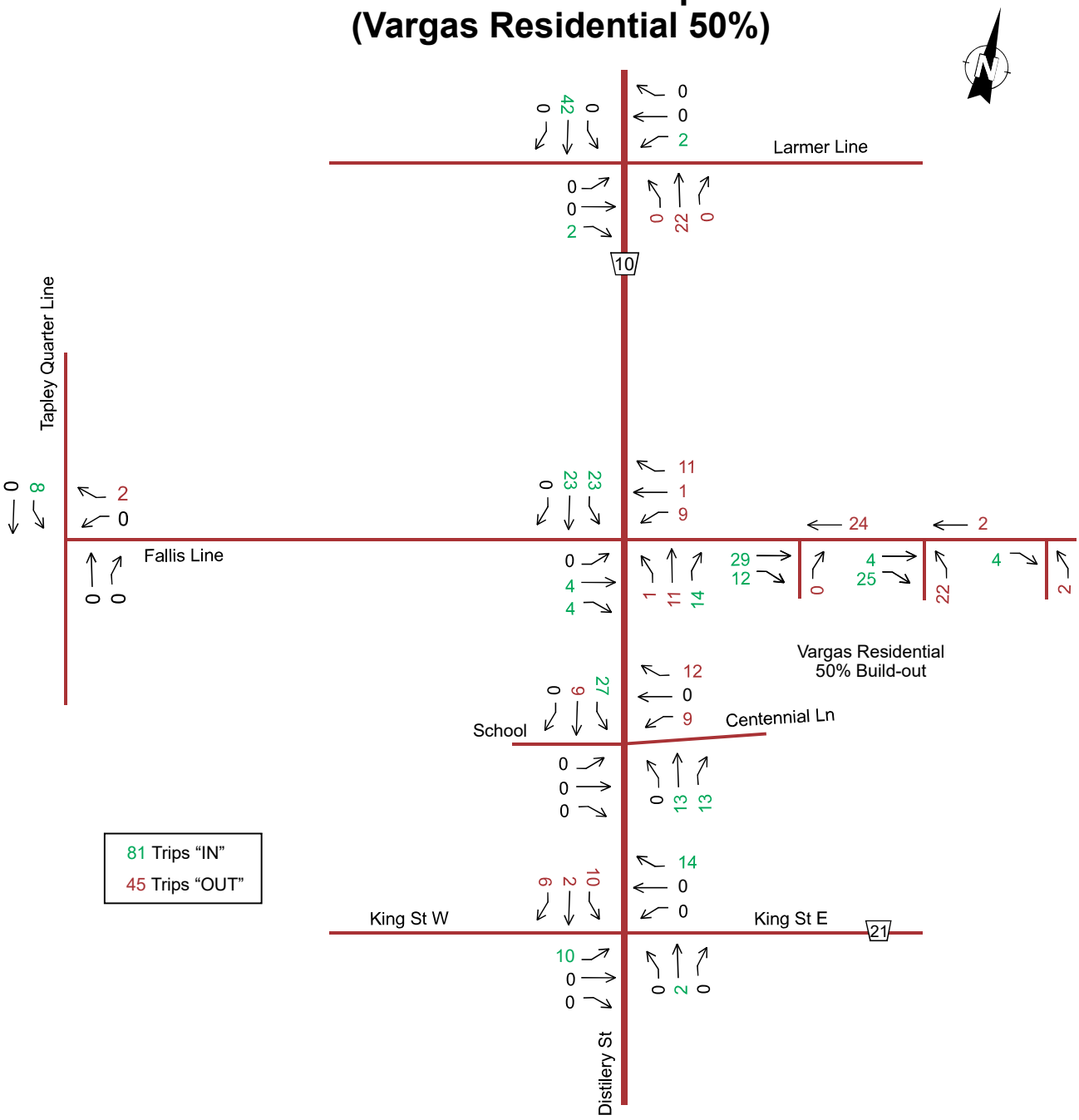
AM Site Generated Trips 2031
(Vargas Residential 100%)



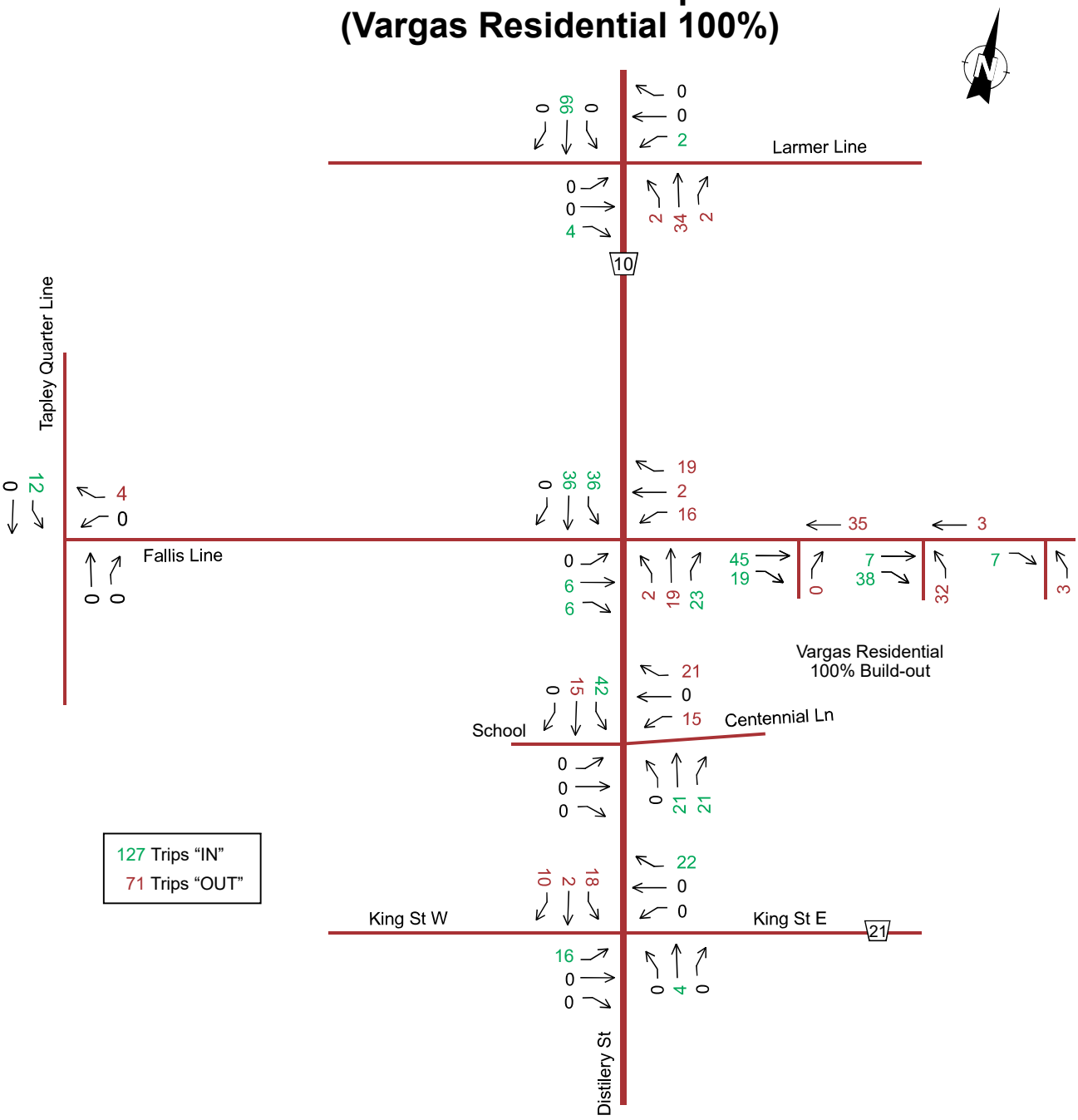
PM Site Generated Trips Distribution (Residential-only Build-out Scenario)



