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Forest Lakes Phase II
Traffic Impact Analysis
PCD File No. PUDSP-18-001
(LSC #174550)
February 21, 2019

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.

A handwritten signature in blue ink, reading 'Jim Boulton', written over a horizontal line.

2-20-2019
Date



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February 21, 2019

Ms. Andrea Barlow
N.E.S., Inc.
619 North Cascade Avenue, Suite 200
Colorado Springs, CO 80903

RE: Forest Lakes Phase II
El Paso County, Colorado
PCD File No. PUDSP-18-001
Traffic Impact Analysis
LSC #174550

Dear Ms. Barlow:

In response to your request, LSC Transportation Consultants, Inc. has prepared this updated traffic impact analysis for Phase II of the Forest Lakes development in El Paso County, Colorado. As shown in Figure 1, the site is located northwest of the intersection of Hay Creek Road and Baptist Road. LSC completed a master-plan-level study for all of Forest Lakes dated August 13, 2001. LSC also prepared three letters in response to comments on the initial master plan study dated January 8, 2002, March 15, 2002, and August 5, 2002 and a traffic impact analysis for Filing 2 dated December 9, 2015. Since the completion of the master plan study, 273 lots for single-family homes have been platted as part of Phase I of the development. The currently proposed Phase II is planned to include an additional 180 lots for single-family homes. Future phases are planned to include 61 lots for single-family homes (for a total of 514 single-family homes) and an elementary school. This is 48 more single-family homes than was assumed in the 2001 master plan study. Access to the site will be to Forest Lakes Drive.

PREVIOUS LSC TRAFFIC STUDIES

Below is a list of projects completed by LSC in the vicinity of the site within the last five years.

- *Willow Springs Ranch Transportation Memorandum* December 8, 2016
- *Wagons West Updated Traffic Impact Study* August 29, 2017
- *Nexus Industrial Updated Traffic Impact Study* November 17, 2017
- *Conexus Preliminary Plan Trip Generation Letter* May 29, 2018

REPORT CONTENTS

This report is being prepared as part of a submittal to El Paso County. It identifies the traffic impacts of Phase II of the Forest Lakes development. The report contains the following:

- The existing roadway and traffic conditions in the site's vicinity including the roadway widths, surface conditions, lane geometries, traffic controls, and posted speed limits, etc.
- The existing traffic volumes on the area roadways.
- Short-term baseline/background traffic volume estimates.
- 2040 baseline/background traffic volume estimates.
- The projected average weekday and peak-hour vehicle-trips to be generated by the site.
- The assignment of the site's projected traffic volumes to the adjacent streets and access point intersections for the short and long term and the resulting total traffic volumes for the short and long term.
- The resulting traffic impacts including level of service analysis at the area intersections and average daily traffic volumes on key street segments.
- The recommended street classifications for the internal streets within the proposed development.
- The obligations of the project to the Countywide Fee Program and the Baptist Road Rural Transportation Authority.

LAND USE AND ACCESS

Figure 2 shows the overall Forest Lakes master plan. Filing 1 (34 lots for single-family homes), Filing 2 (160 lots for single-family homes), and Filing 3 (79 lots for single-family homes) have been platted. As of July 2017, when area traffic counts were conducted, about 13 homes had been constructed in Filing 1 and 57 homes had been constructed in Filing 3.

The currently proposed Phase II is planned to include 180 lots for single-family homes in the northwest area of the Forest Lakes development. The previous master plan study assumed 132 lots would be constructed in this area.

Future Phases are planned to include 61 lots for single-family homes in the southwest area of the development (for a total of 514 single-family homes) and an elementary school. At buildout the Forest Lakes development is currently planned to contain about 48 more single-family homes than was assumed in the 2001 master plan study.

ROADWAY AND TRAFFIC CONDITIONS

Area Roadways

The area major roadways in the site's vicinity are shown on Figure 1 and are described below.

- **Baptist Road** extends east of Hay Creek Road to the intersection of Roller Coaster Road and Hogden Road. West of Old Denver Road, Baptist Road is classified as an Urban Residential Collector

and has one through lane in each direction and a posted speed limit of 40 miles per hour (mph) between Hay Creek Road and Interstate 25. The intersection of Baptist/Old Denver was recently reconstructed as a one-lane modern roundabout.

- **Forest Lakes Drive** is a 40-foot-wide two-lane Urban Residential Collector and is designed to serve the Forest Lakes development and Willow Springs development on the east side of the road just north of Baptist Road.
- **Lindbergh Road** is a Rural Local (gravel) road that extends north from Mesa Top Drive to Shilling Avenue.
- **Doolittle Road** is a Rural Local Road that extends east from Mt. Herman Lane to Rickenbacker Avenue. Doolittle Road has a gravel surface west of Lindbergh Road and is paved east of Lindbergh Road.
- **Spatz Road** is a Rural Local (gravel) road that extends west from Rickenbacker Avenue to just west of Lindbergh Road.

Existing Traffic Conditions

Figure 3 shows the current morning and afternoon peak-hour traffic volumes at the intersections of Baptist Road/Old Denver Road, Lindbergh/Spatz, and Lindbergh/Doolittle based on counts conducted by LSC in April and July 2017. Figure 3 also shows estimated average weekday traffic volumes on key street segments. These volumes are estimates by LSC based on a 24-hour machine count conducted by LSC on Mesa Top Drive just east of Lindbergh Road and based on the peak-hour traffic counts. The traffic count reports are attached.

Figure 3 also shows the number of daily vehicle-trips on Lindberg Road that are estimated to be due to existing homes within the Forest Lakes development. This volume is an estimate by LSC based on the peak hour intersection turning movement patterns at the intersection of Doolittle/Lindberg and the area roadway system.

Existing Levels of Service

Level of service (LOS) is a quantitative measure of the level of congestion or delay at an intersection. Level of service is indicated on a scale from "A" to "F." LOS A represents control delay of less than 10 seconds for unsignalized and signalized intersections. LOS F represents control delay of more than 50 seconds for unsignalized intersections and more than 80 seconds for signalized intersections. Table 1 shows the level of service delay ranges.

| Table 1 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 sec or less | less than 0.60 | 10.0 sec or less |
| B | 10.1-20.0 sec | 0.60-0.69 | 10.1-15.0 sec |
| C | 20.1-35.0 sec | 0.70-0.79 | 15.1-25.0 sec |
| D | 35.1-55.0 sec | 0.80-0.89 | 25.1-35.0 sec |
| E | 55.1-80.0 sec | 0.90-0.99 | 35.1-50.0 sec |
| F | 80.1 sec or more | 1.00 and greater | 50.1 sec or more |
| (1) Source: <i>Transportation Research Circular 212</i> | | | |
| (2) For unsignalized intersections if V/C ratio is greater than 1.0 the level of service is LOS F regardless of the projected average control delay per vehicle. | | | |

The intersections of Baptist Road/Old Denver Road, Lindbergh/Spaatz, and Lindbergh/Doolittle were analyzed to determine the existing levels of service based on the unsignalized method of analysis procedures found in the *Highway Capacity Manual, 6th Edition* by the Transportation Research Board. Figure 3 shows the level of service analysis results. The level of service reports are attached.

All movements at the intersections of Baptist Road/Old Denver Road, Lindbergh/Spaatz, and Lindbergh/Doolittle are currently operating at LOS A during the peak hours.

SHORT-TERM BACKGROUND TRAFFIC

Background traffic is the traffic estimated to be on the adjacent streets without consideration of the proposed Phase II development. Background traffic includes the through traffic and the traffic generated by adjacent developments, but assumes zero traffic generated by the site. Figure 4a shows the projected short-term background traffic volumes. The short-term background traffic volumes are based on the existing traffic volumes shown in Figure 3 plus estimates of additional traffic estimated to be generated by the buildout of Forest Lakes Filings 1, 2 and 3.

Figures 4b shows the lane geometry, traffic control, and level of service at the key intersections based on the short-term background volumes.

2040 BACKGROUND TRAFFIC

Figure 5a shows the projected 20-year background traffic volumes for the year 2040. The 2040 background traffic volume estimates were based on the current traffic conditions, the expected development in the surrounding area, the *Baptist Road West Traffic Report* by Felsburg Holt & Ullevig dated August 2013, and other traffic studies completed in the area by LSC. The 2040 background/baseline traffic assumes buildout of Forest Lakes Phases I and III, including the future school site, but assumes zero traffic generated by Phase II. Through traffic volumes on Baptist

Road west of Old Denver Road are based on the existing volumes shown in Figure 3 plus estimates of future traffic projected to be generated by build out of all land uses within Forest Lakes and traffic projected to be generated by approximately 396 additional single-family homes north of Baptist Road between Forest Lakes Drive and the railroad tracks.

Figure 5b shows the lane geometry, traffic control, and level of service at the key intersections based on the 2040 background volumes.

TRIP GENERATION

The site-generated vehicle-trips were estimated using the nationally published trip generation rates from *Trip Generation, 10th Edition, 2017* by the Institute of Transportation Engineers (ITE). Table 2 shows the trip generation estimates for Phase II of the Forest Lakes development. Table 2 also shows the trip generation for the existing platted Filings 1 through 3 and buildout of the Forest Lakes master plan.

Once the proposed elementary school is constructed within the Forest Lakes master plan a portion of the trips were assumed to occur between the residential uses and the elementary school. As shown on Table 2 about 30 percent of the daily school trips were assumed to be internal to the Forest Lakes master plan area. During the morning peak hour about 30 percent of the entering trips are estimated to have origins within Forest Lakes and 15 percent of the exiting trips are estimated to have destinations within Forest Lakes (i.e., half of the parents continue on their way to work or other errands after dropping off their students). During the afternoon peak hour this is reversed (i.e., half of the parents are assumed to arrive from outside of the neighborhood, pick up their students, and then continue home). This elementary school is estimated to serve about 500 students and about 60 staff members. Assuming two trips per day per staff member (120 vehicle-trips per day), student-related traffic (855 vehicle-trips per day) is estimated to represent about 87 percent of the 975 trips per day. Based on an assumption of 0.75 to 1.0 students per household, the Forest Lakes Master Plan is predicted to contribute about 385 to 514 elementary students. It is therefore reasonable to assume most of the students who will attend the elementary school will live within the Forest Lakes Master Plan area and the 30 percent reduction is likely conservative. The residential internal trips for the entire Forest Lakes development were then balanced with the calculated internal school trips (i.e., the number of existing internal residential trips was assumed to be equal to the number of entering internal school trips and vice versa). The resulting internal trip balance results in an assumption of about 6 percent of the residential trips internal within the Forest Lakes development.

Phase II of the Forest Lakes development is expected to generate about 1,699 vehicle-trips on the average weekday, with about half entering and half exiting the site during a 24-hour period. During the morning peak hour, which generally occurs for one hour between 6:30 and 8:30 a.m., about 33 vehicles would enter and 100 vehicles would exit the site. During the afternoon peak hour, which generally occurs for one hour between 4:15 and 6:15 p.m., about 112 vehicles would enter and 66 vehicles would exit the site.

DIRECTIONAL DISTRIBUTION

The directional distribution of the site-generated traffic volumes on the area roadways is an important factor in determining the site's traffic impacts. Figure 6 shows the external directional distribution estimates for the site-generated traffic volumes. Figure 6 shows separate estimates for the short-term and the long-term. The long-term distribution estimate assumes development of the Forest Lakes Tech Center located south of the intersection of Baptist/Old Denver. The estimates are based on the following factors: the location of the site with respect to regional employment, commercial, and activity centers; the location of the site with respect to the Town of Monument, the Tri-Lakes region, and the balance of the City of Colorado Springs metropolitan area; the land use proposed for the site; the proposed access system for the site; and the roadway system serving the site.

SITE-GENERATED TRAFFIC

Figure 7 shows the projected short-term site-generated traffic volumes. The short-term site-generated traffic volumes were calculated by applying the directional distribution percentages (from Figure 7) to the total trip generation estimates from Table 2. The short-term site-generated traffic volumes assume all traffic is external to the Forest Lakes development.

Figure 8 shows the projected long-term site-generated traffic volumes. The long-term estimate assumes construction of the future elementary school to be located within Forest Lakes. As shown on Table 2, about six percent of the daily trips to and from the residential uses within Forest Lakes were assumed to travel to the elementary school in the long term. These internal trips have been assigned separately based on the location of the elementary school site.

SHORT-TERM TOTAL TRAFFIC

Figure 9a shows the projected short-term total traffic volumes. The short-term total traffic volumes are the sum of the short-term background traffic volumes (from Figure 4a) plus the short-term site-generated traffic volumes from Figure 7.

Figures 9b show the lane geometry, traffic control, and level of service at the key intersections based on the short-term total volumes.

2040 TOTAL TRAFFIC

Figure 10a shows the projected total traffic volumes for the year 2040 volumes. The 2040 total traffic volumes are the sum of the long-term background traffic volumes (from Figure 5) plus the long-term site-generated traffic volumes from Figure 8.

Figure 10b shows the lane geometry, traffic control, and level of service at the key intersections based on the 2040 total traffic volumes.

PROJECTED LEVELS OF SERVICE

The intersections of Lindbergh/Spaatz, Lindbergh/Doolittle, Mesa Top/Forest Lakes, Long Valley/Forest Lakes, and Baptist/Old Denver have been analyzed to determine the projected future levels of service for the short-term and 2040 traffic volumes based on the unsignalized method of analysis procedures from the *Highway Capacity Manual, 6th Edition* by the Transportation Research Board. Figures 4b and 5b show the level of service analysis results based on the projected background traffic volumes and Figures 9b and 10b show the level of service analysis results based on the projected total traffic volumes. The laneage and traffic control assumed in the analysis is depicted on the figures. The level of service reports are attached.

All movements at the two-way stop-sign-controlled intersections of Lindbergh/Spaatz and Lindbergh/Doolittle are projected to continue to operate at level of service A during the morning and afternoon peak hours based on the projected short-term and 2040 total traffic volumes.

All movements at the two-way stop-sign-controlled intersections of Mesa Top/Forest Lakes and Long Valley/Forest Lakes are projected to operate at B or better during the peak hours based on the projected short-term and 2040 total traffic volumes.

All movements at the intersection of Baptist/Old Denver are projected to operate at LOS B or better during the peak hours based on the projected short-term and 2040 total traffic volumes.

CONCLUSIONS AND RECOMMENDATIONS

Trip Generation

- Phase II of the Forest Lakes development is expected to generate about 1,699 vehicle-trips on the average weekday, with about half entering and half exiting the site during a 24-hour period. During the morning peak hour about 33 vehicles would enter and 100 vehicles would exit the site. During the afternoon peak hour about 112 vehicles would enter and 66 vehicles would exit the site.

Level of Service

The level of service section of this report presents the level of service analysis.

- The intersections of Lindbergh/Spaatz and Lindbergh/Doolittle are projected to continue to operate at LOS A for all movements during the peak hours as two-way, stop-sign-controlled intersections based on the projected short-term and 2040 total traffic volumes.

- All movements at the two-way stop-sign-controlled intersections of Mesa Top/Forest Lakes and Long Valley/Forest Lakes are projected to operate at B or better during the peak hours based on the projected short-term and 2040 total traffic volumes.
- The intersection of Baptist/Old Denver is projected to operate at an overall level of service A during the morning peak hour and LOS B during the afternoon peak hour as a one-lane modern roundabout based on the projected 2040 total traffic volumes.

Street Classifications

- Figure 11 shows the recommended street classifications within the Forest Lakes development based on the projected buildout traffic volumes.

Lindbergh Road

- The existing average weekday traffic on Lindbergh Road south of Spaatz Road is estimated to be about 525 vehicles per day. This currently exceeds the El Paso County maximum daily traffic volume threshold of 200 vehicles per day (ADT) for gravel roadways. Based on the existing peak hour turning movement pattern at the intersection of Doolittle/Lindberg and the area road system, LSC estimates that about 80 vehicles per day are generated by residents within Forest Lakes. This represents about 15 percent of the daily traffic on this link.
- By 2040 the projected average weekday volume on Lindbergh Road is projected to be 855 vehicles per day south of Spaatz Road and 705 vehicles per day north of Spaatz Road. The volume south of Spaatz would exceed the design ADT of 750 vehicles per day for a Rural Local set by the ECM. Phase II development is projected to contribute about 80 vehicles per day to this street segment.

Impact Fees

- This project will be required to participate in the Countywide Road Improvement Fee Program. The applicant intends to join the 10 mil PID.

County/Town Transportation Plans

- The County MTCP does not identify any projects calling for the construction of improvements in the immediate area. Note: The Transportation section of the Town of Monument 2017 Comprehensive Plan includes item *TR-D. Connect Mitchell Road to Baptist Road to reduce congestion in the downtown area and allow employment centers such as Johnson and Johnson (formerly known as DePuy Synthes) better access to I-25.*

Consistency with Other Area LSC TIS Reports and Other Traffic Reports

- The list of other recent TIS reports completed in the general vicinity within the past five years has been included on Page 1 of this report. The reports for projects on Old Denver Road north of Baptist Road were prepared in conformance with the El Paso County study for the Baptist Road Corridor. This report considered the potential residential development within Willow Springs Ranch. The number of potential residential units has been included in the 2040 Background Traffic section of this report.

* * * * *

Please contact me if you have any questions regarding this report.

Respectfully submitted,

LSC TRANSPORTATION CONSULTANTS, INC.

By



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

JCH:KDF:bjwb

Enclosures: Table 2
Figures 1-11
Traffic Count Reports
Level of Service Reports

**Table 2
Trip Generation Estimate
Forest Lakes Phase II**

| | | | | | | | | | | | | | | Total "External" Trips Generated Following Opening of Elementary School | | | | | |
|--|---|-----------------------|--------------------------------------|-------------------|------|---------------------|------|-------------------------|-------------------|-----|---------------------|-----|----------------------|---|----------------------|-----------------------|------------------------|-------------------------|--|
| Land Use Code | Land Use Description | Trip Generation Units | Trip Generation Rates ⁽¹⁾ | | | | | Total Trips Generated | | | | | Daily Internal Trips | Average Weekday Traffic | Morning Peak Hour In | Morning Peak Hour Out | Afternoon Peak Hour In | Afternoon Peak Hour Out | |
| | | | Average Weekday Traffic | Morning Peak Hour | | Afternoon Peak Hour | | Average Weekday Traffic | Morning Peak Hour | | Afternoon Peak Hour | | | | | | | | |
| | | | | In | Out | In | Out | | In | Out | In | Out | | | | | | | |
| Trip Generation Estimate Based on Existing, Currently Proposed, and Planned Future Filings | | | | | | | | | | | | | | | | | | | |
| Phase II (Currently Proposed) | | | | | | | | | | | | | | | | | | | |
| 210 | Single-Family Detached Housing | 180 DU ⁽²⁾ | 9.44 | 0.19 | 0.56 | 0.62 | 0.37 | 1,699 | 33 | 100 | 112 | 66 | 6% | 1,600 | 25 | 81 | 107 | 64 | |
| Phase I: Filings 1, 2, and 3 (Approved Filings Currently Under Construction) | | | | | | | | | | | | | | | | | | | |
| 210 | Single-Family Detached Housing | 273 DU | 9.44 | 0.19 | 0.56 | 0.62 | 0.37 | 2,577 | 51 | 152 | 170 | 100 | 6% | 2,426 | 39 | 123 | 163 | 97 | |
| | Total Phases I & II | 453 DU | | | | | | 4,276 | 84 | 252 | 282 | 166 | | 4,026 | 64 | 204 | 270 | 161 | |
| Phase III (Future) | | | | | | | | | | | | | | | | | | | |
| 210 | Single-Family Detached Housing | 61 DU | 9.44 | 0.19 | 0.56 | 0.62 | 0.37 | 576 | 11 | 34 | 38 | 22 | 6% | 542 | 8 | 28 | 36 | 21 | |
| | Total Phases I, II & III | 514 DU | | | | | | 4,852 | 95 | 286 | 320 | 188 | | 4,568 | 72 | 232 | 306 | 182 | |
| Future School Site | | | | | | | | | | | | | | | | | | | |
| 520 | Elementary School | 500 Student | 1.89 | 0.36 | 0.31 | 0.08 | 0.09 | 945 | 181 | 154 | 41 | 44 | 30% | 661 | 127 | 131 | 35 | 31 | |
| | Total at Full Buildout | | | | | | | 5,797 | 276 | 440 | 361 | 232 | | 5,229 | 199 | 363 | 341 | 213 | |
| Trip Generation Estimate from 2001 Master Plan Study ⁽³⁾ | | | | | | | | | | | | | | | | | | | |
| 210 | Single-Family Detached Housing | 466 DU | 9.57 | 0.19 | 0.56 | 0.65 | 0.36 | 4,460 | 87 | 262 | 301 | 169 | --- | --- | --- | --- | --- | --- | |
| | Change (Increase) From 2001 Master Plan Study | | | | | | | 392 | 8 | 24 | 19 | 19 | | | | | | | |

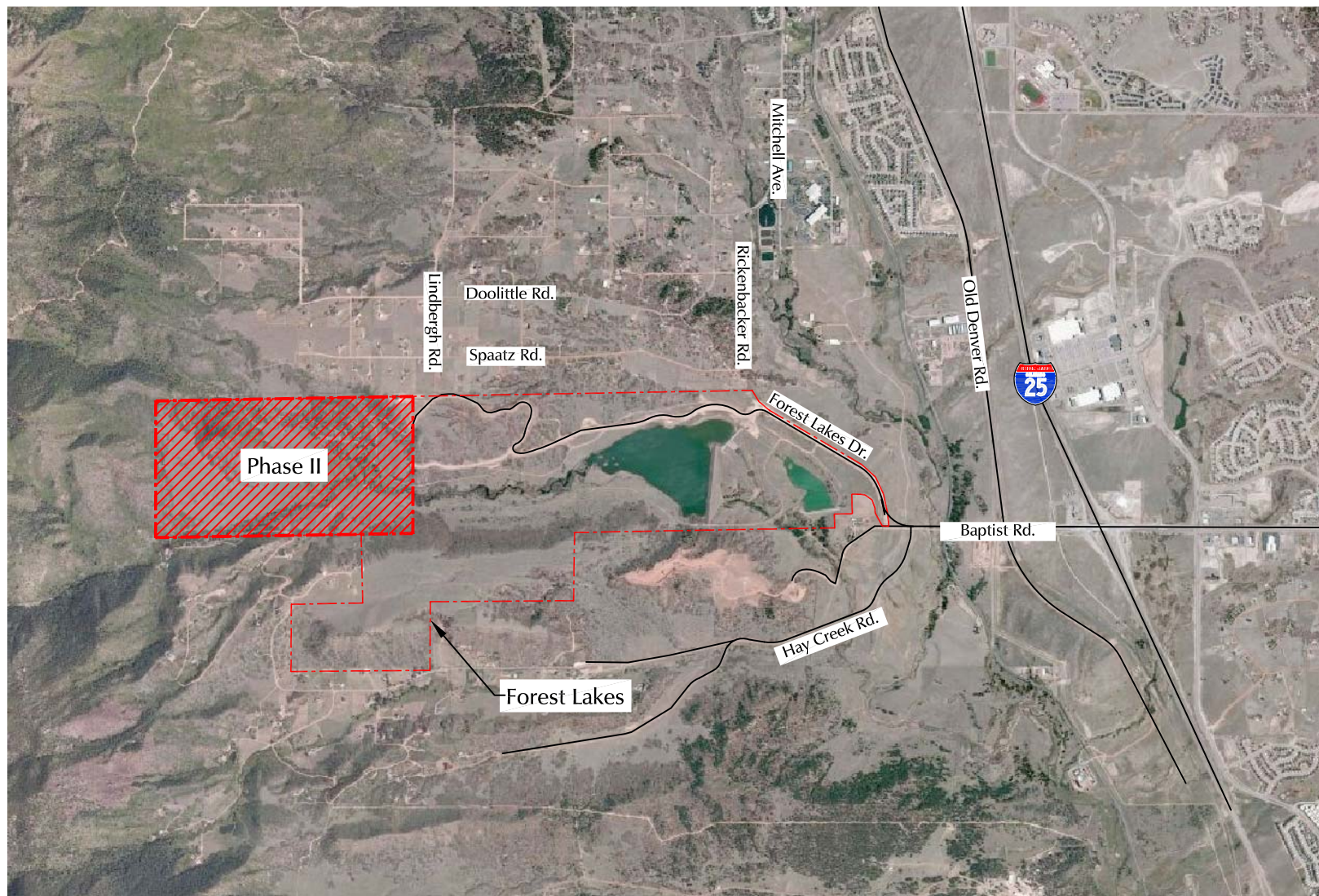
Notes:

(1) Source: "Trip Generation, 10th Edition, 2017" by the Institute of Transportation Engineers (ITE)

(2) DU = dwelling unit

(3) Source: "Forest Lakes Traffic Impact and Access Analysis" by LSC August 13, 2001

Source: LSC Transportation Consultants, Inc.



Approximate Scale
Scale: 1" = 3,000'

Figure 1
**Vicinity
Map**

Forest Lakes Phase II (LSC #174550)

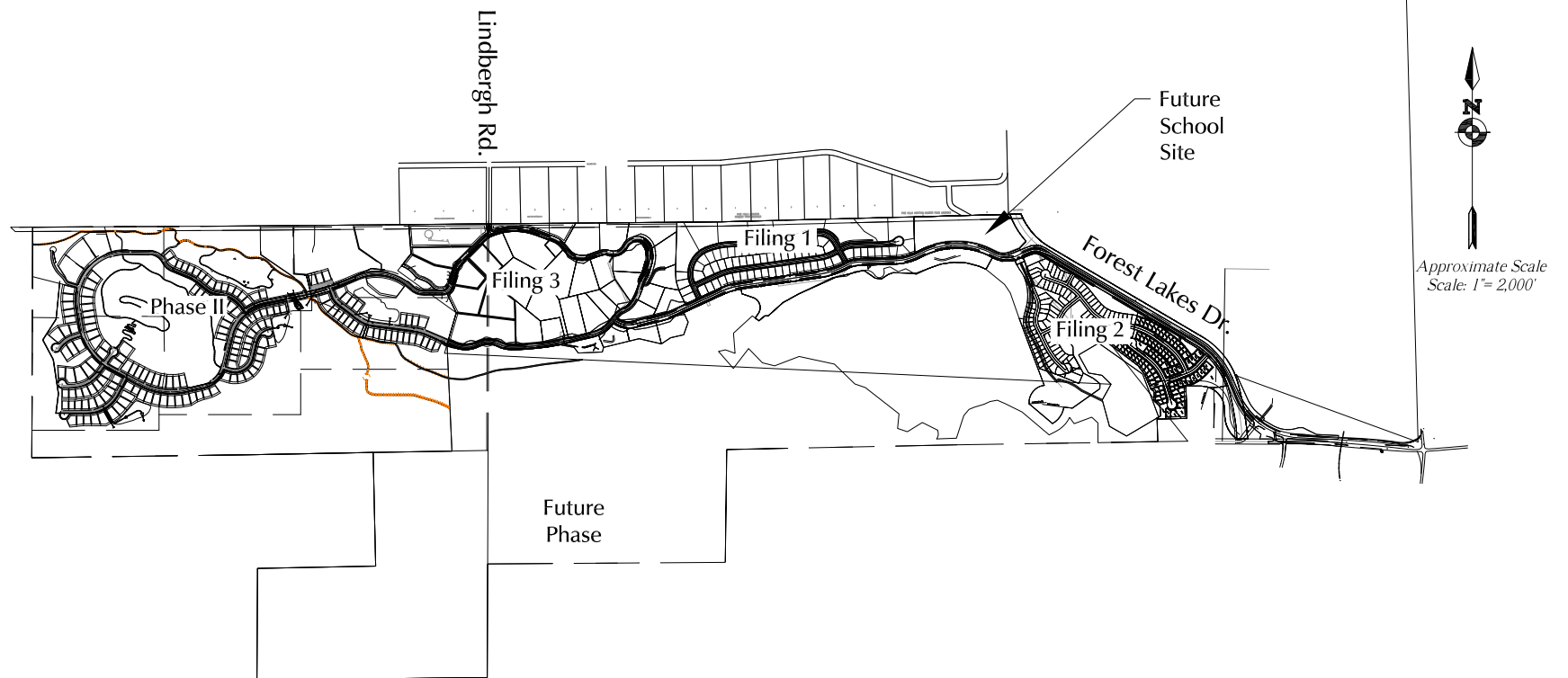


Figure 2

Site Plan

Forest Lakes Phase II (LSC #174550)

