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545 East Pikes Peak Avenue, Suite 210
Colorado Springs, CO 80903
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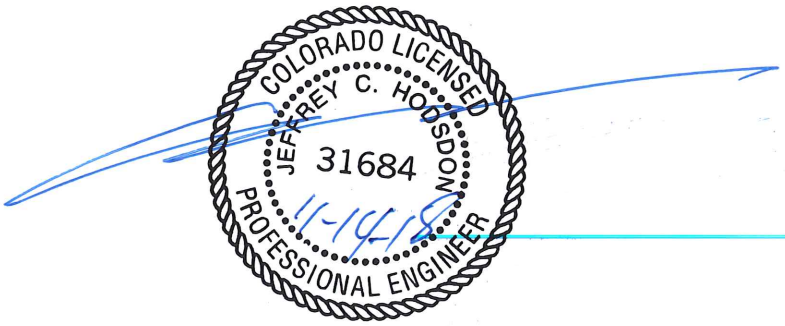
Freedom Springs
Site Development Plan
PCD File No. PPR 18-040
(LSC #184090)
November 14, 2018

Traffic Engineer's Statement

This traffic report and supporting information were prepared under my responsible charge and they comport with the standard of care. So far as is consistent with the standard of care, said report was prepared in general conformance with the criteria established by the County for traffic reports.



Developer's Statement

I, the Developer, have read and will comply with all commitments made on my behalf within this report.

_____ _____
Date

Provide Developer signature.

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November 14, 2018

Mr. Chris Ball, AIA, NCARB
VP of Architecture Services
The Vecino Group
444 South Campbell Ave
Springfield, MO 65806

RE: Freedom Springs
Site Development Plan
El Paso County, CO
Traffic Impact Study
LSC #184090

Dear Mr. Ball,

In response to your request, we have prepared this traffic impact analysis for the proposed Freedom Springs development. The proposed apartment complex is located north of Western Drive and approximately 800 feet east of Hathaway Drive in Colorado Springs, Colorado. This study has been prepared for submittal to El Paso County.

LAND USE AND ACCESS

Freedom Springs is a proposed 50-dwelling unit apartment development. As shown in Figure 1, the site is located north of Western Drive and approximately 800 feet east of Hathaway Drive in Colorado Springs, Colorado. Proposed access to Western Drive is via a shared existing site access point for the Western Hills Apartments complex, as shown in Figure 2. The existing site access to Western Drive is a Stop-sign-controlled T-intersection. Sight distance is limited to the north of the site due to vegetation on the horizontal curve along Western Drive. We suspect this will be removed as part of the site improvements.

ROADWAY AND TRAFFIC CONDITIONS

Area Roadways

The streets and roadways serving the site are shown in Figure 1 and described below:

US Highway 24 is a four-lane east/west state highway that locally extends from Colorado Springs to Falcon. US Highway 24 is classified as an Expressway by the Colorado Department of Transportation and is shown as an Expressway on the County *Major Transportation Corridors Plan (MTCP)*. The US Highway 24/Peterson Road intersection is grade-separated. There is an existing at-grade three-quarter-movement intersection in the vicinity of the site at Hathaway Drive. Figure 28 of CDOT's *US 24 Planning and Environmental Linkage (PEL) Study* shows that the three-quarter access intersection at US 24 just south of Hathaway Drive will remain unchanged through 2040.

Peterson Road/Peterson Boulevard is a Minor Arterial extending north from Peterson Air Force Base to Dublin Boulevard. Near the site, Peterson Boulevard has two through lanes in each direction and a posted speed limit of 35 miles per hour (mph).

Galley Road is a three-lane (near the site) Minor Arterial street extending west from Peterson Road to the intersection with Circle Drive (in the City of Colorado Springs), at which point the arterial continues east as Yampa Street with continuity to Cache la Poudre Street. The posted speed limit in the vicinity is 30 mph.

Hathaway Drive is shown as a two-lane Collector on the El Paso County *MTCP*. There are no auxiliary turn lanes at its intersection with Western Drive and the posted speed limit is 30 mph in the vicinity of the site. Approximately 50 feet north of US 24, there is a Yield-sign-controlled T-intersection. The south leg of this intersection is the connection to the three-quarter-movement intersection with US Highway 24.

Western Drive is an urban, two-lane Local street with a posted speed limit of 30 mph. It extends northeast from Hathaway to Galley then east to Peterson Road. The total street width, including on-street parking, is 36 feet. Right-of-way on Western Drive is estimated at approximately 60 feet.

Existing Traffic Volumes

Vehicular turning movement counts were conducted at the following intersections during the times specified in Table 1. The turning movement volumes are shown in Figure 3. Raw count data are attached. Figure 3 also shows average daily traffic volumes on the study area streets. These volumes are primarily estimates by LSC based on the peak-hour counts.

Table 1: Study Area Intersection Vehicular Turning Movement Count Data

Intersection		Data Collection			
Major Street	**Minor Street**	**Day**	**Date**	**From**	**To**
Western Drive	Site Access	Tuesday	January 30, 2018	6:30 a.m.	8:30 a.m.
				4:00 p.m.	6:00 p.m.
Hathaway Drive	Western Drive	Tuesday	January 30, 2018	6:30 a.m.	8:30 a.m.
				4:00 p.m.	6:00 p.m.
US 24 3/4-Access	Hathaway Drive	Wednesday	January 31, 2018	6:30 a.m.	8:30 a.m.
				4:00 p.m.	6:00 p.m.
Galley Road	Western Drive	Thursday	February 1, 2018	6:30 a.m.	8:30 a.m.
				4:00 p.m.	6:00 p.m.

Existing Levels of Service

Please refer to the *Existing and Projected Level of Service* section of this report.

Field Observations at US Highway 24/Hathaway

LSC conducted a field observation of operations at the three-quarter access to US Highway 24 between 4:00 and 4:30 p.m. The eastbound left-turn queue was generally about three vehicles, with one occurrence of two additional vehicles arriving at the back of queue as the queue began to clear. Southbound right-turning vehicles were seen using the right-turn acceleration lane to merge into eastbound traffic. The right-turn acceleration lane is continuous to Valley Drive (about one-quarter mile to the west).

Intersection/Access Sight Distance

Sight distance to the northeast at the site access is limited by vegetation and on-site existing topography on the inside of the Western Drive horizontal curve. However, the vegetation will be removed and the site will be graded to allow for acceptable access sight distance. An easement across the inside of the curve will likely be needed and this area will need to be kept clear of landscaping and other potential obstructions to sight distance.

The intersection sight distance at the Galley/Western Drive intersection is limited on the northeast-bound approach by an existing property fence. The sight distance to the southeast is about 375 feet from a distance of 13 feet back from the edge of Galley Road, but about 430 feet measured from a driver's eye location assuming the driver moves forward to obtain a better line of sight. At this point, the traffic signal head at Galley/Peterson is visible, so the driver can see if the signal is red for Galley Road (and Galley northbound traffic is stopped at this intersection). The sight distance to the north along Galley Road is about 400 feet. The ECM does not contain entering sight distance criteria specifically for a 30-mph **posted** speed limit.

However, the Colorado State Highway Access Code provides design sight distances "along a Highway" and entering sight distances on roadways with a posted speed limit of 30-mph. Per Table 4-1, the design "sight distance along highway" is 270 feet (200 feet adjusted by a factor of 1.35. Table 4-2 indicates a minimum of 300 feet of entering sight distance is required for passenger vehicles. Both sight distance requirements at the intersection of Galley/Western Drive are satisfied based on field measurements.

TRIP GENERATION

Estimates of the vehicle-trips projected to be generated by Freedom Springs have been made using the nationally published trip generation rates from the *Trip Generation Manual, 10th Edition, 2018* by the Institute of Transportation Engineers (ITE). Land use code "220 – Apartment" was used.

Freedom Springs is expected to generate about 333 vehicle-trips on the average weekday (one-half entering and one-half exiting in a 24-hour period). During the morning peak hour, 5 vehicles are projected to enter the site while 20 are projected to exit. Approximately 20 vehicles would enter and 11 vehicles would exit the site during the evening peak hour. The morning peak hour generally occurs for one hour between 6:30 and 8:30 a.m., and the afternoon peak hour occurs for one hour between 4:00 and 6:00 p.m. Table 2 shows a summary of the results of the trip generation estimate. A detailed trip generation estimate for the development, including ITE rates for the proposed land use is presented in Table 6 (attached).

Table 2: Estimated Site Vehicle-Trip Generation

Analysis Period	In	Out	Total
Morning Peak Hour (vehicle-trips/hour)	5	20	25
Evening Peak Hour (vehicle-trips/hour)	20	11	36
Weekday (vehicle-trips/day)	167	167	333
* Please refer to Table 6 (attached) for detailed trip generation table			

Trip Distribution and Assignment

An estimate of the directional distribution of site-generated vehicle-trips to the study area streets and intersections is a necessary component in determining the site's traffic impacts. Figure 4 shows the directional distribution estimate for the site-generated trips, which consists of the percentages of the site-generated vehicle-trips projected to be oriented to and from the site's major approaches. Estimates were based on the following factors: traffic counts conducted at nearby intersections on Western Drive and Hathaway Drive, the proposed land use and access plan, the area street system serving the site, the site's geographic location, and projected traffic growth in the area.

Site-Generated Traffic

The site-generated peak-hour traffic volumes at the study area intersections have been calculated by applying the directional distribution percentages estimated by LSC (from Figure 4) to the trip generation estimates (from Table 1). Figure 5 shows the projected site-generated traffic volumes for the morning and evening peak hours. The figure also shows projected site-generated average daily traffic volumes on the study area streets and roadways.

Existing Plus Site-Generated Traffic Volumes

Figure 6 shows the existing plus site total traffic volumes, which are the sum of the site-generated weekday traffic volumes (from Figure 5) and the existing traffic volumes (from Figure 3).

2040 Background Traffic

Background traffic is the traffic estimated to be on the study area street system without consideration of the proposed development. Traffic from the site is not included in the 2040 background traffic volumes. Projected 2040 background traffic volumes were based on nearby traffic impact studies previously completed by LSC, traffic count data, level of area buildout, and CDOT projections on US 24 in the vicinity of the site.

The 2040 projected peak-hour intersection turning movements at the intersection of Hathaway/ US 24 have been taken directly from the PEL study. Future background volumes could potentially be higher at the Western Drive intersections in the vicinity of the site depending on the trip generation of other area future development, such as on the site located on the south side of Western Drive, but any significant development will likely be required to complete a traffic impact report. Figure 7 shows estimates of year 2040 background traffic volumes.

2040 Total Traffic

Figure 8 shows the projected year 2040 total traffic volumes. The 2040 total traffic volumes are the sum of the site-generated traffic volumes (from Figure 5) and the 2040 background traffic volumes (from Figure 7).

Site Impact at Off-Site Intersections

Appendix B of the El Paso County *Engineering Criteria Manual* (ECM) states that the "limits of the transportation network to be studied shall be based on the size and extent of the proposed development, the existing and future land uses, and traffic conditions on or near the site." Per Section B.2.3(B), these study limits include:

> *Additional offsite major intersections where the project contributes a 10 percent impact (during either the A.M. or P.M. peak hour) to any approach leg of the*

intersection where the intersection is operating at LOS C or better in the Short-Range Horizon, or the project contributes a 5 percent impact (during either the A.M or P.M. peak hour) to any approach leg of the intersection where the intersection is operating at a LOS of D or worse in the Short-Range Horizon.

Site-generated traffic is projected to increase the existing morning peak-hour southbound approach volume at the intersection of US 24 and its three-quarter access connecting Hathaway Drive by 5 percent. The afternoon peak-hour site-generated traffic is estimated to increase the eastbound left-turn volume by 7 percent. The morning peak-hour site-generated traffic is estimated to increase existing traffic by 8 percent on the northbound approach to the Western/ Galley intersection.

EXISTING AND PROJECTED LEVELS OF SERVICE

Level of service (LOS) is a quantitative measure of the level of congestion or delay at an intersection and is indicated on a scale from "A" to "F." LOS A is indicative of little congestion or delay. LOS F indicates a high level of congestion or delay. Table 3 shows the level of service delay ranges for signalized and unsignalized intersections.

Table 3: Intersection Levels of Service Delay Ranges

Level of Service	Signalized Intersections		Unsignalized Intersections
	Average Control Delay (seconds per vehicle)	V/C[(1)]	Average Control Delay (seconds per vehicle)[(2)]
A	≤ 10.0	< 0.60	≤ 10.0
B	10.1 – 20.0	0.60 – 0.69	10.1 – 15.0
C	20.1 – 35.0	0.70 – 0.79	15.1 – 25.0
D	35.1 – 55.0	0.80 – 0.89	25.1 – 35.0
E	55.1 – 80.0	0.90 – 0.99	35.1 – 50.0
F	≥ 80.1	≥ 1.00	≥ 50.1

(1) Source: *Transportation Research Circular 212*
(2) For unsignalized intersections, if V/C is > 1.00, then LOS is LOS F regardless of the projected average control delay per vehicle

Each study area intersection has been analyzed to determine the control delay and projected levels of service for turning movements and for each intersection overall (only applies to signalized intersection analysis). This section includes LOS summary tables with the results for the most important intersection turning movements. Please refer to the attached LOS calculation worksheets for complete LOS analysis assumptions and results.

Morning Peak Hour Analysis

A summary of existing and projected existing plus site-generated LOS and control delays during the morning peak hour is shown in Table 4.

Table 4: Level of Service Comparison by Scenario (A.M. Peak Hour)

Scenario	Western Dr/ Site Access		Western Dr/ Hathaway Dr		Galley Rd/ Western Dr				US 24 Three-Quarter Access	
	EBL	SBL	WBL	SB	NB	EBL	WBL	SB	EBL	SBR*
LOS										
2018 Existing	A	A	B	A	B	A	A	B	F**	A
2018 Existing + Site	A	A	B	A	B	A	A	B	F	A
2040 Background	A	A	B	A	D	A	A	C	F	A
2040 Background + Site	A	A	B	A	D	A	A	C	F	A
Control Delay (Seconds)										
2018 Existing	7.3	8.8	10.9	7.5	14.7	7.9	7.8	12.8	***	0.0
2018 Existing + Site	7.3	9.0	10.9	7.5	14.7	7.9	7.8	12.9	***	0.0
2040 Background	7.3	8.8	11.4	7.5	30.2	8.6	8.4	22.7	***	0.0
2040 Background + Site	7.3	9.0	11.4	7.5	30.2	8.6	8.4	22.9	***	0.0

* Note: SBR was simulated as a free turning lane with an acceleration lane, not stop sign-controlled.
** Although the HCM LOS analysis indicates LOS F for existing conditions, field observations indicate that upstream signals at US Highway 94 and Marksheffel Road produce gaps in the westbound traffic stream that allow left-turning movements to occur.
*** Synchro HCM-calculated control delays are in the LOS F range. However, the formula-calculated values likely exceed realistic levels. For additional detail, please refer to the attached HCM calculation sheets. Furthermore, field observations indicate that upstream signals at the US Highway 94 and Marksheffel Road cross street intersections produce gaps in the westbound traffic stream that allow left-turning movements to occur. Until grade-separated interchanges replace the upstream signalized intersections in the future, these traffic gaps will continue to be generated.

Western Avenue/Site Access

All major and minor street left-turning movements at this intersection currently operate at and are projected to remain at LOS A during all short-term and long-term morning peak-hour traffic scenarios.

Western Avenue/Hathaway Drive

All major and minor street left-turning movements at this intersection currently operate at and are projected to remain at LOS B or better during all short-term and long-term morning peak-hour traffic scenarios.

US 24/US 24 Access (Connecting Street to Hathaway Drive, Three-Quarter Intersection)

The eastbound left-turning movement at this three-quarter-movement intersection currently operates at LOS F and is projected to remain at LOS F during all short- and long-term morning peak hour traffic scenarios. The southbound right turning movement is projected to operate at LOS A during all short- and long-term morning peak-hour traffic scenarios.

Galley Road/Western Drive

All major and minor street approaches at this intersection currently operate at LOS D or better and are projected to remain at LOS D or better during all short-term and long-erm morning peak-hour traffic scenarios.

Evening Peak Hour Analysis

A summary of existing and projected existing plus site-generated LOS and control delays during the evening peak hour is shown in Table 5.

Table 5: Level of Service Comparison by Scenario (P.M. Peak Hour)

Scenario	Western Dr/ Site Access		Western Dr/ Hathaway Dr		Galley Rd/ Western Dr				US 24 Three-Quarter Access	
	EBL	SBL	WBL	SB	NB	EBL	WBL	SB	EBL	SBR*
LOS										
2018 Existing	A	A	A	A	B	A	A	B	E**	A
2018 Existing + Site	A	A	A	A	C	A	A	C	E	A
2040 Background	A	A	A	A	D	A	A	D	F	A
2040 Background + Site	A	A	A	A	D	A	A	D	F	A
Control Delay (Seconds)										
2018 Existing	7.3	8.6	9.5	7.5	14.7	8.1	7.9	14.2	***	0.0
2018 Existing + Site	7.4	8.8	9.6	7.5	16.4	8.2	8.1	15.8	***	0.0
2040 Background	7.3	8.6	9.7	7.5	30.6	8.9	8.5	28.9	***	0.0
2040 Background + Site	7.4	8.9	9.8	7.5	31.2	8.9	8.6	30.1	***	0.0

* Note: SBR was simulated as a free turning lane with an acceleration lane, not stop sign-controlled

** Although the HCM LOS analysis indicates LOS E for existing conditions, field observations indicate that upstream signals at US Highway 94 and Marksheffel Road produce gaps in the westbound traffic stream that allow left-turning movements to occur.

*** Synchro HCM-calculated control delays are in the LOS F range. However, the formula-calculated values likely exceed realistic levels. For additional detail, please refer to the attached HCM calculation sheets. Furthermore, field observations indicate that upstream signals at the US Highway 94 and Marksheffel Road cross street intersections produce gaps in the westbound traffic stream that allow left-turning movements to occur. Until grade-separated interchanges replace the upstream signalized intersections in the future, these traffic gaps will continue to be generated.

Western Avenue/Site Access

All major and minor street left-turning movements at this intersection currently operate at and are projected to remain at LOS A during all short-term and long-term evening peak-hour traffic scenarios.

Western Avenue/Hathaway Drive

All major and minor street left-turning movements at this intersection currently operate at and are projected to remain at LOS A during all short-term and long-term evening peak-hour traffic scenarios.

US 24/US 24 Access (Connecting Street to Hathaway Drive, Three-Quarter Intersection)

The HCM analysis indicates the eastbound left-turning movement at this three-quarter-movement intersection currently operates at LOS F and is projected to remain at LOS E during all short- and LOS F during all long-term evening peak-hour traffic scenarios. Although the HCM LOS analysis indicates LOS E or worse, field observations indicate that upstream signals at US Highway 94 and Marksheffel Road produce gaps in the westbound traffic stream that allow left-turning movements to occur. The southbound right turning movement is projected to operate at LOS A during all short- and long-term evening peak hour traffic scenarios.

Galley Road/Western Drive

All major and minor street approaches at this intersection currently operate at LOS D and are projected to remain at LOS D or better during all short-term and long-term evening peak-hour traffic scenarios.