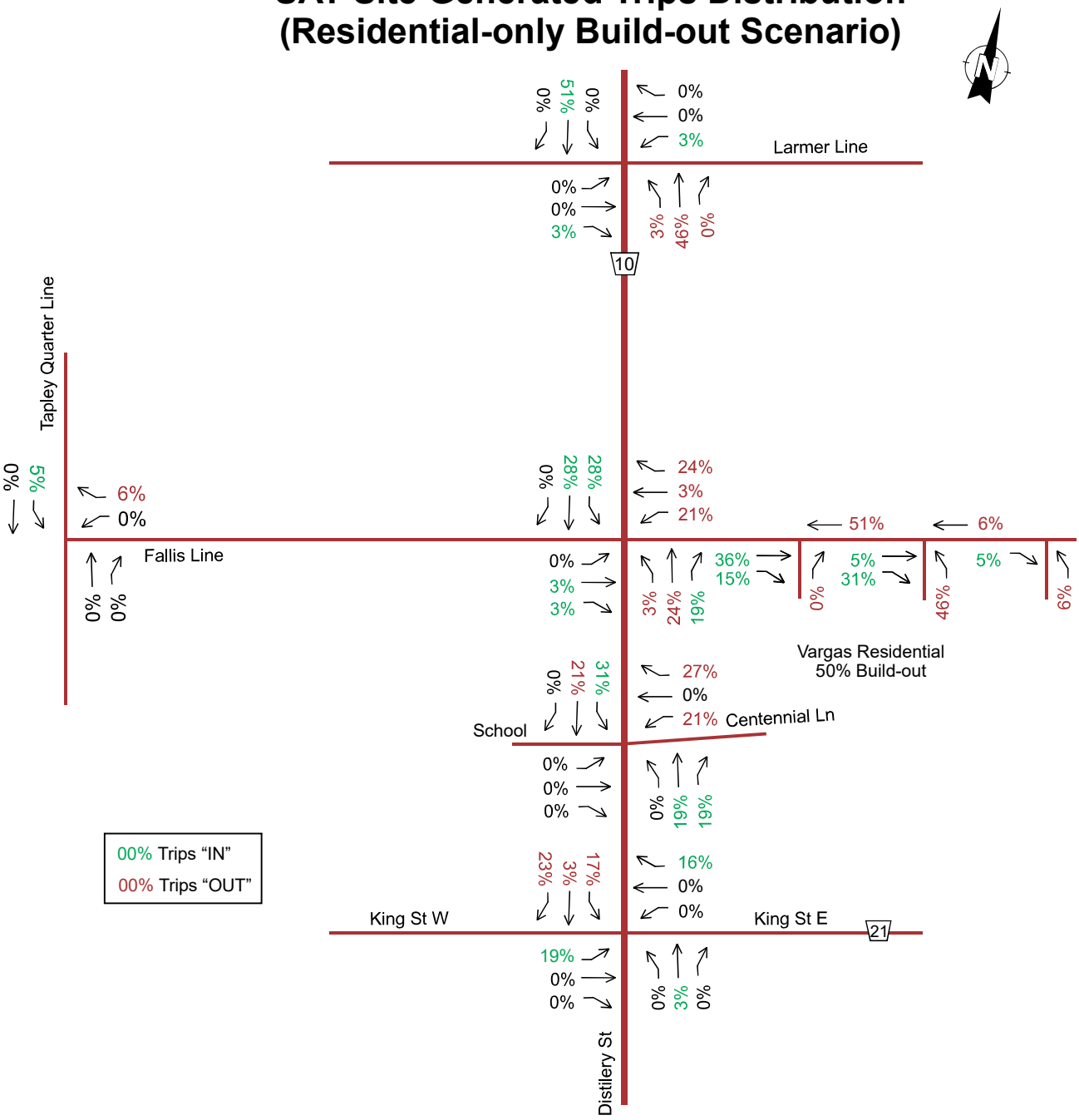
PM Site Generated Trips 2026
(Vargas Residential 50%)



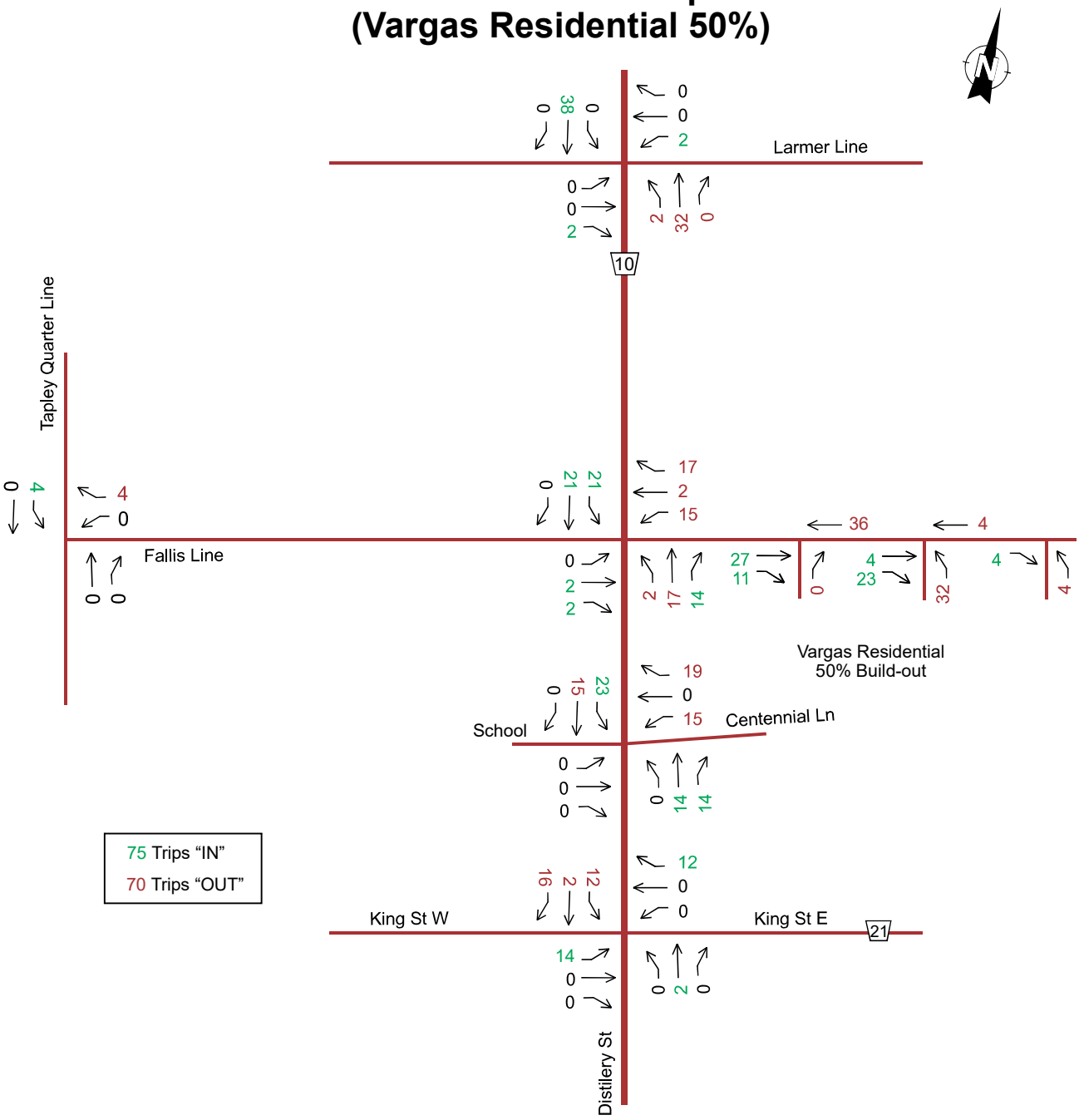
PM Site Generated Trips 2031
(Vargas Residential 100%)



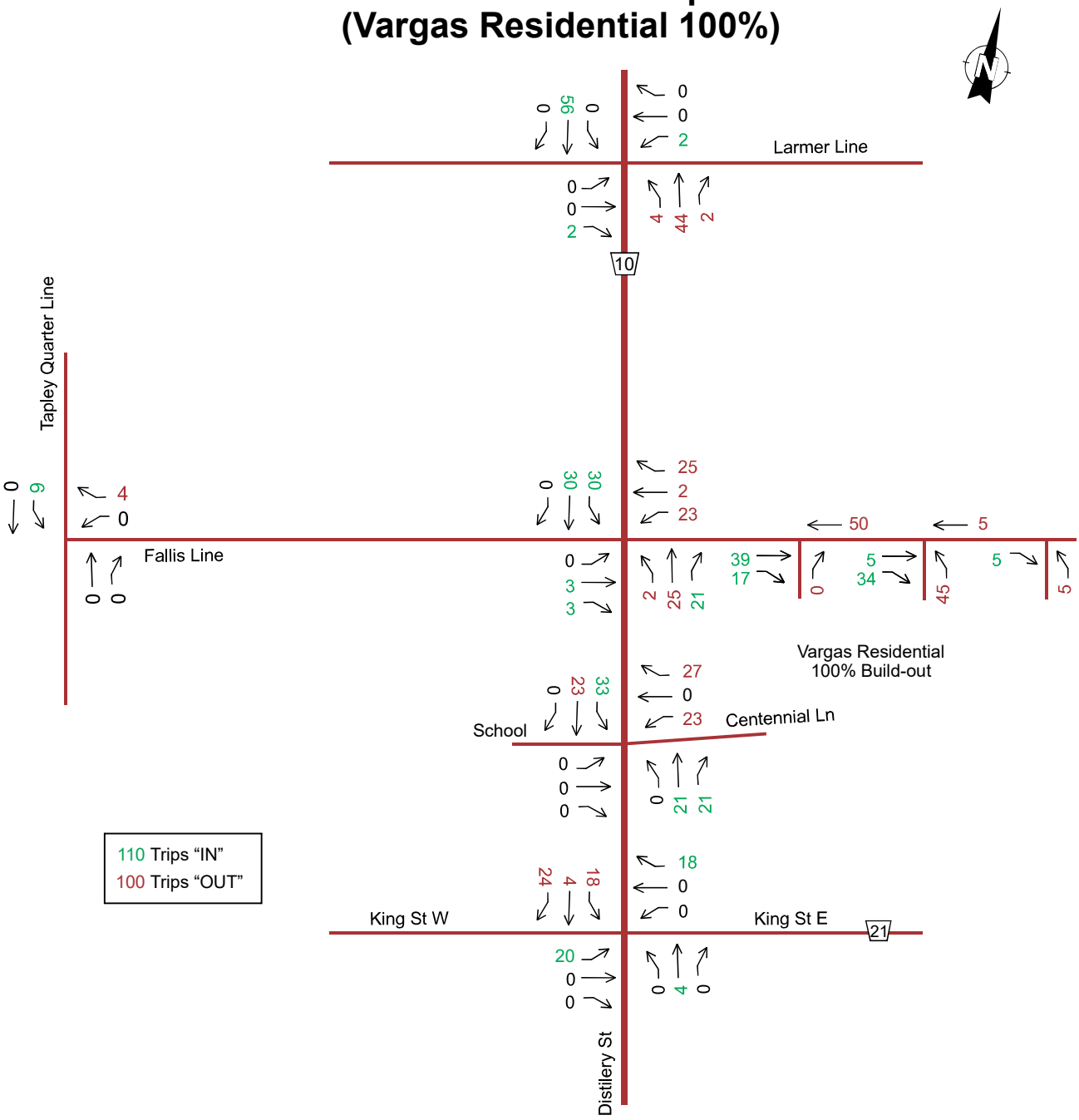
SAT Site Generated Trips Distribution (Residential-only Build-out Scenario)