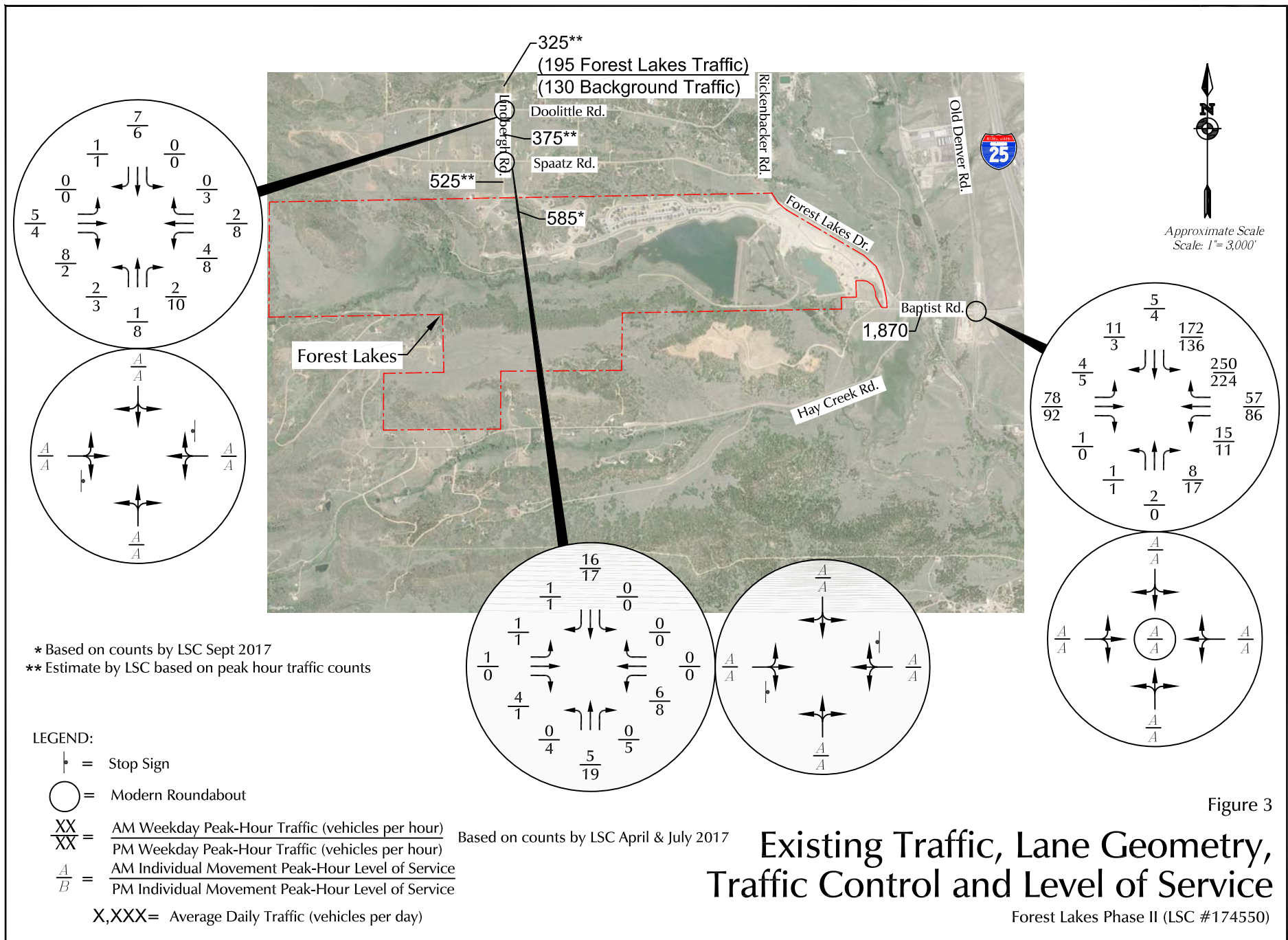
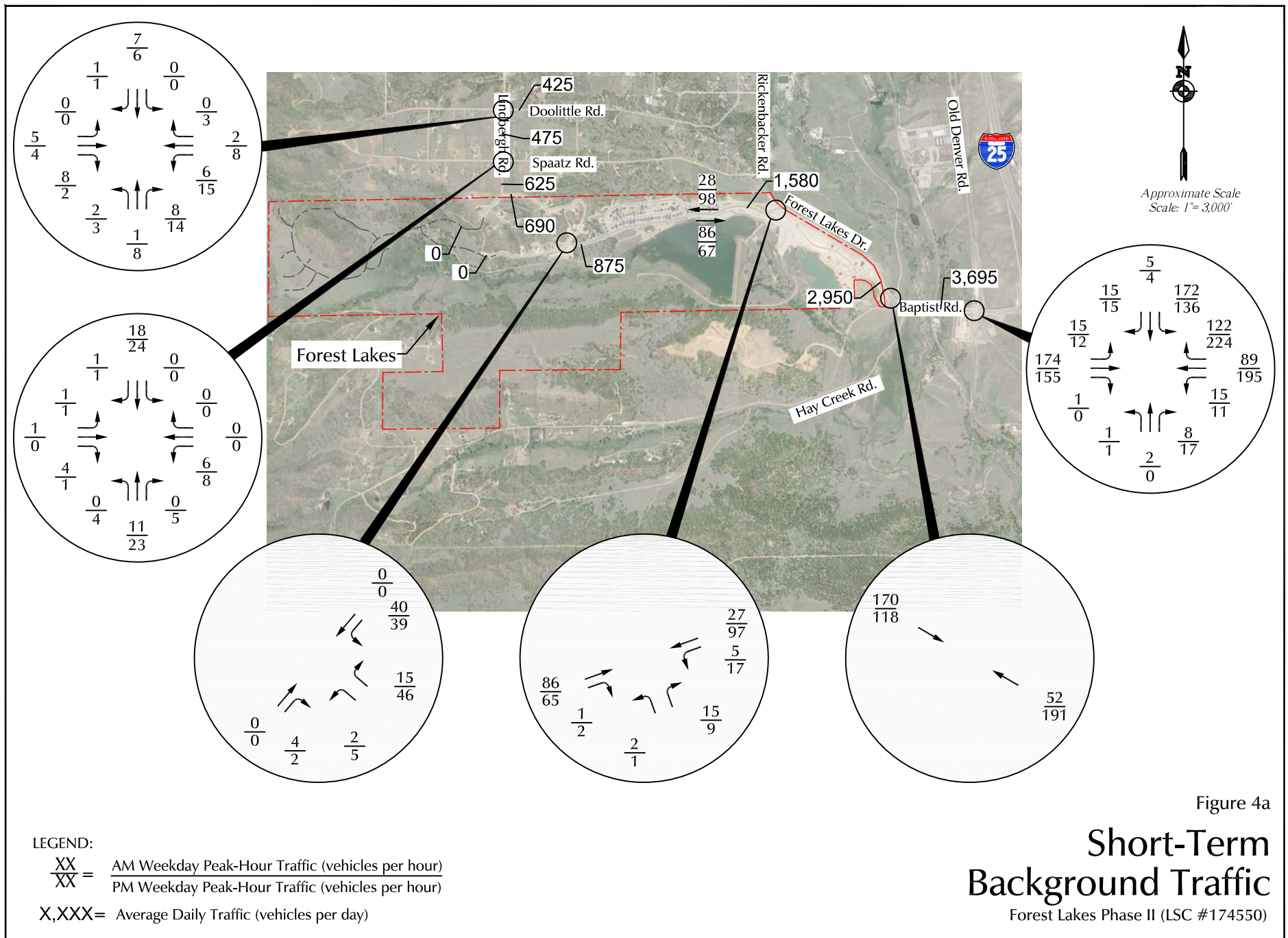
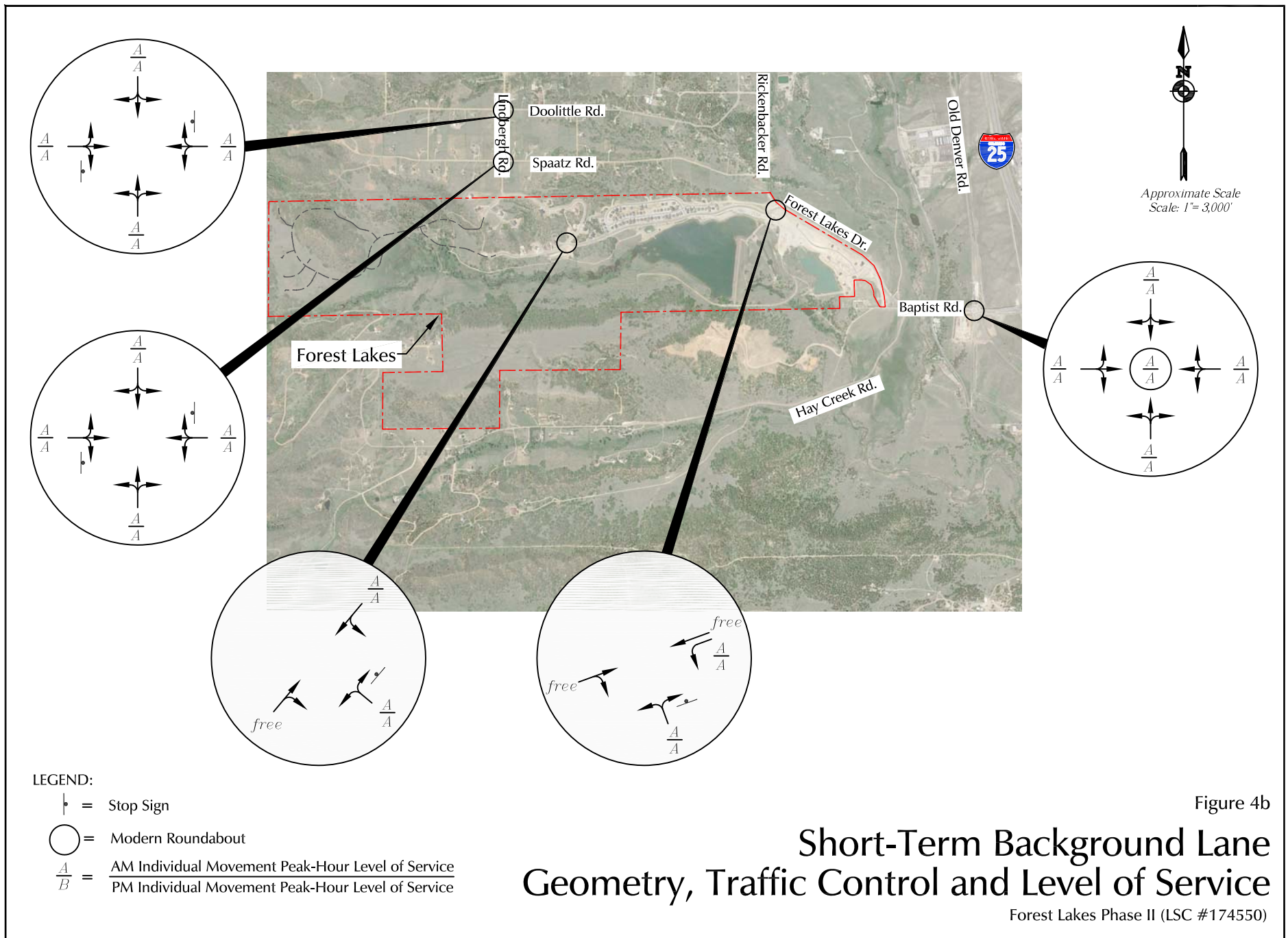
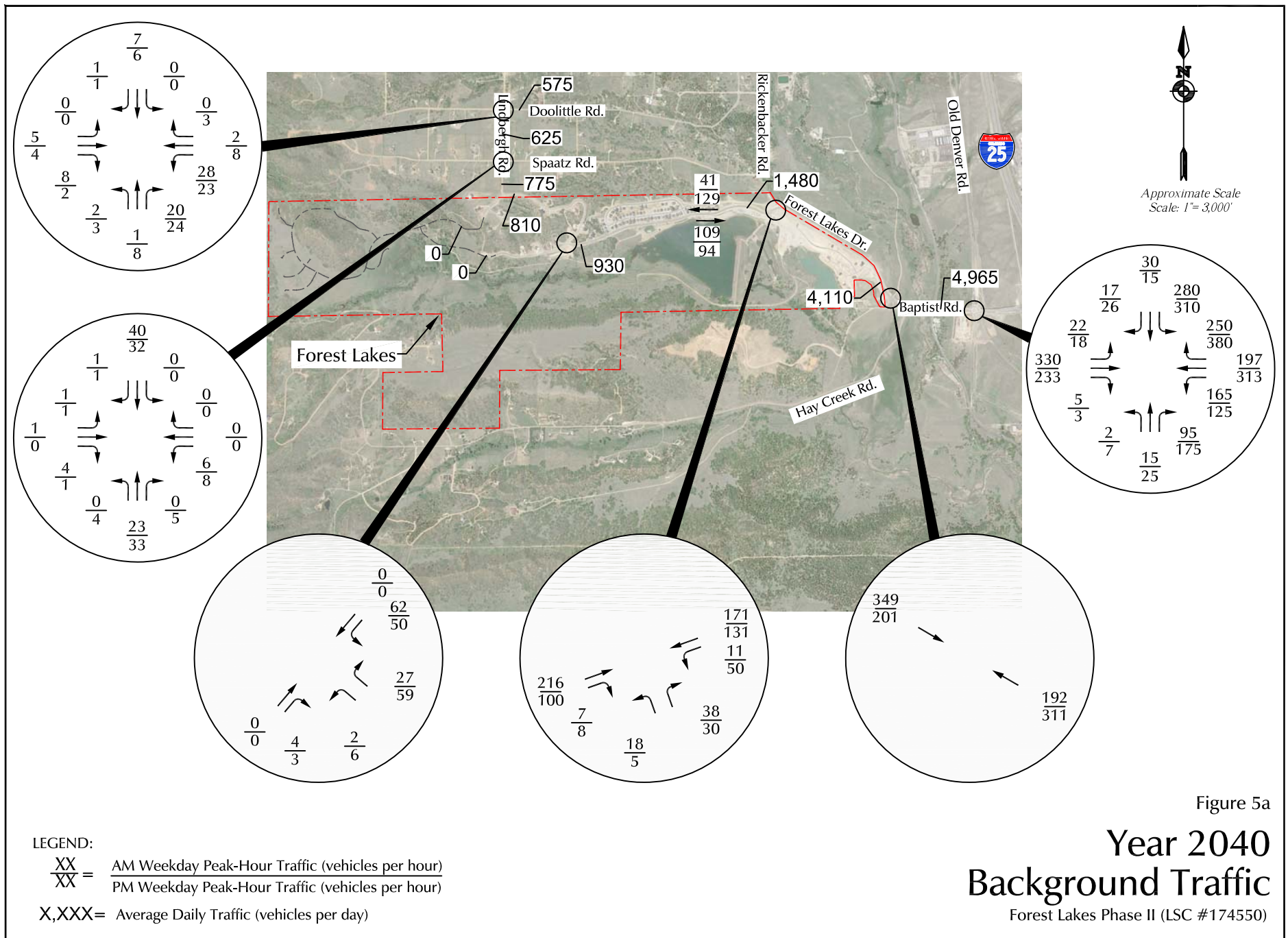
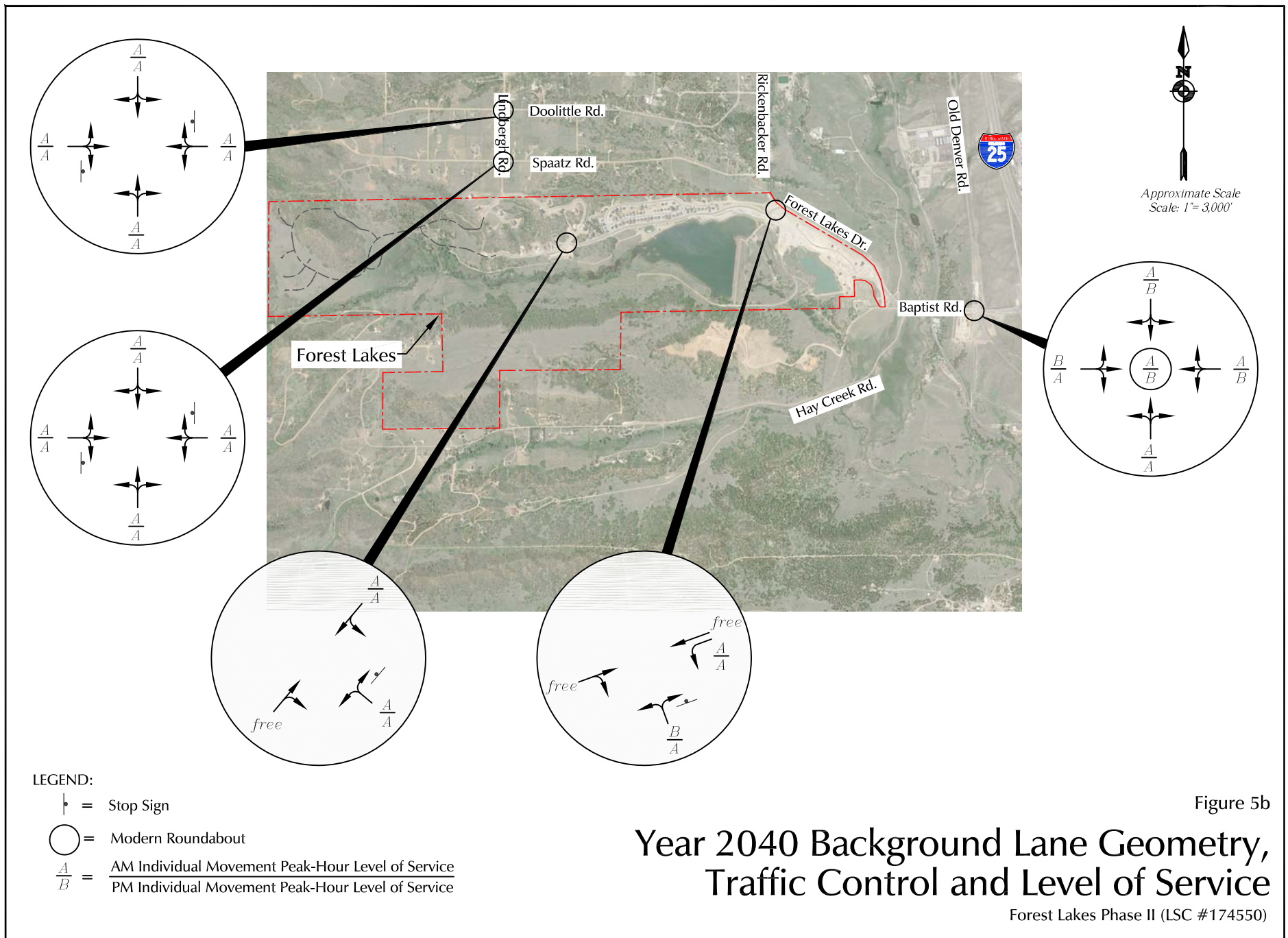


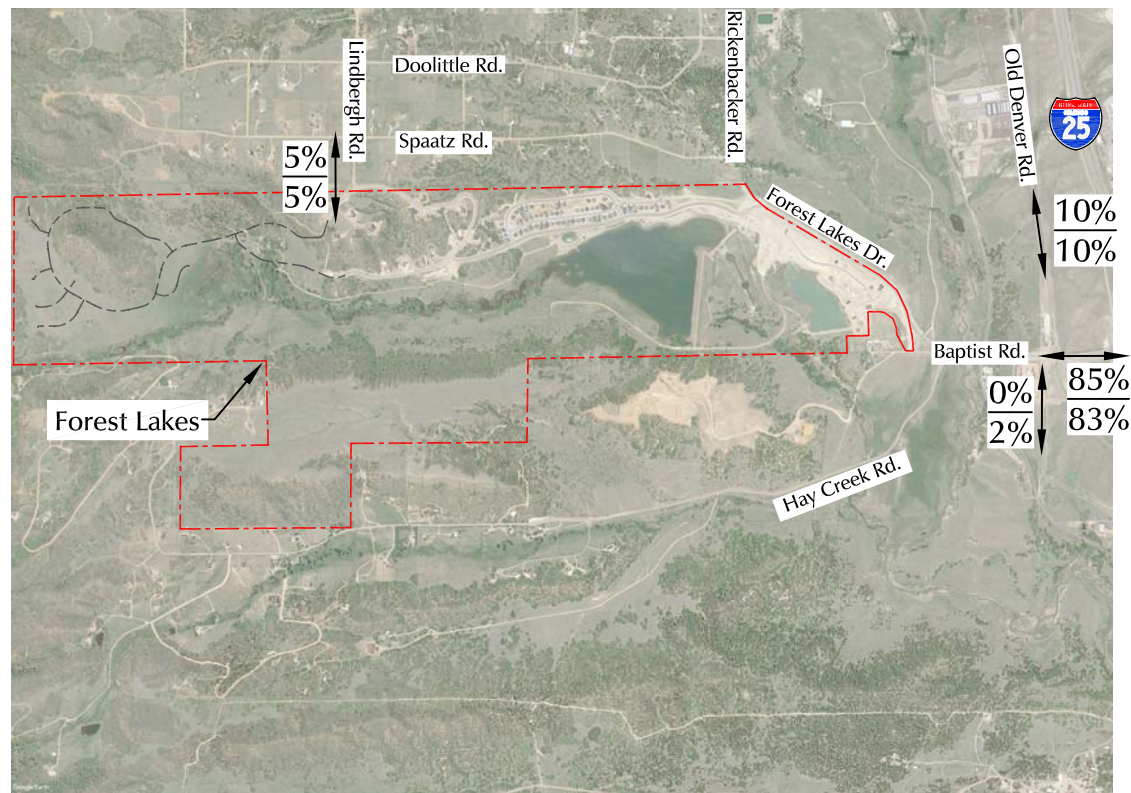
Figure 3











Approximate Scale
Scale: 1" = 3,000'

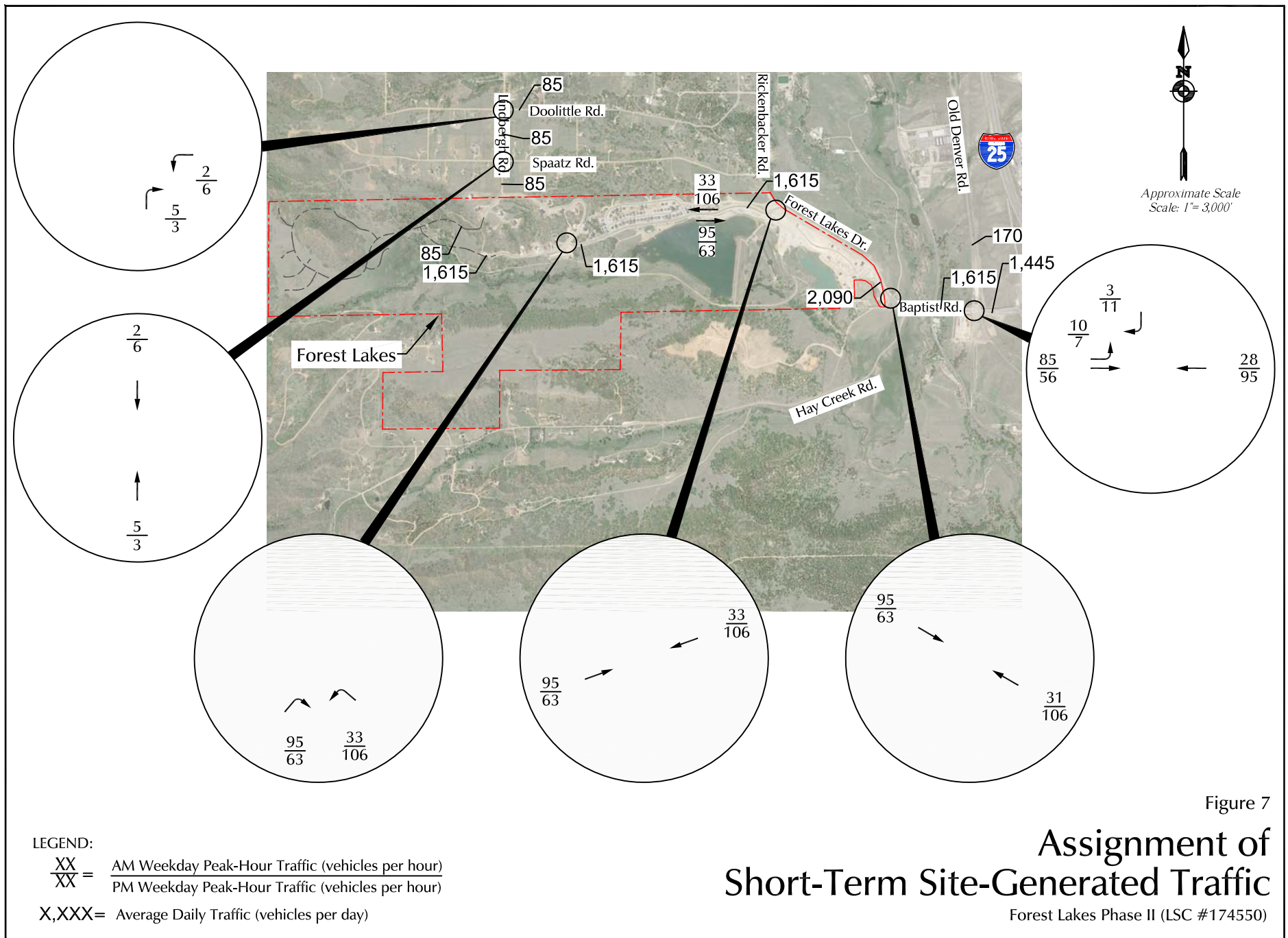
LEGEND:

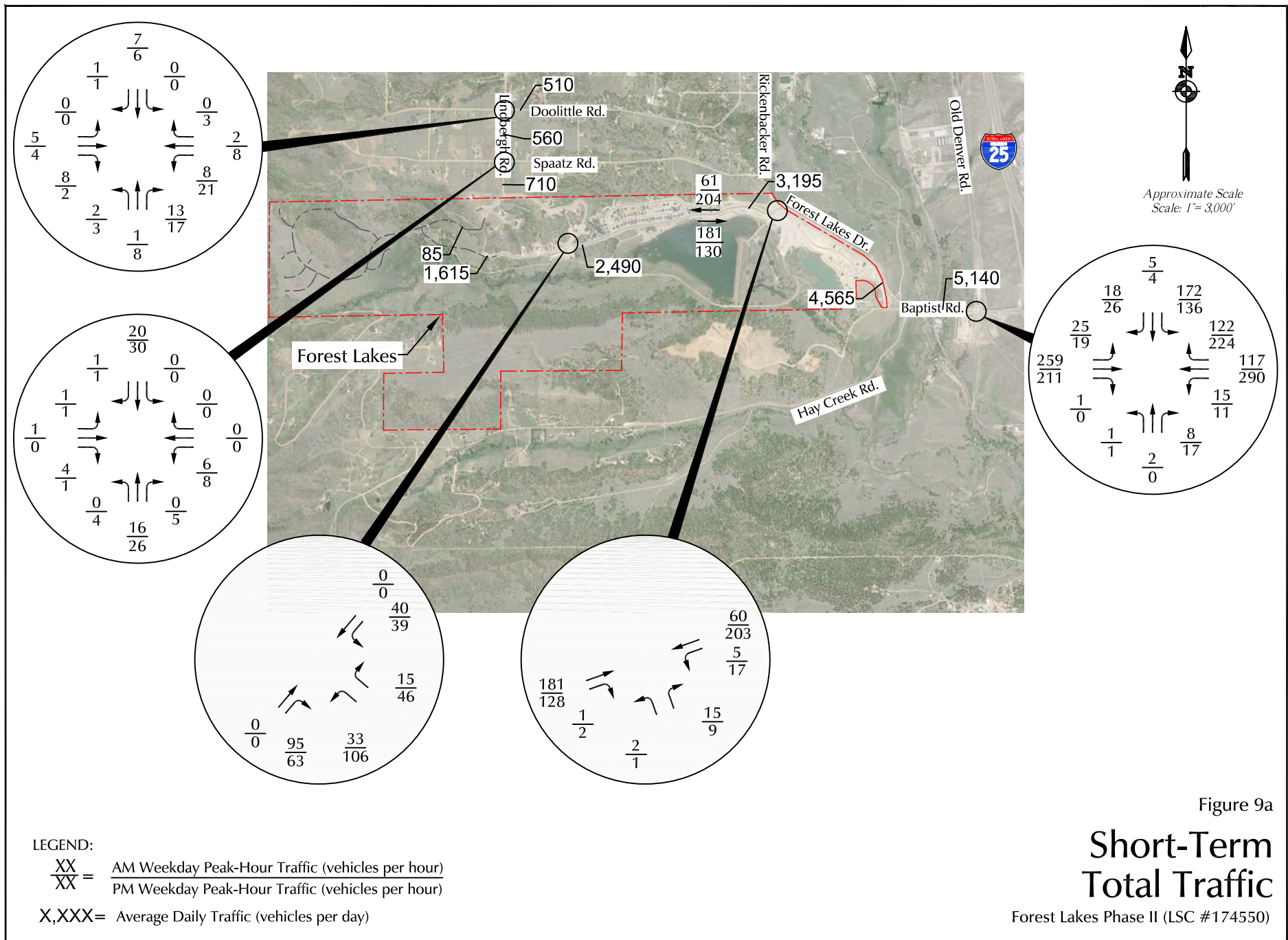
$$\frac{\text{XX\%}}{\text{XX\%}} = \frac{\text{Short-Term Percent Directional Distribution}}{\text{2040 Percent Directional Distribution}}$$

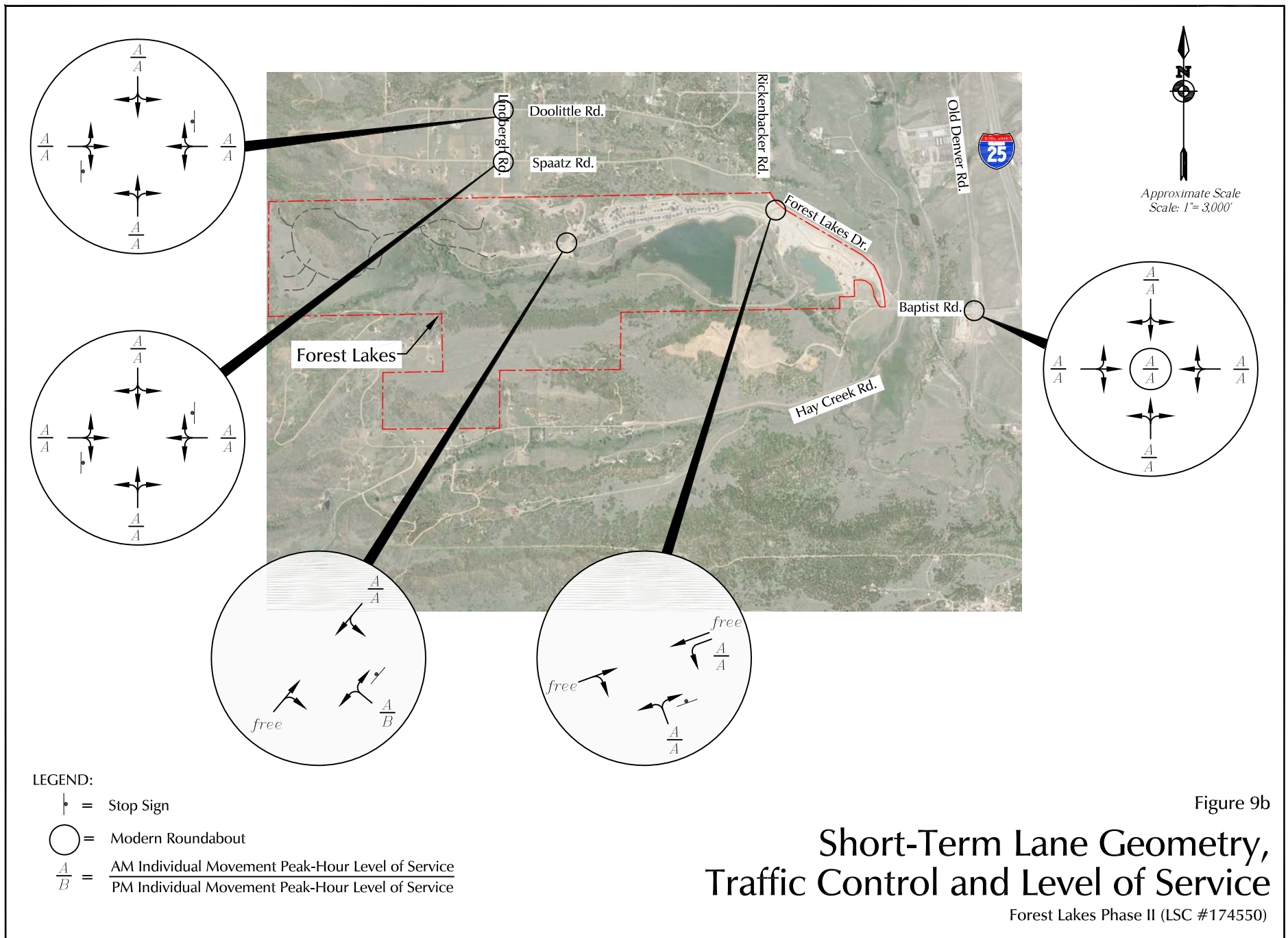
Directional Distribution of Site-Generated Traffic