AUXILIARY TURN LANE ANALYSIS

Turn Lane Requirements at El Paso County Intersections per ECM Criteria

Code Requirements

Section 2.3.7.D.1 El Paso County *Engineering Criteria Manual (ECM)* states that exclusive left-turn lanes shall be provided for an access on the following classification types with a projected peak-hour left ingress turning volume of:

- Minor Arterial – 25 vph or greater
- Collector – 25 vph or greater

Section of the El Paso County *ECM* 2.3.7.D.2 states that exclusive right-turn lanes shall be provided for an access on the following classification types with a projected peak-hour left ingress turning volume of:

- Minor Arterial – 50 vph or greater
- Collector – 50 vph or greater

Hathaway Drive/Western Drive Intersection

Hathaway Drive is currently identified as a Local street by the El Paso County roadway inventory and the MTCP 2040 plan shows Hathaway as a Collector street. However, the character of the street is closer to that of an Urban Local street than an Urban Collector with individual lot access and a 60-foot right-of-way. There are currently no auxiliary turn lanes on the northbound or southbound approaches to Western Drive. The projected morning peak-hour southbound left-turn volume is projected to exceed the minimum threshold volume required for a left-turn lane on a Collector. The projected evening peak-hour right-turn volume at this intersection is 54 vph, which would exceed the minimum threshold volume required for a right-turn lane on a Collector. However, given the following, LSC recommends the applicant **not** be required to construct auxiliary turn lanes at this intersection:

- The character of the street is that of an Urban Local street rather than an Urban Collector, with individual lot access, on-street parking and a 60-foot right-of-way. Auxiliary speed-change lanes are not generally required on Local roadways.
- right-of-way constraints would likely prevent the construction of auxiliary turn lanes on Hathaway.
- Through traffic volumes are relatively light and the speed limit is 30 mph.
- The roadway has a straight alignment and northbound/southbound stopping sight distance at the intersection is acceptable.

Adequacy of Existing Turn Lanes

US Highway 24/Hathaway (Three-Quarter-Movement Intersection)

Existing left-turn lane length is 430 feet (330 plus about 100 feet of distance within the taper, which is sufficiently wide to be considered part of the deceleration lane) and a 240-foot taper.

CDOT EX requirements for 50 mph posted limit are 125-feet of stacking for turning vehicles PLUS 500 feet of deceleration (for a stacking plus deceleration length of 625 feet) PLUS a 180-foot lane transition taper. Based on 2040 projections, the stacking length would be 325 feet (for a stacking-plus deceleration length of 825 feet).

The existing turn lane does not currently meet CDOT Access Code standards. The site traffic would **not** increase the traffic volume at this intersection by more than 20 percent. The site is projected to increase the existing eastbound left turning traffic by 7 percent in the afternoon peak hour.

CONCLUSIONS AND RECOMMENDATIONS

Trip Generation

Freedom Springs is expected to generate about 333 vehicle-trips on the average weekday (one-half entering and one-half exiting in a 24-hour period). During the morning peak hour, 5 vehicles are projected to enter the site while 20 are projected to exit. Approximately 20 vehicles would enter and 11 vehicles would exit the site during the evening peak hour.

Auxiliary Turn Lanes

Western Drive Intersections

LSC does not recommend the addition of auxiliary turn lanes at the Western Drive intersections in the study area. However, the construction of sidewalk along the north side of Western Drive is recommended.

US 24 Three-Quarter Intersection Access

The HCM LOS analysis indicates LOS E although field observations indicate that upstream signals at US Highway 94 and Marksheffel Road produce gaps in the westbound traffic stream that allow left-turning movements to occur. The US 24 PEL study does not identify any changes to the three-quarter intersection at US 24/Hathaway Drive through 2040, however the eastbound left-turn movement could potentially be closed by CDOT in the future if safety or operational issues arise.

The existing eastbound left-turn lane does not currently meet CDOT Access Code standards. The site traffic would **not** increase the traffic volume at this intersection by more than 20 percent. The site is projected to increase the existing eastbound left turning traffic by 7 percent in the afternoon peak hour.

Pedestrian Access Evaluation

The applicant will be required to construct a sidewalk along the site frontage of Western Drive. Regarding pedestrian connectivity to/from McAuliffe Elementary School, no sidewalks currently exist along the site frontage or west of the site on either side of Western Drive. There is a north/ south sidewalk along the east side of Hathaway Drive between Western Drive and the south property line of the Village East Apartments (located directly across from the elementary school). LSC is not aware of an established pedestrian route between and through the apartment complexes to the school that could be used by residents of this project. There is a route with sidewalks via Dale Road, although this route is significantly longer. LSC recommends the construction of sidewalk on the north side of Western Drive along the site frontage and along the adjacent property to the west to connect to the sidewalk along Hathaway Drive.

Level of Service Analysis

Except for the eastbound left-turn lane at US 24/Hathaway three-quarter-movement intersection (see above for discussion), the study area intersections are operating at level of service D or better and are projected to continue to operate at LOS D or better through 2040. Please refer to the *Level of Service* section above for detailed LOS analysis results.

* * * * *

Please contact me if you have any questions.

Sincerely,

LSC TRANSPORTATION CONSULTANTS, INC.

By _____
Jeffrey C. Hodsdon, P.E., PTOE
Principal

JAB:bjwb

Enclosures: Table 6
Figures 1-8
Traffic Count Reports
Level of Service Reports

Table 6: Detailed Trip Generation Estimate

ITE		Value	Units	Trip Generation Rates [1]					Total Trips Generated				
				Avg Weekday	A.M. Peak Hour		P.M. Peak Hour		Avg Weekday	A.M. Peak Hour		P.M. Peak Hour	
Code	Description				In	Out	In	Out		In	Out	In	Out
220	Apartments	50	DU	6.65	0.10	0.41	0.40	0.22	333	5	20	20	11

Figure 1

Vicinity Map

Freedom Springs (LSC #184090)

LSC TRANSPORTATION CONSULTANTS, INC.

PARKING:

1.5 SPACES PER UNIT: 75 SPACES REQUIRED, 75 SPACES PROVIDED
6 ACCESSIBLE PARKING SPACES PROVIDED (ONE PER TYPE 'A' UNIT)
GUEST - 1 SPACE PER 3 DWELLING UNITS: 50 UNITS, 17 SPACES REQUIRED, 17 SPACES PROVIDED.
TOTAL PARKING SPACES: 92 REQUIRED,93 PROVIDED

IMPERVIOUS SPACE / OPEN SPACE

SITE
3.87 ACRE = 168,577.2 SQFT

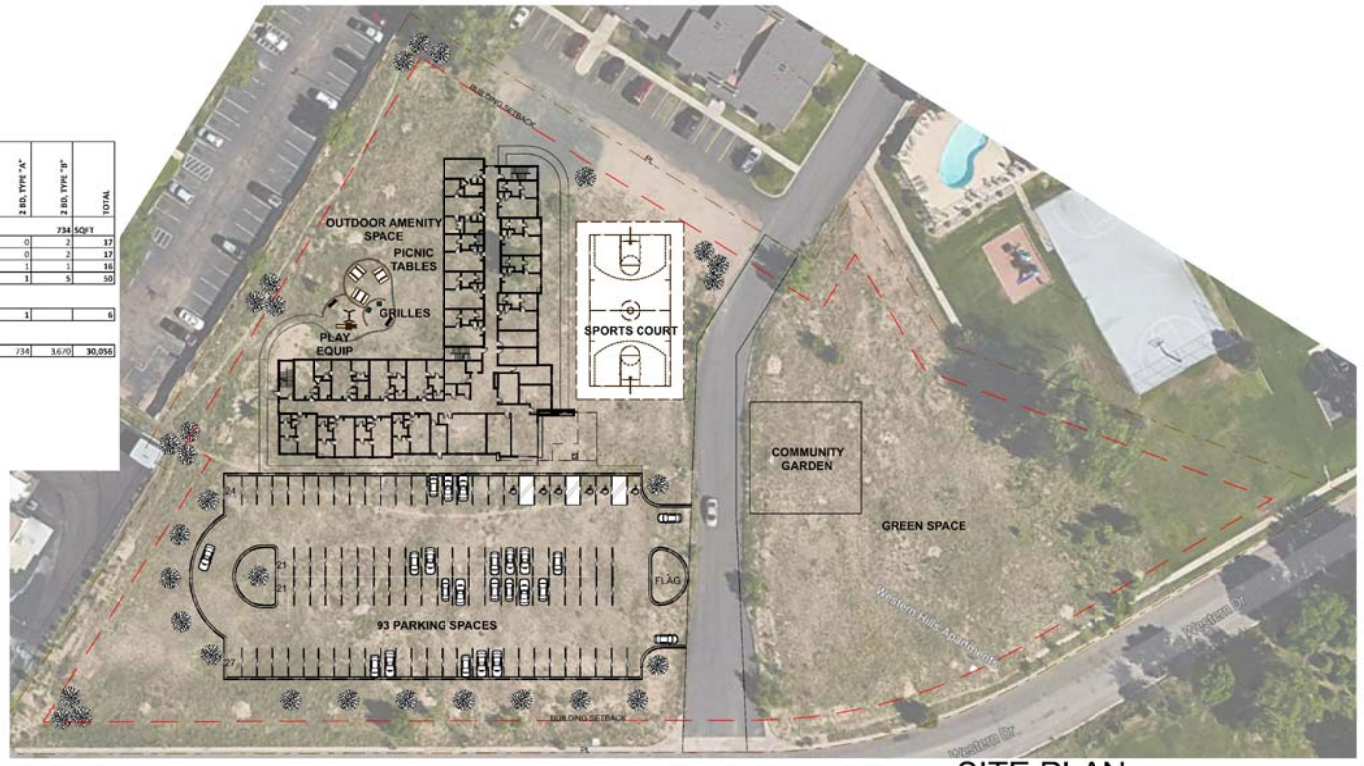
IMPERVIOUS
71,143 SQFT

OPEN SPACE
97,434.2 SQFT

PERCENTAGE OF OPEN SPACE:
58%

UNIT MATRIX	STUDIO, TYPE "A"	STUDIO, TYPE "B"	1 BD, TYPE "A"	1 BD, TYPE "B"	2 BD, TYPE "A"	2 BD, TYPE "B"	TOTAL
		469		601		734	SQFT
1st FLOOR	3	1	1	12	0	2	17
2ndFLOOR	0	2	1	12	0	2	17
3rdFLOOR	0	2	2	10	1	1	16
TOTAL	3	5	4	34	1	5	50
TYPE A	3		4		1		6
NET SQFT TOTALS:	469	2,345	2,404	20,434	734	3,670	30,056

GROSS SQFT	
1STFLOOR	17,446
2NDFLOOR	17,057
3RDFLOOR	14,715
TOTAL:	49,211 SQFT



SITE PLAN
SCALE: 1/64" = 1'-0"

THE VECINO GROUP
Housing for the greater good.

TRANSPORTATION CONSULTANTS, INC.

Figure 2
Site Plan
Freedom Springs (LSC #184090)

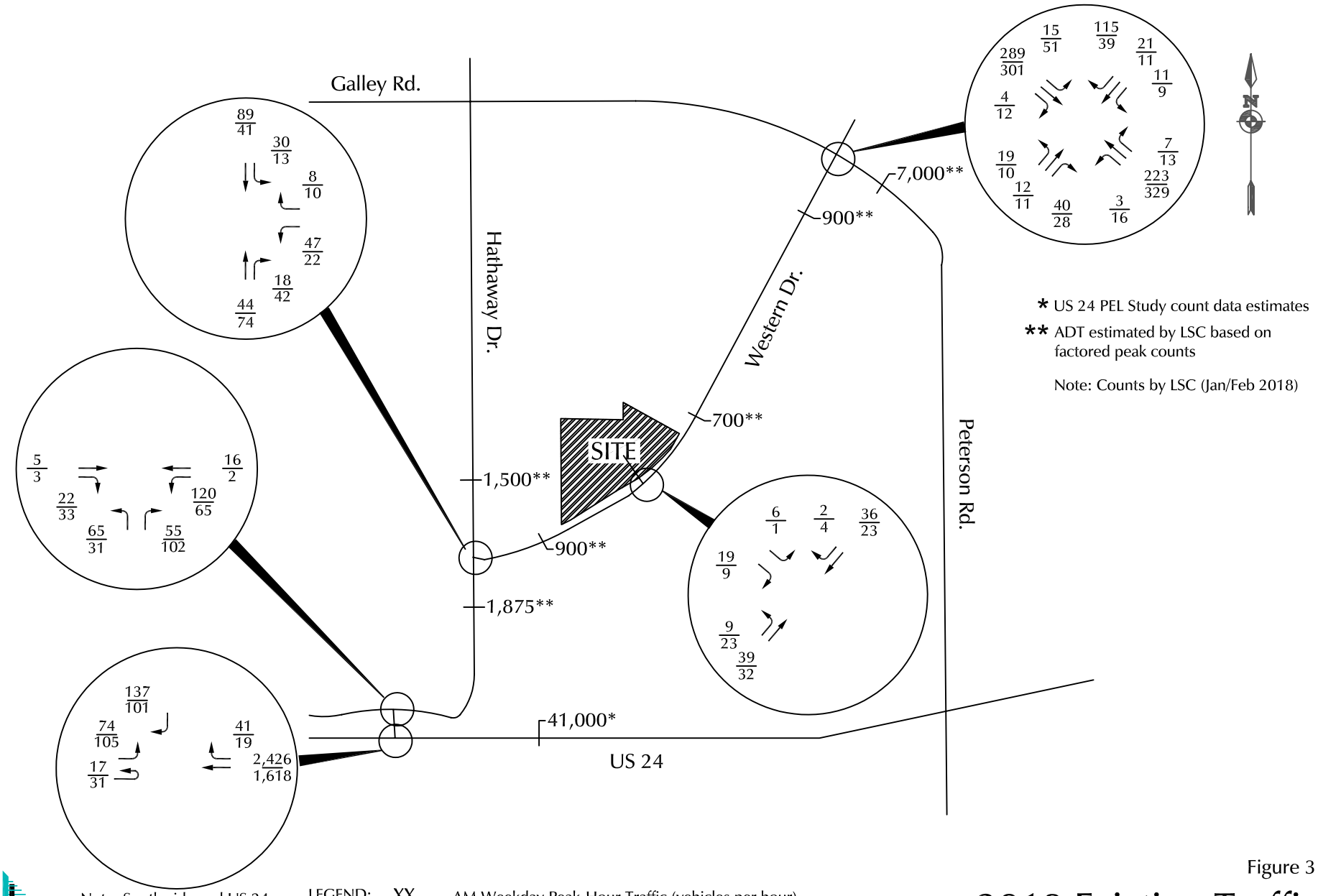
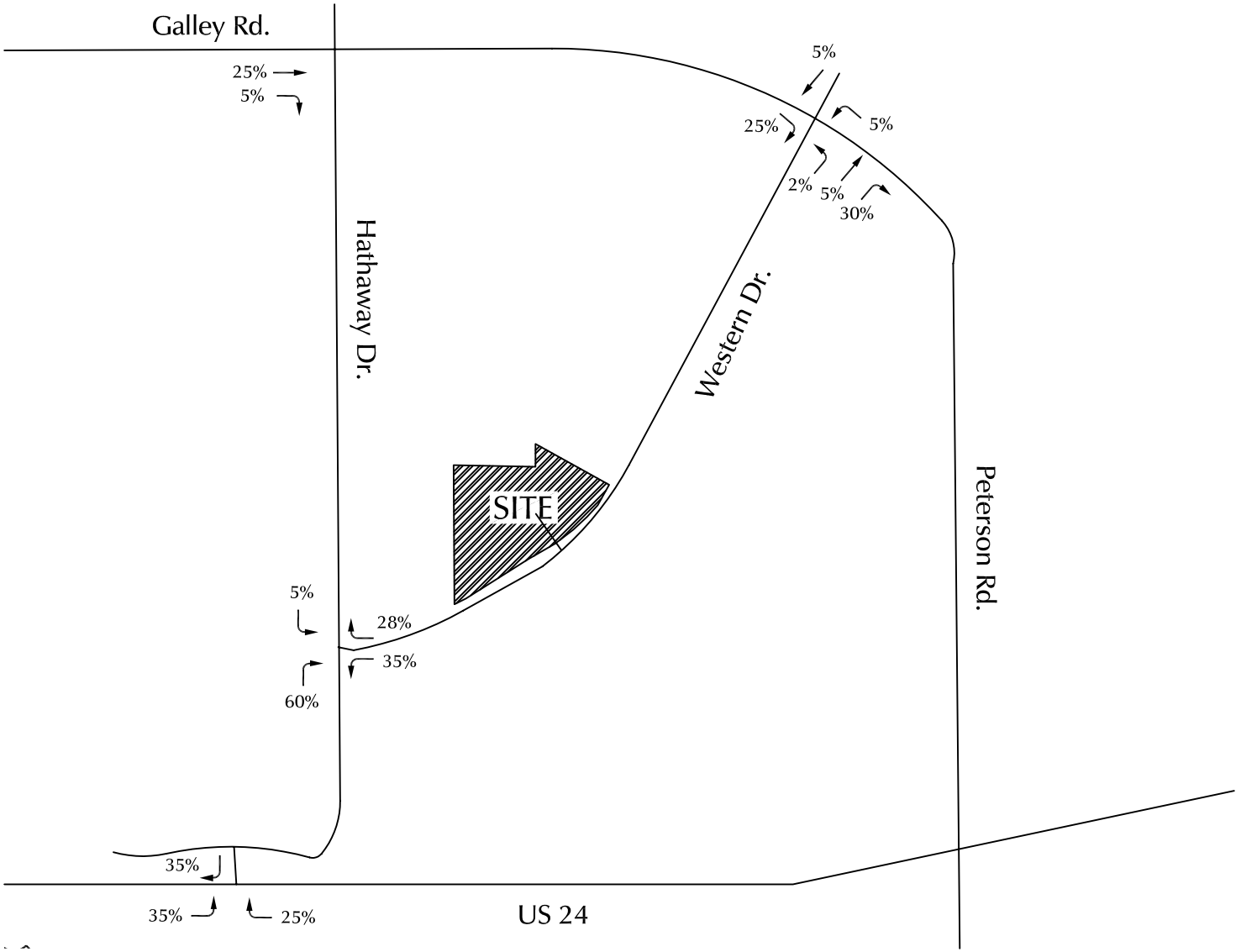


Figure 3

2018 Existing Traffic

Freedom Springs (LSC #184090)



LEGEND:

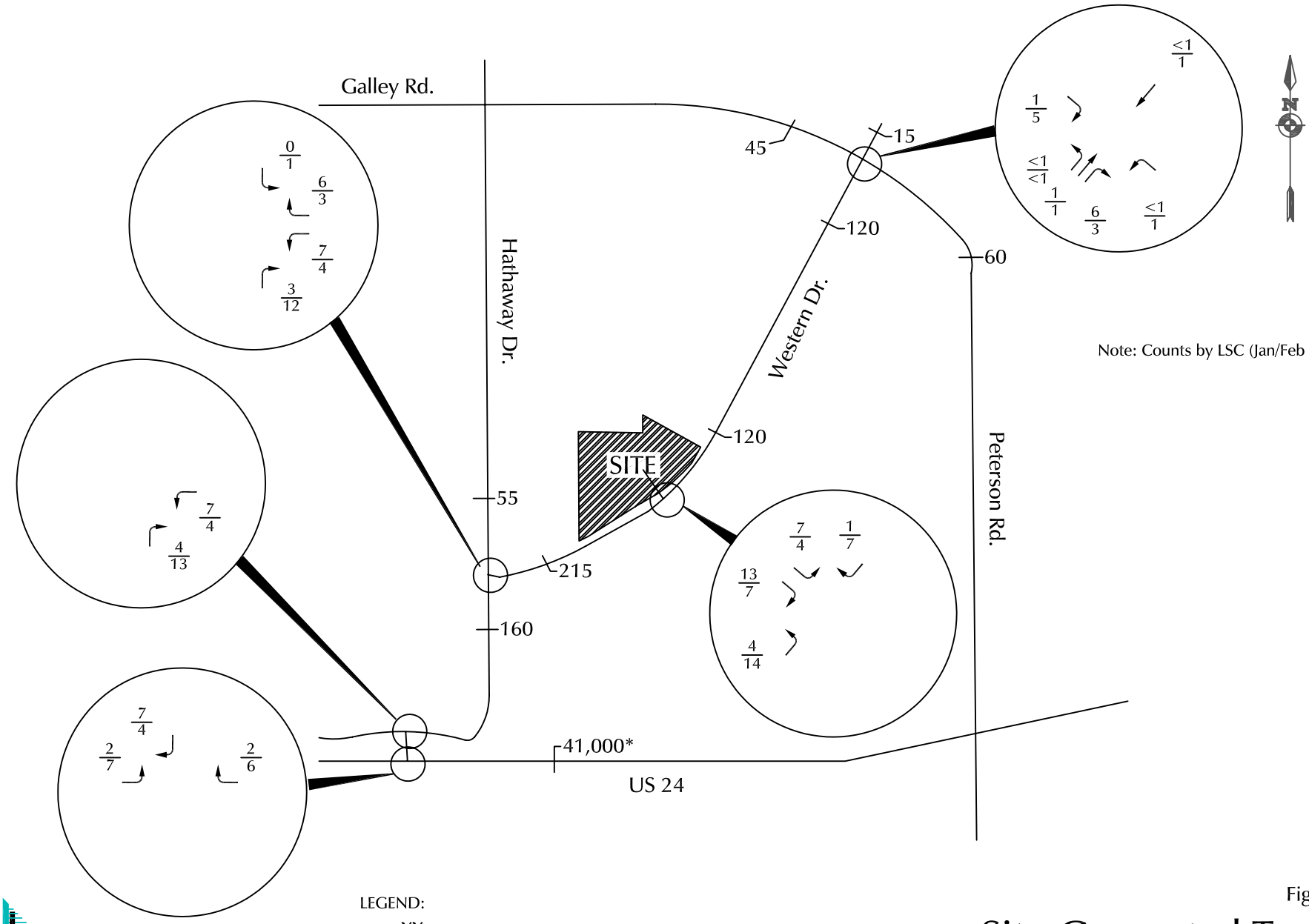
XX% = Percent Directional Distribution

Figure 4

Directional Distribution

Freedom Springs (LSC #184090)

LSC TRANSPORTATION CONSULTANTS, INC.



LEGEND:

$\frac{XX}{XX}$ = $\frac{\text{AM Weekday Peak-Hour Traffic (vehicles per hour)}}{\text{PM Weekday Peak-Hour Traffic (vehicles per hour)}}$

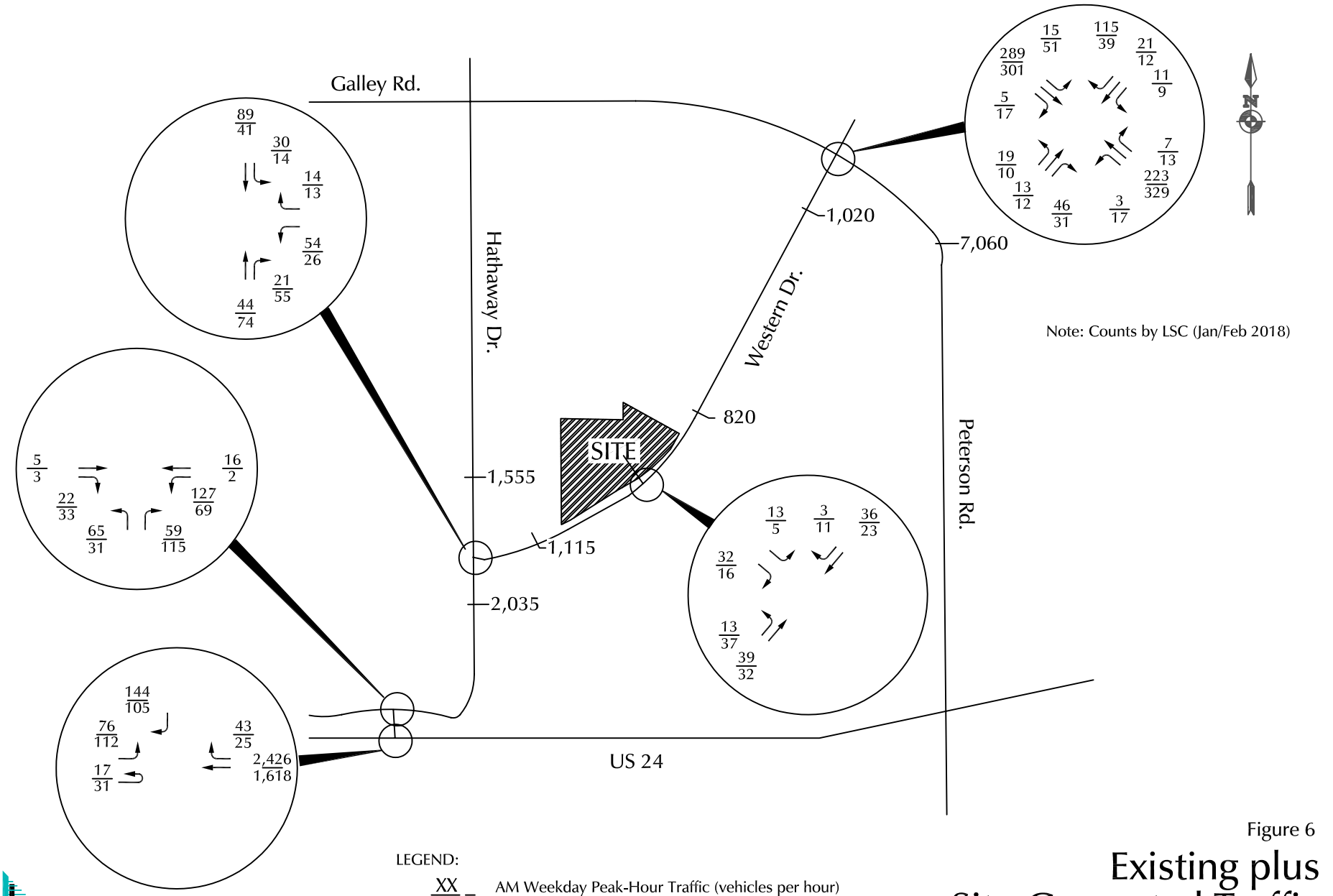
XX,XXX = Average Daily Traffic Volumes (ADTs)

LSC TRANSPORTATION CONSULTANTS, INC.

Figure 5

Site-Generated Traffic

Freedom Springs (LSC #184090)



Note: Counts by LSC (Jan/Feb 2018)

LEGEND:

$\frac{XX}{XX}$ = $\frac{\text{AM Weekday Peak-Hour Traffic (vehicles per hour)}}{\text{PM Weekday Peak-Hour Traffic (vehicles per hour)}}$

XX,XXX = Average Daily Traffic Volumes (ADTs)

Figure 6

Existing plus Site-Generated Traffic

Freedom Springs (LSC #184090)

LSC TRANSPORTATION CONSULTANTS, INC.

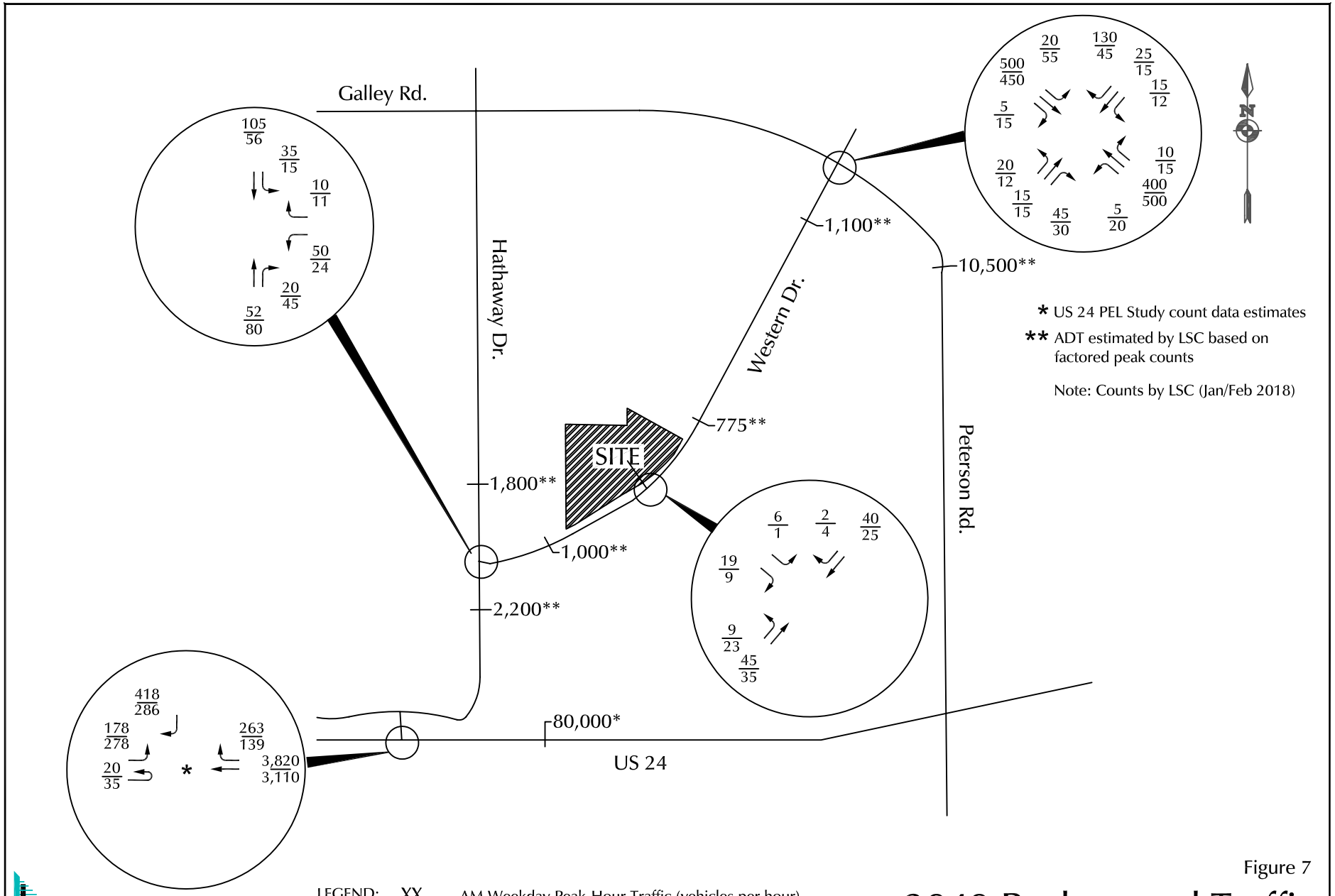
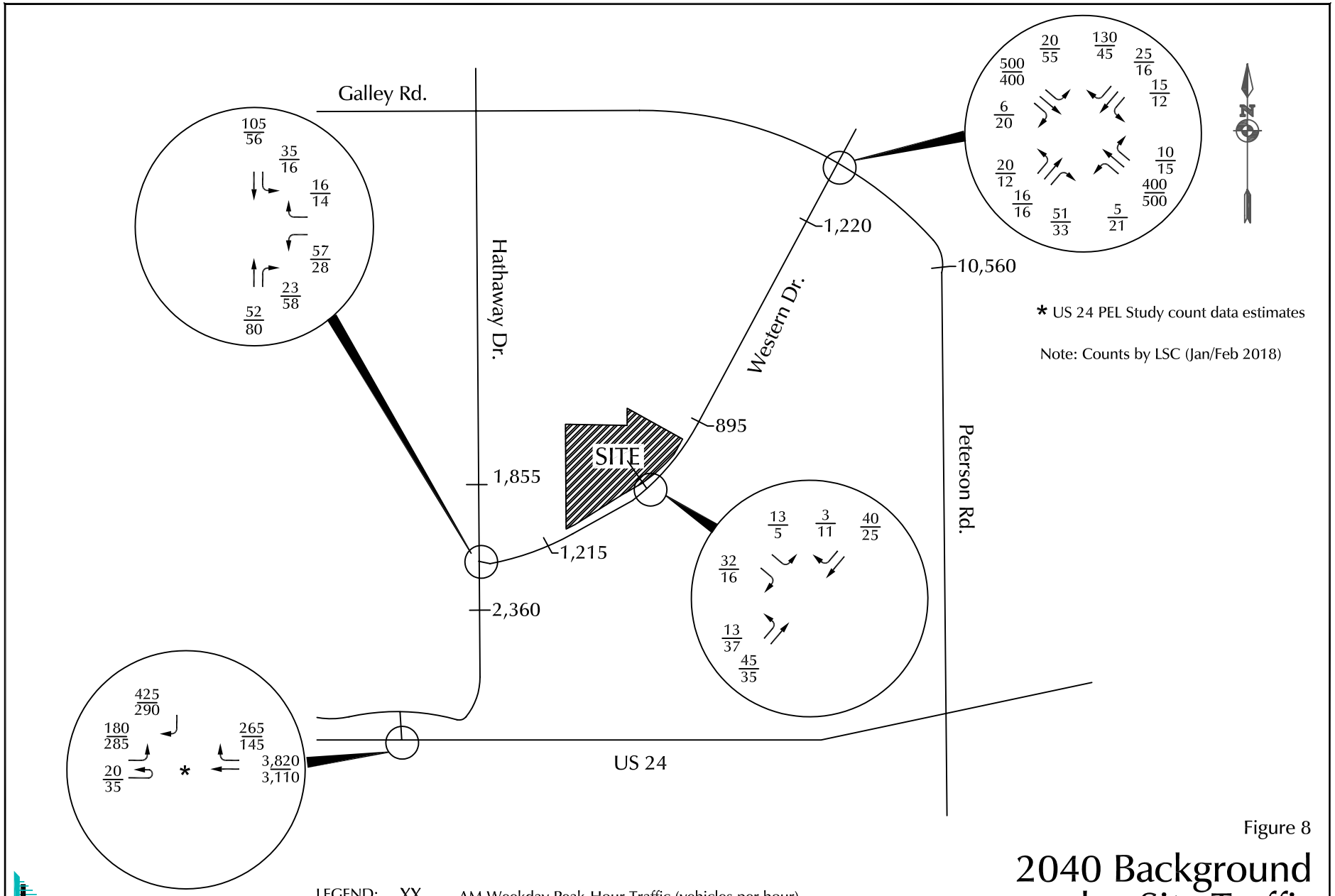


Figure 7

2040 Background Traffic

Freedom Springs (LSC #184090)

LSC TRANSPORTATION CONSULTANTS, INC.



LEGEND: $\frac{XX}{XX}$ = $\frac{\text{AM Weekday Peak-Hour Traffic (vehicles per hour)}}{\text{PM Weekday Peak-Hour Traffic (vehicles per hour)}}$

XX,XXX = Average Daily Traffic Volumes (ADTs)

Figure 8

2040 Background plus Site Traffic

Freedom Springs (LSC #184090)

LSC TRANSPORTATION CONSULTANTS, INC.

Counts by LSC

LSC Transportation Consultants, Inc.

File Name : Western Dr - Site Access AM
Site Code : 00184090
Start Date : 01/30/2018
Page No : 1

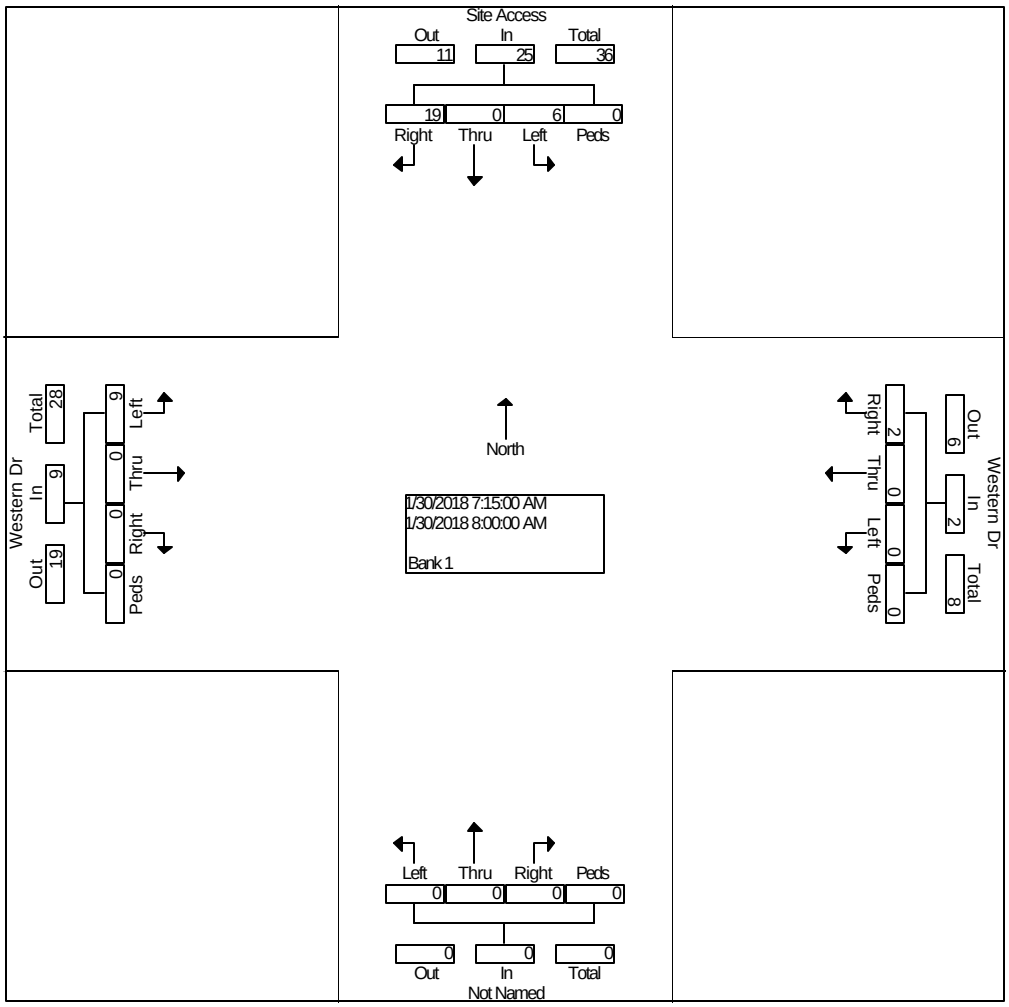
Groups Printed- Bank 1

	Site Access From North				Western Dr From East				From South				Western Dr From West				
Start Time	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Int. Total
Factor	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	
06:30 AM	3	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	5
06:45 AM	2	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	3
Total	5	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0	8
07:00 AM	2	0	2	0	0	0	0	0	0	0	0	0	0	0	1	0	5
07:15 AM	5	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	7
07:30 AM	8	0	1	0	0	0	0	0	0	0	0	0	0	0	2	0	11
07:45 AM	4	0	1	0	2	0	0	0	0	0	0	0	0	0	4	0	11
Total	19	0	6	0	2	0	0	0	0	0	0	0	0	0	7	0	34
08:00 AM	2	0	2	0	0	0	0	0	0	0	0	0	0	0	3	0	7
08:15 AM	2	0	2	0	1	0	0	0	0	0	0	0	0	0	1	0	6
Grand Total	28	0	10	0	3	0	0	0	0	0	0	0	0	0	14	0	55
Apprch %	73.7	0.0	26.3	0.0	100.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	100.0	0.0	
Total %	50.9	0.0	18.2	0.0	5.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	25.5	0.0	

Counts by LSC

File Name : Western Dr - Site Access AM
Site Code : 00184090
Start Date : 01/30/2018
Page No : 2

	Site Access From North					Western Dr From East					From South					Western Dr From West					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
Peak Hour From 06:30 AM to 08:15 AM - Peak 1 of 1																					
Intersection	07:15 AM																				
Volume	19	0	6	0	25	2	0	0	0	2	0	0	0	0	0	0	0	9	0	9	36
Percent	76.0	0.0	24.0	0.0		100.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	100.0	0.0		
07:45 Volume	4	0	1	0	5	2	0	0	0	2	0	0	0	0	0	0	0	4	0	4	11
Peak Factor																					0.818
High Int.	07:30 AM					07:45 AM					6:15:00 AM					07:45 AM					
Volume	8	0	1	0	9	2	0	0	0	2	0	0	0	0	0	0	0	4	0	4	
Peak Factor					0.694					0.250										0.563	



Counts by LSC

LSC Transportation Consultants, Inc.