SAT Site Generated Trips 2026
(Vargas Residential 50%)



SAT Site Generated Trips 2031
(Vargas Residential 100%)



Appendix Q

Traffic Signal Warrants,

OTM Book 12 Methodology

	Existing	Background		
	2025	2027	2030	2035
CR10 & Larmer	Case 3 Unlikely	Case 2 Might be	Case 2 Might be	Case 1 Undoubtedly
CR10 & Fallis	Case 3 Unlikely	Case 2 Might be	Case 2 Might be	Case 2 Might be
CR10 & King	Case 2 Might be	Case 1 Undoubtedly	Case 1 Undoubtedly	Case 1 Undoubtedly
CR10 & Highland	--	Case 2 Might be	Case 2 Might be	Case 1 Undoubtedly
CR10 & Municipal	--	Case 2 Might be	Case 2 Might be	Case 2 Might be

	Existing	Total		
	2025	2027	2030	2035
CR10 & Larmer	Case 3 Unlikely	Case 2 Might be	Case 1 Undoubtedly	Case 1 Undoubtedly
CR10 & Fallis	Case 3 Unlikely	Case 2 Might be	Case 1 Undoubtedly	Case 1 Undoubtedly
CR10 & King	Case 2 Might be	Case 1 Undoubtedly	Case 1 Undoubtedly	Case 1 Undoubtedly
CR10 & Highland	--	Case 2 Might be	Case 2 Might be	Case 1 Undoubtedly
CR10 & Municipal	--	Case 2 Might be	Case 2 Might be	Case 2 Might be

CR10 / Larmer - Existing Volumes 2025

	Main Road (CR10) Northbound			Main Road (CR10) Eastbound			Minor Road (Larmer) Southbound			Minor Road (Larmer) Westbound			
Hour Ending	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT	
8:00	6	215	4	12	3	14	9	187	2	3	1	14	470
9:00	3	246	5	12	1	7	4	158	2	6	1	7	452
13:00	10	164	2	6	3	8	9	166	10	7	4	5	394
15:00	12	228	4	9	3	9	9	201	14	6	2	7	504
16:00	10	196	6	8	4	7	12	219	13	9	4	11	499
17:00	16	214	10	12	1	7	12	254	9	7	5	5	552
18:00	18	333	8	17	1	7	15	242	14	4	4	14	677
19:00	11	182	7	18	2	4	18	251	17	3	3	3	519

d. Justification 7 Result

Justification	Description	Minimum Requirement 1 Lane Highways		Minimum Requirement 2 or more lanes		Compliance		Case?
		Free Flow	Restr. Flow	Free Flow	Restr. Flow	Numerical	%	
1. Minimum Vehicular Volume	A. Vehicle volume, all approaches (average hour)	480	-	-	-	394	82.1	**Case 3 - Warrant is Unlikely**
	B. Vehicle volume, along minor streets (average hour)	120	-	-	-	33	27.5	
2. Delay to cross Traffic	A. Vehicle volume, major street (average hour)	480	-	-	-	361	75.2	
	B. Combined vehicle and pedestrian volume crossing	50	-	-	-	17	34.0	

CR10 / Larmer - Background Volumes 2027

	Main Road (CR10) Northbound			Main Road (CR10) Eastbound			Minor Road (Larmer) Southbound			Minor Road (Larmer) Westbound		
Hour	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Ending	2.611111	1.725772	3.8125	0.776961	3.5	3.035714	0.666667	1.887822	1.285714	5.708333	2.75	0.392857
8:00	22	475	21	13	3	35	3	305	3	23	5	4
9:00	8	425	19	9	4	21	3	298	3	34	3	3
13:00	26	283	8	5	11	24	6	313	13	40	11	2
15:00	31	393	15	7	11	27	6	379	18	34	6	3
16:00	26	338	23	6	14	21	8	413	17	51	11	4
17:00	42	369	38	9	4	21	8	480	12	40	14	2
18:00	28	414	19	8	6	25	15	519	15	15	2	7
19:00	29	314	27	14	7	12	12	474	22	17	8	1

d. Justification 7 Result

Justification	Description	Minimum Requirement 1 Lane Highways		Minimum Requirement 2 or more lanes		Compliance		Case?
		Free Flow	Restr. Flow	Free Flow	Restr. Flow	Numerical	%	
1. Minimum Vehicular Volume	A. Vehicle volume, all approaches (average hour)	480	-	-	-	741	154.5	**Case 2 - Might be Warranted**
	B. Vehicle volume, along minor streets (average hour)	120	-	-	-	60	49.7	
2. Delay to cross Traffic	A. Vehicle volume, major street (average hour)	480	-	-	-	649	135.2	
	B. Combined vehicle and pedestrian volume crossing	50	-	-	-	29	58.0	

	CR10 / Larmer - Background Volumes 2030											
	Main Road (CR10)			Main Road (CR10)			Minor Road (Larmer)			Minor Road (Larmer)		
	Northbound			Eastbound			Southbound			Westbound		
Hour	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Ending	2.611111	1.79134	3.8125	0.776961	3.5	3.035714	0.666667	1.959242	1.285714	5.708333	2.75	0.392857
8:00	22	492	21	13	3	35	3	317	3	23	5	4
9:00	8	441	19	9	4	21	3	310	3	34	3	3
13:00	26	294	8	5	11	24	6	325	13	40	11	2
15:00	31	408	15	7	11	27	6	394	18	34	6	3
16:00	26	351	23	6	14	21	8	429	17	51	11	4
17:00	42	383	38	9	4	21	8	498	12	40	14	2
18:00	28	431	19	8	6	25	15	538	15	15	2	7
19:00	29	326	27	14	7	12	12	492	22	17	8	1

d. Justification 7 Result

Justification	Description	Minimum Requirement 1 Lane Highways		Minimum Requirement 2 or more lanes		Compliance		Case?
		Free Flow	Restr. Flow	Free Flow	Restr. Flow	Numerical	%	
1. Minimum Vehicular Volume	A. Vehicle volume, all approaches (average hour)	480	-	-	-	764	159.2	**Case 2 - Might be Warranted**
	B. Vehicle volume, along minor streets (average hour)	120	-	-	-	60	49.7	
2. Delay to cross Traffic	A. Vehicle volume, major street (average hour)	480	-	-	-	672	139.9	
	B. Combined vehicle and pedestrian volume crossing	50	-	-	-	29	58.0	

	CR10 / Larmer - Background Volumes 2035											
	Main Road (CR10)			Main Road (CR10)			Minor Road (Larmer)			Minor Road (Larmer)		
	Northbound			Eastbound			Southbound			Westbound		
Hour	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Ending	3.944444	2.37768	5.75	2.428922	5.166667	4.214286	0.666667	2.637092	15.07143	8.708333	4.375	0.392857
8:00	35	650	32	23	4	44	3	435	56	35	8	4
9:00	12	585	29	29	5	30	3	417	30	52	4	3
13:00	39	390	12	15	16	34	6	438	151	61	18	2
15:00	47	542	23	22	16	38	6	530	211	52	9	3
16:00	39	466	35	19	21	30	8	578	196	78	18	4
17:00	63	509	58	29	5	30	8	670	136	61	22	2
18:00	37	576	28	50	9	37	15	714	30	23	3	7
19:00	43	433	40	44	10	17	12	662	256	26	13	1

d. Justification 7 Result

Justification	Description	Minimum Requirement 1 Lane Highways		Minimum Requirement 2 or more lanes		Compliance		Case?
		Free Flow	Restr. Flow	Free Flow	Restr. Flow	Numerical	%	
1. Minimum Vehicular Volume	A. Vehicle volume, all approaches (average hour)	480	-	-	-	1180	245.7	**Case 1 - Undoubtedly Warranted**
	B. Vehicle volume, along minor streets (average hour)	120	-	-	-	111	92.8	
2. Delay to cross Traffic	A. Vehicle volume, major street (average hour)	480	-	-	-	1035	215.7	
	B. Combined vehicle and pedestrian volume crossing	50	-	-	-	66	132.0	