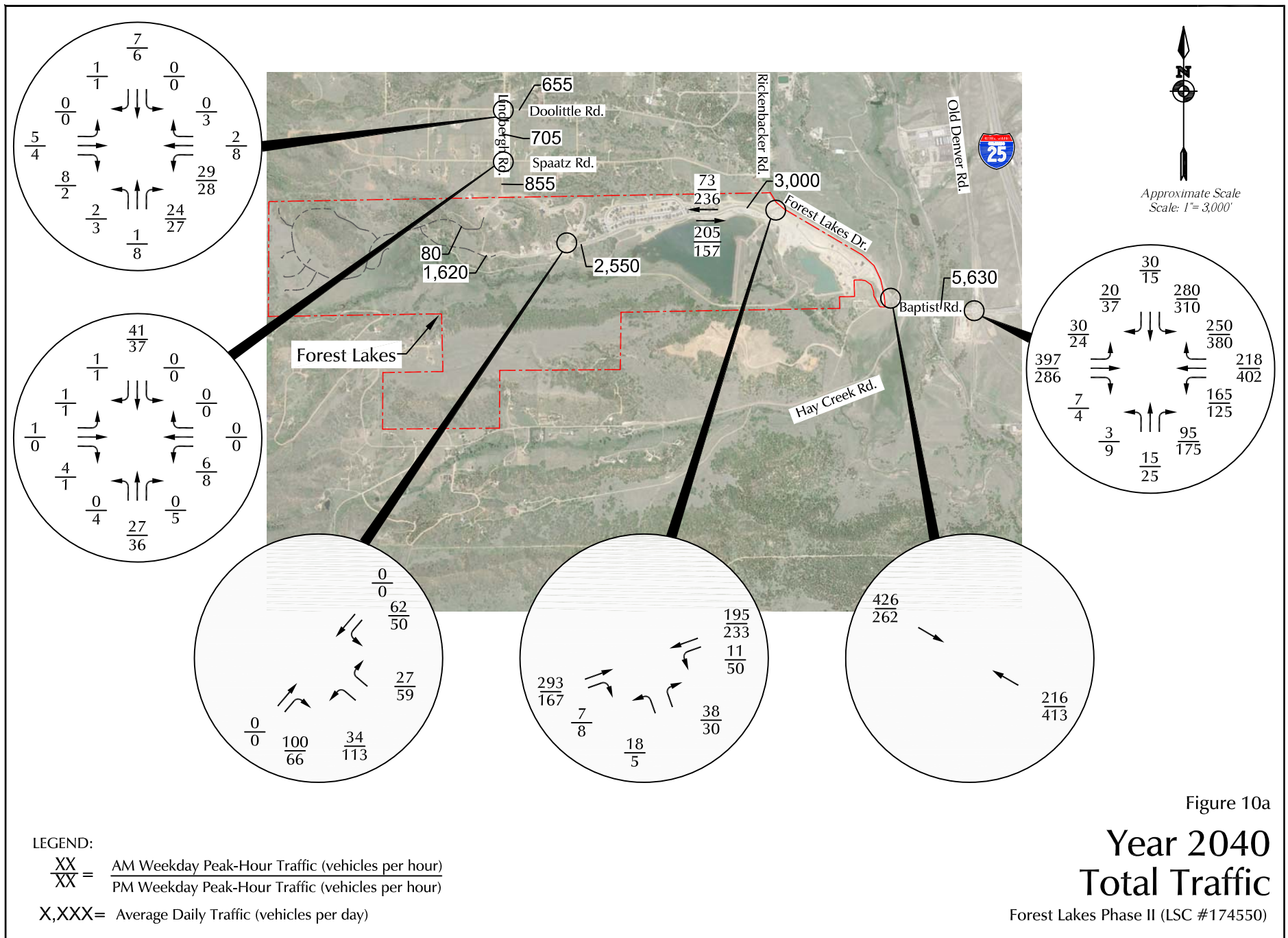
Forest Lakes Phase II (LSC #174550)

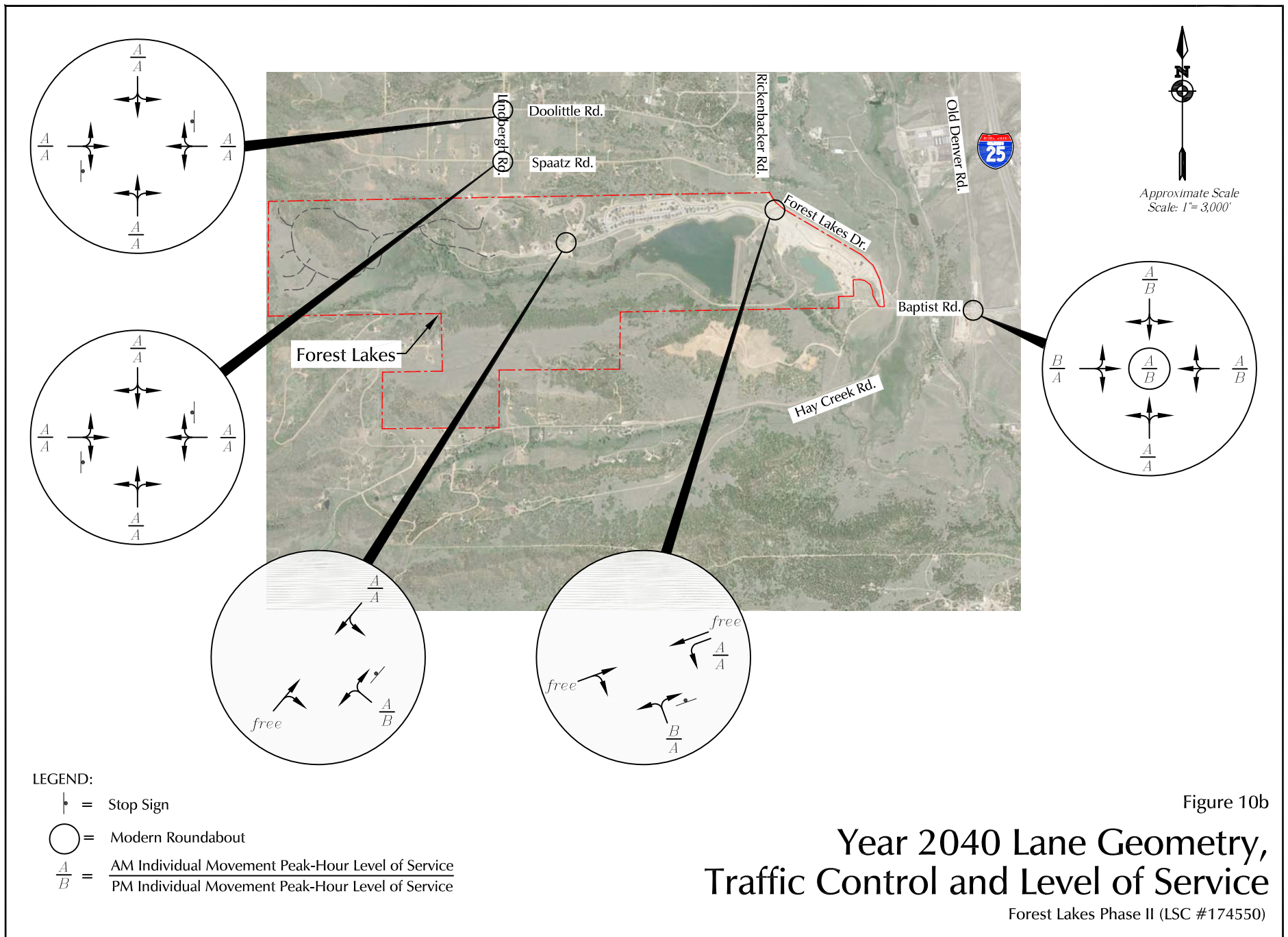
Figure 6











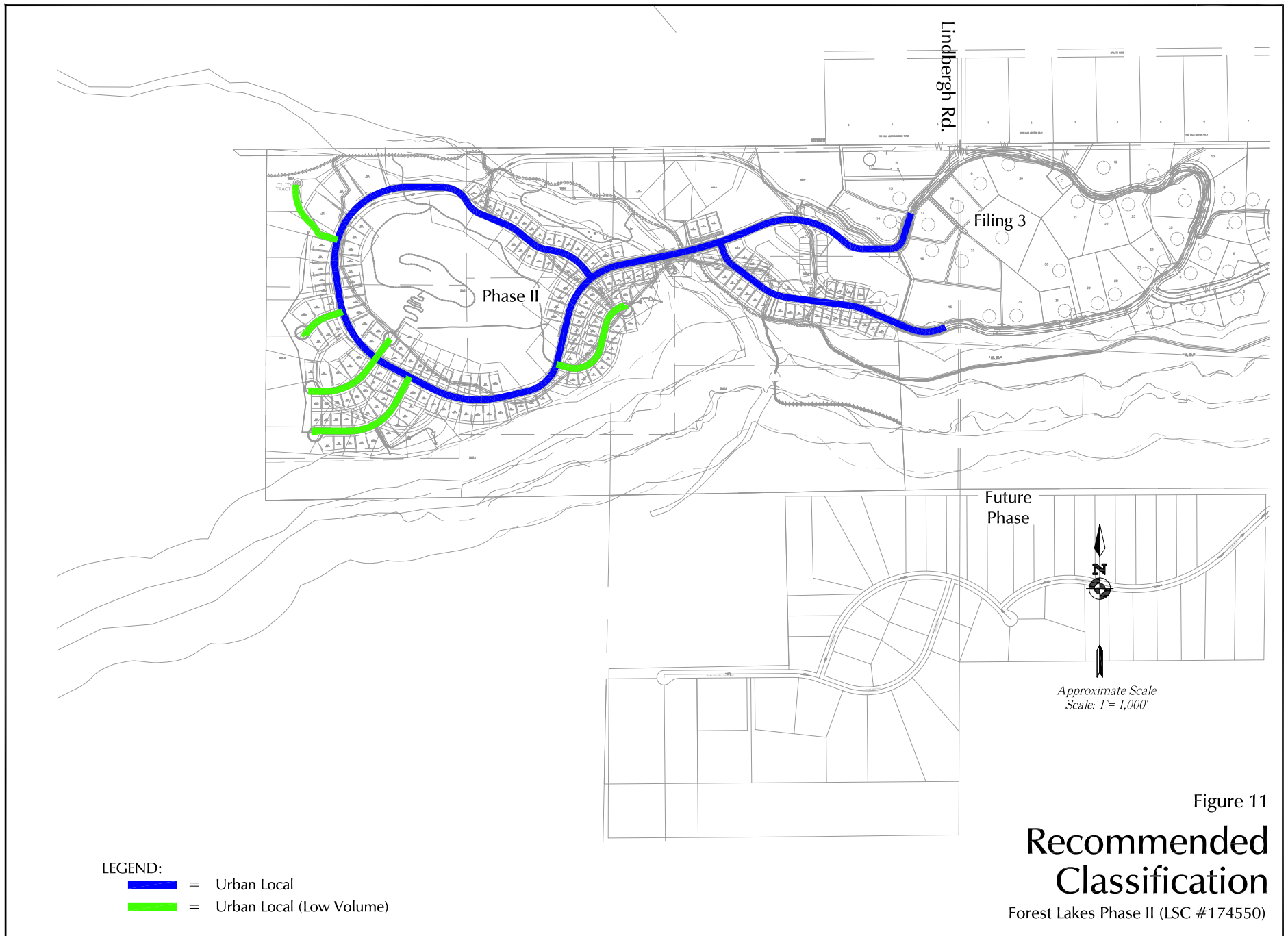


Figure 11

Recommended Classification

Forest Lakes Phase II (LSC #174550)

Counts by LSC

LSC Transportation Consultants, Inc.

File Name : Lindbergh Rd - Doolittle Rd AM

Site Code : 00174550

Start Date : 07/20/2017

Page No : 1

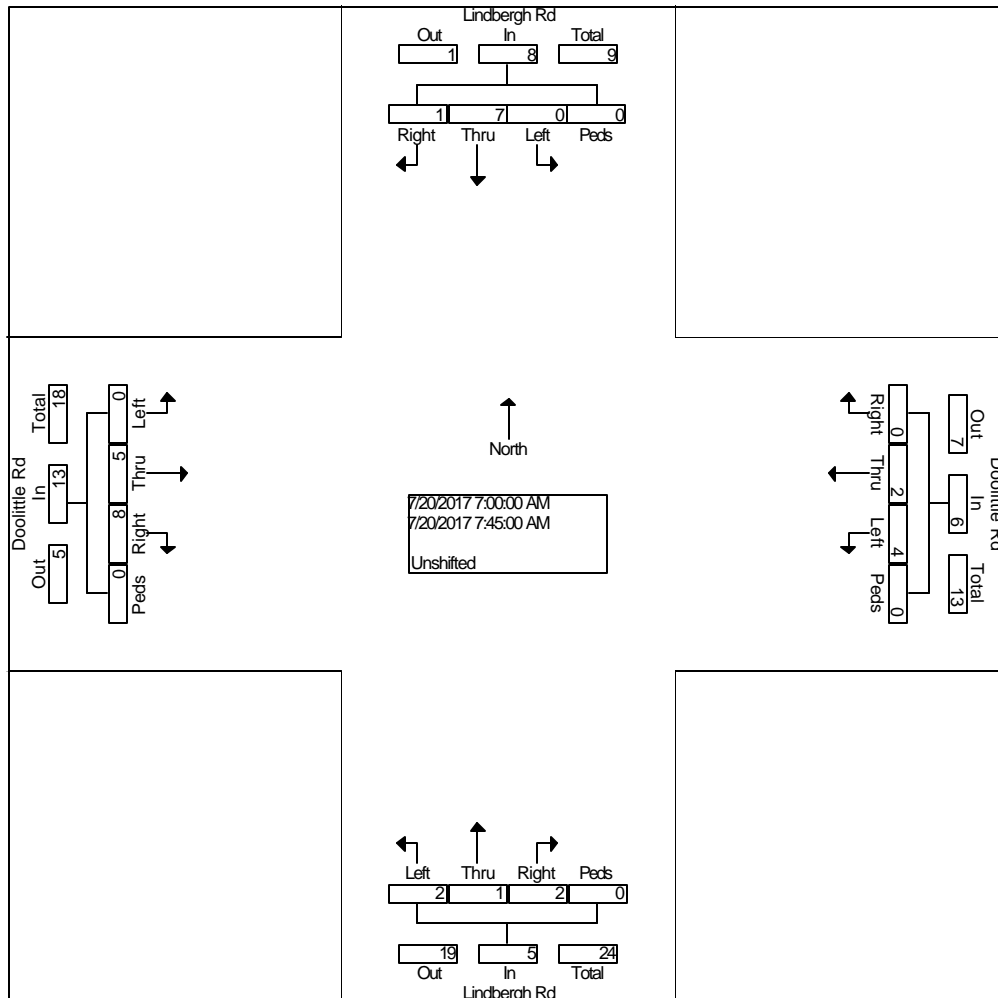
Groups Printed- Unshifted

| | Lindbergh Rd From North | | | | Doolittle Rd From East | | | | Lindbergh Rd From South | | | | Doolittle Rd From West | | | | Int. Total |
|-------------|----------------------------|------|------|------|---------------------------|------|------|------|----------------------------|------|------|------|---------------------------|------|------|------|---------------|
| Start Time | Right | Thru | Left | Peds | Right | Thru | Left | Peds | Right | Thru | Left | Peds | Right | Thru | Left | Peds | |
| 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 | 2 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 4 |
| 06:45 AM | 0 | 1 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 2 | 1 | 0 | 0 | 7 |
| Total | 0 | 3 | 0 | 0 | 0 | 0 | 2 | 0 | 1 | 1 | 1 | 0 | 2 | 1 | 0 | 0 | 11 |
| 07:00 AM | 0 | 1 | 0 | 0 | 0 | 1 | 2 | 0 | 1 | 0 | 0 | 0 | 3 | 1 | 0 | 0 | 9 |
| 07:15 AM | 0 | 1 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 2 | 0 | 0 | 0 | 5 |
| 07:30 AM | 0 | 3 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 1 | 0 | 2 | 2 | 0 | 0 | 10 |
| 07:45 AM | 1 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 1 | 2 | 0 | 0 | 8 |
| Total | 1 | 7 | 0 | 0 | 0 | 2 | 4 | 0 | 2 | 1 | 2 | 0 | 8 | 5 | 0 | 0 | 32 |
| 08:00 AM | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 2 | 0 | 0 | 5 |
| 08:15 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 |
| Grand Total | 1 | 12 | 0 | 0 | 0 | 2 | 6 | 0 | 3 | 3 | 3 | 0 | 10 | 8 | 1 | 0 | 49 |
| Apprch % | 7.7 | 92.3 | 0.0 | 0.0 | 0.0 | 25.0 | 75.0 | 0.0 | 33.3 | 33.3 | 33.3 | 0.0 | 52.6 | 42.1 | 5.3 | 0.0 | |
| Total % | 2.0 | 24.5 | 0.0 | 0.0 | 0.0 | 4.1 | 12.2 | 0.0 | 6.1 | 6.1 | 6.1 | 0.0 | 20.4 | 16.3 | 2.0 | 0.0 | |

Counts by LSC

File Name : Lindbergh Rd - Doolittle Rd AM
 Site Code : 00174550
 Start Date : 07/20/2017
 Page No : 2

| | Lindbergh Rd From North | | | | | Doolittle Rd From East | | | | | Lindbergh Rd From South | | | | | Doolittle Rd From West | | | | | |
|---|----------------------------|----------|----------|----------|---------------|---------------------------|----------|----------|----------|---------------|----------------------------|----------|----------|----------|---------------|---------------------------|----------|----------|----------|---------------|---------------|
| Start Time | Rig ht | Thr u | Lef t | Pe ds | App. Total | Rig ht | Thr u | Lef t | Pe ds | App. Total | Rig ht | Thr u | Lef t | Pe ds | App. Total | Rig ht | Thr u | Lef t | Pe ds | App. Total | Int. Total |
| Peak Hour From 06:30 AM to 08:15 AM - Peak 1 of 1 | | | | | | | | | | | | | | | | | | | | | |
| Intersection | 07:00 AM | | | | | | | | | | | | | | | | | | | | |
| Volume | 1 | 7 | 0 | 0 | 8 | 0 | 2 | 4 | 0 | 6 | 2 | 1 | 2 | 0 | 5 | 8 | 5 | 0 | 0 | 13 | 32 |
| Percent | 12.5 | 87.5 | 0.0 | 0.0 | | 0.0 | 33.3 | 66.7 | 0.0 | | 40.0 | 20.0 | 40.0 | 0.0 | | 61.5 | 38.5 | 0.0 | 0.0 | | |
| 07:30 Volume | 0 | 3 | 0 | 0 | 3 | 0 | 1 | 1 | 0 | 2 | 0 | 0 | 1 | 0 | 1 | 2 | 2 | 0 | 0 | 4 | 10 |
| Peak Factor | | | | | | | | | | | | | | | | | | | | | 0.800 |
| High Int. | 07:30 AM | | | | | 07:00 AM | | | | | 07:45 AM | | | | | 07:00 AM | | | | | |
| Volume | 0 | 3 | 0 | 0 | 3 | 0 | 1 | 2 | 0 | 3 | 1 | 1 | 0 | 0 | 2 | 3 | 1 | 0 | 0 | 4 | |
| Peak Factor | 0.66 | | | | | 0.50 | | | | | 0.62 | | | | | 0.81 | | | | | |
| | 7 | | | | | 0 | | | | | 5 | | | | | 3 | | | | | |



Counts by LSC

LSC Transportation Consultants, Inc.

File Name : Lindbergh Rd - Doolittle Rd PM

Site Code : 00174550

Start Date : 07/27/2017

Page No : 1

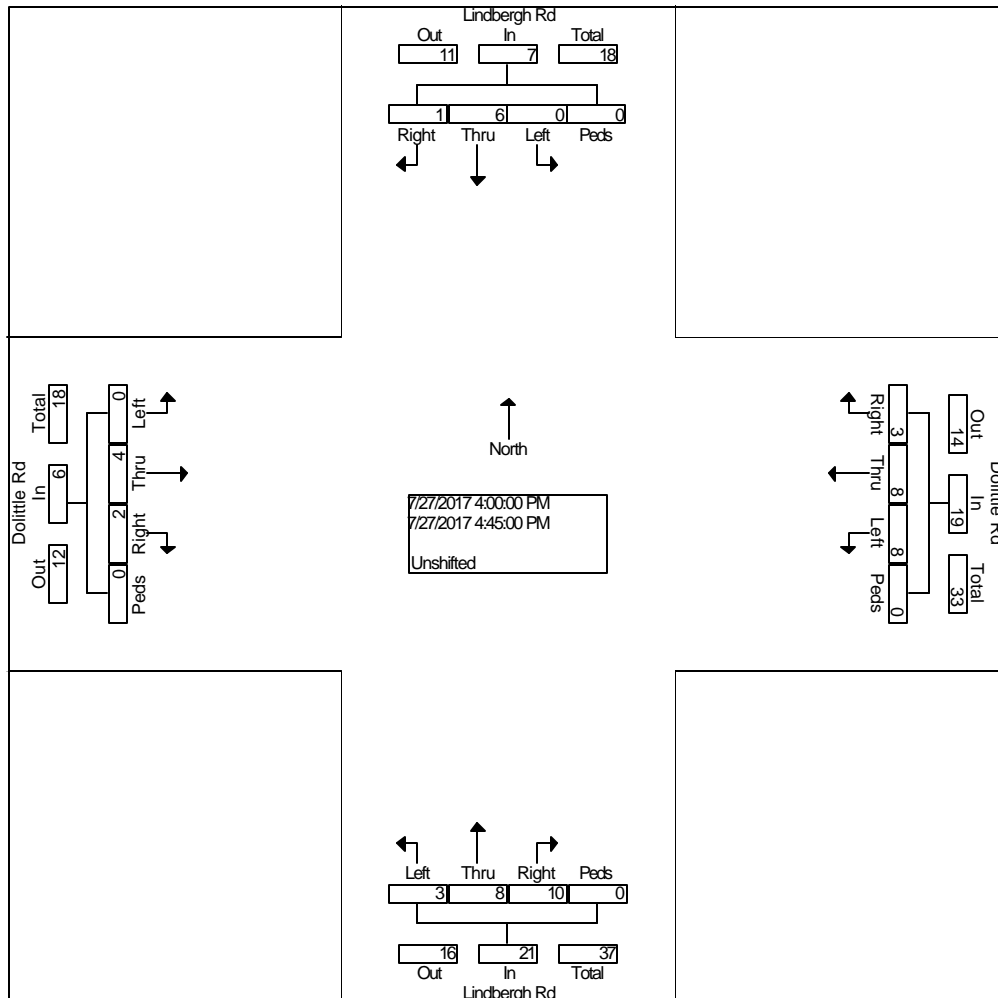
Groups Printed- Unshifted

| | Lindbergh Rd From North | | | | Doolittle Rd From East | | | | Lindbergh Rd From South | | | | Doolittle Rd From West | | | | Int. Total |
|-------------|----------------------------|------|------|------|---------------------------|------|------|------|----------------------------|------|------|------|---------------------------|------|------|------|---------------|
| Start Time | Right | Thru | Left | Peds | Right | Thru | Left | Peds | Right | Thru | Left | Peds | Right | Thru | Left | Peds | |
| 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 | 1 | 1 | 0 | 0 | 0 | 2 | 1 | 0 | 3 | 1 | 1 | 0 | 1 | 0 | 0 | 0 | 11 |
| 04:15 PM | 0 | 3 | 0 | 0 | 0 | 3 | 2 | 0 | 0 | 2 | 0 | 0 | 0 | 1 | 0 | 0 | 11 |
| 04:30 PM | 0 | 2 | 0 | 0 | 2 | 2 | 5 | 0 | 3 | 2 | 0 | 0 | 1 | 3 | 0 | 0 | 20 |
| 04:45 PM | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 4 | 3 | 2 | 0 | 0 | 0 | 0 | 0 | 11 |
| Total | 1 | 6 | 0 | 0 | 3 | 8 | 8 | 0 | 10 | 8 | 3 | 0 | 2 | 4 | 0 | 0 | 53 |
| 05:00 PM | 1 | 2 | 0 | 0 | 0 | 3 | 1 | 0 | 2 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 11 |
| 05:15 PM | 0 | 1 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 2 | 2 | 0 | 1 | 1 | 0 | 0 | 9 |
| 05:30 PM | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 3 | 2 | 1 | 0 | 0 | 1 | 0 | 0 | 9 |
| 05:45 PM | 0 | 4 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 3 | 1 | 0 | 0 | 1 | 0 | 0 | 11 |
| Total | 1 | 7 | 0 | 0 | 0 | 3 | 6 | 0 | 6 | 8 | 5 | 0 | 1 | 3 | 0 | 0 | 40 |
| Grand Total | 2 | 13 | 0 | 0 | 3 | 11 | 14 | 0 | 16 | 16 | 8 | 0 | 3 | 7 | 0 | 0 | 93 |
| Apprch % | 13.3 | 86.7 | 0.0 | 0.0 | 10.7 | 39.3 | 50.0 | 0.0 | 40.0 | 40.0 | 20.0 | 0.0 | 30.0 | 70.0 | 0.0 | 0.0 | |
| Total % | 2.2 | 14.0 | 0.0 | 0.0 | 3.2 | 11.8 | 15.1 | 0.0 | 17.2 | 17.2 | 8.6 | 0.0 | 3.2 | 7.5 | 0.0 | 0.0 | |

Counts by LSC

File Name : Lindbergh Rd - Doolittle Rd PM
 Site Code : 00174550
 Start Date : 07/27/2017
 Page No : 2

| | Lindbergh Rd From North | | | | | Doolittle Rd From East | | | | | Lindbergh Rd From South | | | | | Doolittle Rd From West | | | | | |
|---|----------------------------|----------|----------|----------|---------------|---------------------------|----------|----------|----------|---------------|----------------------------|----------|----------|----------|---------------|---------------------------|----------|----------|----------|---------------|---------------|
| Start Time | Rig ht | Thr u | Lef t | Pe ds | App. Total | Rig ht | Thr u | Lef t | Pe ds | App. Total | Rig ht | Thr u | Lef t | Pe ds | App. Total | Rig ht | Thr u | Lef t | Pe ds | App. Total | Int. Total |
| Peak Hour From 04:00 PM to 05:45 PM - Peak 1 of 1 | | | | | | | | | | | | | | | | | | | | | |
| Intersection | 04:00 PM | | | | | | | | | | | | | | | | | | | | |
| Volume | 1 | 6 | 0 | 0 | 7 | 3 | 8 | 8 | 0 | 19 | 10 | 8 | 3 | 0 | 21 | 2 | 4 | 0 | 0 | 6 | 53 |
| Percent | 14. | 85. | 0.0 | 0.0 | | 15. | 42. | 42. | 0.0 | | 47. | 38. | 14. | 0.0 | | 33. | 66. | 0.0 | 0.0 | | |
| | 3 | 7 | | | | 8 | 1 | 1 | | | 6 | 1 | 3 | | | 3 | 7 | | | | |
| 04:30 | | | | | | | | | | | | | | | | | | | | | |
| Volume | 0 | 2 | 0 | 0 | 2 | 2 | 2 | 5 | 0 | 9 | 3 | 2 | 0 | 0 | 5 | 1 | 3 | 0 | 0 | 4 | 20 |
| Peak | | | | | | | | | | | | | | | | | | | | | 0.663 |
| Factor | | | | | | | | | | | | | | | | | | | | | |
| High Int. | 04:15 PM | | | | | 04:30 PM | | | | | 04:45 PM | | | | | 04:30 PM | | | | | |
| Volume | 0 | 3 | 0 | 0 | 3 | 2 | 2 | 5 | 0 | 9 | 4 | 3 | 2 | 0 | 9 | 1 | 3 | 0 | 0 | 4 | |
| Peak | | | | | | | | | | | | | | | | | | | | | |
| Factor | 0.58 | | | | | 0.52 | | | | | 0.58 | | | | | 0.37 | | | | | |
| | 3 | | | | | 8 | | | | | 3 | | | | | 5 | | | | | |



Counts by LSC

LSC Transportation Consultants, Inc.