File Name : Western Dr - Site Access PM
Site Code : 00184090
Start Date : 01/30/2018
Page No : 1

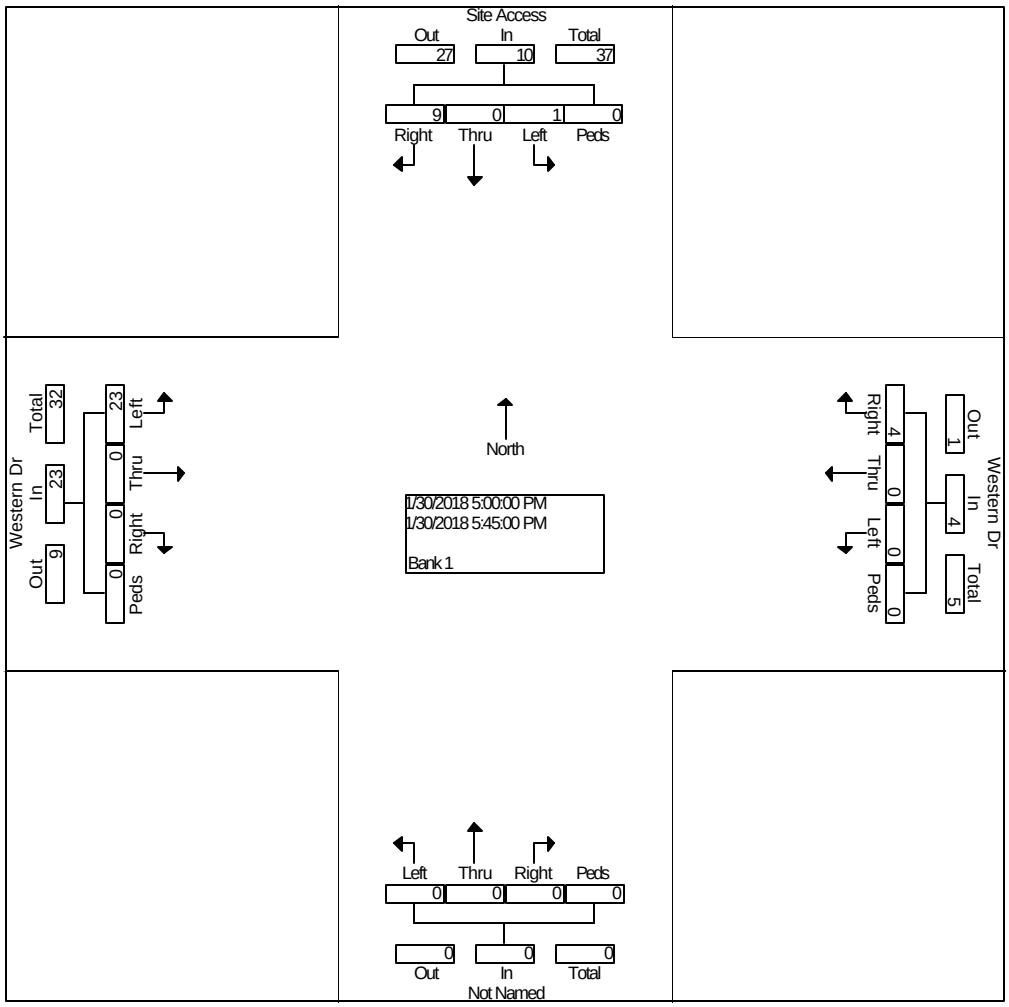
Groups Printed- Bank 1

	Site Access From North				Western Dr From East				From South				Western Dr From West				
Start Time	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Int. Total
Factor	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	
04:00 PM	2	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	4
04:15 PM	3	0	0	0	1	0	0	0	0	0	0	0	0	0	4	0	8
04:30 PM	2	0	0	0	1	0	0	0	0	0	0	0	0	0	1	0	4
04:45 PM	1	0	1	0	0	0	0	0	0	0	0	0	0	0	5	0	7
Total	8	0	1	0	2	0	0	0	0	0	0	0	0	0	12	0	23
05:00 PM	1	0	0	0	0	0	0	0	0	0	0	0	0	0	8	0	9
05:15 PM	2	0	0	0	3	0	0	0	0	0	0	0	0	0	8	0	13
05:30 PM	3	0	1	0	0	0	0	0	0	0	0	0	0	0	3	0	7
05:45 PM	3	0	0	0	1	0	0	0	0	0	0	0	0	0	4	0	8
Total	9	0	1	0	4	0	0	0	0	0	0	0	0	0	23	0	37
Grand Total	17	0	2	0	6	0	0	0	0	0	0	0	0	0	35	0	60
Apprch %	89.5	0.0	10.5	0.0	100.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	100.0	0.0	
Total %	28.3	0.0	3.3	0.0	10.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	58.3	0.0	

Counts by LSC

File Name : Western Dr - Site Access PM
Site Code : 00184090
Start Date : 01/30/2018
Page No : 2

	Site Access From North					Western Dr From East					From South					Western Dr From West					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
Peak Hour From 04:00 PM to 05:45 PM - Peak 1 of 1																					
Intersection	05:00 PM																				
Volume	9	0	1	0	10	4	0	0	0	4	0	0	0	0	0	0	0	23	0	23	37
Percent	90.0	0.0	10.0	0.0		100.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	100.0	0.0		
05:15 Volume	2	0	0	0	2	3	0	0	0	3	0	0	0	0	0	0	0	8	0	8	13
Peak Factor																					0.712
High Int.	05:30 PM					05:15 PM					3:45:00 PM					05:00 PM					
Volume	3	0	1	0	4	3	0	0	0	3	0	0	0	0	0	0	0	8	0	8	
Peak Factor					0.625					0.333										0.719	



Counts by LSC

LSC Transportation Consultants, Inc.

File Name : Hathaway Dr - Western Dr AM
Site Code : 00184090
Start Date : 01/30/2018
Page No : 1

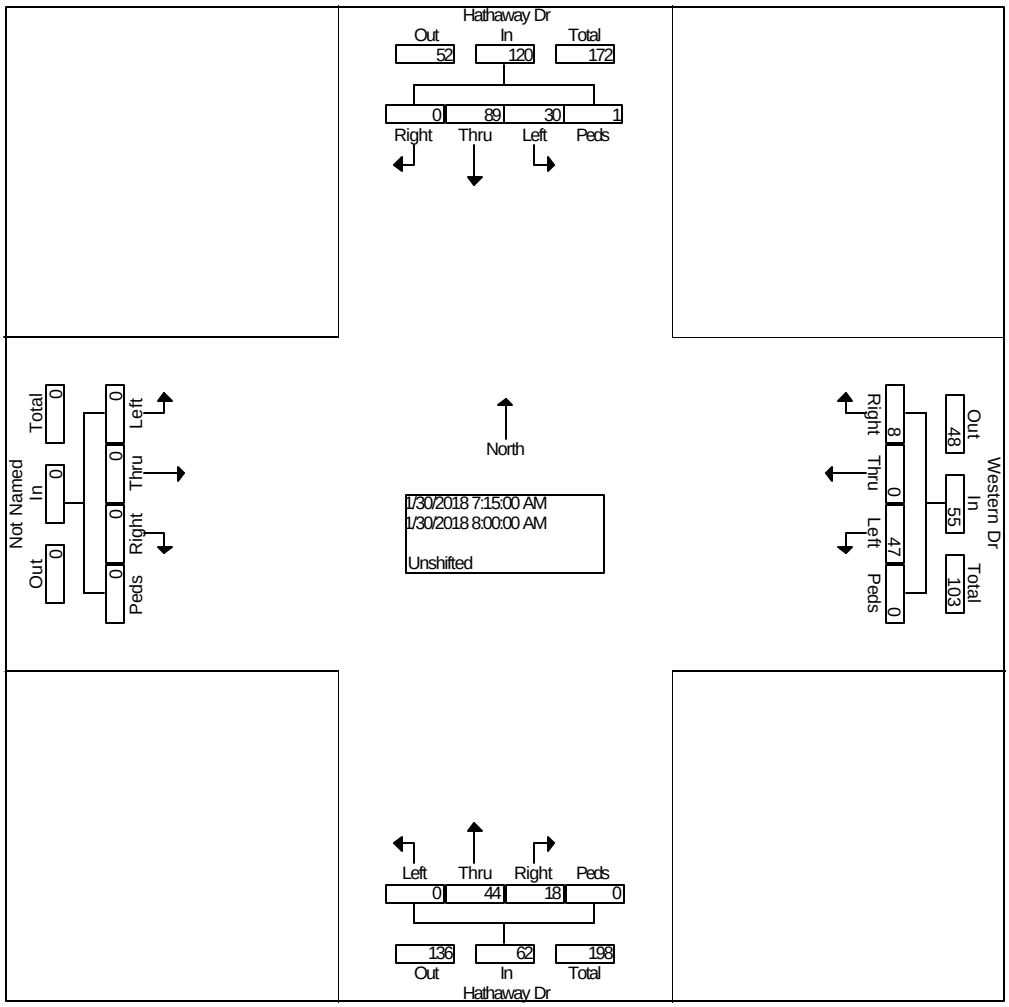
Groups Printed- Unshifted

	Hathaway Dr From North				Western Dr From East				Hathaway Dr From South				From West				
Start Time	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Int. Total
Factor	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	
06:30 AM	0	11	1	0	1	0	8	1	3	8	0	0	0	0	0	0	33
06:45 AM	0	10	2	0	1	0	5	0	2	5	0	0	0	0	0	0	25
Total	0	21	3	0	2	0	13	1	5	13	0	0	0	0	0	0	58
07:00 AM	0	12	2	0	2	0	6	0	0	7	0	0	0	0	0	0	29
07:15 AM	0	11	0	0	2	0	15	0	1	8	0	0	0	0	0	0	37
07:30 AM	0	28	7	0	2	0	15	0	7	12	0	0	0	0	0	0	71
07:45 AM	0	34	16	1	3	0	11	0	4	16	0	0	0	0	0	0	85
Total	0	85	25	1	9	0	47	0	12	43	0	0	0	0	0	0	222
08:00 AM	0	16	7	0	1	0	6	0	6	8	0	0	0	0	0	0	44
08:15 AM	0	16	2	0	1	0	7	0	3	4	0	0	0	0	0	0	33
Grand Total	0	138	37	1	13	0	73	1	26	68	0	0	0	0	0	0	357
Apprch %	0.0	78.4	21.0	0.6	14.9	0.0	83.9	1.1	27.7	72.3	0.0	0.0	0.0	0.0	0.0	0.0	
Total %	0.0	38.7	10.4	0.3	3.6	0.0	20.4	0.3	7.3	19.0	0.0	0.0	0.0	0.0	0.0	0.0	

Counts by LSC

File Name : Hathaway Dr - Western Dr AM
Site Code : 00184090
Start Date : 01/30/2018
Page No : 2

	Hathaway Dr From North					Western Dr From East					Hathaway Dr From South					From West					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
Peak Hour From 06:30 AM to 08:15 AM - Peak 1 of 1																					
Intersection	07:15 AM																				
Volume	0	89	30	1	120	8	0	47	0	55	18	44	0	0	62	0	0	0	0	0	237
Percent	0.0	74.2	25.0	0.8		14.5	0.0	85.5	0.0		29.0	71.0	0.0	0.0		0.0	0.0	0.0	0.0		
07:45 Volume	0	34	16	1	51	3	0	11	0	14	4	16	0	0	20	0	0	0	0	0	85
Peak Factor																					0.697
High Int.	07:45 AM					07:15 AM					07:45 AM					6:15:00 AM					
Volume	0	34	16	1	51	2	0	15	0	17	4	16	0	0	20						
Peak Factor					0.588					0.809					0.775						



Counts by LSC

LSC Transportation Consultants, Inc.

File Name : Hathaway Dr - Western Dr PM
Site Code : 00184090
Start Date : 01/30/2018
Page No : 1

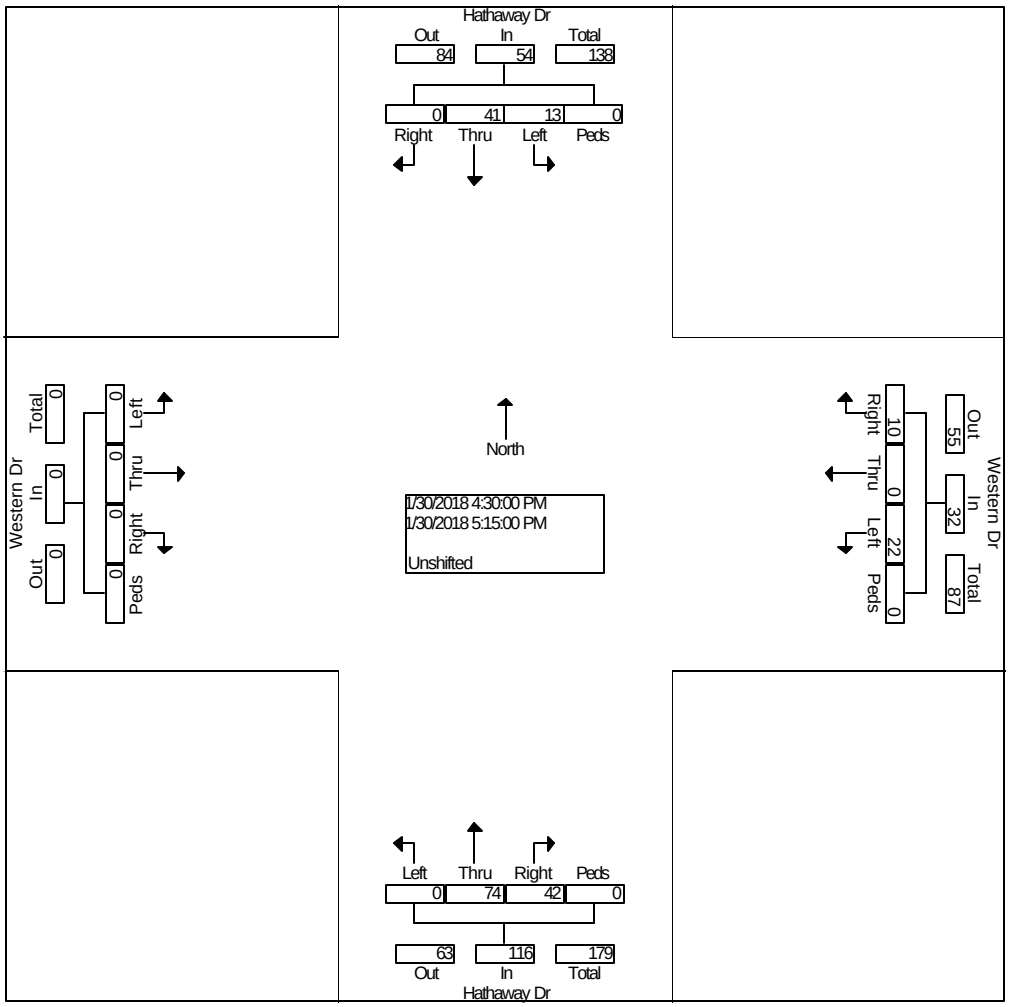
Groups Printed- Unshifted

	Hathaway Dr From North				Western Dr From East				Hathaway Dr From South				Western Dr From West				
Start Time	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Int. Total
Factor	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	
04:00 PM	0	13	2	0	2	0	5	0	7	18	0	0	0	0	0	0	47
04:15 PM	0	9	4	0	2	0	8	0	7	18	0	0	0	0	0	0	48
04:30 PM	0	12	3	0	4	0	6	0	8	19	0	0	0	0	0	0	52
04:45 PM	0	11	1	0	2	0	5	0	11	17	0	0	0	0	0	0	47
Total	0	45	10	0	10	0	24	0	33	72	0	0	0	0	0	0	194
05:00 PM	0	9	7	0	2	0	4	0	11	20	0	0	0	0	0	0	53
05:15 PM	0	9	2	0	2	0	7	0	12	18	0	0	0	0	0	0	50
05:30 PM	0	8	2	0	3	0	4	0	11	10	0	0	0	0	0	0	38
05:45 PM	0	4	1	0	1	0	7	0	6	10	0	0	0	0	0	0	29
Total	0	30	12	0	8	0	22	0	40	58	0	0	0	0	0	0	170
Grand Total	0	75	22	0	18	0	46	0	73	130	0	0	0	0	0	0	364
Apprch %	0.0	77.3	22.7	0.0	28.1	0.0	71.9	0.0	36.0	64.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total %	0.0	20.6	6.0	0.0	4.9	0.0	12.6	0.0	20.1	35.7	0.0	0.0	0.0	0.0	0.0	0.0	

Counts by LSC

File Name : Hathaway Dr - Western Dr PM
Site Code : 00184090
Start Date : 01/30/2018
Page No : 2

	Hathaway Dr From North					Western Dr From East					Hathaway Dr From South					Western Dr From West					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
Peak Hour From 04:00 PM to 05:45 PM - Peak 1 of 1																					
Intersection	04:30 PM																				
Volume	0	41	13	0	54	10	0	22	0	32	42	74	0	0	116	0	0	0	0	0	202
Percent	0.0	75.9	24.1	0.0		31.3	0.0	68.8	0.0		36.2	63.8	0.0	0.0		0.0	0.0	0.0	0.0		
05:00 Volume	0	9	7	0	16	2	0	4	0	6	11	20	0	0	31	0	0	0	0	0	53
Peak Factor																					0.953
High Int.	05:00 PM					04:30 PM					05:00 PM					3:45:00 PM					
Volume	0	9	7	0	16	4	0	6	0	10	11	20	0	0	31						
Peak Factor					0.844					0.800					0.935						



Counts by LSC

LSC Transportation Consultants, Inc.