	CR10 / Larmer - Total Volumes 2027											
	Main Road (CR10)			Main Road (CR10)			Minor Road (Larmer)			Minor Road (Larmer)		
	Northbound			Eastbound			Southbound			Westbound		
Hour	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Ending	2.611111	1.725772	3.8125	0.776961	3.5	3.035714	0.666667	1.887822	1.285714	5.708333	2.75	0.392857
8:00	22	475	21	13	3	35	3	305	3	23	5	4
9:00	8	425	19	9	4	21	3	298	3	34	3	3
13:00	26	283	8	5	11	24	6	313	13	40	11	2
15:00	31	393	15	7	11	27	6	379	18	34	6	3
16:00	26	338	23	6	14	21	8	413	17	51	11	4
17:00	42	369	38	9	4	21	8	480	12	40	14	2
18:00	28	414	19	8	6	25	15	519	15	15	2	7
19:00	29	314	27	14	7	12	12	474	22	17	8	1

d. Justification 7 Result

Justification	Description	Minimum Requirement 1 Lane Highways		Minimum Requirement 2 or more lanes		Compliance		Case?
		Free Flow	Restr. Flow	Free Flow	Restr. Flow	Numerical	%	
1. Minimum Vehicular Volume	A. Vehicle volume, all approaches (average hour)	480	-	-	-	741	154.5	**Case 2 - Might be Warranted**
	B. Vehicle volume, along minor streets (average hour)	120	-	-	-	60	49.7	
2. Delay to cross Traffic	A. Vehicle volume, major street (average hour)	480	-	-	-	649	135.2	
	B. Combined vehicle and pedestrian volume crossing	50	-	-	-	29	58.0	

	CR10 / Larmer - Total Volumes 2030											
	Main Road (CR10)			Main Road (CR10)			Minor Road (Larmer)			Minor Road (Larmer)		
	Northbound			Eastbound			Southbound			Westbound		
Hour	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Ending	3.305556	2.339765	8.9375	0.776961	4	3.821429	1.233333	2.498133	1.285714	15.66667	3.25	1.071429
8:00	28	620	40	13	3	43	6	398	3	64	6	18
9:00	10	576	45	9	4	27	5	395	3	94	3	8
13:00	33	384	18	5	12	31	11	415	13	110	13	5
15:00	40	533	36	7	12	34	11	502	18	94	7	8
16:00	33	459	54	6	16	27	15	547	17	141	13	12
17:00	53	501	89	9	4	27	15	635	12	110	16	5
18:00	35	598	63	8	7	32	27	694	15	40	2	12
19:00	36	426	63	14	8	15	22	627	22	47	10	3

d. Justification 7 Result

Justification	Description	Minimum Requirement 1 Lane Highways		Minimum Requirement 2 or more lanes		Compliance		Case?
		Free Flow	Restr. Flow	Free Flow	Restr. Flow	Numerical	%	
1. Minimum Vehicular Volume	A. Vehicle volume, all approaches (average hour)	480	-	-	-	1049	218.4	**Case 1 - Undoubtedly Warranted**
	B. Vehicle volume, along minor streets (average hour)	120	-	-	-	97	81.0	
2. Delay to cross Traffic	A. Vehicle volume, major street (average hour)	480	-	-	-	873	181.9	
	B. Combined vehicle and pedestrian volume crossing	50	-	-	-	55	110.0	

	CR10 / Larmer - Total Volumes 2035											
	Main Road (CR10)			Main Road (CR10)			Minor Road (Larmer)			Minor Road (Larmer)		
	Northbound			Eastbound			Southbound			Westbound		
Hour	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Ending	6.194444	2.89384	10.6875	2.428922	6.833333	6.142857	1.2	3.154958	15.07143	18.04167	6.5	1.035714
8:00	56	768	51	23	5	56	6	512	56	73	12	17
9:00	19	712	53	29	7	43	5	498	30	108	7	7
13:00	62	475	21	15	21	49	11	524	151	126	26	5
15:00	74	660	43	22	21	55	11	634	211	108	13	7
16:00	62	567	64	19	27	43	14	691	196	162	26	11
17:00	99	619	107	29	7	43	14	801	136	126	33	5
18:00	55	737	69	50	12	58	26	865	30	47	4	12
19:00	68	527	75	44	14	25	22	792	256	54	20	3

d. Justification 7 Result

Justification	Description	Minimum Requirement 1 Lane Highways		Minimum Requirement 2 or more lanes		Compliance		Case?
		Free Flow	Restr. Flow	Free Flow	Restr. Flow	Numerical	%	
1. Minimum Vehicular Volume	A. Vehicle volume, all approaches (average hour)	480	-	-	-	1485	309.3	**Case 1 - Undoubtedly Warranted**
	B. Vehicle volume, along minor streets (average hour)	120	-	-	-	159	132.2	
2. Delay to cross Traffic	A. Vehicle volume, major street (average hour)	480	-	-	-	1243	259.0	
	B. Combined vehicle and pedestrian volume crossing	50	-	-	-	108	216.0	

	CR10 / Fallis - Existing Volumes 2025											
	Main Road (CR10)			Main Road (CR10)			Minor Road (Fallis)			Minor Road (Fallis)		
	Northbound			Eastbound			Southbound			Westbound		
Hour	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Ending												
8:00	27	190	0	36	0	60	0	189	10	0	0	1
9:00	73	205	0	48	0	65	0	136	17	0	0	0
13:00	29	146	0	26	0	26	0	164	27	0	0	1
15:00	70	214	0	27	0	54	1	196	27	0	0	0
16:00	43	177	0	27	2	40	0	189	44	2	0	0
17:00	59	194	0	26	0	61	0	229	47	0	0	0
18:00	48	265	0	75	0	44	0	203	36	0	0	0
19:00	30	149	0	40	0	28	0	166	67	0	0	0

d. Justification 7 Result

Justification	Description	Minimum Requirement 1 Lane Highways		Minimum Requirement 2 or more lanes		Compliance		Case?
		Free Flow	Restr. Flow	Free Flow	Restr. Flow	Numerical	%	
1. Minimum Vehicular Volume	A. Vehicle volume, all approaches (average hour)	-	-	600	-	419	69.8	**Case 3 - Warrant is Unlikely**
	B. Vehicle volume, along minor streets (average hour)	-	-	120	-	53	44.2	
2. Delay to cross Traffic	A. Vehicle volume, major street (average hour)	-	-	600	-	366	61.0	
	B. Combined vehicle and pedestrian volume crossing	-	-	50	-	26	52.0	

	CR10 / Fallis - Background Volumes 2027											
	Main Road (CR10)			Minor Road (Fallis)			Main Road (CR10)			Minor Road (Fallis)		
	Northbound			Eastbound			Southbound			Westbound		
Hour	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Ending	2.637842	1.183449	#DIV/0!	2.210417	#DIV/0!	2.978671	#DIV/0!	1.595451	4.824346	#DIV/0!	#DIV/0!	#DIV/0!
8:00	71	225	6	80	1	179	7	302	48	14	4	20
9:00	157	269	6	145	1	207	7	217	105	15	4	21
13:00	76	173	5	57	1	77	5	262	130	12	3	16
15:00	185	253	12	60	4	161	20	313	130	8	1	10
16:00	113	209	11	60	3	119	18	302	212	7	1	9
17:00	156	230	13	57	4	182	21	365	227	8	1	10
18:00	150	279	14	105	4	122	23	324	125	9	1	11
19:00	79	176	10	88	3	83	16	265	323	6	1	8

d. Justification 7 Result

Justification	Description	Minimum Requirement 1 Lane Highways		Minimum Requirement 2 or more lanes		Compliance		Case?
		Free Flow	Restr. Flow	Free Flow	Restr. Flow	Numerical	%	
1. Minimum Vehicular Volume	A. Vehicle volume, all approaches (average hour)	-	-	600	-	818	136.3	**Case 2 - Might be Warranted**
	B. Vehicle volume, along minor streets (average hour)	-	-	120	-	166	138.7	
2. Delay to cross Traffic	A. Vehicle volume, major street (average hour)	-	-	600	-	651	108.5	
	B. Combined vehicle and pedestrian volume crossing	-	-	50	-	69	138.8	

	CR10 / Fallis - Background Volumes 2030											
	Main Road (CR10)			Minor Road (Fallis)			Main Road (CR10)			Minor Road (Fallis)		
	Northbound			Eastbound			Southbound			Westbound		
Hour	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Ending	2.637842	1.249266	#DIV/0!	2.210417	#DIV/0!	2.978671	#DIV/0!	1.683932	4.824346	#DIV/0!	#DIV/0!	#DIV/0!
8:00	71	237	6	80	1	179	7	318	48	14	4	20
9:00	157	284	6	145	1	207	7	229	105	15	4	21
13:00	76	182	5	57	1	77	5	276	130	12	3	16
15:00	185	267	12	60	4	161	20	330	130	8	1	10
16:00	113	221	11	60	3	119	18	318	212	7	1	9
17:00	156	242	13	57	4	182	21	386	227	8	1	10
18:00	150	294	14	105	4	122	23	342	125	9	1	11
19:00	79	186	10	88	3	83	16	280	323	6	1	8

d. Justification 7 Result

Justification	Description	Minimum Requirement 1 Lane Highways		Minimum Requirement 2 or more lanes		Compliance		Case?
		Free Flow	Restr. Flow	Free Flow	Restr. Flow	Numerical	%	
1. Minimum Vehicular Volume	A. Vehicle volume, all approaches (average hour)	-	-	600	-	842	140.3	**Case 2 - Might be Warranted**
	B. Vehicle volume, along minor streets (average hour)	-	-	120	-	166	138.7	
2. Delay to cross Traffic	A. Vehicle volume, major street (average hour)	-	-	600	-	675	112.6	
	B. Combined vehicle and pedestrian volume crossing	-	-	50	-	69	138.8	