File Name : Lindbergh Rd - Spatz Rd AM

Site Code : 00174550

Start Date : 07/20/2017

Page No : 1

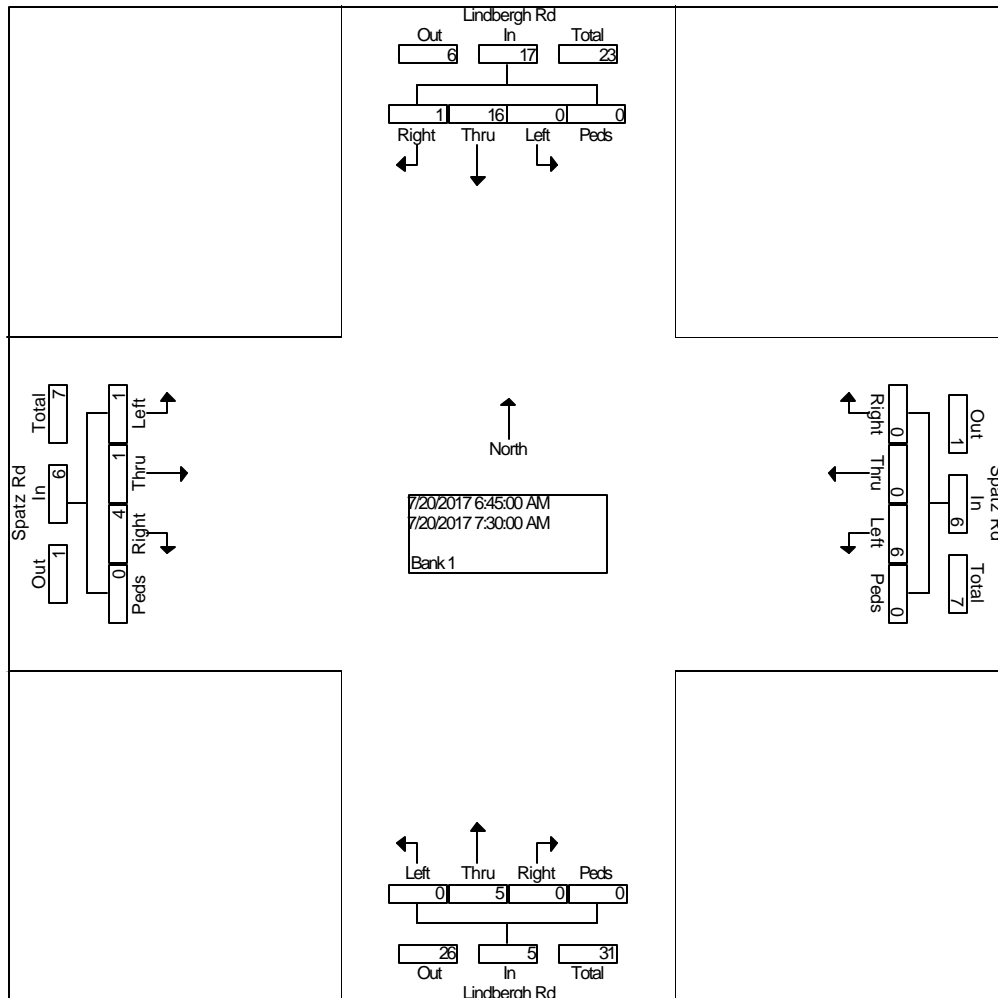
Groups Printed- Bank 1

| | Lindbergh Rd From North | | | | Spatz Rd From East | | | | Lindbergh Rd From South | | | | Spatz Rd From West | | | | Int. Total |
|-------------|----------------------------|------|------|------|-----------------------|------|-------|------|----------------------------|------|------|------|-----------------------|------|------|------|---------------|
| Start Time | Right | Thru | Left | Peds | Right | Thru | Left | Peds | Right | Thru | Left | Peds | Right | Thru | Left | Peds | |
| 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 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 3 |
| 06:45 AM | 0 | 4 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 6 |
| Total | 0 | 6 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 9 |
| 07:00 AM | 1 | 5 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 1 | 0 | 10 |
| 07:15 AM | 0 | 3 | 0 | 0 | 0 | 0 | 3 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 7 |
| 07:30 AM | 0 | 4 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 1 | 0 | 0 | 3 | 1 | 0 | 0 | 11 |
| 07:45 AM | 0 | 4 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 6 |
| Total | 1 | 16 | 0 | 0 | 0 | 0 | 6 | 0 | 0 | 5 | 0 | 0 | 4 | 1 | 1 | 0 | 34 |
| 08:00 AM | 0 | 2 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 6 |
| 08:15 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 0 | 0 | 0 | 3 |
| Grand Total | 1 | 24 | 0 | 0 | 0 | 0 | 7 | 0 | 1 | 9 | 1 | 0 | 7 | 1 | 1 | 0 | 52 |
| Apprch % | 4.0 | 96.0 | 0.0 | 0.0 | 0.0 | 0.0 | 100.0 | 0.0 | 9.1 | 81.8 | 9.1 | 0.0 | 77.8 | 11.1 | 11.1 | 0.0 | |
| Total % | 1.9 | 46.2 | 0.0 | 0.0 | 0.0 | 0.0 | 13.5 | 0.0 | 1.9 | 17.3 | 1.9 | 0.0 | 13.5 | 1.9 | 1.9 | 0.0 | |

Counts by LSC

File Name : Lindbergh Rd - Spatz Rd AM
 Site Code : 00174550
 Start Date : 07/20/2017
 Page No : 2

| | Lindbergh Rd From North | | | | | Spatz Rd From East | | | | | Lindbergh Rd From South | | | | | Spatz Rd From West | | | | | Int. |
|---|----------------------------|----------|----------|----------|---------------|-----------------------|----------|----------|----------|---------------|----------------------------|----------|----------|----------|---------------|-----------------------|----------|----------|----------|---------------|-------|
| Start Time | Rig ht | Thr u | Lef t | Pe ds | App. Total | Rig ht | Thr u | Lef t | Pe ds | App. Total | Rig ht | Thr u | Lef t | Pe ds | App. Total | Rig ht | Thr u | Lef t | Pe ds | App. Total | Total |
| Peak Hour From 06:30 AM to 08:15 AM - Peak 1 of 1 | | | | | | | | | | | | | | | | | | | | | |
| Intersection | 06:45 AM | | | | | | | | | | | | | | | | | | | | |
| Volume | 1 | 16 | 0 | 0 | 17 | 0 | 0 | 6 | 0 | 6 | 0 | 5 | 0 | 0 | 5 | 4 | 1 | 1 | 0 | 6 | 34 |
| Percent | 5.9 | 94.1 | 0.0 | 0.0 | | 0.0 | 0.0 | 10.0 | 0.0 | | 0.0 | 10.0 | 0.0 | 0.0 | | 66.7 | 16.7 | 16.7 | 0.0 | | |
| 07:30 Volume | 0 | 4 | 0 | 0 | 4 | 0 | 0 | 2 | 0 | 2 | 0 | 1 | 0 | 0 | 1 | 3 | 1 | 0 | 0 | 4 | 11 |
| Peak Factor | | | | | | | | | | | | | | | | | | | | | 0.773 |
| High Int. | 07:00 AM | | | | | 07:15 AM | | | | | 06:45 AM | | | | | 07:30 AM | | | | | |
| Volume | 1 | 5 | 0 | 0 | 6 | 0 | 0 | 3 | 0 | 3 | 0 | 2 | 0 | 0 | 2 | 3 | 1 | 0 | 0 | 4 | |
| Peak Factor | 0.70 | | | | | 0.50 | | | | | 0.62 | | | | | 0.37 | | | | | |
| | 8 | | | | | 0 | | | | | 5 | | | | | 5 | | | | | |



Counts by LSC

LSC Transportation Consultants, Inc.

File Name : Lindbergh Rd - Spatz Rd PM

Site Code : 00174550

Start Date : 07/27/2017

Page No : 1

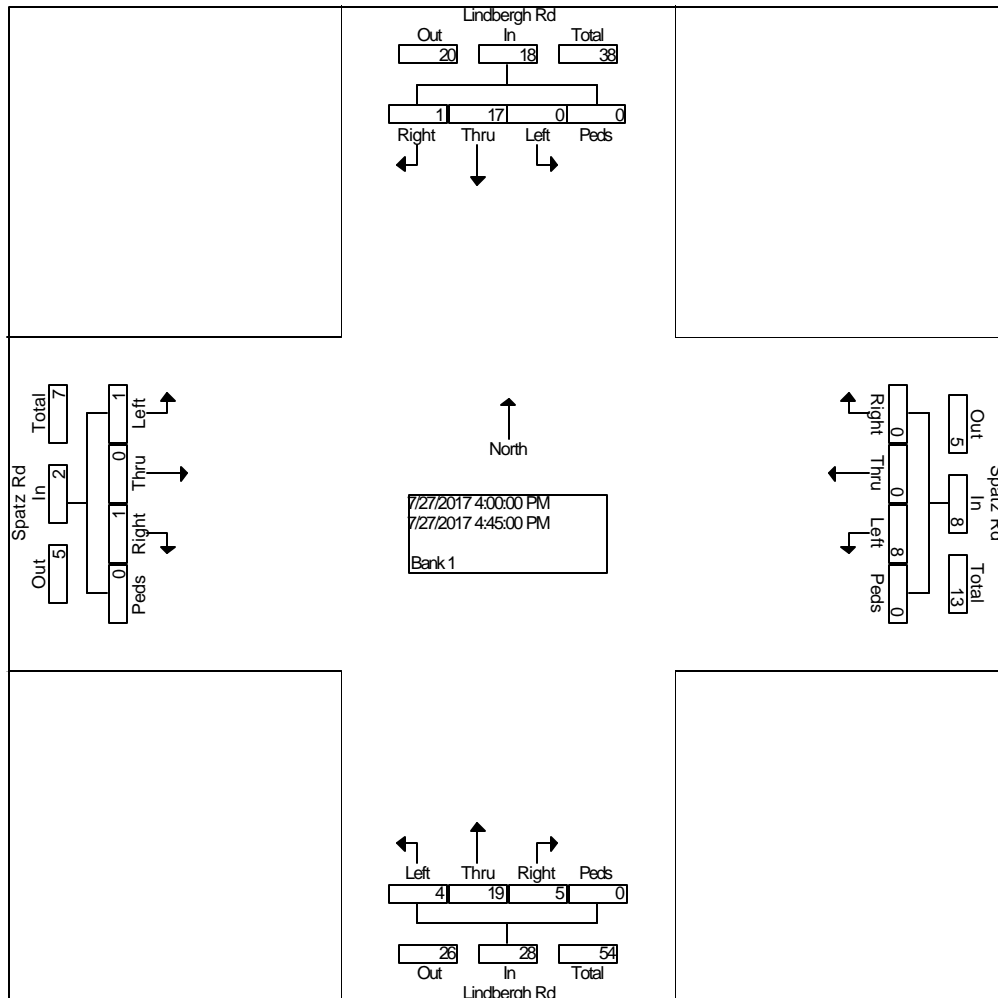
Groups Printed- Bank 1

| | Lindbergh Rd From North | | | | Spatz Rd From East | | | | Lindbergh Rd From South | | | | Spatz Rd From West | | | | Int. Total |
|-------------|----------------------------|------|------|------|-----------------------|------|------|------|----------------------------|------|------|------|-----------------------|------|------|------|---------------|
| Start Time | Right | Thru | Left | Peds | Right | Thru | Left | Peds | Right | Thru | Left | Peds | Right | Thru | Left | Peds | |
| 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 | 2 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 4 | 2 | 0 | 1 | 0 | 0 | 0 | 11 |
| 04:15 PM | 0 | 6 | 0 | 0 | 0 | 0 | 4 | 0 | 2 | 3 | 2 | 0 | 0 | 0 | 0 | 0 | 17 |
| 04:30 PM | 1 | 8 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 3 | 0 | 0 | 0 | 0 | 1 | 0 | 15 |
| 04:45 PM | 0 | 1 | 0 | 0 | 0 | 0 | 2 | 0 | 1 | 9 | 0 | 0 | 0 | 0 | 0 | 0 | 13 |
| Total | 1 | 17 | 0 | 0 | 0 | 0 | 8 | 0 | 5 | 19 | 4 | 0 | 1 | 0 | 1 | 0 | 56 |
| 05:00 PM | 0 | 2 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 4 | 1 | 0 | 0 | 0 | 0 | 0 | 8 |
| 05:15 PM | 0 | 3 | 1 | 0 | 0 | 0 | 1 | 0 | 3 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 11 |
| 05:30 PM | 0 | 2 | 0 | 1 | 0 | 0 | 1 | 0 | 3 | 6 | 1 | 0 | 1 | 0 | 0 | 0 | 15 |
| 05:45 PM | 0 | 3 | 2 | 0 | 1 | 0 | 0 | 0 | 0 | 5 | 1 | 0 | 0 | 0 | 0 | 0 | 12 |
| Total | 0 | 10 | 3 | 1 | 1 | 0 | 3 | 0 | 6 | 18 | 3 | 0 | 1 | 0 | 0 | 0 | 46 |
| Grand Total | 1 | 27 | 3 | 1 | 1 | 0 | 11 | 0 | 11 | 37 | 7 | 0 | 2 | 0 | 1 | 0 | 102 |
| Apprch % | 3.1 | 84.4 | 9.4 | 3.1 | 8.3 | 0.0 | 91.7 | 0.0 | 20.0 | 67.3 | 12.7 | 0.0 | 66.7 | 0.0 | 33.3 | 0.0 | |
| Total % | 1.0 | 26.5 | 2.9 | 1.0 | 1.0 | 0.0 | 10.8 | 0.0 | 10.8 | 36.3 | 6.9 | 0.0 | 2.0 | 0.0 | 1.0 | 0.0 | |

Counts by LSC

File Name : Lindbergh Rd - Spatz Rd PM
 Site Code : 00174550
 Start Date : 07/27/2017
 Page No : 2

| | Lindbergh Rd From North | | | | | Spatz Rd From East | | | | | Lindbergh Rd From South | | | | | Spatz Rd From West | | | | | Int. |
|---|----------------------------|----------|----------|----------|---------------|-----------------------|----------|----------|----------|---------------|----------------------------|----------|----------|----------|---------------|-----------------------|----------|----------|----------|---------------|-------|
| Start Time | Rig ht | Thr u | Lef t | Pe ds | App. Total | Rig ht | Thr u | Lef t | Pe ds | App. Total | Rig ht | Thr u | Lef t | Pe ds | App. Total | Rig ht | Thr u | Lef t | Pe ds | App. Total | Total |
| Peak Hour From 04:00 PM to 05:45 PM - Peak 1 of 1 | | | | | | | | | | | | | | | | | | | | | |
| Intersection 04:00 PM | | | | | | | | | | | | | | | | | | | | | |
| Volume | 1 | 17 | 0 | 0 | 18 | 0 | 0 | 8 | 0 | 8 | 5 | 19 | 4 | 0 | 28 | 1 | 0 | 1 | 0 | 2 | 56 |
| Percent | 5.6 | 94.4 | 0.0 | 0.0 | | 0.0 | 0.0 | 10.0 | 0.0 | | 17.9 | 67.9 | 14.3 | 0.0 | | 50.0 | 0.0 | 50.0 | 0.0 | | |
| 04:15 Volume | 0 | 6 | 0 | 0 | 6 | 0 | 0 | 4 | 0 | 4 | 2 | 3 | 2 | 0 | 7 | 0 | 0 | 0 | 0 | 0 | 17 |
| Peak Factor | | | | | | | | | | | | | | | | | | | | | 0.824 |
| High Int. 04:30 PM | | | | | | 04:15 PM | | | | | 04:45 PM | | | | | 04:00 PM | | | | | |
| Volume | 1 | 8 | 0 | 0 | 9 | 0 | 0 | 4 | 0 | 4 | 1 | 9 | 0 | 0 | 10 | 1 | 0 | 0 | 0 | 1 | |
| Peak Factor | 0.50 | | | | | 0.50 | | | | | 0.70 | | | | | 0.50 | | | | | |
| | 0 | | | | | 0 | | | | | 0 | | | | | 0 | | | | | |



COUNTER MEASURES INC.

Location: LINDBERGH RD AT SITE ACCESS

City:

County: EL PASO

Direction: EASTBOUND-WESTBOUND

1889 YORK STREET

DENVER, COLORADO 80206

303-333-7409

Site Code: 092711

Station ID: 092711

| Start Time | 28-Sep-17 | | EB | | WB | | Combined | | 29-Sep | | EB | | WB | | Combined | |
|------------|-----------|-------|-------|------|-------|-------|----------|-------|--------|------|------|------|------|------|----------|------|
| | Thu | A.M. | P.M. | A.M. | P.M. | A.M. | P.M. | Fri | A.M. | P.M. | A.M. | P.M. | A.M. | P.M. | A.M. | P.M. |
| 12:00 | | 0 | 6 | | 0 | 8 | 0 | 14 | | * | * | * | * | * | * | * |
| 12:15 | | 0 | 3 | | 1 | 1 | 1 | 4 | | * | * | * | * | * | * | * |
| 12:30 | | 0 | 4 | | 0 | 8 | 0 | 12 | | * | * | * | * | * | * | * |
| 12:45 | | 0 | 2 | | 0 | 5 | 0 | 7 | | * | * | * | * | * | * | * |
| 01:00 | | 0 | 1 | | 0 | 6 | 0 | 7 | | * | * | * | * | * | * | * |
| 01:15 | | 0 | 7 | | 0 | 6 | 0 | 13 | | * | * | * | * | * | * | * |
| 01:30 | | 0 | 2 | | 1 | 3 | 1 | 5 | | * | * | * | * | * | * | * |
| 01:45 | | 0 | 4 | | 0 | 6 | 0 | 10 | | * | * | * | * | * | * | * |
| 02:00 | | 0 | 7 | | 0 | 5 | 0 | 12 | | * | * | * | * | * | * | * |
| 02:15 | | 0 | 3 | | 0 | 3 | 0 | 6 | | * | * | * | * | * | * | * |
| 02:30 | | 0 | 8 | | 0 | 1 | 0 | 9 | | * | * | * | * | * | * | * |
| 02:45 | | 0 | 3 | | 0 | 4 | 0 | 7 | | * | * | * | * | * | * | * |
| 03:00 | | 0 | 5 | | 0 | 9 | 0 | 14 | | * | * | * | * | * | * | * |
| 03:15 | | 0 | 5 | | 0 | 7 | 0 | 12 | | * | * | * | * | * | * | * |
| 03:30 | | 0 | 7 | | 0 | 10 | 0 | 17 | | * | * | * | * | * | * | * |
| 03:45 | | 2 | 4 | | 0 | 4 | 2 | 8 | | * | * | * | * | * | * | * |
| 04:00 | | 0 | 6 | | 2 | 8 | 2 | 14 | | * | * | * | * | * | * | * |
| 04:15 | | 0 | 4 | | 0 | 7 | 0 | 11 | | * | * | * | * | * | * | * |
| 04:30 | | 0 | 10 | | 0 | 5 | 0 | 15 | | * | * | * | * | * | * | * |
| 04:45 | | 0 | 6 | | 0 | 6 | 0 | 12 | | * | * | * | * | * | * | * |
| 05:00 | | 1 | 5 | | 0 | 9 | 1 | 14 | | * | * | * | * | * | * | * |
| 05:15 | | 2 | 1 | | 1 | 8 | 3 | 9 | | * | * | * | * | * | * | * |
| 05:30 | | 0 | 5 | | 0 | 7 | 0 | 12 | | * | * | * | * | * | * | * |
| 05:45 | | 2 | 8 | | 0 | 9 | 2 | 17 | | * | * | * | * | * | * | * |
| 06:00 | | 1 | 4 | | 0 | 12 | 1 | 16 | | * | * | * | * | * | * | * |
| 06:15 | | 4 | 3 | | 3 | 5 | 7 | 8 | | * | * | * | * | * | * | * |
| 06:30 | | 6 | 4 | | 0 | 10 | 6 | 14 | | * | * | * | * | * | * | * |
| 06:45 | | 9 | 3 | | 2 | 3 | 11 | 6 | | * | * | * | * | * | * | * |
| 07:00 | | 11 | 5 | | 2 | 4 | 13 | 9 | | * | * | * | * | * | * | * |
| 07:15 | | 7 | 2 | | 4 | 1 | 11 | 3 | | * | * | * | * | * | * | * |
| 07:30 | | 6 | 2 | | 1 | 3 | 7 | 5 | | * | * | * | * | * | * | * |
| 07:45 | | 6 | 2 | | 4 | 7 | 10 | 9 | | * | * | * | * | * | * | * |
| 08:00 | | 4 | 4 | | 4 | 3 | 8 | 7 | | * | * | * | * | * | * | * |
| 08:15 | | 6 | 1 | | 2 | 6 | 8 | 7 | | * | * | * | * | * | * | * |
| 08:30 | | 8 | 0 | | 6 | 5 | 14 | 5 | | * | * | * | * | * | * | * |
| 08:45 | | 6 | 0 | | 6 | 2 | 12 | 2 | | * | * | * | * | * | * | * |
| 09:00 | | 5 | 0 | | 3 | 5 | 8 | 5 | | * | * | * | * | * | * | * |
| 09:15 | | 5 | 1 | | 3 | 6 | 8 | 7 | | * | * | * | * | * | * | * |
| 09:30 | | 4 | 1 | | 3 | 4 | 7 | 5 | | * | * | * | * | * | * | * |
| 09:45 | | 4 | 0 | | 5 | 2 | 9 | 2 | | * | * | * | * | * | * | * |
| 10:00 | | 6 | 1 | | 5 | 2 | 11 | 3 | | * | * | * | * | * | * | * |
| 10:15 | | 4 | 0 | | 4 | 1 | 8 | 1 | | * | * | * | * | * | * | * |
| 10:30 | | 6 | 1 | | 3 | 0 | 9 | 1 | | * | * | * | * | * | * | * |
| 10:45 | | 1 | 0 | | 3 | 1 | 4 | 1 | | * | * | * | * | * | * | * |
| 11:00 | | 3 | 0 | | 1 | 2 | 4 | 2 | | * | * | * | * | * | * | * |
| 11:15 | | 4 | 0 | | 2 | 0 | 6 | 0 | | * | * | * | * | * | * | * |
| 11:30 | | 3 | 2 | | 4 | 0 | 7 | 2 | | * | * | * | * | * | * | * |
| 11:45 | | 2 | 2 | | 1 | 0 | 3 | 2 | | * | * | * | * | * | * | * |
| Total | | 128 | 154 | | 76 | 229 | 204 | 383 | | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Day Total | | 282 | | | 305 | | 587 | | | 0 | 0 | | 0 | | 0 | |
| % Total | | 21.8% | 26.2% | | 12.9% | 39.0% | | | | 0.0% | 0.0% | | 0.0% | | 0 | |
| Peak | - | 06:30 | 04:00 | | 08:00 | 05:15 | 06:45 | 05:45 | - | - | - | - | - | - | - | - |
| Vol. | - | 33 | 26 | | 18 | 36 | 42 | 55 | - | - | - | - | - | - | - | - |
| P.H.F. | | 0.750 | 0.650 | | 0.750 | 0.750 | 0.808 | 0.809 | | | | | | | | |





HCM 6th TWSC
1: Lindbergh Rd & Doolittle Rd

Existing Traffic
AM Peak Hour

| Intersection | | | | | | | | | | | | |
|--------------------------|--------|--------------|-------|--------|--------------|-------|--------|--------------|------|--------|--------------|------|
| Int Delay, s/veh | 5.5 | | | | | | | | | | | |
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations | | <div>↕</div> | | | <div>↕</div> | | | <div>↕</div> | | | <div>↕</div> | |
| Traffic Vol, veh/h | 0 | 5 | 8 | 4 | 2 | 0 | 2 | 1 | 2 | 0 | 7 | 1 |
| Future Vol, veh/h | 0 | 5 | 8 | 4 | 2 | 0 | 2 | 1 | 2 | 0 | 7 | 1 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Stop | Stop | Stop | Stop | Stop | Stop | Free | Free | Free | Free | Free | Free |
| RT Channelized | - | - | None | - | - | None | - | - | None | - | - | None |
| Storage Length | - | - | - | - | - | - | - | - | - | - | - | - |
| Veh in Median Storage, # | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Grade, % | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Peak Hour Factor | 81 | 81 | 81 | 75 | 75 | 75 | 100 | 100 | 100 | 67 | 67 | 67 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 0 | 6 | 10 | 5 | 3 | 0 | 2 | 1 | 2 | 0 | 10 | 1 |
| | | | | | | | | | | | | |
| Major/Minor | Minor2 | | | Minor1 | | | Major1 | | | Major2 | | |
| Conflicting Flow All | 19 | 18 | 11 | 25 | 17 | 2 | 11 | 0 | 0 | 3 | 0 | 0 |
| Stage 1 | 11 | 11 | - | 6 | 6 | - | - | - | - | - | - | - |
| Stage 2 | 8 | 7 | - | 19 | 11 | - | - | - | - | - | - | - |
| Critical Hdwy | 7.12 | 6.52 | 6.22 | 7.12 | 6.52 | 6.22 | 4.12 | - | - | 4.12 | - | - |
| 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 | 3.518 | 4.018 | 3.318 | 3.518 | 4.018 | 3.318 | 2.218 | - | - | 2.218 | - | - |
| Pot Cap-1 Maneuver | 995 | 876 | 1070 | 986 | 877 | 1082 | 1608 | - | - | 1619 | - | - |
| Stage 1 | 1010 | 886 | - | 1016 | 891 | - | - | - | - | - | - | - |
| Stage 2 | 1013 | 890 | - | 1000 | 886 | - | - | - | - | - | - | - |
| Platoon blocked, % | | | | | | | | - | - | | - | - |
| Mov Cap-1 Maneuver | 992 | 875 | 1070 | 971 | 876 | 1082 | 1608 | - | - | 1619 | - | - |
| Mov Cap-2 Maneuver | 992 | 875 | - | 971 | 876 | - | - | - | - | - | - | - |
| Stage 1 | 1009 | 886 | - | 1015 | 890 | - | - | - | - | - | - | - |
| Stage 2 | 1009 | 889 | - | 984 | 886 | - | - | - | - | - | - | - |
| | | | | | | | | | | | | |
| Approach | EB | | | WB | | | NB | | | SB | | |
| HCM Control Delay, s | 8.7 | | | 8.9 | | | 2.9 | | | 0 | | |
| HCM LOS | A | | | A | | | | | | | | |
| | | | | | | | | | | | | |
| Minor Lane/Major Mvmt | NBL | NBT | NBR | EBLn1 | WBLn1 | SBL | SBT | SBR | | | | |
| Capacity (veh/h) | 1608 | - | - | 986 | 937 | 1619 | - | - | | | | |
| HCM Lane V/C Ratio | 0.001 | - | - | 0.016 | 0.009 | - | - | - | | | | |
| HCM Control Delay (s) | 7.2 | 0 | - | 8.7 | 8.9 | 0 | - | - | | | | |
| HCM Lane LOS | A | A | - | A | A | A | - | - | | | | |
| HCM 95th %tile Q(veh) | 0 | - | - | 0 | 0 | 0 | - | - | | | | |

HCM 6th TWSC
2: Lindbergh Rd & Spaatz Rd

Existing Traffic
AM Peak Hour

| 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 | 1 | 1 | 4 | 6 | 0 | 0 | 0 | 5 | 0 | 0 | 16 | 1 |
| Future Vol, veh/h | 1 | 1 | 4 | 6 | 0 | 0 | 0 | 5 | 0 | 0 | 16 | 1 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Stop | Stop | Stop | Stop | Stop | Stop | Free | Free | Free | Free | Free | Free |
| RT Channelized | - | - | None | - | - | None | - | - | None | - | - | None |
| Storage Length | - | - | - | - | - | - | - | - | - | - | - | - |
| Veh in Median Storage, # | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Grade, % | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Peak Hour Factor | 38 | 38 | 38 | 75 | 75 | 75 | 100 | 100 | 100 | 100 | 100 | 100 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 3 | 3 | 11 | 8 | 0 | 0 | 0 | 5 | 0 | 0 | 16 | 1 |
| | | | | | | | | | | | | |
| Major/Minor | Minor2 | | | Minor1 | | | Major1 | | | Major2 | | |
| Conflicting Flow All | 22 | 22 | 17 | 29 | 22 | 5 | 17 | 0 | 0 | 5 | 0 | 0 |
| Stage 1 | 17 | 17 | - | 5 | 5 | - | - | - | - | - | - | - |
| Stage 2 | 5 | 5 | - | 24 | 17 | - | - | - | - | - | - | - |
| Critical Hdwy | 7.12 | 6.52 | 6.22 | 7.12 | 6.52 | 6.22 | 4.12 | - | - | 4.12 | - | - |
| 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 | 3.518 | 4.018 | 3.318 | 3.518 | 4.018 | 3.318 | 2.218 | - | - | 2.218 | - | - |
| Pot Cap-1 Maneuver | 990 | 872 | 1062 | 980 | 872 | 1078 | 1600 | - | - | 1616 | - | - |
| Stage 1 | 1002 | 881 | - | 1017 | 892 | - | - | - | - | - | - | - |
| Stage 2 | 1017 | 892 | - | 994 | 881 | - | - | - | - | - | - | - |
| Platoon blocked, % | | | | | | | | - | - | | - | - |
| Mov Cap-1 Maneuver | 990 | 872 | 1062 | 968 | 872 | 1078 | 1600 | - | - | 1616 | - | - |
| Mov Cap-2 Maneuver | 990 | 872 | - | 968 | 872 | - | - | - | - | - | - | - |
| Stage 1 | 1002 | 881 | - | 1017 | 892 | - | - | - | - | - | - | - |
| Stage 2 | 1017 | 892 | - | 981 | 881 | - | - | - | - | - | - | - |
| | | | | | | | | | | | | |
| Approach | EB | | | WB | | | NB | | | SB | | |
| HCM Control Delay, s | 8.6 | | | 8.8 | | | 0 | | | 0 | | |
| HCM LOS | A | | | A | | | | | | | | |
| | | | | | | | | | | | | |
| Minor Lane/Major Mvmt | NBL | NBT | NBR | EBLn1 | WBLn1 | SBL | SBT | SBR | | | | |
| Capacity (veh/h) | 1600 | - | - | 1013 | 968 | 1616 | - | - | | | | |
| HCM Lane V/C Ratio | - | - | - | 0.016 | 0.008 | - | - | - | | | | |
| HCM Control Delay (s) | 0 | - | - | 8.6 | 8.8 | 0 | - | - | | | | |
| HCM Lane LOS | A | - | - | A | A | A | - | - | | | | |
| HCM 95th %tile Q(veh) | 0 | - | - | 0 | 0 | 0 | - | - | | | | |





HCM 6th Roundabout
5: Woodcarver Rd/Old Denver Rd & Baptist Rd

Existing Traffic
AM Peak Hour

| Intersection | | | | |
|-----------------------------|-------|-------|-------|-------|
| Intersection Delay, s/veh | 4.1 | | | |
| Intersection LOS | A | | | |
| Approach | EB | WB | NB | SB |
| Entry Lanes | 1 | 1 | 1 | 1 |
| Conflicting Circle Lanes | 1 | 1 | 1 | 1 |
| Adj Approach Flow, veh/h | 83 | 243 | 11 | 188 |
| Demand Flow Rate, veh/h | 85 | 247 | 11 | 191 |
| Vehicles Circulating, veh/h | 199 | 7 | 259 | 92 |
| Vehicles Exiting, veh/h | 84 | 263 | 25 | 162 |
| Ped Vol Crossing Leg, #/h | 0 | 0 | 0 | 0 |
| Ped Cap Adj | 1.000 | 1.000 | 1.000 | 1.000 |
| Approach Delay, s/veh | 3.9 | 4.2 | 3.5 | 4.2 |
| Approach LOS | A | A | A | A |
| Lane | Left | Left | Left | Left |
| Designated Moves | LTR | LTR | LTR | LTR |
| Assumed Moves | LTR | LTR | LTR | LTR |
| RT Channelized | | | | |
| Lane Util | 1.000 | 1.000 | 1.000 | 1.000 |
| Follow-Up Headway, s | 2.609 | 2.609 | 2.609 | 2.609 |
| Critical Headway, s | 4.976 | 4.976 | 4.976 | 4.976 |
| Entry Flow, veh/h | 85 | 247 | 11 | 191 |
| Cap Entry Lane, veh/h | 1126 | 1370 | 1060 | 1256 |
| Entry HV Adj Factor | 0.982 | 0.982 | 0.996 | 0.984 |
| Flow Entry, veh/h | 83 | 243 | 11 | 188 |
| Cap Entry, veh/h | 1106 | 1346 | 1056 | 1236 |
| V/C Ratio | 0.075 | 0.180 | 0.010 | 0.152 |
| Control Delay, s/veh | 3.9 | 4.2 | 3.5 | 4.2 |
| LOS | A | A | A | A |
| 95th %tile Queue, veh | 0 | 1 | 0 | 1 |