File Name : Western Dr - Galley Rd AM
Site Code : 00184090
Start Date : 02/01/2018
Page No : 1

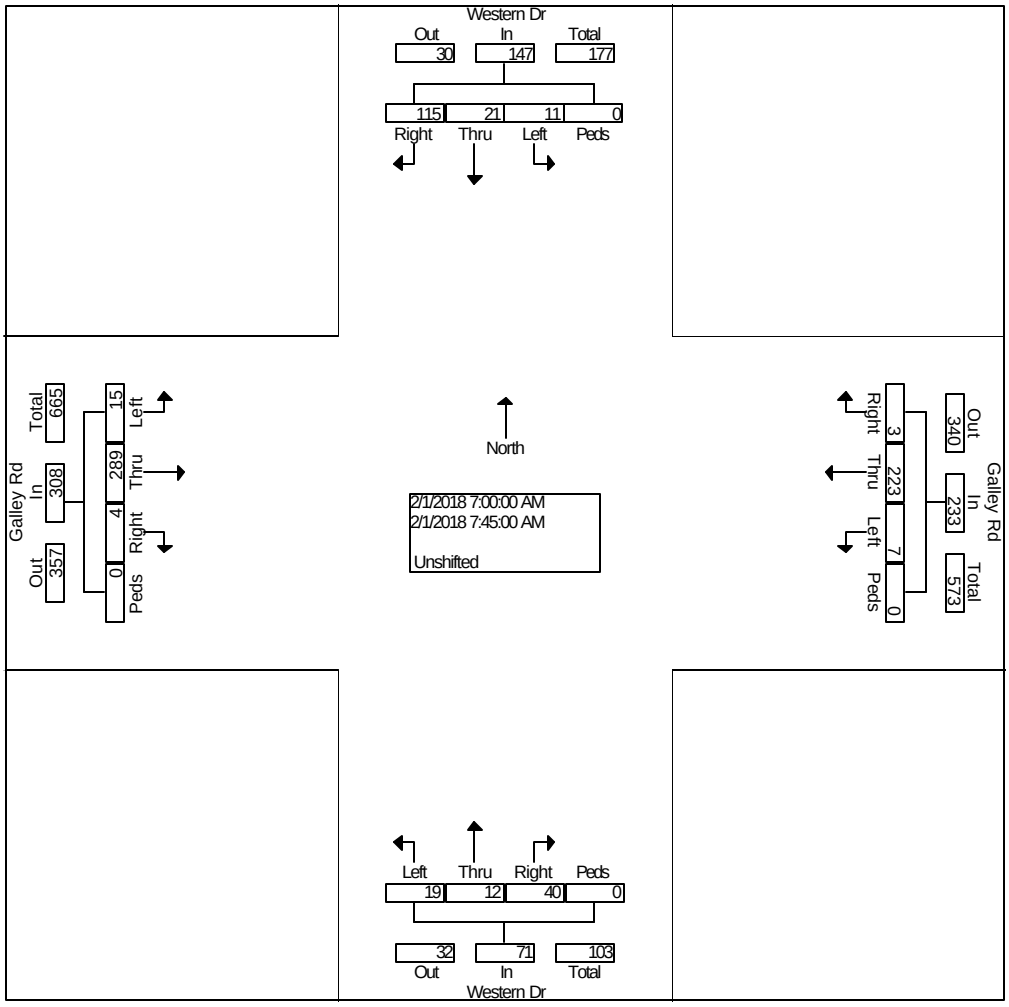
Groups Printed- Unshifted

	Western Dr From North				Galley Rd From East				Western Dr From South				Galley Rd From West				
Start Time	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Int. Total
Factor	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	
06:30 AM	14	2	7	0	0	17	1	0	4	1	0	0	1	65	3	0	115
06:45 AM	16	4	1	0	0	46	0	0	6	1	3	0	0	73	4	0	154
Total	30	6	8	0	0	63	1	0	10	2	3	0	1	138	7	0	269
07:00 AM	13	6	2	0	0	36	0	0	8	0	3	0	0	88	5	0	161
07:15 AM	30	4	4	0	1	50	2	0	11	0	1	0	1	77	2	0	183
07:30 AM	41	6	5	0	1	64	2	0	3	5	7	0	0	63	3	0	200
07:45 AM	31	5	0	0	1	73	3	0	18	7	8	0	3	61	5	0	215
Total	115	21	11	0	3	223	7	0	40	12	19	0	4	289	15	0	759
08:00 AM	13	4	1	0	0	37	1	0	4	1	3	0	2	71	7	0	144
08:15 AM	14	2	4	0	3	36	2	0	5	0	1	0	2	42	4	0	115
Grand Total	172	33	24	0	6	359	11	0	59	15	26	0	9	540	33	0	1287
Apprch %	75.1	14.4	10.5	0.0	1.6	95.5	2.9	0.0	59.0	15.0	26.0	0.0	1.5	92.8	5.7	0.0	
Total %	13.4	2.6	1.9	0.0	0.5	27.9	0.9	0.0	4.6	1.2	2.0	0.0	0.7	42.0	2.6	0.0	

Counts by LSC

File Name : Western Dr - Galley Rd AM
Site Code : 00184090
Start Date : 02/01/2018
Page No : 2

	Western Dr From North					Galley Rd From East					Western Dr From South					Galley Rd From West					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
Peak Hour From 06:30 AM to 08:15 AM - Peak 1 of 1																					
Intersection	07:00 AM																				
Volume	115	21	11	0	147	3	223	7	0	233	40	12	19	0	71	4	289	15	0	308	759
Percent	78.2	14.3	7.5	0.0		1.3	95.7	3.0	0.0		56.3	16.9	26.8	0.0		1.3	93.8	4.9	0.0		
07:45 Volume	31	5	0	0	36	1	73	3	0	77	18	7	8	0	33	3	61	5	0	69	215
Peak Factor																					0.883
High Int.	07:30 AM					07:45 AM					07:45 AM					07:00 AM					
Volume	41	6	5	0	52	1	73	3	0	77	18	7	8	0	33	0	88	5	0	93	
Peak Factor					0.707					0.756					0.538					0.828	



Counts by LSC

LSC Transportation Consultants, Inc.

File Name : Western Dr - Galley Rd PM
Site Code : 00184090
Start Date : 02/01/2018
Page No : 1

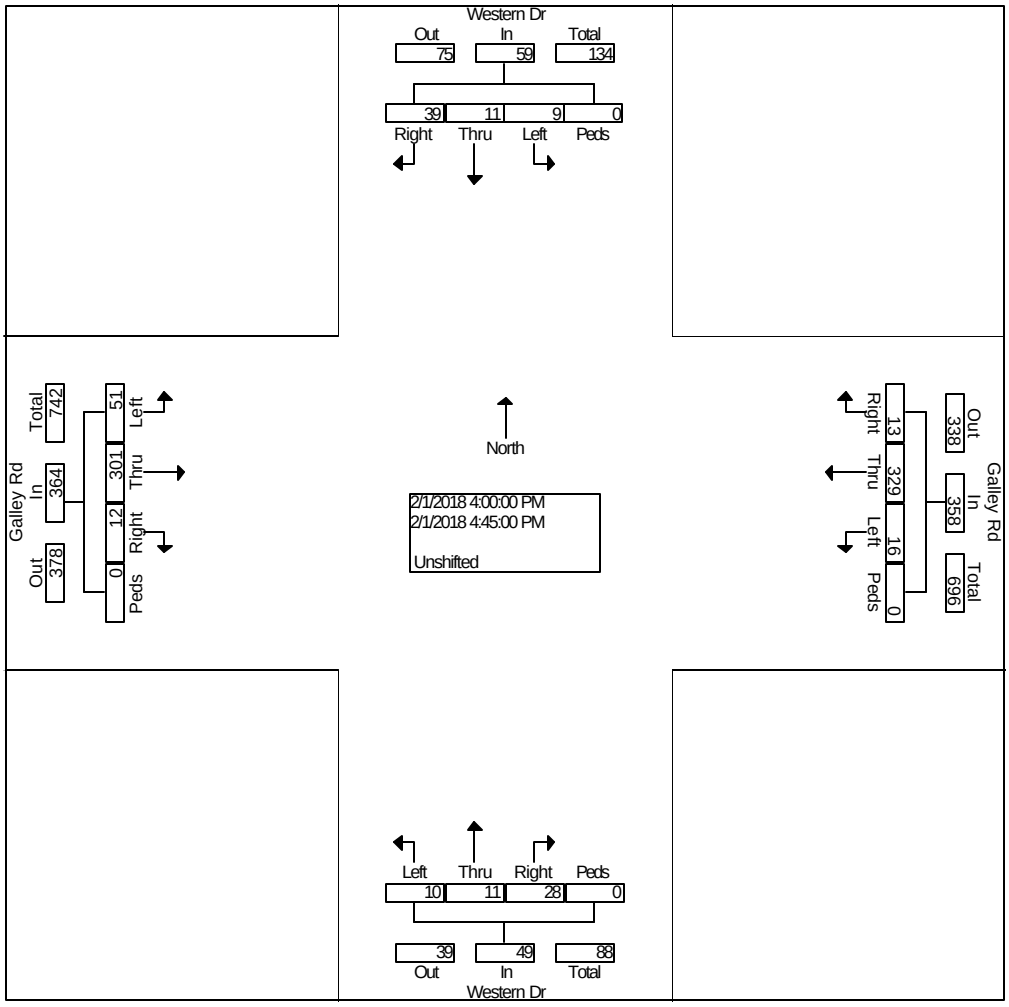
Groups Printed- Unshifted

	Western Dr From North				Galley Rd From East				Western Dr From South				Galley Rd From West				
Start Time	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Int. Total
Factor	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	
04:00 PM	5	1	1	0	4	92	1	0	4	3	1	0	1	79	16	0	208
04:15 PM	13	4	3	0	3	69	4	0	6	2	4	0	1	65	15	0	189
04:30 PM	9	2	3	0	4	92	5	0	7	2	4	0	7	88	9	0	232
04:45 PM	12	4	2	0	2	76	6	0	11	4	1	0	3	69	11	0	201
Total	39	11	9	0	13	329	16	0	28	11	10	0	12	301	51	0	830
05:00 PM	14	5	3	0	4	65	1	0	2	2	4	0	2	80	13	0	195
05:15 PM	13	0	0	0	2	49	4	0	7	4	3	0	7	48	10	0	147
05:30 PM	6	2	1	0	4	45	2	0	4	4	5	0	3	68	15	0	159
05:45 PM	5	2	1	0	3	47	2	0	3	4	4	0	2	57	14	0	144
Total	38	9	5	0	13	206	9	0	16	14	16	0	14	253	52	0	645
Grand Total	77	20	14	0	26	535	25	0	44	25	26	0	26	554	103	0	1475
Apprch %	69.4	18.0	12.6	0.0	4.4	91.3	4.3	0.0	46.3	26.3	27.4	0.0	3.8	81.1	15.1	0.0	
Total %	5.2	1.4	0.9	0.0	1.8	36.3	1.7	0.0	3.0	1.7	1.8	0.0	1.8	37.6	7.0	0.0	

Counts by LSC

File Name : Western Dr - Galley Rd PM
Site Code : 00184090
Start Date : 02/01/2018
Page No : 2

	Western Dr From North					Galley Rd From East					Western Dr From South					Galley Rd From West					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
Peak Hour From 04:00 PM to 05:45 PM - Peak 1 of 1																					
Intersection	04:00 PM																				
Volume	39	11	9	0	59	13	329	16	0	358	28	11	10	0	49	12	301	51	0	364	830
Percent	66.1	18.6	15.3	0.0		3.6	91.9	4.5	0.0		57.1	22.4	20.4	0.0		3.3	82.7	14.0	0.0		
04:30 Volume	9	2	3	0	14	4	92	5	0	101	7	2	4	0	13	7	88	9	0	104	232
Peak Factor																					0.894
High Int.	04:15 PM					04:30 PM					04:45 PM					04:30 PM					
Volume	13	4	3	0	20	4	92	5	0	101	11	4	1	0	16	7	88	9	0	104	
Peak Factor					0.738					0.886					0.766					0.875	



Counts by LSC

LSC Transportation Consultants, Inc.

File Name : US 24 - Hathaway Dr - US24 RIRO AM
Site Code : 00184090
Start Date : 01/31/2018
Page No : 1

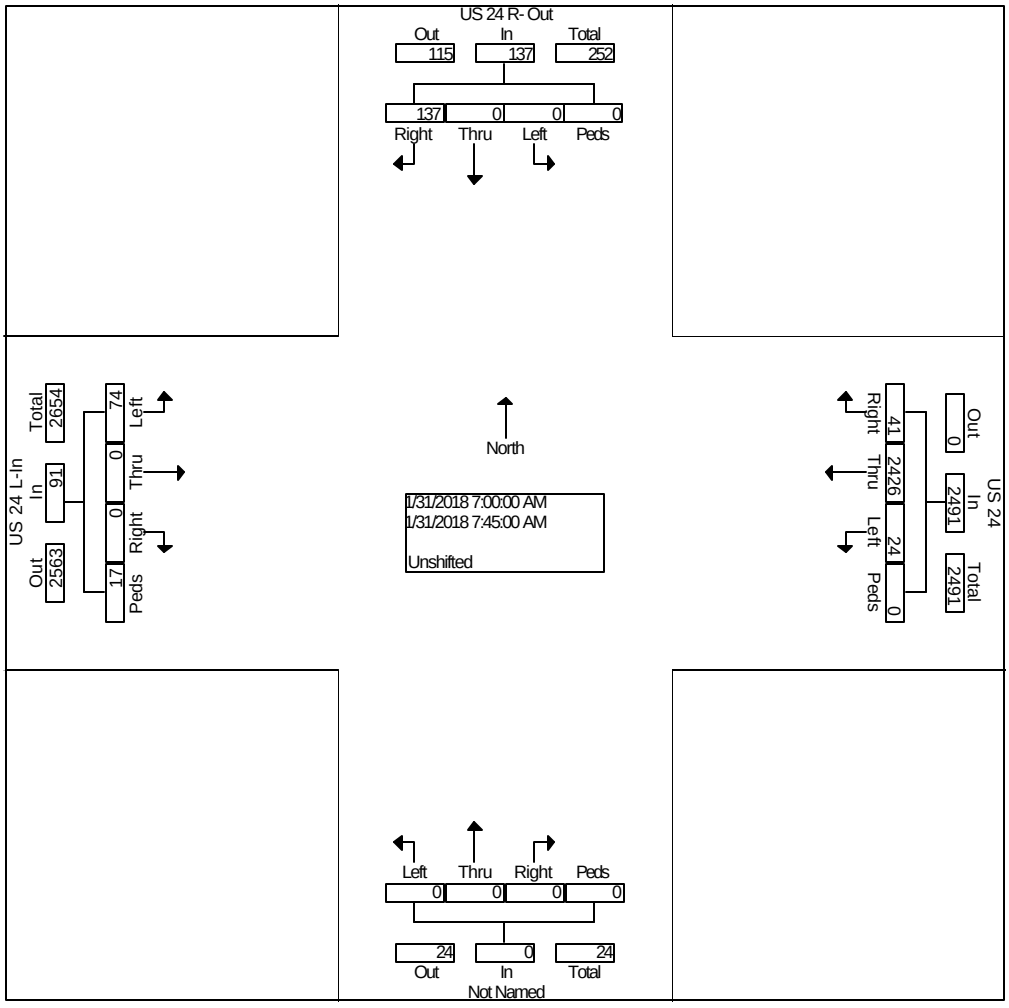
Groups Printed- Unshifted

	US 24 R- Out From North				US 24 From East				From South				US 24 L-In From West				
Start Time	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Int. Total
Factor	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	
06:30 AM	26	0	0	0	6	480	4	0	0	0	0	0	0	0	12	5	533
06:45 AM	21	0	0	0	4	502	7	0	0	0	0	0	0	0	19	5	558
Total	47	0	0	0	10	982	11	0	0	0	0	0	0	0	31	10	1091
07:00 AM	25	0	0	0	4	563	8	0	0	0	0	0	0	0	13	4	617
07:15 AM	30	0	0	0	11	706	7	0	0	0	0	0	0	0	12	5	771
07:30 AM	48	0	0	0	15	638	5	0	0	0	0	0	0	0	25	2	733
07:45 AM	34	0	0	0	11	519	4	0	0	0	0	0	0	0	24	6	598
Total	137	0	0	0	41	2426	24	0	0	0	0	0	0	0	74	17	2719
08:00 AM	29	0	0	0	2	438	6	0	0	0	0	0	0	0	20	9	504
08:15 AM	16	0	0	0	4	464	5	0	0	0	0	0	0	0	14	11	514
Grand Total	229	0	0	0	57	4310	46	0	0	0	0	0	0	0	139	47	4828
Apprch %	100.0	0.0	0.0	0.0	1.3	97.7	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	74.7	25.3	
Total %	4.7	0.0	0.0	0.0	1.2	89.3	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.9	1.0	

Counts by LSC

File Name : US 24 - Hathaway Dr - US24 RIRO AM
Site Code : 00184090
Start Date : 01/31/2018
Page No : 2

	US 24 R- Out From North					US 24 From East					From South					US 24 L-In From West					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
Peak Hour From 06:30 AM to 08:15 AM - Peak 1 of 1																					
Intersection	07:00 AM																				
Volume	137	0	0	0	137	41	2426	24	0	2491	0	0	0	0	0	0	0	74	17	91	2719
Percent	100.0	0.0	0.0	0.0		1.6	97.4	1.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	81.3	18.7		
07:15 Volume	30	0	0	0	30	11	706	7	0	724	0	0	0	0	0	0	0	12	5	17	771
Peak Factor																					0.882
High Int.	07:30 AM					07:15 AM					6:15:00 AM					07:45 AM					
Volume	48	0	0	0	48	11	706	7	0	724	0	0	0	0	0	0	0	24	6	30	
Peak Factor					0.714					0.860										0.758	



Counts by LSC

LSC Transportation Consultants, Inc.