	CR10 / Fallis - Background Volumes 2035											
	Main Road (CR10)			Minor Road (Fallis)			Main Road (CR10)			Minor Road (Fallis)		
	Northbound			Eastbound			Southbound			Westbound		
Hour	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Ending	3.438642	1.524639	#DIV/0!	2.915833	#DIV/0!	3.834615	#DIV/0!	2.027927	6.142974	#DIV/0!	#DIV/0!	#DIV/0!
8:00	93	290	8	105	1	230	10	383	61	21	6	29
9:00	207	352	9	198	1	271	11	272	130	22	6	31
13:00	100	223	7	76	1	100	8	333	166	17	5	24
15:00	241	326	20	79	5	207	32	397	166	14	2	17
16:00	148	270	18	79	5	153	28	383	270	12	2	15
17:00	203	296	21	76	6	234	33	464	289	15	2	17
18:00	194	352	23	128	6	154	36	417	167	16	2	19
19:00	103	227	16	117	4	107	26	337	412	11	1	14

d. Justification 7 Result

Justification	Description	Minimum Requirement 1 Lane Highways		Minimum Requirement 2 or more lanes		Compliance		Case?
		Free Flow	Restr. Flow	Free Flow	Restr. Flow	Numerical	%	
1. Minimum Vehicular Volume	A. Vehicle volume, all approaches (average hour)	-	-	600	-	1058	176.3	**Case 2 - Might be Warranted**
	B. Vehicle volume, along minor streets (average hour)	-	-	120	-	222	184.7	
2. Delay to cross Traffic	A. Vehicle volume, major street (average hour)	-	-	600	-	836	139.4	
	B. Combined vehicle and pedestrian volume crossing	-	-	50	-	96	191.6	

	CR10 / Fallis - Total Volumes 2027											
	Main Road (CR10)			Minor Road (Fallis)			Main Road (CR10)			Minor Road (Fallis)		
	Northbound			Eastbound			Southbound			Westbound		
Hour	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Ending	2.637842	1.183449	#DIV/0!	2.210417	#DIV/0!	2.978671	#DIV/0!	1.595451	4.824346	#DIV/0!	#DIV/0!	#DIV/0!
8:00	71	225	6	80	1	179	7	302	48	14	4	20
9:00	157	269	6	145	1	207	7	217	105	15	4	21
13:00	76	173	5	57	1	77	5	262	130	12	3	16
15:00	185	253	12	60	4	161	20	313	130	8	1	10
16:00	113	209	11	60	3	119	18	302	212	7	1	9
17:00	156	230	13	57	4	182	21	365	227	8	1	10
18:00	150	279	14	105	4	122	23	324	125	9	1	11
19:00	79	176	10	88	3	83	16	265	323	6	1	8

d. Justification 7 Result

Justification	Description	Minimum Requirement 1 Lane Highways		Minimum Requirement 2 or more lanes		Compliance		Case?
		Free Flow	Restr. Flow	Free Flow	Restr. Flow	Numerical	%	
1. Minimum Vehicular Volume	A. Vehicle volume, all approaches (average hour)	-	-	600	-	818	136.3	**Case 2 - Might be Warranted**
	B. Vehicle volume, along minor streets (average hour)	-	-	120	-	166	138.7	
2. Delay to cross Traffic	A. Vehicle volume, major street (average hour)	-	-	600	-	651	108.5	
	B. Combined vehicle and pedestrian volume crossing	-	-	50	-	69	138.8	

	CR10 / Fallis - Total Volumes 2030											
	Main Road (CR10)			Minor Road (Fallis)			Main Road (CR10)			Minor Road (Fallis)		
	Northbound			Eastbound			Southbound			Westbound		
Hour	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Ending	2.440782	1.66413	#DIV/0!	3.0325	#DIV/0!	2.84528	#DIV/0!	1.936268	6.21732	#DIV/0!	#DIV/0!	#DIV/0!
8:00	66	316	61	109	32	171	48	366	62	40	86	72
9:00	148	369	65	190	34	200	51	236	133	43	91	76
13:00	71	243	50	79	26	74	39	318	168	33	70	58
15:00	171	356	79	82	34	154	48	380	168	79	34	50
16:00	105	295	70	82	30	114	43	366	274	70	30	44
17:00	144	323	83	79	36	174	50	443	292	83	36	52
18:00	137	404	90	158	39	115	55	434	166	90	39	57
19:00	73	248	64	121	28	80	39	321	417	64	28	41

d. Justification 7 Result

Justification	Description	Minimum Requirement 1 Lane Highways		Minimum Requirement 2 or more lanes		Compliance		Case?
		Free Flow	Restr. Flow	Free Flow	Restr. Flow	Numerical	%	
1. Minimum Vehicular Volume	A. Vehicle volume, all approaches (average hour)	-	-	600	-	1229	204.8	**Case 1 - Undoubtedly Warranted**
	B. Vehicle volume, along minor streets (average hour)	-	-	120	-	340	283.6	
2. Delay to cross Traffic	A. Vehicle volume, major street (average hour)	-	-	600	-	888	148.0	
	B. Combined vehicle and pedestrian volume crossing	-	-	50	-	182	363.6	

	CR10 / Fallis - Total Volumes 2035											
	Main Road (CR10)			Minor Road (Fallis)			Main Road (CR10)			Minor Road (Fallis)		
	Northbound			Eastbound			Southbound			Westbound		
Hour	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Ending	3.241581	1.898684	#DIV/0!	3.736667	#DIV/0!	3.701224	#DIV/0!	2.446773	7.715686	#DIV/0!	#DIV/0!	#DIV/0!
8:00	88	361	60	135	33	222	35	462	77	62	29	76
9:00	198	428	64	248	35	264	37	333	166	66	31	81
13:00	94	277	49	97	27	96	28	401	208	51	24	62
15:00	227	406	86	101	32	200	62	480	208	81	32	57
16:00	139	336	76	101	28	148	55	462	339	71	29	50
17:00	191	368	90	97	33	226	65	560	363	84	34	60
18:00	181	452	98	173	36	147	71	496	204	92	37	65
19:00	97	283	70	149	26	104	51	406	517	66	26	46

d. Justification 7 Result

Justification	Description	Minimum Requirement 1 Lane Highways		Minimum Requirement 2 or more lanes		Compliance		Case?
		Free Flow	Restr. Flow	Free Flow	Restr. Flow	Numerical	%	
1. Minimum Vehicular Volume	A. Vehicle volume, all approaches (average hour)	480	-	-	-	1415	294.9	**Case 1 - Undoubtedly Warranted**
	B. Vehicle volume, along minor streets (average hour)	120	-	-	-	357	297.5	
2. Delay to cross Traffic	A. Vehicle volume, major street (average hour)	480	-	-	-	1058	220.5	
	B. Combined vehicle and pedestrian volume crossing	50	-	-	-	175	349.5	

	CR10 / King - Existing Volumes 2025											
	Main Road (CR10)			Minor Road (King)			Main Road (CR10)			Minor Road (King)		
	Northbound			Eastbound			Southbound			Westbound		
Hour	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Ending												
8:00	1	7	5	55	27	1	85	15	43	4	42	1
9:00	1	7	4	52	34	5	82	12	64	1	38	90
13:00	6	15	12	68	51	12	93	15	79	5	46	79
15:00	2	17	7	74	38	3	97	16	71	5	50	105
16:00	1	12	6	54	65	5	91	10	93	3	60	103
17:00	3	20	6	65	72	5	132	10	69	3	58	122
18:00	2	29	8	86	55	3	139	4	65	3	56	139
19:00	5	11	1	59	28	3	101	11	52	2	30	74

d. Justification 7 Result

Justification	Description	Minimum Requirement 1 Lane Highways		Minimum Requirement 2 or more lanes		Compliance		Case?
		Free Flow	Restr. Flow	Free Flow	Restr. Flow	Numerical	%	
1. Minimum Vehicular Volume	A. Vehicle volume, all approaches (average hour)	-	-	600	-	286	47.7	**Case 2 - Might be Warranted**
	B. Vehicle volume, along minor streets (average hour)	-	-	120	-	130	108.3	
2. Delay to cross Traffic	A. Vehicle volume, major street (average hour)	-	-	600	-	156	26.0	
	B. Combined vehicle and pedestrian volume crossing	-	-	50	-	91	182.0	

	CR10 / King - Background Volumes 2027											
	Main Road (CR10)			Minor Road (King)			Main Road (CR10)			Minor Road (King)		
	Northbound			Eastbound			Southbound			Westbound		
Hour	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Ending	0.25	2.224138	1.1875	1.676655	0.809626	0.866667	1.757896	3.083333	1.841947	3.5	1.015508	1.584093
8:00	0	16	6	92	22	1	149	46	79	14	43	2
9:00	0	21	6	100	26	2	165	35	93	7	48	166
13:00	2	33	14	114	41	10	163	46	146	18	47	125
15:00	1	38	8	124	31	3	171	49	131	18	51	166
16:00	0	27	7	91	53	4	160	31	171	11	61	163
17:00	1	44	7	109	58	4	232	31	127	11	59	193
18:00	1	42	7	123	47	4	209	13	145	0	43	184
19:00	1	24	1	99	23	3	178	34	96	7	30	117

d. Justification 7 Result

Justification	Description	Minimum Requirement 1 Lane Highways		Minimum Requirement 2 or more lanes		Compliance		Case?
		Free Flow	Restr. Flow	Free Flow	Restr. Flow	Numerical	%	
1. Minimum Vehicular Volume	A. Vehicle volume, all approaches (average hour)	-	-	600	-	470	78.3	**Case 1 - Undoubtedly Warranted**
	B. Vehicle volume, along minor streets (average hour)	-	-	120	-	173	144.3	
2. Delay to cross Traffic	A. Vehicle volume, major street (average hour)	-	-	600	-	297	49.4	
	B. Combined vehicle and pedestrian volume crossing	-	-	50	-	136	272.8	

	CR10 / Highland - Background Volumes 2027											
	Main Road (CR10)			Minor Road (Highland)			Main Road (CR10)			Minor Road (Highland)		
	Northbound			Eastbound			Southbound			Westbound		
Hour	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Ending												
8:00	7	457	0	77	7	22	27	339	25	1	1	17
9:00	8	499	0	84	8	24	30	371	27	1	1	19
13:00	7	466	0	78	7	22	28	346	25	1	1	18
15:00	31	414	0	44	5	12	47	437	73	7	7	37
16:00	30	400	0	42	5	12	46	422	71	6	7	35
17:00	34	455	0	48	5	13	52	480	81	7	8	40
18:00	38	509	0	54	6	15	58	537	90	8	9	45
19:00	27	362	0	38	4	11	41	381	64	6	6	32

d. Justification 7 Result

Justification	Description	Minimum Requirement 1 Lane Highways		Minimum Requirement 2 or more lanes		Compliance		Case?
		Free Flow	Restr. Flow	Free Flow	Restr. Flow	Numerical	%	
1. Minimum Vehicular Volume	A. Vehicle volume, all approaches (average hour)	-	-	600	-	973	162.1	**Case 2 - Might be Warranted**
	B. Vehicle volume, along minor streets (average hour)	-	-	120	-	97	81.1	
2. Delay to cross Traffic	A. Vehicle volume, major street (average hour)	-	-	600	-	855	142.6	
	B. Combined vehicle and pedestrian volume crossing	-	-	50	-	50	100.9	

	CR10 / Highland - Background Volumes 2030											
	Main Road (CR10)			Minor Road (Highland)			Main Road (CR10)			Minor Road (Highland)		
	Northbound			Eastbound			Southbound			Westbound		
Hour	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Ending												
8:00	8	464	19	85	11	22	13	384	29	21	3	21
9:00	9	507	21	93	12	24	14	420	32	23	3	23
13:00	8	473	20	87	11	22	13	392	30	21	3	21
15:00	30	379	18	50	7	13	15	450	81	28	11	14
16:00	29	366	17	48	6	13	15	435	78	28	10	13
17:00	33	417	20	55	7	14	17	495	89	31	12	15
18:00	37	466	22	61	8	16	19	553	99	35	13	17
19:00	26	331	16	43	6	11	13	393	70	25	9	12

d. Justification 7 Result

Justification	Description	Minimum Requirement 1 Lane Highways		Minimum Requirement 2 or more lanes		Compliance		Case?
		Free Flow	Restr. Flow	Free Flow	Restr. Flow	Numerical	%	
1. Minimum Vehicular Volume	A. Vehicle volume, all approaches (average hour)	-	-	600	-	956	159.4	**Case 2 - Might be Warranted**
	B. Vehicle volume, along minor streets (average hour)	-	-	120	-	107	88.8	
2. Delay to cross Traffic	A. Vehicle volume, major street (average hour)	-	-	600	-	850	141.6	
	B. Combined vehicle and pedestrian volume crossing	-	-	50	-	77	154.9	

	CR10 / Highland - Background Volumes 2035											
	Main Road (CR10)			Minor Road (Highland)			Main Road (CR10)			Minor Road (Highland)		
	Northbound			Eastbound			Southbound			Westbound		
Hour	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Ending												
8:00	15	639	18	165	14	37	38	468	55	20	4	39
9:00	16	698	20	180	15	40	42	512	60	22	4	43
13:00	15	651	19	168	14	37	39	478	56	21	4	40
15:00	48	529	15	96	9	21	64	597	158	24	15	47
16:00	46	511	14	93	9	20	61	576	152	24	14	46
17:00	53	582	16	106	10	23	70	656	174	27	16	52
18:00	59	650	18	118	11	26	78	733	194	30	18	58
19:00	42	462	13	84	8	18	55	521	138	21	13	41

d. Justification 7 Result

Justification	Description	Minimum Requirement 1 Lane Highways		Minimum Requirement 2 or more lanes		Compliance		Case?
		Free Flow	Restr. Flow	Free Flow	Restr. Flow	Numerical	%	
1. Minimum Vehicular Volume	A. Vehicle volume, all approaches (average hour)	-	-	600	-	1416	236.0	**Case 1 - Undoubtedly Warranted**
	B. Vehicle volume, along minor streets (average hour)	-	-	120	-	185	154.5	
2. Delay to cross Traffic	A. Vehicle volume, major street (average hour)	-	-	600	-	1230	205.1	
	B. Combined vehicle and pedestrian volume crossing	-	-	50	-	118	235.8	

	CR10 / Highland - Total Volumes 2027											
	Main Road (CR10)			Minor Road (Highland)			Main Road (CR10)			Minor Road (Highland)		
	Northbound			Eastbound			Southbound			Westbound		
Hour	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Ending												
8:00	7	467	0	77	7	22	34	345	25	1	1	22
9:00	8	510	0	84	8	24	37	377	27	1	1	24
13:00	7	476	0	78	7	22	35	352	25	1	1	22
15:00	31	413	0	44	5	12	76	439	73	10	7	58
16:00	30	398	0	42	5	12	73	424	71	9	7	56
17:00	34	454	0	48	5	13	83	482	81	11	8	64
18:00	38	507	0	54	6	15	93	539	90	12	9	71
19:00	27	360	0	38	4	11	66	383	64	9	6	50

d. Justification 7 Result

Justification	Description	Minimum Requirement 1 Lane Highways		Minimum Requirement 2 or more lanes		Compliance		Case?
		Free Flow	Restr. Flow	Free Flow	Restr. Flow	Numerical	%	
1. Minimum Vehicular Volume	A. Vehicle volume, all approaches (average hour)	-	-	600	-	1007	167.9	**Case 2 - Might be Warranted**
	B. Vehicle volume, along minor streets (average hour)	-	-	120	-	119	98.9	
2. Delay to cross Traffic	A. Vehicle volume, major street (average hour)	-	-	600	-	877	146.2	
	B. Combined vehicle and pedestrian volume crossing	-	-	50	-	53	106.6	

	CR10 / Highland - Total Volumes 2035											
	Main Road (CR10)			Minor Road (Highland)			Main Road (CR10)			Minor Road (Highland)		
	Northbound			Eastbound			Southbound			Westbound		
Hour	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Ending												
8:00	15	648	18	165	14	37	44	474	55	20	4	6
9:00	16	708	20	180	15	40	48	518	60	22	4	7
13:00	15	660	19	168	14	37	45	483	56	21	4	7
15:00	48	530	15	96	9	21	89	595	158	28	15	66
16:00	46	512	14	93	9	20	86	574	152	27	14	64
17:00	53	582	16	106	10	23	98	654	174	30	16	72
18:00	59	651	18	118	11	26	109	731	194	34	18	81
19:00	42	462	13	84	8	18	77	519	138	24	13	58

d. Justification 7 Result

Justification	Description	Minimum Requirement 1 Lane Highways		Minimum Requirement 2 or more lanes		Compliance		Case?
		Free Flow	Restr. Flow	Free Flow	Restr. Flow	Numerical	%	
1. Minimum Vehicular Volume	A. Vehicle volume, all approaches (average hour)	-	-	600	-	1116	186.0	**Case 2 - Might be Warranted**
	B. Vehicle volume, along minor streets (average hour)	-	-	120	-	120	100.0	
2. Delay to cross Traffic	A. Vehicle volume, major street (average hour)	-	-	600	-	990	165.0	
	B. Combined vehicle and pedestrian volume crossing	-	-	50	-	80	160.5	

	CR10 / Highland - Total Volumes 2030											
	Main Road (CR10)			Minor Road (Highland)			Main Road (CR10)			Minor Road (Highland)		
	Northbound			Eastbound			Southbound			Westbound		
Hour	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Ending												
8:00	8	536	19	85	11	22	18	379	29	21	3	25
9:00	9	586	21	93	12	24	20	414	32	23	3	27
13:00	8	547	20	87	11	22	19	386	30	21	3	25
15:00	30	474	18	50	0	13	41	498	81	32	11	33
16:00	29	457	17	48	0	13	39	481	78	31	10	31
17:00	33	521	20	55	0	14	45	548	89	35	12	36
18:00	37	582	22	61	0	16	50	612	99	39	13	40
19:00	26	413	16	43	0	11	36	435	70	28	9	28

d. Justification 7 Result

Justification	Description	Minimum Requirement 1 Lane Highways		Minimum Requirement 2 or more lanes		Compliance		Case?
		Free Flow	Restr. Flow	Free Flow	Restr. Flow	Numerical	%	
1. Minimum Vehicular Volume	A. Vehicle volume, all approaches (average hour)	-	-	600	-	1456	242.7	**Case 1 - Undoubtedly Warranted**
	B. Vehicle volume, along minor streets (average hour)	-	-	120	-	205	170.5	
2. Delay to cross Traffic	A. Vehicle volume, major street (average hour)	-	-	600	-	1252	208.6	
	B. Combined vehicle and pedestrian volume crossing	-	-	50	-	121	241.5	

	CR10 / Municipal - Background Volumes 2027											
	Main Road (CR10)			Minor Road (Municipal)			Main Road (CR10)			Minor Road (Municipal)		
	Northbound			Eastbound			Southbound			Westbound		
Hour	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Ending												
8:00	1	442	11	4	0	3	38	307	17	21	0	18
9:00	1	483	12	4	0	3	41	336	19	23	0	20
13:00	1	451	11	4	0	3	38	313	18	21	0	19
15:00	1	388	13	14	0	11	54	384	18	55	0	44
16:00	1	374	13	13	0	11	52	371	17	53	0	42
17:00	1	426	14	15	0	13	59	422	20	60	0	48
18:00	1	476	16	17	0	14	66	472	22	67	0	54
19:00	1	338	11	12	0	10	47	335	16	48	0	38

d. Justification 7 Result

Justification	Description	Minimum Requirement 1 Lane Highways		Minimum Requirement 2 or more lanes		Compliance		Case?
		Free Flow	Restr. Flow	Free Flow	Restr. Flow	Numerical	%	
1. Minimum Vehicular Volume	A. Vehicle volume, all approaches (average hour)	-	-	600	-	856	142.7	**Case 2 - Might be Warranted**
	B. Vehicle volume, along minor streets (average hour)	-	-	120	-	46	38.1	
2. Delay to cross Traffic	A. Vehicle volume, major street (average hour)	-	-	600	-	748	124.7	
	B. Combined vehicle and pedestrian volume crossing	-	-	50	-	25	49.4	

	CR10 / Municipal - Background Volumes 2030											
	Main Road (CR10)			Minor Road (Municipal)			Main Road (CR10)			Minor Road (Municipal)		
	Northbound			Eastbound			Southbound			Westbound		
Hour	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Ending												
8:00	1	527	11	4	0	3	38	405	17	20	0	18
9:00	1	576	12	4	0	3	41	443	19	22	0	20
13:00	1	537	11	4	0	3	38	413	18	21	0	19
15:00	1	470	12	14	0	11	51	472	18	52	0	40
16:00	1	453	12	13	0	11	50	456	17	50	0	39
17:00	1	516	13	15	0	13	56	519	20	57	0	44
18:00	1	577	15	17	0	14	63	580	22	64	0	49
19:00	1	410	11	12	0	10	45	412	16	45	0	35

d. Justification 7 Result

Justification	Description	Minimum Requirement 1 Lane Highways		Minimum Requirement 2 or more lanes		Compliance		Case?
		Free Flow	Restr. Flow	Free Flow	Restr. Flow	Numerical	%	
1. Minimum Vehicular Volume	A. Vehicle volume, all approaches (average hour)	-	-	600	-	996	166.0	**Case 2 - Might be Warranted**
	B. Vehicle volume, along minor streets (average hour)	-	-	120	-	45	37.4	
2. Delay to cross Traffic	A. Vehicle volume, major street (average hour)	-	-	600	-	894	148.9	
	B. Combined vehicle and pedestrian volume crossing	-	-	50	-	24	47.6	

	CR10 / Municipal - Background Volumes 2035											
	Main Road (CR10)			Minor Road (Municipal)			Main Road (CR10)			Minor Road (Municipal)		
	Northbound			Eastbound			Southbound			Westbound		
Hour	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Ending												
8:00	1	649	12	4	0	3	38	469	17	18	0	19
9:00	1	709	13	4	0	3	42	513	19	20	0	21
13:00	1	661	12	4	0	3	39	479	18	19	0	20
15:00	1	535	12	14	0	11	54	571	18	48	0	43
16:00	1	516	12	13	0	11	52	551	17	46	0	42
17:00	1	588	13	15	0	13	59	627	20	53	0	47
18:00	1	657	15	17	0	14	66	701	22	59	0	53
19:00	1	467	11	12	0	10	47	498	16	42	0	38

d. Justification 7 Result

Justification	Description	Minimum Requirement 1 Lane Highways		Minimum Requirement 2 or more lanes		Compliance		Case?
		Free Flow	Restr. Flow	Free Flow	Restr. Flow	Numerical	%	
1. Minimum Vehicular Volume	A. Vehicle volume, all approaches (average hour)	-	-	600	-	1140	190.0	**Case 2 - Might be Warranted**
	B. Vehicle volume, along minor streets (average hour)	-	-	120	-	44	36.6	
2. Delay to cross Traffic	A. Vehicle volume, major street (average hour)	-	-	600	-	1039	173.1	
	B. Combined vehicle and pedestrian volume crossing	-	-	50	-	22	43.9	

	CR10 / Municipal - Total Volumes 2027											
	Main Road (CR10)			Minor Road (Municipal)			Main Road (CR10)			Minor Road (Municipal)		
	Northbound			Eastbound			Southbound			Westbound		
Hour	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Ending												
8:00	1	447	12	4	0	3	49	301	17	27	0	23
9:00	1	489	13	4	0	3	54	329	19	30	0	25
13:00	1	456	12	4	0	3	50	307	18	28	0	23
15:00	1	365	20	14	0	11	86	357	18	82	0	65
16:00	1	352	20	13	0	11	83	344	17	79	0	63
17:00	1	401	22	15	0	13	95	392	20	90	0	72
18:00	1	448	25	17	0	14	106	438	22	101	0	80
19:00	1	318	18	12	0	10	75	311	16	72	0	57

d. Justification 7 Result

Justification	Description	Minimum Requirement 1 Lane Highways		Minimum Requirement 2 or more lanes		Compliance		Case?
		Free Flow	Restr. Flow	Free Flow	Restr. Flow	Numerical	%	
1. Minimum Vehicular Volume	A. Vehicle volume, all approaches (average hour)	-	-	600	-	885	147.5	**Case 2 - Might be Warranted**
	B. Vehicle volume, along minor streets (average hour)	-	-	120	-	57	47.3	
2. Delay to cross Traffic	A. Vehicle volume, major street (average hour)	-	-	600	-	739	123.2	
	B. Combined vehicle and pedestrian volume crossing	-	-	50	-	31	62.2	

	CR10 / Municipal - Total Volumes 2030											
	Main Road (CR10)			Minor Road (Municipal)			Main Road (CR10)			Minor Road (Municipal)		
	Northbound			Eastbound			Southbound			Westbound		
Hour	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Ending												
8:00	1	538	12	4	0	3	48	356	17	26	0	22
9:00	1	588	13	4	0	3	53	389	19	28	0	24
13:00	1	549	12	4	0	3	49	363	18	26	0	22
15:00	1	449	20	14	0	11	81	445	18	77	0	59
16:00	1	433	19	13	0	11	78	429	17	75	0	57
17:00	1	493	21	15	0	13	89	488	20	85	0	65
18:00	1	551	24	17	0	14	99	546	22	95	0	73
19:00	1	391	17	12	0	10	70	388	16	67	0	52

d. Justification 7 Result

Justification	Description	Minimum Requirement 1 Lane Highways		Minimum Requirement 2 or more lanes		Compliance		Case?
		Free Flow	Restr. Flow	Free Flow	Restr. Flow	Numerical	%	
1. Minimum Vehicular Volume	A. Vehicle volume, all approaches (average hour)	-	-	600	-	1025	170.8	**Case 2 - Might be Warranted**
	B. Vehicle volume, along minor streets (average hour)	-	-	120	-	54	45.0	
2. Delay to cross Traffic	A. Vehicle volume, major street (average hour)	-	-	600	-	883	147.2	
	B. Combined vehicle and pedestrian volume crossing	-	-	50	-	29	58.6	

	CR10 / Municipal - Total Volumes 2035											
	Main Road (CR10)			Minor Road (Municipal)			Main Road (CR10)			Minor Road (Municipal)		
	Northbound			Eastbound			Southbound			Westbound		
Hour	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Ending												
8:00	1	654	13	4	0	3	49	464	17	24	0	23
9:00	1	715	14	4	0	3	54	507	19	26	0	25
13:00	1	667	13	4	0	3	50	473	18	24	0	23
15:00	1	516	17	14	0	11	83	543	18	73	0	63
16:00	1	498	17	13	0	11	80	524	17	71	0	61
17:00	1	567	19	15	0	13	91	597	20	81	0	69
18:00	1	634	21	17	0	14	102	667	22	90	0	77
19:00	1	450	15	12	0	10	72	474	16	64	0	55

d. Justification 7 Result

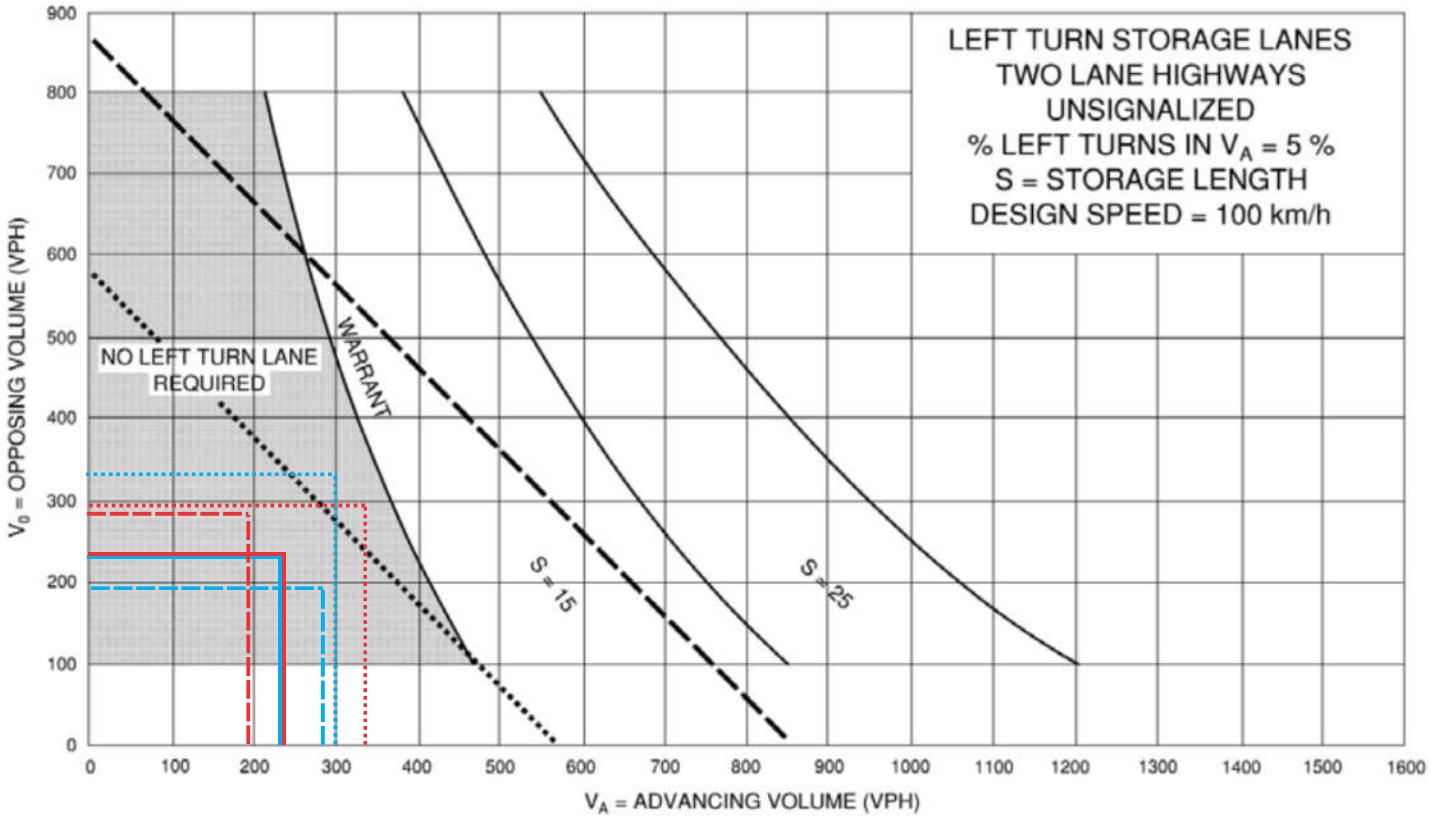
Justification	Description	Minimum Requirement 1 Lane Highways		Minimum Requirement 2 or more lanes		Compliance		Case?
		Free Flow	Restr. Flow	Free Flow	Restr. Flow	Numerical	%	
1. Minimum Vehicular Volume	A. Vehicle volume, all approaches (average hour)	-	-	600	-	1169	194.8	**Case 2 - Might be Warranted**
	B. Vehicle volume, along minor streets (average hour)	-	-	120	-	53	44.2	
2. Delay to cross Traffic	A. Vehicle volume, major street (average hour)	-	-	600	-	1028	171.4	
	B. Combined vehicle and pedestrian volume crossing	-	-	50	-	27	54.9	

Appendix R

Left Turn Warrants,

MTO Supplement to TAC Guide

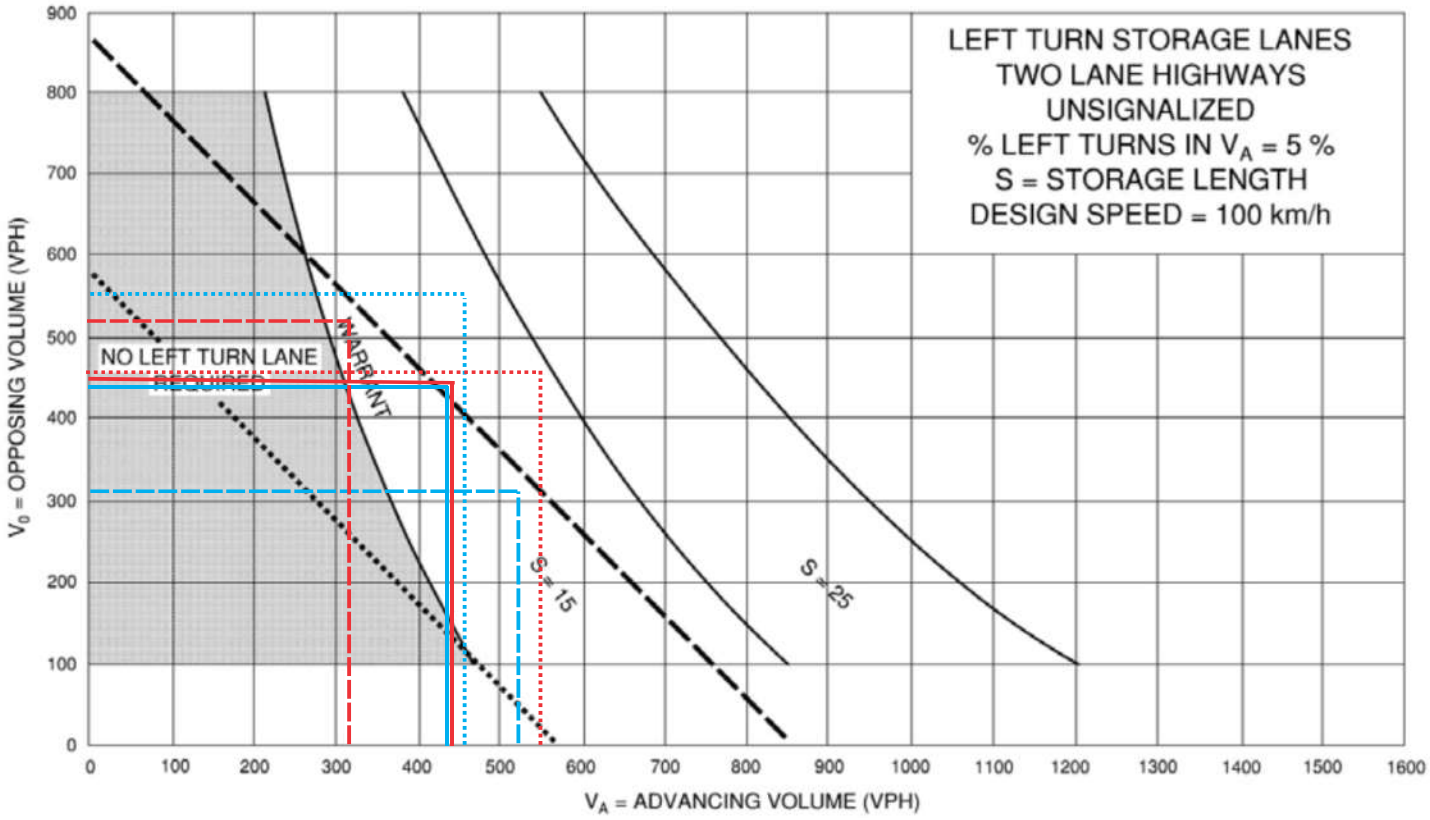
Left Turn Lane Warrant
County Road 10 & Larmer Line
MTO Supplement to the TAC Design Guide



Existing Traffic Volumes 2025

	County Road 10 / Larmer Ln			County Road 10 / Larmer Ln		
	NB-AM	NB-PM	NB-SAT	SB-AM	SB-PM	SB-SAT
Advance Volume (V_a)	286	299	222	196	331	222
Opposing Volume (V_o)	196	331	222	286	299	222
Left Turn Traffic Volume (V_L)	7	20	11	3	15	6
% Left Turns in V_a	2.5% (5%)	6.7% (5%)	4.9% (5%)	1.5% (5%)	4.5% (5%)	2.7% (5%)
Legend						

Left Turn Lane Warrant
County Road 10 & Larmer Line
MTO Supplement to the TAC Design Guide



Background Traffic Volumes 2027

	County Road 10 / Larmer Ln			County Road 10 / Larmer Ln		
	NB-AM	NB-PM	NB-SAT	SB-AM	SB-PM	SB-SAT
Advance Volume (V_a)	518	461	436	311	549	439
Opposing Volume (V_o)	311	549	439	518	461	436
Left Turn Traffic Volume (V_L)	22	28	26	3	15	6
% Left Turns in V_a	4.3% (5%)	6.1% (5%)	6.0% (5%)	1.0% (5%)	2.7% (5%)	1.4% (5%)
Legend						