HCM 6th TWSC
1: Lindbergh Rd & Doolittle Rd

Existing Traffic
PM Peak Hour

| Intersection | | | | | | | | | | | | |
|--------------------------|--------|---|-------|--------|---|-------|--------|---|------|--------|---|------|
| Int Delay, s/veh | 6 | | | | | | | | | | | |
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations | |  | | |  | | |  | | |  | |
| Traffic Vol, veh/h | 0 | 4 | 2 | 8 | 8 | 3 | 3 | 8 | 10 | 0 | 6 | 1 |
| Future Vol, veh/h | 0 | 4 | 2 | 8 | 8 | 3 | 3 | 8 | 10 | 0 | 6 | 1 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Stop | Stop | Stop | Stop | Stop | Stop | Free | Free | Free | Free | Free | Free |
| RT Channelized | - | - | None | - | - | None | - | - | None | - | - | None |
| Storage Length | - | - | - | - | - | - | - | - | - | - | - | - |
| Veh in Median Storage, # | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Grade, % | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Peak Hour Factor | 38 | 38 | 38 | 53 | 53 | 53 | 100 | 100 | 100 | 88 | 88 | 88 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 0 | 11 | 5 | 15 | 15 | 6 | 3 | 8 | 10 | 0 | 7 | 1 |
| | | | | | | | | | | | | |
| Major/Minor | Minor2 | | | Minor1 | | | Major1 | | | Major2 | | |
| Conflicting Flow All | 38 | 32 | 8 | 35 | 27 | 13 | 8 | 0 | 0 | 18 | 0 | 0 |
| Stage 1 | 8 | 8 | - | 19 | 19 | - | - | - | - | - | - | - |
| Stage 2 | 30 | 24 | - | 16 | 8 | - | - | - | - | - | - | - |
| Critical Hdwy | 7.12 | 6.52 | 6.22 | 7.12 | 6.52 | 6.22 | 4.12 | - | - | 4.12 | - | - |
| 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 | 3.518 | 4.018 | 3.318 | 3.518 | 4.018 | 3.318 | 2.218 | - | - | 2.218 | - | - |
| Pot Cap-1 Maneuver | 967 | 861 | 1074 | 971 | 866 | 1067 | 1612 | - | - | 1599 | - | - |
| Stage 1 | 1013 | 889 | - | 1000 | 880 | - | - | - | - | - | - | - |
| Stage 2 | 987 | 875 | - | 1004 | 889 | - | - | - | - | - | - | - |
| Platoon blocked, % | | | | | | | | - | - | | - | - |
| Mov Cap-1 Maneuver | 948 | 859 | 1074 | 955 | 864 | 1067 | 1612 | - | - | 1599 | - | - |
| Mov Cap-2 Maneuver | 948 | 859 | - | 955 | 864 | - | - | - | - | - | - | - |
| Stage 1 | 1011 | 889 | - | 998 | 878 | - | - | - | - | - | - | - |
| Stage 2 | 963 | 873 | - | 987 | 889 | - | - | - | - | - | - | - |
| | | | | | | | | | | | | |
| Approach | EB | | | WB | | | NB | | | SB | | |
| HCM Control Delay, s | 9 | | | 9 | | | 1 | | | 0 | | |
| HCM LOS | A | | | A | | | | | | | | |
| | | | | | | | | | | | | |
| Minor Lane/Major Mvmt | NBL | NBT | NBR | EBLn1 | WBLn1 | SBL | SBT | SBR | | | | |
| Capacity (veh/h) | 1612 | - | - | 920 | 929 | 1599 | - | - | | | | |
| HCM Lane V/C Ratio | 0.002 | - | - | 0.017 | 0.039 | - | - | - | | | | |
| HCM Control Delay (s) | 7.2 | 0 | - | 9 | 9 | 0 | - | - | | | | |
| HCM Lane LOS | A | A | - | A | A | A | - | - | | | | |
| HCM 95th %tile Q(veh) | 0 | - | - | 0.1 | 0.1 | 0 | - | - | | | | |

HCM 6th TWSC
2: Lindbergh Rd & Spaatz Rd

Existing Traffic
PM Peak Hour

| Intersection | | | | | | | | | | | | |
|--------------------------|--------|---|-------|--------|---|-------|--------|---|------|--------|---|------|
| Int Delay, s/veh | 2.7 | | | | | | | | | | | |
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations | |  | | |  | | |  | | |  | |
| Traffic Vol, veh/h | 1 | 0 | 1 | 8 | 0 | 0 | 4 | 19 | 5 | 0 | 17 | 1 |
| Future Vol, veh/h | 1 | 0 | 1 | 8 | 0 | 0 | 4 | 19 | 5 | 0 | 17 | 1 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Stop | Stop | Stop | Stop | Stop | Stop | Free | Free | Free | Free | Free | Free |
| RT Channelized | - | - | None | - | - | None | - | - | None | - | - | None |
| Storage Length | - | - | - | - | - | - | - | - | - | - | - | - |
| Veh in Median Storage, # | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Grade, % | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Peak Hour Factor | 100 | 100 | 100 | 50 | 50 | 50 | 100 | 100 | 100 | 75 | 75 | 75 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 1 | 0 | 1 | 16 | 0 | 0 | 4 | 19 | 5 | 0 | 23 | 1 |
| | | | | | | | | | | | | |
| Major/Minor | Minor2 | | | Minor1 | | | Major1 | | | Major2 | | |
| Conflicting Flow All | 54 | 56 | 24 | 54 | 54 | 22 | 24 | 0 | 0 | 24 | 0 | 0 |
| Stage 1 | 24 | 24 | - | 30 | 30 | - | - | - | - | - | - | - |
| Stage 2 | 30 | 32 | - | 24 | 24 | - | - | - | - | - | - | - |
| Critical Hdwy | 7.12 | 6.52 | 6.22 | 7.12 | 6.52 | 6.22 | 4.12 | - | - | 4.12 | - | - |
| 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 | 3.518 | 4.018 | 3.318 | 3.518 | 4.018 | 3.318 | 2.218 | - | - | 2.218 | - | - |
| Pot Cap-1 Maneuver | 944 | 835 | 1052 | 944 | 837 | 1055 | 1591 | - | - | 1591 | - | - |
| Stage 1 | 994 | 875 | - | 987 | 870 | - | - | - | - | - | - | - |
| Stage 2 | 987 | 868 | - | 994 | 875 | - | - | - | - | - | - | - |
| Platoon blocked, % | | | | | | | | - | - | | - | - |
| Mov Cap-1 Maneuver | 942 | 832 | 1052 | 941 | 834 | 1055 | 1591 | - | - | 1591 | - | - |
| Mov Cap-2 Maneuver | 942 | 832 | - | 941 | 834 | - | - | - | - | - | - | - |
| Stage 1 | 991 | 875 | - | 984 | 867 | - | - | - | - | - | - | - |
| Stage 2 | 984 | 865 | - | 993 | 875 | - | - | - | - | - | - | - |
| | | | | | | | | | | | | |
| Approach | EB | | | WB | | | NB | | | SB | | |
| HCM Control Delay, s | 8.6 | | | 8.9 | | | 1 | | | 0 | | |
| HCM LOS | A | | | A | | | | | | | | |
| | | | | | | | | | | | | |
| Minor Lane/Major Mvmt | NBL | NBT | NBR | EBLn1 | WBLn1 | SBL | SBT | SBR | | | | |
| Capacity (veh/h) | 1591 | - | - | 994 | 941 | 1591 | - | - | | | | |
| HCM Lane V/C Ratio | 0.003 | - | - | 0.002 | 0.017 | - | - | - | | | | |
| HCM Control Delay (s) | 7.3 | 0 | - | 8.6 | 8.9 | 0 | - | - | | | | |
| HCM Lane LOS | A | A | - | A | A | A | - | - | | | | |
| HCM 95th %tile Q(veh) | 0 | - | - | 0 | 0.1 | 0 | - | - | | | | |






HCM 6th Roundabout
5: Woodcarver Rd/Old Denver Rd & Baptist Rd

Existing Traffic
PM Peak Hour

| Intersection | | | | |
|-----------------------------|-------|-------|-------|-------|
| Intersection Delay, s/veh | 4.1 | | | |
| Intersection LOS | A | | | |
| Approach | EB | WB | NB | SB |
| Entry Lanes | 1 | 1 | 1 | 1 |
| Conflicting Circle Lanes | 1 | 1 | 1 | 1 |
| Adj Approach Flow, veh/h | 83 | 243 | 11 | 188 |
| Demand Flow Rate, veh/h | 85 | 247 | 11 | 191 |
| Vehicles Circulating, veh/h | 199 | 7 | 259 | 92 |
| Vehicles Exiting, veh/h | 84 | 263 | 25 | 162 |
| Ped Vol Crossing Leg, #/h | 0 | 0 | 0 | 0 |
| Ped Cap Adj | 1.000 | 1.000 | 1.000 | 1.000 |
| Approach Delay, s/veh | 3.9 | 4.2 | 3.5 | 4.2 |
| Approach LOS | A | A | A | A |
| Lane | Left | Left | Left | Left |
| Designated Moves | LTR | LTR | LTR | LTR |
| Assumed Moves | LTR | LTR | LTR | LTR |
| RT Channelized | | | | |
| Lane Util | 1.000 | 1.000 | 1.000 | 1.000 |
| Follow-Up Headway, s | 2.609 | 2.609 | 2.609 | 2.609 |
| Critical Headway, s | 4.976 | 4.976 | 4.976 | 4.976 |
| Entry Flow, veh/h | 85 | 247 | 11 | 191 |
| Cap Entry Lane, veh/h | 1126 | 1370 | 1060 | 1256 |
| Entry HV Adj Factor | 0.982 | 0.982 | 0.996 | 0.984 |
| Flow Entry, veh/h | 83 | 243 | 11 | 188 |
| Cap Entry, veh/h | 1106 | 1346 | 1056 | 1236 |
| V/C Ratio | 0.075 | 0.180 | 0.010 | 0.152 |
| Control Delay, s/veh | 3.9 | 4.2 | 3.5 | 4.2 |
| LOS | A | A | A | A |
| 95th %tile Queue, veh | 0 | 1 | 0 | 1 |




HCM 6th TWSC
6: Long Valley Dr & Forest Lakes Dr

Short-Term Background Traffic
AM Peak Hour

| Intersection | | | | | | |
|--------------------------|---|--------|---|---|---|--|
| Int Delay, s/veh | 1.4 | | | | | |
| Movement | EBT | EBR | WBL | WBT | NBL | NBR |
| Lane Configurations |  | |  |  |  |  |
| Traffic Vol, veh/h | 86 | 1 | 5 | 27 | 2 | 15 |
| Future Vol, veh/h | 86 | 1 | 5 | 27 | 2 | 15 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Stop | Stop |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | - | - | 72 | - | 0 | - |
| Veh in Median Storage, # | 0 | - | - | 0 | 0 | - |
| Grade, % | 0 | - | - | 0 | 0 | - |
| Peak Hour Factor | 92 | 92 | 92 | 92 | 92 | 92 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 93 | 1 | 5 | 29 | 2 | 16 |
| | | | | | | |
| Major/Minor | Major1 | Major2 | | Minor1 | | |
| Conflicting Flow All | 0 | 0 | 94 | 0 | 133 | 94 |
| Stage 1 | - | - | - | - | 94 | - |
| Stage 2 | - | - | - | - | 39 | - |
| 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 | - | - | 1500 | - | 861 | 963 |
| Stage 1 | - | - | - | - | 930 | - |
| Stage 2 | - | - | - | - | 983 | - |
| Platoon blocked, % | - | - | | - | | |
| Mov Cap-1 Maneuver | - | - | 1500 | - | 858 | 963 |
| Mov Cap-2 Maneuver | - | - | - | - | 858 | - |
| Stage 1 | - | - | - | - | 927 | - |
| Stage 2 | - | - | - | - | 983 | - |
| | | | | | | |
| | | | | | | |
| Approach | EB | WB | | NB | | |
| HCM Control Delay, s | 0 | 1.2 | | 8.9 | | |
| HCM LOS | A | | | | | |
| | | | | | | |
| | | | | | | |
| Minor Lane/Major Mvmt | NBLn1 | EBT | EBR | WBL | WBT | |
| Capacity (veh/h) | 949 | - | - | 1500 | - | |
| HCM Lane V/C Ratio | 0.019 | - | - | 0.004 | - | |
| HCM Control Delay (s) | 8.9 | - | - | 7.4 | - | |
| HCM Lane LOS | A | - | - | A | - | |
| HCM 95th %tile Q(veh) | 0.1 | - | - | 0 | - | |

HCM 6th TWSC
9: Forest Lakes Dr & Mesa Top Dr

Short-Term Background Traffic
AM Peak Hour

| Intersection | | | | | | |
|--------------------------|---|----------|---|--------|-------|---|
| Int Delay, s/veh | 7.2 | | | | | |
| Movement | WBL | WBR | NBT | NBR | SBL | SBT |
| Lane Configurations |  | |  | | |  |
| Traffic Vol, veh/h | 2 | 15 | 0 | 4 | 40 | 0 |
| Future Vol, veh/h | 2 | 15 | 0 | 4 | 40 | 0 |
| 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 | 92 | 92 | 92 | 92 | 92 | 92 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 2 | 16 | 0 | 4 | 43 | 0 |
| Major/Minor | Minor1 | Major1 | | Major2 | | |
| Conflicting Flow All | 88 | 2 | 0 | 0 | 4 | 0 |
| Stage 1 | 2 | - | - | - | - | - |
| Stage 2 | 86 | - | - | - | - | - |
| 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 | 913 | 1082 | - | - | 1618 | - |
| Stage 1 | 1021 | - | - | - | - | - |
| Stage 2 | 937 | - | - | - | - | - |
| Platoon blocked, % | | - | - | - | - | - |
| Mov Cap-1 Maneuver | 888 | 1082 | - | - | 1618 | - |
| Mov Cap-2 Maneuver | 888 | - | - | - | - | - |
| Stage 1 | 993 | - | - | - | - | - |
| Stage 2 | 937 | - | - | - | - | - |
| Approach | WB | NB | | SB | | |
| HCM Control Delay, s | 8.5 | 0 | | 7.3 | | |
| HCM LOS | A | | | | | |
| Minor Lane/Major Mvmt | NBT | NBRWBLn1 | | SBL | SBT | |
| Capacity (veh/h) | - | - 1055 | | 1618 | - | |
| HCM Lane V/C Ratio | - | - 0.018 | | 0.027 | - | |
| HCM Control Delay (s) | - | - 8.5 | | 7.3 | 0 | |
| HCM Lane LOS | - | - A | | A | A | |
| HCM 95th %tile Q(veh) | - | - 0.1 | | 0.1 | - | |

| Intersection | | | | | | | | | | | | |
|--------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Int Delay, s/veh | 3.8 | | | | | | | | | | | |
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations | | ↕ | | | ↕ | | | ↕ | | | ↕ | |
| Traffic Vol, veh/h | 1 | 1 | 4 | 6 | 0 | 0 | 0 | 11 | 0 | 0 | 18 | 1 |
| Future Vol, veh/h | 1 | 1 | 4 | 6 | 0 | 0 | 0 | 11 | 0 | 0 | 18 | 1 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Stop | Stop | Stop | Stop | Stop | Stop | Free | Free | Free | Free | Free | Free |
| RT Channelized | - | - | None | - | - | None | - | - | None | - | - | None |
| Storage Length | - | - | - | - | - | - | - | - | - | - | - | - |
| Veh in Median Storage, # | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Grade, % | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Peak Hour Factor | 38 | 38 | 38 | 75 | 75 | 75 | 100 | 100 | 100 | 100 | 100 | 100 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 3 | 3 | 11 | 8 | 0 | 0 | 0 | 11 | 0 | 0 | 18 | 1 |

| Major/Minor | Minor2 | | Minor1 | | Major1 | | Major2 | | | | | |
|----------------------|--------|-------|--------|-------|--------|-------|--------|---|---|-------|---|---|
| Conflicting Flow All | 30 | 30 | 19 | 37 | 30 | 11 | 19 | 0 | 0 | 11 | 0 | 0 |
| Stage 1 | 19 | 19 | - | 11 | 11 | - | - | - | - | - | - | - |
| Stage 2 | 11 | 11 | - | 26 | 19 | - | - | - | - | - | - | - |
| Critical Hdwy | 7.12 | 6.52 | 6.22 | 7.12 | 6.52 | 6.22 | 4.12 | - | - | 4.12 | - | - |
| 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 | 3.518 | 4.018 | 3.318 | 3.518 | 4.018 | 3.318 | 2.218 | - | - | 2.218 | - | - |
| Pot Cap-1 Maneuver | 979 | 863 | 1059 | 968 | 863 | 1070 | 1597 | - | - | 1608 | - | - |
| Stage 1 | 1000 | 880 | - | 1010 | 886 | - | - | - | - | - | - | - |
| Stage 2 | 1010 | 886 | - | 992 | 880 | - | - | - | - | - | - | - |
| Platoon blocked, % | | | | | | | | - | - | - | - | - |
| Mov Cap-1 Maneuver | 979 | 863 | 1059 | 956 | 863 | 1070 | 1597 | - | - | 1608 | - | - |
| Mov Cap-2 Maneuver | 979 | 863 | - | 956 | 863 | - | - | - | - | - | - | - |
| Stage 1 | 1000 | 880 | - | 1010 | 886 | - | - | - | - | - | - | - |
| Stage 2 | 1010 | 886 | - | 979 | 880 | - | - | - | - | - | - | - |

| Approach | EB | | WB | | NB | | SB | |
|----------------------|-----|--|-----|--|----|--|----|--|
| HCM Control Delay, s | 8.6 | | 8.8 | | 0 | | 0 | |
| HCM LOS | A | | A | | | | | |

| Minor Lane/Major Mvmt | NBL | NBT | NBR | EBLn1WBLn1 | SBL | SBT | SBR |
|-----------------------|------|-----|-----|-------------|------|-----|-----|
| Capacity (veh/h) | 1597 | - | - | 1007 956 | 1608 | - | - |
| HCM Lane V/C Ratio | - | - | - | 0.016 0.008 | - | - | - |
| HCM Control Delay (s) | 0 | - | - | 8.6 8.8 | 0 | - | - |
| HCM Lane LOS | A | - | - | A A | A | - | - |
| HCM 95th %tile Q(veh) | 0 | - | - | 0 0 | 0 | - | - |

HCM 6th Roundabout
21: Woodcarver Rd/Old Denver Rd & Baptist Rd

Short-Term Background Traffic
AM Peak Hour

| Intersection | | | | |
|-----------------------------|-------|-------|-------|-------|
| Intersection Delay, s/veh | 4.5 | | | |
| Intersection LOS | A | | | |
| Approach | EB | WB | NB | SB |
| Entry Lanes | 1 | 1 | 1 | 1 |
| Conflicting Circle Lanes | 1 | 1 | 1 | 1 |
| Adj Approach Flow, veh/h | 190 | 283 | 11 | 192 |
| Demand Flow Rate, veh/h | 193 | 288 | 11 | 195 |
| Vehicles Circulating, veh/h | 199 | 18 | 367 | 133 |
| Vehicles Exiting, veh/h | 129 | 360 | 25 | 173 |
| Ped Vol Crossing Leg, #/h | 0 | 0 | 0 | 0 |
| Ped Cap Adj | 1.000 | 1.000 | 1.000 | 1.000 |
| Approach Delay, s/veh | 4.8 | 4.5 | 3.9 | 4.4 |
| Approach LOS | A | A | A | A |
| Lane | Left | Left | Left | Left |
| Designated Moves | LTR | LTR | LTR | LTR |
| Assumed Moves | LTR | LTR | LTR | LTR |
| RT Channelized | | | | |
| Lane Util | 1.000 | 1.000 | 1.000 | 1.000 |
| Follow-Up Headway, s | 2.609 | 2.609 | 2.609 | 2.609 |
| Critical Headway, s | 4.976 | 4.976 | 4.976 | 4.976 |
| Entry Flow, veh/h | 193 | 288 | 11 | 195 |
| Cap Entry Lane, veh/h | 1126 | 1355 | 949 | 1205 |
| Entry HV Adj Factor | 0.982 | 0.982 | 0.996 | 0.984 |
| Flow Entry, veh/h | 190 | 283 | 11 | 192 |
| Cap Entry, veh/h | 1106 | 1330 | 946 | 1186 |
| V/C Ratio | 0.171 | 0.213 | 0.012 | 0.162 |
| Control Delay, s/veh | 4.8 | 4.5 | 3.9 | 4.4 |
| LOS | A | A | A | A |
| 95th %tile Queue, veh | 1 | 1 | 0 | 1 |

| Intersection | | | | | | | | | | | | |
|--------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Int Delay, s/veh | 5 | | | | | | | | | | | |
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations | | ↕ | | | ↕ | | | ↕ | | | ↕ | |
| Traffic Vol, veh/h | 0 | 5 | 8 | 6 | 2 | 0 | 2 | 1 | 8 | 0 | 7 | 1 |
| Future Vol, veh/h | 0 | 5 | 8 | 6 | 2 | 0 | 2 | 1 | 8 | 0 | 7 | 1 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Stop | Stop | Stop | Stop | Stop | Stop | Free | Free | Free | Free | Free | Free |
| RT Channelized | - | - | None | - | - | None | - | - | None | - | - | None |
| Storage Length | - | - | - | - | - | - | - | - | - | - | - | - |
| Veh in Median Storage, # | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Grade, % | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Peak Hour Factor | 81 | 81 | 81 | 75 | 75 | 75 | 100 | 100 | 100 | 67 | 67 | 67 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 0 | 6 | 10 | 8 | 3 | 0 | 2 | 1 | 8 | 0 | 10 | 1 |






| Major/Minor | Minor2 | | Minor1 | | Major1 | | Major2 | | | | | |
|----------------------|--------|-------|--------|-------|--------|-------|--------|---|---|-------|---|---|
| Conflicting Flow All | 22 | 24 | 11 | 28 | 20 | 5 | 11 | 0 | 0 | 9 | 0 | 0 |
| Stage 1 | 11 | 11 | - | 9 | 9 | - | - | - | - | - | - | - |
| Stage 2 | 11 | 13 | - | 19 | 11 | - | - | - | - | - | - | - |
| Critical Hdwy | 7.12 | 6.52 | 6.22 | 7.12 | 6.52 | 6.22 | 4.12 | - | - | 4.12 | - | - |
| 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 | 3.518 | 4.018 | 3.318 | 3.518 | 4.018 | 3.318 | 2.218 | - | - | 2.218 | - | - |
| Pot Cap-1 Maneuver | 990 | 869 | 1070 | 981 | 874 | 1078 | 1608 | - | - | 1611 | - | - |
| Stage 1 | 1010 | 886 | - | 1012 | 888 | - | - | - | - | - | - | - |
| Stage 2 | 1010 | 885 | - | 1000 | 886 | - | - | - | - | - | - | - |
| Platoon blocked, % | | | | | | | | - | - | - | - | - |
| Mov Cap-1 Maneuver | 987 | 868 | 1070 | 966 | 873 | 1078 | 1608 | - | - | 1611 | - | - |
| Mov Cap-2 Maneuver | 987 | 868 | - | 966 | 873 | - | - | - | - | - | - | - |
| Stage 1 | 1009 | 886 | - | 1011 | 887 | - | - | - | - | - | - | - |
| Stage 2 | 1006 | 884 | - | 984 | 886 | - | - | - | - | - | - | - |

| Approach | EB | | WB | | NB | | SB | |
|----------------------|-----|--|-----|--|-----|--|----|--|
| HCM Control Delay, s | 8.7 | | 8.9 | | 1.3 | | 0 | |
| HCM LOS | A | | A | | | | | |

| Minor Lane/Major Mvmt | NBL | NBT | NBR | EBLn1WBLn1 | SBL | SBT | SBR |
|-----------------------|-------|-----|-----|-------------|------|-----|-----|
| Capacity (veh/h) | 1608 | - | - | 982 941 | 1611 | - | - |
| HCM Lane V/C Ratio | 0.001 | - | - | 0.016 0.011 | - | - | - |
| HCM Control Delay (s) | 7.2 | 0 | - | 8.7 8.9 | 0 | - | - |
| HCM Lane LOS | A | A | - | A A | A | - | - |
| HCM 95th %tile Q(veh) | 0 | - | - | 0.1 0 | 0 | - | - |




HCM 6th TWSC
6: Long Valley Dr & Forest Lakes Dr

Short-Term Background Traffic
PM Peak Hour

| Intersection | | | | | | |
|--------------------------|---|--------|---|---|---|--|
| Int Delay, s/veh | 1.1 | | | | | |
| Movement | EBT | EBR | WBL | WBT | NBL | NBR |
| Lane Configurations |  | |  |  |  |  |
| Traffic Vol, veh/h | 65 | 2 | 17 | 97 | 1 | 9 |
| Future Vol, veh/h | 65 | 2 | 17 | 97 | 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 | - | - | 72 | - | 0 | - |
| Veh in Median Storage, # | 0 | - | - | 0 | 0 | - |
| Grade, % | 0 | - | - | 0 | 0 | - |
| Peak Hour Factor | 92 | 92 | 92 | 92 | 92 | 92 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 71 | 2 | 18 | 105 | 1 | 10 |
| | | | | | | |
| Major/Minor | Major1 | Major2 | | Minor1 | | |
| Conflicting Flow All | 0 | 0 | 73 | 0 | 213 | 72 |
| Stage 1 | - | - | - | - | 72 | - |
| Stage 2 | - | - | - | - | 141 | - |
| 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 | - | - | 1527 | - | 775 | 990 |
| Stage 1 | - | - | - | - | 951 | - |
| Stage 2 | - | - | - | - | 886 | - |
| Platoon blocked, % | - | - | | - | | |
| Mov Cap-1 Maneuver | - | - | 1527 | - | 766 | 990 |
| Mov Cap-2 Maneuver | - | - | - | - | 766 | - |
| Stage 1 | - | - | - | - | 940 | - |
| Stage 2 | - | - | - | - | 886 | - |
| | | | | | | |
| | | | | | | |
| Approach | EB | WB | | NB | | |
| HCM Control Delay, s | 0 | 1.1 | | 8.8 | | |
| HCM LOS | A | | | | | |
| | | | | | | |
| | | | | | | |
| Minor Lane/Major Mvmt | NBLn1 | EBT | EBR | WBL | WBT | |
| Capacity (veh/h) | 962 | - | - | 1527 | - | |
| HCM Lane V/C Ratio | 0.011 | - | - | 0.012 | - | |
| HCM Control Delay (s) | 8.8 | - | - | 7.4 | - | |
| HCM Lane LOS | A | - | - | A | - | |
| HCM 95th %tile Q(veh) | 0 | - | - | 0 | - | |

HCM 6th TWSC
9: Forest Lakes Dr & Mesa Top Dr

Short-Term Background Traffic
PM Peak Hour

| Intersection | | | | | | |
|--------------------------|---|----------|---|-------|-------|---|
| Int Delay, s/veh | 7.9 | | | | | |
| Movement | WBL | WBR | NBT | NBR | SBL | SBT |
| Lane Configurations |  | |  | | |  |
| Traffic Vol, veh/h | 5 | 46 | 0 | 2 | 39 | 0 |
| Future Vol, veh/h | 5 | 46 | 0 | 2 | 39 | 0 |
| 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 | 92 | 92 | 92 | 92 | 92 | 92 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 5 | 50 | 0 | 2 | 42 | 0 |
| Major/Minor | Minor1 | Major1 | Major2 | | | |
| Conflicting Flow All | 85 | 1 | 0 | 0 | 2 | 0 |
| Stage 1 | 1 | - | - | - | - | - |
| Stage 2 | 84 | - | - | - | - | - |
| 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 | 916 | 1084 | - | - | 1620 | - |
| Stage 1 | 1022 | - | - | - | - | - |
| Stage 2 | 939 | - | - | - | - | - |
| Platoon blocked, % | | | - | - | | - |
| Mov Cap-1 Maneuver | 892 | 1084 | - | - | 1620 | - |
| Mov Cap-2 Maneuver | 892 | - | - | - | - | - |
| Stage 1 | 995 | - | - | - | - | - |
| Stage 2 | 939 | - | - | - | - | - |
| Approach | WB | NB | SB | | | |
| HCM Control Delay, s | 8.6 | 0 | 7.3 | | | |
| HCM LOS | A | | | | | |
| Minor Lane/Major Mvmt | NBT | NBRWBLn1 | SBL | SBT | | |
| Capacity (veh/h) | - | - | 1062 | 1620 | - | |
| HCM Lane V/C Ratio | - | - | 0.052 | 0.026 | - | |
| HCM Control Delay (s) | - | - | 8.6 | 7.3 | 0 | |
| HCM Lane LOS | - | - | A | A | A | |
| HCM 95th %tile Q(veh) | - | - | 0.2 | 0.1 | - | |

| Intersection | | | | | | | | | | | | |
|--------------------------|--------|-------|--------|-------------|-------|--------|-------|------|--------|-------|------|------|
| Int Delay, s/veh | 2.3 | | | | | | | | | | | |
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations | | ↕ | | | ↕ | | | ↕ | | | ↕ | |
| Traffic Vol, veh/h | 1 | 0 | 1 | 8 | 0 | 0 | 4 | 23 | 5 | 0 | 24 | 1 |
| Future Vol, veh/h | 1 | 0 | 1 | 8 | 0 | 0 | 4 | 23 | 5 | 0 | 24 | 1 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Stop | Stop | Stop | Stop | Stop | Stop | Free | Free | Free | Free | Free | Free |
| RT Channelized | - | - | None | - | - | None | - | - | None | - | - | None |
| Storage Length | - | - | - | - | - | - | - | - | - | - | - | - |
| Veh in Median Storage, # | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Grade, % | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Peak Hour Factor | 100 | 100 | 100 | 50 | 50 | 50 | 100 | 100 | 100 | 75 | 75 | 75 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 1 | 0 | 1 | 16 | 0 | 0 | 4 | 23 | 5 | 0 | 32 | 1 |
| | | | | | | | | | | | | |
| Major/Minor | Minor2 | | Minor1 | | | Major1 | | | Major2 | | | |
| Conflicting Flow All | 67 | 69 | 33 | 67 | 67 | 26 | 33 | 0 | 0 | 28 | 0 | 0 |
| Stage 1 | 33 | 33 | - | 34 | 34 | - | - | - | - | - | - | - |
| Stage 2 | 34 | 36 | - | 33 | 33 | - | - | - | - | - | - | - |
| Critical Hdwy | 7.12 | 6.52 | 6.22 | 7.12 | 6.52 | 6.22 | 4.12 | - | - | 4.12 | - | - |
| 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 | 3.518 | 4.018 | 3.318 | 3.518 | 4.018 | 3.318 | 2.218 | - | - | 2.218 | - | - |
| Pot Cap-1 Maneuver | 926 | 822 | 1041 | 926 | 824 | 1050 | 1579 | - | - | 1585 | - | - |
| Stage 1 | 983 | 868 | - | 982 | 867 | - | - | - | - | - | - | - |
| Stage 2 | 982 | 865 | - | 983 | 868 | - | - | - | - | - | - | - |
| Platoon blocked, % | | | | | | | | - | - | | - | - |
| Mov Cap-1 Maneuver | 924 | 820 | 1041 | 923 | 822 | 1050 | 1579 | - | - | 1585 | - | - |
| Mov Cap-2 Maneuver | 924 | 820 | - | 923 | 822 | - | - | - | - | - | - | - |
| Stage 1 | 980 | 868 | - | 979 | 864 | - | - | - | - | - | - | - |
| Stage 2 | 979 | 862 | - | 982 | 868 | - | - | - | - | - | - | - |
| | | | | | | | | | | | | |
| | | | | | | | | | | | | |
| Approach | EB | | WB | | | NB | | | SB | | | |
| HCM Control Delay, s | 8.7 | | 9 | | | 0.9 | | | 0 | | | |
| HCM LOS | A | | A | | | | | | | | | |
| | | | | | | | | | | | | |
| Minor Lane/Major Mvmt | NBL | NBT | NBR | EBLn1WBLn1 | SBL | SBT | SBR | | | | | |
| Capacity (veh/h) | 1579 | - | - | 979 923 | 1585 | - | - | | | | | |
| HCM Lane V/C Ratio | 0.003 | - | - | 0.002 0.017 | - | - | - | | | | | |
| HCM Control Delay (s) | 7.3 | 0 | - | 8.7 9 | 0 | - | - | | | | | |
| HCM Lane LOS | A | A | - | A A | A | - | - | | | | | |
| HCM 95th %tile Q(veh) | 0 | - | - | 0 0.1 | 0 | - | - | | | | | |

HCM 6th Roundabout
21: Woodcarver Rd/Old Denver Rd & Baptist Rd

Short-Term Background Traffic
PM Peak Hour

| Intersection | | | | |
|-----------------------------|-------|-------|-------|-------|
| Intersection Delay, s/veh | 5.8 | | | |
| Intersection LOS | A | | | |
| Approach | EB | WB | NB | SB |
| Entry Lanes | 1 | 1 | 1 | 1 |
| Conflicting Circle Lanes | 1 | 1 | 1 | 1 |
| Adj Approach Flow, veh/h | 167 | 538 | 18 | 155 |
| Demand Flow Rate, veh/h | 170 | 549 | 18 | 158 |
| Vehicles Circulating, veh/h | 157 | 13 | 309 | 264 |
| Vehicles Exiting, veh/h | 265 | 314 | 18 | 298 |
| Ped Vol Crossing Leg, #/h | 0 | 0 | 0 | 0 |
| Ped Cap Adj | 1.000 | 1.000 | 1.000 | 1.000 |
| Approach Delay, s/veh | 4.4 | 6.5 | 3.7 | 4.8 |
| Approach LOS | A | A | A | A |
| Lane | Left | Left | Left | Left |
| Designated Moves | LTR | LTR | LTR | LTR |
| Assumed Moves | LTR | LTR | LTR | LTR |
| RT Channelized | | | | |
| Lane Util | 1.000 | 1.000 | 1.000 | 1.000 |
| Follow-Up Headway, s | 2.609 | 2.609 | 2.609 | 2.609 |
| Critical Headway, s | 4.976 | 4.976 | 4.976 | 4.976 |
| Entry Flow, veh/h | 170 | 549 | 18 | 158 |
| Cap Entry Lane, veh/h | 1176 | 1362 | 1007 | 1054 |
| Entry HV Adj Factor | 0.982 | 0.980 | 1.000 | 0.981 |
| Flow Entry, veh/h | 167 | 538 | 18 | 155 |
| Cap Entry, veh/h | 1154 | 1335 | 1007 | 1034 |
| V/C Ratio | 0.145 | 0.403 | 0.018 | 0.150 |
| Control Delay, s/veh | 4.4 | 6.5 | 3.7 | 4.8 |
| LOS | A | A | A | A |
| 95th %tile Queue, veh | 1 | 2 | 0 | 1 |






| Intersection | | | | | | | | | | | | |
|--------------------------|--------|--------------|--------|-------|--------------|--------|-------|--------------|--------|-------|--------------|------|
| Int Delay, s/veh | 6.2 | | | | | | | | | | | |
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations | | <div>↕</div> | | | <div>↕</div> | | | <div>↕</div> | | | <div>↕</div> | |
| Traffic Vol, veh/h | 0 | 4 | 2 | 15 | 8 | 3 | 3 | 8 | 14 | 0 | 6 | 1 |
| Future Vol, veh/h | 0 | 4 | 2 | 15 | 8 | 3 | 3 | 8 | 14 | 0 | 6 | 1 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Stop | Stop | Stop | Stop | Stop | Stop | Free | Free | Free | Free | Free | Free |
| RT Channelized | - | - | None | - | - | None | - | - | None | - | - | None |
| Storage Length | - | - | - | - | - | - | - | - | - | - | - | - |
| Veh in Median Storage, # | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Grade, % | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Peak Hour Factor | 38 | 38 | 38 | 53 | 53 | 53 | 100 | 100 | 100 | 88 | 88 | 88 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 0 | 11 | 5 | 28 | 15 | 6 | 3 | 8 | 14 | 0 | 7 | 1 |
| | | | | | | | | | | | | |
| Major/Minor | Minor2 | | Minor1 | | | Major1 | | | Major2 | | | |
| Conflicting Flow All | 40 | 36 | 8 | 37 | 29 | 15 | 8 | 0 | 0 | 22 | 0 | 0 |
| Stage 1 | 8 | 8 | - | 21 | 21 | - | - | - | - | - | - | - |
| Stage 2 | 32 | 28 | - | 16 | 8 | - | - | - | - | - | - | - |
| Critical Hdwy | 7.12 | 6.52 | 6.22 | 7.12 | 6.52 | 6.22 | 4.12 | - | - | 4.12 | - | - |
| 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 | 3.518 | 4.018 | 3.318 | 3.518 | 4.018 | 3.318 | 2.218 | - | - | 2.218 | - | - |
| Pot Cap-1 Maneuver | 964 | 856 | 1074 | 968 | 864 | 1065 | 1612 | - | - | 1593 | - | - |
| Stage 1 | 1013 | 889 | - | 998 | 878 | - | - | - | - | - | - | - |
| Stage 2 | 984 | 872 | - | 1004 | 889 | - | - | - | - | - | - | - |
| Platoon blocked, % | | | | | | | | - | - | | - | - |
| Mov Cap-1 Maneuver | 945 | 854 | 1074 | 953 | 862 | 1065 | 1612 | - | - | 1593 | - | - |
| Mov Cap-2 Maneuver | 945 | 854 | - | 953 | 862 | - | - | - | - | - | - | - |
| Stage 1 | 1011 | 889 | - | 996 | 876 | - | - | - | - | - | - | - |
| Stage 2 | 960 | 870 | - | 987 | 889 | - | - | - | - | - | - | - |
| | | | | | | | | | | | | |
| | | | | | | | | | | | | |
| Approach | EB | | WB | | | NB | | | SB | | | |
| HCM Control Delay, s | 9 | | 9.1 | | | 0.9 | | | 0 | | | |
| HCM LOS | A | | A | | | | | | | | | |
| | | | | | | | | | | | | |
| Minor Lane/Major Mvmt | NBL | NBT | NBR | EBLn1 | WBLn1 | SBL | SBT | SBR | | | | |
| Capacity (veh/h) | 1612 | - | - | 917 | 934 | 1593 | - | - | | | | |
| HCM Lane V/C Ratio | 0.002 | - | - | 0.017 | 0.053 | - | - | - | | | | |
| HCM Control Delay (s) | 7.2 | 0 | - | 9 | 9.1 | 0 | - | - | | | | |
| HCM Lane LOS | A | A | - | A | A | A | - | - | | | | |
| HCM 95th %tile Q(veh) | 0 | - | - | 0.1 | 0.2 | 0 | - | - | | | | |

HCM 6th TWSC
1: Long Valley Dr & Forest Lakes Dr

Short-Term Total Traffic
AM Peak Hour

Intersection

Int Delay, s/veh 0.8

| Movement | EBT | EBR | WBL | WBT | NBL | NBR |
|--------------------------|---|------|---|---|---|---|
| Lane Configurations |  | |  |  |  |  |
| Traffic Vol, veh/h | 181 | 1 | 5 | 60 | 2 | 15 |
| Future Vol, veh/h | 181 | 1 | 5 | 60 | 2 | 15 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Stop | Stop |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | - | - | 72 | - | 0 | - |
| Veh in Median Storage, # | 0 | - | - | 0 | 0 | - |
| Grade, % | 0 | - | - | 0 | 0 | - |
| Peak Hour Factor | 92 | 92 | 92 | 92 | 92 | 92 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 197 | 1 | 5 | 65 | 2 | 16 |




| Major/Minor | Major1 | Major2 | Minor1 |
|----------------------|--------|--------|--------|
| Conflicting Flow All | 0 | 0 | 198 |
| Stage 1 | - | - | - |
| Stage 2 | - | - | - |
| Critical Hdwy | - | - | 4.12 |
| Critical Hdwy Stg 1 | - | - | - |
| Critical Hdwy Stg 2 | - | - | - |
| Follow-up Hdwy | - | - | 2.218 |
| Pot Cap-1 Maneuver | - | - | 1375 |
| Stage 1 | - | - | - |
| Stage 2 | - | - | - |
| Platoon blocked, % | - | - | - |
| Mov Cap-1 Maneuver | - | - | 1375 |
| Mov Cap-2 Maneuver | - | - | - |
| Stage 1 | - | - | - |
| Stage 2 | - | - | - |

| Approach | EB | WB | NB |
|----------------------|----|-----|-----|
| HCM Control Delay, s | 0 | 0.6 | 9.5 |
| HCM LOS | | | A |

| Minor Lane/Major Mvmt | NBLn1 | EBT | EBR | WBL | WBT |
|-----------------------|-------|-----|-----|-------|-----|
| Capacity (veh/h) | 825 | - | - | 1375 | - |
| HCM Lane V/C Ratio | 0.022 | - | - | 0.004 | - |
| HCM Control Delay (s) | 9.5 | - | - | 7.6 | - |
| HCM Lane LOS | A | - | - | A | - |
| HCM 95th %tile Q(veh) | 0.1 | - | - | 0 | - |

HCM 6th TWSC
2: Forest Lakes Dr & Mesa Top Dr

Short-Term Total Traffic
AM Peak Hour

| Intersection | | | | | | |
|--------------------------|---|----------|---|-------|-------|---|
| Int Delay, s/veh | 4.1 | | | | | |
| Movement | WBL | WBR | NBT | NBR | SBL | SBT |
| Lane Configurations |  | |  | | |  |
| Traffic Vol, veh/h | 33 | 15 | 0 | 95 | 40 | 0 |
| Future Vol, veh/h | 33 | 15 | 0 | 95 | 40 | 0 |
| 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 | 92 | 92 | 92 | 92 | 92 | 92 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 36 | 16 | 0 | 103 | 43 | 0 |
| Major/Minor | Minor1 | Major1 | Major2 | | | |
| Conflicting Flow All | 138 | 52 | 0 | 0 | 103 | 0 |
| Stage 1 | 52 | - | - | - | - | - |
| Stage 2 | 86 | - | - | - | - | - |
| 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 | 855 | 1016 | - | - | 1489 | - |
| Stage 1 | 970 | - | - | - | - | - |
| Stage 2 | 937 | - | - | - | - | - |
| Platoon blocked, % | | | - | - | | - |
| Mov Cap-1 Maneuver | 830 | 1016 | - | - | 1489 | - |
| Mov Cap-2 Maneuver | 830 | - | - | - | - | - |
| Stage 1 | 942 | - | - | - | - | - |
| Stage 2 | 937 | - | - | - | - | - |
| Approach | WB | NB | | SB | | |
| HCM Control Delay, s | 9.3 | 0 | | 7.5 | | |
| HCM LOS | A | | | | | |
| Minor Lane/Major Mvmt | NBT | NBRWBLn1 | SBL | SBT | | |
| Capacity (veh/h) | - | - | 880 | 1489 | - | |
| HCM Lane V/C Ratio | - | - | 0.059 | 0.029 | - | |
| HCM Control Delay (s) | - | - | 9.3 | 7.5 | 0 | |
| HCM Lane LOS | - | - | A | A | A | |
| HCM 95th %tile Q(veh) | - | - | 0.2 | 0.1 | - | |

| Intersection | | | | | | | | | | | | |
|--------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Int Delay, s/veh | 3.4 | | | | | | | | | | | |
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations | | ↕ | | | ↕ | | | ↕ | | | ↕ | |
| Traffic Vol, veh/h | 1 | 1 | 4 | 6 | 0 | 0 | 0 | 16 | 0 | 0 | 20 | 1 |
| Future Vol, veh/h | 1 | 1 | 4 | 6 | 0 | 0 | 0 | 16 | 0 | 0 | 20 | 1 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Stop | Stop | Stop | Stop | Stop | Stop | Free | Free | Free | Free | Free | Free |
| RT Channelized | - | - | None | - | - | None | - | - | None | - | - | None |
| Storage Length | - | - | - | - | - | - | - | - | - | - | - | - |
| Veh in Median Storage, # | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Grade, % | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Peak Hour Factor | 38 | 38 | 38 | 75 | 75 | 75 | 100 | 100 | 100 | 100 | 100 | 100 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 3 | 3 | 11 | 8 | 0 | 0 | 0 | 16 | 0 | 0 | 20 | 1 |

| Major/Minor | Minor2 | | Minor1 | | Major1 | | Major2 | | | | | |
|----------------------|--------|-------|--------|-------|--------|-------|--------|---|---|-------|---|---|
| Conflicting Flow All | 37 | 37 | 21 | 44 | 37 | 16 | 21 | 0 | 0 | 16 | 0 | 0 |
| Stage 1 | 21 | 21 | - | 16 | 16 | - | - | - | - | - | - | - |
| Stage 2 | 16 | 16 | - | 28 | 21 | - | - | - | - | - | - | - |
| Critical Hdwy | 7.12 | 6.52 | 6.22 | 7.12 | 6.52 | 6.22 | 4.12 | - | - | 4.12 | - | - |
| 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 | 3.518 | 4.018 | 3.318 | 3.518 | 4.018 | 3.318 | 2.218 | - | - | 2.218 | - | - |
| Pot Cap-1 Maneuver | 968 | 855 | 1056 | 958 | 855 | 1063 | 1595 | - | - | 1602 | - | - |
| Stage 1 | 998 | 878 | - | 1004 | 882 | - | - | - | - | - | - | - |
| Stage 2 | 1004 | 882 | - | 989 | 878 | - | - | - | - | - | - | - |
| Platoon blocked, % | | | | | | | | - | - | - | - | - |
| Mov Cap-1 Maneuver | 968 | 855 | 1056 | 947 | 855 | 1063 | 1595 | - | - | 1602 | - | - |
| Mov Cap-2 Maneuver | 968 | 855 | - | 947 | 855 | - | - | - | - | - | - | - |
| Stage 1 | 998 | 878 | - | 1004 | 882 | - | - | - | - | - | - | - |
| Stage 2 | 1004 | 882 | - | 976 | 878 | - | - | - | - | - | - | - |

| Approach | EB | WB | NB | SB |
|----------------------|-----|-----|----|----|
| HCM Control Delay, s | 8.7 | 8.8 | 0 | 0 |
| HCM LOS | A | A | | |

| Minor Lane/Major Mvmt | NBL | NBT | NBR | EBLn1WBLn1 | SBL | SBT | SBR |
|-----------------------|------|-----|-----|-------------|------|-----|-----|
| Capacity (veh/h) | 1595 | - | - | 1002 947 | 1602 | - | - |
| HCM Lane V/C Ratio | - | - | - | 0.016 0.008 | - | - | - |
| HCM Control Delay (s) | 0 | - | - | 8.7 8.8 | 0 | - | - |
| HCM Lane LOS | A | - | - | A A | A | - | - |
| HCM 95th %tile Q(veh) | 0 | - | - | 0 0 | 0 | - | - |

HCM 6th Roundabout
21: Woodcarver Rd/Old Denver Rd & Baptist Rd

Short-Term Total Traffic
AM Peak Hour

| Intersection | | | | |
|-----------------------------|-------|-------|-------|-------|
| Intersection Delay, s/veh | 5.1 | | | |
| Intersection LOS | A | | | |
| Approach | EB | WB | NB | SB |
| Entry Lanes | 1 | 1 | 1 | 1 |
| Conflicting Circle Lanes | 1 | 1 | 1 | 1 |
| Adj Approach Flow, veh/h | 285 | 318 | 11 | 195 |
| Demand Flow Rate, veh/h | 291 | 324 | 11 | 198 |
| Vehicles Circulating, veh/h | 199 | 28 | 464 | 169 |
| Vehicles Exiting, veh/h | 168 | 447 | 25 | 183 |
| Ped Vol Crossing Leg, #/h | 0 | 0 | 0 | 0 |
| Ped Cap Adj | 1.000 | 1.000 | 1.000 | 1.000 |
| Approach Delay, s/veh | 5.7 | 4.8 | 4.3 | 4.6 |
| Approach LOS | A | A | A | A |
| Lane | Left | Left | Left | Left |
| Designated Moves | LTR | LTR | LTR | LTR |
| Assumed Moves | LTR | LTR | LTR | LTR |
| RT Channelized | | | | |
| Lane Util | 1.000 | 1.000 | 1.000 | 1.000 |
| Follow-Up Headway, s | 2.609 | 2.609 | 2.609 | 2.609 |
| Critical Headway, s | 4.976 | 4.976 | 4.976 | 4.976 |
| Entry Flow, veh/h | 291 | 324 | 11 | 198 |
| Cap Entry Lane, veh/h | 1126 | 1341 | 860 | 1161 |
| Entry HV Adj Factor | 0.979 | 0.982 | 0.996 | 0.984 |
| Flow Entry, veh/h | 285 | 318 | 11 | 195 |
| Cap Entry, veh/h | 1102 | 1316 | 857 | 1143 |
| V/C Ratio | 0.258 | 0.242 | 0.013 | 0.170 |
| Control Delay, s/veh | 5.7 | 4.8 | 4.3 | 4.6 |
| LOS | A | A | A | A |
| 95th %tile Queue, veh | 1 | 1 | 0 | 1 |

| Intersection | | | | | | | | | | | | |
|--------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Int Delay, s/veh | 4.8 | | | | | | | | | | | |
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations | | ↕ | | | ↕ | | | ↕ | | | ↕ | |
| Traffic Vol, veh/h | 0 | 5 | 8 | 8 | 2 | 0 | 2 | 1 | 13 | 0 | 7 | 1 |
| Future Vol, veh/h | 0 | 5 | 8 | 8 | 2 | 0 | 2 | 1 | 13 | 0 | 7 | 1 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Stop | Stop | Stop | Stop | Stop | Stop | Free | Free | Free | Free | Free | Free |
| RT Channelized | - | - | None | - | - | None | - | - | None | - | - | None |
| Storage Length | - | - | - | - | - | - | - | - | - | - | - | - |
| Veh in Median Storage, # | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Grade, % | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Peak Hour Factor | 81 | 81 | 81 | 75 | 75 | 75 | 100 | 100 | 100 | 67 | 67 | 67 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 0 | 6 | 10 | 11 | 3 | 0 | 2 | 1 | 13 | 0 | 10 | 1 |






| Major/Minor | Minor2 | | Minor1 | | Major1 | | Major2 | | | | | |
|----------------------|--------|-------|--------|-------|--------|-------|--------|---|---|-------|---|---|
| Conflicting Flow All | 24 | 29 | 11 | 31 | 23 | 8 | 11 | 0 | 0 | 14 | 0 | 0 |
| Stage 1 | 11 | 11 | - | 12 | 12 | - | - | - | - | - | - | - |
| Stage 2 | 13 | 18 | - | 19 | 11 | - | - | - | - | - | - | - |
| Critical Hdwy | 7.12 | 6.52 | 6.22 | 7.12 | 6.52 | 6.22 | 4.12 | - | - | 4.12 | - | - |
| 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 | 3.518 | 4.018 | 3.318 | 3.518 | 4.018 | 3.318 | 2.218 | - | - | 2.218 | - | - |
| Pot Cap-1 Maneuver | 987 | 864 | 1070 | 977 | 870 | 1074 | 1608 | - | - | 1604 | - | - |
| Stage 1 | 1010 | 886 | - | 1009 | 886 | - | - | - | - | - | - | - |
| Stage 2 | 1007 | 880 | - | 1000 | 886 | - | - | - | - | - | - | - |
| Platoon blocked, % | | | | | | | | - | - | - | - | - |
| Mov Cap-1 Maneuver | 984 | 863 | 1070 | 962 | 869 | 1074 | 1608 | - | - | 1604 | - | - |
| Mov Cap-2 Maneuver | 984 | 863 | - | 962 | 869 | - | - | - | - | - | - | - |
| Stage 1 | 1009 | 886 | - | 1008 | 885 | - | - | - | - | - | - | - |
| Stage 2 | 1003 | 879 | - | 984 | 886 | - | - | - | - | - | - | - |

| Approach | EB | WB | NB | SB |
|----------------------|-----|-----|-----|----|
| HCM Control Delay, s | 8.7 | 8.9 | 0.9 | 0 |
| HCM LOS | A | A | | |

| Minor Lane/Major Mvmt | NBL | NBT | NBR | EBLn1WBLn1 | SBL | SBT | SBR |
|-----------------------|-------|-----|-----|-------------|------|-----|-----|
| Capacity (veh/h) | 1608 | - | - | 980 942 | 1604 | - | - |
| HCM Lane V/C Ratio | 0.001 | - | - | 0.016 0.014 | - | - | - |
| HCM Control Delay (s) | 7.2 | 0 | - | 8.7 8.9 | 0 | - | - |
| HCM Lane LOS | A | A | - | A A | A | - | - |
| HCM 95th %tile Q(veh) | 0 | - | - | 0.1 0 | 0 | - | - |




HCM 6th TWSC
1: Long Valley Dr & Forest Lakes Dr

Short-Term Total Traffic
PM Peak Hour

| Intersection | | | | | | |
|--------------------------|---|--------|---|---|---|--|
| Int Delay, s/veh | 0.6 | | | | | |
| Movement | EBT | EBR | WBL | WBT | NBL | NBR |
| Lane Configurations |  | |  |  |  |  |
| Traffic Vol, veh/h | 128 | 2 | 17 | 203 | 1 | 9 |
| Future Vol, veh/h | 128 | 2 | 17 | 203 | 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 | - | - | 72 | - | 0 | - |
| Veh in Median Storage, # | 0 | - | - | 0 | 0 | - |
| Grade, % | 0 | - | - | 0 | 0 | - |
| Peak Hour Factor | 92 | 92 | 92 | 92 | 92 | 92 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 139 | 2 | 18 | 221 | 1 | 10 |
| | | | | | | |
| Major/Minor | Major1 | Major2 | | Minor1 | | |
| Conflicting Flow All | 0 | 0 | 141 | 0 | 397 | 140 |
| Stage 1 | - | - | - | - | 140 | - |
| Stage 2 | - | - | - | - | 257 | - |
| 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 | - | - | 1442 | - | 608 | 908 |
| Stage 1 | - | - | - | - | 887 | - |
| Stage 2 | - | - | - | - | 786 | - |
| Platoon blocked, % | - | - | | - | | |
| Mov Cap-1 Maneuver | - | - | 1442 | - | 601 | 908 |
| Mov Cap-2 Maneuver | - | - | - | - | 601 | - |
| Stage 1 | - | - | - | - | 876 | - |
| Stage 2 | - | - | - | - | 786 | - |
| | | | | | | |
| | | | | | | |
| Approach | EB | WB | | NB | | |
| HCM Control Delay, s | 0 | 0.6 | | 9.2 | | |
| HCM LOS | A | | | | | |
| | | | | | | |
| | | | | | | |
| Minor Lane/Major Mvmt | NBLn1 | EBT | EBR | WBL | WBT | |
| Capacity (veh/h) | 864 | - | - | 1442 | - | |
| HCM Lane V/C Ratio | 0.013 | - | - | 0.013 | - | |
| HCM Control Delay (s) | 9.2 | - | - | 7.5 | - | |
| HCM Lane LOS | A | - | - | A | - | |
| HCM 95th %tile Q(veh) | 0 | - | - | 0 | - | |

HCM 6th TWSC
2: Forest Lakes Dr & Mesa Top Dr

Short-Term Total Traffic
PM Peak Hour

| Intersection | | | | | | |
|--------------------------|---|----------|---|--------|-------|---|
| Int Delay, s/veh | 7.1 | | | | | |
| Movement | WBL | WBR | NBT | NBR | SBL | SBT |
| Lane Configurations |  | |  | | |  |
| Traffic Vol, veh/h | 106 | 46 | 0 | 63 | 39 | 0 |
| Future Vol, veh/h | 106 | 46 | 0 | 63 | 39 | 0 |
| 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 | 92 | 92 | 92 | 92 | 92 | 92 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 115 | 50 | 0 | 68 | 42 | 0 |
| Major/Minor | Minor1 | Major1 | | Major2 | | |
| Conflicting Flow All | 118 | 34 | 0 | 0 | 68 | 0 |
| Stage 1 | 34 | - | - | - | - | - |
| Stage 2 | 84 | - | - | - | - | - |
| 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 | 878 | 1039 | - | - | 1533 | - |
| Stage 1 | 988 | - | - | - | - | - |
| Stage 2 | 939 | - | - | - | - | - |
| Platoon blocked, % | | | - | - | | - |
| Mov Cap-1 Maneuver | 854 | 1039 | - | - | 1533 | - |
| Mov Cap-2 Maneuver | 854 | - | - | - | - | - |
| Stage 1 | 961 | - | - | - | - | - |
| Stage 2 | 939 | - | - | - | - | - |
| Approach | WB | NB | | SB | | |
| HCM Control Delay, s | 9.9 | 0 | | 7.4 | | |
| HCM LOS | A | | | | | |
| Minor Lane/Major Mvmt | NBT | NBRWBLn1 | | SBL | SBT | |
| Capacity (veh/h) | - | - | | 903 | 1533 | |
| HCM Lane V/C Ratio | - | - | | 0.183 | 0.028 | |
| HCM Control Delay (s) | - | - | | 9.9 | 7.4 | |
| HCM Lane LOS | - | - | | A | A | |
| HCM 95th %tile Q(veh) | - | - | | 0.7 | 0.1 | |

HCM 6th TWSC
19: Lindbergh Rd & Spaatz Rd

Short-Term Total Traffic
PM Peak Hour

| Intersection | | | | | | | | | | | | |
|--------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Int Delay, s/veh | 2 | | | | | | | | | | | |
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations | | ↕ | | | ↕ | | | ↕ | | | ↕ | |
| Traffic Vol, veh/h | 1 | 0 | 1 | 8 | 0 | 0 | 4 | 26 | 5 | 0 | 30 | 1 |
| Future Vol, veh/h | 1 | 0 | 1 | 8 | 0 | 0 | 4 | 26 | 5 | 0 | 30 | 1 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Stop | Stop | Stop | Stop | Stop | Stop | Free | Free | Free | Free | Free | Free |
| RT Channelized | - | - | None | - | - | None | - | - | None | - | - | None |
| Storage Length | - | - | - | - | - | - | - | - | - | - | - | - |
| Veh in Median Storage, # | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Grade, % | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Peak Hour Factor | 100 | 100 | 100 | 50 | 50 | 50 | 100 | 100 | 100 | 75 | 75 | 75 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 1 | 0 | 1 | 16 | 0 | 0 | 4 | 26 | 5 | 0 | 40 | 1 |

| Major/Minor | Minor2 | | Minor1 | | Major1 | | Major2 | | | | | |
|----------------------|--------|-------|--------|-------|--------|-------|--------|---|---|-------|---|---|
| Conflicting Flow All | 78 | 80 | 41 | 78 | 78 | 29 | 41 | 0 | 0 | 31 | 0 | 0 |
| Stage 1 | 41 | 41 | - | 37 | 37 | - | - | - | - | - | - | - |
| Stage 2 | 37 | 39 | - | 41 | 41 | - | - | - | - | - | - | - |
| Critical Hdwy | 7.12 | 6.52 | 6.22 | 7.12 | 6.52 | 6.22 | 4.12 | - | - | 4.12 | - | - |
| 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 | 3.518 | 4.018 | 3.318 | 3.518 | 4.018 | 3.318 | 2.218 | - | - | 2.218 | - | - |
| Pot Cap-1 Maneuver | 911 | 810 | 1030 | 911 | 812 | 1046 | 1568 | - | - | 1582 | - | - |
| Stage 1 | 974 | 861 | - | 978 | 864 | - | - | - | - | - | - | - |
| Stage 2 | 978 | 862 | - | 974 | 861 | - | - | - | - | - | - | - |
| Platoon blocked, % | | | | | | | | - | - | - | - | - |
| Mov Cap-1 Maneuver | 909 | 808 | 1030 | 908 | 810 | 1046 | 1568 | - | - | 1582 | - | - |
| Mov Cap-2 Maneuver | 909 | 808 | - | 908 | 810 | - | - | - | - | - | - | - |
| Stage 1 | 971 | 861 | - | 975 | 861 | - | - | - | - | - | - | - |
| Stage 2 | 975 | 859 | - | 973 | 861 | - | - | - | - | - | - | - |

| Approach | EB | WB | NB | SB |
|----------------------|-----|----|-----|----|
| HCM Control Delay, s | 8.7 | 9 | 0.8 | 0 |
| HCM LOS | A | A | | |

| Minor Lane/Major Mvmt | NBL | NBT | NBR | EBLn1WBLn1 | SBL | SBT | SBR |
|-----------------------|-------|-----|-----|-------------|------|-----|-----|
| Capacity (veh/h) | 1568 | - | - | 966 908 | 1582 | - | - |
| HCM Lane V/C Ratio | 0.003 | - | - | 0.002 0.018 | - | - | - |
| HCM Control Delay (s) | 7.3 | 0 | - | 8.7 9 | 0 | - | - |
| HCM Lane LOS | A | A | - | A A | A | - | - |
| HCM 95th %tile Q(veh) | 0 | - | - | 0 0.1 | 0 | - | - |

HCM 6th Roundabout
21: Woodcarver Rd/Old Denver Rd & Baptist Rd

Short-Term Total Traffic
PM Peak Hour






| Intersection | | | | |
|-----------------------------|-------|-------|-------|-------|
| Intersection Delay, s/veh | 6.8 | | | |
| Intersection LOS | A | | | |
| Approach | EB | WB | NB | SB |
| Entry Lanes | 1 | 1 | 1 | 1 |
| Conflicting Circle Lanes | 1 | 1 | 1 | 1 |
| Adj Approach Flow, veh/h | 230 | 657 | 18 | 166 |
| Demand Flow Rate, veh/h | 234 | 670 | 18 | 170 |
| Vehicles Circulating, veh/h | 157 | 20 | 373 | 385 |
| Vehicles Exiting, veh/h | 398 | 371 | 18 | 305 |
| Ped Vol Crossing Leg, #/h | 0 | 0 | 0 | 0 |
| Ped Cap Adj | 1.000 | 1.000 | 1.000 | 1.000 |
| Approach Delay, s/veh | 4.9 | 7.8 | 4.0 | 5.8 |
| Approach LOS | A | A | A | A |
| Lane | Left | Left | Left | Left |
| Designated Moves | LTR | LTR | LTR | LTR |
| Assumed Moves | LTR | LTR | LTR | LTR |
| RT Channelized | | | | |
| Lane Util | 1.000 | 1.000 | 1.000 | 1.000 |
| Follow-Up Headway, s | 2.609 | 2.609 | 2.609 | 2.609 |
| Critical Headway, s | 4.976 | 4.976 | 4.976 | 4.976 |
| Entry Flow, veh/h | 234 | 670 | 18 | 170 |
| Cap Entry Lane, veh/h | 1176 | 1352 | 943 | 932 |
| Entry HV Adj Factor | 0.982 | 0.980 | 1.000 | 0.976 |
| Flow Entry, veh/h | 230 | 657 | 18 | 166 |
| Cap Entry, veh/h | 1155 | 1325 | 943 | 909 |
| V/C Ratio | 0.199 | 0.496 | 0.019 | 0.182 |
| Control Delay, s/veh | 4.9 | 7.8 | 4.0 | 5.8 |
| LOS | A | A | A | A |
| 95th %tile Queue, veh | 1 | 3 | 0 | 1 |




| Intersection | | | | | | | | | | | | |
|--------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Int Delay, s/veh | 6.4 | | | | | | | | | | | |
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations | | ↕ | | | ↕ | | | ↕ | | | ↕ | |
| Traffic Vol, veh/h | 0 | 4 | 2 | 21 | 8 | 3 | 3 | 8 | 17 | 0 | 6 | 1 |
| Future Vol, veh/h | 0 | 4 | 2 | 21 | 8 | 3 | 3 | 8 | 17 | 0 | 6 | 1 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Stop | Stop | Stop | Stop | Stop | Stop | Free | Free | Free | Free | Free | Free |
| RT Channelized | - | - | None | - | - | None | - | - | None | - | - | None |
| Storage Length | - | - | - | - | - | - | - | - | - | - | - | - |
| Veh in Median Storage, # | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Grade, % | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Peak Hour Factor | 38 | 38 | 38 | 53 | 53 | 53 | 100 | 100 | 100 | 88 | 88 | 88 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 0 | 11 | 5 | 40 | 15 | 6 | 3 | 8 | 17 | 0 | 7 | 1 |

| Major/Minor | Minor2 | | Minor1 | | Major1 | | Major2 | | | | | |
|----------------------|--------|-------|--------|-------|--------|-------|--------|---|---|-------|---|---|
| Conflicting Flow All | 41 | 39 | 8 | 39 | 31 | 17 | 8 | 0 | 0 | 25 | 0 | 0 |
| Stage 1 | 8 | 8 | - | 23 | 23 | - | - | - | - | - | - | - |
| Stage 2 | 33 | 31 | - | 16 | 8 | - | - | - | - | - | - | - |
| Critical Hdwy | 7.12 | 6.52 | 6.22 | 7.12 | 6.52 | 6.22 | 4.12 | - | - | 4.12 | - | - |
| 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 | 3.518 | 4.018 | 3.318 | 3.518 | 4.018 | 3.318 | 2.218 | - | - | 2.218 | - | - |
| Pot Cap-1 Maneuver | 963 | 853 | 1074 | 966 | 862 | 1062 | 1612 | - | - | 1589 | - | - |
| Stage 1 | 1013 | 889 | - | 995 | 876 | - | - | - | - | - | - | - |
| Stage 2 | 983 | 869 | - | 1004 | 889 | - | - | - | - | - | - | - |
| Platoon blocked, % | | | | | | | | - | - | - | - | - |
| Mov Cap-1 Maneuver | 944 | 851 | 1074 | 951 | 860 | 1062 | 1612 | - | - | 1589 | - | - |
| Mov Cap-2 Maneuver | 944 | 851 | - | 951 | 860 | - | - | - | - | - | - | - |
| Stage 1 | 1011 | 889 | - | 993 | 874 | - | - | - | - | - | - | - |
| Stage 2 | 959 | 867 | - | 987 | 889 | - | - | - | - | - | - | - |

| Approach | EB | WB | NB | SB |
|----------------------|----|-----|-----|----|
| HCM Control Delay, s | 9 | 9.1 | 0.8 | 0 |
| HCM LOS | A | A | | |

| Minor Lane/Major Mvmt | NBL | NBT | NBR | EBLn1WBLn1 | SBL | SBT | SBR |
|-----------------------|-------|-----|-----|-------------|------|-----|-----|
| Capacity (veh/h) | 1612 | - | - | 914 935 | 1589 | - | - |
| HCM Lane V/C Ratio | 0.002 | - | - | 0.017 0.065 | - | - | - |
| HCM Control Delay (s) | 7.2 | 0 | - | 9 9.1 | 0 | - | - |
| HCM Lane LOS | A | A | - | A A | A | - | - |
| HCM 95th %tile Q(veh) | 0 | - | - | 0.1 0.2 | 0 | - | - |

| Intersection | | | | | | |
|--------------------------|---|--------|---|---|---|--|
| Int Delay, s/veh | 1.5 | | | | | |
| Movement | EBT | EBR | WBL | WBT | NBL | NBR |
| Lane Configurations |  | |  |  |  |  |
| Traffic Vol, veh/h | 216 | 7 | 11 | 171 | 18 | 38 |
| Future Vol, veh/h | 216 | 7 | 11 | 171 | 18 | 38 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Stop | Stop |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | - | - | 72 | - | 0 | - |
| Veh in Median Storage, # | 0 | - | - | 0 | 0 | - |
| Grade, % | 0 | - | - | 0 | 0 | - |
| Peak Hour Factor | 92 | 92 | 92 | 92 | 92 | 92 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 235 | 8 | 12 | 186 | 20 | 41 |
| Major/Minor | Major1 | Major2 | | Minor1 | | |
| Conflicting Flow All | 0 | 0 | 243 | 0 | 449 | 239 |
| Stage 1 | - | - | - | - | 239 | - |
| Stage 2 | - | - | - | - | 210 | - |
| 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 | - | - | 1323 | - | 568 | 800 |
| Stage 1 | - | - | - | - | 801 | - |
| Stage 2 | - | - | - | - | 825 | - |
| Platoon blocked, % | - | - | - | - | - | - |
| Mov Cap-1 Maneuver | - | - | 1323 | - | 563 | 800 |
| Mov Cap-2 Maneuver | - | - | - | - | 563 | - |
| Stage 1 | - | - | - | - | 794 | - |
| Stage 2 | - | - | - | - | 825 | - |
| Approach | EB | | WB | | NB | |
| HCM Control Delay, s | 0 | | 0.5 | | 10.6 | |
| HCM LOS | | | | | B | |
| Minor Lane/Major Mvmt | NBLn1 | EBT | EBR | WBL | WBT | |
| Capacity (veh/h) | 705 | - | - | 1323 | - | |
| HCM Lane V/C Ratio | 0.086 | - | - | 0.009 | - | |
| HCM Control Delay (s) | 10.6 | - | - | 7.7 | - | |
| HCM Lane LOS | B | - | - | A | - | |
| HCM 95th %tile Q(veh) | 0.3 | - | - | 0 | - | |

| Intersection | | | | | | |
|--------------------------|---|----------|---|--------|-------|---|
| Int Delay, s/veh | 7.4 | | | | | |
| Movement | WBL | WBR | NBT | NBR | SBL | SBT |
| Lane Configurations |  | |  | | |  |
| Traffic Vol, veh/h | 2 | 27 | 0 | 4 | 62 | 0 |
| Future Vol, veh/h | 2 | 27 | 0 | 4 | 62 | 0 |
| 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 | 92 | 92 | 92 | 92 | 92 | 92 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 2 | 29 | 0 | 4 | 67 | 0 |
| Major/Minor | Minor1 | Major1 | | Major2 | | |
| Conflicting Flow All | 136 | 2 | 0 | 0 | 4 | 0 |
| Stage 1 | 2 | - | - | - | - | - |
| Stage 2 | 134 | - | - | - | - | - |
| 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 | 857 | 1082 | - | - | 1618 | - |
| Stage 1 | 1021 | - | - | - | - | - |
| Stage 2 | 892 | - | - | - | - | - |
| Platoon blocked, % | | | - | - | | - |
| Mov Cap-1 Maneuver | 822 | 1082 | - | - | 1618 | - |
| Mov Cap-2 Maneuver | 822 | - | - | - | - | - |
| Stage 1 | 979 | - | - | - | - | - |
| Stage 2 | 892 | - | - | - | - | - |
| Approach | WB | NB | | SB | | |
| HCM Control Delay, s | 8.5 | 0 | | 7.3 | | |
| HCM LOS | A | | | | | |
| Minor Lane/Major Mvmt | NBT | NBRWBLn1 | | SBL | SBT | |
| Capacity (veh/h) | - | - 1059 | | 1618 | - | |
| HCM Lane V/C Ratio | - | - 0.03 | | 0.042 | - | |
| HCM Control Delay (s) | - | - 8.5 | | 7.3 | 0 | |
| HCM Lane LOS | - | - A | | A | A | |
| HCM 95th %tile Q(veh) | - | - 0.1 | | 0.1 | - | |





| Intersection | | | | | | | | | | | | |
|--------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Int Delay, s/veh | 2.4 | | | | | | | | | | | |
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations | | ↕ | | | ↕ | | | ↕ | | | ↕ | |
| Traffic Vol, veh/h | 1 | 1 | 4 | 6 | 0 | 0 | 0 | 23 | 0 | 0 | 40 | 1 |
| Future Vol, veh/h | 1 | 1 | 4 | 6 | 0 | 0 | 0 | 23 | 0 | 0 | 40 | 1 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Stop | Stop | Stop | Stop | Stop | Stop | Free | Free | Free | Free | Free | Free |
| RT Channelized | - | - | None | - | - | None | - | - | None | - | - | None |
| Storage Length | - | - | - | - | - | - | - | - | - | - | - | - |
| Veh in Median Storage, # | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Grade, % | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Peak Hour Factor | 38 | 38 | 38 | 75 | 75 | 75 | 100 | 100 | 100 | 100 | 100 | 100 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 3 | 3 | 11 | 8 | 0 | 0 | 0 | 23 | 0 | 0 | 40 | 1 |






| Major/Minor | Minor2 | | Minor1 | | Major1 | | Major2 | | | | | |
|----------------------|--------|-------|--------|-------|--------|-------|--------|---|---|-------|---|---|
| Conflicting Flow All | 64 | 64 | 41 | 71 | 64 | 23 | 41 | 0 | 0 | 23 | 0 | 0 |
| Stage 1 | 41 | 41 | - | 23 | 23 | - | - | - | - | - | - | - |
| Stage 2 | 23 | 23 | - | 48 | 41 | - | - | - | - | - | - | - |
| Critical Hdwy | 7.12 | 6.52 | 6.22 | 7.12 | 6.52 | 6.22 | 4.12 | - | - | 4.12 | - | - |
| 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 | 3.518 | 4.018 | 3.318 | 3.518 | 4.018 | 3.318 | 2.218 | - | - | 2.218 | - | - |
| Pot Cap-1 Maneuver | 930 | 827 | 1030 | 920 | 827 | 1054 | 1568 | - | - | 1592 | - | - |
| Stage 1 | 974 | 861 | - | 995 | 876 | - | - | - | - | - | - | - |
| Stage 2 | 995 | 876 | - | 965 | 861 | - | - | - | - | - | - | - |
| Platoon blocked, % | | | | | | | | - | - | - | - | - |
| Mov Cap-1 Maneuver | 930 | 827 | 1030 | 908 | 827 | 1054 | 1568 | - | - | 1592 | - | - |
| Mov Cap-2 Maneuver | 930 | 827 | - | 908 | 827 | - | - | - | - | - | - | - |
| Stage 1 | 974 | 861 | - | 995 | 876 | - | - | - | - | - | - | - |
| Stage 2 | 995 | 876 | - | 952 | 861 | - | - | - | - | - | - | - |

| Approach | EB | WB | NB | SB |
|----------------------|-----|----|----|----|
| HCM Control Delay, s | 8.8 | 9 | 0 | 0 |
| HCM LOS | A | A | | |

| Minor Lane/Major Mvmt | NBL | NBT | NBR | EBLn1WBLn1 | SBL | SBT | SBR |
|-----------------------|------|-----|-----|-------------|------|-----|-----|
| Capacity (veh/h) | 1568 | - | - | 973 908 | 1592 | - | - |
| HCM Lane V/C Ratio | - | - | - | 0.016 0.009 | - | - | - |
| HCM Control Delay (s) | 0 | - | - | 8.8 9 | 0 | - | - |
| HCM Lane LOS | A | - | - | A A | A | - | - |
| HCM 95th %tile Q(veh) | 0 | - | - | 0 0 | 0 | - | - |




| Intersection | | | | |
|-----------------------------|-------|-------|-------|-------|
| Intersection Delay, s/veh | 8.7 | | | |
| Intersection LOS | A | | | |
| Approach | EB | WB | NB | SB |
| Entry Lanes | 1 | 1 | 1 | 1 |
| Conflicting Circle Lanes | 1 | 1 | 1 | 1 |
| Adj Approach Flow, veh/h | 375 | 644 | 118 | 345 |
| Demand Flow Rate, veh/h | 382 | 656 | 120 | 352 |
| Vehicles Circulating, veh/h | 511 | 41 | 678 | 390 |
| Vehicles Exiting, veh/h | 231 | 757 | 215 | 307 |
| Ped Vol Crossing Leg, #/h | 0 | 0 | 0 | 0 |
| Ped Cap Adj | 1.000 | 1.000 | 1.000 | 1.000 |
| Approach Delay, s/veh | 10.7 | 7.9 | 7.3 | 8.3 |
| Approach LOS | B | A | A | A |
| Lane | Left | Left | Left | Left |
| Designated Moves | LTR | LTR | LTR | LTR |
| Assumed Moves | LTR | LTR | LTR | LTR |
| RT Channelized | | | | |
| Lane Util | 1.000 | 1.000 | 1.000 | 1.000 |
| Follow-Up Headway, s | 2.609 | 2.609 | 2.609 | 2.609 |
| Critical Headway, s | 4.976 | 4.976 | 4.976 | 4.976 |
| Entry Flow, veh/h | 382 | 656 | 120 | 352 |
| Cap Entry Lane, veh/h | 819 | 1323 | 691 | 927 |
| Entry HV Adj Factor | 0.982 | 0.981 | 0.981 | 0.981 |
| Flow Entry, veh/h | 375 | 644 | 118 | 345 |
| Cap Entry, veh/h | 805 | 1299 | 678 | 910 |
| V/C Ratio | 0.466 | 0.496 | 0.174 | 0.380 |
| Control Delay, s/veh | 10.7 | 7.9 | 7.3 | 8.3 |
| LOS | B | A | A | A |
| 95th %tile Queue, veh | 3 | 3 | 1 | 2 |

| Intersection | | | | | | | | | | | | |
|--------------------------|--------|---|--------|-------|---|--------|-------|---|--------|-------|---|------|
| Int Delay, s/veh | 5.7 | | | | | | | | | | | |
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations | |  | | |  | | |  | | |  | |
| Traffic Vol, veh/h | 0 | 5 | 8 | 28 | 2 | 0 | 2 | 1 | 20 | 0 | 7 | 1 |
| Future Vol, veh/h | 0 | 5 | 8 | 28 | 2 | 0 | 2 | 1 | 20 | 0 | 7 | 1 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Stop | Stop | Stop | Stop | Stop | Stop | Free | Free | Free | Free | Free | Free |
| RT Channelized | - | - | None | - | - | None | - | - | None | - | - | None |
| Storage Length | - | - | - | - | - | - | - | - | - | - | - | - |
| Veh in Median Storage, # | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Grade, % | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Peak Hour Factor | 81 | 81 | 81 | 75 | 75 | 75 | 100 | 100 | 100 | 67 | 67 | 67 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 0 | 6 | 10 | 37 | 3 | 0 | 2 | 1 | 20 | 0 | 10 | 1 |
| | | | | | | | | | | | | |
| Major/Minor | Minor2 | | Minor1 | | | Major1 | | | Major2 | | | |
| Conflicting Flow All | 28 | 36 | 11 | 34 | 26 | 11 | 11 | 0 | 0 | 21 | 0 | 0 |
| Stage 1 | 11 | 11 | - | 15 | 15 | - | - | - | - | - | - | - |
| Stage 2 | 17 | 25 | - | 19 | 11 | - | - | - | - | - | - | - |
| Critical Hdwy | 7.12 | 6.52 | 6.22 | 7.12 | 6.52 | 6.22 | 4.12 | - | - | 4.12 | - | - |
| 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 | 3.518 | 4.018 | 3.318 | 3.518 | 4.018 | 3.318 | 2.218 | - | - | 2.218 | - | - |
| Pot Cap-1 Maneuver | 981 | 856 | 1070 | 973 | 867 | 1070 | 1608 | - | - | 1595 | - | - |
| Stage 1 | 1010 | 886 | - | 1005 | 883 | - | - | - | - | - | - | - |
| Stage 2 | 1002 | 874 | - | 1000 | 886 | - | - | - | - | - | - | - |
| Platoon blocked, % | | | | | | | | - | - | | - | - |
| Mov Cap-1 Maneuver | 978 | 855 | 1070 | 958 | 866 | 1070 | 1608 | - | - | 1595 | - | - |
| Mov Cap-2 Maneuver | 978 | 855 | - | 958 | 866 | - | - | - | - | - | - | - |
| Stage 1 | 1009 | 886 | - | 1004 | 882 | - | - | - | - | - | - | - |
| Stage 2 | 998 | 873 | - | 984 | 886 | - | - | - | - | - | - | - |
| | | | | | | | | | | | | |
| | | | | | | | | | | | | |
| Approach | EB | | WB | | | NB | | | SB | | | |
| HCM Control Delay, s | 8.8 | | 9 | | | 0.6 | | | 0 | | | |
| HCM LOS | A | | A | | | | | | | | | |
| | | | | | | | | | | | | |
| Minor Lane/Major Mvmt | NBL | NBT | NBR | EBLn1 | WBLn1 | SBL | SBT | SBR | | | | |
| Capacity (veh/h) | 1608 | - | - | 976 | 951 | 1595 | - | - | | | | |
| HCM Lane V/C Ratio | 0.001 | - | - | 0.016 | 0.042 | - | - | - | | | | |
| HCM Control Delay (s) | 7.2 | 0 | - | 8.8 | 9 | 0 | - | - | | | | |
| HCM Lane LOS | A | A | - | A | A | A | - | - | | | | |
| HCM 95th %tile Q(veh) | 0 | - | - | 0.1 | 0.1 | 0 | - | - | | | | |

| Intersection | | | | | | |
|--------------------------|---|--------|---|---|---|--|
| Int Delay, s/veh | 2.1 | | | | | |
| Movement | EBT | EBR | WBL | WBT | NBL | NBR |
| Lane Configurations |  | |  |  |  |  |
| Traffic Vol, veh/h | 106 | 8 | 50 | 131 | 5 | 30 |
| Future Vol, veh/h | 106 | 8 | 50 | 131 | 5 | 30 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Stop | Stop |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | - | - | 72 | - | 0 | - |
| Veh in Median Storage, # | 0 | - | - | 0 | 0 | - |
| Grade, % | 0 | - | - | 0 | 0 | - |
| Peak Hour Factor | 92 | 92 | 92 | 92 | 92 | 92 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 115 | 9 | 54 | 142 | 5 | 33 |
| Major/Minor | Major1 | Major2 | | Minor1 | | |
| Conflicting Flow All | 0 | 0 | 124 | 0 | 370 | 120 |
| Stage 1 | - | - | - | - | 120 | - |
| Stage 2 | - | - | - | - | 250 | - |
| 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 | - | - | 1463 | - | 630 | 931 |
| Stage 1 | - | - | - | - | 905 | - |
| Stage 2 | - | - | - | - | 792 | - |
| Platoon blocked, % | - | - | - | - | - | - |
| Mov Cap-1 Maneuver | - | - | 1463 | - | 607 | 931 |
| Mov Cap-2 Maneuver | - | - | - | - | 607 | - |
| Stage 1 | - | - | - | - | 872 | - |
| Stage 2 | - | - | - | - | 792 | - |
| Approach | EB | | WB | | NB | |
| HCM Control Delay, s | 0 | | 2.1 | | 9.4 | |
| HCM LOS | | | | | A | |
| Minor Lane/Major Mvmt | NBLn1 | EBT | EBR | WBL | WBT | |
| Capacity (veh/h) | 865 | - | - | 1463 | - | |
| HCM Lane V/C Ratio | 0.044 | - | - | 0.037 | - | |
| HCM Control Delay (s) | 9.4 | - | - | 7.6 | - | |
| HCM Lane LOS | A | - | - | A | - | |
| HCM 95th %tile Q(veh) | 0.1 | - | - | 0.1 | - | |

Intersection





Int Delay, s/veh 7.9

| Movement | WBL | WBR | NBT | NBR | SBL | SBT |
|--------------------------|---|------|---|------|------|---|
| Lane Configurations |  | |  | | |  |
| Traffic Vol, veh/h | 6 | 59 | 0 | 3 | 50 | 0 |
| Future Vol, veh/h | 6 | 59 | 0 | 3 | 50 | 0 |
| 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 | 92 | 92 | 92 | 92 | 92 | 92 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 7 | 64 | 0 | 3 | 54 | 0 |

| Major/Minor | Minor1 | Major1 | Major2 |
|----------------------|--------|--------|--------|
| Conflicting Flow All | 110 | 2 | 0 |
| Stage 1 | 2 | - | - |
| Stage 2 | 108 | - | - |
| Critical Hdwy | 6.42 | 6.22 | - |
| Critical Hdwy Stg 1 | 5.42 | - | - |
| Critical Hdwy Stg 2 | 5.42 | - | - |
| Follow-up Hdwy | 3.518 | 3.318 | - |
| Pot Cap-1 Maneuver | 887 | 1082 | - |
| Stage 1 | 1021 | - | - |
| Stage 2 | 916 | - | - |
| Platoon blocked, % | | - | - |
| Mov Cap-1 Maneuver | 858 | 1082 | - |
| Mov Cap-2 Maneuver | 858 | - | - |
| Stage 1 | 987 | - | - |
| Stage 2 | 916 | - | - |

| Approach | WB | NB | SB |
|----------------------|-----|----|-----|
| HCM Control Delay, s | 8.7 | 0 | 7.3 |
| HCM LOS | A | | |

| Minor Lane/Major Mvmt | NBT | NBRWBLn1 | SBL | SBT |
|-----------------------|-----|----------|-------|-------|
| Capacity (veh/h) | - | - | 1057 | 1619 |
| HCM Lane V/C Ratio | - | - | 0.067 | 0.034 |
| HCM Control Delay (s) | - | - | 8.7 | 7.3 |
| HCM Lane LOS | - | - | A | A |
| HCM 95th %tile Q(veh) | - | - | 0.2 | 0.1 |

| Intersection | | | | | | | | | | | | |
|--------------------------|--------|---|--------|------------|---|-------|--------|---|------|-------|---|------|
| Int Delay, s/veh | 1.9 | | | | | | | | | | | |
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations | |  | | |  | | |  | | |  | |
| Traffic Vol, veh/h | 1 | 0 | 1 | 8 | 0 | 0 | 4 | 33 | 5 | 0 | 32 | 1 |
| Future Vol, veh/h | 1 | 0 | 1 | 8 | 0 | 0 | 4 | 33 | 5 | 0 | 32 | 1 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Stop | Stop | Stop | Stop | Stop | Stop | Free | Free | Free | Free | Free | Free |
| RT Channelized | - | - | None | - | - | None | - | - | None | - | - | None |
| Storage Length | - | - | - | - | - | - | - | - | - | - | - | - |
| Veh in Median Storage, # | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Grade, % | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Peak Hour Factor | 100 | 100 | 100 | 50 | 50 | 50 | 100 | 100 | 100 | 75 | 75 | 75 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 1 | 0 | 1 | 16 | 0 | 0 | 4 | 33 | 5 | 0 | 43 | 1 |
| | | | | | | | | | | | | |
| Major/Minor | Minor2 | | Minor1 | | Major1 | | Major2 | | | | | |
| Conflicting Flow All | 88 | 90 | 44 | 88 | 88 | 36 | 44 | 0 | 0 | 38 | 0 | 0 |
| Stage 1 | 44 | 44 | - | 44 | 44 | - | - | - | - | - | - | - |
| Stage 2 | 44 | 46 | - | 44 | 44 | - | - | - | - | - | - | - |
| Critical Hdwy | 7.12 | 6.52 | 6.22 | 7.12 | 6.52 | 6.22 | 4.12 | - | - | 4.12 | - | - |
| 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 | 3.518 | 4.018 | 3.318 | 3.518 | 4.018 | 3.318 | 2.218 | - | - | 2.218 | - | - |
| Pot Cap-1 Maneuver | 897 | 800 | 1026 | 897 | 802 | 1037 | 1564 | - | - | 1572 | - | - |
| Stage 1 | 970 | 858 | - | 970 | 858 | - | - | - | - | - | - | - |
| Stage 2 | 970 | 857 | - | 970 | 858 | - | - | - | - | - | - | - |
| Platoon blocked, % | | | | | | | | - | - | | - | - |
| Mov Cap-1 Maneuver | 895 | 798 | 1026 | 894 | 800 | 1037 | 1564 | - | - | 1572 | - | - |
| Mov Cap-2 Maneuver | 895 | 798 | - | 894 | 800 | - | - | - | - | - | - | - |
| Stage 1 | 967 | 858 | - | 967 | 855 | - | - | - | - | - | - | - |
| Stage 2 | 967 | 854 | - | 969 | 858 | - | - | - | - | - | - | - |
| | | | | | | | | | | | | |
| | | | | | | | | | | | | |
| Approach | EB | | WB | | NB | | SB | | | | | |
| HCM Control Delay, s | 8.8 | | 9.1 | | 0.7 | | 0 | | | | | |
| HCM LOS | A | | A | | | | | | | | | |
| | | | | | | | | | | | | |
| Minor Lane/Major Mvmt | NBL | NBT | NBR | EBLn1WBLn1 | SBL | SBT | SBR | | | | | |
| Capacity (veh/h) | 1564 | - | - | 956 | 894 | 1572 | - | - | | | | |
| HCM Lane V/C Ratio | 0.003 | - | - | 0.002 | 0.018 | - | - | - | | | | |
| HCM Control Delay (s) | 7.3 | 0 | - | 8.8 | 9.1 | 0 | - | - | | | | |
| HCM Lane LOS | A | A | - | A | A | A | - | - | | | | |
| HCM 95th %tile Q(veh) | 0 | - | - | 0 | 0.1 | 0 | - | - | | | | |

HCM 6th Roundabout
21: Woodcarver Rd/Old Denver Rd & Baptist Rd

2040 Background Traffic
PM Peak Hour

| Intersection | | | | |
|-----------------------------|-------|-------|-------|-------|
| Intersection Delay, s/veh | 10.2 | | | |
| Intersection LOS | B | | | |
| Approach | EB | WB | NB | SB |
| Entry Lanes | 1 | 1 | 1 | 1 |
| Conflicting Circle Lanes | 1 | 1 | 1 | 1 |
| Adj Approach Flow, veh/h | 267 | 849 | 217 | 369 |
| Demand Flow Rate, veh/h | 272 | 867 | 222 | 377 |
| Vehicles Circulating, veh/h | 484 | 53 | 602 | 478 |
| Vehicles Exiting, veh/h | 371 | 771 | 154 | 442 |
| Ped Vol Crossing Leg, #/h | 0 | 0 | 0 | 0 |
| Ped Cap Adj | 1.000 | 1.000 | 1.000 | 1.000 |
| Approach Delay, s/veh | 8.0 | 11.5 | 8.5 | 10.0 |
| Approach LOS | A | B | A | B |
| Lane | Left | Left | Left | Left |
| Designated Moves | LTR | LTR | LTR | LTR |
| Assumed Moves | LTR | LTR | LTR | LTR |
| RT Channelized | | | | |
| Lane Util | 1.000 | 1.000 | 1.000 | 1.000 |
| Follow-Up Headway, s | 2.609 | 2.609 | 2.609 | 2.609 |
| Critical Headway, s | 4.976 | 4.976 | 4.976 | 4.976 |
| Entry Flow, veh/h | 272 | 867 | 222 | 377 |
| Cap Entry Lane, veh/h | 842 | 1307 | 747 | 847 |
| Entry HV Adj Factor | 0.982 | 0.980 | 0.980 | 0.978 |
| Flow Entry, veh/h | 267 | 849 | 217 | 369 |
| Cap Entry, veh/h | 827 | 1281 | 732 | 829 |
| V/C Ratio | 0.323 | 0.663 | 0.297 | 0.445 |
| Control Delay, s/veh | 8.0 | 11.5 | 8.5 | 10.0 |
| LOS | A | B | A | B |
| 95th %tile Queue, veh | 1 | 5 | 1 | 2 |

| Intersection | | | | | | | | | | | | |
|--------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Int Delay, s/veh | 6.1 | | | | | | | | | | | |
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations | | ↕ | | | ↕ | | | ↕ | | | ↕ | |
| Traffic Vol, veh/h | 0 | 4 | 2 | 23 | 8 | 3 | 3 | 8 | 24 | 0 | 6 | 1 |
| Future Vol, veh/h | 0 | 4 | 2 | 23 | 8 | 3 | 3 | 8 | 24 | 0 | 6 | 1 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Stop | Stop | Stop | Stop | Stop | Stop | Free | Free | Free | Free | Free | Free |
| RT Channelized | - | - | None | - | - | None | - | - | None | - | - | None |
| Storage Length | - | - | - | - | - | - | - | - | - | - | - | - |
| Veh in Median Storage, # | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Grade, % | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Peak Hour Factor | 38 | 38 | 38 | 53 | 53 | 53 | 100 | 100 | 100 | 88 | 88 | 88 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 0 | 11 | 5 | 43 | 15 | 6 | 3 | 8 | 24 | 0 | 7 | 1 |

| Major/Minor | Minor2 | | Minor1 | | Major1 | | Major2 | | | | | |
|----------------------|--------|-------|--------|-------|--------|-------|--------|---|---|-------|---|---|
| Conflicting Flow All | 45 | 46 | 8 | 42 | 34 | 20 | 8 | 0 | 0 | 32 | 0 | 0 |
| Stage 1 | 8 | 8 | - | 26 | 26 | - | - | - | - | - | - | - |
| Stage 2 | 37 | 38 | - | 16 | 8 | - | - | - | - | - | - | - |
| Critical Hdwy | 7.12 | 6.52 | 6.22 | 7.12 | 6.52 | 6.22 | 4.12 | - | - | 4.12 | - | - |
| 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 | 3.518 | 4.018 | 3.318 | 3.518 | 4.018 | 3.318 | 2.218 | - | - | 2.218 | - | - |
| Pot Cap-1 Maneuver | 957 | 846 | 1074 | 961 | 859 | 1058 | 1612 | - | - | 1580 | - | - |
| Stage 1 | 1013 | 889 | - | 992 | 874 | - | - | - | - | - | - | - |
| Stage 2 | 978 | 863 | - | 1004 | 889 | - | - | - | - | - | - | - |
| Platoon blocked, % | | | | | | | | - | - | - | - | - |
| Mov Cap-1 Maneuver | 938 | 844 | 1074 | 946 | 857 | 1058 | 1612 | - | - | 1580 | - | - |
| Mov Cap-2 Maneuver | 938 | 844 | - | 946 | 857 | - | - | - | - | - | - | - |
| Stage 1 | 1011 | 889 | - | 990 | 872 | - | - | - | - | - | - | - |
| Stage 2 | 954 | 861 | - | 987 | 889 | - | - | - | - | - | - | - |

| Approach | EB | WB | NB | SB |
|----------------------|----|-----|-----|----|
| HCM Control Delay, s | 9 | 9.1 | 0.6 | 0 |
| HCM LOS | A | A | | |






| Minor Lane/Major Mvmt | NBL | NBT | NBR | EBLn1WBLn1 | SBL | SBT | SBR |
|-----------------------|-------|-----|-----|-------------|------|-----|-----|
| Capacity (veh/h) | 1612 | - | - | 909 932 | 1580 | - | - |
| HCM Lane V/C Ratio | 0.002 | - | - | 0.017 0.069 | - | - | - |
| HCM Control Delay (s) | 7.2 | 0 | - | 9 9.1 | 0 | - | - |
| HCM Lane LOS | A | A | - | A A | A | - | - |
| HCM 95th %tile Q(veh) | 0 | - | - | 0.1 0.2 | 0 | - | - |

HCM 6th TWSC
6: Long Valley Dr & Forest Lakes Dr

2040 Total Traffic
AM Peak Hour

Intersection

Int Delay, s/veh 1.2

| Movement | EBT | EBR | WBL | WBT | NBL | NBR |
|--------------------------|---|------|---|---|---|--|
| Lane Configurations |  | |  |  |  |  |
| Traffic Vol, veh/h | 393 | 7 | 11 | 195 | 18 | 38 |
| Future Vol, veh/h | 393 | 7 | 11 | 195 | 18 | 38 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Stop | Stop |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | - | - | 72 | - | 0 | - |
| Veh in Median Storage, # | 0 | - | - | 0 | 0 | - |
| Grade, % | 0 | - | - | 0 | 0 | - |
| Peak Hour Factor | 92 | 92 | 92 | 92 | 92 | 92 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 427 | 8 | 12 | 212 | 20 | 41 |

| Major/Minor | Major1 | Major2 | Minor1 |
|----------------------|--------|--------|--------|
| Conflicting Flow All | 0 | 0 | 435 |
| Stage 1 | - | - | - |
| Stage 2 | - | - | - |
| Critical Hdwy | - | - | 4.12 |
| Critical Hdwy Stg 1 | - | - | - |
| Critical Hdwy Stg 2 | - | - | - |
| Follow-up Hdwy | - | - | 2.218 |
| Pot Cap-1 Maneuver | - | - | 1125 |
| Stage 1 | - | - | - |
| Stage 2 | - | - | - |
| Platoon blocked, % | - | - | - |
| Mov Cap-1 Maneuver | - | - | 1125 |
| Mov Cap-2 Maneuver | - | - | - |
| Stage 1 | - | - | - |
| Stage 2 | - | - | - |

| Approach | EB | WB | NB |
|----------------------|----|-----|------|
| HCM Control Delay, s | 0 | 0.4 | 12.5 |
| HCM LOS | | | B |




| Minor Lane/Major Mvmt | NBLn1 | EBT | EBR | WBL | WBT |
|-----------------------|-------|-----|-----|-------|-----|
| Capacity (veh/h) | 539 | - | - | 1125 | - |
| HCM Lane V/C Ratio | 0.113 | - | - | 0.011 | - |
| HCM Control Delay (s) | 12.5 | - | - | 8.2 | - |
| HCM Lane LOS | B | - | - | A | - |
| HCM 95th %tile Q(veh) | 0.4 | - | - | 0 | - |

HCM 6th TWSC
9: Forest Lakes Dr & Mesa Top Dr

2040 Total Traffic
AM Peak Hour

Intersection

Int Delay, s/veh 4.7

| Movement | WBL | WBR | NBT | NBR | SBL | SBT |
|--------------------------|---|------|---|------|------|---|
| Lane Configurations |  | |  | | |  |
| Traffic Vol, veh/h | 34 | 27 | 0 | 100 | 62 | 0 |
| Future Vol, veh/h | 34 | 27 | 0 | 100 | 62 | 0 |
| 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 | 92 | 92 | 92 | 92 | 92 | 92 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 37 | 29 | 0 | 109 | 67 | 0 |

| Major/Minor | Minor1 | Major1 | Major2 |
|----------------------|--------|--------|--------|
| Conflicting Flow All | 189 | 55 | 0 |
| Stage 1 | 55 | - | - |
| Stage 2 | 134 | - | - |
| Critical Hdwy | 6.42 | 6.22 | - |
| Critical Hdwy Stg 1 | 5.42 | - | - |
| Critical Hdwy Stg 2 | 5.42 | - | - |
| Follow-up Hdwy | 3.518 | 3.318 | - |
| Pot Cap-1 Maneuver | 800 | 1012 | - |
| Stage 1 | 968 | - | - |
| Stage 2 | 892 | - | - |
| Platoon blocked, % | | - | - |
| Mov Cap-1 Maneuver | 764 | 1012 | - |
| Mov Cap-2 Maneuver | 764 | - | - |
| Stage 1 | 924 | - | - |
| Stage 2 | 892 | - | - |

| Approach | WB | NB | SB |
|----------------------|-----|----|-----|
| HCM Control Delay, s | 9.6 | 0 | 7.5 |
| HCM LOS | A | | |

| Minor Lane/Major Mvmt | NBT | NBRWBLn1 | SBL | SBT |
|-----------------------|-----|----------|-------|-------|
| Capacity (veh/h) | - | - | 857 | 1481 |
| HCM Lane V/C Ratio | - | - | 0.077 | 0.046 |
| HCM Control Delay (s) | - | - | 9.6 | 7.5 |
| HCM Lane LOS | - | - | A | A |
| HCM 95th %tile Q(veh) | - | - | 0.3 | 0.1 |

HCM 6th TWSC
19: Lindbergh Rd & Spaatz Rd

2040 Total Traffic
AM Peak Hour

| Intersection | | | | | | | | | | | | |
|--------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Int Delay, s/veh | 2.3 | | | | | | | | | | | |
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations | | ↕ | | | ↕ | | | ↕ | | | ↕ | |
| Traffic Vol, veh/h | 1 | 1 | 4 | 6 | 0 | 0 | 0 | 27 | 0 | 0 | 41 | 1 |
| Future Vol, veh/h | 1 | 1 | 4 | 6 | 0 | 0 | 0 | 27 | 0 | 0 | 41 | 1 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Stop | Stop | Stop | Stop | Stop | Stop | Free | Free | Free | Free | Free | Free |
| RT Channelized | - | - | None | - | - | None | - | - | None | - | - | None |
| Storage Length | - | - | - | - | - | - | - | - | - | - | - | - |
| Veh in Median Storage, # | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Grade, % | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Peak Hour Factor | 38 | 38 | 38 | 75 | 75 | 75 | 100 | 100 | 100 | 100 | 100 | 100 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 3 | 3 | 11 | 8 | 0 | 0 | 0 | 27 | 0 | 0 | 41 | 1 |

| Major/Minor | Minor2 | | Minor1 | | Major1 | | Major2 | | | | | |
|----------------------|--------|-------|--------|-------|--------|-------|--------|---|---|-------|---|---|
| Conflicting Flow All | 69 | 69 | 42 | 76 | 69 | 27 | 42 | 0 | 0 | 27 | 0 | 0 |
| Stage 1 | 42 | 42 | - | 27 | 27 | - | - | - | - | - | - | - |
| Stage 2 | 27 | 27 | - | 49 | 42 | - | - | - | - | - | - | - |
| Critical Hdwy | 7.12 | 6.52 | 6.22 | 7.12 | 6.52 | 6.22 | 4.12 | - | - | 4.12 | - | - |
| 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 | 3.518 | 4.018 | 3.318 | 3.518 | 4.018 | 3.318 | 2.218 | - | - | 2.218 | - | - |
| Pot Cap-1 Maneuver | 923 | 822 | 1029 | 914 | 822 | 1048 | 1567 | - | - | 1587 | - | - |
| Stage 1 | 972 | 860 | - | 990 | 873 | - | - | - | - | - | - | - |
| Stage 2 | 990 | 873 | - | 964 | 860 | - | - | - | - | - | - | - |
| Platoon blocked, % | | | | | | | | - | - | | - | - |
| Mov Cap-1 Maneuver | 923 | 822 | 1029 | 902 | 822 | 1048 | 1567 | - | - | 1587 | - | - |
| Mov Cap-2 Maneuver | 923 | 822 | - | 902 | 822 | - | - | - | - | - | - | - |
| Stage 1 | 972 | 860 | - | 990 | 873 | - | - | - | - | - | - | - |
| Stage 2 | 990 | 873 | - | 951 | 860 | - | - | - | - | - | - | - |

| Approach | EB | WB | NB | SB |
|----------------------|-----|----|----|----|
| HCM Control Delay, s | 8.8 | 9 | 0 | 0 |
| HCM LOS | A | A | | |

| Minor Lane/Major Mvmt | NBL | NBT | NBR | EBLn1WBLn1 | SBL | SBT | SBR |
|-----------------------|------|-----|-----|-------------|------|-----|-----|
| Capacity (veh/h) | 1567 | - | - | 970 902 | 1587 | - | - |
| HCM Lane V/C Ratio | - | - | - | 0.016 0.009 | - | - | - |
| HCM Control Delay (s) | 0 | - | - | 8.8 9 | 0 | - | - |
| HCM Lane LOS | A | - | - | A A | A | - | - |
| HCM 95th %tile Q(veh) | 0 | - | - | 0.1 0 | 0 | - | - |

HCM 6th Roundabout
21: Woodcarver Rd/Old Denver Rd & Baptist Rd

2040 Total Traffic
AM Peak Hour

| Intersection | | | | |
|-----------------------------|-------|-------|-------|-------|
| Intersection Delay, s/veh | 9.8 | | | |
| Intersection LOS | A | | | |
| Approach | EB | WB | NB | SB |
| Entry Lanes | 1 | 1 | 1 | 1 |
| Conflicting Circle Lanes | 1 | 1 | 1 | 1 |
| Adj Approach Flow, veh/h | 457 | 666 | 119 | 348 |
| Demand Flow Rate, veh/h | 466 | 679 | 121 | 355 |
| Vehicles Circulating, veh/h | 511 | 52 | 760 | 414 |
| Vehicles Exiting, veh/h | 258 | 829 | 217 | 317 |
| Ped Vol Crossing Leg, #/h | 0 | 0 | 0 | 0 |
| Ped Cap Adj | 1.000 | 1.000 | 1.000 | 1.000 |
| Approach Delay, s/veh | 13.1 | 8.4 | 8.1 | 8.6 |
| Approach LOS | B | A | A | A |
| Lane | Left | Left | Left | Left |
| Designated Moves | LTR | LTR | LTR | LTR |
| Assumed Moves | LTR | LTR | LTR | LTR |
| RT Channelized | | | | |
| Lane Util | 1.000 | 1.000 | 1.000 | 1.000 |
| Follow-Up Headway, s | 2.609 | 2.609 | 2.609 | 2.609 |
| Critical Headway, s | 4.976 | 4.976 | 4.976 | 4.976 |
| Entry Flow, veh/h | 466 | 679 | 121 | 355 |
| Cap Entry Lane, veh/h | 819 | 1309 | 636 | 905 |
| Entry HV Adj Factor | 0.980 | 0.981 | 0.981 | 0.981 |
| Flow Entry, veh/h | 457 | 666 | 119 | 348 |
| Cap Entry, veh/h | 803 | 1284 | 623 | 888 |
| V/C Ratio | 0.569 | 0.519 | 0.190 | 0.392 |
| Control Delay, s/veh | 13.1 | 8.4 | 8.1 | 8.6 |
| LOS | B | A | A | A |
| 95th %tile Queue, veh | 4 | 3 | 1 | 2 |

| Intersection | | | | | | | | | | | | |
|--------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Int Delay, s/veh | 5.5 | | | | | | | | | | | |
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations | | ↕ | | | ↕ | | | ↕ | | | ↕ | |
| Traffic Vol, veh/h | 0 | 5 | 8 | 29 | 2 | 0 | 2 | 1 | 24 | 0 | 7 | 1 |
| Future Vol, veh/h | 0 | 5 | 8 | 29 | 2 | 0 | 2 | 1 | 24 | 0 | 7 | 1 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Stop | Stop | Stop | Stop | Stop | Stop | Free | Free | Free | Free | Free | Free |
| RT Channelized | - | - | None | - | - | None | - | - | None | - | - | None |
| Storage Length | - | - | - | - | - | - | - | - | - | - | - | - |
| Veh in Median Storage, # | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Grade, % | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Peak Hour Factor | 81 | 81 | 81 | 75 | 75 | 75 | 100 | 100 | 100 | 67 | 67 | 67 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 0 | 6 | 10 | 39 | 3 | 0 | 2 | 1 | 24 | 0 | 10 | 1 |

| Major/Minor | Minor2 | | Minor1 | | Major1 | | Major2 | | | | | |
|----------------------|--------|-------|--------|-------|--------|-------|--------|---|---|-------|---|---|
| Conflicting Flow All | 30 | 40 | 11 | 36 | 28 | 13 | 11 | 0 | 0 | 25 | 0 | 0 |
| Stage 1 | 11 | 11 | - | 17 | 17 | - | - | - | - | - | - | - |
| Stage 2 | 19 | 29 | - | 19 | 11 | - | - | - | - | - | - | - |
| Critical Hdwy | 7.12 | 6.52 | 6.22 | 7.12 | 6.52 | 6.22 | 4.12 | - | - | 4.12 | - | - |
| 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 | 3.518 | 4.018 | 3.318 | 3.518 | 4.018 | 3.318 | 2.218 | - | - | 2.218 | - | - |
| Pot Cap-1 Maneuver | 979 | 852 | 1070 | 970 | 865 | 1067 | 1608 | - | - | 1589 | - | - |
| Stage 1 | 1010 | 886 | - | 1002 | 881 | - | - | - | - | - | - | - |
| Stage 2 | 1000 | 871 | - | 1000 | 886 | - | - | - | - | - | - | - |
| Platoon blocked, % | | | | | | | | - | - | - | - | - |
| Mov Cap-1 Maneuver | 976 | 851 | 1070 | 955 | 864 | 1067 | 1608 | - | - | 1589 | - | - |
| Mov Cap-2 Maneuver | 976 | 851 | - | 955 | 864 | - | - | - | - | - | - | - |
| Stage 1 | 1009 | 886 | - | 1001 | 880 | - | - | - | - | - | - | - |
| Stage 2 | 996 | 870 | - | 984 | 886 | - | - | - | - | - | - | - |

| Approach | EB | WB | NB | SB |
|----------------------|-----|----|-----|----|
| HCM Control Delay, s | 8.8 | 9 | 0.5 | 0 |
| HCM LOS | A | A | | |






| Minor Lane/Major Mvmt | NBL | NBT | NBR | EBLn1WBLn1 | SBL | SBT | SBR |
|-----------------------|-------|-----|-----|-------------|------|-----|-----|
| Capacity (veh/h) | 1608 | - | - | 974 949 | 1589 | - | - |
| HCM Lane V/C Ratio | 0.001 | - | - | 0.016 0.044 | - | - | - |
| HCM Control Delay (s) | 7.2 | 0 | - | 8.8 9 | 0 | - | - |
| HCM Lane LOS | A | A | - | A A | A | - | - |
| HCM 95th %tile Q(veh) | 0 | - | - | 0.1 0.1 | 0 | - | - |

HCM 6th TWSC
6: Long Valley Dr & Forest Lakes Dr

2040 Total Traffic
PM Peak Hour

Intersection

Int Delay, s/veh 1.5

| Movement | EBT | EBR | WBL | WBT | NBL | NBR |
|--------------------------|---|------|---|---|---|--|
| Lane Configurations |  | |  |  |  |  |
| Traffic Vol, veh/h | 162 | 8 | 50 | 233 | 5 | 30 |
| Future Vol, veh/h | 162 | 8 | 50 | 233 | 5 | 30 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Stop | Stop |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | - | - | 72 | - | 0 | - |
| Veh in Median Storage, # | 0 | - | - | 0 | 0 | - |
| Grade, % | 0 | - | - | 0 | 0 | - |
| Peak Hour Factor | 92 | 92 | 92 | 92 | 92 | 92 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 176 | 9 | 54 | 253 | 5 | 33 |

| Major/Minor | Major1 | Major2 | Minor1 |
|----------------------|--------|--------|--------|
| Conflicting Flow All | 0 | 0 | 185 |
| Stage 1 | - | - | - |
| Stage 2 | - | - | - |
| Critical Hdwy | - | - | 4.12 |
| Critical Hdwy Stg 1 | - | - | - |
| Critical Hdwy Stg 2 | - | - | - |
| Follow-up Hdwy | - | - | 2.218 |
| Pot Cap-1 Maneuver | - | - | 1390 |
| Stage 1 | - | - | - |
| Stage 2 | - | - | - |
| Platoon blocked, % | - | - | - |
| Mov Cap-1 Maneuver | - | - | 1390 |
| Mov Cap-2 Maneuver | - | - | - |
| Stage 1 | - | - | - |
| Stage 2 | - | - | - |

| Approach | EB | WB | NB |
|----------------------|----|-----|-----|
| HCM Control Delay, s | 0 | 1.4 | 9.9 |
| HCM LOS | | | A |




| Minor Lane/Major Mvmt | NBLn1 | EBT | EBR | WBL | WBT |
|-----------------------|-------|-----|-----|-------|-----|
| Capacity (veh/h) | 774 | - | - | 1390 | - |
| HCM Lane V/C Ratio | 0.049 | - | - | 0.039 | - |
| HCM Control Delay (s) | 9.9 | - | - | 7.7 | - |
| HCM Lane LOS | A | - | - | A | - |
| HCM 95th %tile Q(veh) | 0.2 | - | - | 0.1 | - |

HCM 6th TWSC
9: Forest Lakes Dr & Mesa Top Dr

2040 Total Traffic
PM Peak Hour

Intersection

Int Delay, s/veh 7.4

| Movement | WBL | WBR | NBT | NBR | SBL | SBT |
|--------------------------|---|------|---|------|------|---|
| Lane Configurations |  | |  | | |  |
| Traffic Vol, veh/h | 113 | 59 | 0 | 66 | 50 | 0 |
| Future Vol, veh/h | 113 | 59 | 0 | 66 | 50 | 0 |
| 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 | 92 | 92 | 92 | 92 | 92 | 92 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 123 | 64 | 0 | 72 | 54 | 0 |

| Major/Minor | Minor1 | Major1 | Major2 |
|----------------------|--------|--------|--------|
| Conflicting Flow All | 144 | 36 | 0 |
| Stage 1 | 36 | - | - |
| Stage 2 | 108 | - | - |
| Critical Hdwy | 6.42 | 6.22 | - |
| Critical Hdwy Stg 1 | 5.42 | - | - |
| Critical Hdwy Stg 2 | 5.42 | - | - |
| Follow-up Hdwy | 3.518 | 3.318 | - |
| Pot Cap-1 Maneuver | 849 | 1037 | - |
| Stage 1 | 986 | - | - |
| Stage 2 | 916 | - | - |
| Platoon blocked, % | | - | - |
| Mov Cap-1 Maneuver | 819 | 1037 | - |
| Mov Cap-2 Maneuver | 819 | - | - |
| Stage 1 | 951 | - | - |
| Stage 2 | 916 | - | - |

| Approach | WB | NB | SB |
|----------------------|------|----|-----|
| HCM Control Delay, s | 10.2 | 0 | 7.4 |
| HCM LOS | B | | |

| Minor Lane/Major Mvmt | NBT | NBRWBLn1 | SBL | SBT |
|-----------------------|-----|----------|-------|-------|
| Capacity (veh/h) | - | - | 883 | 1528 |
| HCM Lane V/C Ratio | - | - | 0.212 | 0.036 |
| HCM Control Delay (s) | - | - | 10.2 | 7.4 |
| HCM Lane LOS | - | - | B | A |
| HCM 95th %tile Q(veh) | - | - | 0.8 | 0.1 |

| Intersection | | | | | | | | | | | | |
|--------------------------|--------|-------|--------|-------|--------|-------|--------|------|------|-------|------|------|
| Int Delay, s/veh | 1.7 | | | | | | | | | | | |
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations | | ↕ | | | ↕ | | | ↕ | | | ↕ | |
| Traffic Vol, veh/h | 1 | 0 | 1 | 8 | 0 | 0 | 4 | 36 | 5 | 0 | 37 | 1 |
| Future Vol, veh/h | 1 | 0 | 1 | 8 | 0 | 0 | 4 | 36 | 5 | 0 | 37 | 1 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Stop | Stop | Stop | Stop | Stop | Stop | Free | Free | Free | Free | Free | Free |
| RT Channelized | - | - | None | - | - | None | - | - | None | - | - | None |
| Storage Length | - | - | - | - | - | - | - | - | - | - | - | - |
| Veh in Median Storage, # | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Grade, % | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Peak Hour Factor | 100 | 100 | 100 | 50 | 50 | 50 | 100 | 100 | 100 | 75 | 75 | 75 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 1 | 0 | 1 | 16 | 0 | 0 | 4 | 36 | 5 | 0 | 49 | 1 |
| Major/Minor | Minor2 | | Minor1 | | Major1 | | Major2 | | | | | |
| Conflicting Flow All | 97 | 99 | 50 | 97 | 97 | 39 | 50 | 0 | 0 | 41 | 0 | 0 |
| Stage 1 | 50 | 50 | - | 47 | 47 | - | - | - | - | - | - | - |
| Stage 2 | 47 | 49 | - | 50 | 50 | - | - | - | - | - | - | - |
| Critical Hdwy | 7.12 | 6.52 | 6.22 | 7.12 | 6.52 | 6.22 | 4.12 | - | - | 4.12 | - | - |
| 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 | 3.518 | 4.018 | 3.318 | 3.518 | 4.018 | 3.318 | 2.218 | - | - | 2.218 | - | - |
| Pot Cap-1 Maneuver | 885 | 791 | 1018 | 885 | 793 | 1033 | 1557 | - | - | 1568 | - | - |
| Stage 1 | 963 | 853 | - | 967 | 856 | - | - | - | - | - | - | - |
| Stage 2 | 967 | 854 | - | 963 | 853 | - | - | - | - | - | - | - |
| Platoon blocked, % | | | | | | | | - | - | | - | - |
| Mov Cap-1 Maneuver | 883 | 789 | 1018 | 882 | 791 | 1033 | 1557 | - | - | 1568 | - | - |
| Mov Cap-2 Maneuver | 883 | 789 | - | 882 | 791 | - | - | - | - | - | - | - |
| Stage 1 | 960 | 853 | - | 964 | 853 | - | - | - | - | - | - | - |
| Stage 2 | 964 | 851 | - | 962 | 853 | - | - | - | - | - | - | - |
| Approach | EB | | WB | | NB | | SB | | | | | |
| HCM Control Delay, s | 8.8 | | 9.2 | | 0.7 | | 0 | | | | | |
| HCM LOS | A | | A | | | | | | | | | |
| Minor Lane/Major Mvmt | NBL | NBT | NBR | EBLn1 | WBLn1 | SBL | SBT | SBR | | | | |
| Capacity (veh/h) | 1557 | - | - | 946 | 882 | 1568 | - | - | | | | |
| HCM Lane V/C Ratio | 0.003 | - | - | 0.002 | 0.018 | - | - | - | | | | |
| HCM Control Delay (s) | 7.3 | 0 | - | 8.8 | 9.2 | 0 | - | - | | | | |
| HCM Lane LOS | A | A | - | A | A | A | - | - | | | | |
| HCM 95th %tile Q(veh) | 0 | - | - | 0 | 0.1 | 0 | - | - | | | | |

HCM 6th Roundabout
21: Woodcarver Rd/Old Denver Rd & Baptist Rd

2040 Total Traffic
PM Peak Hour

| Intersection | | | | |
|-----------------------------|-------|-------|-------|-------|
| Intersection Delay, s/veh | 12.3 | | | |
| Intersection LOS | B | | | |
| Approach | EB | WB | NB | SB |
| Entry Lanes | 1 | 1 | 1 | 1 |
| Conflicting Circle Lanes | 1 | 1 | 1 | 1 |
| Adj Approach Flow, veh/h | 330 | 943 | 219 | 381 |
| Demand Flow Rate, veh/h | 337 | 962 | 224 | 389 |
| Vehicles Circulating, veh/h | 484 | 61 | 665 | 575 |
| Vehicles Exiting, veh/h | 480 | 828 | 155 | 448 |
| Ped Vol Crossing Leg, #/h | 0 | 0 | 0 | 0 |
| Ped Cap Adj | 1.000 | 1.000 | 1.000 | 1.000 |
| Approach Delay, s/veh | 9.2 | 14.2 | 9.3 | 12.1 |
| Approach LOS | A | B | A | B |
| Lane | Left | Left | Left | Left |
| Designated Moves | LTR | LTR | LTR | LTR |
| Assumed Moves | LTR | LTR | LTR | LTR |
| RT Channelized | | | | |
| Lane Util | 1.000 | 1.000 | 1.000 | 1.000 |
| Follow-Up Headway, s | 2.609 | 2.609 | 2.609 | 2.609 |
| Critical Headway, s | 4.976 | 4.976 | 4.976 | 4.976 |
| Entry Flow, veh/h | 337 | 962 | 224 | 389 |
| Cap Entry Lane, veh/h | 842 | 1297 | 700 | 768 |
| Entry HV Adj Factor | 0.979 | 0.980 | 0.980 | 0.979 |
| Flow Entry, veh/h | 330 | 943 | 219 | 381 |
| Cap Entry, veh/h | 825 | 1270 | 686 | 751 |
| V/C Ratio | 0.400 | 0.742 | 0.320 | 0.507 |
| Control Delay, s/veh | 9.2 | 14.2 | 9.3 | 12.1 |
| LOS | A | B | A | B |
| 95th %tile Queue, veh | 2 | 7 | 1 | 3 |

| Intersection | | | | | | | | | | | | |
|--------------------------|--------|-------|--------|-------|-------|--------|-------|------|--------|-------|------|------|
| Int Delay, s/veh | 6.2 | | | | | | | | | | | |
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations | | ↕ | | | ↕ | | | ↕ | | | ↕ | |
| Traffic Vol, veh/h | 0 | 4 | 2 | 28 | 8 | 3 | 3 | 8 | 27 | 0 | 6 | 1 |
| Future Vol, veh/h | 0 | 4 | 2 | 28 | 8 | 3 | 3 | 8 | 27 | 0 | 6 | 1 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Stop | Stop | Stop | Stop | Stop | Stop | Free | Free | Free | Free | Free | Free |
| RT Channelized | - | - | None | - | - | None | - | - | None | - | - | None |
| Storage Length | - | - | - | - | - | - | - | - | - | - | - | - |
| Veh in Median Storage, # | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Grade, % | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Peak Hour Factor | 38 | 38 | 38 | 53 | 53 | 53 | 100 | 100 | 100 | 88 | 88 | 88 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 0 | 11 | 5 | 53 | 15 | 6 | 3 | 8 | 27 | 0 | 7 | 1 |
| | | | | | | | | | | | | |
| Major/Minor | Minor2 | | Minor1 | | | Major1 | | | Major2 | | | |
| Conflicting Flow All | 46 | 49 | 8 | 44 | 36 | 22 | 8 | 0 | 0 | 35 | 0 | 0 |
| Stage 1 | 8 | 8 | - | 28 | 28 | - | - | - | - | - | - | - |
| Stage 2 | 38 | 41 | - | 16 | 8 | - | - | - | - | - | - | - |
| Critical Hdwy | 7.12 | 6.52 | 6.22 | 7.12 | 6.52 | 6.22 | 4.12 | - | - | 4.12 | - | - |
| 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 | 3.518 | 4.018 | 3.318 | 3.518 | 4.018 | 3.318 | 2.218 | - | - | 2.218 | - | - |
| Pot Cap-1 Maneuver | 955 | 843 | 1074 | 958 | 856 | 1055 | 1612 | - | - | 1576 | - | - |
| Stage 1 | 1013 | 889 | - | 989 | 872 | - | - | - | - | - | - | - |
| Stage 2 | 977 | 861 | - | 1004 | 889 | - | - | - | - | - | - | - |
| Platoon blocked, % | | | | | | | | - | - | | - | - |
| Mov Cap-1 Maneuver | 936 | 841 | 1074 | 943 | 854 | 1055 | 1612 | - | - | 1576 | - | - |
| Mov Cap-2 Maneuver | 936 | 841 | - | 943 | 854 | - | - | - | - | - | - | - |
| Stage 1 | 1011 | 889 | - | 987 | 870 | - | - | - | - | - | - | - |
| Stage 2 | 953 | 859 | - | 987 | 889 | - | - | - | - | - | - | - |
| | | | | | | | | | | | | |
| | | | | | | | | | | | | |
| Approach | EB | | WB | | | NB | | | SB | | | |
| HCM Control Delay, s | 9 | | 9.2 | | | 0.6 | | | 0 | | | |
| HCM LOS | A | | A | | | | | | | | | |
| | | | | | | | | | | | | |
| Minor Lane/Major Mvmt | NBL | NBT | NBR | EBLn1 | WBLn1 | SBL | SBT | SBR | | | | |
| Capacity (veh/h) | 1612 | - | - | 907 | 931 | 1576 | - | - | | | | |
| HCM Lane V/C Ratio | 0.002 | - | - | 0.017 | 0.079 | - | - | - | | | | |
| HCM Control Delay (s) | 7.2 | 0 | - | 9 | 9.2 | 0 | - | - | | | | |
| HCM Lane LOS | A | A | - | A | A | A | - | - | | | | |
| HCM 95th %tile Q(veh) | 0 | - | - | 0.1 | 0.3 | 0 | - | - | | | | |