File Name : US 24 - Hathaway Dr - US24 RIRO PM
Site Code : 00184090
Start Date : 01/31/2018
Page No : 1

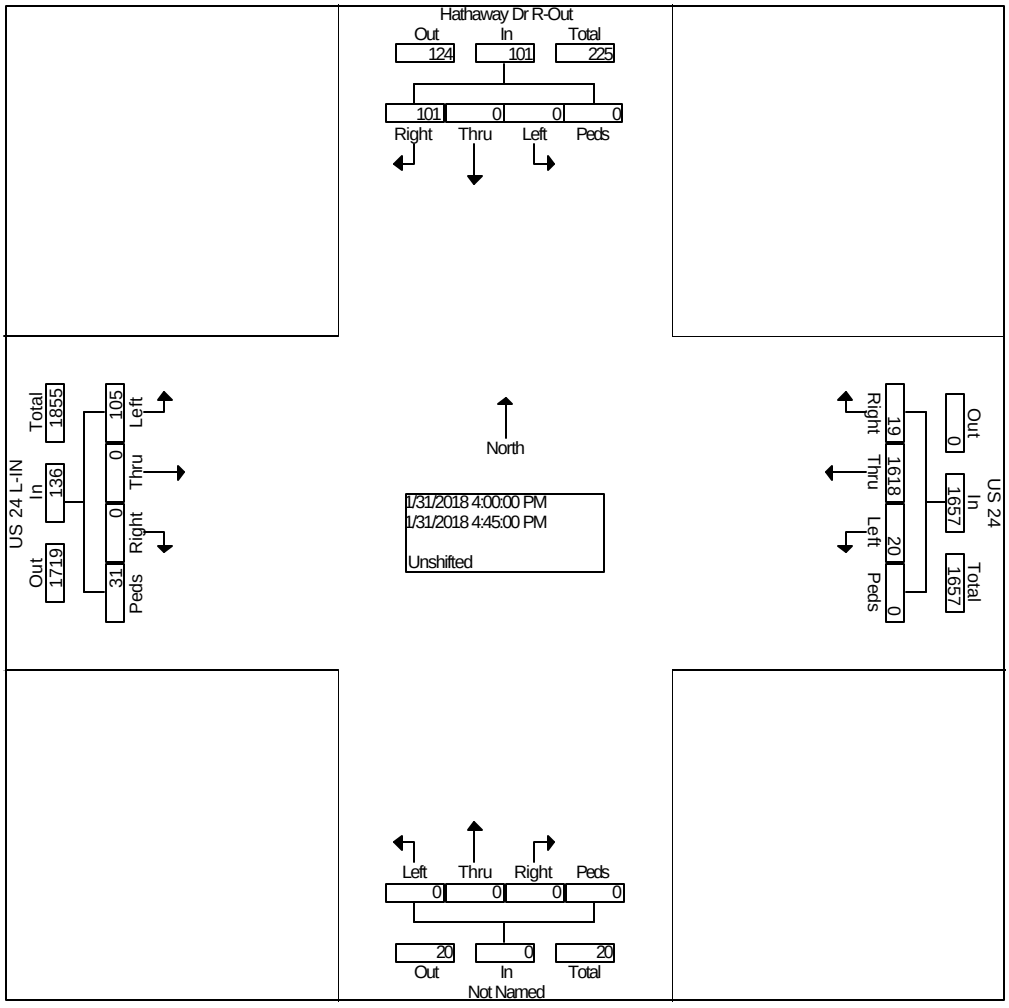
Groups Printed- Unshifted

	Hathaway Dr R-Out From North				US 24 From East				From South				US 24 L-IN From West				
Start Time	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Int. Total
Factor	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	
04:00 PM	31	0	0	0	5	394	7	0	0	0	0	0	0	0	33	16	486
04:15 PM	17	0	0	0	5	375	7	0	0	0	0	0	0	0	24	2	430
04:30 PM	32	0	0	0	6	422	4	0	0	0	0	0	0	0	16	3	483
04:45 PM	21	0	0	0	3	427	2	0	0	0	0	0	0	0	32	10	495
Total	101	0	0	0	19	1618	20	0	0	0	0	0	0	0	105	31	1894
05:00 PM	26	0	0	0	0	405	5	0	0	0	0	0	0	0	40	9	485
05:15 PM	20	0	0	0	4	359	2	0	0	0	0	0	0	0	32	6	423
05:30 PM	10	0	0	0	2	325	1	0	0	0	0	0	0	0	40	12	390
05:45 PM	14	0	0	0	5	300	3	0	0	0	0	0	0	0	11	7	340
Total	70	0	0	0	11	1389	11	0	0	0	0	0	0	0	123	34	1638
Grand Total	171	0	0	0	30	3007	31	0	0	0	0	0	0	0	228	65	3532
Apprch %	100.0	0.0	0.0	0.0	1.0	98.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	77.8	22.2	
Total %	4.8	0.0	0.0	0.0	0.8	85.1	0.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	6.5	1.8	

Counts by LSC

File Name : US 24 - Hathaway Dr - US24 RIRO PM
Site Code : 00184090
Start Date : 01/31/2018
Page No : 2

	Hathaway Dr R-Out From North					US 24 From East					From South					US 24 L-IN From West					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
Peak Hour From 04:00 PM to 05:45 PM - Peak 1 of 1																					
Intersection	04:00 PM																				
Volume	101	0	0	0	101	19	1618	20	0	1657	0	0	0	0	0	0	0	105	31	136	1894
Percent	100.0	0.0	0.0	0.0		1.1	97.6	1.2	0.0		0.0	0.0	0.0	0.0		0.0	0.0	77.2	22.8		
04:45 Volume	21	0	0	0	21	3	427	2	0	432	0	0	0	0	0	0	0	32	10	42	495
Peak Factor																					0.957
High Int.	04:30 PM					04:30 PM					3:45:00 PM					04:00 PM					
Volume	32	0	0	0	32	6	422	4	0	432	0	0	0	0	0	0	0	33	16	49	
Peak Factor					0.789					0.959										0.694	



Counts by LSC

LSC Transportation Consultants, Inc.

File Name : Hathaway Dr - US24 RIRO AM
Site Code : 00184090
Start Date : 01/31/2018
Page No : 1

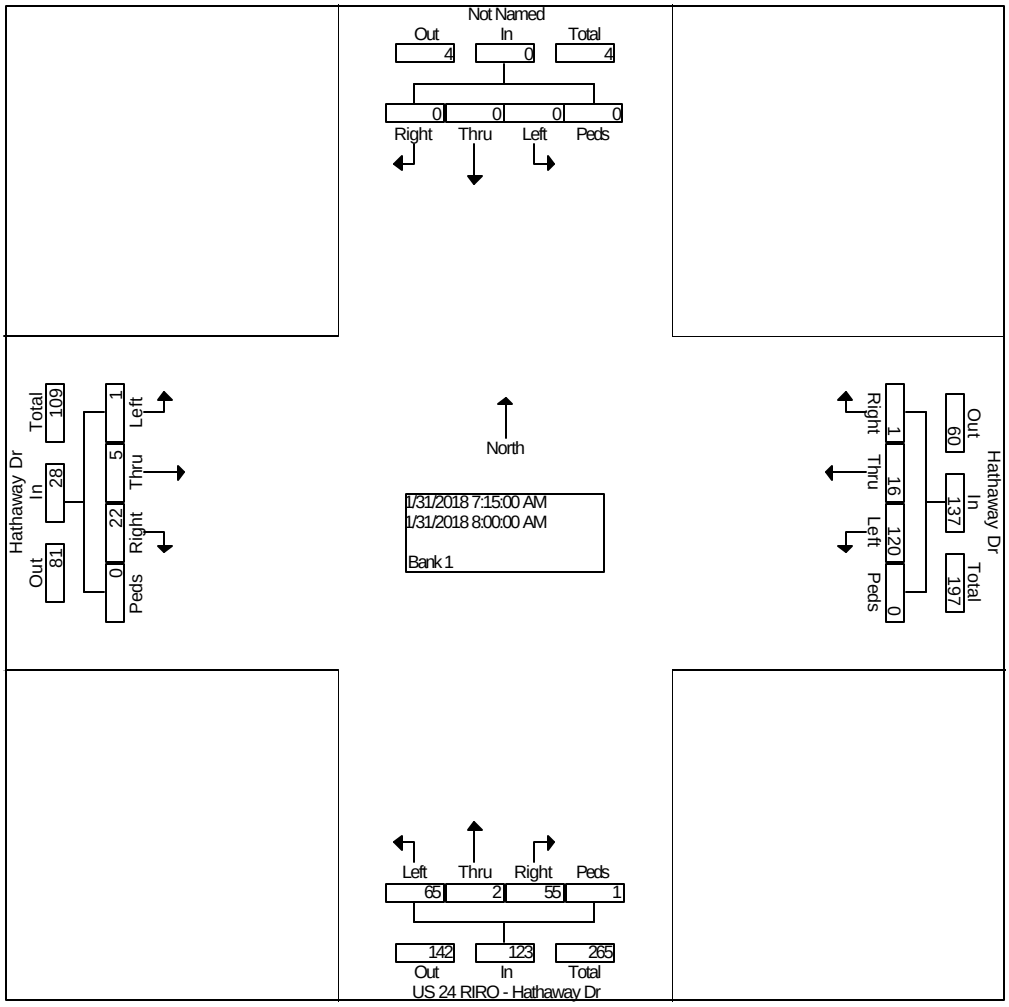
Groups Printed- Bank 1

	From North				Hathaway Dr From East				US 24 RIRO - Hathaway Dr From South				Hathaway Dr From West				
Start Time	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Int. Total
Factor	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	
06:30 AM	0	0	0	0	0	1	23	0	8	0	10	0	1	1	0	0	44
06:45 AM	0	0	0	0	0	1	19	0	10	0	13	0	2	1	0	0	46
Total	0	0	0	0	0	2	42	0	18	0	23	0	3	2	0	0	90
07:00 AM	0	0	0	0	0	1	24	0	7	0	10	0	0	0	0	0	42
07:15 AM	0	0	0	0	0	3	27	0	11	0	12	0	4	1	0	0	58
07:30 AM	0	0	0	0	1	2	42	0	21	0	22	0	7	1	1	0	97
07:45 AM	0	0	0	0	0	7	28	0	14	1	19	0	6	2	0	0	77
Total	0	0	0	0	1	13	121	0	53	1	63	0	17	4	1	0	274
08:00 AM	0	0	0	0	0	4	23	0	9	1	12	1	5	1	0	0	56
08:15 AM	0	0	0	0	0	0	13	0	8	0	9	0	3	2	0	0	35
Grand Total	0	0	0	0	1	19	199	0	88	2	107	1	28	9	1	0	455
Apprch %	0.0	0.0	0.0	0.0	0.5	8.7	90.9	0.0	44.4	1.0	54.0	0.5	73.7	23.7	2.6	0.0	
Total %	0.0	0.0	0.0	0.0	0.2	4.2	43.7	0.0	19.3	0.4	23.5	0.2	6.2	2.0	0.2	0.0	

Counts by LSC

File Name : Hathaway Dr - US24 RIRO AM
Site Code : 00184090
Start Date : 01/31/2018
Page No : 2

	From North					Hathaway Dr From East					US 24 RIRO - Hathaway Dr From South					Hathaway Dr From West					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
Peak Hour From 06:30 AM to 08:15 AM - Peak 1 of 1																					
Intersection	07:15 AM																				
Volume	0	0	0	0	0	1	16	120	0	137	55	2	65	1	123	22	5	1	0	28	288
Percent	0.0	0.0	0.0	0.0		0.7	11.7	87.6	0.0		44.7	1.6	52.8	0.8		78.6	17.9	3.6	0.0		
07:30 Volume	0	0	0	0	0	1	2	42	0	45	21	0	22	0	43	7	1	1	0	9	97
Peak Factor																					0.742
High Int.	6:15:00 AM					07:30 AM					07:30 AM					07:30 AM					
Volume	0	0	0	0	0	1	2	42	0	45	21	0	22	0	43	7	1	1	0	9	
Peak Factor										0.761					0.715					0.778	



Counts by LSC

LSC Transportation Consultants, Inc.

File Name : Hathaway Dr - US24 RIRO PM
Site Code : 00184090
Start Date : 01/31/2018
Page No : 1

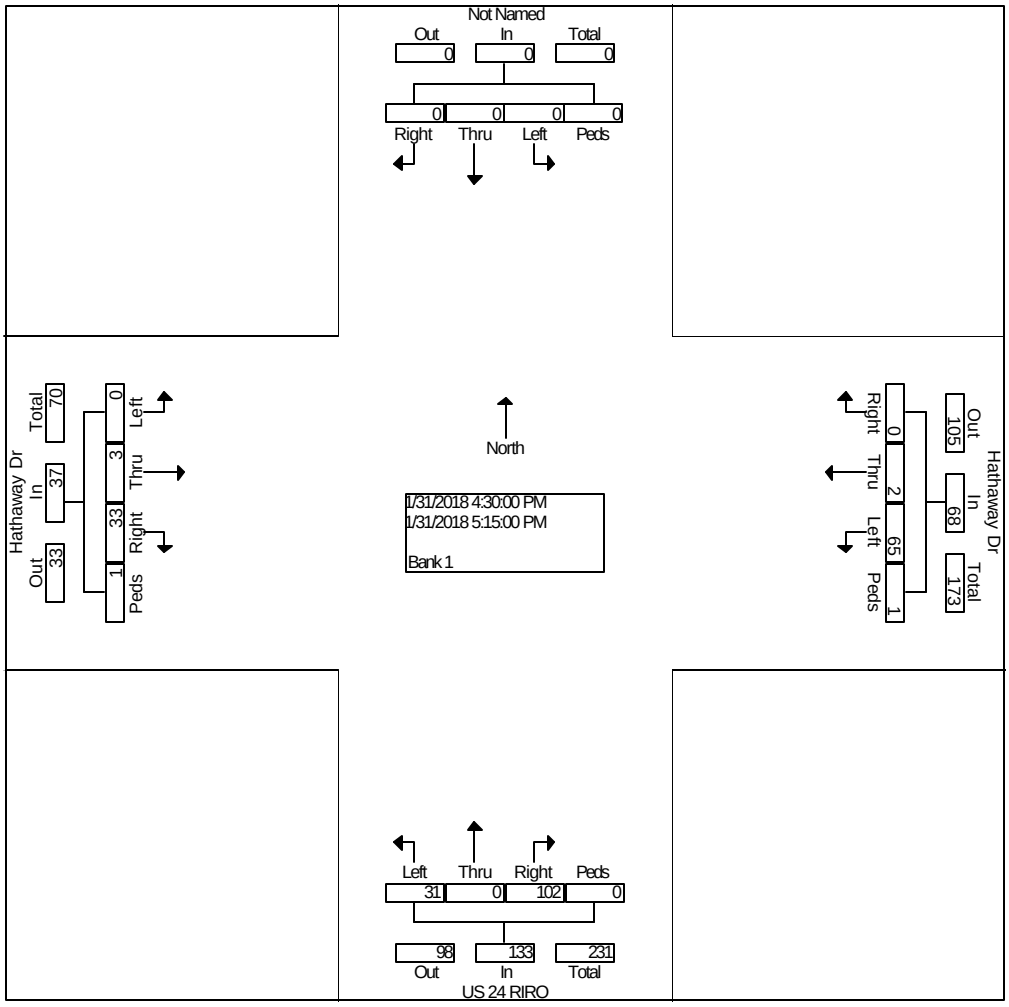
Groups Printed- Bank 1

	From North				Hathaway Dr From East				US 24 RIRO From South				Hathaway Dr From West				
Start Time	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Int. Total
Factor	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	
04:00 PM	0	0	0	0	0	0	19	0	17	0	9	1	11	3	0	0	60
04:15 PM	0	0	0	0	0	1	14	0	19	0	9	1	3	0	0	0	47
04:30 PM	0	0	0	0	0	0	22	0	14	0	9	0	10	0	0	0	55
04:45 PM	0	0	0	0	0	0	16	1	26	0	8	0	6	2	0	0	59
Total	0	0	0	0	0	1	71	1	76	0	35	2	30	5	0	0	221
05:00 PM	0	0	0	0	0	1	16	0	36	0	4	0	10	0	0	1	68
05:15 PM	0	0	0	0	0	1	11	0	26	0	10	0	7	1	0	0	56
05:30 PM	0	0	0	0	0	1	10	0	37	0	5	0	0	1	0	0	54
05:45 PM	0	0	0	0	0	1	12	0	10	0	6	0	2	0	0	0	31
Total	0	0	0	0	0	4	49	0	109	0	25	0	19	2	0	1	209
Grand Total	0	0	0	0	0	5	120	1	185	0	60	2	49	7	0	1	430
Apprch %	0.0	0.0	0.0	0.0	0.0	4.0	95.2	0.8	74.9	0.0	24.3	0.8	86.0	12.3	0.0	1.8	
Total %	0.0	0.0	0.0	0.0	0.0	1.2	27.9	0.2	43.0	0.0	14.0	0.5	11.4	1.6	0.0	0.2	

Counts by LSC

File Name : Hathaway Dr - US24 RIRO PM
Site Code : 00184090
Start Date : 01/31/2018
Page No : 2

	From North					Hathaway Dr From East					US 24 RIRO From South					Hathaway Dr From West					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
Peak Hour From 04:00 PM to 05:45 PM - Peak 1 of 1																					
Intersection	04:30 PM																				
Volume	0	0	0	0	0	0	2	65	1	68	102	0	31	0	133	33	3	0	1	37	238
Percent	0.0	0.0	0.0	0.0		0.0	2.9	95.6	1.5		76.7	0.0	23.3	0.0		89.2	8.1	0.0	2.7		
05:00 Volume	0	0	0	0	0	0	1	16	0	17	36	0	4	0	40	10	0	0	1	11	68
Peak Factor																					0.875
High Int.	3:45:00 PM					04:30 PM					05:00 PM					05:00 PM					
Volume	0	0	0	0	0	0	0	22	0	22	36	0	4	0	40	10	0	0	1	11	
Peak Factor										0.773					0.831					0.841	



Intersection	
Int Delay, s/veh	2.8

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	9	39	36	2	6	19
Future Vol, veh/h	9	39	36	2	6	19
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	75	75	81	81	69	69
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	12	52	44	2	9	28

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	46	0	-	0	121	45
Stage 1	-	-	-	-	45	-
Stage 2	-	-	-	-	76	-
Critical Hdwy	4.12	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	1562	-	-	-	874	1025
Stage 1	-	-	-	-	977	-
Stage 2	-	-	-	-	947	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1562	-	-	-	867	1025
Mov Cap-2 Maneuver	-	-	-	-	867	-
Stage 1	-	-	-	-	969	-
Stage 2	-	-	-	-	947	-

Approach	EB	WB	SB
HCM Control Delay, s	1.4	0	8.8
HCM LOS			A

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1562	-	-	-	982
HCM Lane V/C Ratio	0.008	-	-	-	0.037
HCM Control Delay (s)	7.3	0	-	-	8.8
HCM Lane LOS	A	A	-	-	A
HCM 95th %tile Q(veh)	0	-	-	-	0.1

Intersection	
Int Delay, s/veh	3.2

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	47	8	44	18	30	89
Future Vol, veh/h	47	8	44	18	30	89
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	81	81	78	78	59	59
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	58	10	56	23	51	151

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	321	68	0	0	79	0
Stage 1	68	-	-	-	-	-
Stage 2	253	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	673	995	-	-	1519	-
Stage 1	955	-	-	-	-	-
Stage 2	789	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	648	995	-	-	1519	-
Mov Cap-2 Maneuver	648	-	-	-	-	-
Stage 1	920	-	-	-	-	-
Stage 2	789	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	10.9	0	1.9
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	683	1519	-
HCM Lane V/C Ratio	-	-	0.099	0.033	-
HCM Control Delay (s)	-	-	10.9	7.5	0
HCM Lane LOS	-	-	B	A	A
HCM 95th %tile Q(veh)	-	-	0.3	0.1	-

Intersection	
Int Delay, s/veh	4.1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	15	289	4	3	223	7	19	12	40	11	21	115
Future Vol, veh/h	15	289	4	3	223	7	19	12	40	11	21	115
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	100	-	-	100	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	100	100	100	76	76	76	70	70	70	100	100	100
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	15	289	4	4	293	9	27	17	57	11	21	115

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	302	0	0	293	0	0	695	631	291	664	629	298
Stage 1	-	-	-	-	-	-	321	321	-	306	306	-
Stage 2	-	-	-	-	-	-	374	310	-	358	323	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1259	-	-	1269	-	-	357	398	748	374	399	741
Stage 1	-	-	-	-	-	-	691	652	-	704	662	-
Stage 2	-	-	-	-	-	-	647	659	-	660	650	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1259	-	-	1269	-	-	286	392	748	330	393	741
Mov Cap-2 Maneuver	-	-	-	-	-	-	286	392	-	330	393	-
Stage 1	-	-	-	-	-	-	683	644	-	696	660	-
Stage 2	-	-	-	-	-	-	528	657	-	586	642	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.4	0.1	14.7	12.8
HCM LOS			B	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	472	1259	-	-	1269	-	-	608
HCM Lane V/C Ratio	0.215	0.012	-	-	0.003	-	-	0.242
HCM Control Delay (s)	14.7	7.9	-	-	7.8	-	-	12.8
HCM Lane LOS	B	A	-	-	A	-	-	B
HCM 95th %tile Q(veh)	0.8	0	-	-	0	-	-	0.9

Intersection	
Int Delay, s/veh	23.8

Movement	EBU	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations							
Traffic Vol, veh/h	17	74	0	2426	41	0	137
Future Vol, veh/h	17	74	0	2426	41	0	137
Conflicting Peds, #/hr	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	-	None	-	None	-	Free
Storage Length	-	450	-	-	0	-	0
Veh in Median Storage, #	-	-	0	0	-	0	-
Grade, %	-	-	0	0	-	0	-
Peak Hour Factor	76	76	76	84	84	71	71
Heavy Vehicles, %	2	2	2	2	2	2	2
Mvmt Flow	22	97	0	2888	49	0	193

Major/Minor	Major1		Major2		Minor2		
Conflicting Flow All	2888	2937	0	-	0	-	-
Stage 1	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-
Critical Hdwy	6.44	4.14	-	-	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-	-
Follow-up Hdwy	2.52	2.22	-	-	-	-	-
Pot Cap-1 Maneuver	~ 19	120	-	-	-	0	0
Stage 1	-	-	-	-	-	0	0
Stage 2	-	-	-	-	-	0	0
Platoon blocked, %			-	-	-		
Mov Cap-1 Maneuver	60	~ 60	-	-	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-

Approach	EB	WB	SB
HCM Control Delay, s	$ 608.2	0	0
HCM LOS			A

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	~ 60	-	-	-	-
HCM Lane V/C Ratio	1.996	-	-	-	-
HCM Control Delay (s)	$ 608.2	-	-	-	0
HCM Lane LOS	F	-	-	-	A
HCM 95th %tile Q(veh)	11.4	-	-	-	-

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

Intersection	
Int Delay, s/veh	2.9

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	23	32	23	4	1	9
Future Vol, veh/h	23	32	23	4	1	9
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	85	85	80	80	63	63
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	27	38	29	5	2	14

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	34	0	-	0	124	32
Stage 1	-	-	-	-	32	-
Stage 2	-	-	-	-	92	-
Critical Hdwy	4.12	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	1578	-	-	-	871	1042
Stage 1	-	-	-	-	991	-
Stage 2	-	-	-	-	932	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1578	-	-	-	856	1042
Mov Cap-2 Maneuver	-	-	-	-	856	-
Stage 1	-	-	-	-	974	-
Stage 2	-	-	-	-	932	-

Approach	EB	WB	SB
HCM Control Delay, s	3.1	0	8.6
HCM LOS			A

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1578	-	-	-	1020
HCM Lane V/C Ratio	0.017	-	-	-	0.016
HCM Control Delay (s)	7.3	0	-	-	8.6
HCM Lane LOS	A	A	-	-	A
HCM 95th %tile Q(veh)	0.1	-	-	-	0

Intersection	
Int Delay, s/veh	2.2

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	22	10	74	42	13	41
Future Vol, veh/h	22	10	74	42	13	41
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	80	80	94	94	84	84
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	28	13	79	45	15	49

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	181	102	0	0	124	0
Stage 1	102	-	-	-	-	-
Stage 2	79	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	808	953	-	-	1463	-
Stage 1	922	-	-	-	-	-
Stage 2	944	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	799	953	-	-	1463	-
Mov Cap-2 Maneuver	799	-	-	-	-	-
Stage 1	912	-	-	-	-	-
Stage 2	944	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	9.5	0	1.8
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	841	1463	-
HCM Lane V/C Ratio	-	-	0.048	0.011	-
HCM Control Delay (s)	-	-	9.5	7.5	0
HCM Lane LOS	-	-	A	A	A
HCM 95th %tile Q(veh)	-	-	0.1	0	-

Intersection	
Int Delay, s/veh	3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	51	301	12	16	329	13	10	11	28	9	11	39
Future Vol, veh/h	51	301	12	16	329	13	10	11	28	9	11	39
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	100	-	-	100	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	100	100	100	100	100	100	77	77	77	74	74	74
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	51	301	12	16	329	13	13	14	36	12	15	53

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	342	0	0	313	0	0	811	783	307	802	783	336
Stage 1	-	-	-	-	-	-	409	409	-	368	368	-
Stage 2	-	-	-	-	-	-	402	374	-	434	415	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1217	-	-	1247	-	-	298	325	733	302	325	706
Stage 1	-	-	-	-	-	-	619	596	-	652	621	-
Stage 2	-	-	-	-	-	-	625	618	-	600	592	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1217	-	-	1247	-	-	255	307	733	265	307	706
Mov Cap-2 Maneuver	-	-	-	-	-	-	255	307	-	265	307	-
Stage 1	-	-	-	-	-	-	593	571	-	625	613	-
Stage 2	-	-	-	-	-	-	557	610	-	533	567	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	1.1	0.4	14.7	14.2
HCM LOS			B	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	433	1217	-	-	1247	-	-	472
HCM Lane V/C Ratio	0.147	0.042	-	-	0.013	-	-	0.169
HCM Control Delay (s)	14.7	8.1	-	-	7.9	-	-	14.2
HCM Lane LOS	B	A	-	-	A	-	-	B
HCM 95th %tile Q(veh)	0.5	0.1	-	-	0	-	-	0.6

Intersection	
Int Delay, s/veh	4.2

Movement	EBU	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations							
Traffic Vol, veh/h	31	105	0	1618	19	0	101
Future Vol, veh/h	31	105	0	1618	19	0	101
Conflicting Peds, #/hr	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	-	None	-	None	-	Free
Storage Length	-	450	-	-	0	-	0
Veh in Median Storage, #	-	-	0	0	-	0	-
Grade, %	-	-	0	0	-	0	-
Peak Hour Factor	81	81	81	95	95	79	79
Heavy Vehicles, %	2	2	2	2	2	2	2
Mvmt Flow	38	130	0	1703	20	0	128

Major/Minor	Major1		Major2		Minor2		
Conflicting Flow All	1703	1723	0	-	0	-	-
Stage 1	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-
Critical Hdwy	6.44	4.14	-	-	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-	-
Follow-up Hdwy	2.52	2.22	-	-	-	-	-
Pot Cap-1 Maneuver	116	363	-	-	-	0	0
Stage 1	-	-	-	-	-	0	0
Stage 2	-	-	-	-	-	0	0
Platoon blocked, %			-	-	-		
Mov Cap-1 Maneuver	244	244	-	-	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-

Approach	EB	WB	SB
HCM Control Delay, s	46.8	0	0
HCM LOS			A

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	244	-	-	-	-
HCM Lane V/C Ratio	0.688	-	-	-	-
HCM Control Delay (s)	46.8	-	-	-	0
HCM Lane LOS	E	-	-	-	A
HCM 95th %tile Q(veh)	4.5	-	-	-	-

Intersection	
Int Delay, s/veh	3.9

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	13	39	36	3	13	32
Future Vol, veh/h	13	39	36	3	13	32
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	75	75	81	81	69	69
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	17	52	44	4	19	46

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	48	0	-	0	132	46
Stage 1	-	-	-	-	46	-
Stage 2	-	-	-	-	86	-
Critical Hdwy	4.12	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	1559	-	-	-	862	1023
Stage 1	-	-	-	-	976	-
Stage 2	-	-	-	-	937	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1559	-	-	-	853	1023
Mov Cap-2 Maneuver	-	-	-	-	853	-
Stage 1	-	-	-	-	965	-
Stage 2	-	-	-	-	937	-

Approach	EB	WB	SB
HCM Control Delay, s	1.8	0	9
HCM LOS			A

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1559	-	-	-	967
HCM Lane V/C Ratio	0.011	-	-	-	0.067
HCM Control Delay (s)	7.3	0	-	-	9
HCM Lane LOS	A	A	-	-	A
HCM 95th %tile Q(veh)	0	-	-	-	0.2

Intersection	
Int Delay, s/veh	3.5

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	54	14	44	21	30	89
Future Vol, veh/h	54	14	44	21	30	89
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	81	81	78	78	59	59
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	67	17	56	27	51	151

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	323	70	0	0	83	0
Stage 1	70	-	-	-	-	-
Stage 2	253	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	671	993	-	-	1514	-
Stage 1	953	-	-	-	-	-
Stage 2	789	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	646	993	-	-	1514	-
Mov Cap-2 Maneuver	646	-	-	-	-	-
Stage 1	918	-	-	-	-	-
Stage 2	789	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	10.9	0	1.9
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	696	1514	-
HCM Lane V/C Ratio	-	-	0.121	0.034	-
HCM Control Delay (s)	-	-	10.9	7.5	0
HCM Lane LOS	-	-	B	A	A
HCM 95th %tile Q(veh)	-	-	0.4	0.1	-

Intersection	
Int Delay, s/veh	4.2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	15	289	5	3	223	7	19	13	46	11	21	115
Future Vol, veh/h	15	289	5	3	223	7	19	13	46	11	21	115
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	100	-	-	100	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	100	100	100	76	76	76	70	70	70	100	100	100
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	15	289	5	4	293	9	27	19	66	11	21	115

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	302	0	0	294	0	0	696	632	292	670	630	298
Stage 1	-	-	-	-	-	-	322	322	-	306	306	-
Stage 2	-	-	-	-	-	-	374	310	-	364	324	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1259	-	-	1268	-	-	356	398	747	371	399	741
Stage 1	-	-	-	-	-	-	690	651	-	704	662	-
Stage 2	-	-	-	-	-	-	647	659	-	655	650	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1259	-	-	1268	-	-	285	392	747	322	393	741
Mov Cap-2 Maneuver	-	-	-	-	-	-	285	392	-	322	393	-
Stage 1	-	-	-	-	-	-	682	643	-	696	660	-
Stage 2	-	-	-	-	-	-	528	657	-	573	642	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.4	0.1	14.7	12.9
HCM LOS			B	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	483	1259	-	-	1268	-	-	605
HCM Lane V/C Ratio	0.231	0.012	-	-	0.003	-	-	0.243
HCM Control Delay (s)	14.7	7.9	-	-	7.8	-	-	12.9
HCM Lane LOS	B	A	-	-	A	-	-	B
HCM 95th %tile Q(veh)	0.9	0	-	-	0	-	-	0.9

Intersection	
Int Delay, s/veh	24.6

Movement	EBU	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations							
Traffic Vol, veh/h	17	76	0	2426	43	0	144
Future Vol, veh/h	17	76	0	2426	43	0	144
Conflicting Peds, #/hr	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	-	None	-	None	-	Free
Storage Length	-	450	-	-	0	-	0
Veh in Median Storage, #	-	-	0	0	-	0	-
Grade, %	-	-	0	0	-	0	-
Peak Hour Factor	76	76	76	84	84	71	71
Heavy Vehicles, %	2	2	2	2	2	2	2
Mvmt Flow	22	100	0	2888	51	0	203

Major/Minor	Major1			Major2		Minor2	
Conflicting Flow All	2888	2939	0	-	0	-	-
Stage 1	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-
Critical Hdwy	6.44	4.14	-	-	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-	-
Follow-up Hdwy	2.52	2.22	-	-	-	-	-
Pot Cap-1 Maneuver	~ 19	120	-	-	-	0	0
Stage 1	-	-	-	-	-	0	0
Stage 2	-	-	-	-	-	0	0
Platoon blocked, %			-	-	-		
Mov Cap-1 Maneuver	61	~ 61	-	-	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-

Approach	EB	WB	SB
HCM Control Delay, s	$ 615.9	0	0
HCM LOS			A

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	~ 61	-	-	-	-
HCM Lane V/C Ratio	2.006	-	-	-	-
HCM Control Delay (s)	$ 615.9	-	-	-	0
HCM Lane LOS	F	-	-	-	A
HCM 95th %tile Q(veh)	11.6	-	-	-	-

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

Intersection	
Int Delay, s/veh	3.9

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	37	32	23	11	5	16
Future Vol, veh/h	37	32	23	11	5	16
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	85	85	80	80	63	63
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	44	38	29	14	8	25

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	43	0	-	0	162	36
Stage 1	-	-	-	-	36	-
Stage 2	-	-	-	-	126	-
Critical Hdwy	4.12	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	1566	-	-	-	829	1037
Stage 1	-	-	-	-	986	-
Stage 2	-	-	-	-	900	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1566	-	-	-	805	1037
Mov Cap-2 Maneuver	-	-	-	-	805	-
Stage 1	-	-	-	-	957	-
Stage 2	-	-	-	-	900	-

Approach	EB	WB	SB
HCM Control Delay, s	3.9	0	8.8
HCM LOS			A

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1566	-	-	-	970
HCM Lane V/C Ratio	0.028	-	-	-	0.034
HCM Control Delay (s)	7.4	0	-	-	8.8
HCM Lane LOS	A	A	-	-	A
HCM 95th %tile Q(veh)	0.1	-	-	-	0.1

Intersection	
Int Delay, s/veh	2.4

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	26	13	74	55	14	41
Future Vol, veh/h	26	13	74	55	14	41
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	80	80	94	94	84	84
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	33	16	79	59	17	49

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	192	109	0	0	138	0
Stage 1	109	-	-	-	-	-
Stage 2	83	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	797	945	-	-	1446	-
Stage 1	916	-	-	-	-	-
Stage 2	940	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	787	945	-	-	1446	-
Mov Cap-2 Maneuver	787	-	-	-	-	-
Stage 1	905	-	-	-	-	-
Stage 2	940	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	9.6	0	1.9
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	833	1446	-
HCM Lane V/C Ratio	-	-	0.059	0.012	-
HCM Control Delay (s)	-	-	9.6	7.5	0
HCM Lane LOS	-	-	A	A	A
HCM 95th %tile Q(veh)	-	-	0.2	0	-

Intersection	
Int Delay, s/veh	3.1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	51	301	17	17	329	13	10	12	31	9	12	39
Future Vol, veh/h	51	301	17	17	329	13	10	12	31	9	12	39
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	100	-	-	100	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	88	88	88	89	89	89	77	77	77	74	74	74
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	58	342	19	19	370	15	13	16	40	12	16	53

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	385	0	0	361	0	0	918	891	352	912	893	378
Stage 1	-	-	-	-	-	-	468	468	-	416	416	-
Stage 2	-	-	-	-	-	-	450	423	-	496	477	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1173	-	-	1198	-	-	252	282	692	255	281	669
Stage 1	-	-	-	-	-	-	575	561	-	614	592	-
Stage 2	-	-	-	-	-	-	589	588	-	556	556	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1173	-	-	1198	-	-	210	264	692	218	263	669
Mov Cap-2 Maneuver	-	-	-	-	-	-	210	264	-	218	263	-
Stage 1	-	-	-	-	-	-	547	534	-	584	583	-
Stage 2	-	-	-	-	-	-	519	579	-	483	529	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	1.1	0.4	16.4	15.8
HCM LOS			C	C

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	384	1173	-	-	1198	-	-	413
HCM Lane V/C Ratio	0.179	0.049	-	-	0.016	-	-	0.196
HCM Control Delay (s)	16.4	8.2	-	-	8.1	-	-	15.8
HCM Lane LOS	C	A	-	-	A	-	-	C
HCM 95th %tile Q(veh)	0.6	0.2	-	-	0	-	-	0.7

Intersection	
Int Delay, s/veh	4.5

Movement	EBU	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations							
Traffic Vol, veh/h	31	112	0	1618	25	0	105
Future Vol, veh/h	31	112	0	1618	25	0	105
Conflicting Peds, #/hr	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	-	None	-	None	-	Free
Storage Length	-	450	-	-	0	-	0
Veh in Median Storage, #	-	-	0	0	-	0	-
Grade, %	-	-	0	0	-	0	-
Peak Hour Factor	81	81	81	95	95	79	79
Heavy Vehicles, %	2	2	2	2	2	2	2
Mvmt Flow	38	138	0	1703	26	0	133

Major/Minor	Major1		Major2		Minor2		
Conflicting Flow All	1703	1729	0	-	0	-	-
Stage 1	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-
Critical Hdwy	6.44	4.14	-	-	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-	-
Follow-up Hdwy	2.52	2.22	-	-	-	-	-
Pot Cap-1 Maneuver	116	361	-	-	-	0	0
Stage 1	-	-	-	-	-	0	0
Stage 2	-	-	-	-	-	0	0
Platoon blocked, %			-	-	-		
Mov Cap-1 Maneuver	248	248	-	-	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-

Approach	EB	WB	SB
HCM Control Delay, s	49	0	0
HCM LOS			A

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	248	-	-	-	-
HCM Lane V/C Ratio	0.712	-	-	-	-
HCM Control Delay (s)	49	-	-	-	0
HCM Lane LOS	E	-	-	-	A
HCM 95th %tile Q(veh)	4.8	-	-	-	-

Intersection	
Int Delay, s/veh	2.5

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	9	45	40	2	6	19
Future Vol, veh/h	9	45	40	2	6	19
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	75	75	81	81	69	69
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	12	60	49	2	9	28

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	51	0	-	0	134	50
Stage 1	-	-	-	-	50	-
Stage 2	-	-	-	-	84	-
Critical Hdwy	4.12	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	1555	-	-	-	860	1018
Stage 1	-	-	-	-	972	-
Stage 2	-	-	-	-	939	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1555	-	-	-	853	1018
Mov Cap-2 Maneuver	-	-	-	-	853	-
Stage 1	-	-	-	-	964	-
Stage 2	-	-	-	-	939	-

Approach	EB	WB	SB
HCM Control Delay, s	1.2	0	8.8
HCM LOS			A

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1555	-	-	-	973
HCM Lane V/C Ratio	0.008	-	-	-	0.037
HCM Control Delay (s)	7.3	0	-	-	8.8
HCM Lane LOS	A	A	-	-	A
HCM 95th %tile Q(veh)	0	-	-	-	0.1

Intersection	
Int Delay, s/veh	3.2

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	50	10	52	20	35	105
Future Vol, veh/h	50	10	52	20	35	105
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	81	81	78	78	59	59
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	62	12	67	26	59	178

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	376	80	0	0	93	0
Stage 1	80	-	-	-	-	-
Stage 2	296	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	625	980	-	-	1501	-
Stage 1	943	-	-	-	-	-
Stage 2	755	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	598	980	-	-	1501	-
Mov Cap-2 Maneuver	598	-	-	-	-	-
Stage 1	902	-	-	-	-	-
Stage 2	755	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	11.4	0	1.9
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	640	1501	-
HCM Lane V/C Ratio	-	-	0.116	0.04	-
HCM Control Delay (s)	-	-	11.4	7.5	0
HCM Lane LOS	-	-	B	A	A
HCM 95th %tile Q(veh)	-	-	0.4	0.1	-

Intersection	
Int Delay, s/veh	5.4

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	20	500	5	5	400	10	20	15	45	15	25	130
Future Vol, veh/h	20	500	5	5	400	10	20	15	45	15	25	130
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	100	-	-	100	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	100	100	100	76	76	76	75	75	75	100	100	100
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	20	500	5	7	526	13	27	20	60	15	25	130

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	539	0	0	505	0	0	1167	1096	503	1130	1092	533
Stage 1	-	-	-	-	-	-	543	543	-	547	547	-
Stage 2	-	-	-	-	-	-	624	553	-	583	545	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1029	-	-	1060	-	-	171	213	569	181	215	547
Stage 1	-	-	-	-	-	-	524	520	-	521	517	-
Stage 2	-	-	-	-	-	-	473	514	-	498	519	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1029	-	-	1060	-	-	116	207	569	147	209	547
Mov Cap-2 Maneuver	-	-	-	-	-	-	116	207	-	147	209	-
Stage 1	-	-	-	-	-	-	514	510	-	511	513	-
Stage 2	-	-	-	-	-	-	341	510	-	420	509	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.3	0.1	30.2	22.7
HCM LOS			D	C

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	247	1029	-	-	1060	-	-	370
HCM Lane V/C Ratio	0.432	0.019	-	-	0.006	-	-	0.459
HCM Control Delay (s)	30.2	8.6	-	-	8.4	-	-	22.7
HCM Lane LOS	D	A	-	-	A	-	-	C
HCM 95th %tile Q(veh)	2	0.1	-	-	0	-	-	2.3

Intersection	
Int Delay, s/veh	293.7

Movement	EBU	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations							
Traffic Vol, veh/h	20	178	0	3820	263	0	418
Future Vol, veh/h	20	178	0	3820	263	0	418
Conflicting Peds, #/hr	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	-	None	-	None	-	Free
Storage Length	-	450	-	-	0	-	0
Veh in Median Storage, #	-	-	0	0	-	0	-
Grade, %	-	-	0	0	-	0	-
Peak Hour Factor	90	90	90	95	95	71	71
Heavy Vehicles, %	2	2	2	2	2	2	2
Mvmt Flow	22	198	0	4021	277	0	589

Major/Minor	Major1		Major2		Minor2		
Conflicting Flow All	4021	4298	0	-	0	-	-
Stage 1	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-
Critical Hdwy	6.44	4.14	-	-	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-	-
Follow-up Hdwy	2.52	2.22	-	-	-	-	-
Pot Cap-1 Maneuver	~ 3	~ 33	-	-	-	0	0
Stage 1	-	-	-	-	-	0	0
Stage 2	-	-	-	-	-	0	0
Platoon blocked, %			-	-	-		
Mov Cap-1 Maneuver	~ 16	~ 16	-	-	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-

Approach	EB	WB	SB
HCM Control Delay, s	$ 6032.3	0	0
HCM LOS			A

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	~ 16	-	-	-	-
HCM Lane V/C Ratio	13.75	-	-	-	-
HCM Control Delay (s)	$ 6032.3	-	-	-	0
HCM Lane LOS	F	-	-	-	A
HCM 95th %tile Q(veh)	28.4	-	-	-	-

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

Intersection	
Int Delay, s/veh	2.8

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	23	35	25	4	1	9
Future Vol, veh/h	23	35	25	4	1	9
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	85	85	80	80	63	63
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	27	41	31	5	2	14

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	36	0	-	0	129	34
Stage 1	-	-	-	-	34	-
Stage 2	-	-	-	-	95	-
Critical Hdwy	4.12	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	1575	-	-	-	865	1039
Stage 1	-	-	-	-	988	-
Stage 2	-	-	-	-	929	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1575	-	-	-	849	1039
Mov Cap-2 Maneuver	-	-	-	-	849	-
Stage 1	-	-	-	-	970	-
Stage 2	-	-	-	-	929	-

Approach	EB	WB	SB
HCM Control Delay, s	2.9	0	8.6
HCM LOS			A

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1575	-	-	-	1016
HCM Lane V/C Ratio	0.017	-	-	-	0.016
HCM Control Delay (s)	7.3	0	-	-	8.6
HCM Lane LOS	A	A	-	-	A
HCM 95th %tile Q(veh)	0.1	-	-	-	0

Intersection	
Int Delay, s/veh	2.1

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	24	11	80	45	15	56
Future Vol, veh/h	24	11	80	45	15	56
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	80	80	94	94	84	84
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	30	14	85	48	18	67

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	212	109	0	0	133	0
Stage 1	109	-	-	-	-	-
Stage 2	103	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	776	945	-	-	1452	-
Stage 1	916	-	-	-	-	-
Stage 2	921	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	766	945	-	-	1452	-
Mov Cap-2 Maneuver	766	-	-	-	-	-
Stage 1	904	-	-	-	-	-
Stage 2	921	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	9.7	0	1.6
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	814	1452	-
HCM Lane V/C Ratio	-	-	0.054	0.012	-
HCM Control Delay (s)	-	-	9.7	7.5	0
HCM Lane LOS	-	-	A	A	A
HCM 95th %tile Q(veh)	-	-	0.2	0	-

Intersection	
Int Delay, s/veh	4.2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	55	450	15	20	500	15	12	15	30	12	15	45
Future Vol, veh/h	55	450	15	20	500	15	12	15	30	12	15	45
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	100	-	-	100	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	88	88	88	89	89	89	77	77	77	74	74	74
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	63	511	17	22	562	17	16	19	39	16	20	61

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	579	0	0	528	0	0	1301	1269	520	1290	1269	571
Stage 1	-	-	-	-	-	-	646	646	-	615	615	-
Stage 2	-	-	-	-	-	-	655	623	-	675	654	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	995	-	-	1039	-	-	138	168	556	140	168	520
Stage 1	-	-	-	-	-	-	460	467	-	479	482	-
Stage 2	-	-	-	-	-	-	455	478	-	444	463	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	995	-	-	1039	-	-	103	154	556	110	154	520
Mov Cap-2 Maneuver	-	-	-	-	-	-	103	154	-	110	154	-
Stage 1	-	-	-	-	-	-	431	438	-	449	472	-
Stage 2	-	-	-	-	-	-	376	468	-	370	434	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.9	0.3	30.6	28.9
HCM LOS			D	D

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	213	995	-	-	1039	-	-	246
HCM Lane V/C Ratio	0.348	0.063	-	-	0.022	-	-	0.396
HCM Control Delay (s)	30.6	8.9	-	-	8.5	-	-	28.9
HCM Lane LOS	D	A	-	-	A	-	-	D
HCM 95th %tile Q(veh)	1.5	0.2	-	-	0.1	-	-	1.8

Intersection	
Int Delay, s/veh	305.3

Movement	EBU	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations							
Traffic Vol, veh/h	35	278	0	3110	139	0	286
Future Vol, veh/h	35	278	0	3110	139	0	286
Conflicting Peds, #/hr	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	-	None	-	None	-	Free
Storage Length	-	450	-	-	0	-	0
Veh in Median Storage, #	-	-	0	0	-	0	-
Grade, %	-	-	0	0	-	0	-
Peak Hour Factor	90	90	90	95	95	79	79
Heavy Vehicles, %	2	2	2	2	2	2	2
Mvmt Flow	39	309	0	3274	146	0	362

Major/Minor	Major1		Major2		Minor2		
Conflicting Flow All	3274	3420	0	-	0	-	-
Stage 1	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-
Critical Hdwy	6.44	4.14	-	-	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-	-
Follow-up Hdwy	2.52	2.22	-	-	-	-	-
Pot Cap-1 Maneuver	~ 10	~ 76	-	-	-	0	0
Stage 1	-	-	-	-	-	0	0
Stage 2	-	-	-	-	-	0	0
Platoon blocked, %			-	-	-		
Mov Cap-1 Maneuver	44	~ 44	-	-	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-

Approach	EB	WB	SB
HCM Control Delay, s	$ 3307.8	0	0
HCM LOS			A

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	~ 44	-	-	-	-
HCM Lane V/C Ratio	7.904	-	-	-	-
HCM Control Delay (s)	$ 3307.8	-	-	-	0
HCM Lane LOS	F	-	-	-	A
HCM 95th %tile Q(veh)	41.1	-	-	-	-

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

Intersection	
Int Delay, s/veh	3.6

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	13	45	40	3	13	32
Future Vol, veh/h	13	45	40	3	13	32
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	75	75	81	81	69	69
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	17	60	49	4	19	46

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	53	0	-	0	145	51
Stage 1	-	-	-	-	51	-
Stage 2	-	-	-	-	94	-
Critical Hdwy	4.12	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	1553	-	-	-	847	1017
Stage 1	-	-	-	-	971	-
Stage 2	-	-	-	-	930	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1553	-	-	-	838	1017
Mov Cap-2 Maneuver	-	-	-	-	838	-
Stage 1	-	-	-	-	960	-
Stage 2	-	-	-	-	930	-

Approach	EB	WB	SB
HCM Control Delay, s	1.6	0	9
HCM LOS			A

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1553	-	-	-	958
HCM Lane V/C Ratio	0.011	-	-	-	0.068
HCM Control Delay (s)	7.3	0	-	-	9
HCM Lane LOS	A	A	-	-	A
HCM 95th %tile Q(veh)	0	-	-	-	0.2

Intersection	
Int Delay, s/veh	3.5

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	57	16	52	23	35	105
Future Vol, veh/h	57	16	52	23	35	105
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	81	81	78	78	59	59
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	70	20	67	29	59	178

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	378	82	0	0	96	0
Stage 1	82	-	-	-	-	-
Stage 2	296	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	624	978	-	-	1498	-
Stage 1	941	-	-	-	-	-
Stage 2	755	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	597	978	-	-	1498	-
Mov Cap-2 Maneuver	597	-	-	-	-	-
Stage 1	900	-	-	-	-	-
Stage 2	755	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	11.4	0	1.9
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	653	1498	-
HCM Lane V/C Ratio	-	-	0.138	0.04	-
HCM Control Delay (s)	-	-	11.4	7.5	0
HCM Lane LOS	-	-	B	A	A
HCM 95th %tile Q(veh)	-	-	0.5	0.1	-

Intersection	
Int Delay, s/veh	5.6

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	20	500	5	5	400	10	20	16	51	15	25	130
Future Vol, veh/h	20	500	5	5	400	10	20	16	51	15	25	130
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	100	-	-	100	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	100	100	100	76	76	76	75	75	75	100	100	100
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	20	500	5	7	526	13	27	21	68	15	25	130

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	539	0	0	505	0	0	1167	1096	503	1134	1092	533
Stage 1	-	-	-	-	-	-	543	543	-	547	547	-
Stage 2	-	-	-	-	-	-	624	553	-	587	545	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1029	-	-	1060	-	-	171	213	569	180	215	547
Stage 1	-	-	-	-	-	-	524	520	-	521	517	-
Stage 2	-	-	-	-	-	-	473	514	-	496	519	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1029	-	-	1060	-	-	116	207	569	143	209	547
Mov Cap-2 Maneuver	-	-	-	-	-	-	116	207	-	143	209	-
Stage 1	-	-	-	-	-	-	514	510	-	511	513	-
Stage 2	-	-	-	-	-	-	341	510	-	410	509	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.3	0.1	30.2	22.9
HCM LOS			D	C

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	256	1029	-	-	1060	-	-	368
HCM Lane V/C Ratio	0.453	0.019	-	-	0.006	-	-	0.462
HCM Control Delay (s)	30.2	8.6	-	-	8.4	-	-	22.9
HCM Lane LOS	D	A	-	-	A	-	-	C
HCM 95th %tile Q(veh)	2.2	0.1	-	-	0	-	-	2.4

Intersection	
Int Delay, s/veh	297.8

Movement	EBU	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations							
Traffic Vol, veh/h	20	180	0	3820	265	0	425
Future Vol, veh/h	20	180	0	3820	265	0	425
Conflicting Peds, #/hr	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	-	None	-	None	-	Free
Storage Length	-	450	-	-	0	-	0
Veh in Median Storage, #	-	-	0	0	-	0	-
Grade, %	-	-	0	0	-	0	-
Peak Hour Factor	90	90	90	95	95	71	71
Heavy Vehicles, %	2	2	2	2	2	2	2
Mvmt Flow	22	200	0	4021	279	0	599

Major/Minor	Major1		Major2		Minor2		
Conflicting Flow All	4021	4300	0	-	0	-	-
Stage 1	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-
Critical Hdwy	6.44	4.14	-	-	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-	-
Follow-up Hdwy	2.52	2.22	-	-	-	-	-
Pot Cap-1 Maneuver	~ 3	~ 33	-	-	-	0	0
Stage 1	-	-	-	-	-	0	0
Stage 2	-	-	-	-	-	0	0
Platoon blocked, %			-	-	-		
Mov Cap-1 Maneuver	~ 17	~ 17	-	-	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-

Approach	EB	WB	SB
HCM Control Delay, s	$ 6060.3	0	0
HCM LOS			A

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	~ 17	-	-	-	-
HCM Lane V/C Ratio	13.072	-	-	-	-
HCM Control Delay (s)	$ 6060.3	-	-	-	0
HCM Lane LOS	F	-	-	-	A
HCM 95th %tile Q(veh)	28.6	-	-	-	-

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

Intersection	
Int Delay, s/veh	3.8

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	37	35	25	11	5	16
Future Vol, veh/h	37	35	25	11	5	16
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	85	85	80	80	63	63
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	44	41	31	14	8	25

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	45	0	-	0	167	38
Stage 1	-	-	-	-	38	-
Stage 2	-	-	-	-	129	-
Critical Hdwy	4.12	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	1563	-	-	-	823	1034
Stage 1	-	-	-	-	984	-
Stage 2	-	-	-	-	897	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1563	-	-	-	799	1034
Mov Cap-2 Maneuver	-	-	-	-	799	-
Stage 1	-	-	-	-	955	-
Stage 2	-	-	-	-	897	-

Approach	EB	WB	SB
HCM Control Delay, s	3.8	0	8.9
HCM LOS			A

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1563	-	-	-	966
HCM Lane V/C Ratio	0.028	-	-	-	0.035
HCM Control Delay (s)	7.4	0	-	-	8.9
HCM Lane LOS	A	A	-	-	A
HCM 95th %tile Q(veh)	0.1	-	-	-	0.1

Intersection	
Int Delay, s/veh	2.3

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	28	14	80	58	16	56
Future Vol, veh/h	28	14	80	58	16	56
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	80	80	94	94	84	84
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	35	18	85	62	19	67

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	221	116	0	0	147	0
Stage 1	116	-	-	-	-	-
Stage 2	105	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	767	936	-	-	1435	-
Stage 1	909	-	-	-	-	-
Stage 2	919	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	756	936	-	-	1435	-
Mov Cap-2 Maneuver	756	-	-	-	-	-
Stage 1	896	-	-	-	-	-
Stage 2	919	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	9.8	0	1.7
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	808	1435	-
HCM Lane V/C Ratio	-	-	0.065	0.013	-
HCM Control Delay (s)	-	-	9.8	7.5	0
HCM Lane LOS	-	-	A	A	A
HCM 95th %tile Q(veh)	-	-	0.2	0	-

Intersection	
Int Delay, s/veh	4.5

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	55	450	20	21	500	15	12	16	33	12	16	45
Future Vol, veh/h	55	450	20	21	500	15	12	16	33	12	16	45
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	100	-	-	100	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	88	88	88	89	89	89	77	77	77	74	74	74
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	63	511	23	24	562	17	16	21	43	16	22	61

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	579	0	0	534	0	0	1309	1276	523	1300	1279	571
Stage 1	-	-	-	-	-	-	649	649	-	619	619	-
Stage 2	-	-	-	-	-	-	660	627	-	681	660	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	995	-	-	1034	-	-	136	167	554	138	166	520
Stage 1	-	-	-	-	-	-	458	466	-	476	480	-
Stage 2	-	-	-	-	-	-	452	476	-	440	460	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	995	-	-	1034	-	-	100	153	554	107	152	520
Mov Cap-2 Maneuver	-	-	-	-	-	-	100	153	-	107	152	-
Stage 1	-	-	-	-	-	-	429	437	-	446	469	-
Stage 2	-	-	-	-	-	-	372	465	-	362	431	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.9	0.3	31.2	30.1
HCM LOS			D	D

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	215	995	-	-	1034	-	-	240
HCM Lane V/C Ratio	0.368	0.063	-	-	0.023	-	-	0.411
HCM Control Delay (s)	31.2	8.9	-	-	8.6	-	-	30.1
HCM Lane LOS	D	A	-	-	A	-	-	D
HCM 95th %tile Q(veh)	1.6	0.2	-	-	0.1	-	-	1.9

Intersection	
Int Delay, s/veh	303.5

Movement	EBU	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations							
Traffic Vol, veh/h	35	285	0	3110	151	0	294
Future Vol, veh/h	35	285	0	3110	151	0	294
Conflicting Peds, #/hr	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	-	None	-	None	-	Free
Storage Length	-	450	-	-	0	-	0
Veh in Median Storage, #	-	-	0	0	-	0	-
Grade, %	-	-	0	0	-	0	-
Peak Hour Factor	92	92	92	95	95	79	79
Heavy Vehicles, %	2	2	2	2	2	2	2
Mvmt Flow	38	310	0	3274	159	0	372

Major/Minor	Major1		Major2		Minor2		
Conflicting Flow All	3274	3433	0	-	0	-	-
Stage 1	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-
Critical Hdwy	6.44	4.14	-	-	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-	-
Follow-up Hdwy	2.52	2.22	-	-	-	-	-
Pot Cap-1 Maneuver	~ 10	~ 75	-	-	-	0	0
Stage 1	-	-	-	-	-	0	0
Stage 2	-	-	-	-	-	0	0
Platoon blocked, %			-	-	-		
Mov Cap-1 Maneuver	44	~ 44	-	-	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-

Approach	EB	WB	SB
HCM Control Delay, $	3299.1	0	0
HCM LOS			A

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	~ 44	-	-	-	-
HCM Lane V/C Ratio	7.905	-	-	-	-
HCM Control Delay (s)	$ 3299.1	-	-	-	0
HCM Lane LOS	F	-	-	-	A
HCM 95th %tile Q(veh)	41.1	-	-	-	-

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon