Archaeological Resources

Airport Vicinity Development Checklist

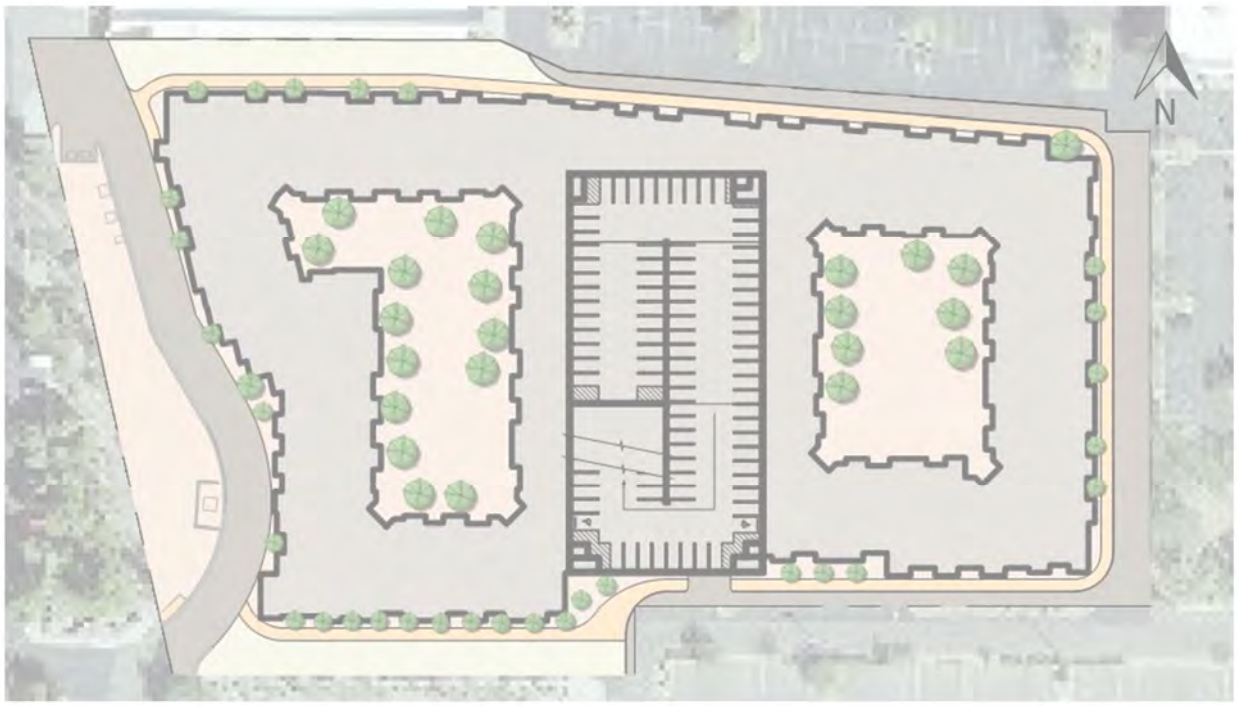
Parking Study

Trip Generation Comparison

Parking Master Plan

RAINTREE

TRAFFIC IMPACT & MITIGATION ANALYSIS



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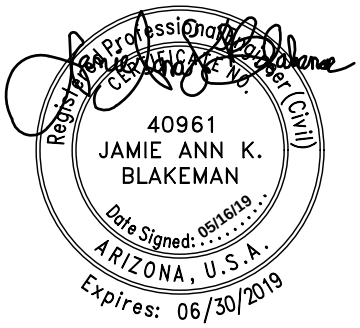

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Project Number: 19.1199
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1. INTRODUCTION AND EXECUTIVE SUMMARY

1.1. PURPOSE OF REPORT AND STUDY OBJECTIVES

J2 Engineering and Environmental Design was retained by CCBG Architects to complete a Traffic Impact and Mitigation Analysis for the proposed Raintree residential development. The development is located north of Raintree Drive and west of 87th Street, in Scottsdale, Arizona. The objective of this Traffic Impact Analysis is to analyze the traffic related impacts of the proposed development to the adjacent roadway network. See **Figure 1** for the vicinity map. The proposed development will include 330 residential units.

1.2. EXECUTIVE SUMMARY

The proposed Raintree residential development is generally located on the northwest corner of Raintree Drive and 87th Street, north of the existing Kohl's department store, in Scottsdale, Arizona. The proposed development will consist of 330 multifamily residential dwelling units. Of the 330 units, 211 are one (1) bedroom units, 105 are two (2) bedroom units, and 14 are three (3) bedroom units.

This Traffic Impact Analysis includes:

- Level of service analysis of existing conditions for the weekday AM and PM peak hours
- Three (3) year Crash Analysis
- Trip Generation for the proposed development
- Trip Generation comparison to the existing land use
- Trip Generation comparison to the existing zoning
- Level of service analysis for the opening year (2021) weekday AM and PM peak hours
    - 2021 No Build
    - 2021 Build

The following are the three (8) intersections included in this study:

- Northsight Boulevard and Butherus Drive (1)
- Raintree Drive and Northsight Boulevard (2)
- Raintree Drive and Driveway A (3)
- Raintree Drive and Driveway B (4)
- Raintree Drive and 87th Street (5)
- Raintree Drive and Northbound/Southbound Pima Frontage Road (6)
- South Pima Frontage Road and Driveway C (7)
- South Pima Frontage Road and Driveway D (8)

Existing Capacity Analysis

The AM and PM peak hour existing conditions capacity analysis were completed for the eight (8) existing study intersections. The following intersection currently operate with movements at a Level of Service E or F:

Raintree Drive and Northsight Boulevard (2) – Signalized

- EB through AM and PM peak hours operate at LOS E
- WB through PM peak hour operates at LOS E
- WB right PM peak hour operates at LOS E
- NB through AM peak hour operates at LOS E
- NB right AM and PM peak hours operate at LOS E
- SB left AM and PM peak hours operate at LOS E and LOS F, respectively
- SB through AM and PM peak hours operate at LOS E
- SB right AM and PM peak hours operate at LOS E

Raintree Drive and Driveway A (3) – Unsignalized

- SB left PM peak hour operates at LOS E

Raintree Drive and 87th Street (5) – Signalized

- NB left AM peak hour operates at LOS E
- NB right PM peak hour operates at LOS E

Raintree Drive and Northbound/Southbound Pima Frontage Road (6) – Signalized

- WB through AM peak hour operates at LOS E
- WB right AM and PM peak hours operate at LOS F and LOS E, respectively
- NB left AM peak hour operates at LOS E
- SB through PM peak hour operates at LOS E
- SB right AM peak hour operates at LOS F

Trip Generation

The proposed development generally located on the northwest corner of Raintree Drive and 87th Street is anticipated to generate 1,795 weekday trips, with 119 trips occurring during the AM peak hour and 145 trip occurring during the PM peak hour.

Trip Generation Comparison - Existing Land Use vs. Proposed

A comparison between the trips generated by the existing retail land uses versus the proposed Raintree residential development was calculated.

Trip Generation Comparison (Existing Zoning vs. Proposed)

Land Use	ITE Code	Qty	Unit	Weekday	AM Peak Hour			PM Peak Hour		
				Total	Total	In	Out	Total	In	Out
Shopping Center	820	11	1000 SF GLA	1,318	157	97	60	104	50	54
Supermarket	850	31	1000 SF GFA	3358	120	72	48	291	148	143
Furniture Store	890	20	1000 SF GFA	126	5	4	1	10	5	5
Total Existing Land Use				4,802	282	173	109	405	203	202
Multifamily Housing (Mid-Rise)	221	330	Dwelling Units	1,795	119	31	88	145	88	57
Total Proposed				1,795	119	31	88	145	88	57
Difference				-3,007	-163	-142	-21	-260	-115	-145

The proposed Raintree residential development is anticipated to generate 3,007 less weekday daily trip, 166 less trips during the AM peak hour, and 260 less trips during the PM peak hour.

Trip Generation Comparison - Existing Zoning vs. Proposed

A comparison between the trips generated by the build out under the existing zoning with a 193,379 square foot shopping center versus the proposed Raintree residential development was calculated.

Trip Generation Comparison (Existing Zoning vs. Proposed)

Land Use	ITE Code	Qty	Unit	Weekday	AM Peak Hour			PM Peak Hour		
				Total	Total	In	Out	Total	In	Out
Shopping Center	820	193	1000 SF GLA	9,414	248	154	94	885	425	460
Total Existing Land Use				9,414	248	154	94	885	425	460
Multifamily Housing (Mid-Rise)	221	330	Dwelling Units	1,795	119	31	88	145	88	57
Total Proposed				1,795	119	31	88	145	88	57
Difference				-7,619	-129	-123	-6	-740	-337	-403

The proposed Raintree residential development is anticipated to generate 7,619 less weekday daily trip, 129 less trips during the AM peak hour, and 740 less trips during the PM peak hour.

Future Conditions

Year 2021 (opening year) analyses were completed without the build out, as well as with the build out of the proposed development. An annual growth rate of 1.0% was applied to the existing traffic volumes to create the future background traffic volumes for year 2021.

Year 2021

Capacity analyses were completed for both the AM and PM peak hours for year 2021, without the build out of the proposed Raintree residential development, as well as with the build out. All movements operate at a LOS D or better, or are maintained at the no build level of service, with the exception of the following:

Northsight Boulevard and Butherus Drive (1) – Unsignalized

- WB right PM peak hour operates at LOS E

Recommendations

The proposed Raintree residential development will have significantly less traffic related impacts to the surrounding area than the existing retail development or the build out under the existing zoning.

Therefore, the recommendations with the build out of the proposed Raintree residential development include constructing access improvements to connect the development to the on-site roadway network. Additionally, as with any new site development, it is recommended for the City of Scottsdale to monitor traffic patterns in the area and if necessary adjust nearby signal timing.

2. PROPOSED DEVELOPMENT

The study area is located in the City of Scottsdale, Arizona. It is approximately two-tenths of a mile west of State Route Loop 101 (SR 101L), and approximately one-tenth of a mile north of Raintree Drive. See Figure 1 for a vicinity map. The proposed Raintree residential development is located north of Raintree Drive and west of 87th Street.

The proposed development is comprised of 330 multifamily residential units. Of the 330 units, 211 are one (1) bedroom units, 105 are two (2) bedroom units, and 14 are three (3) bedroom units.

It is anticipated that there will be one (1) proposed access point into the five (5) story parking garage.

87th Street and Proposed Garage Entrance is located approximately one-tenth of a mile north of Raintree Drive and approximately 440 feet west of 87th Street. This will be a full access driveway allowing all movements entering and exiting the site.

See Figure 2 and Appendix A for the proposed site plan.

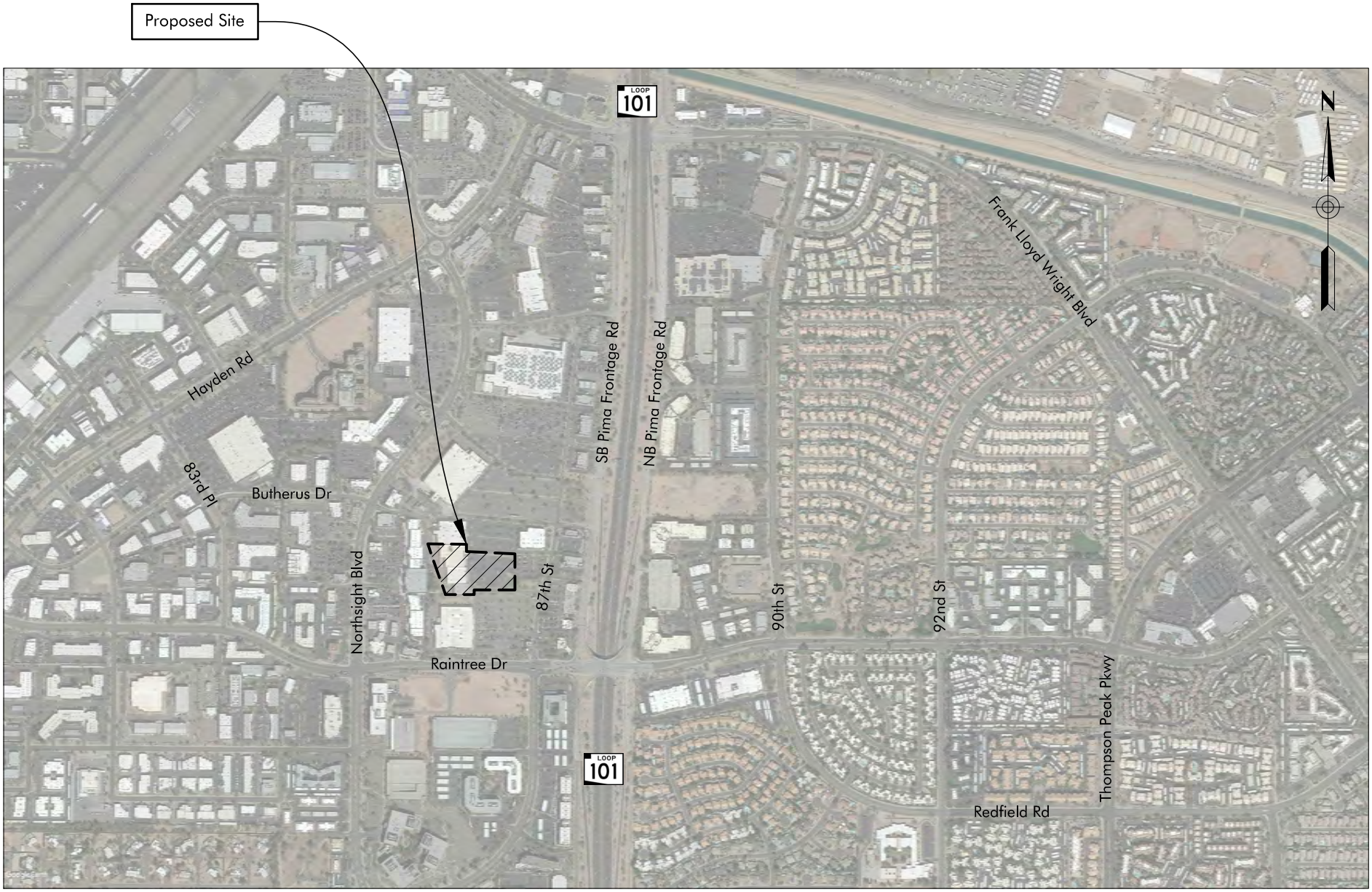

FIGURE 1 | VICINITY MAP

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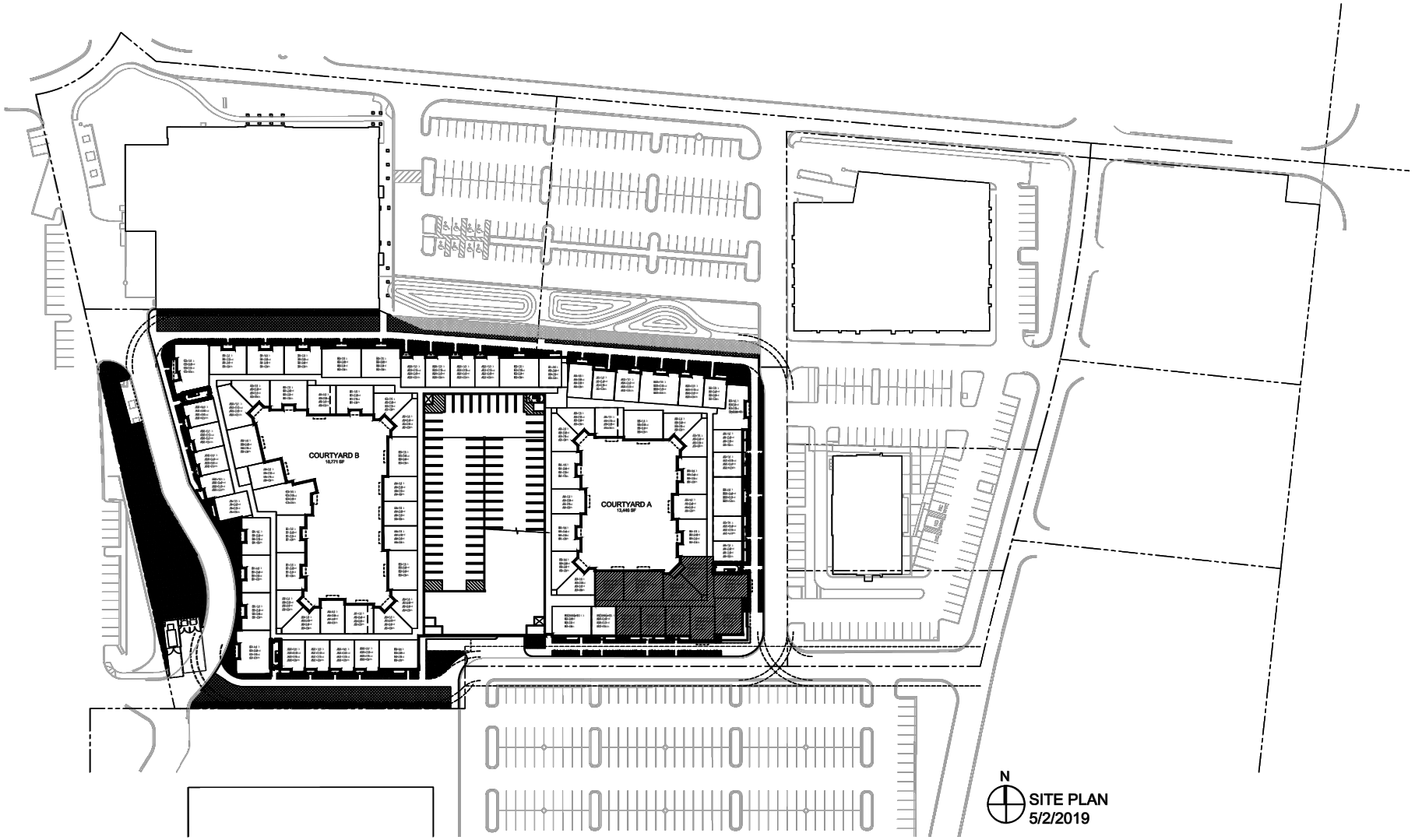

FIGURE 2 | SITE PLAN

3. AREA CONDITIONS

The study area is located in the City of Scottsdale, Arizona. Sections 3.1 and 3.2 provide detailed descriptions of the study roadway segments and intersections. See Figure 3 for the study area.

3.1. STUDY ROADWAY SEGMENTS

Raintree Drive, located approximately one-tenth of a mile south of the proposed development, runs east-west and provides two (2) through lanes for each direction of travel, with a raised landscaped median. There is a posted speed limit of 35 miles per hour (mph). The City of Scottsdale classifies Raintree Drive as a minor arterial, within the study area, according to the *City of Scottsdale Master Transportation Plan,* dated July 5, 2016. The City of Scottsdale's *2016 Average Daily Segment Traffic (ADT) Volumes* map reports and ADT of 31,500 vehicles per day east of Northsight Boulevard. Additionally, west of Northsight Boulevard, there was reported ADT of 17,200 vehicles per day along Raintree Drive.

Northsight Boulevard, located approximately one-tenth of a mile west of the proposed development, generally runs north-south and provides two (2) through lanes for each direction of travel, with a raised landscaped median. There is a posted speed limit of 40 miles per hour (mph). The City of Scottsdale classifies Northsight Boulevard as a major collector, within the study area, according to the *City of Scottsdale Master Transportation Plan,* dated July 5, 2016. The City of Scottsdale's *2016 Average Daily Segment Traffic (ADT) Volumes* map reports and ADT of 14,500 vehicles per day north of Raintree Drive. Additionally, south of Raintree Drive, there was reported ADT of 10,100 vehicles per day along Northsight Boulevard.

87th Street, located approximately one-tenth of a mile east of the proposed development, runs north-south and is currently unstriped and provides one (1) through lane in each direction of travel. There is an unposted speed limit of 25 miles per hour (mph). According to the Maricopa County Assessor's Office, 87th Street is a private roadway.

Northbound/Southbound Pima Frontage Road, located approximately two-tenths of mile east of the proposed development. Northbound/Southbound Pima Frontage Road is an Arizona Department of Transportation (ADOT) roadway and serves as the frontage road for State Route Loop 101 Freeway. The southbound approach provides four (4) through lanes. There is a posted speed limit of 45mph. The ADOT *Transportation Data Management System* reported an ADT of 13,404 vehicles per day in the year 2017 in the southbound direction. The northbound approach generally provides three (3) through lanes. There is posted speed limit of 45mph. The ADOT *Transportation Data Management System* reported an ADT of 9,984 vehicles per day in the year 2017 in the northbound direction.

3.2. STUDY INTERSECTIONS

Northsight Boulevard and Butherus Drive (1) currently operates as a two-way stop controlled intersection, with stop control on the eastbound and westbound approaches. The northbound approach provides one (1) dedicated left turn lane, two (2) through lanes, and one (1) dedicated right turn lane. The southbound approach will provide one (1) dedicated left turn lane, one (1) through lane, and one (1) shared through-right turn lane. The eastbound and westbound approaches provide one (1) dedicated left turn lane and one (1) shared through-right turn lane.

Raintree Drive and Northsight Boulevard (2) currently operates as a signalized intersection. The northbound approach provides one (1) dedicated left turn lane, one (1) through lane, and one (1) shared through-right turn lane. The southbound approach provides two (2) left turn lanes, two (2) through lanes, and one (1) dedicated right turn lane. The eastbound and westbound approaches provide one (1) dedicated left turn lane, two (2) through lanes, and one (1) dedicated right turn lane.

According to *Volume Three of the City of Scottsdale Capital Improvement Plan*, funding has be allocated for Fiscal Year 2018/2019 to improve the existing five-lane Raintree Drive corridor between Hayden Road and Loop 101 Freeway. This corridor improvement includes the redesign of the Raintree Drive and Northsight Boulevard intersection from signalized to a two (2) lane roundabout.

Raintree Drive and Driveway A (3) currently operates as a two-way stop controlled intersection, with stop control on the northbound and southbound approaches. The northbound approach provides one (1) shared left-through lane and one (1) dedicated right turn lane. The southbound approach is assumed to provide one (1) shared left-through lane and one (1) dedicated right turn lane. The eastbound and westbound approaches provide one (1) dedicated left turn lane, two (2) through lanes, and one (1) dedicated right turn lane.

Raintree Drive and Driveway B (4) is a T-intersection that currently operates as a one-way stop controlled intersection, with stop control on the southbound approach. The southbound approach provides one (1) shared left-through-right turn lane. The eastbound approach provides two (2) through lanes. The westbound bound approach provides two (2) through lanes, and one (1) dedicated right turn lane.

Raintree Drive and 87th Street (5) currently operates as a signalized intersection. The northbound approach provides one (1) dedicated left turn lane, one (1) through lane, and one (1) dedicated right turn lane. The southbound approach provides one (1) dedicated left turn lane, and one (1) shared through-right turn lane. The eastbound and westbound approaches provide one (1) dedicated left turn lane, two (2) through lanes, and one (1) dedicated right turn lane.

Raintree Drive and Northbound/Southbound Pima Frontage Road (6) currently operates as a signalized intersection. The northbound approach provides two (2) left turn lanes, one (1) through lane, and one (1) shared through-right turn lane. The southbound approach provides two (2) left turn lanes, two (2) through lanes, and one (1) dedicated right turn lane. The eastbound approach provide two (2) dedicated left turn lanes, two (2) through lanes, and one (1) dedicated right turn lane. The westbound approach provides two (2) dedicated left turn lanes, one (1) through lane, and one (1) shared through-right turn lane.

South Pima Frontage Road and Driveway C (7) is a T-intersection that currently operates as a one-way stop controlled intersection, with stop control on the eastbound approach. The southbound approach provides three (3) through lanes and one (1) shared through-right turn lane. The eastbound approach provides one (1) right turn lane.

South Pima Frontage Road and Driveway D (8) is a T-intersection that currently operates as a one-way stop controlled intersection, with stop control on the eastbound approach. The southbound approach provides three (3) through lanes and one (1) shared through-right turn lane. The eastbound approach provides one (1) right turn lane.

FIGURE 3 | STUDY AREA

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3.3. STUDY AREA LAND USE

Northsight Crossing Shopping Center borders the proposed development to the west, Kohl's department store is located directly south of the proposed development. The existing Sam's Club located to the north of the proposed development is currently being redeveloped as an At Home Furniture Store per the City of Scottsdale zoning case number 227-SA-2018. Additional commercial developments and fast-food restaurants are located to the east.

3.4. SITE ACCESSIBILITY

Roadway System

The study area is located in the City of Scottsdale, Arizona approximately two-tenths of a mile west of the SR 101L and one-tenth of a mile north of Raintree Drive. Scottsdale's street network is generally built as a one-mile grid system. Within the near vicinity of the proposed site there is a well-developed roadway network. The surrounding roadway network provides convenient access to SR 101L freeway interchanges.

Pedestrian Facilities

There are continuous sidewalks provided along Raintree Drive, Northsight Boulevard, and 87th Street. Marked crosswalks are provided at nearby signalized intersections, including Raintree Drive and Northsight Boulevard, Raintree Drive and 87th Street, Raintree Drive and South Pima Frontage Road, and Raintree Drive and North Pima Frontage Road.

Access to the Arizona Canal Trail is located approximately one mile east and approximately three-quarters of a mile north of the proposed development. The Arizona Canal Trail provides paved and unpaved pathways that follow the Arizona Canal through Scottsdale, Phoenix, Glendale, and Peoria.

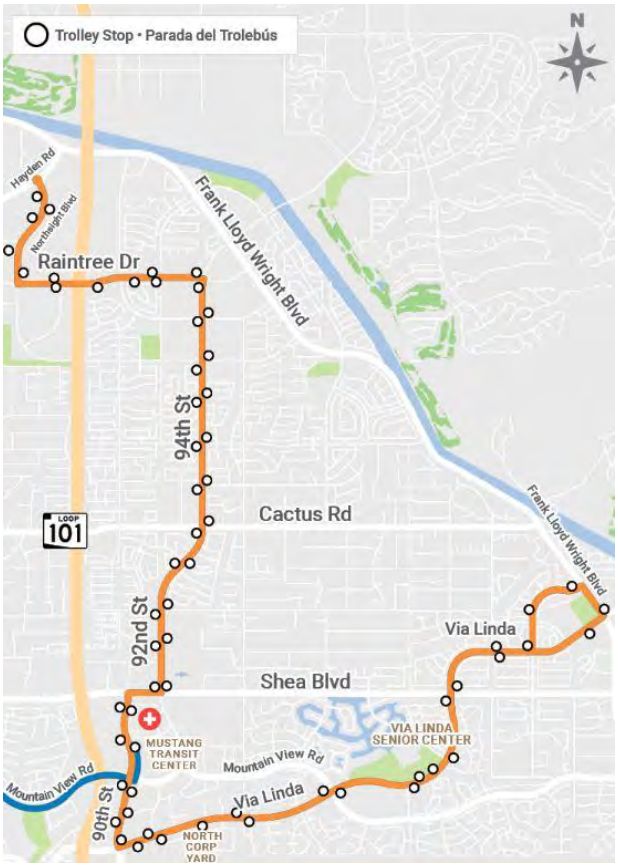
Bicycle Facilities and Shared-Use Paths

Bike lanes are currently provided along Northsight Boulevard. According to the Maricopa Association of Government (MAG) bike map, a bike route is currently provided along Raintree Boulevard, west of Thompson Peak Parkway to Northsight Boulevard. The Central Arizona Project Canal is located less than two (2) miles northeast of the proposed development and provides access to multi-use trails.

Transit Facilities

The City of Scottsdale provides five trolley routes. The Mustang Route (MSTG) circulates around the north Scottsdale area, including along Northsight Boulevard, Raintree Drive, 94th Street, 92nd Street, 90th Street, Via Linda, and Frank Lloyd Wright Boulevard. A trolley stop is located on Northsight Boulevard at the intersection of Raintree Drive and Northsight Boulevard. Additionally, there in one (1) eastbound and one (1) westbound stop located along Raintree Drive west of 87th Street. This trolley route operates every 20 minutes between 4:45 am and 11:30 pm Monday – Friday and 4:45 am – 10:45 pm Saturday and Sunday. See Figure 4.

Figure 4 – City of Scottsdale Trolley Mustang Route



3.5. COLLISION HISTORY

The most recent 3-year collision history, from January 2015 to December 2018, was obtained from the City of Scottsdale. See Appendix B for collision data. The data included the following intersections:

- Northsight Boulevard and Butherus Drive (1)
- Raintree Drive and Northsight Boulevard (2)
- Raintree Drive and Driveway A (3)
- Raintree Drive and Driveway B (4)
- Raintree Drive and 87th Street (5)
- Raintree Drive and Northbound/Southbound Pima Frontage Road (6)
- Southbound Pima Frontage Road and Driveway C (7)
- Southbound Pima Frontage Road and Driveway D (8)

Northsight Boulevard and Butherus Drive (1)
During the three-year period, there were a total of 24 crashes, of which 2 were incapacitating injuries, 7 were non-incapacitating injuries, 6 possible injuries, with the remaining being property damage only. There were a total of 11 angle, 6 left turn, 3 sideswipe same direction, 2 rear end, and 2 single vehicle crash.

Raintree Drive and Northsight Boulevard (2)
During the three-year period, there were a total of 63 crashes, of which 12 were non-incapacitating injuries, 12 possible injuries, 5 unknown, with the remaining being property damage only. There were a total of 20 left turn, 17 rear end, 15 angle, 7 sideswipe same direction, 2 single vehicle, 1 sideswipe opposite direction, and 1 other crash.

Raintree Drive and Driveway A (3)
During the three-year period, there were a total of 4 crashes, of which 1 was a non-incapacitating injury, 1 was possible injury, and 2 property damage only. There were a total of 3 rear end, and 1 angle crash.

Raintree Drive and 87th Street (5)
During the three year period there were a total of 42 crashes, of which 1 was incapacitating, 3 non-incapacitating injuries, 10 possible injuries, with the remaining being property damage only. There were a total of 15 rear ends, 14 angle, 8 left turn, 4 sideswipe same direction, and 1 other crash.

Raintree Drive and Northbound/Southbound Pima Frontage Road (6)
During the three year period there were a total of 83 crashes, of which 4 were incapacitating injuries, 7 non-incapacitating injuries, 8 possible injuries, with the remaining being property damage only. There were a total of 49 rear ends, 15 angle, 15 sideswipe same direction, 3 single vehicle, and 1 left turn crash.

Of the 49 reported rear end collisions, 35 were the result of speed to fast for conditions. Of the 35 collisions, 11 occurred in the westbound and southbound directions, 9 occurred in the northbound direction, and 4 occurred in the eastbound direction. It is recommended for the City to investigate potential improvements that may reduce this type of crash. Potential improvements may include reducing the posted speed limit and evaluating the existing signal timing. The proposed Raintree residential development is not anticipated to negatively impact or result in an increase in potential collisions at this intersection.

Southbound Pima Frontage Road and Driveway C (7)
During the three year period there were a total of 2 crashes, of 1 was a non-incapacitating injury and 1 property damage only. There was 1 angle and 1 rear end crash.

Southbound Pima Frontage Road and Driveway D (8)
During the three year period there were a total of 4 crashes, of which all were property damage only. There was 2 sideswipe same direction, 1 sideswipe opposite direction and 1 single vehicle.

3.6. COLLISION HISTORY

The City of Scottsdale's *2016 Traffic Volume and Collision Rate Data* report provides collision rate and traffic volume information on major roadway segments and at major intersections within the City. Segment collisions are collisions that occur on a major street more than 100 feet from the segment's termini intersections, including those that occur at minor intersections within the segment. Intersection collisions are collisions that occur at or within 100 feet of the intersection.

The collision rates and city wide rankings for the study intersections and study roadway segments are shown in Table 1and Table 2 respectively.

Table 1 – Collision Rates - Study Roadway Intersections

Intersection	Collision Rate	Rank
Raintree Drive and Northsight Boulevard	1.15	23
101 Freeway and Raintree Drive	0.89	56
2016 City of Scottsdale Average Intersection Collision Rate	0.65	

Table 2 – Collision Rates - Study Roadway Segments

Segment	From	To	Collision Rate	Rank
Raintree Drive	Northsight Boulevard	101 Freeway	3.69	26
Raintree Drive	Hayden Road	Northsight Boulevard	2.52	61
Northsight Boulevard	Raintree Drive	Hayden Road	2.36	72
2016 City of Scottsdale Average Segment Collision Rate			1.50	

4. EXISTING CONDITIONS

4.1. EXISTING LAND USE

The existing site is currently comprised of one (1) developed parcel. Currently there are four (4) retail buildings located on the existing site:

- Vacant (To Remain) 41,790 Sq Ft.
- Vacant 31,446 Sq. Ft.
- Mega Furniture 20,000 Sq. Ft.
- Sears Appliance Showroom 10,730 Sq. Ft.

The proposed Raintree residential development is generally located on the northwest corner of Raintree Drive and 87th Street. See Appendix C for detailed parcel information.

4.2. EXISTING TRAFFIC COUNTS

A local data collection firm, Field Data Services of Arizona, Inc., was utilized to collect traffic counts. On Tuesday, February 12, 2019, turning movement counts were obtained from 7:00 to 9:00 am and from 4:00 to 6:00 pm at the following locations:

- Butherus Drive and Northsight Boulevard (1)
- Raintree Drive and Northsight Boulevard (2)
- Raintree Drive and Driveway A (3)
- Raintree Drive and Driveway B (4)
- Raintree Drive and 87th Street (5)
- Raintree Drive and Northbound/Southbound Pima Frontage Road (6)
- Southbound Pima Frontage Road and Driveway C (7)
- Southbound Pima Frontage Road and Driveway D (8)

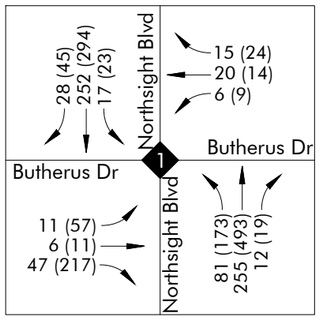
Additionally, on Tuesday, February 12, 2019, bi-directional tube counts for 24-hours in 15-miunte intervals were collected along the following roadway segments:

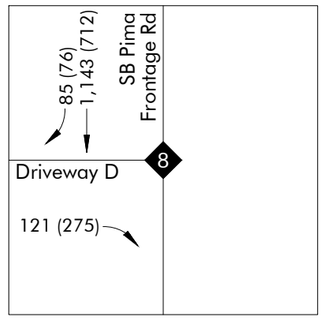
- Northsight Boulevard south of Butherus Drive
- Raintree Drive east of Northsight Boulevard
- Southbound Pima Frontage Road north of Raintree Drive

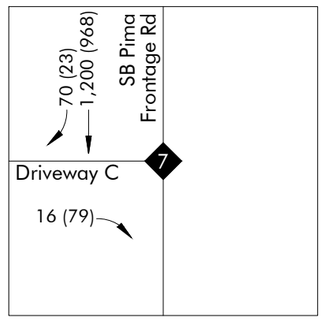
The turning movement counts were then analyzed for the highest 1-hour within each time period. The following peak hours were analyzed throughout this study.

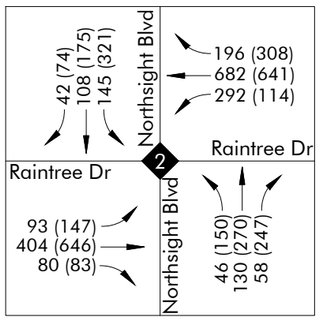
AM Peak Hour	8:00 am – 9:00 am
PM Peak Hour	4:15 pm – 5:15 pm

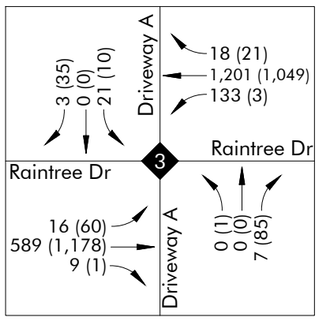
See Appendix D for detailed traffic count data. See Figure 5 for the existing AM and PM peak hour traffic volumes.

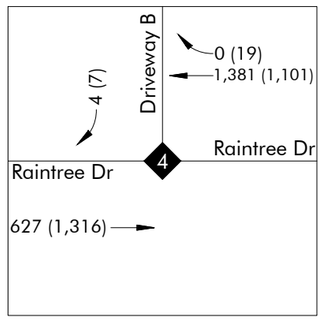


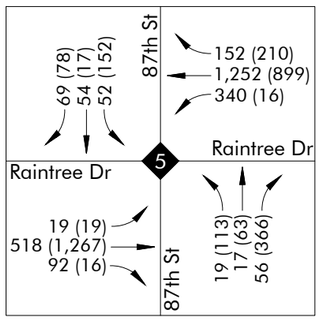


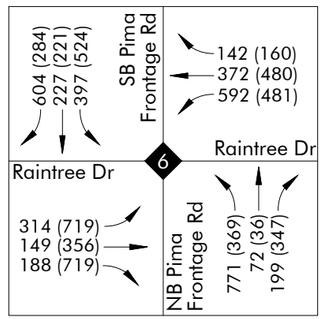












Legend

AM (PM)	Existing Peak Hour Traffic Volumes
X	Intersection
<ADT>	Average Daily Traffic Volumes

FIGURE 5 | EXISTING TRAFFIC VOLUMES

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4.3. EXISTING CAPACITY ANALYSIS

The existing conditions capacity analysis was completed for the study intersections. The capacity and level of service for the study area intersections were evaluated using the methodology presented in the *6th Edition of the Highway Capacity Manual*. Traffic analysis software, Synchro Version 10.3, was used to perform the analyses using the existing Peak Hour Factor (PHF) obtained from the traffic counts, and the existing signal timing provided by the City of Scottsdale. See Appendix E for the existing signal timing.

Table 3 is from the *6th Edition of the Highway Capacity Manual* Exhibit 19-8 and 20-2, which lists the Level of Service (LOS) thresholds for signalized and two-way stop-controlled intersections.

Table 3 – Level of Service Criteria

Level of Service	Control Delay (s/veh)	
	Signalized Intersections	Unsignalized Intersections
A	≤ 10	0 - 10
B	> 10-20	> 10–15
C	> 20-35	> 15-25
D	> 35-55	> 25-35
E	> 55-80	> 35-50
F	> 80	> 50

The results of the capacity analyses reveal the following locations with an existing level of service (LOS) E or F:

Raintree Drive and Northsight Boulevard (2) – Signalized

- EB through AM and PM peak hours operate at LOS E
- WB through PM peak hour operates at LOS E
- WB right PM peak hour operates at LOS E
- NB through AM peak hour operates at LOS E
- NB right AM and PM peak hours operate at LOS E
- SB left AM and PM peak hours operate at LOS E and LOS F, respectively
- SB through AM and PM peak hours operate at LOS E
- SB right AM and PM peak hours operate at LOS E

Raintree Drive and Driveway A (3) – Unsignalized

- SB left PM peak hour operates at LOS E

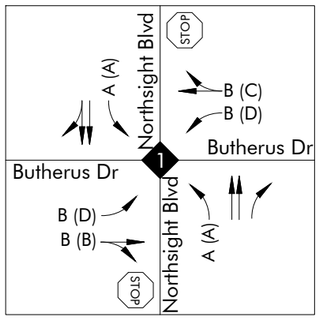
Raintree Drive and 87th Street (5) – Signalized

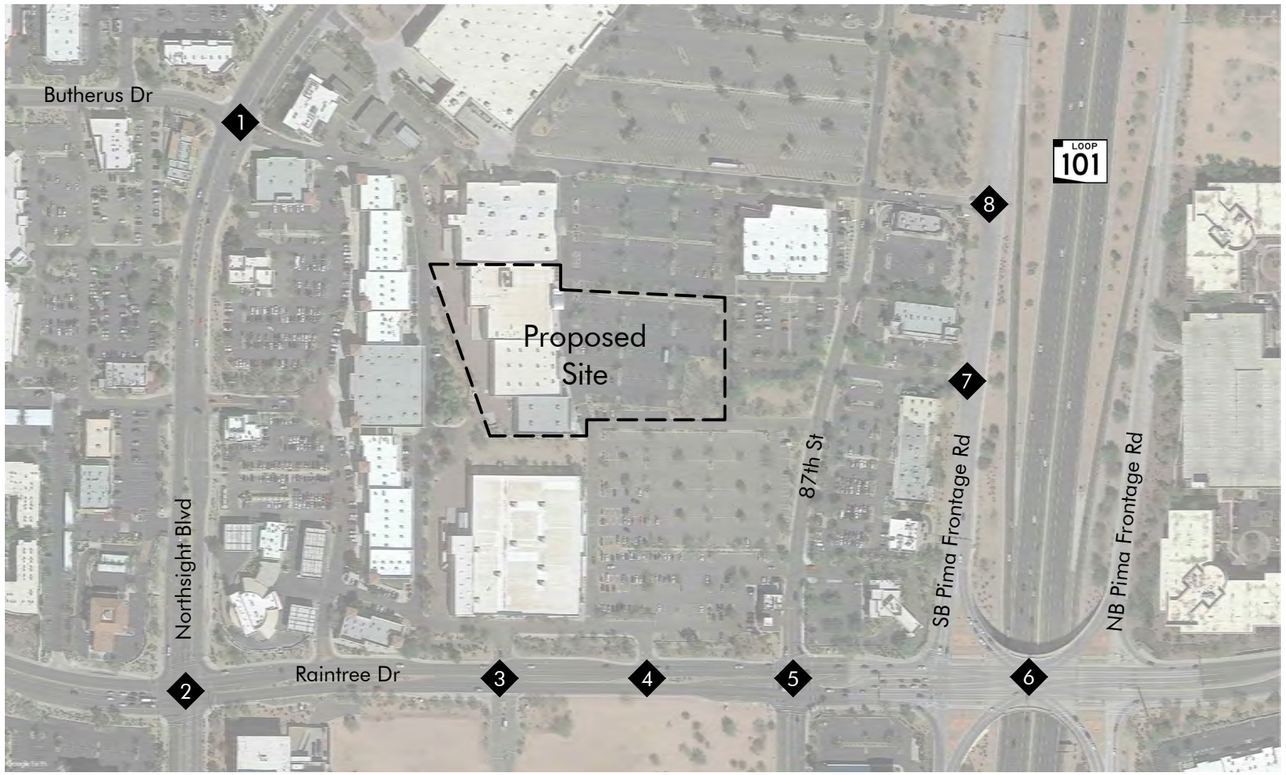
- NB left AM peak hour operates at LOS E
- NB right PM peak hour operates at LOS E

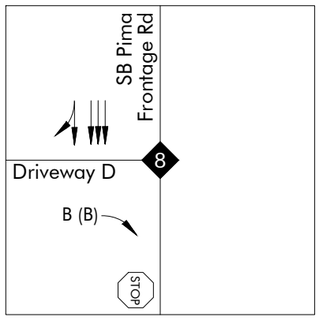
Raintree Drive and Northbound/Southbound Pima Frontage Road (6) – Signalized

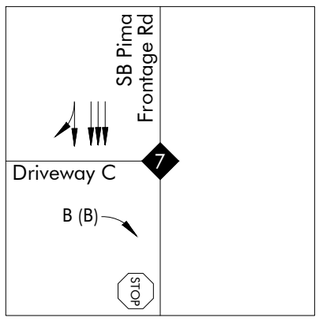
- WB through AM peak hour operates at LOS E
- WB right AM and PM peak hours operate at LOS F and LOS E, respectively
- NB left AM peak hour operates at LOS E
- SB through PM peak hour operates at LOS E
- SB right AM peak hour operates at LOS F

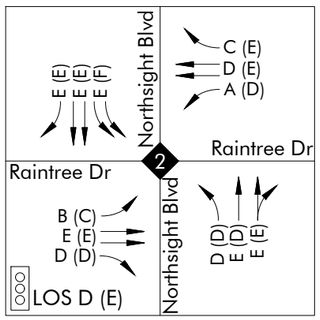
See Figure 6 for the existing AM and PM peak hour capacity analysis. The detailed capacity analysis sheets can be found in Appendix F.

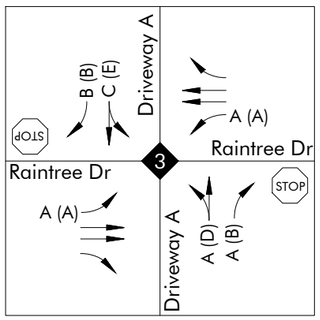


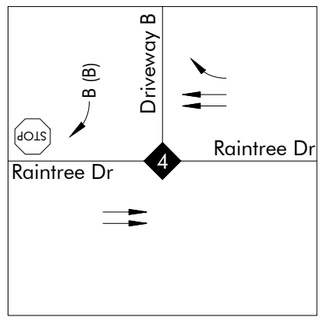


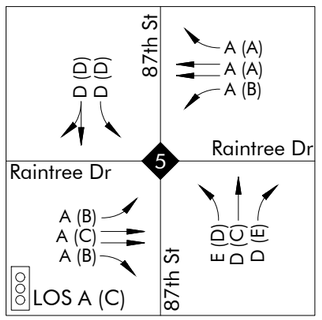


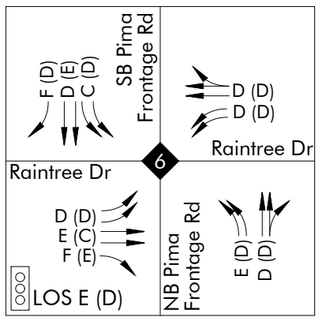












Legend

AM (PM)	Existing Peak Hour Level of Service
X	Intersection
	Lane Configuration

FIGURE 6 | EXISTING CAPACITY ANALYSIS

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5. PROJECTED TRAFFIC

5.1. TRIP GENERATION

Trip Generation (Existing Development)

The trip generation for the existing three (3) retail buildings was calculated utilizing the Institute of Transportation Engineers (ITE) publication entitled *Trip Generation, 10th Edition*. The ITE rates are based on studies that measured the trip generation characteristics for various types of land uses. The rates are expressed in terms of trips per unit land use type. This publication is considered to be the standard for the transportation engineering profession.

According to the Maricopa County Assessor's website, the site is currently comprised of the following three (3) land uses:

- Supermarket 31,446 Sq. Ft.
- Mega Furniture 20,000 Sq. Ft.
- Sears Appliance Showroom 10,730 Sq. Ft.

Utilizing the ITE Land Use 820 Shopping Center, 850 Supermarket, and 890 Furniture Store, the total trip generation for the existing site was calculated. See Table 4 below. See Appendix G for detailed trip generation calculations.

Table 4 – Trip Generation – Existing Development

Land Use	ITE Code	Qty	Unit	Weekday	AM Peak Hour			PM Peak Hour		
				Total	Total	In	Out	Total	In	Out
Shopping Center	820	11	1000 SF GLA	1,318	157	97	60	104	50	54
Supermarket	850	31	1000 SF GFA	3,358	120	72	48	291	148	143
Furniture Store	890	20	1000 SF GFA	126	5	4	1	10	5	5
			Total	4,802	162	101	109	405	203	202

Trip Generation (Existing Zoning)

The existing parcel is currently zoned for Central Business (C-2). According to the City of Scottsdale Code of Ordinances, the Central Business is intended to permit uses for recurring shopping and service needs for multiple neighborhoods. This district includes uses usually associated with office and retail shopping developments, typically located near residential neighborhood. Therefore, it is reasonable and appropriate to assume a retail development on this parcel. Zoning allows for a floor to area ratio FAR) of 0.8, for 241,724 square foot lot, a 193,379 development was assumed. See Table 5 below. See Appendix G for detailed trip generation calculations.

Table 5 – Trip Generation – Existing Zoning

Land Use	ITE Code	Qty	Unit	Weekday	AM Peak Hour			PM Peak Hour		
				Total	Total	In	Out	Total	In	Out
Shopping Center	820	193	1000 SF GLA	9,414	248	154	94	885	425	460

Trip Generation (Proposed Development)

The proposed development includes 330 residential units. Of which, 211 will be one-bedroom units, 105 two-bedroom units, and 14 three bedroom units.

Utilizing ITE Land Use 221 – Multifamily Housing (Mid-Rise), the trips generated by the proposed development were calculated. The average rate resulted in slightly more peak hour trips then utilizing the fitted curve equation. Therefore, a conservative approach was taken by using the trips generated by the average rates for Land Use 221.

The total trip generation for the proposed Raintree residential development is show in Table 6 below. Detailed trip generation calculations are provided in Appendix G.

Table 6 – Trip Generation – Proposed Development

Land Use	ITE Code	Qty	Unit	Weekday	AM Peak Hour			PM Peak Hour		
				Total	Total	In	Out	Total	In	Out
Multifamily Housing (Mid-Rise)	221	330	Dwelling Units	1,795	119	31	88	145	88	57

5.2. TRIP GENERATION COMPARISON

A comparison between the trips generated by the existing three (3) retail developments totaling 62,000 square feet versus the proposed Raintree residential development is shown in Table 7.

Table 7 – Trip Generation Comparison (Existing Land Use vs. Proposed)

Land Use	ITE Code	Qty	Unit	Weekday	AM Peak Hour			PM Peak Hour		
				Total	Total	In	Out	Total	In	Out
Shopping Center	820	11	1000 SF GLA	1,318	157	97	60	104	50	54
Supermarket	850	31	1000 SF GFA	3358	120	72	48	291	148	143
Furniture Store	890	20	1000 SF GFA	126	5	4	1	10	5	5
Total Existing Land Use				4,802	282	173	109	405	203	202
Multifamily Housing (Mid-Rise)	221	330	Dwelling Units	1,795	119	31	88	145	88	57
Total Proposed				1,795	119	31	88	145	88	57
Difference				-3,007	-163	-142	-21	-260	-115	-145

Table 7 indicates that the proposed Raintree residential development is expected to generate 3,007 less weekday daily trips, 163 less trips during the AM peak hour, and 260 less trips during the PM peak hour than the existing land use.

A comparison between the trips generated by the build out under the existing zoning with a 193,379 square foot shopping versus the proposed Raintree residential development is shown in Table 8.

Table 8 – Trip Generation Comparison (Existing Zoning vs. Proposed)

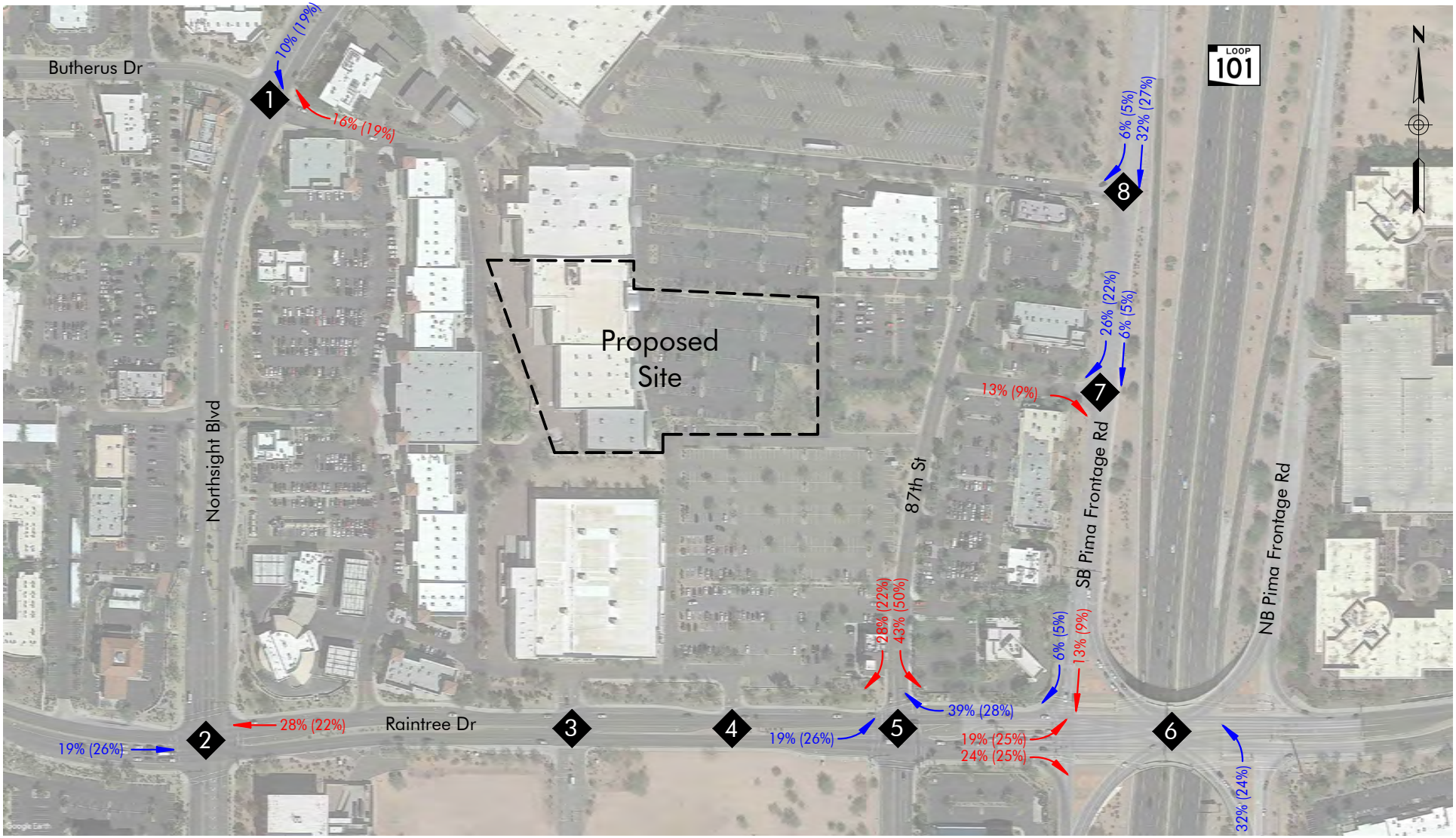
Land Use	ITE Code	Qty	Unit	Weekday	AM Peak Hour			PM Peak Hour		
				Total	Total	In	Out	Total	In	Out
Shopping Center	820	193	1000 SF GLA	9,414	248	154	94	885	425	460
Total Existing Land Use				9,414	248	154	94	885	425	460
Multifamily Housing (Mid-Rise)	221	330	Dwelling Units	1,795	119	31	88	145	88	57
Total Proposed				1,795	119	31	88	145	88	57
Difference				-7,619	-129	-123	-6	-740	-337	-403

Table 8 indicates that the proposed Raintree residential development is expected to generate 7,619 less weekday daily trips, 129 less trips during the AM peak hour, and 740 less trips during the PM peak hour than the build out under the existing land use.

5.3. TRIP DISTRIBUTION AND ASSIGNMENT

The trip distribution procedure determines the general pattern of travel for vehicles entering and leaving the proposed development. The trip distribution for the proposed Raintree residential development is based on the distribution of the existing traffic. This project is being developed in a mostly developed area, so it can be assumed that the existing trip distribution will remain. The trip distribution is shown in Figure 7.

The trip assignment was generally based on proximity of the driveways, permitted turn movements, as well as ease and probability of use. The site generated traffic volumes are shown in Figure 8.



Legend

AM (PM)	Inbound Tri□ Di□tribution Percentage□
AM (PM)	Outbound Tri□ Di□tribution Percentage□
X	Inter□ection

FIGURE 7 | TRIP DISTRIBUTION

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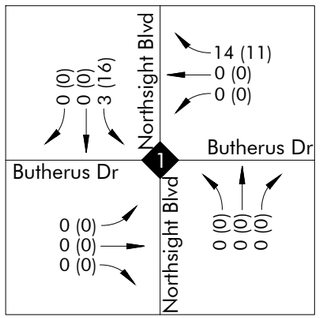

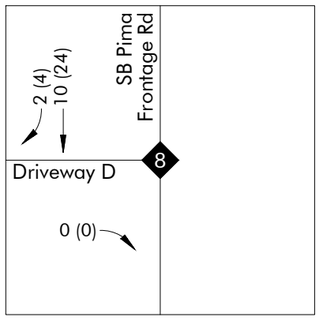

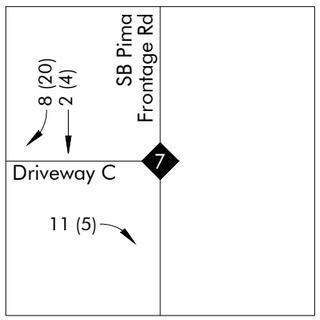

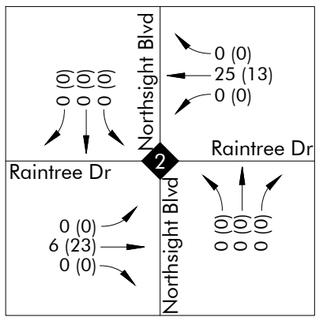

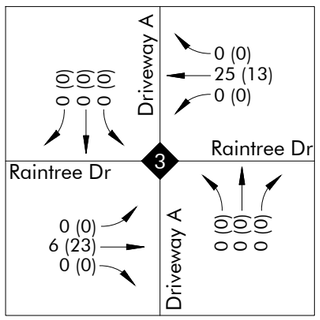

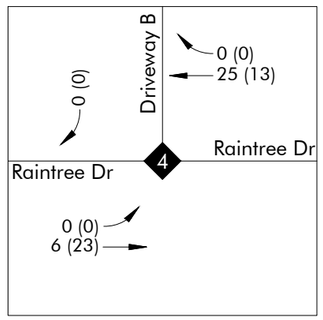

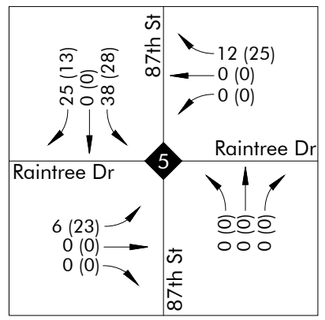

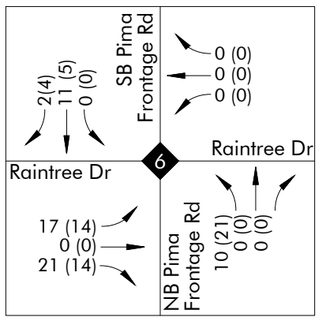

Legend

AM (PM)	Site Peak Hour Traffic Volumes
X	Intersection
<ADT>	Average Daily Traffic Volumes

FIGURE 8 | SITE TRAFFIC VOLUMES

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6. FUTURE CONDITIONS (YEAR 2021 – OPENING YEAR)

The proposed Raintree residential development is anticipated to be constructed and ready to open in the year 2021. This section analyzes the effects the proposed development will have on the surrounding roadway network during the opening year of 2021.

6.1. YEAR 2021 BACKGROUND TRAFFIC VOLUMES

According to the 2016 Maricopa Associations of Governments (MAG) socioeconomic projections within the proposed study area, it is estimated that in the year 2020 the population within the study area will be approximately 7,642. MAG estimates that the 2015 population of the surrounding area to be 7,407. This results in an approximate annual growth rate of 0.63%. Additionally, the City of Scottsdale 2014 and 2016 Average Daily Segment Traffic Volumes map was used to determine the growth rate along Raintree Drive between SR 101L and Northsight Boulevard. There was a reported ADT of 31,100 and 31,500 for the years 2014 and 2016, respectively, resulting in a growth rate of 0.64%.

As a conservative approach, a 1% annual growth rate was utilized. See **Appendix H** for the MAG socioeconomic projections. See **Figure 9** for the year 2021 background traffic volumes.

6.2. YEAR 2021 BUILD TRAFFIC VOLUMES

When the site traffic (**Figure 8**) is added to the year 2021 background traffic (**Figure 9**), the result is the 2021 build traffic volumes. This represents the traffic volumes with the build out of the proposed development. The year 2021 build traffic volumes are shown in **Figure 10**.

6.3. YEAR 2021 NO BUILD CAPACITY ANALYSIS

The capacity and level of service for the study area intersections were evaluated for the year 2021 no build traffic volumes shown in **Figure 9**. The signal timing splits were optimized and adjusted for the future traffic volumes. The peak hour factor was assumed to be 0.92.

See **Figure 11** for the AM and PM peak hour year 2021 no build capacity analysis. The detailed capacity analysis sheets can be found in **Appendix I**.

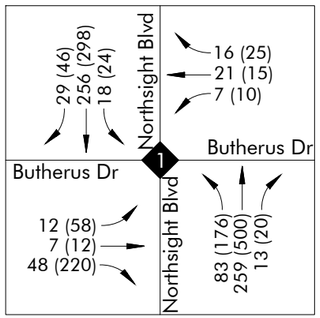
6.4. YEAR 2021 BUILD CAPACITY ANALYSIS

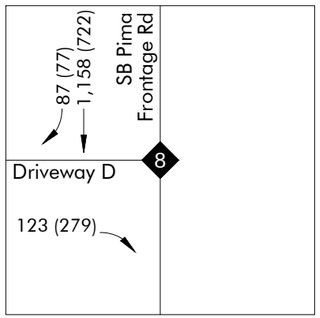
The capacity and level of service for the study area intersections were evaluated for the year 2021 build traffic volumes. See **Figure 10**. The detailed capacity analysis sheets can be found in **Appendix J**. The signal timing splits were optimized and adjusted for the future traffic volumes, and a PHF of 0.92 was used.

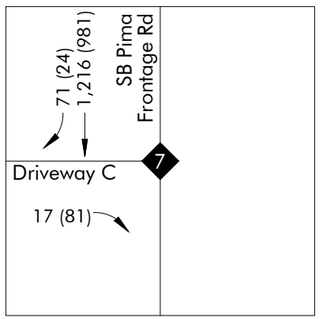
All movements operate at a LOS D or better, or are maintained at the no build level of service, with the exception of the following:

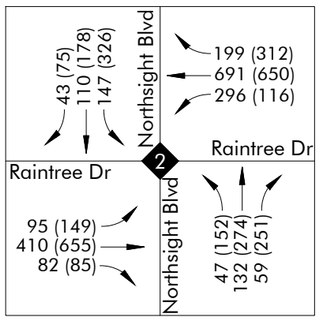
Northsight Boulevard and Butherus Drive (1) – Unsignalized

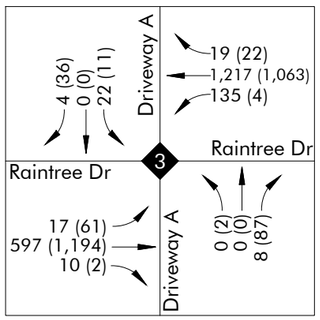
- WB right PM peak hour operates at LOS E

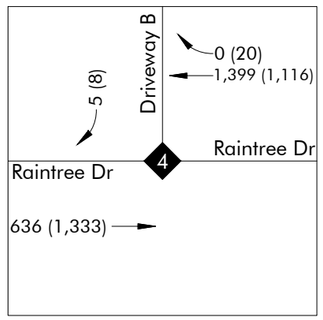


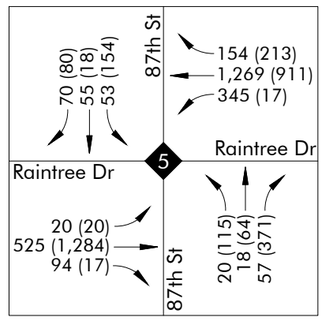


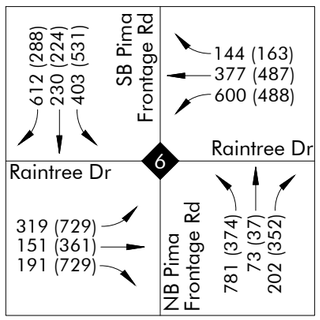












Legend

AM (PM)	2021 No Build Peak Hour Traffic Volumes
X	Intersection
<ADT>	Average Daily Traffic Volumes

FIGURE 9 | 2021 NO BUILD TRAFFIC VOLUMES

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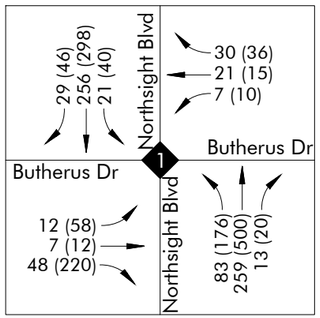

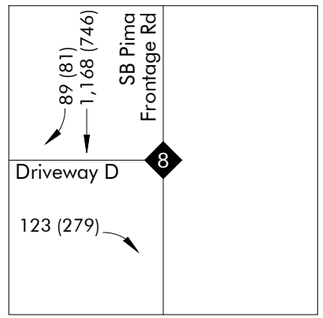

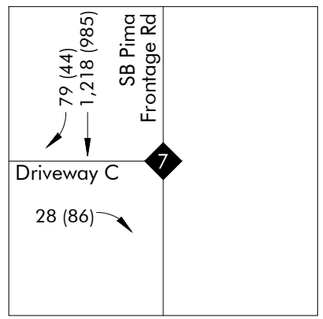

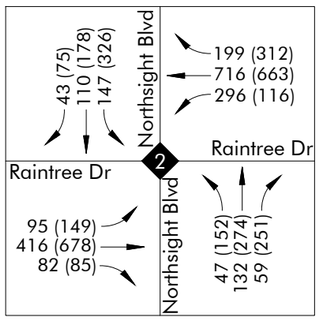

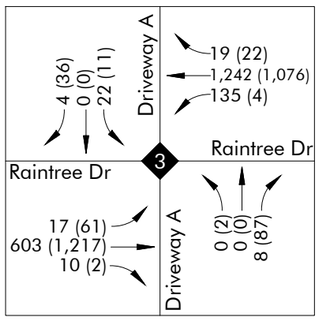

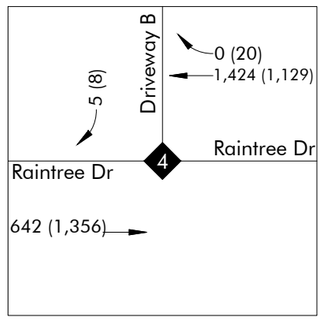

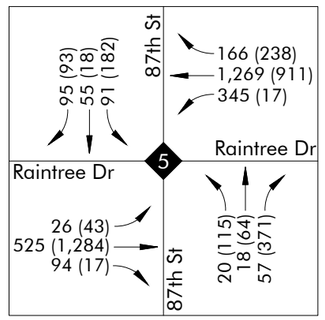

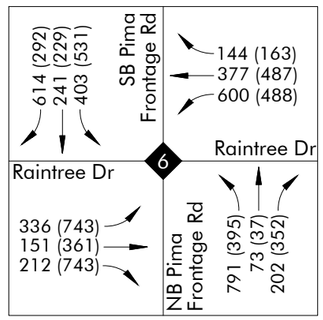

Legend

AM (PM)	2021 Build Peak Hour Traffic Volumes
X	Intersection
<ADT>	Average Daily Traffic Volumes

FIGURE 10 | 2021 BUILD TRAFFIC VOLUMES

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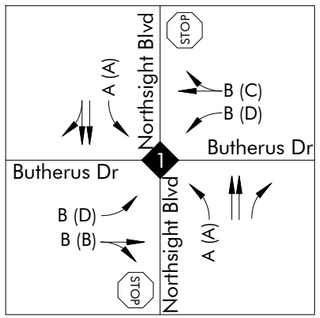
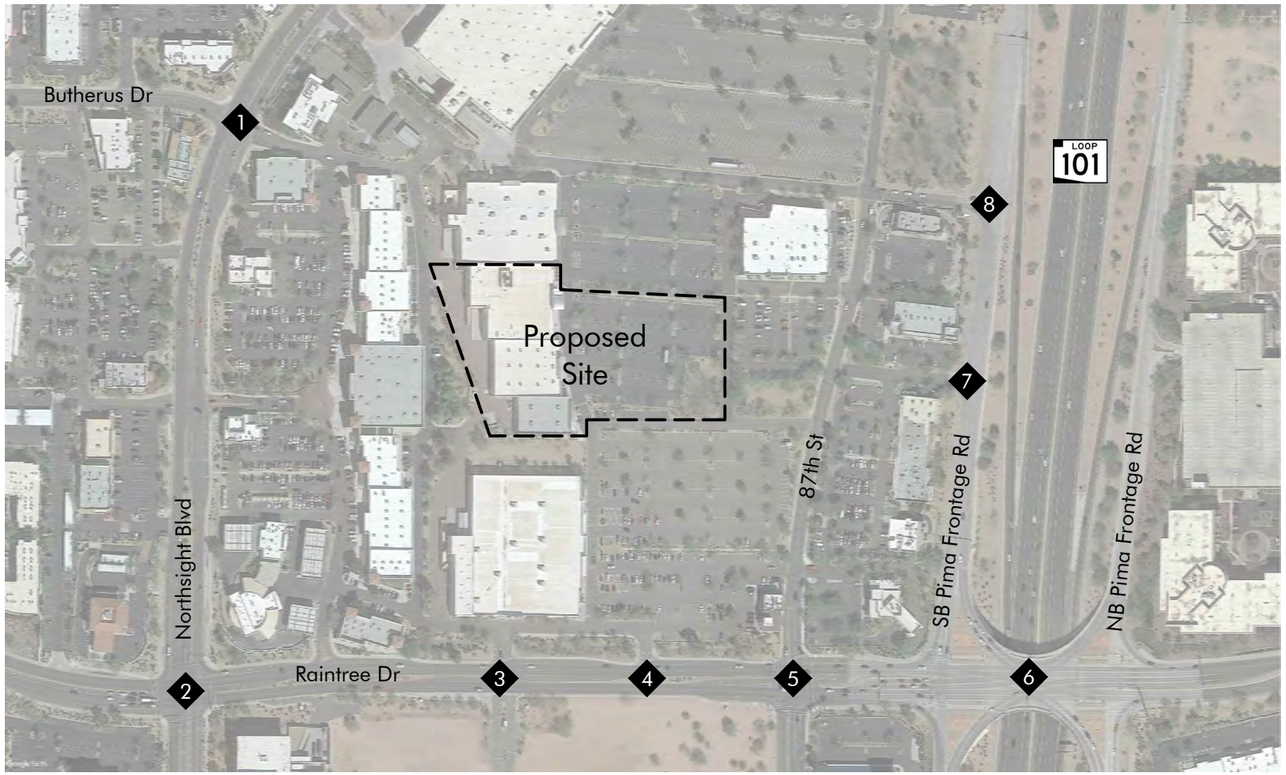
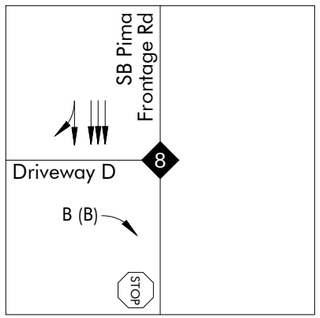
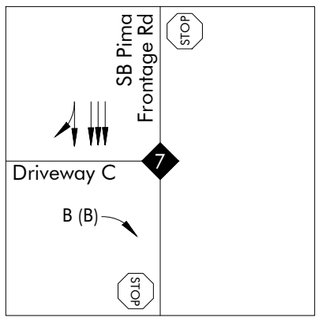
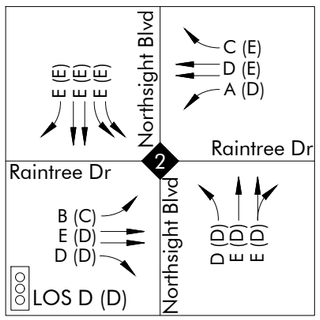
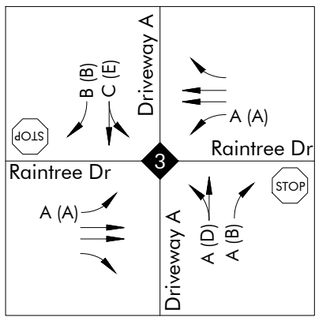


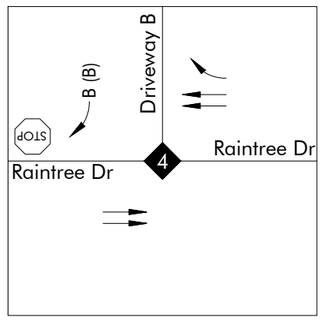


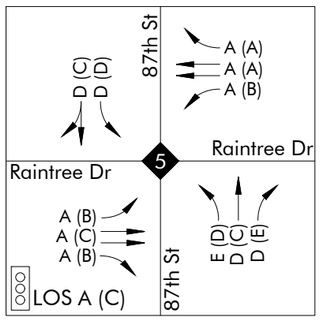


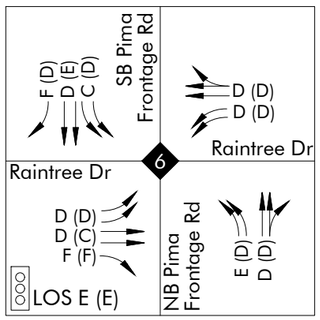










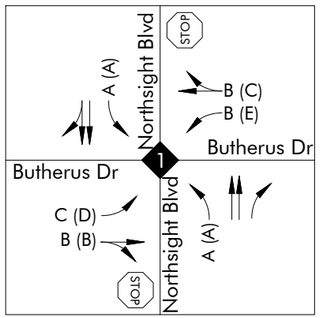


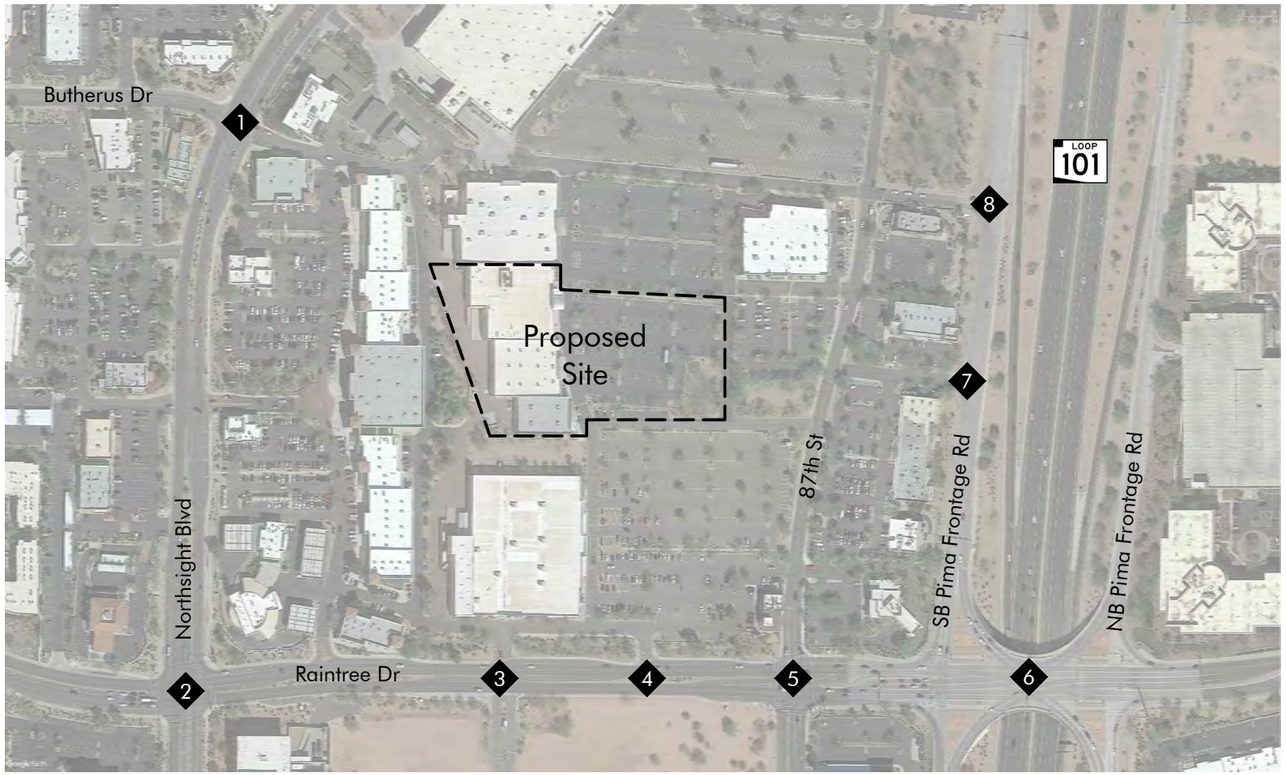
Legend

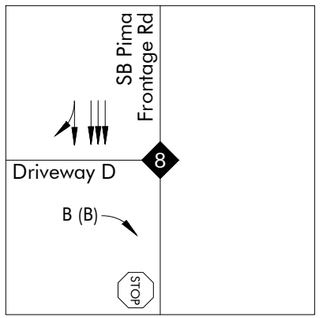
AM (PM)	2021 No Build Peak Hour Level of Service
X	Intersection
	Lane Configuration

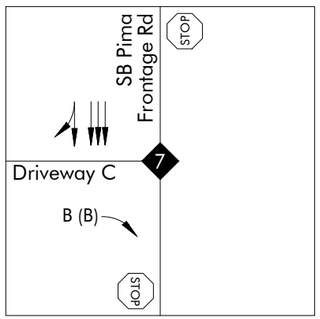
FIGURE 11| 2021 NO BUILD CAPACITY ANALYSIS

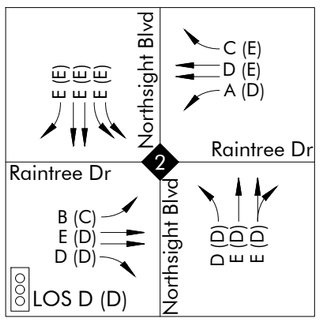
3-ZN-2019
05/20/19

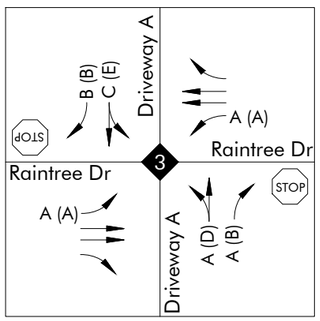


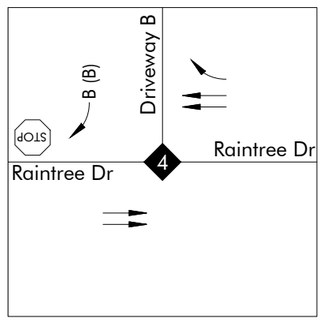


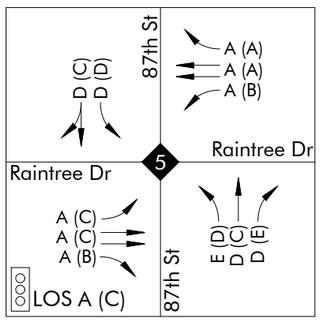


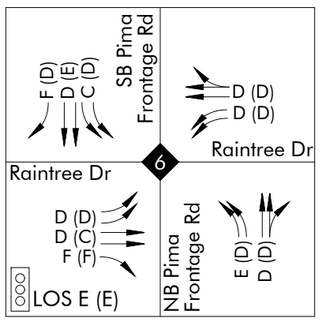












Legend

AM (PM)	2021 Build Peak Hour Level of Service
X	Intersection
	Lane Configuration

FIGURE 12 | 2021 BUILD CAPACITY ANALYSIS

3-ZN-2019
05/20/19

7. RECOMMENDATIONS & CONCLUSIONS

The proposed Raintree residential development is generally located on the northwest corner of Raintree Drive and 87th Street. It will be comprised of 330 residential units. Of the 330 units, 211 are one (1) bedroom units, 105 are two (2) bedroom units, and 14 are three (3) bedroom units.

Existing Capacity Analysis

The AM and PM peak hour existing conditions capacity analysis were completed for the eight (8) existing study intersections. The following intersection currently operate with movements at a Level of Service E or F:

Raintree Drive and Northsight Boulevard (2) – Signalized

- EB through AM and PM peak hours operate at LOS E
- WB through PM peak hour operates at LOS E
- WB right PM peak hour operates at LOS E
- NB through AM peak hour operates at LOS E
- NB right AM and PM peak hours operate at LOS E
- SB left AM and PM peak hours operate at LOS E and LOS F, respectively
- SB through AM and PM peak hours operate at LOS E
- SB right AM and PM peak hours operate at LOS E

Raintree Drive and Driveway A (3) – Unsignalized

- SB left PM peak hour operates at LOS E

Raintree Drive and 87th Street (5) – Signalized

- NB left AM peak hour operates at LOS E
- NB right PM peak hour operates at LOS E

Raintree Drive and Northbound/Southbound Pima Frontage Road (6) – Signalized

- WB through AM peak hour operates at LOS E
- WB right AM and PM peak hours operate at LOS F and LOS E, respectively
- NB left AM peak hour operates at LOS E
- SB through PM peak hour operates at LOS E
- SB right AM peak hour operates at LOS F

Trip Generation

The proposed development generally located on the northwest corner of Raintree Drive and 87th Street is anticipated to generate 1,795 weekday trips, with 119 trips occurring during the AM peak hour and 145 trip occurring during the PM peak hour.

Trip Generation Comparison - Existing Land Use vs. Proposed

A comparison between the trips generated by the existing retail land uses versus the proposed Raintree residential development was calculated.

Trip Generation Comparison (Existing Zoning vs. Proposed)

Land Use	ITE Code	Qty	Unit	Weekday	AM Peak Hour			PM Peak Hour		
				Total	Total	In	Out	Total	In	Out
Shopping Center	820	11	1000 SF GLA	1,318	157	97	60	104	50	54
Supermarket	850	31	1000 SF GFA	3358	120	72	48	291	148	143
Furniture Store	890	20	1000 SF GFA	126	5	4	1	10	5	5
Total Existing Land Use				4,802	282	173	109	405	203	202
Multifamily Housing (Mid-Rise)	221	330	Dwelling Units	1,795	119	31	88	145	88	57
Total Proposed				1,795	119	31	88	145	88	57
Difference				-3,007	-163	-142	-21	-260	-115	-145

The proposed Raintree residential development is anticipated to generate 3,007 less weekday daily trip, 166 less trips during the AM peak hour, and 260 less trips during the PM peak hour.

Trip Generation Comparison - Existing Zoning vs. Proposed

A comparison between the trips generated by the build out under the existing zoning with a 193,379 square foot shopping center versus the proposed Raintree residential development was calculated.

Trip Generation Comparison (Existing Zoning vs. Proposed)

Land Use	ITE Code	Qty	Unit	Weekday	AM Peak Hour			PM Peak Hour		
				Total	Total	In	Out	Total	In	Out
Shopping Center	820	193	1000 SF GLA	9,414	248	154	94	885	425	460
Total Existing Land Use				9,414	248	154	94	885	425	460
Multifamily Housing (Mid-Rise)	221	330	Dwelling Units	1,795	119	31	88	145	88	57
Total Proposed				1,795	119	31	88	145	88	57
Difference				-7,619	-129	-123	-6	-740	-337	-403

The proposed Raintree residential development is anticipated to generate 7,619 less weekday daily trip, 129 less trips during the AM peak hour, and 740 less trips during the PM peak hour.

Future Conditions

Year 2021 (opening year) analyses were completed without the build out, as well as with the build out of the proposed development. An annual growth rate of 1.0% was applied to the existing traffic volumes to create the future background traffic volumes for year 2021.

Year 2021

Capacity analyses were completed for both the AM and PM peak hours for year 2021, without the build out of the proposed Raintree residential development, as well as with the build out. All movements operate at a LOS D or better, or are maintained at the no build level of service, with the exception of the following:

Northsight Boulevard and Butherus Drive (1) – Unsignalized

- WB right PM peak hour operates at LOS E

Recommendations

The proposed Raintree residential development will have significantly less traffic related impacts to the surrounding area than the existing retail development or the build out under the existing zoning.

Therefore, the recommendations with the build out of the proposed Raintree residential development include constructing access improvements to connect the development to the on-site roadway network. Additionally, as with any new site development, it is recommended for the City of Scottsdale to monitor traffic patterns in the area and if necessary adjust nearby signal timing.

Appendix A – Proposed Site Plan

COURTYARD B
18,771 SF

COURTYARD A
13,446 SF

N

SITE PLAN
5/2/2019

3-ZN-2019
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Appendix B – Crash Data

REPORT #	YYMMDD	HHMM	NS ST	NS SF	EW ST	EW SF	DIR FROM	DIST FROM	AUX REF ST	DIR FROM AUX REF ST	DOB 1	DOB 2	INJ SEV 1	INJ SEV 2	PHYSICAL COND 1	PHYSICAL COND 2	VIOL 1	VIOL 2	ACTION 1	ACTION 2	TRAVEL DIR 1	TRAVEL DIR 2	MANNER OF COLLISION	COMMENTS	DATE ENTERED	ENTERED B
15-01585	150120	1551	NORTHSIGHT	BL	BUTHERUS	DR	W	300	RAINTREE	N	34528	32602	2	2	0	0	7	1	4	1	NB	EB		3	42096	KAY
15-03418	150209	1558	NORTHSIGHT	BL	BUTHERUS	DR	AT				25325	28705	1	2	0	0	7	1	4	1	SB	NB		3	42102	KAY
15-05871	150312	1209	NORTHSIGHT	BL	BUTHERUS	DR	AT				14659	25214	1	1	0	0	97	1	1	1	WB	SB		2	42109	KAY
15-11028	150513	1729	NORTHSIGHT	BL	BUTHERUS	RD	N	101			19739	25616	1	1	0	0	20	1	1	1	WB	SB		2	42157	KAY
15-11165	150515	1313	NORTHSIGHT	BL	BUTHERUS	DR	AT				14627	19816	1	4	0	0	20	1	4	1	NB	SB		3	42157	KAY
15-16353	150725	1108	NORTHSIGHT	BL	BUTHERUS	DR	S	150			14530	21673	1	3	0	0	66	1	1	20	EB	99		1 CAR VS 2 PEDESTRIANS	42220	KAY
15-17129	150805	0633	NORTHSIGHT	BL	BUTHERUS	DR	AT				16511	20917	1	3	0	0	20	1	5	97	SB	SB		2 CAR/BICYCLE, HIT AND RUN	42228	KAY
16-01562	160120	1554	NORTHSIGHT	BL	BUTHERUS	DR	N	900			15825	23696	1	2	0	0	20	1	4	1	EB	SB		3	42417	KAY
16-01641	160121	1220	NORTHSIGHT	BL	BUTHERUS	DR	AT				29803	34893	1	3	0	0	20	1	4	1	EB	SB		3	42416	KAY
16-04456	160223	1918	NORTHSIGHT	BL	BUTHERUS	DR	AT				20663	17741	1	2	0	0	8	1	1	1	SB	NB		2	42430	KAY
16-18933	160824	1021	NORTHSIGHT	BL	BUTHERUS	DR	N	500			21270	16580	1	1	0	0	20	1	4	1	SB	SB		6	42613	KAY
16-21465	160924	1436	NORTHSIGHT	BL	BUTHERUS	DR	N	200			36707	35545	1	1	0	0		1	4	1	WB	NB		2	42649	KAY
16-24311	161031	1139	NORTHSIGHT	BL	BUTHERUS	DR	W	600			35636	22581	1	1	0	0	7	1	6	1	WB	WB		6	42684	KAY
17-00879	170112	1311	NORTHSIGHT	BL	BUTHERUS	DR	AT				8/24/1942	2/4/1935	1	2	0	0	20	1	1	1	EB	NB		2 MULTI VEH 3	1/20/2017	
17-07333	170329	2031	NORTHSIGHT	BL	BUTHERUS	DR	AT				6/15/1995	12/14/1996	1	1	0	0	12	1	8	1	WB	WB		6	4/7/2017	
17-08630	170415	1158	NORTHSIGHT	BL	BUTHERUS	DR	AT				7/29/1999	9/18/1965	1	2	0	0	20	1	4	1	WB	NB		2	4/21/2017	
17-09941	170502	1405	NORTHSIGHT	BL	BUTHERUS	DR	W	15			6/28/1959	2/6/1967	1	1	0	0	2	1	2	3	EB	EB		4	5/10/2017	
17-12494	170603	1055	NORTHSIGHT	BL	BUTHERUS	DR	AT				12/29/1991	3/2/1947	1	1	0	0	20	1	4	1	NB	WB		3	6/28/2017	
17-18829	170825	1712	NORTHSIGHT	BL	BUTHERUS	DR	AT				8/28/1953	2/3/1977	1	1	0	0	4	1	4	3	SB	SB		4	9/19/2017	
17-21550	170929	1202	NORTHSIGHT	BL	BUTHERUS	DR	AT				3/12/1969	7/28/1945	1	1	0	0	1	1	11	3	SB	EB		2	10/10/2017	
17-22455	171010	1517	NORTHSIGHT	BL	BUTHERUS	DR	AT				5/7/1982	7/20/1988	1	3	0	0	20	1	1	1	WB	SB		2	10/24/2017	
17-23837	171027	1935	NORTHSIGHT	BL	BUTHERUS	DR	AT				9/26/1998	1/1/1989	1	3	0	0	7	1	4	1	SB	NB		3	11/13/2017	
17-24724	171106	1923	NORTHSIGHT	BL	BUTHERUS	DR	AT				8/20/1995	9/13/1985	3	1	0	0	1	1	4	1	SB	NB		2	11/16/2017	
18-00959	180113	1510	NORTHSIGHT	BL	BUTHERUS	DR	AT				4/15/1980	8/15/1965	1	2	0	0		1	1	1	SB	EB		2	2/21/2018	
18-04662	180301	1025	NORTHSIGHT	BL	BUTHERUS	DR	AT				5/4/1974	3/25/1971	1	1	0	0	14	1	1	1	WB	WB		6	3/27/2018	
18-08250	180413	1031	NORTHSIGHT	BL	BUTHERUS	DR	AT				5/29/1965	4/10/1943	2	2	0	0	20	1	1	1	WB	NB		2	4/23/2018	
18-08763	180419	1227	NORTHSIGHT	BL	BUTHERUS	DR	AT				12/29/1981	12/5/1933	1	4	0	0	20	1	1	1	WB	SB		2 MULTI VEH 3	5/3/2018	
18-14545	180701	0547	NORTHSIGHT	BL	BUTHERUS	DR	N	209			10/5/1990		2	5			2		1		NB			1 DUI	7/25/2018	
18-16260	180724	1308	NORTHSIGHT	BL	BUTHERUS	DR	N	863			10/14/1985	6/24/1988	2	2	0	0	20	1	4	1	EB	SB		2	8/2/2018	
18-18058	180816	1259	NORTHSIGHT	BL	BUTHERUS	DR	AT				8/19/1948	3/3/1978	1	1	0	0	12	1	1	1	SB	SB		6	9/13/2018	
18-24396	181109	1747	NORTHSIGHT	BL	BUTHERUS	DR	AT				1/21/1976		3	97			97		1		WB			1	12/11/2018	
18-26284	181206	1211	NORTHSIGHT	BL	BUTHERUS	DR	AT				3/26/1998	2/20/1949	99	3	0	0	7	1	4	1	EB	NB		3 MULTI VEH 3	12/26/2018	
18-27426	181220	1046	NORTHSIGHT	BL	BUTHERUS	DR	AT				1/7/1932		1	0			7		4		WB			1	1/7/2019	
15-01347	150117	1656	87	ST	RAINTREE	DR	AT	101		W	26933	20420	1	2	0	0	6	1	1	1	WB	NB		2	42096	KAY
15-01488	150119	1003	87	ST	RAINTREE	DR	N	500	101	W	8584	32640	1	2	0	0	20	1	4	1	SB	NB		3	42096	KAY
15-05060	150302	1232	87	ST	RAINTREE	DR	AT	101		W	27662	23808	1	2	0	0	2	1	2	3	EB	EB		4	42108	KAY
15-08595	150414	1614	87	ST	RAINTREE	DR	S	566	101	W	18855	32234	1	1	0	0	12	1	8	1	NB	NB		6	42122	KAY
15-10007	150430	1621	87	ST	RAINTREE	DR	W	210	101	W	28719	21462	1	1	0	0	2	1	1	3	EB	EB		4	42139	KAY
15-10063	150501	1004	87	ST	RAINTREE	DR	AT	101		W	25227	20032	1	3	0	0	6	1	1	1	EB	SB		2	42151	KAY
15-10938	150512	1315	87	ST	RAINTREE	DR	AT	101		W	30223	22245	1	1	0	0	20	1	4	1	SB	EB		3	42157	KAY
15-12000	150526	1512	87	ST	RAINTREE	DR	AT	101		W	34120	27751	1	1	0	0	2	1	1	3	EB	EB		4	42179	KAY
15-13962	150622	1458	87	ST	RAINTREE	DR	AT	101		W	27860	29293	1	10	0	0	6	1	1	1	SB			2 MULTI VEH 3	42200	KAY
15-20423	150918	1215	87	ST	RAINTREE	DR	AT		NORTHSIGHT	E	27339	27238	1	2	99	0	2	1	1	2	NB	NB		4	42290	KAY
16-01160	160115	1312	87	ST	RAINTREE	DR	AT	101		W		29884	99	1	99	0	99	1	99	3	EB	EB		4 HIT AND RUN	42430	KAY
16-04310	160222	0643	87	ST	RAINTREE	DR	N	2000	NORTHSIGHT	E			99		99		99		99		EB			1 HIT AND RUN	42431	KAY
16-05233	160303	1539	87	ST	RAINTREE	DR	AT	101		W	20851	25694	1	1	0	0	4	1	1	3	EB	EB		4 MULTI VEH 3	42458	KAY
16-06937	160323	1814	87	ST	RAINTREE	DR	AT	101		W	35956	18898	2	2	0	0	6	1	1	1	WB	SB		2	42460	KAY
16-13697	160614	1111	87	ST	RAINTREE	DR	AT	101		W	17038	29911	1	1	0	0	6	1	1	1	EB	NB		2	42549	KAY
16-13967	160617	1625	87	ST	RAINTREE	DR	AT	101		W	29239	27391	2	2	0	0	2	1	1	1	EB	EB		4 MULTI VEH 3	42549	KAY
16-14405	160623	1327	87	ST	RAINTREE	DR	AT	101		W	35782	28432	1	1	0	0	20	1	4	1	NB	WB		3	42572	KAY
16-15323	160705	1508	87	ST	RAINTREE	DR	AT		NORTHSIGHT	E	35669	32566	1	1	0	0	20	1	4	1	WB	EB		3	42572	KAY
16-15722	160711	0930	87	ST	RAINTREE	DR	N	1000	101	W	23149	26226	3	1	0	0	8	1	1	1	NB	NB		7	42573	KAY
16-16420	160721	1721	87	ST	RAINTREE	DR	AT	101		W	32874	26203	1	1	0	0	1	1	1	1	EB	EB		4 MULTI VEH 3	42599	KAY
16-16478	160722	1410	87	ST	RAINTREE	DR	AT	101		W	33852	17674	3	1	0	0	6	1	1	1	WB	NB		2 MULTI VEH 3	42580	KAY
16-19675	160902	1107	87	ST	RAINTREE	DR	E	78	101	W	30563	20421	1	1	0	0		1	2	3	EB	EB		4	42649	KAY
16-20476	160912	1115	87	ST	RAINTREE	DR	E	287	101	W	35996	31326	1	1	0	0	3	1	1	3	EB	EB		4	42649	KAY
16-23967	161027	1147	87	ST	RAINTREE	DR	AT	101		W	34382	34544	1	1	0	0	20	1	4	1	SB	EB		3	42675	KAY
16-24637	161104	1405	87	ST	RAINTREE	DR	AT	101		W	31419	27331	1	1	0	0	20	1	4	1	NB	WB		3	42690	KAY
16-24942	161108	1820	87	ST	RAINTREE	DR	N	25	101	W	32643	33735	1	1	0	0	2	1	1	1	NB	NB		4	42697	KAY
16-25998	161121	1421	87	ST	RAINTREE	DR	AT	101		W	29212	22762	1	1	0	0	12	1	1	1	NB	NB		2	42725	KAY
16-27781	161212	1755	87	ST	RAINTREE	DR	AT	101		W	35757	20469	1	1	0	0	12	1	8	1	EB	EB		6	42744	KAY
16-28259	161218	1332	87	ST	RAINTREE	DR	AT	101		W	29246	28012	1	1	0	0		1	1	4	WB	SB		97	42745	KAY
17-00727	170110	1641	87	ST	RAINTREE	DR	W	585	101	W	11/18/1998	5/2/1987	1	2	0	0	2	1	2	3	EB	EB		4	1/18/2017	
17-02571	170201	1308	87	ST	RAINTREE	DR	AT	101		W	11/29/1984	11/24/1975	1	2	0	0	20	1	4	1	SB	EB		3	2/17/2017	
17-03732	170215	0809	87	ST	RAINTREE	DR	AT	101		W	9/5/1995	4/24/1975	1	1	0	0	7	1	4	1	SB	EB		3	3/2/2017	
17-04779	170227	1814	87	ST	RAINTREE	DR	AT	101		W	5/29/1941	7/17/1993	1	2	0	0	2	1	1	3	EB	EB		4 MULTI VEH 3	3/10/2017	
17-13968	170623	1340	87	ST	RAINTREE	DR	N	10	101 FY	W	5/14/1993	9/24/1942	1	1	0	0	20	1	4	5	NB	NB		6	7/11/2017	
17-15443	170712	1012	87	ST	RAINTREE	DR	AT		NORTHSIGHT	E	1/3/1984	11/25/1981	1	1	0	0	2	1	1	1	EB	SB		2	7/28/2017	
17-18586	170822	1329	87	ST	RAINTREE	DR	AT		NORTHSIGHT	E	8/24/1989	10/4/1951	3	99	0	0	99	99	1	1	WB	SB		2	9/11/2017	
17-22030	171005	0651	87	ST	RAINTREE	DR	AT		NORTHSIGHT	E	12/11/1974	12/10/1991	1	1	0	0	6	1	1	1	SB	EB		2	10/30/2017	
17-26631	171202	0835	87	ST	RAINTREE	DR	AT		NORTHSIGHT	E	11/22/1998	12/31/1972	2	2	0	0	6	1	1	4	WB	SB		2	1/9/2018	
17-26787	171204	0628	87	ST	RAINTREE	DR	AT		NORTHSIGHT	E	2/20/1959	10/22/1956	1	2	0	0	6	1	1	1	WB	SB		2	1/9/2018	
17-26899	171205	1216	87	ST	RAINTREE	DR	N	120	NORTHSIGHT	E	4/7/1961	3/24/1970	14	1	0	0	7	1	4	1	NB	NB		6	1/22/2018	
18-00756	180111	1226	87	ST	RAINTREE	DR	AT	101		W	11/1/1974	12/11/1969	1	1	0	0	2	1	5	5	SB	SB		4	2/22/2018	
18-01271	180117	1519	87	ST	RAINTREE	DR	E	200	101	W		2/10/1964	99	2	99	0	2	1	1	3	EB	EB		4 HIT AND RUN	3/9/2018	
18-04139	180222	1312	87	ST	RAINTREE	DR	E	50	NORTHSIGHT	W	10/16/1999	1/4/2000	1	1	0	0	97	97	1	1	WB	WB		4 MULTI VEH 3	3/23/2018	
18-04463	180226	1850	87	ST	RAINTREE	DR	AT		NORTHSIGHT	E	12/4/1987	7/16/1965	1	1	0	0	6	1	1	1	EB	NB		2	3/27/2018	
18-05763	180314	1141	87	ST	RAINTREE	DR	AT	101		W	4/4/1957	1/29/1972	99	4	0	0	20	1	4	17	EB	NB		3 CAR/PEDESTRIAN	4/17/2018	
18-08275	180413	1521	87	ST	RAINTREE	DR	W	655			3/18/1998	7/24/1992	1	1	0	0	97	1	10	97	NB	SB		4	4/19/2018	
18-10968	180517	1204	87	ST	RAINTREE	DR	S	600	NORTHSIGHT	E	9/17/1939	8/19/1989	1	1	0	0	7	1	5	1	NB	NB		97	6/19/2018	
18-11385	180522	1847	87	ST	RAINTREE	DR	W	100	NORTHSIGHT	E	5/10/1962	11/4/1992	1	2	3	0	2	1	1	3	EB	EB		4	6/19/2018	
18-14056	180625	1723	87	ST	RAINTREE	DR	AT	101		W	7/8/1975	5/30/1964	1	1	0	0	2	1	1	3	EB	EB		4	7/19/2018	
18-21365	180929	1548	87	ST	RAINTREE	DR	AT	101		W	8/10/1945	5/16/1964	1	1	0	0	1	1	3	2	EB	EB		4	10/17/2018	
18-22484	181015	1047	87	ST	RAINTREE	DR	AT	90		W	2/19/1963	8/24/1965	1	1	0	0	12	1	1	1	EB	EB		6	11/2/2018	
18-23185	181024	1829	87	ST	RAINTREE	DR	N	1460			8/14/1945	10/30/1994	1	1	0	0	99	99	1	4	NB	NB		3	11/20/2018	
18-26585	181210	0938	87	ST	RAINTREE	DR	E	100			11/1/1949	9/22/1957	1	1	0	0	12	1	1	1	WB	WB		6	1/15/2019	
18-26838	181213	0551	87	ST	RAINTREE	DR	AT				12/10/1989	5/19/1983	1	1	0	0	7	97	4	1	NB	WB		2	1/15/2019	
18-26875	181213	1506	87	ST	RAINTREE	DR	E	307			8/23/1979	1/1/1990	1	4	0	0	12	1	8	4	NB	NB		6	1/15/2019	
18-27140	181216	1250	87	ST	RAINTREE	RD	W	150			2/13/1961	1/7/1966	1	1	0	0	7	1	5	5	WB	WB		6	1/18/2019	
15-00664	150109	1740	101		RAINTREE	DR	AT				16123	34964	1	1	0	0	7	1	4	1	SB	NB		2	42086	KAY
15-00965	150113	1215	101		RAINTREE	DR	AT				33169		1		0		2		9		SB			1	42079	KAY
15-01327	150117	1323	101		RAINTREE	DR	AT				16241	35721	1	2	0	0	2	1	2	3	SB	SB		4	42088	KAY
15-02423	150129	1910	101		RAINTREE	DR	AT				18672	31413	1	1	0	0	6	1	1	1	EB	NB		2	42088	KAY
15-03601	150211	2144	101		RAINTREE	DR	N	1465			35347		1		0		1		1		SB			1	42103	KAY
15-07367	150330	1239	101		RAINTREE	DR	AT				22632	30775	1	1	0	0	2	1	1	3	SB	SB		4	42111	KAY
15-07434	150331	0912	101		RAINTREE	DR	N	300			24321	29913	1	3	0	0	2	1	1	3	SB	SB		4	42111	KAY

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15-08115	150408	1231	101		RAINTREE	DR	AT		33729	16033	1	1	0	0	2	1	1	3 WB	WB	4	42116 KAY
15-08253	150410	0702	101		RAINTREE	DR	N	150	28474	27304	1	1	0	0	2	1	1	3 SB	SB	4 MULTI VEH 3	42122 KAY
15-08470	150413	0715	101		RAINTREE	DR	AT		20281	25487	1	1	6	0	2	1	2	4 EB	EB	4 DUI	42116 KAY
15-09871	150429	1010	101		RAINTREE	DR	AT		29053		1		0				4	EB		1	42138 KAY
15-10953	150512	1621	101		RAINTREE	DR	AT		26154		1	99	0	99	2	99	1	99 WB	WB	4 MULTI VEH 3, HIT AND RUN	42158 KAY
15-11190	150515	1744	101		RAINTREE	DR	AT		29370	22208	1	1	0	0	2	1	2	3 NB	NB	4	42160 KAY
15-12494	150602	1652	101		RAINTREE	DR	E	233	20450	22501	1	1	0	0	2	1	1	3 WB	WB	4	42180 KAY
15-13607	150617	1748	101		RAINTREE	DR	E	764	33456	24130	1	1	0	0	20	1	5	1 SB	WB	2	42186 KAY
15-14010	150623	1056	101		RAINTREE	DR	AT		32230	26900	1	1	0	0	2	1	5	3 SB	SB	4	42186 KAY
15-14157	150625	1350	101		RAINTREE	DR	AT		31650	34658	1	1	0	0	7	97	4	9 NB	NB	2	42195 KAY
15-16102	150722	0414	101		RAINTREE	DR	AT		26215	16202	4	3	3	0	6	1	1	1 SB	WB	2 FELL ASLEEP	42212 KAY
15-16109	150722	0819	101		RAINTREE	DR	AT		33183	21583	2	2	0	0	2	1	1	3 SB	SB	4	42212 KAY
15-16281	150717	0845	101		RAINTREE	DR	AT		30080		1	1	0	0	2	1	1	3 WB	WB	4	42242 KAY
15-17339	150807	2034	101		RAINTREE	DR	AT		26960	33589	1	1	0	0		1	5	3 NB	NB	4	42233 KAY
15-17633	150812	0801	101		RAINTREE	DR	AT		21923	34247	1	1	0	0	2	1	5	3 SB	SB	4	42242 KAY
15-20737	150922	1407	101		RAINTREE	DR	E	223	15462	24769	1	1	0	0	13	1	4	4 SB	SB	6	42284 KAY
15-21079	150926	1631	101		RAINTREE	DR	AT		27258	27623	1	1	0	0	99	99	5	4 EB	EB	2	42285 KAY
15-22613	151017	1959	101		RAINTREE	DR	N	1500	34709	30438	99	99	0	0	2	1	1	2 SB	SB	4	42307 KAY
15-23878	151102	1032	101		RAINTREE	DR	AT		23455	27452	3	1	0	0	6	1	1	1 EB	SB	2	42333 KAY
15-26164	151130	1521	101		RAINTREE	DR	AT		25550	33714	1	3	0	0	20	1	5	17 NB	WB	1 CAR/PEDESTRIAN	42354 KAY
15-26181	151130	1821	101		RAINTREE	DR	S	265	33480	31770	1	1	0	0	99	99	1	1 SB	SB	6	42355 KAY
15-28330	151228	0903	101		RAINTREE	DR	AT		33330	30525	1	1	0	0	2	1	4	4 NB	NB	4	42381 KAY
16-00691	160109	1614	101		RAINTREE	DR	AT		36498	31030	1	1	0	0	99	99	9	9 NB	NB	6	42408 KAY
16-02107	160127	1042	101		RAINTREE	DR	S	150	8113	28856	1	1	0	0	2	1	2	2 NB	NB	4	42422 KAY
16-02313	160129	1603	101		RAINTREE	DR	W	250	21319	35259	1	1	0	0	97	1	5	1 SB	WB	2	42418 KAY
16-02835	160205	0009	101		RAINTREE	DR	AT		31808	34432	1	1	0	0	20	1	1	1 SB	SB	4	42422 KAY
16-04191	160220	1422	101		RAINTREE	DR	AT		16325	26220	1	1	0	0	97	4	3	1 WB	WB	4	42430 KAY
16-07205	160326	1807	101		RAINTREE	DR	AT		22503	35085	1	1	0	0	13	1	8	1 SB	SB	6	42461 KAY
16-10330	160504	0959	101		RAINTREE	DR	S	1050	16997	23022	1	1	0	0	7	1	5	1 SB	SB	2	42509 KAY
16-11511	160518	0920	101		RAINTREE	DR	AT		24057	18586	1	1	0	0	2	1	1	3 WB	WB	4	42522 KAY
16-11618	160519	1406	101		RAINTREE	DR	N	1000	24315		1	99	0	99	1	12	1	8 SB	SB	6 HIT AND RUN	42522 KAY
16-11923	160523	1135	101		RAINTREE	DR	AT		36620	26122	1	1	0	0	7	1	4	4 NB	NB	6	42522 KAY
16-13050	160606	1255	101		RAINTREE	DR	N	1000	36336		1		0		2		5	SB		1	42541 KAY
16-13208	160608	0858	101		RAINTREE	DR	N	500	-45120		1	1	0	99	1	12	1	8 SB	SB	6 HIT AND RUN	42537 KAY
16-13618	160613	1127	101		RAINTREE	DR	E	836	14180	26746	1	1	99	0	20	1	1	11 NB	EB	97 HIT AND RUN	42545 KAY
16-15876	160713	1520	101		RAINTREE	DR	W	50	32016	36533	1	1	0	0	2	1	1	3 EB	EB	4	42579 KAY
16-17212	160801	1733	101		RAINTREE	DR	AT		25956	32668	1	1	0	0	2	1	1	3 EB	EB	4	42592 KAY
16-18105	160813	1002	101		RAINTREE	DR	AT		31910	30582	2	1	0	0	2	1	1	3 NB	NB	4	42604 KAY
16-24327	161031	1239	101		RAINTREE	DR	AT			17577	99	1	99	0	12	1	8	8 WB	WB	6 HIT AND RUN	42685 KAY
17-00722	170110	1618	101		RAINTREE	DR	AT		2/17/1981	8/19/1996	1	1 0	0		4	1	4	4 NB	NB	4 MULTI VEH 3	1/18/2017
17-02856	170204	1333	101		RAINTREE	DR	AT		6/23/1966	2/23/1952	1	1 0	0		2	1	1	3 WB	WB	4	2/22/2017
17-03880	170216	1119	101		RAINTREE	DR	AT		7/1/1987	11/11/1993	1	1 0	0		12	1	4	4 NB	EB	6	3/8/2017
17-05337	170306	1743	101		RAINTREE	DR	AT		6/9/1992	10/12/1986	1	1 0	0		2	1	5	3 NB	NB	4	3/17/2017
17-14759	170703	1101	101	FY	RAINTREE	DR	AT		4/21/1941	12/8/1951	4	1 0	0		6	1	1	1 EB	SB	2	7/25/2017
17-15706	170715	1212	101	FY	RAINTREE	DR	AT		9/15/1998	2/18/1961	1	1 0	0		1	1	4	4 SB	SB	6	7/25/2017
17-15897	170717	1541	101	FY	RAINTREE	DR	N	100	1/8/1951	8/10/1967	1	1 0	0			1	1	3 EB	EB	4	8/1/2017
17-19246	170831	0943	101	FY	RAINTREE	DR	AT		8/2/1979	5/21/1963	1	3 0	0		2	1	4	4 WB	WB	4	9/19/2017
17-20749	170919	1617	101	FY	RAINTREE	DR	AT		10/16/1953	9/15/1970	1	1 0	0		2	1	1	1 WB	WB	4 MULTI VEH 3	10/2/2017
17-23273	171021	0928	101	FY	RAINTREE	DR	AT		8/17/1964	1/23/1985	1	2 0	0		6	1	4	1 SB	NB	3	11/3/2017
17-24358	171102	1646	101	FY	RAINTREE	DR	AT			7/2/1946	99	1 99	0		2	1	1	2 NB	NB	4 HIT AND RUN	11/16/2017
18-00189	180103	1535	101	FY	RAINTREE	DR	AT		7/5/1979	2/11/1945	3	3 0	0		2	1	1	3 WB	WB	4	2/7/2018
18-00562	180108	153	101	FY	RAINTREE	DR	AT		12/14/1962	1/19/1953	2	1 0	0		6	1	4	1 SB	NB	2	2/15/2018
18-03751	180216	1454	101	FY	RAINTREE	DR	AT		7/15/1988	12/29/1960	1	1 0	0		2	1	5	5 SB	SB	4	3/22/2018
18-09082	180420	1554	101	FY	RAINTREE	DR	AT		8/19/1987	3/8/1966	1	1 0	0			1	1	2 WB	WB	4	5/8/2018
18-09819	180503	0706	101	FY	RAINTREE	DR	AT		9/2/1958	7/12/1975	1	1 0	0		99	99	1	4 SB	NB	2	5/29/2018
18-10156	180507	1626	101	FY	RAINTREE	DR	AT			6/22/1983	99	1 99	0		2	1	1	3 SB	SB	4 HIT AND RUN	5/31/2018
18-10402	180510	1459	101	FY	RAINTREE	DR	AT		12/10/1992	9/18/1989	1	1 0	0		2	1	1	3 WB	WB	4	6/4/2018
18-11490	180523	1754	101	FY	RAINTREE	DR	AT		11/1/1992	12/7/1976	1	99 0	0		1	1	1	1 NB	NB	2	6/18/2018
18-11532	180524	1103	101	FY	RAINTREE	DR	E	25	5/6/1997	9/27/1946	3	1 0	0		2	1	1	3 WB	WB	4	6/18/2018
18-12257	180602	1325	101	FY	RAINTREE	DR	AT		6/27/1996	6/20/1939	1	2 4	0			1	1	3 WB	WB	4 DUI	6/20/2018
18-16802	180731	1631	101	FY	RAINTREE	DR	AT			4/2/1968	99	1 99	0		13	1	1	1 WB	WB	6 HIT AND RUN	8/21/2018
18-17825	180813	1152	101	FY	RAINTREE	DR	E	300	10/3/1999	6/12/1980	1	1 0	0		20	1	5	1 EB	SB	2	9/5/2018
18-23550	181029	1503	101	FY	RAINTREE	DR	AT		7/28/1980	2/4/1963	1	1 0	0		2	1	5	5 SB	SB	4	11/21/2018
18-24749	181115	1008	101	FY	RAINTREE	DR	AT		10/27/1954	6/26/1965	1	1 0	0		99	99	5	5 EB	EB	4	12/19/2018
18-25074	181119	1710	101	FY	RAINTREE	DR	AT		2/6/1960	10/19/1987	1	1 0	0		2	1	5	5 NB	NB	4	12/24/2018
18-26093	181203	1818	101	FY	RAINTREE	DR	AT		5/9/1964	5/11/1965	1	1 0	0		12	1	4	4 EB	EB	6	12/31/2018
18-26841	181213	0819	101	FY	RAINTREE	DR	AT		2/12/1973	7/21/1995	1	1 0	0		7	1	5	4 NB	SB	2	1/11/2019
17-01166	170115	1659	101 FRONATGE	RD	RAINTREE	DR	N	657	5/15/2001	5/20/1967	3	3 0	0		20	1	5	1 EB	SB	2	1/24/2017
15-27998	151222	1613	101 FRONTAGE	RD	RAINTREE	DR	AT		12347	24937	1	1	0	0	12	1	8	1 SB	SB	6	42376 KAY
16-06114	160314	0853	101 FRONTAGE	RD	RAINTREE	DR	AT			20242	1	1	99	0	2	1	1	3 SB	SB	4 MULTI VEH 3, HIT AND RUN	42457 KAY
16-14938	160630	1228	101 FRONTAGE	RD	RAINTREE	DR	AT		21450	30229	1	1	0	0	12	1	6	4 SB	SB	2	42570 KAY
16-16836	160727	1730	101 FRONTAGE	RD	RAINTREE	DR	AT			25723	99	1	99	0	13	1	4	4 EB	EB	4 HIT AND RUN	42585 KAY
16-16998	160729	1704	101 FRONTAGE	RD	RAINTREE	DR	N	1600	25357	30393	99	99	0	0	12	1	8	1 SB	SB	6	42592 KAY
16-18923	160824	0751	101 FRONTAGE	RD	RAINTREE	DR	N	50	26093	28437	1	1	0	0	97	1	10	3 SB	NB	4	42613 KAY
16-22648	161010	0910	101 FRONTAGE	RD	RAINTREE	DR	AT		32884	23537	1	1	0	0	2	1	5	3 WB	WB	4	42674 KAY
16-23401	161020	1459	101 FRONTAGE	RD	RAINTREE	DR	AT		11478	34917	2	1	0	0	6	1	1	1 EB	SB	2	42675 KAY
17-01558	170120	2117	101 FRONTAGE	RD	RAINTREE	DR	N	300	2/9/1957		1	4			2		1	NB		1 DUI	1/26/2017
17-04541	170224	1703	101 FRONTAGE	RD	RAINTREE	DR	N	150	6/25/1940	12/8/1977	1	1 0	0		2	1	2	3 SB	SB	4	3/10/2017
17-11536	170522	1244	101 FRONTAGE	RD	RAINTREE	DR	N	1000	12/30/1999	5/19/1981	1	1 0	0		20	6	5	1 SB	SB	7	6/19/2017
17-12572	170604	1620	101 FRONTAGE	RD	RAINTREE	DR	AT		5/2/1980	4/1/1983	1	1 0	0		2	1	1	5 NB	NB	4	6/29/2017
17-18117	170816	1223	101 FRONTAGE	RD	RAINTREE	DR	AT		4/3/1973	9/11/1972	1	1 0	0		7	1	4	4 EB	EB	6	9/5/2017
17-20104	170911	0715	101 FRONTAGE	RD	RAINTREE	DR	S	100		9/10/1969	99	1 99	0		99	1	4	5 SB	SB	6 HIT AND RUN	9/28/2017
17-24054	171030	1108	101 FRONTAGE	RD	RAINTREE	DR	AT		12/29/1981	11/20/1989	1	1 0	0		12	1	4	4 EB	EB	6	11/13/2017
17-28050	171219	1400	101 FRONTAGE	RD	RAINTREE	DR	N	1096	11/4/1932	9/4/1973	1	1 0	0		12	1	8	1 SB	SB	6	1/29/2018
17-28146	171220	1631	101 FRONTAGE	RD	RAINTREE	DR	S	500	11/14/1951	10/30/1999	1	1 0	0		7	1	5	1 SB	SB	6	1/29/2018
18-00390	180106	1313	101 FRONTAGE	RD	RAINTREE	DR	S	1710	7/26/1959	2/17/1966	3	1 0	0		2	1	1	5 SB	SB	4 MULTI VEH 3	2/7/2018
18-03640	180215	0806	101 FRONTAGE	RD	RAINTREE	DR	N	610	7/25/1975	9/8/1975	1	1 0	0		20	1	5	1 SB	SB	4	3/22/2018
18-04549	180227	1525	101 FRONTAGE	RD	RAINTREE	DR	AT		9/4/1942	4/18/1972	1	1 0	0		12	1	8	1 SB	SB	6	3/27/2018
18-06044	180317	1234	101 FRONTAGE	RD	RAINTREE	DR	N	300		12/30/1999	99	1 99	0		99	1	1	3 EB	EB	4 HIT AND RUN	4/11/2018
18-07265	180331	2347	101 FRONTAGE	RD	RAINTREE	DR	AT		1/22/1982	4/13/1962	1	3 0	0		2	1	5	5 SB	SB	4	4/17/2018
18-12741	180608	1848	101 FRONTAGE	RD	RAINTREE	DR	N	300	1/17/1969		4	0			4		1	SB		1	6/27/2018
18-13205	180614	1631	101 FRONTAGE	RD	RAINTREE	DR	AT		6/2/1993	1/1/1901	1	1 0	0		4	1	2	2 EB	EB	4	6/29/2018
18-13668	180620	1608	101 FRONTAGE	RD	RAINTREE	DR	AT		1/29/1973	2/15/1998	1	1 0	0		2	1	5	5 NB	NB	4	7/13/2018
18-15016	180707	1837	101 FRONTAGE	RD	RAINTREE	DR	AT		9/20/1962	4/3/1959	1	1 0	0		2	1	1	3 SB	SB	4	7/25/2018
18-18046	180816	1049	101 FRONTAGE	RD	RAINTREE	DR	AT		11/6/1997	8/3/1972	1	1 0	0			1	5	5 EB	EB	4	9/6/2018
18-19232	180831	1321	101 FRONTAGE	RD	RAINTREE	DR	AT		8/17/2001	2/7/1956	1	1 0	0		20	1	5	1 SB	SB	2	9/17/2018
18-26283	181206	1200	101 FRONTAGE	RD	RAINTREE	DR	S	220	5/23/1997	6/21/1997	1	1 0	0		2	1	4	4 SB	SB	4	1/2/2019

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18-01755	180124	1119	101 ONRAMP	FY	RAINTREE	DR	S	20	6/23/1931	4/10/1956	1	1 0	0		2	1	4	3 NB	NB	4	3/2/2018
16-00333	160105	0908	L101	FY	RAINTREE	DR	AT		20231	34339	1	1	0	0	20	1	5	1 SB	SB	6	42394 KAY
16-01807	160123	1059	L101	FY	RAINTREE	DR	AT		32223	30441	4	1	0	0	8	1	17	4 EB	SB	2 CAR/BICYCLE	42417 KAY
16-09016	160417	0954	L101	FY	RAINTREE	DR	AT		20864	21976	3	3	0	0	4	1	1	3 SB	SB	4	42492 KAY
16-18840	160823	0856	L101	FY	RAINTREE	DR	N	1790	27199		3		0				1	SB		1	42614 KAY
15-00097	150102	1204	NORTHSIGHT	BL	RAINTREE	DR	AT		33700	32752	1	3	0	0	2	1	1	3 WB	WB	4	42069 KAY
15-04210	150219	2106	NORTHSIGHT	BL	RAINTREE	DR	AT		35222	32098	1	1	0	0	7	1	4	1 SB	NB	3	42104 KAY
15-04563	150224	1351	NORTHSIGHT	BL	RAINTREE	DR	AT		13123	34386	1	1	0	0	7	1	4	5 NB	NB	6	42104 KAY
15-04674	150225	1602	NORTHSIGHT	BL	RAINTREE	DR	E	690	28093	34411	1	3	0	0	20	1	4	1 SB	EB	3	42104 KAY
15-04901	150228	1400	NORTHSIGHT	BL	RAINTREE	DR	AT		29371	25167	1	1	0	0	2	1	1	1 WB	WB	4	42104 KAY
15-06201	150316	1550	NORTHSIGHT	BL	RAINTREE	DR	AT		21575	23722	1	1	0	0	20	1	4	1 SB	NB	2	42110 KAY
15-06484	150319	1445	NORTHSIGHT	BL	RAINTREE	DR	AT		29657	19615	1	2	0	0	2	1	1	3 WB	WB	4	42110 KAY
15-07054	150326	1338	NORTHSIGHT	BL	RAINTREE	DR	AT		27207		1		0		2		1	NB		1	42111 KAY
15-09598	150425	2049	NORTHSIGHT	BL	RAINTREE	DR	AT		24557	25411	1	1	0	0	12	1	10	3 NB	NB	4	42131 KAY
15-18760	150827	1101	NORTHSIGHT	BL	RAINTREE	DR	AT		26504	33100	1	1	0	0	20	1	4	1 SB	NB	2	42256 KAY
15-21058	150926	1043	NORTHSIGHT	BL	RAINTREE	DR	AT		18861	21036	1	3	0	0	20	1	4	1 SB	NB	3	42297 KAY
15-22977	151022	1728	NORTHSIGHT	BL	RAINTREE	DR	AT		19033	24560	1	1	0	0	99	99	5	4 NB	NB	6	42317 KAY
15-27364	151214	1047	NORTHSIGHT	BL	RAINTREE	DR	AT		15426	22475	2	1	0	0	12	1	8	1 NB	EB	6	42368 KAY
15-27438	151215	1046	NORTHSIGHT	BL	RAINTREE	DR	AT		23145	11681	1	2	0	0	20	1	4	1 EB	NB	7	42368 KAY
16-00446	160106	1546	NORTHSIGHT	BL	RAINTREE	DR	AT			31478	1	3	99	0	20	1	5	17 NB	WB	2 CAR/BICYCLE, HIT AND RUN	42389 KAY
16-00556	160107	1806	NORTHSIGHT	BL	RAINTREE	DR	AT		26185	18037	99	99	0	0	7	99	5	4 EB	EB	2	42389 KAY
16-03805	160216	0802	NORTHSIGHT	BL	RAINTREE	DR	N	550	35271	28034	1	1	0	0	2	1	8	8 NB	NB	97	42425 KAY
16-06061	160313	1455	NORTHSIGHT	BL	RAINTREE	DR	AT		13164	35090	1	3	0	0	20	1	4	1 NB	WB	97	42457 KAY
16-06916	160323	1409	NORTHSIGHT	BL	RAINTREE	DR	AT		23399	32536	1	3	0	0	6	1	1	1 WB	NB	2 MULTI VEH 3	42461 KAY
16-07337	160328	1205	NORTHSIGHT	BL	RAINTREE	DR	AT		28583	26624	1	1	0	0	4	1	1	3 SB	SB	4	42461 KAY
16-08469	160410	1337	NORTHSIGHT	BL	RAINTREE	DR	AT		29088	11794	1	1	0	0	20	1	4	1 NB	WB	3	42482 KAY
16-12620	160601	1232	NORTHSIGHT	BL	RAINTREE	DR	W	200		32180	99	2	99	99	13	1	1	1 WB	WB	6 HIT AND RUN	42537 KAY
16-12696	160602	0839	NORTHSIGHT	BL	RAINTREE	DR	W	200	32797	26773	1	2	0	0	2	1	1	2 WB	WB	4	42534 KAY
16-13138	160607	1045	NORTHSIGHT	BL	RAINTREE	DR	AT		12099	24150	2	1	0	0	2	1	4	1 SB	EB	3	42537 KAY
16-13730	160614	1750	NORTHSIGHT	BL	RAINTREE	DR	AT		32469	23558	1	1	0	0	2	1	1	3 WB	WB	4	42545 KAY
16-14967	160630	1823	NORTHSIGHT	BL	RAINTREE	BL	AT		32372	28245	1	1	0	0	2	1	4	4 SB	SB	4	42564 KAY
16-15318	160705	1357	NORTHSIGHT	BL	RAINTREE	DR	W	297	29316	27822	1	1	0	0	20	1	5	1 NB	WB	6	42570 KAY
16-16086	160716	1651	NORTHSIGHT	BL	RAINTREE	DR	AT		30810		1		0		2		4	SB		3	42573 KAY
16-17419	160804	1713	NORTHSIGHT	BL	RAINTREE	DR	AT		22459	24890	1	2	0	0	20	1	4	1 NB	WB	3	42597 KAY
16-17767	160809	1133	NORTHSIGHT	BL	RAINTREE	DR	E	30	30158	23339	1	2	0	0	2	1	1	3 WB	WB	4	42599 KAY
16-17943	160811	1541	NORTHSIGHT	BL	RAINTREE	DR	E	480	36723	22233	1	1	0	0	12	1	8	1 WB	WB	6	42604 KAY
16-18335	160816	0938	NORTHSIGHT	BL	RAINTREE	DR	W	700	35052	32803	1	2	0	0	2	1	1	3 WB	WB	4	42606 KAY
16-18574	160819	1507	NORTHSIGHT	BL	RAINTREE	DR	AT		20290	33006	1	2	0	0	20	1	4	1 SB	NB	3	42612 KAY
16-21456	160924	1236	NORTHSIGHT	BL	RAINTREE	DR	AT		19236	20587	3	1	0	0	20	1	4	1 EB	WB	2	42649 KAY
16-22967	161014	1804	NORTHSIGHT	BL	RAINTREE	DR	AT		33791	23345	3	1	0	0	6	1	4	1 SB	NB	3	42674 KAY
16-25395	161114	1409	NORTHSIGHT	BL	RAINTREE	DR	N	600		12138	99	1	99	0	97	1	10	13 SB	SB	7 HIT AND RUN	42705 KAY
16-25788	161118	1915	NORTHSIGHT	BL	RAINTREE	DR	AT		25312	21538	99	99	0	0	20	1	4	1 SB	NB	3	42706 KAY
16-28586	161222	1419	NORTHSIGHT	BL	RAINTREE	DR	AT		23720	23705	1	1	0	0	99	99	1	1 WB	WB	6	42741 KAY
16-28984	161229	1110	NORTHSIGHT	BL	RAINTREE	DR	W	40	36892	22860	1	2	0	0	2	1	2	3 EB	EB	4	42741 KAY
17-02368	170130	1157	NORTHSIGHT	BL	RAINTREE	DR	AT			12/13/1977	99	1 99	0		97	1	10	3 SB	SB	4 HIT AND RUN	2/13/2017
17-02685	170202	2154	NORTHSIGHT	BL	RAINTREE	DR	AT		2/6/1994	12/4/1971	1	1 0	0		20	1	4	1 EB	WB	3	3/10/2017
17-04771	170227	1648	NORTHSIGHT	BL	RAINTREE	DR	N	101	6/11/1976	4/2/1971	1	1 0	0		20	1	5	1 WB	NB	2	3/9/2017
17-04811	170228	0643	NORTHSIGHT	BL	RAINTREE	DR	N	500	10/10/1938	7/11/1989	1	3 0	0		20	1	4	17 NB	NB	3 CAR/PEDESTRIAN	3/10/2017
17-06373	170318	0817	NORTHSIGHT	BL	RAINTREE	DR	AT		11/13/1992		3	0	0		20	1	5	17 NB	WB	1	3/24/2017
17-06638	170321	1249	NORTHSIGHT	BL	RAINTREE	DR	E	960	9/15/1996	4/12/1979	1	1 0	0		12	1	1	1 EB	EB	6	3/27/2017
17-07955	170406	1303	NORTHSIGHT	BL	RAINTREE	DR	AT		9/26/1955	3/12/1985	1	2 0	0		99	99	4	1 NB	SB	3	4/10/2017
17-08286	170411	1058	NORTHSIGHT	BL	RAINTREE	DR	AT		5/22/1938	1/22/1990	2	1 0	0		7	1	4	1 SB	EB	2	4/18/2017
17-09150	170422	1300	NORTHSIGHT	BL	RAINTREE	DR	N	1000	12/22/1939	8/26/1980	1	1 0	0		20	1	4	1 WB	NB	2	5/8/2017
17-10060	170503	1709	NORTHSIGHT	BL	RAINTREE	DR	AT		11/22/1966	6/11/1958	1	1 0	0		2	1	1	1 WB	WB	4	6/6/2017
17-10448	170508	1509	NORTHSIGHT	BL	RAINTREE	DR	AT		5/31/1959	2/25/1985	1	1 0	0		20	1	4	1 SB	NB	3	5/16/2017
17-11702	170524	1419	NORTHSIGHT	BL	RAINTREE	DR	AT		5/7/1987	6/5/1970	1	1 0	0		20	1	4	1 SB	EB	3	6/20/2017
17-12842	170608	1520	NORTHSIGHT	BL	RAINTREE	DR	S	200	2/26/1996	10/1/1987	1	1 0	0		4	1	8	1 SB	SB	4	7/3/2017
17-13133	170612	0937	NORTHSIGHT	BL	RAINTREE	DR	E	750	6/28/1992	3/27/1975	1	3 0	0		20	1	4	1 SB	EB	2	7/5/2017
17-13554	170617	1034	NORTHSIGHT	BL	RAINTREE	DR	AT		2/8/1963	12/11/1981	1	1 0	0		4	1	1	3 SB	SB	4	7/5/2017
17-15481	170712	1727	NORTHSIGHT	BL	RAINTREE	DR	AT		3/21/1954	9/15/1986	1	1 0	0		7	1	4	1 NB	WB	3	7/25/2017
17-15633	170714	1421	NORTHSIGHT	BL	RAINTREE	DR	S	521		8/16/1964	99	1 99	0		2	1	1	3 SB	SB	4 HIT AND RUN	8/7/2017
17-16042	170719	1653	NORTHSIGHT	BL	RAINTREE	DR	AT		8/16/2000	7/29/1982	1	1 0	0		2	1	1	3 EB	EB	4	8/15/2017
17-16335	170723	1335	NORTHSIGHT	BL	RAINTREE	DR	AT		3/4/1944	4/17/1942	1	3 0	0		6	1	1	1 NB	WB	2	8/7/2017
17-18536	170821	1712	NORTHSIGHT	BL	RAINTREE	DR	AT		3/19/1988	7/13/1997	1	1 0	0		4	1	2	3 SB	SB	4	9/14/2017
17-19744	170906	1339	NORTHSIGHT	BL	RAINTREE	DR	W	50	12/30/1954	2/3/1952	1	1 0	0		2	1	2	3 EB	EB	4 MULTI VEH 3	9/20/2017
17-20755	170919	1744	NORTHSIGHT	BL	RAINTREE	DR	AT		6/25/1969	11/14/1984	1	2 0	0		20	1	4	1 WB	NB	3	10/10/2017
17-23125	171019	1155	NORTHSIGHT	BL	RAINTREE	DR	E	671	6/17/1987	9/13/1996	1	1 0	0		3	1	1	3 WB	WB	4 MULTI VEH 4	10/24/2017
17-24345	171102	1507	NORTHSIGHT	BL	RAINTREE	DR	N	105	10/17/1956	9/11/1957	1	1 0	0			1	1	3 SB	SB	4	11/15/2017
17-24346	171102	1448	NORTHSIGHT	BL	RAINTREE	DR	AT		5/26/1993	1/7/1953	1	1 0	0		20	1	4	1 SB	EB	3	11/15/2017
17-25446	171116	1820	NORTHSIGHT	BL	RAINTREE	DR	AT			11/26/1982	99	1 99	0		2	1	1	3 NB	NB	4 HIT AND RUN	12/22/2017
17-26735	171203	1046	NORTHSIGHT	BL	RAINTREE	DR	E	260	3/25/1985	10/18/1955	1	2 0	0		20	18	5	19 SB	EB	1 CAR/PEDESTRIAN	1/9/2018
17-28041	171219	1251	NORTHSIGHT	BL	RAINTREE	DR	AT		7/21/1946	4/27/1970	1	2 0	0		1	1	4	4 SB	SB	6	1/29/2018
18-00669	180110	0901	NORTHSIGHT	BL	RAINTREE	DR	AT		1/16/1933	5/15/1987	1	1 0	0		6	1	1	4 NB	WB	2	2/21/2018
18-01282	180117	1817	NORTHSIGHT	BL	RAINTREE	DR	AT		5/22/1990	11/3/1971	1	1 0	0		20	1	5	1 NB	EB	2	3/1/2018
18-03462	180212	2039	NORTHSIGHT	BL	RAINTREE	DR	AT		3/4/1961	11/16/1989	1	1 0	0		20	1	4	1 EB	NB	3	3/20/2018
18-03472	180213	0604	NORTHSIGHT	BL	RAINTREE	DR	AT			9/26/1970	1	1 99	0		13	1	1	1 WB	WB	6 HIT AND RUN	3/20/2018
18-05680	180313	1040	NORTHSIGHT	BL	RAINTREE	DR	AT		7/24/1946	3/28/1965	1	1 0	0		20	1	4	1 SB	EB	3	4/6/2018
18-05764	180314	1200	NORTHSIGHT	BL	RAINTREE	DR	S	97	5/28/1982	1/1/1952	1	1 0	0		99	99	8	1 NB	NB	6	4/6/2018
18-08127	180411	1922	NORTHSIGHT	BL	RAINTREE	DR	AT		10/6/1957	5/9/1965	1	1 0	0		12	1	8	1 NB	NB	6	4/19/2018
18-08357	180414	1421	NORTHSIGHT	BL	RAINTREE	DR	AT		7/25/1934	3/27/2002	1	1 0	0		20	1	5	4 NB	SB	2	5/3/2018
18-09430	180427	1551	NORTHSIGHT	BL	RAINTREE	DR	W	200	6/6/1960	7/1/1984	1	1 0	0		97	1	10	5 EB	WB	4	5/23/2018
18-09860	180503	1619	NORTHSIGHT	BL	RAINTREE	DR	AT			10/23/1987	99	1 99	0		20	1	4	1 NB	WB	3 HIT AND RUN	5/29/2018
18-15306	180711	1644	NORTHSIGHT	BL	RAINTREE	DR	AT		7/26/1997	4/20/1961	1	1 0	0		99	99	4	5 WB	WB	3	7/25/2018
18-15747	181717	1252	NORTHSIGHT	BL	RAINTREE	DR	N	540	8/25/1945	7/21/1953	1	1 0	0		12	1	8	1 SB	SB	6	8/2/2018
18-16813	180731	2019	NORTHSIGHT	BL	RAINTREE	DR	AT		12/22/1948	3/7/1974	1	1 0	0		20	1	4	1 SB	NB	2	8/21/2018
18-17510	180809	1450	NORTHSIGHT	BL	RAINTREE	DR	E	277	1/3/1972	12/21/1955	3	3 0	0		2	1	1	3 WB	WB	4 MULTI VEH 3	9/12/2018
18-17589	180810	1348	NORTHSIGHT	BL	RAINTREE	DR	W	8	11/15/1963	7/25/1965	2	2 0	0		20	1	4	5 NB	SB	6	9/4/2018
18-18648	180824	0824	NORTHSIGHT	BL	RAINTREE	DR	N	616	5/4/1949	11/1/1980	1	3 0	0		12	1	8	1 SB	SB	6	9/13/2018
18-23995	181104	1458	NORTHSIGHT	BL	RAINTREE	DR	AT		5/21/1947	1/29/1965	1	1 0	0		20	1	4	1 SB	NB	2	12/10/2018
18-24629	181113	1155	NORTHSIGHT	BL	RAINTREE	DR	AT		5/18/1989	11/5/1967	1	3 0	0		2	1	5	5 NB	NB	4	12/10/2018
18-27882	181227	2309	NORTHSIGHT	BL	RAINTREE	DR	AT		12/21/1990	1/4/1990	3	1 0	0		99	99	1	1 NB	WB	2	1/18/2019
16-25731	161118	0831	PIMA	RD	RAINTREE	DR	AT		17134	18797	1	1	0	0	12	1	8	1 SB	SB	6	42706 KAY
17-14351	170628	1732	RAINTREE	CR	RAINTREE	DR	AT		10/22/1997	11/9/1989	1	1 0	0		20	1	4	1 NB	WB	2	7/10/2017

3-ZN-2019
05/20/19

Appendix C – Parcel Information

215-52-034M Commercial Parcel

This is a commercial parcel located at 8688 E RAINTREE DR SCOTTSDALE 85260. and the current owner is 101 MEGA RAINTREE LLC. It is located in the Northsight 2 Par 4 subdivision and MCR 31515. Its current year full cash value is $14,959,600.

Property Information

8688 E RAINTREE DR SCOTTSDALE 85260

MCR #	31515
Description:	NORTHSIGHT 2 MCR 315/15 TH PT PARCEL 1 COM NE COR SD SEC 12 TH W 99.22F TO W R/W LN ST HWY 117 & PT ON CUR RAD BEAR N 87D 00M W 11258.53F TH SLY ALG SD W LN & SD CUR C/A 00D 26M DIST OF 87.67F TO PT OF NON-TANG TH S 06D 06M W ALG SD W LN 1467.29F TH N 85D 00M W 237.06F TO TPOB & PT ON CUR RAD BEAR N 86D 21M W 1422.50F TH SLY ALG SD CUR C/A 11D 46M DIST OF 292.37F TO PT OF TANG TH S 15D 24M W 146.93F TO BEG TANG CUR CONC SELY RAD 2277.50F TH SLY ALG SD CUR C/A 02D 36M DIST OF 103.78F TH W 522.25F TH S 43F TH W 294.02F TH N 12D 43M W 638.33F TO PT ON CUR RAD BEAR N 08D 42M W 116F TH NELY ALG SD CUR C/A 54D 34M DIST OF 110.51F TH S 50D 25M E 46.26F TH S 85D 00M E 951.44F TO TPOB EX LOT 6 NORTHSIGHT CROSSING PROPERTY SUB MCR 688-12
Lat/Long	33.61840252 | -111.89424050
Lot Size	447,659 sq ft.
Zoning	C-2
Lot #	1
High School District	PARADISE VALLEY UNIFIED #69
Elementary School District	PARADISE VALLEY UNIFIED SCHOOL DISTRICT
Local Jurisdiction	SCOTTSDALE
S/T/R	12 3N 4E
Market Area/Neighborhood	05/013
Subdivision (31 Parcels)	NORTHSIGHT 2 PAR 4

Owner Information

101 MEGA RAINTREE LLC

Mailing Address	9780 E GARY RD, SCOTTSDALE, AZ 85260
Deed Number	180581158
Last Deed Date	07/31/2018
Sale Date	n/a
Sale Price	n/a

Valuation Information

We provide valuation information for the past 5 years. For mobile display, we only show 1 year of valuation information. Should you need more data, please look at our data sales.
The Valuation Information displayed below may not reflect the taxable value used on the tax bill due to any special valuation relief program. **CLICK HERE TO PAY YOUR TAXES OR VIEW YOUR TAX BILL**

Tax Year	2019	2018	2017	2016	2015
Full Cash Value	$14,959,600	$15,223,000	$15,938,000	$14,608,500	$13,604,400
Limited Property Value	$14,959,600	$15,223,000	$14,998,851	$14,284,620	$13,604,400
Legal Class	1	1	1	1	1
Description	SHOPPING CENTERS	SHOPPING CENTERS	SHOPPING CENTERS	SHOPPING CENTERS	SHOPPING CENTERS
Assessment Ratio	18%	18%	18%	18%	18.5%
Assessed FCV	n/a	n/a	n/a	n/a	n/a
Assessed LPV	$2,692,728	$2,740,140	$2,699,793	$2,571,232	$2,516,814
Property Use Code	1430	1430	1430	1430	1430
PU Description	Shopping Center	Shopping Center	Shopping Center	Shopping Center	Shopping Center
Tax Area Code	691400	691400	691400	691400	691400
Valuation Source	Decision	Notice	Notice	Notice	Notice

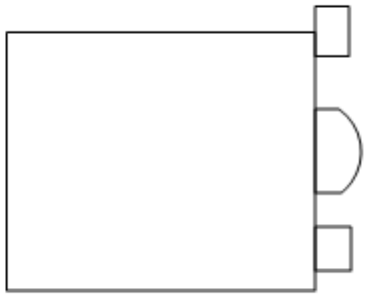
Additional Property Information

Additional commercial property data.

Description	Imp #	Occupancy	Rank	CCI	Age	Sq Ft.
Supermarket	000101	446	2	C	14	31,446
Site Improvements	000201	163	2	D	14	1
Discount Store	000301	319	3	C	13	20,000
Discount Store	000401	319	3	C	13	41,790
Site Improvements	000501	163	2	D	13	1
Discount Store	000601	319	3	C	11	10,730

Building Sketches

Sketches that illustrate the external dimensions of a property.



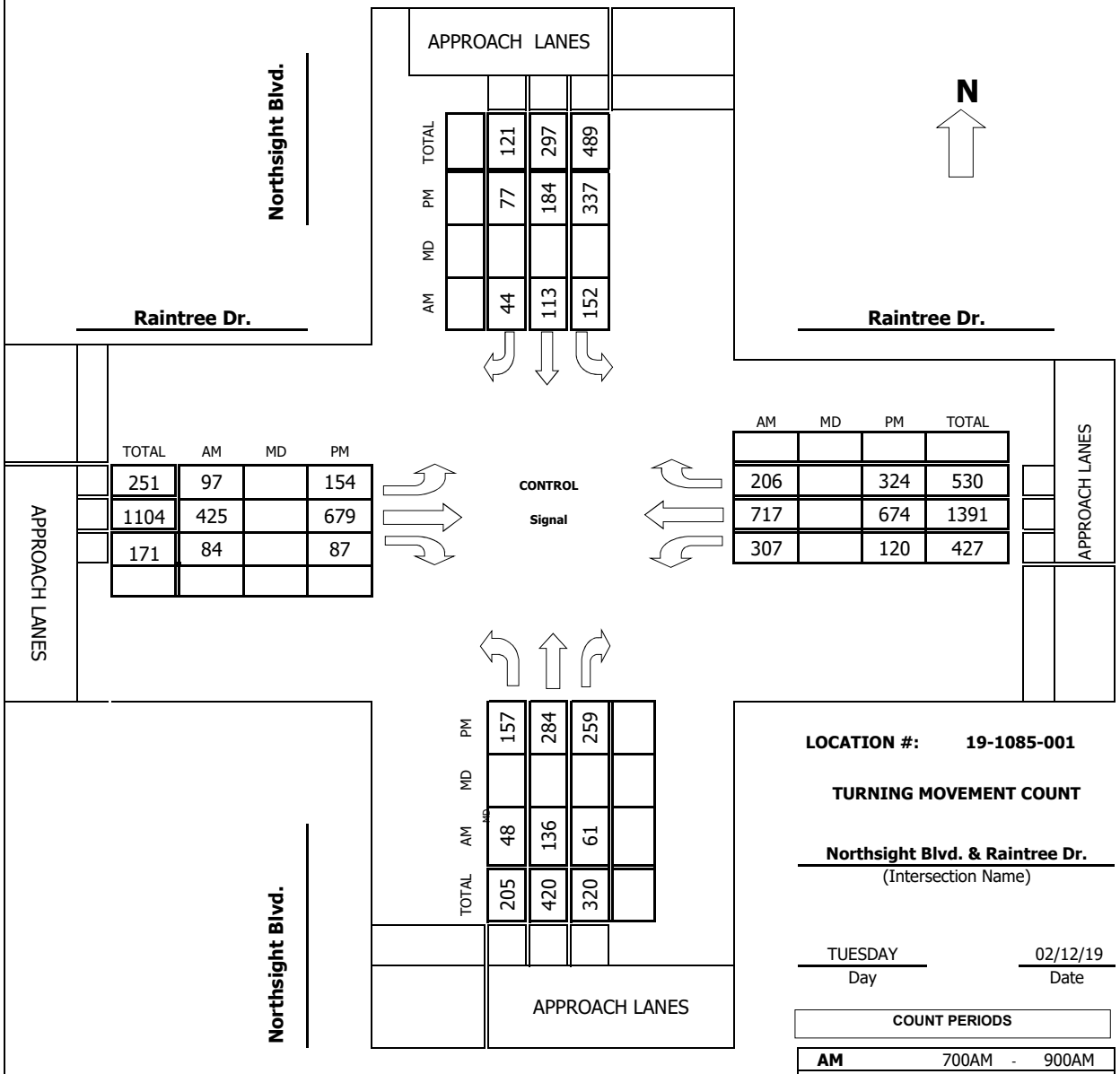
Appendix D – Traffic Count Data

Intersection Turning Movement
Prepared by:

FIELD DATA SERVICES OF ARIZONA, INC.
520.316.6745

Project #: 19-1085-001

TMC SUMMARY OF Northsight Blvd. & Raintree Dr.



LOCATION #: 19-1085-001

TURNING MOVEMENT COUNT

Northsight Blvd. & Raintree Dr.
(Intersection Name)

TUESDAY (Day) 02/12/19 (Date)

COUNT PERIODS

AM	700AM	-	900AM
NOON		-	
PM	400PM	-	600PM

AM PEAK HOUR 800 AM

NOON PEAK HOUR

PM PEAK HOUR 415 PM

3-ZN-2019
05/20/19

Intersection Turning Movement
Prepared by:

FIELD DATA SERVICES OF ARIZONA, INC.
520.316.6745

veracitytrafficgroup

N-S STREET:	Northsight Blvd.	DATE:	02/12/19	LOCATION:	Scottsdale
E-W STREET:	Raintree Dr.	DAY:	TUESDAY	PROJECT#	19-1085-001

	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
LANES:	1	1	1	2	2	1	1	2	1	1	2	1	
6:00 AM													
6:15 AM													
6:30 AM													
6:45 AM													
7:00 AM	6	20	3	32	17	8	7	57	12	60	101	33	356
7:15 AM	7	24	12	18	23	8	10	78	18	69	118	41	426
7:30 AM	11	26	10	26	36	9	19	77	28	78	161	48	529
7:45 AM	14	29	14	22	41	8	28	104	23	98	216	46	643
8:00 AM	8	31	16	37	28	8	17	103	12	60	171	43	534
8:15 AM	10	37	11	47	34	10	20	121	24	81	183	35	613
8:30 AM	16	33	20	36	21	13	35	98	23	88	157	60	600
8:45 AM	14	35	14	32	30	13	25	103	25	78	206	68	643
9:00 AM													
9:15 AM													
9:30 AM													
9:45 AM													
10:00 AM													
10:15 AM													
10:30 AM													
10:45 AM													
11:00 AM													
11:15 AM													
11:30 AM													
11:45 AM													

TOTAL	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
Volumes	86	235	100	250	230	77	161	741	165	612	1313	374	4344
Approach %	20.43	55.82	23.75	44.88	41.29	13.82	15.09	69.45	15.46	26.62	57.11	16.27	
App/Depart	421	/	770	557	/	1007	1067	/	1091	2299	/	1476	

AM Peak Hr Begins at: 800 AM

PEAK													
Volumes	48	136	61	152	113	44	97	425	84	307	717	206	2390
Approach %	19.59	55.51	24.90	49.19	36.57	14.24	16.01	70.13	13.86	24.96	58.29	16.75	
PEAK HR. FACTOR:		0.888			0.849			0.918			0.874		0.929

CONTROL: Signal
COMMENT 1:
GPS: 33.618232, -111.897739

3-ZN-2019
05/20/19

Intersection Turning Movement

FIELD DATA SERVICES OF ARIZONA, INC.
520.316.6745

veracitytrafficgroup

N-S STREET:	Northsight Blvd. 0	DATE:	02/12/19	LOCATION:	Scottsdale
E-W STREET:	Raintree Dr.	DAY:	TUESDAY	PROJECT#	19-1085-001

	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
LANES:	1	1	1	2	2	1	1	2	1	1	2	1	
1:00 PM													
1:15 PM													
1:30 PM													
1:45 PM													
2:00 PM													
2:15 PM													
2:30 PM													
2:45 PM													
3:00 PM													
3:15 PM													
3:30 PM													
3:45 PM													
4:00 PM	33	67	82	75	40	31	40	162	15	31	182	81	839
4:15 PM	40	64	68	77	39	20	37	139	12	33	152	81	762
4:30 PM	30	74	78	90	55	21	46	162	16	32	166	70	840
4:45 PM	50	72	53	95	54	12	42	181	11	30	177	75	852
5:00 PM	37	74	60	75	36	24	29	197	48	25	179	98	882
5:15 PM	33	52	45	71	27	17	37	88	16	31	141	80	638
5:30 PM	18	51	40	86	46	33	39	146	18	21	139	65	702
5:45 PM	19	41	35	69	28	22	30	120	9	19	112	68	572
6:00 PM													
6:15 PM													
6:30 PM													
6:45 PM													

TOTAL	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
Volumes	260	495	461	638	325	180	300	1195	145	222	1248	618	6087
Approach %	21.38	40.71	37.91	55.82	28.43	15.75	18.29	72.87	8.84	10.63	59.77	29.60	
App/Depart	1216	/	1413	1143	/	692	1640	/	2294	2088	/	1688	

PM Peak Hr Begins at: 415 PM

PEAK													
Volumes	157	284	259	337	184	77	154	679	87	120	674	324	3336
Approach %	22.43	40.57	37.00	56.35	30.77	12.88	16.74	73.80	9.46	10.73	60.29	28.98	

PEAK HR. FACTOR:	0.962	0.901	0.839	0.925	0.946

CONTROL: Signal
COMMENT 1: 0
GPS: 33.618232, -111.897739

3-ZN-2019
05/20/19

FIELD DATA SERVICES OF ARIZONA, INC.
520.316.6745

veracitytrafficgroup

Pedestrian & Bicycle Study

N-S STREET: Northsight Blvd.
E-W STREET: Raintree Dr.

Date: 02/12/19
Day: TUESDAY

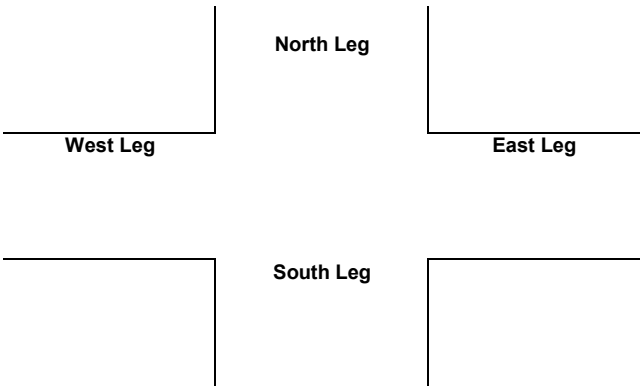
City: Scottsdale
Project #: 19-1085-001

	PEDESTRIANS			
	N-LEG	S-LEG	E-LEG	W-LEG
7:00 AM	1	0	0	0
7:15 AM	0	0	0	0
7:30 AM	1	0	0	1
7:45 AM	1	0	0	0
8:00 AM	1	0	0	0
8:15 AM	5	0	0	1
8:30 AM	4	0	0	1
8:45 AM	0	0	0	0
TOTAL	**13**	**0**	**0**	**3**

	BICYCLES			
	N-LEG	S-LEG	E-LEG	W-LEG
7:00 AM	0	0	0	0
7:15 AM	0	0	0	0
7:30 AM	0	0	0	0
7:45 AM	0	0	0	0
8:00 AM	0	0	0	0
8:15 AM	0	1	0	0
8:30 AM	0	0	0	0
8:45 AM	0	0	0	0
TOTAL	**0**	**1**	**0**	**0**

	PEDESTRIANS			
	N-LEG	S-LEG	E-LEG	W-LEG
4:00 PM	2	0	0	1
4:15 PM	0	0	0	0
4:30 PM	2	1	0	0
4:45 PM	0	0	1	1
5:00 PM	0	0	1	1
5:15 PM	0	0	0	0
5:30 PM	2	0	0	0
5:45 PM	0	0	0	0
TOTAL	**6**	**1**	**2**	**3**

	BICYCLES			
	N-LEG	S-LEG	E-LEG	W-LEG
4:00 PM	0	0	0	0
4:15 PM	0	0	0	0
4:30 PM	0	0	0	0
4:45 PM	0	0	0	0
5:00 PM	0	0	0	0
5:15 PM	0	0	0	0
5:30 PM	0	0	0	0
5:45 PM	0	0	0	0
TOTAL	**0**	**0**	**0**	**0**



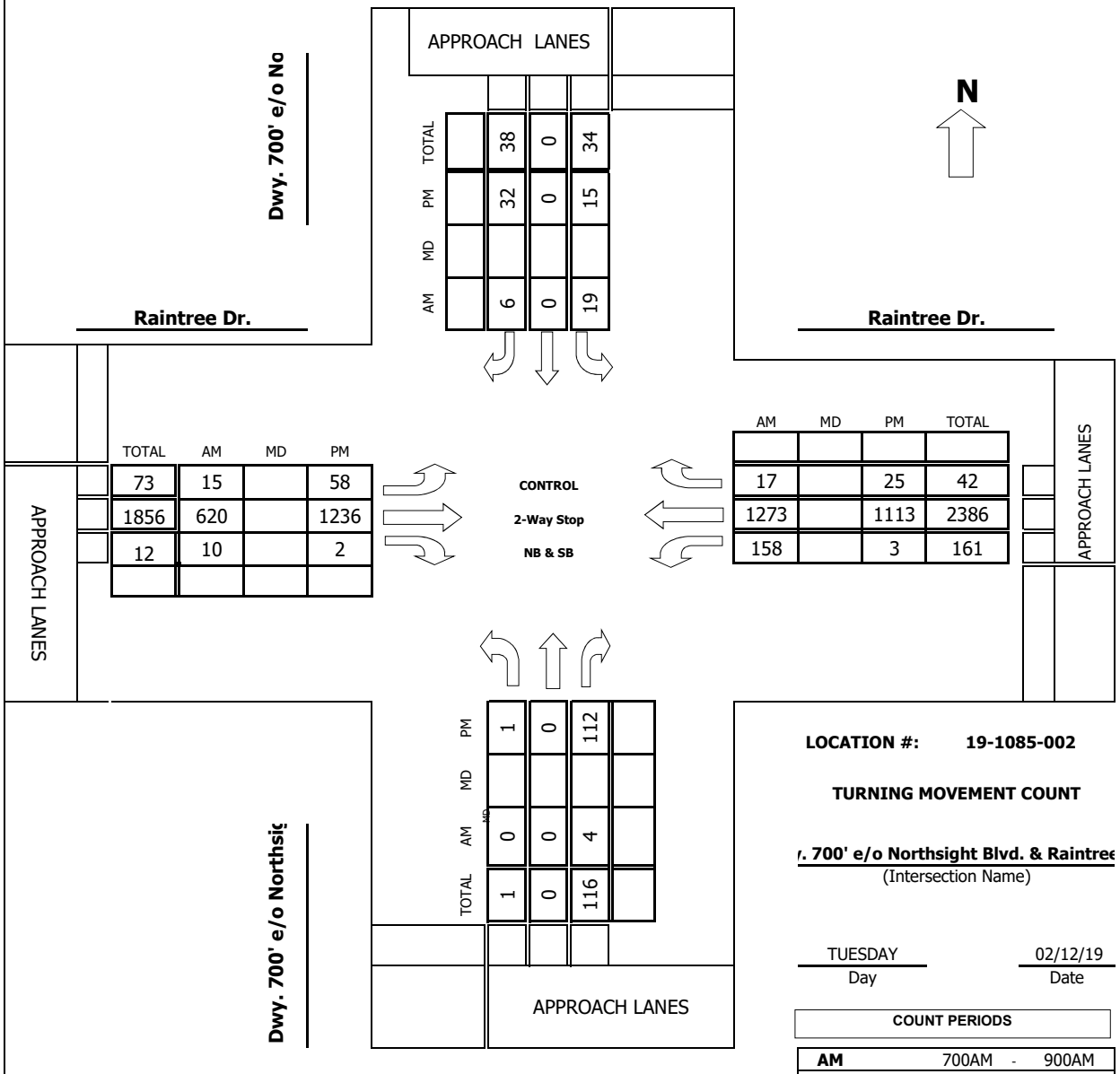
3-ZN-2019
05/20/19

Intersection Turning Movement
Prepared by:

FIELD DATA SERVICES OF ARIZONA, INC.
520.316.6745

Project #: 19-1085-002

TMC SUMMARY OF Dwy. 700' e/o Northsight Blvd. & Raintree Dr.



LOCATION #: 19-1085-002

TURNING MOVEMENT COUNT

r. 700' e/o Northsight Blvd. & Raintree
(Intersection Name)

TUESDAY (Day) 02/12/19 (Date)

COUNT PERIODS			
AM	700AM	-	900AM
NOON		-	
PM	400PM	-	600PM

AM PEAK HOUR 745 AM

NOON PEAK HOUR

PM PEAK HOUR 400 PM

3-ZN-2019
05/20/19

Intersection Turning Movement
Prepared by:

FIELD DATA SERVICES OF ARIZONA, INC.
520.316.6745

veracitytrafficgroup

N-S STREET: Dwy. 700' e/o Northsight Blvd. DATE: 02/12/19 LOCATION: Scottsdale

E-W STREET: Raintree Dr. DAY: TUESDAY PROJECT# 19-1085-002

	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
LANES:	0	1	1	0	1	0	1	2	1	1	2	1	
6:00 AM													
6:15 AM													
6:30 AM													
6:45 AM													
7:00 AM	0	0	1	8	0	0	1	94	2	30	202	3	341
7:15 AM	0	0	2	7	0	2	0	103	0	41	229	1	385
7:30 AM	0	0	1	3	1	4	5	111	2	45	307	0	479
7:45 AM	0	0	1	4	0	3	4	137	1	47	366	4	567
8:00 AM	0	0	2	6	0	0	4	161	4	33	274	3	487
8:15 AM	0	0	0	4	0	2	4	160	4	36	320	6	536
8:30 AM	0	0	1	5	0	1	3	162	1	42	313	4	532
8:45 AM	0	0	4	7	0	0	5	137	0	29	357	5	544
9:00 AM													
9:15 AM													
9:30 AM													
9:45 AM													
10:00 AM													
10:15 AM													
10:30 AM													
10:45 AM													
11:00 AM													
11:15 AM													
11:30 AM													
11:45 AM													

TOTAL	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
Volumes	0	0	12	44	1	12	26	1065	14	303	2368	26	3871
Approach %	0.00	0.00	100.00	77.19	1.75	21.05	2.35	96.38	1.27	11.23	87.80	0.96	
App/Depart	12	/	52	57	/	318	1105	/	1121	2697	/	2380	

AM Peak Hr Begins at: 745 AM

PEAK													
Volumes	0	0	4	19	0	6	15	620	10	158	1273	17	2122
Approach %	0.00	0.00	100.00	76.00	0.00	24.00	2.33	96.12	1.55	10.91	87.91	1.17	

PEAK HR. FACTOR:	0.500	0.893	0.954	0.868	0.936

CONTROL: 2-Way Stop (NB & SB)
COMMENT 1:
GPS: 33.618347, -111.895325

3-ZN-2019
05/20/19

Intersection Turning Movement

FIELD DATA SERVICES OF ARIZONA, INC.
520.316.6745

veracitytrafficgroup

N-S STREET: Dwy. 700' e/o Northsight Blvd.
0
E-W STREET: Raintree Dr.

DATE: 02/12/19
DAY: TUESDAY

LOCATION: Scottsdale
PROJECT# 19-1085-002

	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
LANES:	0	1	1	0	1	0	1	2	1	1	2	1	
1:00 PM													
1:15 PM													
1:30 PM													
1:45 PM													
2:00 PM													
2:15 PM													
2:30 PM													
2:45 PM													
3:00 PM													
3:15 PM													
3:30 PM													
3:45 PM													
4:00 PM	0	0	43	6	0	7	10	316	1	0	310	8	701
4:15 PM	1	0	22	4	0	4	15	274	1	2	267	4	594
4:30 PM	0	0	26	1	0	9	13	324	0	0	269	5	647
4:45 PM	0	0	21	4	0	12	20	322	0	1	267	8	655
5:00 PM	0	0	20	1	0	11	15	319	0	0	301	5	672
5:15 PM	0	0	22	9	0	7	15	287	0	1	271	5	617
5:30 PM	0	0	20	6	0	9	5	277	0	0	220	11	548
5:45 PM	0	0	22	2	0	0	7	218	0	1	208	10	468
6:00 PM													
6:15 PM													
6:30 PM													
6:45 PM													

TOTAL	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
Volumes	1	0	196	33	0	59	100	2337	2	5	2113	56	4902
Approach %	0.51	0.00	99.49	35.87	0.00	64.13	4.10	95.82	0.08	0.23	97.19	2.58	
App/Depart	197	/	156	92	/	7	2439	/	2566	2174	/	2173	

PM Peak Hr Begins at: 400 PM

PEAK													
Volumes	1	0	112	15	0	32	58	1236	2	3	1113	25	2597
Approach %	0.88	0.00	99.12	31.91	0.00	68.09	4.48	95.37	0.15	0.26	97.55	2.19	
PEAK HR. FACTOR:		0.657			0.734			0.947			0.897		0.926

CONTROL: 2-Way Stop (NB & SB)
COMMENT 1: 0
GPS: 33.618347, -111.895325

3-ZN-2019
05/20/19

FIELD DATA SERVICES OF ARIZONA, INC.
520.316.6745

veracitytrafficgroup

Pedestrian & Bicycle Study

N-S STREET: Dwy. 700' e/o Northsight Blvd.
E-W STREET: Raintree Dr.

Date: 02/12/19
Day: TUESDAY

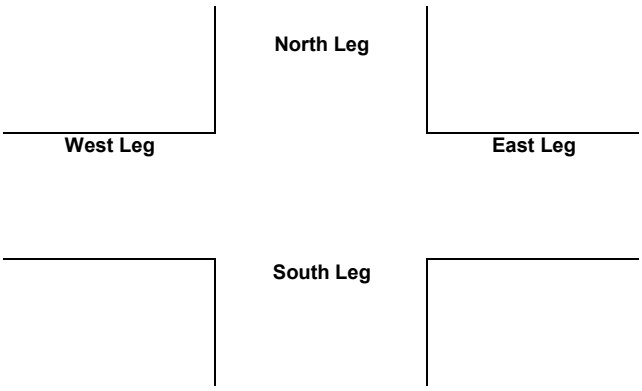
City: Scottsdale
Project #: 19-1085-002

	PEDESTRIANS			
	N-LEG	S-LEG	E-LEG	W-LEG
7:00 AM	0	0	0	0
7:15 AM	0	0	0	0
7:30 AM	0	0	0	0
7:45 AM	0	0	0	0
8:00 AM	0	0	0	0
8:15 AM	0	0	0	0
8:30 AM	0	0	0	0
8:45 AM	0	0	0	0
TOTAL	**0**	**0**	**0**	**0**

	BICYCLES			
	N-LEG	S-LEG	E-LEG	W-LEG
7:00 AM	0	0	0	0
7:15 AM	0	0	0	0
7:30 AM	0	0	0	0
7:45 AM	0	0	0	0
8:00 AM	0	0	0	0
8:15 AM	0	0	0	0
8:30 AM	0	0	0	0
8:45 AM	0	0	0	0
TOTAL	**0**	**0**	**0**	**0**

	PEDESTRIANS			
	N-LEG	S-LEG	E-LEG	W-LEG
4:00 PM	0	0	0	0
4:15 PM	0	0	0	0
4:30 PM	0	0	0	0
4:45 PM	0	0	0	0
5:00 PM	0	0	0	0
5:15 PM	0	0	0	0
5:30 PM	1	0	0	0
5:45 PM	0	0	0	0
TOTAL	**1**	**0**	**0**	**0**

	BICYCLES			
	N-LEG	S-LEG	E-LEG	W-LEG
4:00 PM	0	0	0	0
4:15 PM	0	0	0	0
4:30 PM	1	0	0	0
4:45 PM	0	0	0	0
5:00 PM	1	0	0	0
5:15 PM	0	0	0	0
5:30 PM	0	0	0	0
5:45 PM	0	0	0	0
TOTAL	**2**	**0**	**0**	**0**



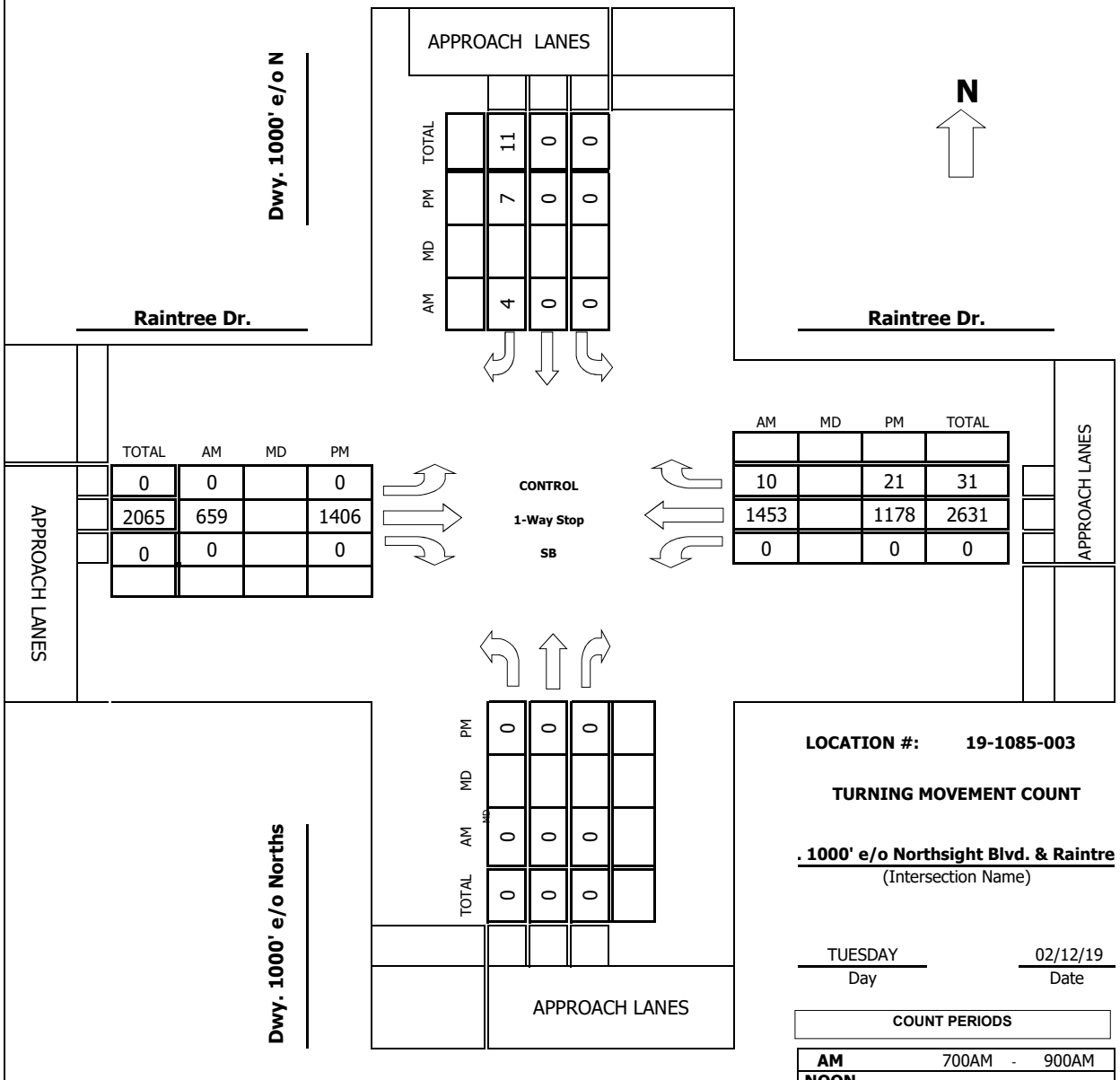
3-ZN-2019
05/20/19

Intersection Turning Movement
Prepared by:

FIELD DATA SERVICES OF ARIZONA, INC.
520.316.6745

Project #: 19-1085-003

TMC SUMMARY OF Dwy. 1000' e/o Northsight Blvd. & Raintree Dr.



LOCATION #: 19-1085-003

TURNING MOVEMENT COUNT

. 1000' e/o Northsight Blvd. & Raintre
(Intersection Name)

TUESDAY (Day) 02/12/19 (Date)

COUNT PERIODS			
AM	700AM	-	900AM
NOON		-	
PM	400PM	-	600PM

AM PEAK HOUR 800 AM

NOON PEAK HOUR

PM PEAK HOUR 400 PM

3-ZN-2019
05/20/19

Intersection Turning Movement
Prepared by:

FIELD DATA SERVICES OF ARIZONA, INC.
520.316.6745

veracitytrafficgroup

N-S STREET:	Dwy. 1000' e/o Northsight Blvc	DATE:	02/12/19	LOCATION:	Scottsdale
E-W STREET:	Raintree Dr.	DAY:	TUESDAY	PROJECT#	19-1085-003

	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
LANES:	0	0	0	0	0	1	0	2	0	0	2	1	
6:00 AM													
6:15 AM													
6:30 AM													
6:45 AM													
7:00 AM	0	0	0	0	0	0	0	98	0	0	234	1	333
7:15 AM	0	0	0	0	0	0	0	110	0	0	282	0	392
7:30 AM	0	0	0	0	0	0	0	117	0	0	332	1	450
7:45 AM	0	0	0	0	0	2	0	128	0	0	429	4	563
8:00 AM	0	0	0	0	0	0	0	170	0	0	331	0	501
8:15 AM	0	0	0	0	0	2	0	168	0	0	368	3	541
8:30 AM	0	0	0	0	0	0	0	157	0	0	352	3	512
8:45 AM	0	0	0	0	0	2	0	164	0	0	402	4	572
9:00 AM													
9:15 AM													
9:30 AM													
9:45 AM													
10:00 AM													
10:15 AM													
10:30 AM													
10:45 AM													
11:00 AM													
11:15 AM													
11:30 AM													
11:45 AM													

TOTAL	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
Volumes	0	0	0	0	0	6	0	1112	0	0	2730	16	3864
Approach %	####	####	####	0.00	0.00	100.00	0.00	100.00	0.00	0.00	99.42	0.58	
App/Depart	0	/	16	6	/	0	1112	/	1112	2746	/	2736	

AM Peak Hr Begins at: 800 AM

PEAK													
Volumes	0	0	0	0	0	4	0	659	0	0	1453	10	2126
Approach %	####	####	####	0.00	0.00	100.00	0.00	100.00	0.00	0.00	99.32	0.68	

PEAK HR. FACTOR:	0.000	0.500	0.969	0.901	0.929

CONTROL: 1-Way Stop (SB)
COMMENT 1:
GPS: 33.618335, -111.894260

3-ZN-2019
05/20/19

Intersection Turning Movement

FIELD DATA SERVICES OF ARIZONA, INC.
520.316.6745

veracitytrafficgroup

N-S STREET: Dwy. 1000' e/o Northsight Blvd 0
E-W STREET: Raintree Dr.
DATE: 02/12/19
DAY: TUESDAY
LOCATION: Scottsdale
PROJECT#: 19-1085-003

	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
LANES:	0	0	0	0	0	1	0	2	0	0	2	1	
1:00 PM													
1:15 PM													
1:30 PM													
1:45 PM													
2:00 PM													
2:15 PM													
2:30 PM													
2:45 PM													
3:00 PM													
3:15 PM													
3:30 PM													
3:45 PM													
4:00 PM	0	0	0	0	0	0	0	384	0	0	323	6	713
4:15 PM	0	0	0	0	0	4	0	310	0	0	283	7	604
4:30 PM	0	0	0	0	0	1	0	336	0	0	290	5	632
4:45 PM	0	0	0	0	0	2	0	376	0	0	282	3	663
5:00 PM	0	0	0	0	0	0	0	363	0	0	303	4	670
5:15 PM	0	0	0	0	0	1	0	338	0	0	289	6	634
5:30 PM	0	0	0	0	0	1	0	329	0	0	245	6	581
5:45 PM	0	0	0	0	0	3	0	231	0	0	229	2	465
6:00 PM													
6:15 PM													
6:30 PM													
6:45 PM													

TOTAL	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
Volumes	0	0	0	0	0	12	0	2667	0	0	2244	39	4962
Approach %	####	####	####	0.00	0.00	100.00	0.00	100.00	0.00	0.00	98.29	1.71	
App/Depart	0	/	39	12	/	0	2667	/	2667	2283	/	2256	

PM Peak Hr Begins at: 400 PM

PEAK													
Volumes	0	0	0	0	0	7	0	1406	0	0	1178	21	2612
Approach %	####	####	####	0.00	0.00	100.00	0.00	100.00	0.00	0.00	98.25	1.75	

PEAK HR. FACTOR:	0.000	0.438	0.915	0.911	0.916

CONTROL: 1-Way Stop (SB)
COMMENT 1: 0
GPS: 33.618335, -111.894260

3-ZN-2019
05/20/19

FIELD DATA SERVICES OF ARIZONA, INC.
520.316.6745

veracitytrafficgroup

Pedestrian & Bicycle Study

N-S STREET: Dwy. 1000' e/o Northsight Blvd.
E-W STREET: Raintree Dr.

Date: 02/12/19
Day: TUESDAY

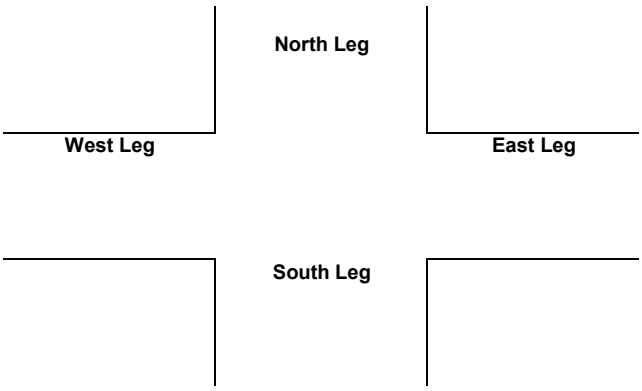
City: Scottsdale
Project #: 19-1085-003

	PEDESTRIANS			
	N-LEG	S-LEG	E-LEG	W-LEG
7:00 AM	0	0	0	0
7:15 AM	0	0	0	0
7:30 AM	0	0	0	0
7:45 AM	0	0	0	0
8:00 AM	0	0	0	0
8:15 AM	0	0	0	0
8:30 AM	0	0	0	0
8:45 AM	0	0	0	0
TOTAL	**0**	**0**	**0**	**0**

	BICYCLES			
	N-LEG	S-LEG	E-LEG	W-LEG
7:00 AM	1	0	0	0
7:15 AM	0	0	0	0
7:30 AM	0	0	0	0
7:45 AM	0	0	0	0
8:00 AM	0	0	0	0
8:15 AM	0	0	0	0
8:30 AM	0	0	0	0
8:45 AM	0	0	0	0
TOTAL	**1**	**0**	**0**	**0**

	PEDESTRIANS			
	N-LEG	S-LEG	E-LEG	W-LEG
4:00 PM	0	0	0	0
4:15 PM	0	0	0	0
4:30 PM	0	0	0	0
4:45 PM	0	0	0	0
5:00 PM	0	0	0	0
5:15 PM	0	0	0	0
5:30 PM	1	0	0	0
5:45 PM	0	0	0	0
TOTAL	**1**	**0**	**0**	**0**

	BICYCLES			
	N-LEG	S-LEG	E-LEG	W-LEG
4:00 PM	0	0	0	0
4:15 PM	0	0	0	0
4:30 PM	1	0	0	0
4:45 PM	0	0	0	0
5:00 PM	1	0	0	0
5:15 PM	0	0	0	0
5:30 PM	1	0	0	0
5:45 PM	0	0	0	0
TOTAL	**3**	**0**	**0**	**0**



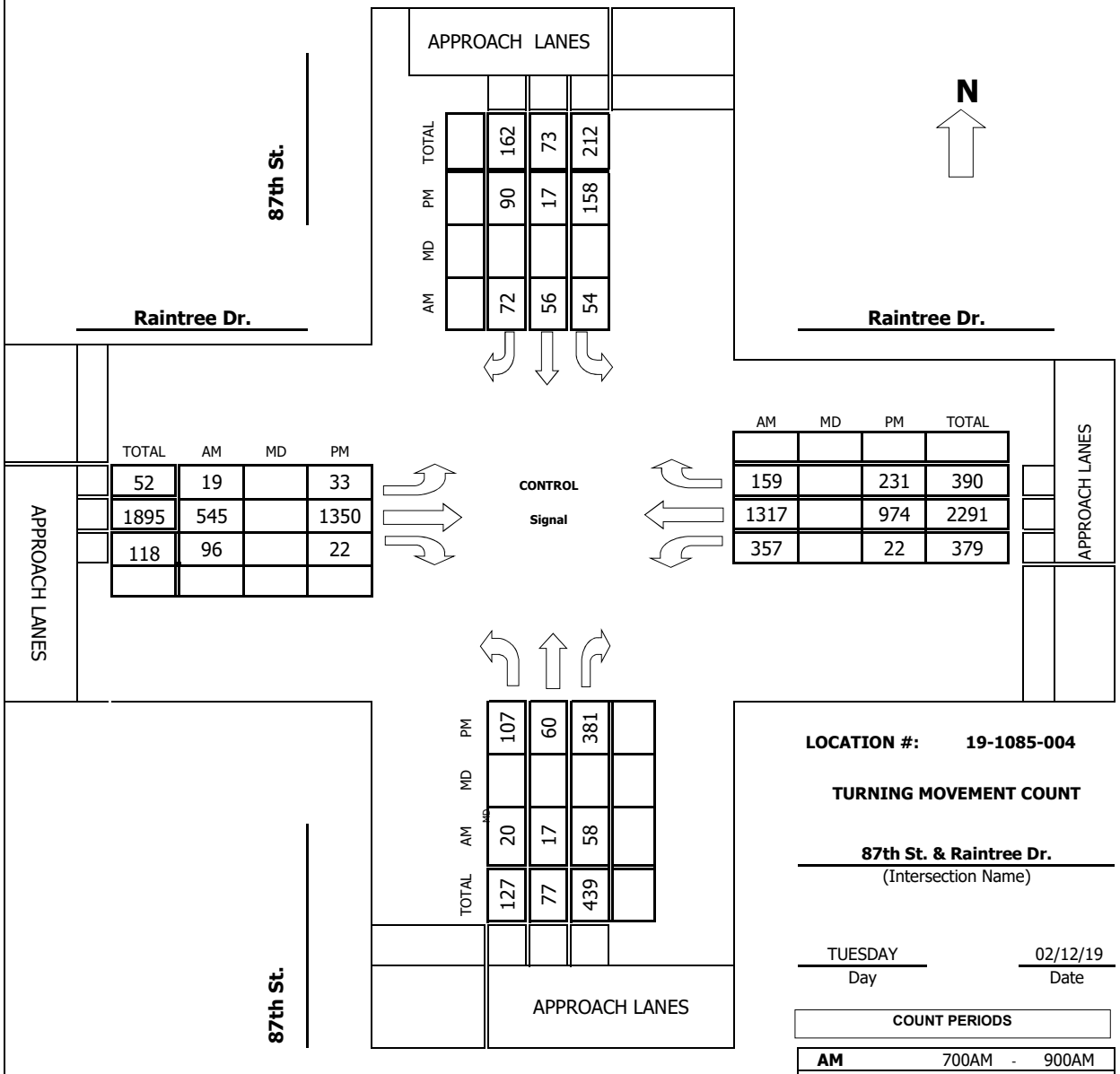
3-ZN-2019
05/20/19

Intersection Turning Movement
Prepared by:

FIELD DATA SERVICES OF ARIZONA, INC.
520.316.6745

Project #: 19-1085-004

TMC SUMMARY OF 87th St. & Raintree Dr.



LOCATION #: 19-1085-004

TURNING MOVEMENT COUNT

87th St. & Raintree Dr.
(Intersection Name)

TUESDAY (Day) 02/12/19 (Date)

COUNT PERIODS

AM	700AM	-	900AM
NOON		-	
PM	400PM	-	600PM

AM PEAK HOUR 800 AM

NOON PEAK HOUR

PM PEAK HOUR 400 PM

3-ZN-2019
05/20/19

Intersection Turning Movement
Prepared by:

FIELD DATA SERVICES OF ARIZONA, INC.
520.316.6745

veracitytrafficgroup

N-S STREET:	87th St.	DATE:	02/12/19	LOCATION:	Scottsdale
E-W STREET:	Raintree Dr.	DAY:	TUESDAY	PROJECT#	19-1085-004

	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
LANES:	1	1	1	1	1	0	1	2	1	1	2	1	
6:00 AM													
6:15 AM													
6:30 AM													
6:45 AM													
7:00 AM	2	4	11	15	8	16	1	81	18	64	216	23	459
7:15 AM	2	4	7	9	11	13	4	88	17	77	253	26	511
7:30 AM	2	2	6	16	11	26	4	101	12	64	303	24	571
7:45 AM	2	6	10	25	15	37	9	104	15	92	359	27	701
8:00 AM	5	6	12	10	15	17	5	137	26	102	298	35	668
8:15 AM	4	2	12	18	14	7	4	136	28	88	338	29	680
8:30 AM	6	2	9	11	15	27	3	141	18	78	317	46	673
8:45 AM	5	7	25	15	12	21	7	131	24	89	364	49	749
9:00 AM													
9:15 AM													
9:30 AM													
9:45 AM													
10:00 AM													
10:15 AM													
10:30 AM													
10:45 AM													
11:00 AM													
11:15 AM													
11:30 AM													
11:45 AM													

TOTAL	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
Volumes	28	33	92	119	101	164	37	919	158	654	2448	259	5012
Approach %	18.30	21.57	60.13	30.99	26.30	42.71	3.32	82.50	14.18	19.46	72.84	7.71	
App/Depart	153	/	329	384	/	913	1114	/	1130	3361	/	2640	

AM Peak Hr Begins at: 800 AM

PEAK													
Volumes	20	17	58	54	56	72	19	545	96	357	1317	159	2770
Approach %	21.05	17.89	61.05	29.67	30.77	39.56	2.88	82.58	14.55	19.48	71.85	8.67	
PEAK HR. FACTOR:		0.642			0.858			0.982			0.913		0.925

CONTROL: Signal
COMMENT 1:
GPS: 33.618290, -111.893152

3-ZN-2019
05/20/19

Intersection Turning Movement

FIELD DATA SERVICES OF ARIZONA, INC.
520.316.6745

veracitytrafficgroup

N-S STREET:	87th St. 0	DATE:	02/12/19	LOCATION:	Scottsdale
E-W STREET:	Raintree Dr.	DAY:	TUESDAY	PROJECT#	19-1085-004

	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
LANES:	1	1	1	1	1	0	1	2	1	1	2	1	
1:00 PM													
1:15 PM													
1:30 PM													
1:45 PM													
2:00 PM													
2:15 PM													
2:30 PM													
2:45 PM													
3:00 PM													
3:15 PM													
3:30 PM													
3:45 PM													
4:00 PM	29	15	94	36	7	30	18	357	10	7	259	56	918
4:15 PM	21	15	96	42	7	24	7	288	8	4	235	66	813
4:30 PM	32	18	113	43	1	15	3	343	1	6	241	57	873
4:45 PM	25	12	78	37	2	21	5	362	3	5	239	52	841
5:00 PM	40	21	98	38	7	22	4	340	4	1	231	46	852
5:15 PM	31	6	70	47	2	19	2	308	2	2	243	60	792
5:30 PM	18	8	55	34	8	13	10	313	3	1	219	46	728
5:45 PM	13	5	53	33	6	14	6	240	2	5	199	47	623
6:00 PM													
6:15 PM													
6:30 PM													
6:45 PM													

TOTAL	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
Volumes	209	100	657	310	40	158	55	2551	33	31	1866	430	6440
Approach %	21.64	10.35	68.01	61.02	7.87	31.10	2.08	96.67	1.25	1.33	80.19	18.48	
App/Depart	966	/	585	508	/	104	2639	/	3518	2327	/	2233	

PM Peak Hr Begins at: 400 PM

PEAK													
Volumes	107	60	381	158	17	90	33	1350	22	22	974	231	3445
Approach %	19.53	10.95	69.53	59.62	6.42	33.96	2.35	96.09	1.57	1.79	79.38	18.83	

PEAK HR. FACTOR:	0.840	0.908	0.912	0.953	0.938

CONTROL: Signal
COMMENT 1: 0
GPS: 33.618290, -111.893152

3-ZN-2019
05/20/19

FIELD DATA SERVICES OF ARIZONA, INC.
520.316.6745

veracitytrafficgroup

Pedestrian & Bicycle Study

N-S STREET: 87th St.
E-W STREET: Raintree Dr.

Date: 02/12/19
Day: TUESDAY

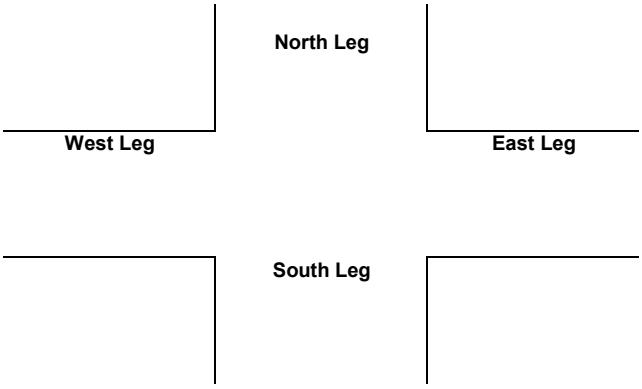
City: Scottsdale
Project #: 19-1085-004

	PEDESTRIANS			
	N-LEG	S-LEG	E-LEG	W-LEG
7:00 AM	0	0	0	0
7:15 AM	0	0	0	0
7:30 AM	0	0	0	0
7:45 AM	0	0	0	0
8:00 AM	0	0	0	0
8:15 AM	0	0	0	0
8:30 AM	1	0	2	1
8:45 AM	0	0	0	0
TOTAL	**1**	**0**	**2**	**1**

	BICYCLES			
	N-LEG	S-LEG	E-LEG	W-LEG
7:00 AM	0	0	0	0
7:15 AM	0	0	0	0
7:30 AM	0	0	0	0
7:45 AM	0	0	0	0
8:00 AM	0	0	0	0
8:15 AM	0	0	0	0
8:30 AM	0	0	0	0
8:45 AM	0	0	0	0
TOTAL	**0**	**0**	**0**	**0**

	PEDESTRIANS			
	N-LEG	S-LEG	E-LEG	W-LEG
4:00 PM	0	0	0	0
4:15 PM	0	0	0	0
4:30 PM	0	0	0	0
4:45 PM	1	0	0	0
5:00 PM	1	0	0	0
5:15 PM	0	0	1	0
5:30 PM	0	0	0	0
5:45 PM	0	0	2	0
TOTAL	**2**	**0**	**3**	**0**

	BICYCLES			
	N-LEG	S-LEG	E-LEG	W-LEG
4:00 PM	0	0	0	0
4:15 PM	0	0	0	0
4:30 PM	0	0	0	0
4:45 PM	0	0	0	0
5:00 PM	1	0	0	0
5:15 PM	0	0	0	0
5:30 PM	0	0	0	0
5:45 PM	0	0	0	0
TOTAL	**1**	**0**	**0**	**0**



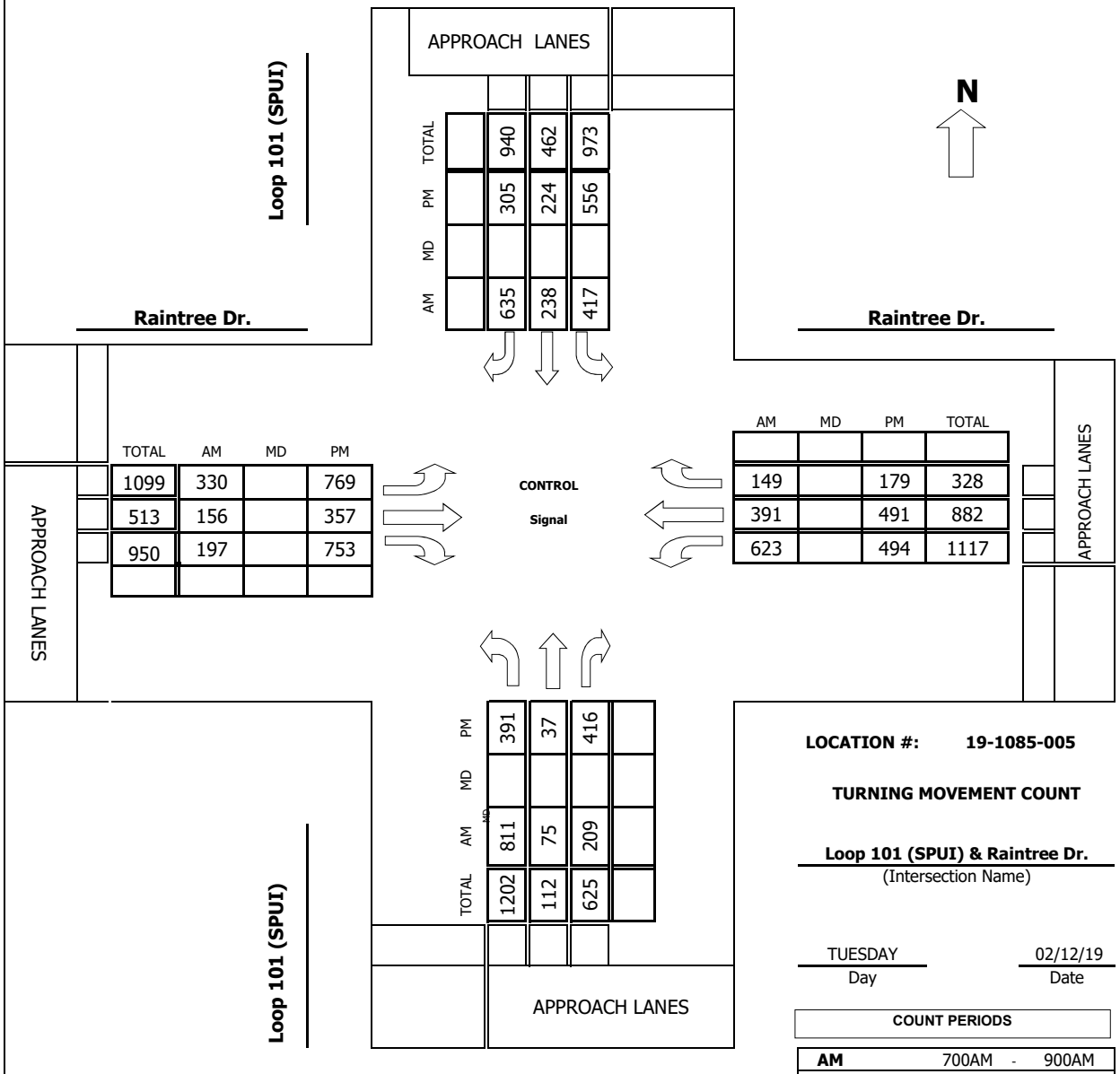
3-ZN-2019
05/20/19

Intersection Turning Movement
Prepared by:

FIELD DATA SERVICES OF ARIZONA, INC.
520.316.6745

Project #: 19-1085-005

TMC SUMMARY OF Loop 101 (SPUI) & Raintree Dr.



LOCATION #: 19-1085-005

TURNING MOVEMENT COUNT

Loop 101 (SPUI) & Raintree Dr.
(Intersection Name)

TUESDAY (Day) 02/12/19 (Date)

COUNT PERIODS			
AM	700AM	-	900AM
NOON		-	
PM	400PM	-	600PM

AM PEAK HOUR 800 AM

NOON PEAK HOUR

PM PEAK HOUR 430 PM

3-ZN-2019
05/20/19

Intersection Turning Movement
Prepared by:

FIELD DATA SERVICES OF ARIZONA, INC.
520.316.6745

veracitytrafficgroup

N-S STREET:	Loop 101 (SPUI)	DATE:	02/12/19	LOCATION:	Scottsdale
E-W STREET:	Raintree Dr.	DAY:	TUESDAY	PROJECT#	19-1085-005

	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
LANES:	2	1.5	0.5	2	2	1	2	2	1	2	2	1	
6:00 AM													
6:15 AM													
6:30 AM													
6:45 AM													
7:00 AM	178	13	38	71	31	88	46	27	36	125	43	44	740
7:15 AM	154	19	46	90	47	120	50	24	33	189	76	35	883
7:30 AM	187	8	16	75	44	123	58	31	36	161	79	38	856
7:45 AM	226	13	26	89	67	162	64	24	51	180	99	24	1025
8:00 AM	209	14	33	101	63	149	73	49	48	138	87	34	998
8:15 AM	189	17	71	123	60	183	90	44	42	180	83	40	1122
8:30 AM	219	17	48	96	59	142	72	43	58	142	85	45	1026
8:45 AM	194	27	57	97	56	161	95	20	49	163	136	30	1085
9:00 AM													
9:15 AM													
9:30 AM													
9:45 AM													
10:00 AM													
10:15 AM													
10:30 AM													
10:45 AM													
11:00 AM													
11:15 AM													
11:30 AM													
11:45 AM													

TOTAL	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
Volumes	1556	128	335	742	427	1128	548	262	353	1278	688	290	7735
Approach %	77.07	6.34	16.59	32.30	18.59	49.11	47.12	22.53	30.35	56.65	30.50	12.85	
App/Depart	2019	/	966	2297	/	2058	1163	/	1339	2256	/	3372	

AM Peak Hr Begins at: 800 AM

PEAK													
Volumes	811	75	209	417	238	635	330	156	197	623	391	149	4231
Approach %	74.06	6.85	19.09	32.33	18.45	49.22	48.32	22.84	28.84	53.57	33.62	12.81	
PEAK HR. FACTOR:		0.964			0.881			0.970			0.884		0.943

CONTROL:	Signal
COMMENT 1:	
GPS:	33.618298, -111.891344

3-ZN-2019
05/20/19

Intersection Turning Movement

FIELD DATA SERVICES OF ARIZONA, INC.
520.316.6745

veracitytrafficgroup

N-S STREET:	Loop 101 (SPUI) 0	DATE:	02/12/19	LOCATION:	Scottsdale
E-W STREET:	Raintree Dr.	DAY:	TUESDAY	PROJECT#	19-1085-005

	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
LANES:	2	1.5	0.5	2	2	1	2	2	1	2	2	1	
1:00 PM													
1:15 PM													
1:30 PM													
1:45 PM													
2:00 PM													
2:15 PM													
2:30 PM													
2:45 PM													
3:00 PM													
3:15 PM													
3:30 PM													
3:45 PM													
4:00 PM	112	8	91	137	52	98	160	99	226	123	120	39	1265
4:15 PM	102	10	77	141	69	76	182	79	169	127	131	28	1191
4:30 PM	104	10	83	118	49	71	186	122	199	131	130	52	1255
4:45 PM	84	9	105	128	47	86	189	110	169	118	128	39	1212
5:00 PM	98	8	100	164	67	65	199	63	219	130	116	49	1278
5:15 PM	105	10	128	146	61	83	195	62	166	115	117	39	1227
5:30 PM	111	1	143	155	60	54	149	65	191	86	98	32	1145
5:45 PM	86	16	155	115	59	55	126	74	121	93	99	29	1028
6:00 PM													
6:15 PM													
6:30 PM													
6:45 PM													

TOTAL	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
Volumes	802	72	882	1104	464	588	1386	674	1460	923	939	307	9601
Approach %	45.67	4.10	50.23	51.21	21.52	27.27	39.38	19.15	41.48	42.55	43.29	14.15	
App/Depart	1756	/	1765	2156	/	2847	3520	/	2660	2169	/	2329	

PM Peak Hr Begins at: 430 PM

PEAK													
Volumes	391	37	416	556	224	305	769	357	753	494	491	179	4972
Approach %	46.33	4.38	49.29	51.24	20.65	28.11	40.93	19.00	40.07	42.44	42.18	15.38	
PEAK HR. FACTOR:	0.868			0.916			0.927			0.930			0.973

CONTROL:	Signal
COMMENT 1:	0
GPS:	33.618298, -111.891344

3-ZN-2019
05/20/19

FIELD DATA SERVICES OF ARIZONA, INC.
520.316.6745

veracitytrafficgroup

Pedestrian & Bicycle Study

N-S STREET: Loop 101 (SPUI)
E-W STREET: Raintree Dr.

Date: 02/12/19
Day: TUESDAY

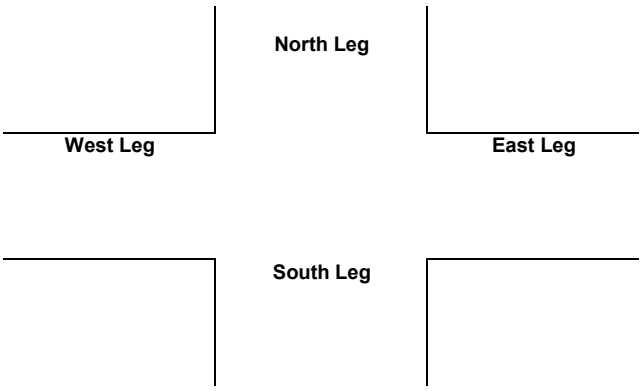
City: Scottsdale
Project #: 19-1085-005

	PEDESTRIANS			
	N-LEG	S-LEG	E-LEG	W-LEG
7:00 AM	0	0	0	0
7:15 AM	0	0	0	0
7:30 AM	0	0	0	0
7:45 AM	0	0	0	0
8:00 AM	0	0	0	0
8:15 AM	0	0	0	0
8:30 AM	0	1	0	0
8:45 AM	0	0	0	0
TOTAL	**0**	**1**	**0**	**0**

	BICYCLES			
	N-LEG	S-LEG	E-LEG	W-LEG
7:00 AM	0	0	0	0
7:15 AM	0	0	0	0
7:30 AM	0	0	0	0
7:45 AM	0	0	0	0
8:00 AM	0	0	0	0
8:15 AM	0	0	0	0
8:30 AM	0	0	0	0
8:45 AM	0	0	0	0
TOTAL	**0**	**0**	**0**	**0**

	PEDESTRIANS			
	N-LEG	S-LEG	E-LEG	W-LEG
4:00 PM	0	0	0	0
4:15 PM	0	0	0	0
4:30 PM	0	0	0	0
4:45 PM	0	0	0	0
5:00 PM	0	1	0	0
5:15 PM	0	0	0	0
5:30 PM	0	0	0	0
5:45 PM	0	0	0	0
TOTAL	**0**	**1**	**0**	**0**

	BICYCLES			
	N-LEG	S-LEG	E-LEG	W-LEG
4:00 PM	0	0	0	0
4:15 PM	0	0	0	0
4:30 PM	0	0	0	0
4:45 PM	0	0	0	0
5:00 PM	0	0	0	0
5:15 PM	0	0	0	0
5:30 PM	0	0	0	0
5:45 PM	0	0	0	0
TOTAL	**0**	**0**	**0**	**0**



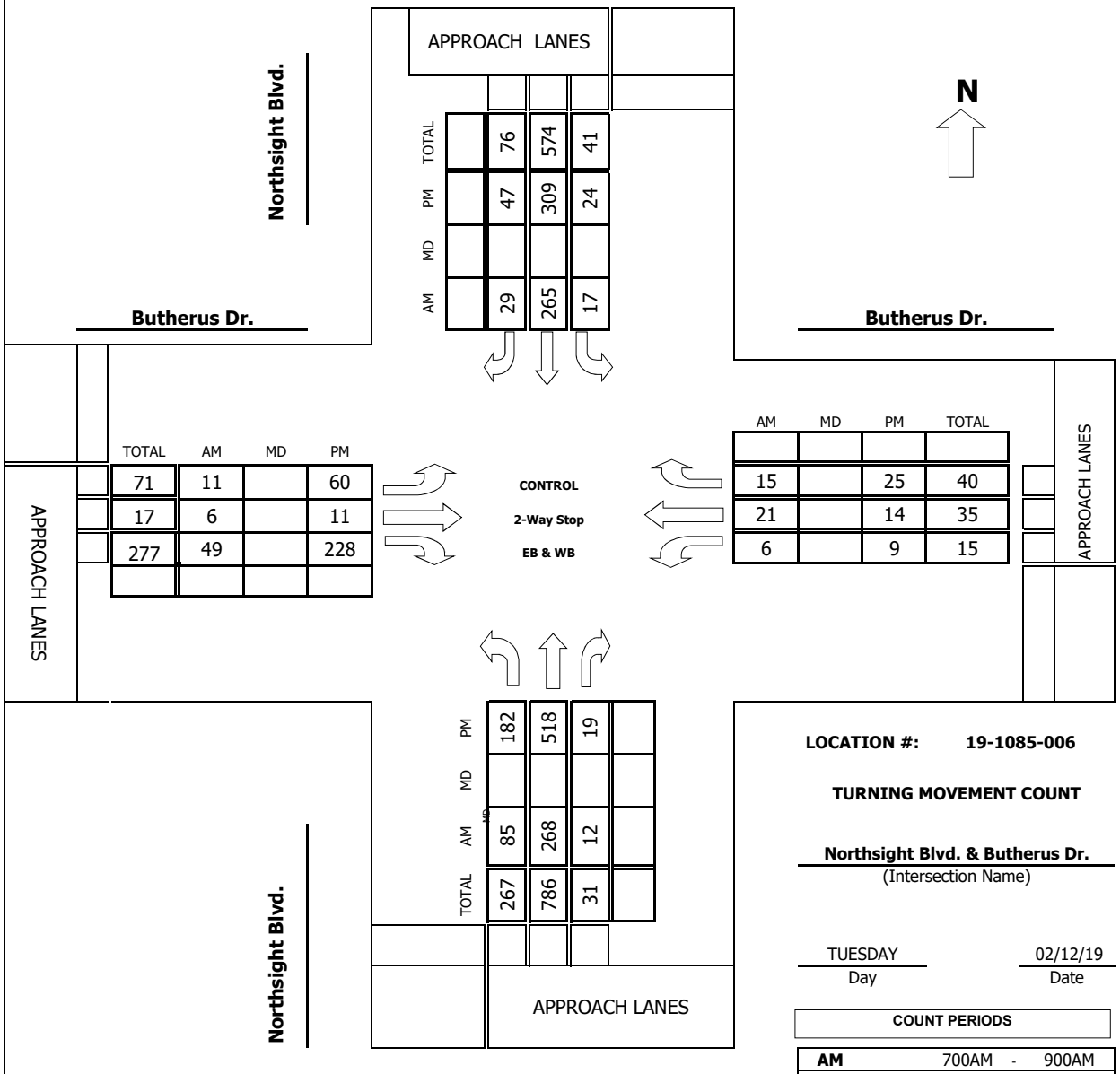
3-ZN-2019
05/20/19

Intersection Turning Movement
Prepared by:

FIELD DATA SERVICES OF ARIZONA, INC.
520.316.6745

Project #: 19-1085-006

TMC SUMMARY OF Northsight Blvd. & Butherus Dr.



LOCATION #: 19-1085-006

TURNING MOVEMENT COUNT

Northsight Blvd. & Butherus Dr.
(Intersection Name)

TUESDAY (Day) 02/12/19 (Date)

COUNT PERIODS

AM	700AM	-	900AM
NOON		-	
PM	400PM	-	600PM

AM PEAK HOUR 800 AM

NOON PEAK HOUR

PM PEAK HOUR 415 PM

3-ZN-2019
05/20/19

Intersection Turning Movement
Prepared by:

FIELD DATA SERVICES OF ARIZONA, INC.
520.316.6745

veracitytrafficgroup

N-S STREET:	Northsight Blvd.	DATE:	02/12/19	LOCATION:	Scottsdale
E-W STREET:	Butherus Dr.	DAY:	TUESDAY	PROJECT#	19-1085-006

	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
LANES:	1	2	1	1	2	0	1	1	0	1	0.5	0.5	
6:00 AM													
6:15 AM													
6:30 AM													
6:45 AM													
7:00 AM	8	47	0	2	47	5	0	2	9	0	2	3	125
7:15 AM	19	48	1	6	44	5	2	1	9	1	2	5	143
7:30 AM	16	58	1	4	58	4	5	2	9	0	3	4	164
7:45 AM	22	58	0	5	66	6	0	2	14	3	5	3	184
8:00 AM	12	60	3	7	66	6	3	2	11	1	6	3	180
8:15 AM	8	68	2	4	74	5	1	3	9	1	5	7	187
8:30 AM	28	75	2	4	57	7	2	1	16	3	3	3	201
8:45 AM	37	65	5	2	68	11	5	0	13	1	7	2	216
9:00 AM													
9:15 AM													
9:30 AM													
9:45 AM													
10:00 AM													
10:15 AM													
10:30 AM													
10:45 AM													
11:00 AM													
11:15 AM													
11:30 AM													
11:45 AM													

TOTAL	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
Volumes	150	479	14	34	480	49	18	13	90	10	33	30	1400
Approach %	23.33	74.49	2.18	6.04	85.26	8.70	14.88	10.74	74.38	13.70	45.21	41.10	
App/Depart	643	/	527	563	/	580	121	/	61	73	/	232	

AM Peak Hr Begins at: 800 AM

PEAK													
Volumes	85	268	12	17	265	29	11	6	49	6	21	15	784
Approach %	23.29	73.42	3.29	5.47	85.21	9.32	16.67	9.09	74.24	14.29	50.00	35.71	
PEAK HR. FACTOR:		0.853			0.937			0.868			0.808		0.907

CONTROL:	2-Way Stop (EB & WB)
COMMENT 1:	
GPS:	33.621812, -111.897330

3-ZN-2019
05/20/19

Intersection Turning Movement

FIELD DATA SERVICES OF ARIZONA, INC.
520.316.6745

veracitytrafficgroup

N-S STREET:	Northsight Blvd. 0	DATE:	02/12/19	LOCATION:	Scottsdale
E-W STREET:	Butherus Dr.	DAY:	TUESDAY	PROJECT#	19-1085-006

	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
LANES:	1	2	1	1	2	0	1	1	0	1	0.5	0.5	
1:00 PM													
1:15 PM													
1:30 PM													
1:45 PM													
2:00 PM													
2:15 PM													
2:30 PM													
2:45 PM													
3:00 PM													
3:15 PM													
3:30 PM													
3:45 PM													
4:00 PM	40	123	3	3	86	14	14	6	58	0	3	6	356
4:15 PM	46	114	6	1	56	17	10	5	48	2	3	6	314
4:30 PM	54	124	6	10	88	8	14	1	76	0	7	7	395
4:45 PM	37	130	2	6	79	8	17	1	54	3	3	6	346
5:00 PM	45	150	5	7	86	14	19	4	50	4	1	6	391
5:15 PM	50	97	3	4	55	12	9	1	57	3	4	9	304
5:30 PM	38	93	2	6	75	11	11	2	50	4	4	6	302
5:45 PM	45	87	2	11	66	7	11	3	50	2	1	15	300
6:00 PM													
6:15 PM													
6:30 PM													
6:45 PM													

TOTAL	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
Volumes	355	918	29	48	591	91	105	23	443	18	26	61	2708
Approach %	27.27	70.51	2.23	6.58	80.96	12.47	18.39	4.03	77.58	17.14	24.76	58.10	
App/Depart	1302	/	1084	730	/	1052	571	/	100	105	/	472	

PM Peak Hr Begins at: 415 PM

PEAK													
Volumes	182	518	19	24	309	47	60	11	228	9	14	25	1446
Approach %	25.31	72.04	2.64	6.32	81.32	12.37	20.07	3.68	76.25	18.75	29.17	52.08	
PEAK HR. FACTOR:		0.899			0.888			0.821			0.857		0.915

CONTROL:	2-Way Stop (EB & WB)
COMMENT 1:	0
GPS:	33.621812, -111.897330

3-ZN-2019
05/20/19

FIELD DATA SERVICES OF ARIZONA, INC.
520.316.6745

veracitytrafficgroup

Pedestrian & Bicycle Study

N-S STREET: Northsight Blvd.
E-W STREET: Butherus Dr.

Date: 02/12/19
Day: TUESDAY

City: Scottsdale
Project #: 19-1085-006

	PEDESTRIANS			
	N-LEG	S-LEG	E-LEG	W-LEG
7:00 AM	0	0	0	0
7:15 AM	0	0	1	0
7:30 AM	0	0	0	1
7:45 AM	0	0	1	0
8:00 AM	0	0	0	1
8:15 AM	0	0	0	1
8:30 AM	0	0	0	0
8:45 AM	0	1	0	0
TOTAL	**0**	**1**	**2**	**3**

	BICYCLES			
	N-LEG	S-LEG	E-LEG	W-LEG
7:00 AM	0	0	0	0
7:15 AM	0	0	0	0
7:30 AM	0	0	0	0
7:45 AM	0	0	0	0
8:00 AM	0	0	1	0
8:15 AM	0	0	0	0
8:30 AM	0	0	0	0
8:45 AM	0	0	0	0
TOTAL	**0**	**0**	**1**	**0**

	PEDESTRIANS			
	N-LEG	S-LEG	E-LEG	W-LEG
4:00 PM	0	0	0	0
4:15 PM	0	0	0	0
4:30 PM	0	0	0	0
4:45 PM	0	0	1	0
5:00 PM	0	0	1	0
5:15 PM	0	0	0	2
5:30 PM	0	0	0	0
5:45 PM	0	0	0	2
TOTAL	**0**	**0**	**2**	**4**

	BICYCLES			
	N-LEG	S-LEG	E-LEG	W-LEG
4:00 PM	0	0	0	0
4:15 PM	0	0	0	0
4:30 PM	0	0	2	1
4:45 PM	0	0	1	0
5:00 PM	0	0	0	0
5:15 PM	0	0	0	0
5:30 PM	0	0	0	0
5:45 PM	0	0	0	0
TOTAL	**0**	**0**	**3**	**1**

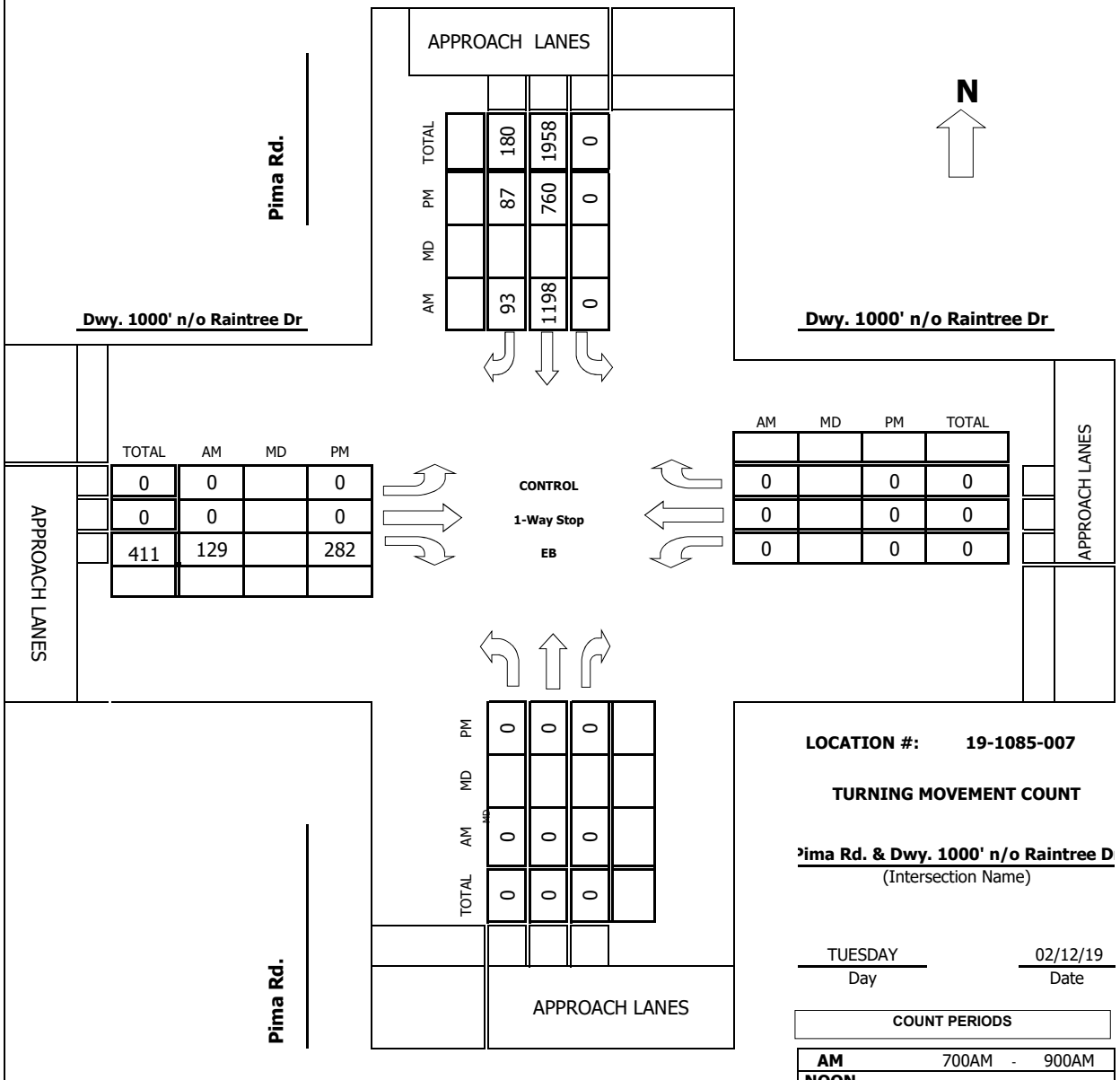
3-ZN-2019
05/20/19

Intersection Turning Movement
Prepared by:

FIELD DATA SERVICES OF ARIZONA, INC.
520.316.6745

Project #: 19-1085-007

TMC SUMMARY OF Pima Rd. & Dwy. 1000' n/o Raintree Dr



LOCATION #: 19-1085-007

TURNING MOVEMENT COUNT

Pima Rd. & Dwy. 1000' n/o Raintree D
(Intersection Name)

TUESDAY (Day) 02/12/19 (Date)

COUNT PERIODS			
AM	700AM	-	900AM
NOON		-	
PM	400PM	-	600PM

AM PEAK HOUR 745 AM

NOON PEAK HOUR

PM PEAK HOUR 400 PM

3-ZN-2019
05/20/19

Intersection Turning Movement
Prepared by:

FIELD DATA SERVICES OF ARIZONA, INC.
520.316.6745

veracitytrafficgroup

N-S STREET:	Pima Rd.	DATE:	02/12/19	LOCATION:	Scottsdale
E-W STREET:	Dwy. 1000' n/o Raintree Dr	DAY:	TUESDAY	PROJECT#	19-1085-007

	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
LANES:	0	0	0	0	4	0	0	0	1	0	0	0	
6:00 AM													
6:15 AM													
6:30 AM													
6:45 AM													
7:00 AM	0	0	0	0	190	25	0	0	29	0	0	0	244
7:15 AM	0	0	0	0	224	19	0	0	29	0	0	0	272
7:30 AM	0	0	0	0	265	18	0	0	25	0	0	0	308
7:45 AM	0	0	0	0	292	26	0	0	33	0	0	0	351
8:00 AM	0	0	0	0	299	29	0	0	36	0	0	0	364
8:15 AM	0	0	0	0	325	18	0	0	27	0	0	0	370
8:30 AM	0	0	0	0	282	20	0	0	33	0	0	0	335
8:45 AM	0	0	0	0	297	22	0	0	31	0	0	0	350
9:00 AM													
9:15 AM													
9:30 AM													
9:45 AM													
10:00 AM													
10:15 AM													
10:30 AM													
10:45 AM													
11:00 AM													
11:15 AM													
11:30 AM													
11:45 AM													

TOTAL	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
Volumes	0	0	0	0	2174	177	0	0	243	0	0	0	2594
Approach %	####	####	####	0.00	92.47	7.53	0.00	0.00	100.00	####	####	####	
App/Depart	0	/	0	2351	/	2417	243	/	0	0	/	177	

AM Peak Hr Begins at: 745 AM

PEAK													
Volumes	0	0	0	0	1198	93	0	0	129	0	0	0	1420
Approach %	####	####	####	0.00	92.80	7.20	0.00	0.00	100.00	####	####	####	

PEAK HR. FACTOR:	0.000	0.941	0.896	0.000	0.959

CONTROL: 1-Way Stop (EB)
COMMENT 1:
GPS: 33.621291, -111.891646

3-ZN-2019
05/20/19

Intersection Turning Movement

FIELD DATA SERVICES OF ARIZONA, INC.
520.316.6745

veracitytrafficgroup

N-S STREET:	Pima Rd.	DATE:	02/12/19	LOCATION:	Scottsdale
	0				
E-W STREET:	Dwy. 1000' n/o Raintree Dr	DAY:	TUESDAY	PROJECT#	19-1085-007

	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
LANES:	0	0	0	0	4	0	0	0	1	0	0	0	
1:00 PM													
1:15 PM													
1:30 PM													
1:45 PM													
2:00 PM													
2:15 PM													
2:30 PM													
2:45 PM													
3:00 PM													
3:15 PM													
3:30 PM													
3:45 PM													
4:00 PM	0	0	0	0	216	23	0	0	66	0	0	0	305
4:15 PM	0	0	0	0	191	16	0	0	81	0	0	0	288
4:30 PM	0	0	0	0	184	22	0	0	56	0	0	0	262
4:45 PM	0	0	0	0	169	26	0	0	79	0	0	0	274
5:00 PM	0	0	0	0	205	15	0	0	73	0	0	0	293
5:15 PM	0	0	0	0	197	21	0	0	76	0	0	0	294
5:30 PM	0	0	0	0	166	24	0	0	72	0	0	0	262
5:45 PM	0	0	0	0	138	13	0	0	79	0	0	0	230
6:00 PM													
6:15 PM													
6:30 PM													
6:45 PM													

TOTAL	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
Volumes	0	0	0	0	1466	160	0	0	582	0	0	0	2208
Approach %	####	####	####	0.00	90.16	9.84	0.00	0.00	100.00	####	####	####	
App/Depart	0	/	0	1626	/	2048	582	/	0	0	/	160	

PM Peak Hr Begins at: 400 PM

PEAK													
Volumes	0	0	0	0	760	87	0	0	282	0	0	0	1129
Approach %	####	####	####	0.00	89.73	10.27	0.00	0.00	100.00	####	####	####	
PEAK HR. FACTOR:		0.000			0.886			0.870			0.000		0.925

CONTROL: 1-Way Stop (EB)
COMMENT 1: 0
GPS: 33.621291, -111.891646

3-ZN-2019
05/20/19

FIELD DATA SERVICES OF ARIZONA, INC.
520.316.6745

veracitytrafficgroup

Pedestrian & Bicycle Study

N-S STREET: Pima Rd.
E-W STREET: Dwy. 1000' n/o Raintree Dr

Date: 02/12/19
Day: TUESDAY

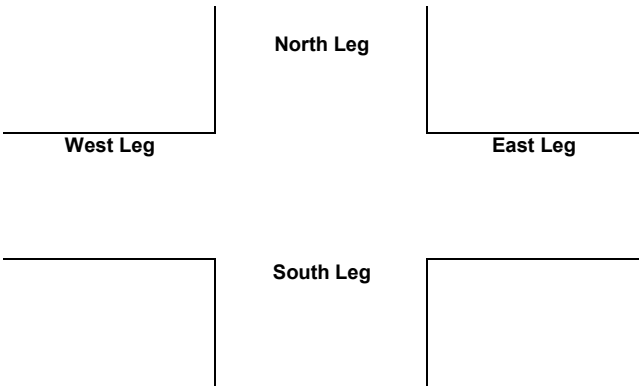
City: Scottsdale
Project #: 19-1085-007

	PEDESTRIANS			
	N-LEG	S-LEG	E-LEG	W-LEG
7:00 AM	0	0	0	0
7:15 AM	0	0	0	0
7:30 AM	0	0	0	0
7:45 AM	0	0	0	0
8:00 AM	0	0	0	0
8:15 AM	0	0	0	0
8:30 AM	0	0	0	0
8:45 AM	0	0	0	0
TOTAL	**0**	**0**	**0**	**0**

	BICYCLES			
	N-LEG	S-LEG	E-LEG	W-LEG
7:00 AM	0	0	0	0
7:15 AM	0	0	0	0
7:30 AM	0	0	0	0
7:45 AM	0	0	0	0
8:00 AM	0	0	0	0
8:15 AM	0	0	0	0
8:30 AM	0	0	0	0
8:45 AM	0	0	0	0
TOTAL	**0**	**0**	**0**	**0**

	PEDESTRIANS			
	N-LEG	S-LEG	E-LEG	W-LEG
4:00 PM	0	0	0	0
4:15 PM	0	0	0	0
4:30 PM	0	0	0	0
4:45 PM	0	0	0	0
5:00 PM	0	0	0	0
5:15 PM	0	0	0	0
5:30 PM	0	0	0	0
5:45 PM	0	0	0	0
TOTAL	**0**	**0**	**0**	**0**

	BICYCLES			
	N-LEG	S-LEG	E-LEG	W-LEG
4:00 PM	0	0	0	0
4:15 PM	0	0	0	0
4:30 PM	0	0	0	0
4:45 PM	0	0	0	0
5:00 PM	0	0	0	0
5:15 PM	0	0	0	0
5:30 PM	0	0	0	0
5:45 PM	0	0	0	0
TOTAL	**0**	**0**	**0**	**0**



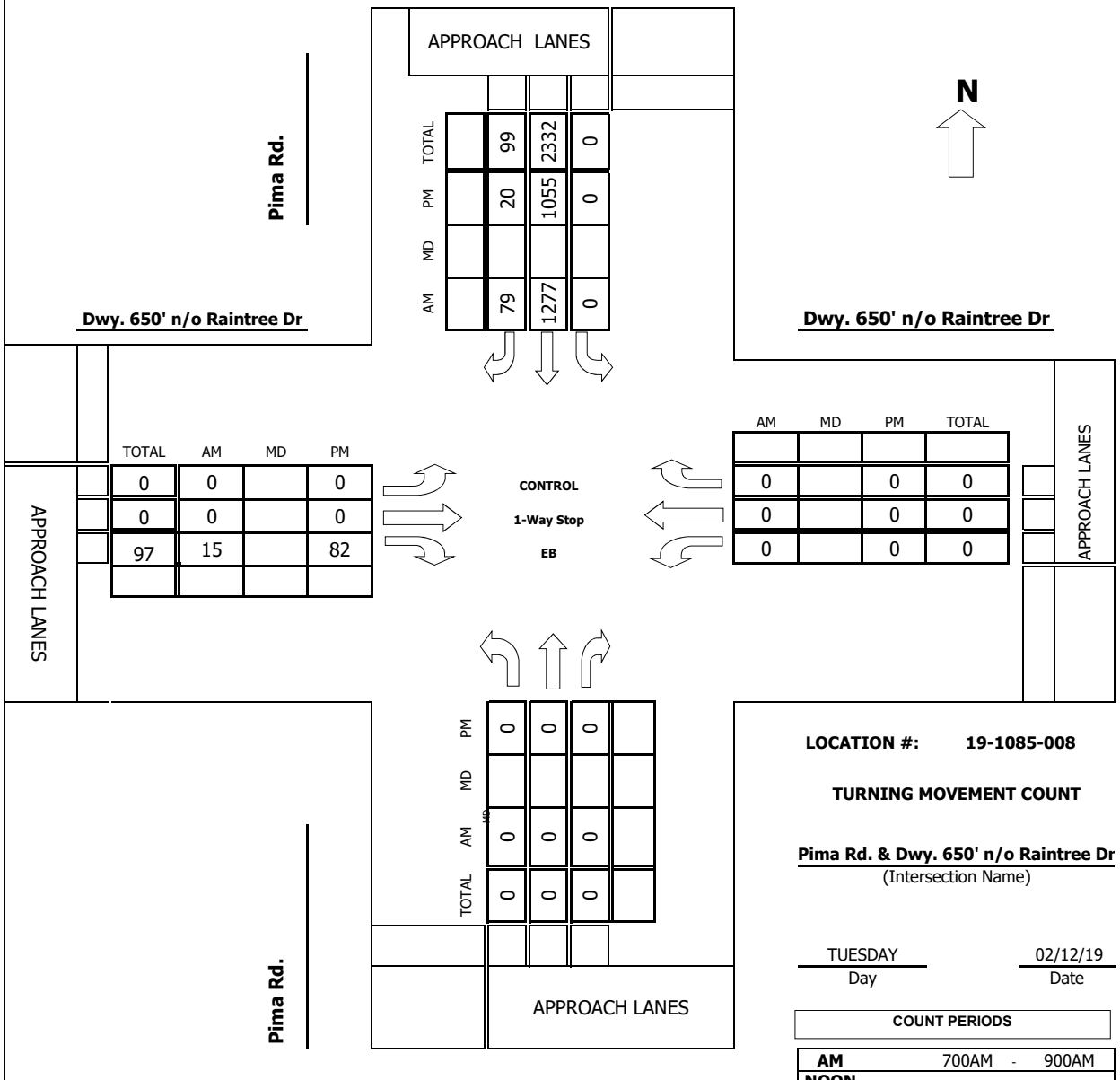
3-ZN-2019
05/20/19

Intersection Turning Movement
Prepared by:

FIELD DATA SERVICES OF ARIZONA, INC.
520.316.6745

Project #: 19-1085-008

TMC SUMMARY OF Pima Rd. & Dwy. 650' n/o Raintree Dr



LOCATION #: 19-1085-008

TURNING MOVEMENT COUNT

Pima Rd. & Dwy. 650' n/o Raintree Dr
(Intersection Name)

TUESDAY (Day) 02/12/19 (Date)

COUNT PERIODS			
AM	700AM	-	900AM
NOON		-	
PM	400PM	-	600PM

AM PEAK HOUR 745 AM

NOON PEAK HOUR

PM PEAK HOUR 445 PM

3-ZN-2019
05/20/19

Intersection Turning Movement
Prepared by:

FIELD DATA SERVICES OF ARIZONA, INC.
520.316.6745

veracitytrafficgroup

N-S STREET:	Pima Rd.	DATE:	02/12/19	LOCATION:	Scottsdale
E-W STREET:	Dwy. 650' n/o Raintree Dr	DAY:	TUESDAY	PROJECT#	19-1085-008

	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
LANES:	0	0	0	0	4	0	0	0	1	0	0	0	
6:00 AM													
6:15 AM													
6:30 AM													
6:45 AM													
7:00 AM	0	0	0	0	212	7	0	0	2	0	0	0	221
7:15 AM	0	0	0	0	253	0	0	0	5	0	0	0	258
7:30 AM	0	0	0	0	280	8	0	0	2	0	0	0	290
7:45 AM	0	0	0	0	320	24	0	0	1	0	0	0	345
8:00 AM	0	0	0	0	325	13	0	0	4	0	0	0	342
8:15 AM	0	0	0	0	333	23	0	0	4	0	0	0	360
8:30 AM	0	0	0	0	299	19	0	0	6	0	0	0	324
8:45 AM	0	0	0	0	306	18	0	0	2	0	0	0	326
9:00 AM													
9:15 AM													
9:30 AM													
9:45 AM													
10:00 AM													
10:15 AM													
10:30 AM													
10:45 AM													
11:00 AM													
11:15 AM													
11:30 AM													
11:45 AM													

TOTAL	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
Volumes	0	0	0	0	2328	112	0	0	26	0	0	0	2466
Approach %	####	####	####	0.00	95.41	4.59	0.00	0.00	100.00	####	####	####	
App/Depart	0	/	0	2440	/	2354	26	/	0	0	/	112	

AM Peak Hr Begins at: 745 AM

PEAK													
Volumes	0	0	0	0	1277	79	0	0	15	0	0	0	1371
Approach %	####	####	####	0.00	94.17	5.83	0.00	0.00	100.00	####	####	####	
PEAK HR. FACTOR:		0.000			0.952			0.625			0.000		0.952

CONTROL: 1-Way Stop (EB)
COMMENT 1:
GPS: 33.620151, -111.891787

3-ZN-2019
05/20/19

Intersection Turning Movement

FIELD DATA SERVICES OF ARIZONA, INC.
520.316.6745

veracitytrafficgroup

N-S STREET:	Pima Rd.	DATE:	02/12/19	LOCATION:	Scottsdale
	0				
E-W STREET:	Dwy. 650' n/o Raintree Dr	DAY:	TUESDAY	PROJECT#	19-1085-008

	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
LANES:	0	0	0	0	4	0	0	0	1	0	0	0	
1:00 PM													
1:15 PM													
1:30 PM													
1:45 PM													
2:00 PM													
2:15 PM													
2:30 PM													
2:45 PM													
3:00 PM													
3:15 PM													
3:30 PM													
3:45 PM													
4:00 PM	0	0	0	0	282	6	0	0	12	0	0	0	300
4:15 PM	0	0	0	0	258	7	0	0	17	0	0	0	282
4:30 PM	0	0	0	0	232	7	0	0	20	0	0	0	259
4:45 PM	0	0	0	0	248	5	0	0	14	0	0	0	267
5:00 PM	0	0	0	0	280	5	0	0	32	0	0	0	317
5:15 PM	0	0	0	0	281	6	0	0	18	0	0	0	305
5:30 PM	0	0	0	0	246	4	0	0	18	0	0	0	268
5:45 PM	0	0	0	0	222	7	0	0	7	0	0	0	236
6:00 PM													
6:15 PM													
6:30 PM													
6:45 PM													

TOTAL	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
Volumes	0	0	0	0	2049	47	0	0	138	0	0	0	2234
Approach %	####	####	####	0.00	97.76	2.24	0.00	0.00	100.00	####	####	####	
App/Depart	0	/	0	2096	/	2187	138	/	0	0	/	47	

PM Peak Hr Begins at: 445 PM

PEAK													
Volumes	0	0	0	0	1055	20	0	0	82	0	0	0	1157
Approach %	####	####	####	0.00	98.14	1.86	0.00	0.00	100.00	####	####	####	
PEAK HR. FACTOR:		0.000			0.936			0.641			0.000		0.912

CONTROL: 1-Way Stop (EB)
COMMENT 1: 0
GPS: 33.620151, -111.891787

3-ZN-2019
05/20/19

FIELD DATA SERVICES OF ARIZONA, INC.
520.316.6745

veracitytrafficgroup

Pedestrian & Bicycle Study

N-S STREET: Pima Rd.
E-W STREET: Dwy. 650' n/o Raintree Dr

Date: 02/12/19
Day: TUESDAY

City: Scottsdale
Project #: 19-1085-008

	PEDESTRIANS			
	N-LEG	S-LEG	E-LEG	W-LEG
7:00 AM	0	0	0	0
7:15 AM	0	0	0	0
7:30 AM	0	0	0	0
7:45 AM	0	0	0	0
8:00 AM	0	0	0	0
8:15 AM	0	0	0	0
8:30 AM	0	0	0	0
8:45 AM	0	0	0	0
TOTAL	**0**	**0**	**0**	**0**

	BICYCLES			
	N-LEG	S-LEG	E-LEG	W-LEG
7:00 AM	0	0	0	0
7:15 AM	0	0	0	0
7:30 AM	0	0	0	0
7:45 AM	0	0	0	0
8:00 AM	0	0	0	0
8:15 AM	0	0	0	0
8:30 AM	0	0	0	0
8:45 AM	0	0	0	0
TOTAL	**0**	**0**	**0**	**0**

	PEDESTRIANS			
	N-LEG	S-LEG	E-LEG	W-LEG
4:00 PM	0	0	0	0
4:15 PM	0	0	0	0
4:30 PM	0	0	0	0
4:45 PM	0	0	0	0
5:00 PM	0	0	0	0
5:15 PM	0	0	0	0
5:30 PM	0	0	0	0
5:45 PM	0	0	0	0
TOTAL	**0**	**0**	**0**	**0**

	BICYCLES			
	N-LEG	S-LEG	E-LEG	W-LEG
4:00 PM	0	0	0	0
4:15 PM	0	0	0	0
4:30 PM	0	0	0	0
4:45 PM	0	0	0	0
5:00 PM	0	0	0	0
5:15 PM	0	0	0	0
5:30 PM	0	0	0	0
5:45 PM	0	0	0	0
TOTAL	**0**	**0**	**0**	**0**

North Leg

West Leg

East Leg

South Leg

3-ZN-2019
05/20/19

Prepared by: Field Data Services of Arizona/Veracity Traffic Group (520) 316-6745

Volumes for: Tuesday, February 12, 2019 City: Scottsdale Project #: 19-1085-009

Location: Raintree Dr. east of Northsight Blvd.

AM Period	NB	SB	EB		WB			PM Period	NB	SB	EB		WB		
00:00			8		1			12:00			284		352		
00:15			4		7			12:15			286		362		
00:30			6		10			12:30			265		335		
00:45			4	22	2	20	42	12:45			308	1143	365	1414	2557
01:00			4		3			13:00			295		348		
01:15			2		5			13:15			252		328		
01:30			6		0			13:30			265		311		
01:45			4	16	4	12	28	13:45			279	1091	287	1274	2365
02:00			4		4			14:00			321		275		
02:15			2		2			14:15			249		299		
02:30			2		7			14:30			297		259		
02:45			4	12	6	19	31	14:45			285	1152	294	1127	2279
03:00			3		4			15:00			304		278		
03:15			2		7			15:15			261		292		
03:30			1		7			15:30			324		293		
03:45			1	7	19	37	44	15:45			292	1181	257	1120	2301
04:00			1		9			16:00			384		329		
04:15			3		21			16:15			310		290		
04:30			5		40			16:30			336		295		
04:45			10	19	42	112	131	16:45			376	1406	285	1199	2605
05:00			15		43			17:00			363		307		
05:15			22		66			17:15			338		295		
05:30			17		92			17:30			329		251		
05:45			18	72	156	357	429	17:45			231	1261	231	1084	2345
06:00			33		137			18:00			251		208		
06:15			36		143			18:15			216		194		
06:30			46		179			18:30			229		170		
06:45			87	202	216	675	877	18:45			186	882	139	711	1593
07:00			98		235			19:00			185		135		
07:15			110		282			19:15			156		110		
07:30			117		333			19:30			155		103		
07:45			128	453	433	1283	1736	19:45			96	592	76	424	1016
08:00			170		331			20:00			163		85		
08:15			168		371			20:15			101		51		
08:30			157		355			20:30			80		50		
08:45			164	659	406	1463	2122	20:45			64	408	42	228	636
09:00			135		326			21:00			73		43		
09:15			174		340			21:15			56		26		
09:30			142		291			21:30			42		22		
09:45			179	630	339	1296	1926	21:45			23	194	28	119	313
10:00			175		297			22:00			41		16		
10:15			150		286			22:15			22		11		
10:30			196		272			22:30			23		13		
10:45			222	743	317	1172	1915	22:45			11	97	9	49	146
11:00			240		332			23:00			25		13		
11:15			245		328			23:15			14		9		
11:30			272		322			23:30			6		7		
11:45			279	1036	360	1342	2378	23:45			5	50	7	36	86
Total Vol.				3871		7788	**11659**					9457		8785	**18242**

GPS Coordinates: 33.618313, -111.894059

Daily Totals

NB	SB	EB	WB	Combined
		13328	16573	**29901**

	AM			PM		
Split %	33.2%	66.8%	**39.0%**	51.8%	48.2%	**61.0%**
Peak Hour	11:30	07:45	**11:45**	16:30	12:00	**16:00**
Volume	1121	1490	**2523**	1413	1414	**2605**
P.H.F.	0.98	0.86	**0.97**	0.94	0.97	**0.91**

3-ZN-2019

05/20/19

Prepared by: Field Data Services of Arizona/Veracity Traffic Group (520) 316-6745

Volumes for: Tuesday, February 12, 2019 City: Scottsdale Project #: 19-1085-010

Location: Northsight Blvd. south of Buterus Dr.

AM Period	NB		SB		EB	WB		PM Period	NB		SB		EB	WB	
00:00	5		1					12:00	238		219				
00:15	4		1					12:15	188		271				
00:30	3		4					12:30	183		239				
00:45	0	12	0	6			18	12:45	192	801	232	961			1762
01:00	2		3					13:00	200		215				
01:15	4		0					13:15	166		217				
01:30	1		1					13:30	168		215				
01:45	1	8	1	5			13	13:45	152	686	200	847			1533
02:00	2		2					14:00	131		182				
02:15	1		0					14:15	137		160				
02:30	3		2					14:30	144		178				
02:45	1	7	1	5			12	14:45	153	565	195	715			1280
03:00	0		0					15:00	138		181				
03:15	2		2					15:15	148		157				
03:30	3		0					15:30	147		166				
03:45	10	15	1	3			18	15:45	127	560	165	669			1229
04:00	2		2					16:00	179		163				
04:15	6		1					16:15	145		169				
04:30	7		4					16:30	157		163				
04:45	10	25	7	14			39	16:45	161	642	142	637			1279
05:00	12		9					17:00	180		162				
05:15	11		6					17:15	165		165				
05:30	18		10					17:30	139		161				
05:45	25	66	12	37			103	17:45	144	628	135	623			1251
06:00	32		18					18:00	128		132				
06:15	41		13					18:15	114		112				
06:30	41		27					18:30	135		127				
06:45	52	166	37	95			261	18:45	101	478	108	479			957
07:00	58		54					19:00	87		130				
07:15	63		47					19:15	76		90				
07:30	74		66					19:30	55		95				
07:45	85	280	85	252			532	19:45	34	252	59	374			626
08:00	82		68					20:00	46		75				
08:15	72		88					20:15	41		45				
08:30	99		82					20:30	32		47				
08:45	111	364	82	320			684	20:45	33	152	36	203			355
09:00	104		113					21:00	24		54				
09:15	96		100					21:15	8		27				
09:30	121		76					21:30	15		17				
09:45	117	438	90	379			817	21:45	21	68	14	112			180
10:00	114		100					22:00	13		25				
10:15	120		119					22:15	7		9				
10:30	131		103					22:30	11		16				
10:45	132	497	140	462			959	22:45	14	45	9	59			104
11:00	165		141					23:00	7		4				
11:15	162		144					23:15	6		5				
11:30	200		182					23:30	4		6				
11:45	219	746	193	660			1406	23:45	5	22	0	15			37

Total Vol.	2624	2238	**4862**	4899	5694		**10593**
GPS Coordinates:	33.620571, -111.897694						

Daily Totals

NB	SB	EB	WB	**Combined**
7523	7932			**15455**

	AM			**PM**		
Split %	54.0%	46.0%	**31.5%**	46.2%	53.8%	**68.5%**
Peak Hour	11:30	11:45	**11:45**	12:00	12:00	**12:00**
Volume	845	922	**1750**	801	961	**1762**
P.H.F.	0.89	0.85	**0.95**	0.84	0.89	**0.96**

3-ZN-2019

05/20/19

Prepared by: Field Data Services of Arizona/Veracity Traffic Group (520) 316-6745

Volumes for: Tuesday, February 12, 2019 City: Scottsdale Project #: 19-1085-011

Location: SB Pima Rd. Frontage Rd. north of Raintree Dr.

AM Period	NB	SB	EB	WB		PM Period	NB	SB	EB	WB	
00:00		5				12:00		300			
00:15		6				12:15		338			
00:30		9				12:30		339			
00:45		7	27		27	12:45		334	1311		1311
01:00		8				13:00		334			
01:15		6				13:15		313			
01:30		3				13:30		331			
01:45		2	19		19	13:45		300	1278		1278
02:00		4				14:00		279			
02:15		2				14:15		270			
02:30		5				14:30		255			
02:45		5	16		16	14:45		278	1082		1082
03:00		2				15:00		234			
03:15		1				15:15		225			
03:30		3				15:30		253			
03:45		5	11		11	15:45		260	972		972
04:00		11				16:00		282			
04:15		10				16:15		272			
04:30		21				16:30		240			
04:45		28	70		70	16:45		248	1042		1042
05:00		32				17:00		278			
05:15		43				17:15		273			
05:30		75				17:30		238			
05:45		103	253		253	17:45		217	1006		1006
06:00		107				18:00		163			
06:15		110				18:15		182			
06:30		140				18:30		146			
06:45		157	514		514	18:45		123	614		614
07:00		219				19:00		142			
07:15		253				19:15		100			
07:30		290				19:30		111			
07:45		325	1087		1087	19:45		95	448		448
08:00		335				20:00		75			
08:15		352				20:15		69			
08:30		315				20:30		57			
08:45		328	1330		1330	20:45		61	262		262
09:00		313				21:00		50			
09:15		257				21:15		43			
09:30		229				21:30		33			
09:45		284	1083		1083	21:45		39	165		165
10:00		278				22:00		32			
10:15		262				22:15		23			
10:30		242				22:30		18			
10:45		262	1044		1044	22:45		14	87		87
11:00		230				23:00		15			
11:15		260				23:15		6			
11:30		290				23:30		6			
11:45		291	1071		1071	23:45		8	35		35
Total Vol.		6525			**6525**			8302			**8302**

GPS Coordinates: 33.620600, -111.891800

Daily Totals

NB	SB	EB	WB	Combined
	14827			**14827**

	AM		PM	
Split %	100.0%	**44.0%**	100.0%	**56.0%**
Peak Hour	08:00	**08:00**	12:15	**12:15**
Volume	1330	**1330**	1345	**1345**
P.H.F.	0.94	**0.94**	0.99	**0.99**

3-ZN-2019

05/20/19

Appendix E – Existing Signal Timing

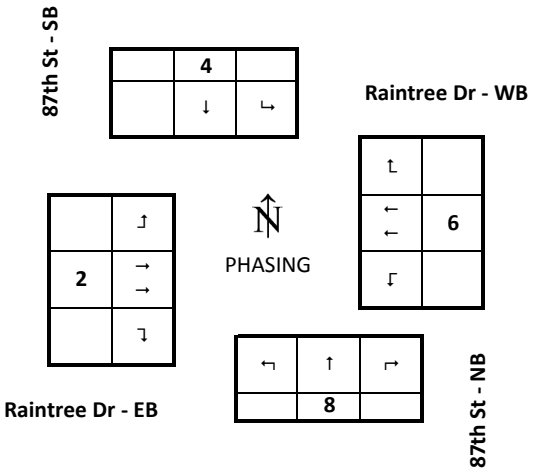
E

Raintree Dr & 87th St			System # 267
BASIC TIMING PLAN	Section #	I.P. Address **MM1-5-1**	Date Designed
		172.17.12.67	2/20/2018

	Phase		2		4		6		8
	Movement		EBT		SBT		WBT		NBT
	NOTES								
	MIN GRN		10		7		10		7
	BK MGRN								
	CS MGRN								
	DLY GRN								
	WALK		8		8		8		8
	WALK2								
	WLK MAX								
	PED CLR/FDW		20		33		20		33
	PD CLR2								
	PC MAX								
	PED CO								
	VEH EXT		1		2		1		2
	VH EXT2								
	MAX 1		50		50		50		50
	MAX 2		60		60		60		60
	MAX 3								
	DYM MAX								
	DYM STP								
	YELLOW		4.0		4.4		4		4.4
	RED CLR		1.7		2.0		1.7		2.0
	RED MAX								
	RED RVT		2		2		2		2
	ACT B4								
	SEC/ACT								
	MAX INT								
	TIME B4								
	CARS WT								
	STPTDUC								
	TTREDUC								
	MIN GAP								
	LOCK DET								
	VEH RECALL		X				X		
	PED RECALL								
	MAX RECALL								
	SOFT RECALL								
	NO REST								
	ADD INIT CAL								

TIMING PLAN - MM-2-1

RECALLS - MM-2-8



PHASING SEQUENCES				
TOD: MORNING				
R1	2		4	
R2	6		8	
		B		B
Use Timing plan:				
TOD: MIDDAY				
R1	2		4	
R2	6		8	
		B		B
Use Timing plan:				
TOD: EVENING				
R1	2		4	
R2	6		8	
		B		B
Use Timing plan:				
TOD: WEEKEND				
R1	2		4	
R2	6		8	
		B		B
Use Timing plan:				
FREE				
R1	2		4	
R2	6		8	
		B		B
Use Timing plan: 254				

NOTES

EXPIRES XX/XX/XXXX

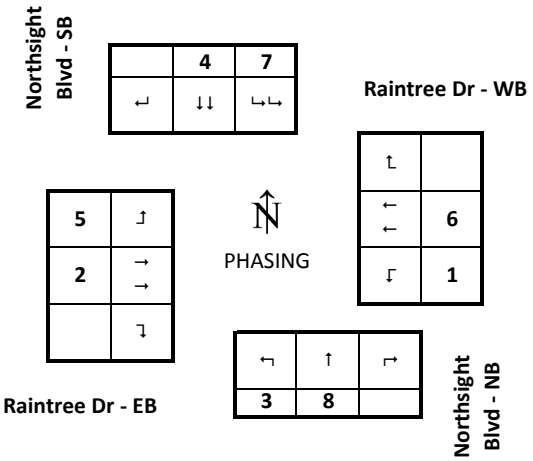
3-ZN-2019
05/20/19

Raintree Dr & 87th St										System #	267
COORDINATOR						Section #				Date Updated	
						101				2/20/2018	
	PHASE	1	2	3	4	5	6	7	8		
	FDW		20		33		20		33		
	YELLOW		4		4.4		4		4.4		
	ALL RED		1.7		2		1.7		2		
	WALK		20		33		20		33		
PLAN 1 AM PLAN OPERATIVE TIMES (6:30)	R1	2	→			4	↓			COORD PATTERN	OFFSET
	R2	6	←			8	↑			Balanced	100
		RING 1				RING 2					
	PHASE		2		4		6		8		
	SPLIT		85		35		85		35	Target Cycle Length	
	COORD		X				X			120	
	RECALLS		V				V			Actual Cycle Length	
	GREEN		79.3		28.6		79.3		28.6	120	
PLAN 4 MIDDAY PLAN OPERATIVE TIMES (9:00)	R1	2	→			4	↓			COORD PATTERN	OFFSET
	R2	6	←			8	↑			Balanced	68
		RING 1				RING 2					
	PHASE		2		4		6		8		
	SPLIT		82		38		82		38	Target Cycle Length	
	COORD		X				X			120	
	RECALLS		V				V			Actual Cycle Length	
	GREEN		76.3		31.6		76.3		31.6	120	
PLAN 7 PM PLAN OPERATIVE TIMES (14:30)	R1	2	→			4	↓			COORD PATTERN	OFFSET
	R2	6	←			8	↑			Balanced	105
		RING 1				RING 2					
	PHASE		2		4		6		8		
	SPLIT		75		45		75		45	Target Cycle Length	
	COORD		X				X			120	
	RECALLS		V				V			Actual Cycle Length	
	GREEN		69.3		38.6		69.3		38.6	120	
PLAN 10 MIDNIGHT PLAN OPERATIVE TIMES (20:00)	R1	2	→			4	↓			COORD PATTERN	OFFSET
	R2	6	←			8	↑			Balanced	60
		RING 1				RING 2					
	PHASE		2		4		6		8		
	SPLIT		67		23		67		23	Target Cycle Length	
	COORD		X				X			90	
	RECALLS		V				V			Actual Cycle Length	
	GREEN		61.3		16.6		61.3		16.6	90	

3-ZN-2019
05/20/19

Raintree Dr & Northsight Blvd			System # 237
BASIC TIMING PLAN	Section #	I.P. Address **MM1-5-1**	Date Designed
	101	172.17.12.37	2/5/2019

	Phase	1	2	3	4	5	6	7	8
	Movement	WBL	EBT	NBL	SBT	EBL	WBT	SBL	NBT
	NOTES	p&P		P		p&P		P	
TIMING PLAN - MM-2-1	MIN GRN	5	10	5	7	5	10	5	7
	BK MGRN								
	CS MGRN								
	DLY GRN								
	WALK		7		7		7		7
	WALK2								
	WLK MAX								
	PED CLR/FDW		20		20		23		20
	PD CLR2								
	PC MAX								
	PED CO								
	VEH EXT	2	2	2	2	2	2	2	2
	VH EXT2								
	MAX 1	25	45	25	45	25	45	25	45
	MAX 2	35	60	35	60	35	60	35	60
	MAX 3								
	DYM MAX								
	DYM STP								
	YELLOW	3.3	4.0	3.6	4.4	3.3	4	3.6	4.4
	RED CLR	2	1.3	1	1.1	2	1.3	1	1.1
	RED MAX								
	RED RVT	2	2	2	2	2	2	2	2
	ACT B4								
	SEC/ACT								
	MAX INT								
	TIME B4								
	CARS WT								
	STPTDUC								
	TTREDUC								
	MIN GAP								
RECALLS - MM-2-8	LOCK DET								
	VEH RECALL		X				X		
	PED RECALL								
	MAX RECALL								
	SOFT RECALL								
	NO REST								
	ADD INIT CAL								



PHASING SEQUENCES				
TOD: MORNING				
R1	2	1	4	3
R2	6	5	8	7
	B	B		B
Use Timing plan:				
TOD: MIDDAY				
R1	2	1	4	3
R2	6	5	8	7
	B	B		B
Use Timing plan:				
TOD: EVENING				
R1	2	1	4	3
R2	6	5	8	7
	B	B		B
Use Timing plan:				
TOD: WEEKEND				
R1	2	1	4	3
R2	6	5	8	7
	B	B		B
Use Timing plan:				
FREE				
R1	2	1	4	3
R2	6	5	8	7
	B	B		B
Use Timing plan: 254				

NOTES

EXPIRES XX/XX/XXXX

3-ZN-2019
05/20/19

Raintree Dr & Northsight Blvd										System #	237
COORDINATOR						Section #				Date Updated	
						101				2/5/2019	
	PHASE	1	2	3	4	5	6	7	8		
	FDW		20		20		23		20		
	YELLOW	3.3	4	3.6	4.4	3.3	4	3.6	4.4		
	ALL RED	2	1.3	1	1.1	2	1.3	1	1.1		
	WALK		20		20		23		20		
PLAN 1 AM PLAN OPERATIVE TIMES **6:30**	R1	2	→	1	↱	4	↓	3	↰	COORD PATTERN	OFFSET
	R2	6	←	5	↱	8	↑	7	↳	Balanced	76
		RING 1				RING 2					
	PHASE	1	2	3	4	5	6	7	8		
	SPLIT	37	35	15	33	18	54	15	33	Target Cycle Length	
	COORD									120	
	RECALLS									Actual Cycle Length	
	GREEN	31.7	29.7	10.4	27.5	12.7	48.7	10.4	27.5	120	
PLAN 2 MIDDAY PLAN OPERATIVE TIMES **9:00**	R1	2	→	1	↱	4	↓	3	↰	COORD PATTERN	OFFSET
	R2	6	←	5	↱	8	↑	7	↳	Balanced	90
		RING 1				RING 2					
	PHASE	1	2	3	4	5	6	7	8		
	SPLIT	19	50	18	33	20	49	18	33	Target Cycle Length	
	COORD									120	
	RECALLS									Actual Cycle Length	
	GREEN	13.7	44.7	13.4	27.5	14.7	43.7	13.4	27.5	120	
PLAN 3 PM PLAN OPERATIVE TIMES **14:30**	R1	2	→	1	↱	4	↓	3	↰	COORD PATTERN	OFFSET
	R2	6	←	5	↱	8	↑	7	↳	Balanced	31
		RING 1				RING 2					
	PHASE	1	2	3	4	5	6	7	8		
	SPLIT	16	50	25	29	16	50	17	37	Target Cycle Length	
	COORD									120	
	RECALLS									Actual Cycle Length	
	GREEN	10.7	44.7	20.4	23.5	10.7	44.7	12.4	31.5	120	
PLAN 4 MIDNIGHT PLAN OPERATIVE TIMES	R1	2	→	1	↱	4	↓	3	↰	COORD PATTERN	OFFSET
	R2	6	←	5	↱	8	↑	7	↳	Balanced	
		RING 1				RING 2					
	PHASE	1	2	3	4	5	6	7	8		
	SPLIT									Target Cycle Length	
	COORD										
	RECALLS									Actual Cycle Length	
	GREEN	-5.3	-5.3	-4.6	-5.5	-5.3	-5.3	-4.6	-5.5	0	
PLAN 254 **FREE** PLAN OPERATIVE TIMES 20:00	R1	2	→	1	↱	4	↓	3	↰	COORD PATTERN	OFFSET
	R2	6	←	5	↱	8	↑	7	↳	Balanced	
		RING 1				RING 2					
	PHASE	1	2	3	4	5	6	7	8		
	SPLIT									Target Cycle Length	
	COORD									XXX	
	RECALLS									Actual Cycle Length	
	GREEN	-5.3	-5.3	-4.6	-5.5	-5.3	-5.3	-4.6	-5.5	0	

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05/20/19

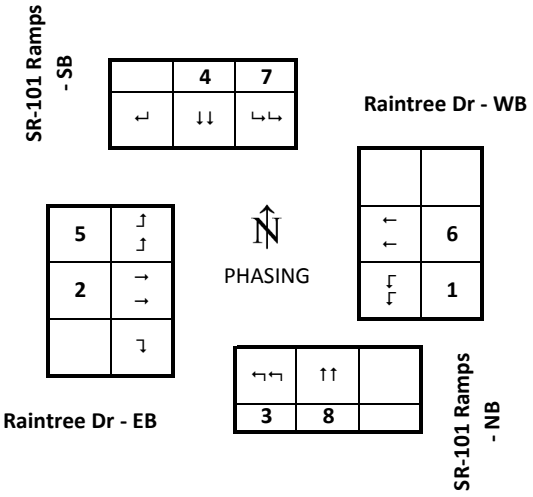
Raintree Dr & SR-101 Ramps

System # 173

BASIC TIMING PLAN

Section #	I.P. Address	Date Designed
	MM1-5-1	
	172.17.11.73	2/26/2018

	Phase	1	2	3	4	5	6	7	8
TIMING PLAN - MM-2-1	Movement	WBL	EBT	NBL	SBT	EBL	WBT	SBL	NBT
	NOTES	PROT		PROT		PROT		PROT	
	MIN GRN	5	10	5	10	5	10	5	10
	BK MGRN								
	CS MGRN								
	DLY GRN								
	WALK		4		7		4		7
	WALK2								
	WLK MAX								
	PED CLR/FDW		14		27		17		27
	PD CLR2								
	PC MAX								
	PED CO								
	VEH EXT	2	2	2	2	2	2	2	2
	VH EXT2								
	MAX 1	35	50	35	50	35	50	35	50
	MAX 2	45	60	45	60	45	60	45	60
	MAX 3								
	DYM MAX								
	DYM STP								
	YELLOW	3.6	4.0	4	4.7	3.3	4.4	4.0	4.7
	RED CLR	2	2.8	1.4	1.4	2.4	2.4	1.4	1.4
	RED MAX								
	RED RVT	2	2	2	2	2	2	2	2
	ACT B4								
	SEC/ACT								
	MAX INT								
	TIME B4								
	CARS WT								
	STPTDUC								
	TTREDUC								
	MIN GAP								
RECALLS - MM-2-8	LOCK DET								
	VEH RECALL	X	X			X	X		
	PED RECALL								
	MAX RECALL								
	SOFT RECALL								
	NO REST								
	ADD INIT CAL								



PHASING SEQUENCES				
TOD: MORNING				
R1	2	1	4	3
R2	6	5	8	7
		B		B
Use Timing plan:				
TOD: MIDDAY				
R1	2	1	4	3
R2	6	5	8	7
		B		B
Use Timing plan:				
TOD: EVENING				
R1	2	1	4	3
R2	6	5	8	7
		B		B
Use Timing plan:				
TOD: NIHGt				
R1	2	1	4	3
R2	6	5	8	7
		B		B
Use Timing plan:				
FREE				
R1	2	1	4	3
R2	6	5	8	7
		B		B
Use Timing plan: 254				

NOTES

EXPIRES XX/XX/XXXX

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05/20/19

Raintree Dr & SR-101 Ramps

System # 173

COORDINATOR

Section # 101

Date Updated 2/26/2018

	PHASE	1	2	3	4	5	6	7	8	
	FDW		14		27		17		27	
	YELLOW	3.6	4	4	4.7	3.3	4.4	4	4.7	
	ALL RED	2	2.8	1.4	1.4	2.4	2.4	1.4	1.4	
	WALK		14		27		17		27	

										COORD PATTERN	OFFSET
PLAN 1 AM PLAN OPERATIVE TIMES (6:30)	R1	1	↱	2	→	4	↓	3	↰		
	R2	5	↱	6	←	8	↑	7	↳	Balanced	17
		RING 1				RING 2					
	PHASE	1	2	3	4	5	6	7	8		
	SPLIT	37	24	39	20	30	31	21	38	Target Cycle Length	
	COORD		X				X			120	
	RECALLS		V				V			Actual Cycle Length	
	GREEN	31.4	17.2	33.6	13.9	24.3	24.2	15.6	31.9	120	

										COORD PATTERN	OFFSET
PLAN 4 MIDDAY PLAN OPERATIVE TIMES (9:00)	R1	2	→	1	↱	4	↓	3	↰		
	R2	6	←	5	↱	8	↑	7	↳	Balanced	101
		RING 1				RING 2					
	PHASE	1	2	3	4	5	6	7	8		
	SPLIT	31	38	31	20	35	34	27	24	Target Cycle Length	
	COORD		X				X			120	
	RECALLS		V				V			Actual Cycle Length	
	GREEN	25.4	31.2	25.6	13.9	29.3	27.2	21.6	17.9	120	

										COORD PATTERN	OFFSET
PLAN 7 PM PLAN OPERATIVE TIMES (14:30)	R1	2	→	1	↱	4	↓	3	↰		
	R2	6	←	5	↱	8	↑	7	↳	Balanced	19
		RING 1				RING 2					
	PHASE	1	2	3	4	5	6	7	8		
	SPLIT	36	34	26	24	36	34	28	22	Target Cycle Length	
	COORD		X				X			120	
	RECALLS		V				V			Actual Cycle Length	
	GREEN	30.4	27.2	20.6	17.9	30.3	27.2	22.6	15.9	120	

										COORD PATTERN	OFFSET
PLAN 254 **FREE** PLAN OPERATIVE TIMES (20:00)	R1	2	→	1	↱	4	↓	3	↰		
	R2	6	←	5	↱	8	↑	7	↳	Balanced	0
		RING 1				RING 2					
	PHASE	1	2	3	4	5	6	7	8		
	SPLIT									Target Cycle Length	
	COORD										
	RECALLS									Actual Cycle Length	
	GREEN									0	

3-ZN-2019
05/20/19

Appendix F – Existing Capacity Analysis

F

3-ZN-2019
05/20/19

Intersection	
Int Delay, s/veh	2.7

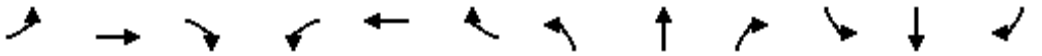
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	11	6	47	6	20	15	81	255	12	17	252	28
Future Vol, veh/h	11	6	47	6	20	15	81	255	12	17	252	28
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	100	-	-	50	-	-	100	-	110	75	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	91	91	91	91	91	91	91	91	91	91	91	91
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	12	7	52	7	22	16	89	280	13	19	277	31

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	660	802	154	638	804	140	308	0	0	293	0	0
Stage 1	331	331	-	458	458	-	-	-	-	-	-	-
Stage 2	329	471	-	180	346	-	-	-	-	-	-	-
Critical Hdwy	7.54	6.54	6.94	7.54	6.54	6.94	4.14	-	-	4.14	-	-
Critical Hdwy Stg 1	6.54	5.54	-	6.54	5.54	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.54	5.54	-	6.54	5.54	-	-	-	-	-	-	-
Follow-up Hdwy	3.52	4.02	3.32	3.52	4.02	3.32	2.22	-	-	2.22	-	-
Pot Cap-1 Maneuver	442	371	864	459	370	*1001	1249	-	-	1412	-	-
Stage 1	656	644	-	677	646	-	-	-	-	-	-	-
Stage 2	817	637	-	804	634	-	-	-	-	-	-	-
Platoon blocked, %	1	1		1	1	1		-	-	1	-	-
Mov Cap-1 Maneuver	387	340	864	398	339	*1001	1249	-	-	1412	-	-
Mov Cap-2 Maneuver	387	340	-	398	339	-	-	-	-	-	-	-
Stage 1	609	636	-	629	600	-	-	-	-	-	-	-
Stage 2	719	592	-	738	626	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	11	13.4	1.9	0.4
HCM LOS	B	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	WBLn1	WBLn2	SBL	SBT	SBR
Capacity (veh/h)	1249	-	-	387	736	398	473	1412	-	-
HCM Lane V/C Ratio	0.071	-	-	0.031	0.079	0.017	0.081	0.013	-	-
HCM Control Delay (s)	8.1	-	-	14.6	10.3	14.2	13.3	7.6	-	-
HCM Lane LOS	A	-	-	B	B	B	B	A	-	-
HCM 95th %tile Q(veh)	0.2	-	-	0.1	0.3	0.1	0.3	0	-	-

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



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	93	404	80	292	682	196	46	130	58	145	108	42
Future Volume (veh/h)	93	404	80	292	682	196	46	130	58	145	108	42
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	100	434	86	314	733	211	49	140	62	156	116	45
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	864	530	236	1028	833	371	149	196	83	212	207	92
Arrive On Green	0.45	0.15	0.15	1.00	0.47	0.47	0.08	0.08	0.08	0.06	0.06	0.06
Sat Flow, veh/h	1781	3554	1585	1781	3554	1585	1781	2433	1029	3456	3554	1585
Grp Volume(v), veh/h	100	434	86	314	733	211	49	100	102	156	116	45
Grp Sat Flow(s),veh/h/ln	1781	1777	1585	1781	1777	1585	1781	1777	1685	1728	1777	1585
Q Serve(g_s), s	0.0	14.2	5.9	0.0	22.4	11.6	3.1	6.6	7.1	5.3	3.8	3.3
Cycle Q Clear(g_c), s	0.0	14.2	5.9	0.0	22.4	11.6	3.1	6.6	7.1	5.3	3.8	3.3
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.61	1.00		1.00
Lane Grp Cap(c), veh/h	864	530	236	1028	833	371	149	143	136	212	207	92
V/C Ratio(X)	0.12	0.82	0.36	0.31	0.88	0.57	0.33	0.70	0.75	0.74	0.56	0.49
Avail Cap(c_a), veh/h	864	880	392	1028	1442	643	154	407	386	299	814	363
HCM Platoon Ratio	1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	18.1	49.5	45.9	0.0	30.4	27.5	51.8	53.8	54.0	55.4	55.0	54.8
Incr Delay (d2), s/veh	0.0	13.2	4.3	0.1	12.8	6.2	0.5	2.3	3.1	2.8	0.9	1.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.5	7.2	2.6	0.0	8.6	4.2	1.4	3.0	3.1	2.4	1.7	1.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	18.1	62.7	50.2	0.1	43.2	33.7	52.3	56.1	57.1	58.1	55.9	56.2
LnGrp LOS	B	E	D	A	D	C	D	E	E	E	E	E
Approach Vol, veh/h		620			1258			251			317	
Approach Delay, s/veh		53.8			30.8			55.7			57.0	
Approach LOS		D			C			E			E	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	69.7	23.2	14.6	12.5	59.5	33.4	12.0	15.2
Change Period (Y+Rc), s	* 5.3	* 5.3	* 4.6	5.5	* 5.3	* 5.3	* 4.6	5.5
Max Green Setting (Gmax), s	* 32	* 30	* 10	27.5	* 13	* 49	* 10	27.5
Max Q Clear Time (g_c+I1), s	2.0	16.2	5.1	5.8	2.0	24.4	7.3	9.1
Green Ext Time (p_c), s	0.4	1.7	0.0	0.4	0.1	3.7	0.1	0.6

Intersection Summary	
HCM 6th Ctrl Delay	42.6
HCM 6th LOS	D

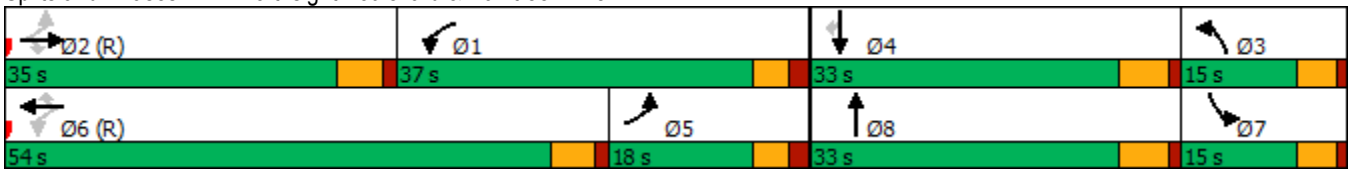
Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Configurations											
Traffic Volume (vph)	93	404	80	292	682	196	46	130	145	108	42
Future Volume (vph)	93	404	80	292	682	196	46	130	145	108	42
Turn Type	pm+pt	NA	Perm	pm+pt	NA	Perm	Prot	NA	Prot	NA	Perm
Protected Phases	5	2		1	6		3	8	7	4	
Permitted Phases	2		2	6		6					4
Detector Phase	5	2	2	1	6	6	3	8	7	4	4
Switch Phase											
Minimum Initial (s)	5.0	10.0	10.0	5.0	10.0	10.0	5.0	7.0	5.0	7.0	7.0
Minimum Split (s)	10.3	32.3	32.3	10.3	35.3	35.3	9.6	32.5	9.6	32.5	32.5
Total Split (s)	18.0	35.0	35.0	37.0	54.0	54.0	15.0	33.0	15.0	33.0	33.0
Total Split (%)	15.0%	29.2%	29.2%	30.8%	45.0%	45.0%	12.5%	27.5%	12.5%	27.5%	27.5%
Yellow Time (s)	3.3	4.0	4.0	3.3	4.0	4.0	3.6	4.4	3.6	4.4	4.4
All-Red Time (s)	2.0	1.3	1.3	2.0	1.3	1.3	1.0	1.1	1.0	1.1	1.1
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.3	5.3	5.3	5.3	5.3	5.3	4.6	5.5	4.6	5.5	5.5
Lead/Lag	Lag	Lead	Lead	Lag	Lead	Lead	Lag	Lead	Lag	Lead	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	C-Min	C-Min	None	C-Min	C-Min	None	None	None	None	None
Act Effct Green (s)	73.4	64.7	64.7	84.4	70.9	70.9	10.7	9.9	9.8	10.9	10.9
Actuated g/C Ratio	0.61	0.54	0.54	0.70	0.59	0.59	0.09	0.08	0.08	0.09	0.09
v/c Ratio	0.22	0.23	0.09	0.43	0.35	0.21	0.31	0.62	0.56	0.36	0.16
Control Delay	9.3	16.5	0.2	13.7	21.7	11.0	54.7	46.5	60.4	55.7	1.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	9.3	16.5	0.2	13.7	21.7	11.0	54.7	46.5	60.4	55.7	1.2
LOS	A	B	A	B	C	B	D	D	E	E	A
Approach Delay		13.1			17.9			48.1		50.3	
Approach LOS		B			B			D		D	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 76 (63%), Referenced to phase 2:EBTL and 6:WBTL, Start of Green	
Natural Cycle: 90	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.62	
Intersection Signal Delay: 24.0	Intersection LOS: C
Intersection Capacity Utilization 54.6%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 2: Northsight Boulevard & Raintree Drive



Intersection	
Int Delay, s/veh	0.8

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	16	589	9	133	1201	18	0	0	7	21	0	3
Future Vol, veh/h	16	589	9	133	1201	18	0	0	7	21	0	3
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	100	-	105	175	-	135	-	-	0	-	-	0
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	96	96	96	96	96	96	96	96	96	96	96	96
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	17	614	9	139	1251	19	0	0	7	22	0	3

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	1270	0	0	623	0	0	1552	2196	307	1870	2186	626
Stage 1	-	-	-	-	-	-	648	648	-	1529	1529	-
Stage 2	-	-	-	-	-	-	904	1548	-	341	657	-
Critical Hdwy	4.14	-	-	4.14	-	-	7.54	6.54	6.94	7.54	6.54	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Follow-up Hdwy	2.22	-	-	2.22	-	-	3.52	4.02	3.32	3.52	4.02	3.32
Pot Cap-1 Maneuver	*882	-	-	*1265	-	-	*354	*128	*846	*354	*133	*589
Stage 1	-	-	-	-	-	-	*797	*699	-	*374	*362	-
Stage 2	-	-	-	-	-	-	*556	*350	-	*797	*699	-
Platoon blocked, %	1	-	-	1	-	-	1	1	1	1	1	1
Mov Cap-1 Maneuver	*882	-	-	*1265	-	-	*318	*112	*846	*317	*116	*589
Mov Cap-2 Maneuver	-	-	-	-	-	-	*318	*112	-	*317	*116	-
Stage 1	-	-	-	-	-	-	*782	*686	-	*367	*323	-
Stage 2	-	-	-	-	-	-	*492	*311	-	*775	*686	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.2	0.8	9.3	16.4
HCM LOS			A	C

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	-	846	* 882	-	-	* 1265	-	-	317	589
HCM Lane V/C Ratio	-	0.009	0.019	-	-	0.11	-	-	0.069	0.005
HCM Control Delay (s)	0	9.3	9.2	-	-	8.2	-	-	17.2	11.1
HCM Lane LOS	A	A	A	-	-	A	-	-	C	B
HCM 95th %tile Q(veh)	-	0	0.1	-	-	0.4	-	-	0.2	0

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

Intersection	
Int Delay, s/veh	0

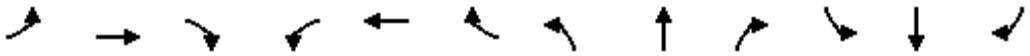
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑↑	↑↑	↱		↱
Traffic Vol, veh/h	0	627	1381	0	0	4
Future Vol, veh/h	0	627	1381	0	0	4
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	135	-	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	93	93	93	93	93	93
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	674	1485	0	0	4

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	-	0	-	0	-	743
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	3.32
Pot Cap-1 Maneuver	0	-	-	-	0	*512
Stage 1	0	-	-	-	0	-
Stage 2	0	-	-	-	0	-
Platoon blocked, %		-	-	-		1
Mov Cap-1 Maneuver	-	-	-	-	-	*512
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	WB	SB
HCM Control Delay, s	0	0	12.1
HCM LOS			B

Minor Lane/Major Mvmt	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	-	-	-	512
HCM Lane V/C Ratio	-	-	-	0.008
HCM Control Delay (s)	-	-	-	12.1
HCM Lane LOS	-	-	-	B
HCM 95th %tile Q(veh)	-	-	-	0

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



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	19	518	92	340	1252	152	19	17	56	52	54	69
Future Volume (veh/h)	19	518	92	340	1252	152	19	17	56	52	54	69
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	20	557	99	366	1346	163	20	18	60	56	58	74
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	334	2810	1253	675	2810	1253	102	203	172	192	81	103
Arrive On Green	1.00	1.00	1.00	1.00	1.00	1.00	0.11	0.11	0.11	0.11	0.11	0.11
Sat Flow, veh/h	347	3554	1585	777	3554	1585	1258	1870	1585	1321	746	952
Grp Volume(v), veh/h	20	557	99	366	1346	163	20	18	60	56	0	132
Grp Sat Flow(s),veh/h/ln	347	1777	1585	777	1777	1585	1258	1870	1585	1321	0	1699
Q Serve(g_s), s	0.0	0.0	0.0	0.0	0.0	0.0	1.9	1.0	4.2	4.8	0.0	9.0
Cycle Q Clear(g_c), s	0.0	0.0	0.0	0.0	0.0	0.0	10.9	1.0	4.2	5.8	0.0	9.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.56
Lane Grp Cap(c), veh/h	334	2810	1253	675	2810	1253	102	203	172	192	0	184
V/C Ratio(X)	0.06	0.20	0.08	0.54	0.48	0.13	0.20	0.09	0.35	0.29	0.00	0.72
Avail Cap(c_a), veh/h	334	2810	1253	675	2810	1253	265	446	378	363	0	405
HCM Platoon Ratio	2.00	2.00	2.00	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.37	0.37	0.37	1.00	1.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	57.0	48.2	49.6	50.8	0.0	51.7
Incr Delay (d2), s/veh	0.3	0.2	0.1	1.2	0.2	0.1	0.3	0.1	0.4	0.3	0.0	2.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	0.1	0.0	0.2	0.1	0.0	0.6	0.5	1.7	1.6	0.0	4.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.3	0.2	0.1	1.2	0.2	0.1	57.3	48.2	50.0	51.1	0.0	53.7
LnGrp LOS	A	A	A	A	A	A	E	D	D	D	A	D
Approach Vol, veh/h		676			1875			98			188	
Approach Delay, s/veh		0.2			0.4			51.2			52.9	
Approach LOS		A			A			D			D	

Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		100.6		19.4		100.6		19.4				
Change Period (Y+Rc), s		* 5.7		6.4		* 5.7		6.4				
Max Green Setting (Gmax), s		* 79		28.6		* 79		28.6				
Max Q Clear Time (g_c+I1), s		2.0		11.0		2.0		12.9				
Green Ext Time (p_c), s		1.6		0.5		6.0		0.1				

Intersection Summary		
HCM 6th Ctrl Delay		5.6
HCM 6th LOS		A

Notes

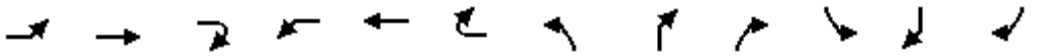
User approved pedestrian interval to be less than phase max green.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Configurations											
Traffic Volume (vph)	19	518	92	340	1252	152	19	17	56	52	54
Future Volume (vph)	19	518	92	340	1252	152	19	17	56	52	54
Turn Type	Perm	NA	Perm	Perm	NA	Perm	Perm	NA	Perm	Perm	NA
Protected Phases		2			6			8			4
Permitted Phases	2		2	6		6	8		8	4	
Detector Phase	2	2	2	6	6	6	8	8	8	4	4
Switch Phase											
Minimum Initial (s)	10.0	10.0	10.0	10.0	10.0	10.0	7.0	7.0	7.0	7.0	7.0
Minimum Split (s)	33.7	33.7	33.7	33.7	33.7	33.7	47.4	47.4	47.4	47.4	47.4
Total Split (s)	85.0	85.0	85.0	85.0	85.0	85.0	35.0	35.0	35.0	35.0	35.0
Total Split (%)	70.8%	70.8%	70.8%	70.8%	70.8%	70.8%	29.2%	29.2%	29.2%	29.2%	29.2%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.4	4.4	4.4	4.4	4.4
All-Red Time (s)	1.7	1.7	1.7	1.7	1.7	1.7	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.7	5.7	5.7	5.7	5.7	5.7	6.4	6.4	6.4	6.4	6.4
Lead/Lag											
Lead-Lag Optimize?											
Recall Mode	C-Min	C-Min	C-Min	C-Min	C-Min	C-Min	None	None	None	None	None
Act Effct Green (s)	97.1	97.1	97.1	97.1	97.1	97.1	10.8	10.8	10.8	10.8	10.8
Actuated g/C Ratio	0.81	0.81	0.81	0.81	0.81	0.81	0.09	0.09	0.09	0.09	0.09
v/c Ratio	0.07	0.19	0.08	0.55	0.47	0.13	0.22	0.11	0.30	0.45	0.66
Control Delay	2.9	2.1	0.9	6.4	3.5	1.0	54.7	49.3	15.9	61.8	48.0
Queue Delay	0.0	0.0	0.0	0.0	0.6	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	2.9	2.1	0.9	6.4	4.1	1.0	54.7	49.3	15.9	61.8	48.0
LOS	A	A	A	A	A	A	D	D	B	E	D
Approach Delay		1.9			4.3			30.0			52.1
Approach LOS		A			A			C			D

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 100 (83%), Referenced to phase 2:EBTL and 6:WBTL, Start of Green	
Natural Cycle: 95	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.66	
Intersection Signal Delay: 7.8	Intersection LOS: A
Intersection Capacity Utilization 73.6%	ICU Level of Service D
Analysis Period (min) 15	

Splits and Phases: 5: 87th Street & Raintree Drive



Movement	EBL	EBT	EBR2	WBL	WBT	WBR2	NBL	NBR	NBR2	SBL	SBR	SBR2
Lane Configurations												
Traffic Volume (vph)	314	149	188	592	372	142	771	72	199	397	227	604
Future Volume (vph)	314	149	188	592	372	142	771	72	199	397	227	604
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.7	6.8	6.8	5.6	6.8		5.4	6.1		5.4	6.1	6.1
Lane Util. Factor	0.97	0.95	1.00	0.97	0.95		0.97	0.88		0.97	0.88	1.00
Frt	1.00	1.00	0.85	1.00	0.96		1.00	0.85		1.00	0.85	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00		0.95	1.00		0.95	1.00	1.00
Satd. Flow (prot)	3433	3539	1583	3433	3393		3433	2787		3433	2787	1583
Flt Permitted	0.95	1.00	1.00	0.95	1.00		0.95	1.00		0.95	1.00	1.00
Satd. Flow (perm)	3433	3539	1583	3433	3393		3433	2787		3433	2787	1583
Peak-hour factor, PHF	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Adj. Flow (vph)	334	159	200	630	396	151	820	77	212	422	241	643
RTOR Reduction (vph)	0	0	168	0	140	0	0	193	0	0	0	341
Lane Group Flow (vph)	334	159	32	630	407	0	820	96	0	422	241	302
Turn Type	Prot	NA	Perm	Prot	NA		Prot	Prot		Prot	Prot	Prot
Protected Phases	5	2		1	6		3	8		7	4	4
Permitted Phases			2									
Actuated Green, G (s)	16.0	19.0	19.0	26.2	29.1		31.6	10.8		40.1	19.3	19.3
Effective Green, g (s)	16.0	19.0	19.0	26.2	29.1		31.6	10.8		40.1	19.3	19.3
Actuated g/C Ratio	0.13	0.16	0.16	0.22	0.24		0.26	0.09		0.33	0.16	0.16
Clearance Time (s)	5.7	6.8	6.8	5.6	6.8		5.4	6.1		5.4	6.1	6.1
Vehicle Extension (s)	2.0	2.0	2.0	2.0	2.0		2.0	2.0		2.0	2.0	2.0
Lane Grp Cap (vph)	457	560	250	749	822		904	250		1147	448	254
v/s Ratio Prot	0.10	0.04		c0.18	c0.12		c0.24	0.03		0.12	0.09	c0.19
v/s Ratio Perm			0.02									
v/c Ratio	0.73	0.28	0.13	0.84	0.49		0.91	0.38		0.37	0.54	1.19
Uniform Delay, d1	49.9	44.5	43.4	44.9	39.1		42.8	51.5		30.3	46.3	50.4
Progression Factor	0.87	1.22	4.88	1.00	1.00		1.00	1.00		1.00	1.00	1.00
Incremental Delay, d2	5.1	1.3	1.0	8.1	2.1		12.3	0.4		0.1	0.6	117.8
Delay (s)	48.5	55.7	212.8	53.0	41.3		55.1	51.8		30.4	46.9	168.1
Level of Service	D	E	F	D	D		E	D		C	D	F
Approach Delay (s)		97.5			47.6							
Approach LOS		F			D							

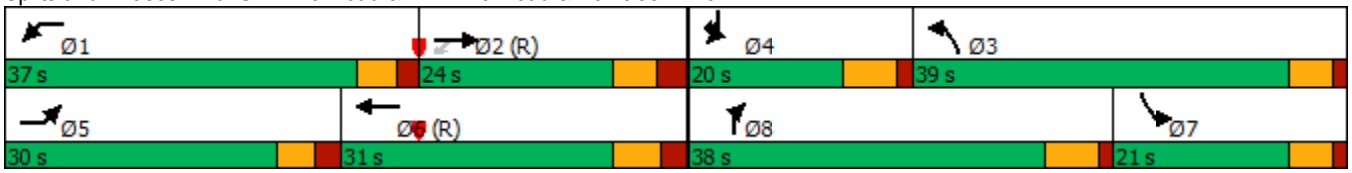
Intersection Summary			
HCM 2000 Control Delay	73.7	HCM 2000 Level of Service	E
HCM 2000 Volume to Capacity ratio	0.88		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	24.0
Intersection Capacity Utilization	88.3%	ICU Level of Service	E
Analysis Period (min)	15		

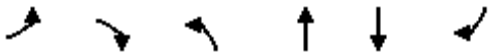
c Critical Lane Group

Lane Group	EBL	EBT	EBR2	WBL	WBT	NBL	NBR	SBL	SBR	SBR2
Lane Configurations										
Traffic Volume (vph)	314	149	188	592	372	771	72	397	227	604
Future Volume (vph)	314	149	188	592	372	771	72	397	227	604
Turn Type	Prot	NA	Perm	Prot	NA	Prot	Prot	Prot	Prot	Prot
Protected Phases	5	2		1	6	3	8	7	4	4
Permitted Phases			2							
Detector Phase	5	2	2	1	6	3	8	7	4	4
Switch Phase										
Minimum Initial (s)	5.0	10.0	10.0	5.0	10.0	5.0	10.0	5.0	10.0	10.0
Minimum Split (s)	10.7	24.8	24.8	10.6	27.8	10.4	40.1	10.4	40.1	40.1
Total Split (s)	30.0	24.0	24.0	37.0	31.0	39.0	38.0	21.0	20.0	20.0
Total Split (%)	25.0%	20.0%	20.0%	30.8%	25.8%	32.5%	31.7%	17.5%	16.7%	16.7%
Yellow Time (s)	3.3	4.0	4.0	3.6	4.4	4.0	4.7	4.0	4.7	4.7
All-Red Time (s)	2.4	2.8	2.8	2.0	2.4	1.4	1.4	1.4	1.4	1.4
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.7	6.8	6.8	5.6	6.8	5.4	6.1	5.4	6.1	6.1
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lead	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	C-Min	C-Min	None	C-Min	None	None	None	None	None
Act Effct Green (s)	16.0	19.1	19.1	26.2	29.2	31.5	10.8	40.1	19.3	19.3
Actuated g/C Ratio	0.13	0.16	0.16	0.22	0.24	0.26	0.09	0.33	0.16	0.16
v/c Ratio	0.73	0.28	0.45	0.84	0.57	0.91	0.65	0.37	0.54	1.08
Control Delay	52.7	57.7	19.1	55.7	29.0	57.6	22.6	31.8	52.0	79.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.2	0.0	0.0	0.0	0.0
Total Delay	52.7	57.7	19.1	55.7	29.0	57.8	22.6	31.8	52.0	79.0
LOS	D	E	B	E	C	E	C	C	D	E
Approach Delay		44.2			43.3					
Approach LOS		D			D					

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 17 (14%), Referenced to phase 2:EBT and 6:WBT, Start of Green	
Natural Cycle: 140	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 1.08	
Intersection Signal Delay: 49.5	Intersection LOS: D
Intersection Capacity Utilization 88.3%	ICU Level of Service E
Analysis Period (min) 15	

Splits and Phases: 6: SB Pima Road & NB Pima Road & Raintree Drive

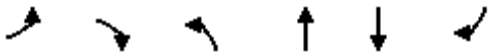




Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	0	16	0	0	1200	70
Future Volume (Veh/h)	0	16	0	0	1200	70
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94
Hourly flow rate (vph)	0	17	0	0	1277	74
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type				None	None	
Median storage veh)						
Upstream signal (ft)				699		
pX, platoon unblocked						
vC, conflicting volume	1314	356	1351			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	1314	356	1351			
tC, single (s)	6.8	6.9	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	100	97	100			
cM capacity (veh/h)	150	640	505			

Direction, Lane #	EB 1	SB 1	SB 2	SB 3	SB 4
Volume Total	17	365	365	365	256
Volume Left	0	0	0	0	0
Volume Right	17	0	0	0	74
cSH	640	1700	1700	1700	1700
Volume to Capacity	0.03	0.21	0.21	0.21	0.15
Queue Length 95th (ft)	2	0	0	0	0
Control Delay (s)	10.8	0.0	0.0	0.0	0.0
Lane LOS	B				
Approach Delay (s)	10.8	0.0			
Approach LOS	B				

Intersection Summary			
Average Delay	0.1		
Intersection Capacity Utilization	28.6%	ICU Level of Service	A
Analysis Period (min)	15		



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	0	121	0	0	1143	85
Future Volume (Veh/h)	0	121	0	0	1143	85
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96
Hourly flow rate (vph)	0	126	0	0	1191	89
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type				None	None	
Median storage veh)						
Upstream signal (ft)				1106		
pX, platoon unblocked						
vC, conflicting volume	1236	342	1280			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	1236	342	1280			
tC, single (s)	6.8	6.9	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	100	81	100			
cM capacity (veh/h)	168	654	538			

Direction, Lane #	EB 1	SB 1	SB 2	SB 3	SB 4
Volume Total	126	340	340	340	259
Volume Left	0	0	0	0	0
Volume Right	126	0	0	0	89
cSH	654	1700	1700	1700	1700
Volume to Capacity	0.19	0.20	0.20	0.20	0.15
Queue Length 95th (ft)	18	0	0	0	0
Control Delay (s)	11.8	0.0	0.0	0.0	0.0
Lane LOS	B				
Approach Delay (s)	11.8	0.0			
Approach LOS	B				

Intersection Summary			
Average Delay	1.1		
Intersection Capacity Utilization	32.1%	ICU Level of Service	A
Analysis Period (min)	15		

Intersection	
Int Delay, s/veh	5.1

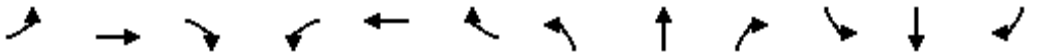
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	57	11	217	9	14	24	173	493	19	23	294	45
Future Vol, veh/h	57	11	217	9	14	24	173	493	19	23	294	45
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	100	-	-	50	-	-	100	-	110	75	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	62	12	236	10	15	26	188	536	21	25	320	49

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	1047	1328	185	1128	1331	268	369	0	0	557	0	0
Stage 1	395	395	-	912	912	-	-	-	-	-	-	-
Stage 2	652	933	-	216	419	-	-	-	-	-	-	-
Critical Hdwy	7.54	6.54	6.94	7.54	6.54	6.94	4.14	-	-	4.14	-	-
Critical Hdwy Stg 1	6.54	5.54	-	6.54	5.54	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.54	5.54	-	6.54	5.54	-	-	-	-	-	-	-
Follow-up Hdwy	3.52	4.02	3.32	3.52	4.02	3.32	2.22	-	-	2.22	-	-
Pot Cap-1 Maneuver	295	204	826	251	203	*899	1186	-	-	1283	-	-
Stage 1	602	603	-	442	456	-	-	-	-	-	-	-
Stage 2	676	445	-	766	588	-	-	-	-	-	-	-
Platoon blocked, %	1	1		1	1	1		-	-	1	-	-
Mov Cap-1 Maneuver	232	168	826	147	168	*899	1186	-	-	1283	-	-
Mov Cap-2 Maneuver	232	168	-	147	168	-	-	-	-	-	-	-
Stage 1	506	592	-	372	384	-	-	-	-	-	-	-
Stage 2	530	374	-	526	577	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	15.6	19.6	2.2	0.5
HCM LOS	C	C		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	WBLn1	WBLn2	SBL	SBT	SBR
Capacity (veh/h)	1186	-	-	232	695	147	345	1283	-	-
HCM Lane V/C Ratio	0.159	-	-	0.267	0.357	0.067	0.12	0.019	-	-
HCM Control Delay (s)	8.6	-	-	26.1	13	31.2	16.8	7.9	-	-
HCM Lane LOS	A	-	-	D	B	D	C	A	-	-
HCM 95th %tile Q(veh)	0.6	-	-	1	1.6	0.2	0.4	0.1	-	-

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



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	147	646	83	114	641	308	150	270	247	321	175	74
Future Volume (veh/h)	147	646	83	114	641	308	150	270	247	321	175	74
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	155	680	87	120	675	324	158	284	260	338	184	78
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	596	803	358	641	877	391	391	337	299	357	259	116
Arrive On Green	0.29	0.23	0.23	0.10	0.08	0.08	0.22	0.19	0.19	0.10	0.07	0.07
Sat Flow, veh/h	1781	3554	1585	1781	3554	1585	1781	1781	1582	3456	3554	1585
Grp Volume(v), veh/h	155	680	87	120	675	324	158	283	261	338	184	78
Grp Sat Flow(s),veh/h/ln	1781	1777	1585	1781	1777	1585	1781	1777	1586	1728	1777	1585
Q Serve(g_s), s	2.1	22.0	5.4	1.2	22.3	24.2	9.1	18.5	19.1	11.7	6.1	5.8
Cycle Q Clear(g_c), s	2.1	22.0	5.4	1.2	22.3	24.2	9.1	18.5	19.1	11.7	6.1	5.8
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	596	803	358	641	877	391	391	336	300	357	259	116
V/C Ratio(X)	0.26	0.85	0.24	0.19	0.77	0.83	0.40	0.84	0.87	0.95	0.71	0.67
Avail Cap(c_a), veh/h	596	1324	590	641	1324	590	391	466	416	357	696	310
HCM Platoon Ratio	1.00	1.00	1.00	0.33	0.33	0.33	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	30.2	44.5	38.0	36.7	51.8	52.6	40.1	46.9	47.2	53.5	54.4	54.2
Incr Delay (d2), s/veh	0.1	10.8	1.6	0.1	6.5	18.0	0.3	7.3	10.5	33.6	1.3	2.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.3	10.7	2.2	3.1	11.4	12.2	4.0	8.7	8.3	6.6	2.7	2.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	30.3	55.2	39.7	36.7	58.2	70.6	40.4	54.2	57.7	87.1	55.7	56.8
LnGrp LOS	C	E	D	D	E	E	D	D	E	F	E	E
Approach Vol, veh/h		922			1119			702			600	
Approach Delay, s/veh		49.6			59.5			52.4			73.5	
Approach LOS		D			E			D			E	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	42.4	32.4	30.9	14.3	39.9	34.9	17.0	28.2
Change Period (Y+Rc), s	* 5.3	* 5.3	* 4.6	5.5	* 5.3	* 5.3	* 4.6	5.5
Max Green Setting (Gmax), s	* 11	* 45	* 20	23.5	* 11	* 45	* 12	31.5
Max Q Clear Time (g_c+I1), s	3.2	24.0	11.1	8.1	4.1	26.2	13.7	21.1
Green Ext Time (p_c), s	0.1	3.1	0.1	0.7	0.1	3.5	0.0	1.6

Intersection Summary	
HCM 6th Ctrl Delay	57.8
HCM 6th LOS	E

Notes

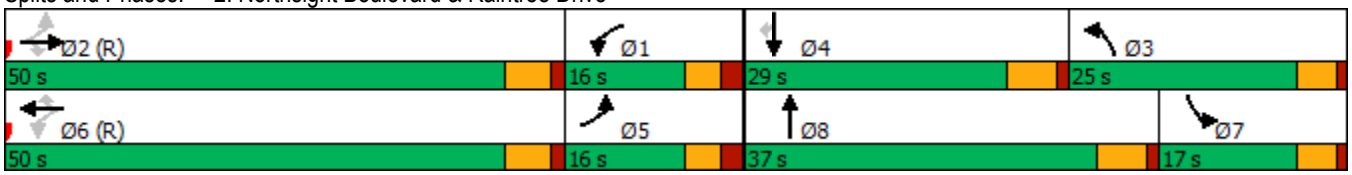
User approved pedestrian interval to be less than phase max green.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Configurations											
Traffic Volume (vph)	147	646	83	114	641	308	150	270	321	175	74
Future Volume (vph)	147	646	83	114	641	308	150	270	321	175	74
Turn Type	pm+pt	NA	Perm	pm+pt	NA	Perm	Prot	NA	Prot	NA	Perm
Protected Phases	5	2		1	6		3	8	7	4	
Permitted Phases	2		2	6		6					4
Detector Phase	5	2	2	1	6	6	3	8	7	4	4
Switch Phase											
Minimum Initial (s)	5.0	10.0	10.0	5.0	10.0	10.0	5.0	7.0	5.0	7.0	7.0
Minimum Split (s)	10.3	32.3	32.3	10.3	35.3	35.3	9.6	32.5	9.6	32.5	32.5
Total Split (s)	16.0	50.0	50.0	16.0	50.0	50.0	25.0	37.0	17.0	29.0	29.0
Total Split (%)	13.3%	41.7%	41.7%	13.3%	41.7%	41.7%	20.8%	30.8%	14.2%	24.2%	24.2%
Yellow Time (s)	3.3	4.0	4.0	3.3	4.0	4.0	3.6	4.4	3.6	4.4	4.4
All-Red Time (s)	2.0	1.3	1.3	2.0	1.3	1.3	1.0	1.1	1.0	1.1	1.1
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.3	5.3	5.3	5.3	5.3	5.3	4.6	5.5	4.6	5.5	5.5
Lead/Lag	Lag	Lead	Lead	Lag	Lead	Lead	Lag	Lead	Lag	Lead	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	C-Min	C-Min	None	C-Min	C-Min	None	None	None	None	None
Act Effct Green (s)	62.7	54.0	54.0	64.2	54.8	54.8	25.2	18.3	17.5	10.6	10.6
Actuated g/C Ratio	0.52	0.45	0.45	0.54	0.46	0.46	0.21	0.15	0.15	0.09	0.09
v/c Ratio	0.39	0.43	0.11	0.30	0.42	0.37	0.42	0.82	0.68	0.59	0.27
Control Delay	21.5	25.4	0.3	17.5	20.8	8.1	43.7	42.3	55.5	60.1	2.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	21.5	25.4	0.3	17.5	20.8	8.1	43.7	42.3	55.5	60.1	2.3
LOS	C	C	A	B	C	A	D	D	E	E	A
Approach Delay		22.4			16.7			42.6		50.0	
Approach LOS		C			B			D		D	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 31 (26%), Referenced to phase 2:EBTL and 6:WBTL, Start of Green	
Natural Cycle: 90	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.82	
Intersection Signal Delay: 29.7	Intersection LOS: C
Intersection Capacity Utilization 67.7%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 2: Northsight Boulevard & Raintree Drive



Intersection	
Int Delay, s/veh	0.9

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	60	1178	1	3	1049	21	1	0	85	10	0	35
Future Vol, veh/h	60	1178	1	3	1049	21	1	0	85	10	0	35
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	100	-	105	175	-	135	-	-	0	-	-	0
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	95	95	95	95	95	95	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	63	1240	1	3	1104	22	1	0	89	11	0	37

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	1126	0	0	1241	0	0	1924	2498	620	1856	2477	552
Stage 1	-	-	-	-	-	-	1366	1366	-	1110	1110	-
Stage 2	-	-	-	-	-	-	558	1132	-	746	1367	-
Critical Hdwy	4.14	-	-	4.14	-	-	7.54	6.54	6.94	7.54	6.54	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Follow-up Hdwy	2.22	-	-	2.22	-	-	3.52	4.02	3.32	3.52	4.02	3.32
Pot Cap-1 Maneuver	*958	-	-	*882	-	-	*161	*141	*589	*161	*141	*641
Stage 1	-	-	-	-	-	-	*556	*487	-	*604	*529	-
Stage 2	-	-	-	-	-	-	*604	*529	-	*556	*487	-
Platoon blocked, %	1	-	-	1	-	-	1	1	1	1	1	1
Mov Cap-1 Maneuver	*958	-	-	*882	-	-	*144	*132	*589	*130	*132	*641
Mov Cap-2 Maneuver	-	-	-	-	-	-	*144	*132	-	*130	*132	-
Stage 1	-	-	-	-	-	-	*519	*455	-	*564	*528	-
Stage 2	-	-	-	-	-	-	*567	*528	-	*440	*455	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.4	0	12.4	16.4
HCM LOS			B	C

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	144	589	* 958	-	-	* 882	-	-	130	641
HCM Lane V/C Ratio	0.007	0.152	0.066	-	-	0.004	-	-	0.081	0.057
HCM Control Delay (s)	30.2	12.2	9	-	-	9.1	-	-	35.1	11
HCM Lane LOS	D	B	A	-	-	A	-	-	E	B
HCM 95th %tile Q(veh)	0	0.5	0.2	-	-	0	-	-	0.3	0.2

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

Intersection	
Int Delay, s/veh	0

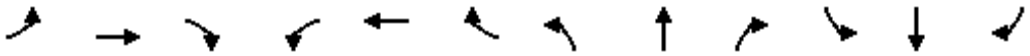
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑↑	↑↑	↱		↱
Traffic Vol, veh/h	0	1316	1101	19	0	7
Future Vol, veh/h	0	1316	1101	19	0	7
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	135	-	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	96	96	96	96	96	96
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	1371	1147	20	0	7

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	-	0	-	0	-	574
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	3.32
Pot Cap-1 Maneuver	0	-	-	-	0	*641
Stage 1	0	-	-	-	0	-
Stage 2	0	-	-	-	0	-
Platoon blocked, %		-	-	-		1
Mov Cap-1 Maneuver	-	-	-	-	-	*641
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	WB	SB
HCM Control Delay, s	0	0	10.7
HCM LOS			B

Minor Lane/Major Mvmt	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	-	-	-	641
HCM Lane V/C Ratio	-	-	-	0.011
HCM Control Delay (s)	-	-	-	10.7
HCM Lane LOS	-	-	-	B
HCM 95th %tile Q(veh)	-	-	-	0

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



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	19	1267	16	16	899	210	113	63	366	152	17	78
Future Volume (veh/h)	19	1267	16	16	899	210	113	63	366	152	17	78
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	20	1306	16	16	927	216	116	65	377	157	18	80
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	348	2286	1020	212	2286	1020	330	479	406	277	77	341
Arrive On Green	0.43	0.43	0.43	0.86	0.86	0.86	0.26	0.26	0.26	0.26	0.26	0.26
Sat Flow, veh/h	492	3554	1585	415	3554	1585	1297	1870	1585	947	300	1331
Grp Volume(v), veh/h	20	1306	16	16	927	216	116	65	377	157	0	98
Grp Sat Flow(s),veh/h/ln	492	1777	1585	415	1777	1585	1297	1870	1585	947	0	1631
Q Serve(g_s), s	3.0	33.3	0.7	2.5	6.9	2.9	9.3	3.2	27.9	18.4	0.0	5.7
Cycle Q Clear(g_c), s	10.0	33.3	0.7	35.8	6.9	2.9	15.0	3.2	27.9	21.6	0.0	5.7
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.82
Lane Grp Cap(c), veh/h	348	2286	1020	212	2286	1020	330	479	406	277	0	417
V/C Ratio(X)	0.06	0.57	0.02	0.08	0.41	0.21	0.35	0.14	0.93	0.57	0.00	0.23
Avail Cap(c_a), veh/h	348	2286	1020	212	2286	1020	416	602	510	339	0	525
HCM Platoon Ratio	0.67	0.67	0.67	1.33	1.33	1.33	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.70	0.70	0.70	1.00	1.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	17.2	21.6	12.4	14.7	3.6	3.3	41.3	34.4	43.6	42.7	0.0	35.3
Incr Delay (d2), s/veh	0.3	1.0	0.0	0.5	0.4	0.3	0.2	0.0	19.1	0.7	0.0	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.4	15.0	0.2	0.2	2.0	0.9	3.0	1.5	12.9	4.4	0.0	2.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	17.5	22.7	12.4	15.2	4.0	3.6	41.5	34.5	62.7	43.4	0.0	35.5
LnGrp LOS	B	C	B	B	A	A	D	C	E	D	A	D
Approach Vol, veh/h		1342			1159			558			255	
Approach Delay, s/veh		22.5			4.1			55.0			40.4	
Approach LOS		C			A			D			D	

Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		82.9		37.1		82.9		37.1				
Change Period (Y+Rc), s		* 5.7		6.4		* 5.7		6.4				
Max Green Setting (Gmax), s		* 69		38.6		* 69		38.6				
Max Q Clear Time (g_c+I1), s		35.3		23.6		37.8		29.9				
Green Ext Time (p_c), s		4.2		0.8		2.7		0.8				

Intersection Summary												
HCM 6th Ctrl Delay			22.9									
HCM 6th LOS			C									

Notes

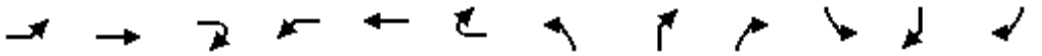
User approved pedestrian interval to be less than phase max green.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Configurations											
Traffic Volume (vph)	19	1267	16	16	899	210	113	63	366	152	17
Future Volume (vph)	19	1267	16	16	899	210	113	63	366	152	17
Turn Type	Perm	NA	Perm	Perm	NA	Perm	Perm	NA	Perm	Perm	NA
Protected Phases		2			6			8			4
Permitted Phases	2		2	6		6	8		8	4	
Detector Phase	2	2	2	6	6	6	8	8	8	4	4
Switch Phase											
Minimum Initial (s)	10.0	10.0	10.0	10.0	10.0	10.0	7.0	7.0	7.0	7.0	7.0
Minimum Split (s)	33.7	33.7	33.7	33.7	33.7	33.7	47.4	47.4	47.4	47.4	47.4
Total Split (s)	75.0	75.0	75.0	75.0	75.0	75.0	45.0	45.0	45.0	45.0	45.0
Total Split (%)	62.5%	62.5%	62.5%	62.5%	62.5%	62.5%	37.5%	37.5%	37.5%	37.5%	37.5%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.4	4.4	4.4	4.4	4.4
All-Red Time (s)	1.7	1.7	1.7	1.7	1.7	1.7	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.7	5.7	5.7	5.7	5.7	5.7	6.4	6.4	6.4	6.4	6.4
Lead/Lag											
Lead-Lag Optimize?											
Recall Mode	C-Min	C-Min	C-Min	C-Min	C-Min	C-Min	None	None	None	None	None
Act Effct Green (s)	77.8	77.8	77.8	77.8	77.8	77.8	30.1	30.1	30.1	30.1	30.1
Actuated g/C Ratio	0.65	0.65	0.65	0.65	0.65	0.65	0.25	0.25	0.25	0.25	0.25
v/c Ratio	0.06	0.57	0.02	0.09	0.40	0.20	0.36	0.14	0.86	0.47	0.21
Control Delay	16.0	19.8	5.9	15.9	15.5	7.1	38.2	32.7	55.7	41.3	10.2
Queue Delay	0.0	0.0	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	16.0	19.8	5.9	15.9	15.7	7.1	38.2	32.7	55.8	41.3	10.2
LOS	B	B	A	B	B	A	D	C	E	D	B
Approach Delay		19.6			14.1			49.4			29.4
Approach LOS		B			B			D			C

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 105 (88%), Referenced to phase 2:EBTL and 6:WBTL, Start of Green	
Natural Cycle: 85	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.86	
Intersection Signal Delay: 23.4	Intersection LOS: C
Intersection Capacity Utilization 81.5%	ICU Level of Service D
Analysis Period (min) 15	

Splits and Phases: 5: 87th Street & Raintree Drive



Movement	EBL	EBT	EBR2	WBL	WBT	WBR2	NBL	NBR	NBR2	SBL	SBR	SBR2
Lane Configurations												
Traffic Volume (vph)	719	356	719	481	480	160	369	36	347	524	221	284
Future Volume (vph)	719	356	719	481	480	160	369	36	347	524	221	284
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.7	6.8	6.8	5.6	6.8		5.4	6.1		5.4	6.1	6.1
Lane Util. Factor	0.97	0.95	1.00	0.97	0.95		0.97	0.88		0.97	0.88	1.00
Frt	1.00	1.00	0.85	1.00	0.96		1.00	0.85		1.00	0.85	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00		0.95	1.00		0.95	1.00	1.00
Satd. Flow (prot)	3433	3539	1583	3433	3406		3433	2787		3433	2787	1583
Flt Permitted	0.95	1.00	1.00	0.95	1.00		0.95	1.00		0.95	1.00	1.00
Satd. Flow (perm)	3433	3539	1583	3433	3406		3433	2787		3433	2787	1583
Peak-hour factor, PHF	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Adj. Flow (vph)	741	367	741	496	495	165	380	37	358	540	228	293
RTOR Reduction (vph)	0	0	278	0	94	0	0	326	0	0	0	259
Lane Group Flow (vph)	741	367	463	496	566	0	380	69	0	540	228	34
Turn Type	Prot	NA	Perm	Prot	NA		Prot	Prot		Prot	Prot	Prot
Protected Phases	5	2		1	6		3	8		7	4	4
Permitted Phases			2									
Actuated Green, G (s)	29.8	38.2	38.2	24.5	32.8		19.3	10.6		22.8	14.1	14.1
Effective Green, g (s)	29.8	38.2	38.2	24.5	32.8		19.3	10.6		22.8	14.1	14.1
Actuated g/C Ratio	0.25	0.32	0.32	0.20	0.27		0.16	0.09		0.19	0.12	0.12
Clearance Time (s)	5.7	6.8	6.8	5.6	6.8		5.4	6.1		5.4	6.1	6.1
Vehicle Extension (s)	2.0	2.0	2.0	2.0	2.0		2.0	2.0		2.0	2.0	2.0
Lane Grp Cap (vph)	852	1126	503	700	930		552	246		652	327	186
v/s Ratio Prot	c0.22	0.10		0.14	0.17		0.11	0.02		c0.16	c0.08	0.02
v/s Ratio Perm			c0.29									
v/c Ratio	0.87	0.33	0.92	0.71	0.61		0.69	0.28		0.83	0.70	0.19
Uniform Delay, d1	43.2	31.1	39.4	44.4	38.0		47.5	51.1		46.7	50.9	47.8
Progression Factor	0.99	0.99	1.09	1.00	1.00		1.00	1.00		1.00	1.00	1.00
Incremental Delay, d2	7.7	0.6	21.4	2.7	3.0		2.9	0.2		8.1	5.2	0.2
Delay (s)	50.3	31.4	64.5	47.1	41.0		50.4	51.4		54.9	56.1	47.9
Level of Service	D	C	E	D	D		D	D		D	E	D
Approach Delay (s)		52.2			43.6							
Approach LOS		D			D							

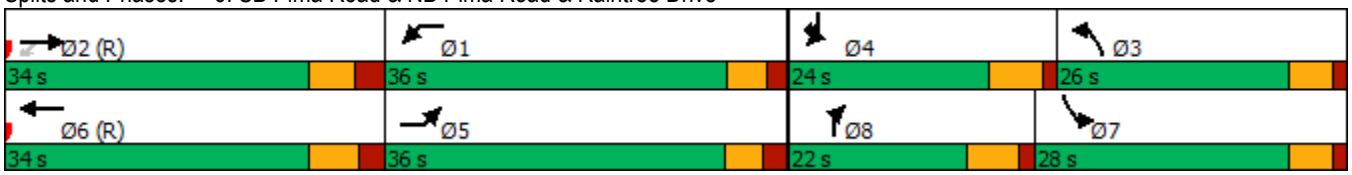
Intersection Summary			
HCM 2000 Control Delay	50.2	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.92		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	24.0
Intersection Capacity Utilization	86.1%	ICU Level of Service	E
Analysis Period (min)	15		

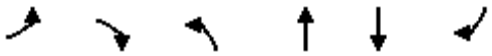
c Critical Lane Group

Lane Group	EBL	EBT	EBR2	WBL	WBT	NBL	NBR	SBL	SBR	SBR2
Lane Configurations										
Traffic Volume (vph)	719	356	719	481	480	369	36	524	221	284
Future Volume (vph)	719	356	719	481	480	369	36	524	221	284
Turn Type	Prot	NA	Perm	Prot	NA	Prot	Prot	Prot	Prot	Prot
Protected Phases	5	2		1	6	3	8	7	4	4
Permitted Phases			2							
Detector Phase	5	2	2	1	6	3	8	7	4	4
Switch Phase										
Minimum Initial (s)	5.0	10.0	10.0	5.0	10.0	5.0	10.0	5.0	10.0	10.0
Minimum Split (s)	10.7	24.8	24.8	10.6	27.8	10.4	40.1	10.4	40.1	40.1
Total Split (s)	36.0	34.0	34.0	36.0	34.0	26.0	22.0	28.0	24.0	24.0
Total Split (%)	30.0%	28.3%	28.3%	30.0%	28.3%	21.7%	18.3%	23.3%	20.0%	20.0%
Yellow Time (s)	3.3	4.0	4.0	3.6	4.4	4.0	4.7	4.0	4.7	4.7
All-Red Time (s)	2.4	2.8	2.8	2.0	2.4	1.4	1.4	1.4	1.4	1.4
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.7	6.8	6.8	5.6	6.8	5.4	6.1	5.4	6.1	6.1
Lead/Lag	Lag	Lead	Lead	Lag	Lead	Lag	Lead	Lag	Lead	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	C-Min	C-Min	None	C-Min	None	None	None	None	None
Act Effct Green (s)	29.8	38.2	38.2	24.5	32.8	19.3	10.6	22.8	14.1	14.1
Actuated g/C Ratio	0.25	0.32	0.32	0.20	0.27	0.16	0.09	0.19	0.12	0.12
v/c Ratio	0.87	0.33	0.95	0.71	0.65	0.69	0.69	0.83	0.70	0.66
Control Delay	52.8	33.9	39.9	49.6	34.8	54.5	14.7	58.3	62.4	13.0
Queue Delay	0.0	0.0	3.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	52.8	33.9	43.4	49.6	34.8	54.5	14.7	58.3	62.4	13.0
LOS	D	C	D	D	C	D	B	E	E	B
Approach Delay		45.3			41.2					
Approach LOS		D			D					

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 19 (16%), Referenced to phase 2:EBT and 6:WBT, Start of Green	
Natural Cycle: 130	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.95	
Intersection Signal Delay: 42.8	Intersection LOS: D
Intersection Capacity Utilization 86.1%	ICU Level of Service E
Analysis Period (min) 15	

Splits and Phases: 6: SB Pima Road & NB Pima Road & Raintree Drive

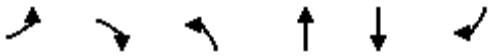




Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	0	79	0	0	968	23
Future Volume (Veh/h)	0	79	0	0	968	23
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89
Hourly flow rate (vph)	0	89	0	0	1088	26
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type				None	None	
Median storage veh)						
Upstream signal (ft)				699		
pX, platoon unblocked						
vC, conflicting volume	1101	285	1114			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	1101	285	1114			
tC, single (s)	6.8	6.9	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	100	87	100			
cM capacity (veh/h)	206	712	623			

Direction, Lane #	EB 1	SB 1	SB 2	SB 3	SB 4
Volume Total	89	311	311	311	181
Volume Left	0	0	0	0	0
Volume Right	89	0	0	0	26
cSH	712	1700	1700	1700	1700
Volume to Capacity	0.13	0.18	0.18	0.18	0.11
Queue Length 95th (ft)	11	0	0	0	0
Control Delay (s)	10.8	0.0	0.0	0.0	0.0
Lane LOS	B				
Approach Delay (s)	10.8	0.0			
Approach LOS	B				

Intersection Summary			
Average Delay	0.8		
Intersection Capacity Utilization	26.0%	ICU Level of Service	A
Analysis Period (min)	15		



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	0	275	0	0	712	76
Future Volume (Veh/h)	0	275	0	0	712	76
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Hourly flow rate (vph)	0	289	0	0	749	80
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type				None	None	
Median storage veh)						
Upstream signal (ft)				1106		
pX, platoon unblocked						
vC, conflicting volume	789	227	829			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	789	227	829			
tC, single (s)	6.8	6.9	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	100	63	100			
cM capacity (veh/h)	328	776	798			

Direction, Lane #	EB 1	SB 1	SB 2	SB 3	SB 4
Volume Total	289	214	214	214	187
Volume Left	0	0	0	0	0
Volume Right	289	0	0	0	80
cSH	776	1700	1700	1700	1700
Volume to Capacity	0.37	0.13	0.13	0.13	0.11
Queue Length 95th (ft)	43	0	0	0	0
Control Delay (s)	12.4	0.0	0.0	0.0	0.0
Lane LOS	B				
Approach Delay (s)	12.4	0.0			
Approach LOS	B				

Intersection Summary			
Average Delay	3.2		
Intersection Capacity Utilization	35.3%	ICU Level of Service	A
Analysis Period (min)	15		

Appendix G – Trip Generation

Raintree Residential

Trip Generation Calculations

Completed:	TG	2/12/2019
Checked:	GT	2/15/2019

Existing Land Uses

820 Shopping Center

Land Use	ITE Code	Qty	Unit	Weekday			AM Peak Hour			PM Peak Hour			Weekday			AM Peak Hour			PM Peak Hour		
				Rate	% In	% Out	Rate	% In	% Out	Rate	% In	% Out	Total	In	Out	Total	In	Out	Total	In	Out
Shopping Center	820	10.7	1000 SF GLA	37.75	50%	50%	0.94	62%	38%	3.81	48%	52%	405	203	202	10	6	4	41	20	21
Shopping Center	820	10.7	1000 SF GLA	7.42	50%	50%	0.18	62%	38%	0.74	48%	52%	80	40	40	2	1	1	8	4	4
Shopping Center	820	10.7	1000 SF GLA	207.98	50%	50%	23.74	62%	38%	18.69	48%	52%	2,232	1,116	1,116	255	158	97	201	96	105
Land Use	ITE Code	Qty	Unit	Weekday			AM Peak Hour			PM Peak Hour			Weekday			AM Peak Hour			PM Peak Hour		
				Equation	% In	% Out	Equation	% In	% Out	Equation	% In	% Out	Total	In	Out	Total	In	Out	Total	In	Out
Shopping Center	**820**	**10.7**	**1000 SF GLA**	**Ln(T)=0.68Ln(X)+5.57**	**50%**	**50%**	**T=0.50(X)+151.78**	**62%**	**38%**	**Ln(T)=0.74Ln(X)+2.89**	**48%**	**52%**	**1,318**	**659**	**659**	**157**	**97**	**60**	**104**	**50**	**54**

Shopping Center	Standard Deviation	16.41	0.87	2.04
	Number of Studies	147	84	261
	Average Size	453	351	327
	R^2	0.76	0.50	0.82

850 Supermarket

Land Use	ITE Code	Qty	Unit	Weekday			AM Peak Hour			PM Peak Hour			Weekday			AM Peak Hour			PM Peak Hour		
				Rate	% In	% Out	Rate	% In	% Out	Rate	% In	% Out	Total	In	Out	Total	In	Out	Total	In	Out
Supermarket	**850**	**31.4**	**1000 SF GFA**	**106.78**	**50%**	**50%**	**3.82**	**60%**	**40%**	**9.24**	**51%**	**49%**	**3,358**	**1,679**	**1,679**	**120**	**72**	**48**	**291**	**148**	**143**
Supermarket	850	31.4	1000 SF GFA	68.67	50%	50%	1.17	60%	40%	3.53	51%	49%	2,159	1,080	1,079	37	22	15	111	57	54
Supermarket	850	31.4	1000 SF GFA	170.24	50%	50%	9.35	60%	40%	20.30	51%	49%	5,353	2,677	2,676	294	176	118	638	325	313
Land Use	ITE Code	Qty	Unit	Weekday			AM Peak Hour			PM Peak Hour			Weekday			AM Peak Hour			PM Peak Hour		
				Equation	% In	% Out	Equation	% In	% Out	Equation	% In	% Out	Total	In	Out	Total	In	Out	Total	In	Out
Supermarket	850	31.4	1000 SF GFA	T=70.89(X)+1212.64	50%	50%	N/A	N/A	N/A	Ln(T)=0.75Ln(X)+3.21	51%	49%	3,442	1,721	1,721	N/A	N/A	N/A	329	168	161

Supermarket	Standard Deviation	37.56	1.89	3.69
	Number of Studies	5	14	73
	Average Size	34	40	55
	R^2	0.70	N/A	0.57

890 Furniture Store

Land Use	ITE Code	Qty	Unit	Weekday			AM Peak Hour			PM Peak Hour			Weekday			AM Peak Hour			PM Peak Hour		
				Rate	% In	% Out	Rate	% In	% Out	Rate	% In	% Out	Total	In	Out	Total	In	Out	Total	In	Out
Furniture Store	**890**	**20.0**	**1000 SF GFA**	**6.30**	**50%**	**50%**	**0.26**	**71%**	**29%**	**0.52**	**47%**	**53%**	**126**	**63**	**63**	**5**	**4**	**1**	**10**	**5**	**5**
Furniture Store	890	20.0	1000 SF GFA	0.80	50%	50%	0.04	71%	29%	0.10	47%	53%	16	8	8	1	1	0	2	1	1
Furniture Store	890	20.0	1000 SF GFA	15.36	50%	50%	0.88	71%	29%	1.78	47%	53%	307	154	153	18	13	5	36	17	19
Land Use	ITE Code	Qty	Unit	Weekday			AM Peak Hour			PM Peak Hour			Weekday			AM Peak Hour			PM Peak Hour		
				Equation	% In	% Out	Equation	% In	% Out	Equation	% In	% Out	Total	In	Out	Total	In	Out	Total	In	Out
Furniture Store	890	20.0	1000 SF GFA	T=5.17(X)+46.56	50%	50%	T=0.24(X)+0.94	71%	29%	Ln(T)=0.85Ln(X)-0.18	47%	53%	150	75	75	6	4	2	11	5	6

Furniture Store	Standard Deviation	3.46	0.19	0.37
	Number of Studies	19	20	26
	Average Size	41	41	50
	R^2	0.67	0.58	0.52

3-ZN-2019
05/20/19

Raintree

Completed: TG 2/12/2019

Checked: GT 2/15/2019

Trip Generation Calculations

Existing Zoning

820 Shopping Center

Land Use	ITE Code	Qty	Unit	Weekday			AM Peak Hour			PM Peak Hour			Weekday			AM Peak Hour			PM Peak Hour		
				Rate	% In	% Out	Rate	% In	% Out	Rate	% In	% Out	Total	In	Out	Total	In	Out	Total	In	Out
Shopping Center	820	193	1000 SF GLA	37.75	50%	50%	0.94	62%	38%	3.81	48%	52%	7,300	3,650	3,650	182	113	69	737	354	383
Shopping Center	820	193	1000 SF GLA	7.42	50%	50%	0.18	62%	38%	0.74	48%	52%	1,435	718	717	35	22	13	143	69	74
Shopping Center	820	193	1000 SF GLA	207.98	50%	50%	23.74	62%	38%	18.69	48%	52%	40,219	20,110	20,109	4,591	2,846	1745	3,614	1735	1879
Land Use	ITE Code	Qty	Unit	Weekday			AM Peak Hour			PM Peak Hour			Weekday			AM Peak Hour			PM Peak Hour		
				Equation	% In	% Out	Equation	% In	% Out	Equation	% In	% Out	Total	In	Out	Total	In	Out	Total	In	Out
Shopping Center	**820**	**193**	**1000 SF GLA**	**Ln(T)=0.68Ln(X)+5.57**	**50%**	**50%**	**T=0.50(X)+151.78**	**62%**	**38%**	**Ln(T)=0.74Ln(X)+2.89**	**48%**	**52%**	**9,414**	**4,707**	**4,707**	**248**	**154**	**94**	**885**	**425**	**460**

Shopping Center	Standard Deviation	16.41		0.87		2.04					
	Number of Studies	147		84		261					
	Average Size	453		351		327					
	R^2	0.76		0.50		0.82					

3-ZN-2019
05/20/19

Raintree

Completed: TG 2/12/2019
Checked: GT 2/15/2019

Trip Generation Calculations

Proposed Development

221 Multifamily Housing (Mid-Ri (Three to Ten Levels)

Land Use	ITE Code	Qty	Unit	Weekday			AM Peak Hour			PM Peak Hour			Weekday			AM Peak Hour			PM Peak Hour		
				Rate	% In	% Out	Rate	% In	% Out	Rate	% In	% Out	Total	In	Out	Total	In	Out	Total	In	Out
Multifamily Housing (Mid-Rise)	**221**	**330**	**Dwelling Units**	**5.44**	**50%**	**50%**	**0.36**	**26%**	**74%**	**0.44**	**61%**	**39%**	**1,795**	**898**	**897**	**119**	**31**	**88**	**145**	**88**	**57**
Multifamily Housing (Mid-Rise)	221	330	Dwelling Units	1.27	50%	50%	0.06	26%	74%	0.15	61%	39%	419	210	209	20	5	15	50	31	19
Multifamily Housing (Mid-Rise)	221	330	Dwelling Units	12.50	50%	50%	1.61	26%	74%	1.11	61%	39%	4,125	2063	2062	531	138	393	366	223	143
Land Use	ITE Code	Qty	Unit	Weekday			AM Peak Hour			PM Peak Hour			Weekday			AM Peak Hour			PM Peak Hour		
				Equation	% In	% Out	Equation	% In	% Out	Equation	% In	% Out	Total	In	Out	Total	In	Out	Total	In	Out
Multifamily Housing (Mid-Rise)	221	330	Dwelling Units	T=5.45(X)-1.75	50%	50%	Ln(T)=0.98Ln(X)-0.98	26%	74%	Ln(T)=0.96Ln(X)-0.63	61%	39%	1,797	899	898	110	29	81	139	85	54

Multifamily Housing (Mid-Rise)	Standard Deviation	2.03		0.19		0.19
	Number of Studies	27		53		60
	Average Size	205		207		208
	R^2	0.77		0.67		0.72

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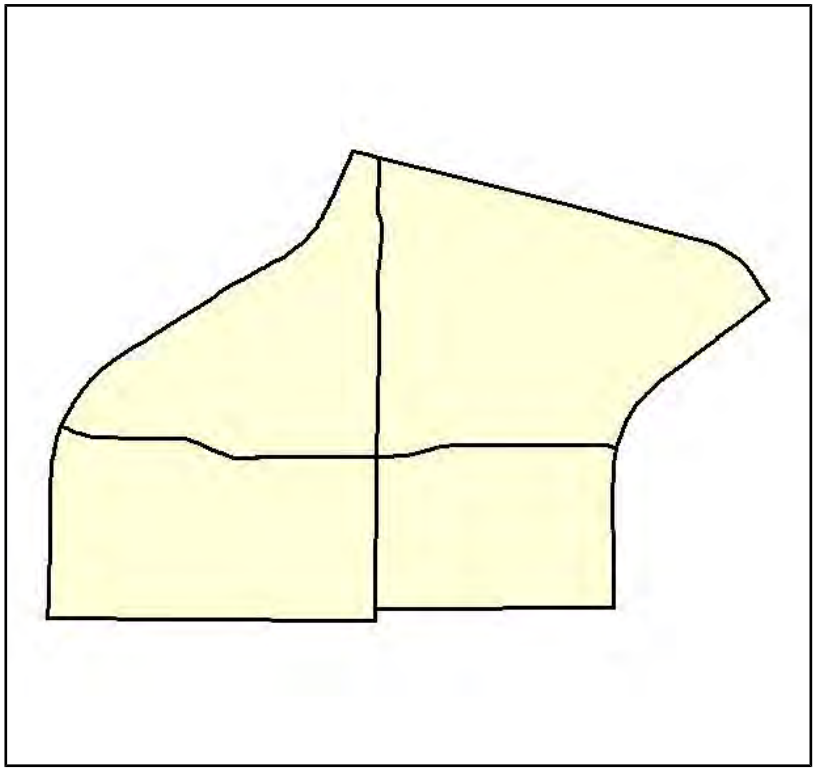
05/20/19

Appendix H – MAG Socioeconomic Projections

H

Selected Traffic Analysis Zones Projections Report

MARICOPA ASSOCIATION of GOVERNMENTS

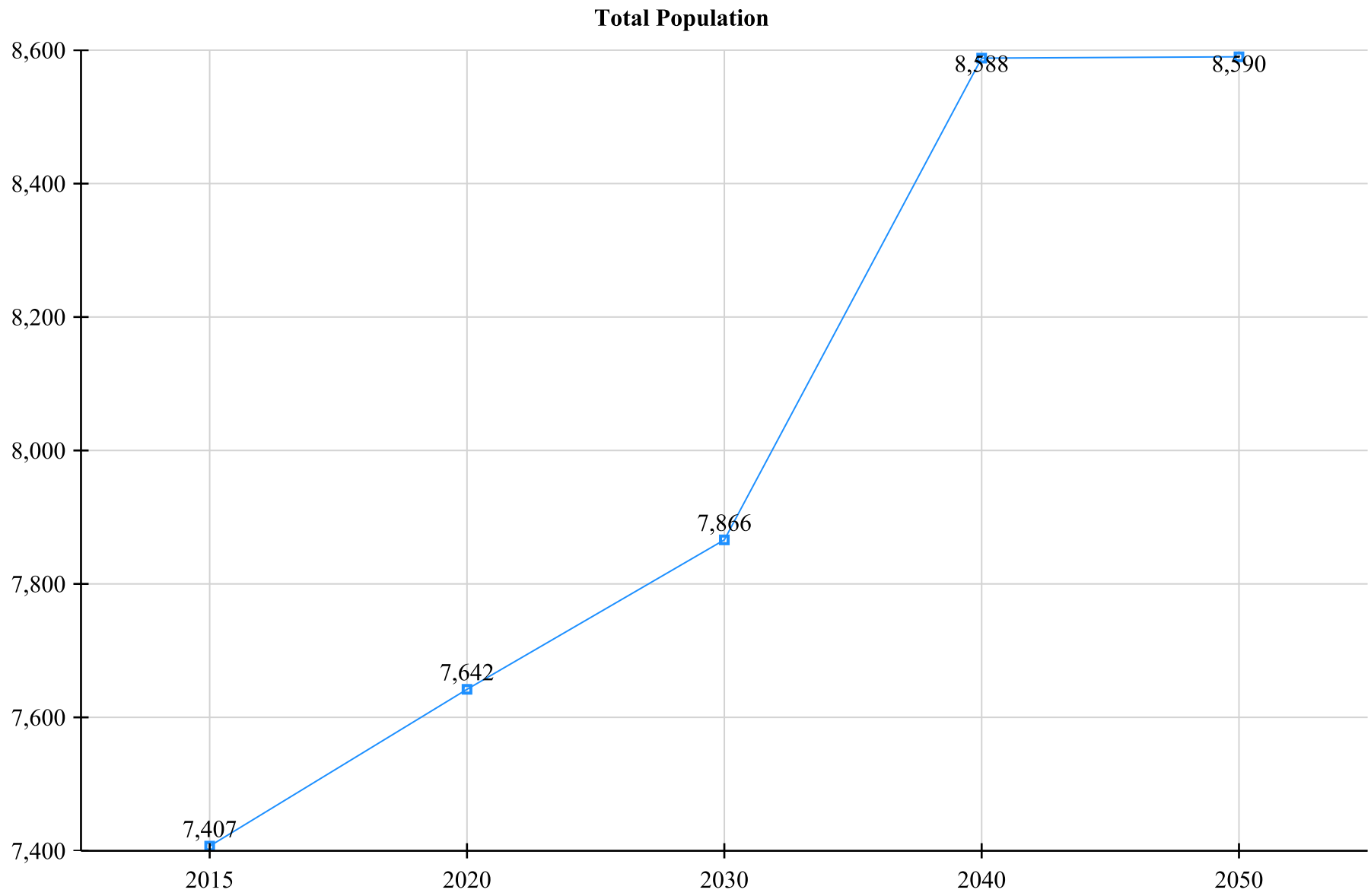


Projections summary:

	2015	2020	2030	2040	2050
Total Population	7,407	7,642	7,866	8,588	8,590
Household Population	7,407	7,642	7,866	8,588	8,590
Households	3,961	4,049	4,137	4,417	4,418
Dwelling Units	4,505	4,507	4,511	4,791	4,792
Total Employment	16,336	17,298	18,098	18,589	18,899

Selected Traffic Analysis Zones Projections Report

MARICOPA ASSOCIATION of GOVERNMENTS



Source: MAG Socioeconomic Projections 2016

2/12/2019

3-ZN-2019
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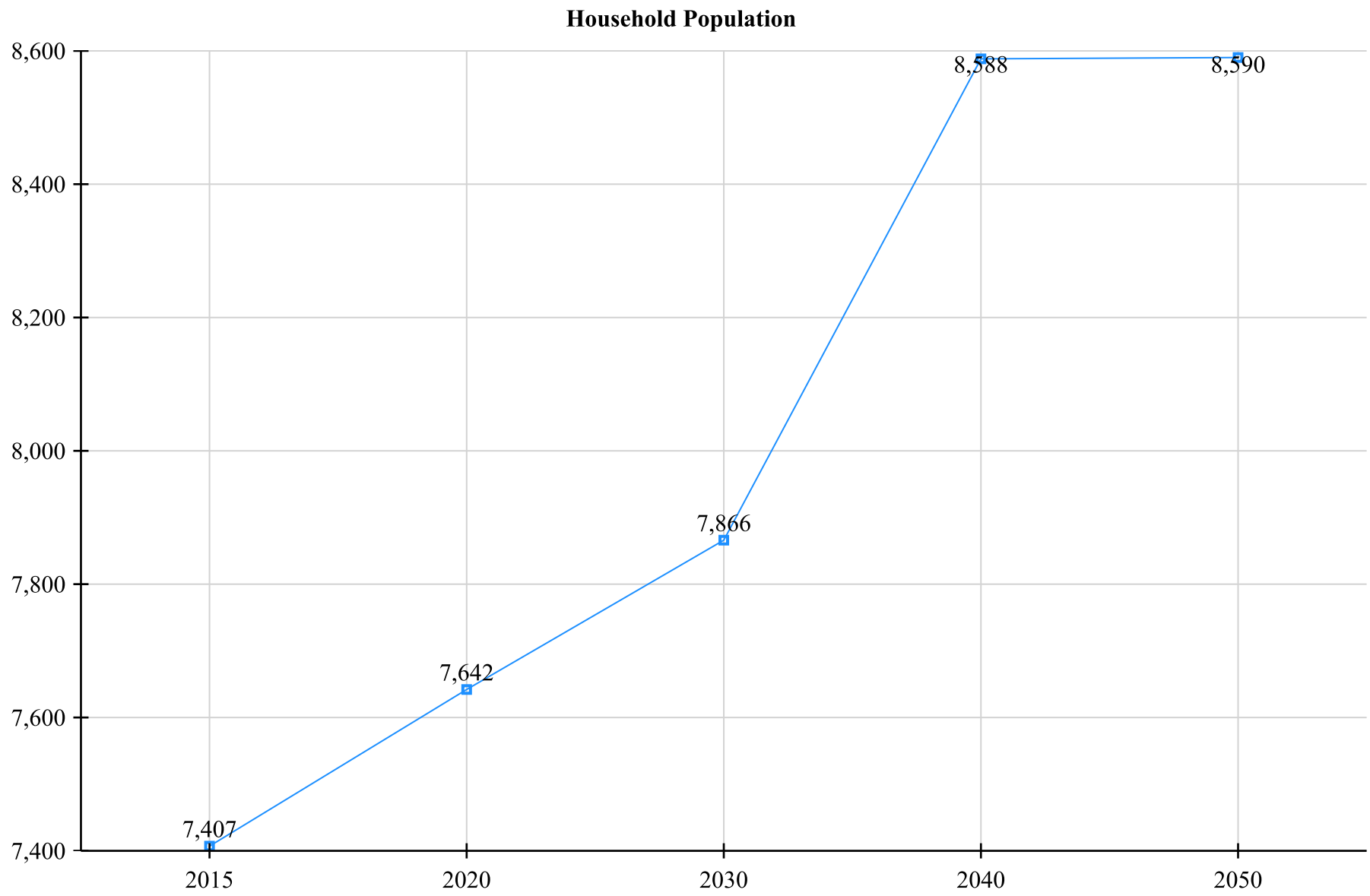
Selected Traffic Analysis Zones Projections Report



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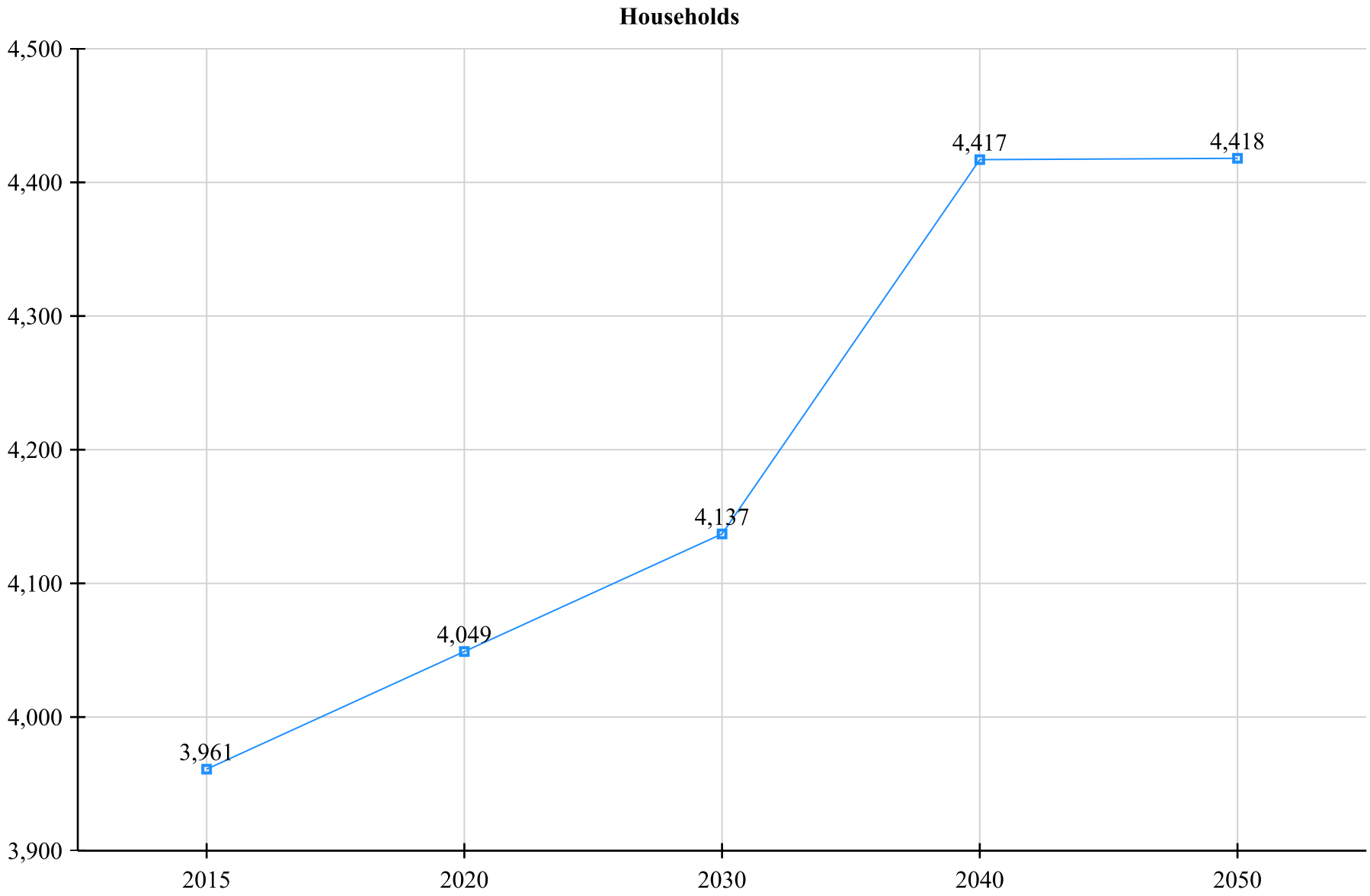

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Selected Traffic Analysis Zones Projections Report

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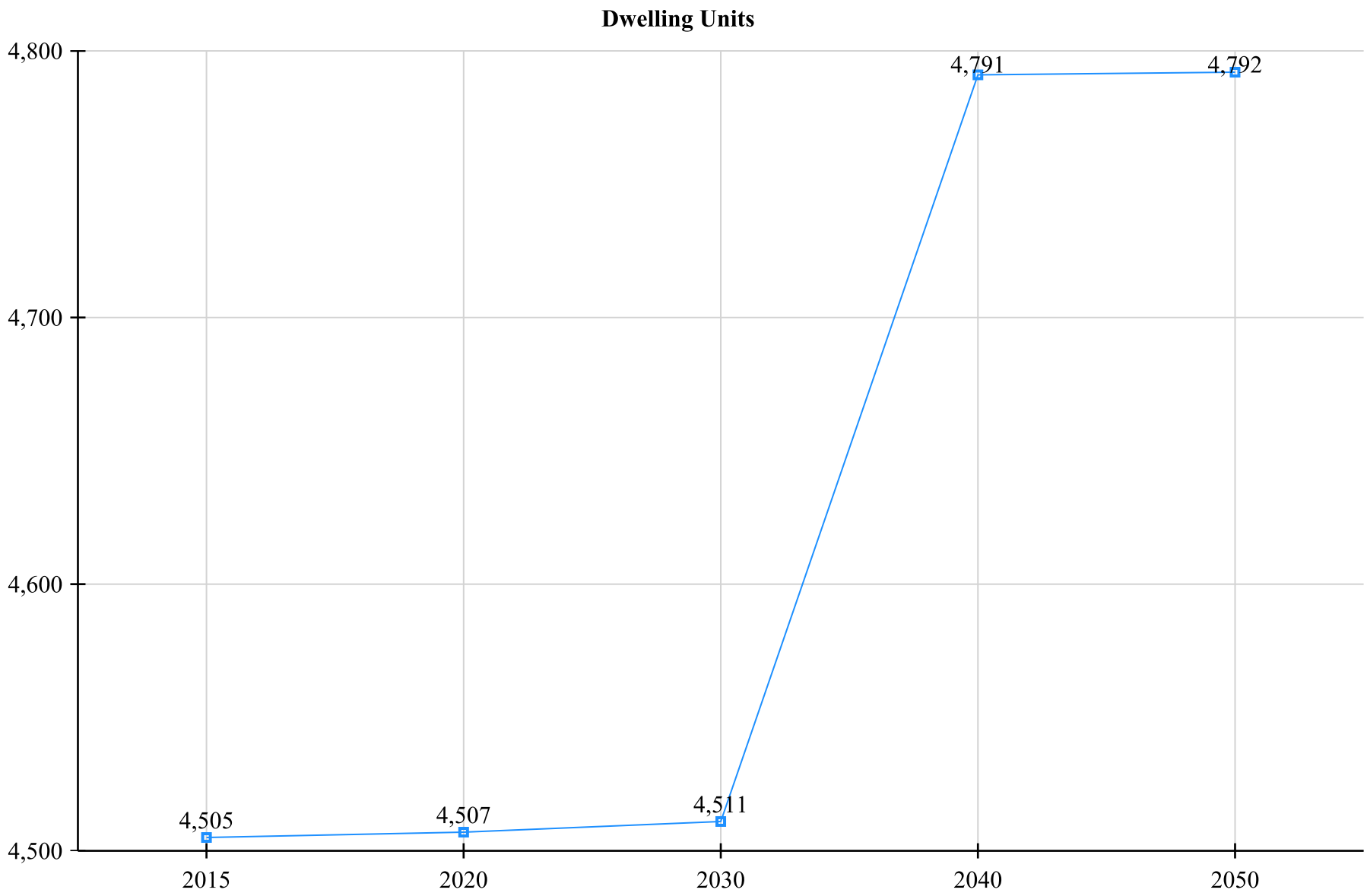

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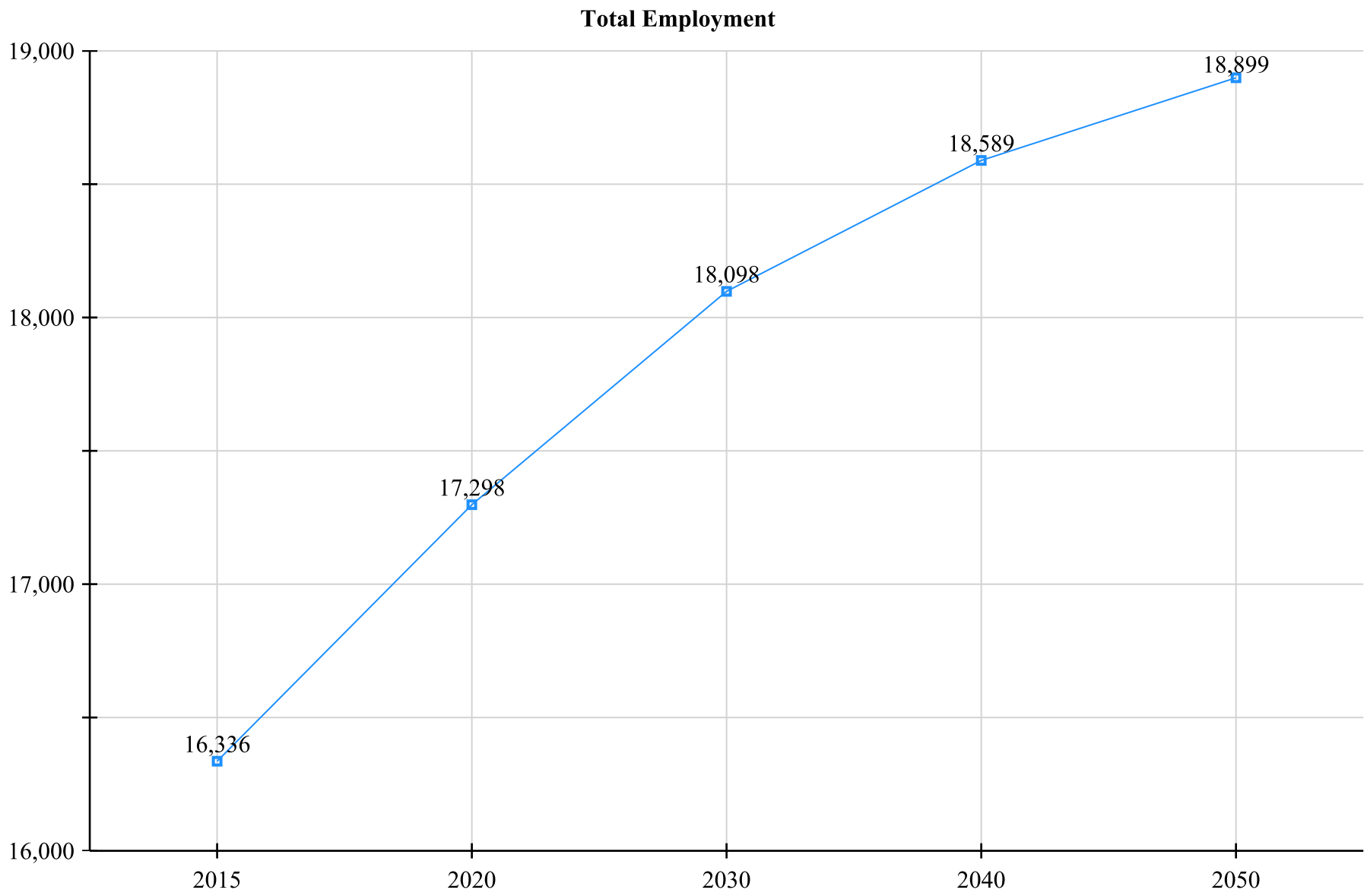

Source: MAG Socioeconomic Projections 2016

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3-ZN-2019
05/20/19

Selected Traffic Analysis Zones Projections Report

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Appendix I – Year 2021 No Build Capacity Analysis

Intersection	
Int Delay, s/veh	2.8

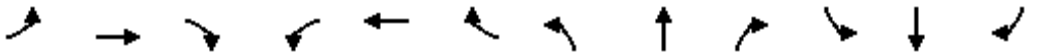
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	12	7	48	7	21	16	83	259	13	18	256	29
Future Vol, veh/h	12	7	48	7	21	16	83	259	13	18	256	29
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	100	-	-	50	-	-	100	-	110	75	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	13	8	52	8	23	17	90	282	14	20	278	32

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	667	810	155	645	812	141	310	0	0	296	0	0
Stage 1	334	334	-	462	462	-	-	-	-	-	-	-
Stage 2	333	476	-	183	350	-	-	-	-	-	-	-
Critical Hdwy	7.54	6.54	6.94	7.54	6.54	6.94	4.14	-	-	4.14	-	-
Critical Hdwy Stg 1	6.54	5.54	-	6.54	5.54	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.54	5.54	-	6.54	5.54	-	-	-	-	-	-	-
Follow-up Hdwy	3.52	4.02	3.32	3.52	4.02	3.32	2.22	-	-	2.22	-	-
Pot Cap-1 Maneuver	436	367	863	454	366	*1001	1247	-	-	1408	-	-
Stage 1	653	642	-	673	643	-	-	-	-	-	-	-
Stage 2	811	633	-	801	631	-	-	-	-	-	-	-
Platoon blocked, %	1	1		1	1	1		-	-	1	-	-
Mov Cap-1 Maneuver	380	336	863	392	335	*1001	1247	-	-	1408	-	-
Mov Cap-2 Maneuver	380	336	-	392	335	-	-	-	-	-	-	-
Stage 1	606	633	-	624	597	-	-	-	-	-	-	-
Stage 2	711	587	-	733	622	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	11.3	13.6	1.9	0.5
HCM LOS	B	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	WBLn1	WBLn2	SBL	SBT	SBR
Capacity (veh/h)	1247	-	-	380	719	392	470	1408	-	-
HCM Lane V/C Ratio	0.072	-	-	0.034	0.083	0.019	0.086	0.014	-	-
HCM Control Delay (s)	8.1	-	-	14.8	10.5	14.4	13.4	7.6	-	-
HCM Lane LOS	A	-	-	B	B	B	B	A	-	-
HCM 95th %tile Q(veh)	0.2	-	-	0.1	0.3	0.1	0.3	0	-	-

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



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	95	410	82	296	691	199	47	132	59	147	110	43
Future Volume (veh/h)	95	410	82	296	691	199	47	132	59	147	110	43
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	103	446	89	322	751	216	51	143	64	160	120	47
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	850	547	244	1015	850	379	154	199	85	217	207	92
Arrive On Green	0.44	0.15	0.15	1.00	0.48	0.48	0.09	0.08	0.08	0.06	0.06	0.06
Sat Flow, veh/h	1781	3554	1585	1781	3554	1585	1781	2425	1036	3456	3554	1585
Grp Volume(v), veh/h	103	446	89	322	751	216	51	103	104	160	120	47
Grp Sat Flow(s),veh/h/ln	1781	1777	1585	1781	1777	1585	1781	1777	1684	1728	1777	1585
Q Serve(g_s), s	0.0	14.6	6.0	0.0	22.9	11.7	3.2	6.8	7.3	5.5	3.9	3.5
Cycle Q Clear(g_c), s	0.0	14.6	6.0	0.0	22.9	11.7	3.2	6.8	7.3	5.5	3.9	3.5
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.62	1.00		1.00
Lane Grp Cap(c), veh/h	850	547	244	1015	850	379	154	146	138	217	207	92
V/C Ratio(X)	0.12	0.82	0.36	0.32	0.88	0.57	0.33	0.71	0.75	0.74	0.58	0.51
Avail Cap(c_a), veh/h	850	1028	458	1015	1413	630	154	407	386	357	874	390
HCM Platoon Ratio	1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	18.6	49.1	45.5	0.0	29.8	26.9	51.5	53.7	53.9	55.3	55.1	54.8
Incr Delay (d2), s/veh	0.0	12.6	4.2	0.1	12.9	6.1	0.5	2.3	3.1	1.8	1.0	1.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.6	7.4	2.6	0.0	8.8	4.2	1.4	3.1	3.1	2.4	1.8	1.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	18.6	61.7	49.7	0.1	42.7	33.0	52.0	56.0	57.0	57.1	56.0	56.4
LnGrp LOS	B	E	D	A	D	C	D	E	E	E	E	E
Approach Vol, veh/h		638			1289			258			327	
Approach Delay, s/veh		53.1			30.4			55.6			56.6	
Approach LOS		D			C			E			E	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	68.7	23.8	15.0	12.5	58.5	34.0	12.1	15.4
Change Period (Y+Rc), s	* 5.3	* 5.3	* 4.6	5.5	* 5.3	* 5.3	* 4.6	5.5
Max Green Setting (Gmax), s	* 25	* 35	* 10	29.5	* 12	* 48	* 12	27.5
Max Q Clear Time (g_c+I1), s	2.0	16.6	5.2	5.9	2.0	24.9	7.5	9.3
Green Ext Time (p_c), s	0.4	1.9	0.0	0.5	0.1	3.8	0.1	0.6

Intersection Summary	
HCM 6th Ctrl Delay	42.2
HCM 6th LOS	D

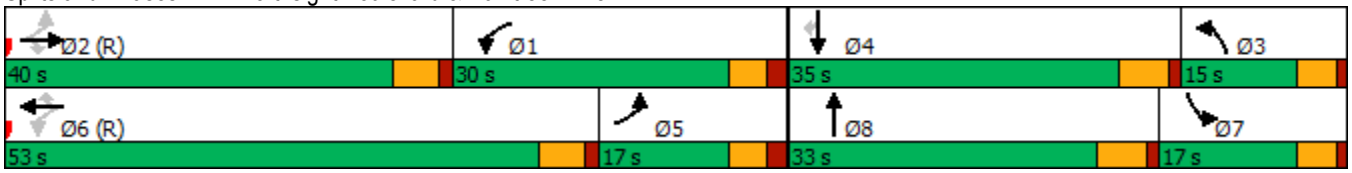
Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Configurations											
Traffic Volume (vph)	95	410	82	296	691	199	47	132	147	110	43
Future Volume (vph)	95	410	82	296	691	199	47	132	147	110	43
Turn Type	pm+pt	NA	Perm	pm+pt	NA	Perm	Prot	NA	Prot	NA	Perm
Protected Phases	5	2		1	6		3	8	7	4	
Permitted Phases	2		2	6		6					4
Detector Phase	5	2	2	1	6	6	3	8	7	4	4
Switch Phase											
Minimum Initial (s)	5.0	10.0	10.0	5.0	10.0	10.0	5.0	7.0	5.0	7.0	7.0
Minimum Split (s)	10.3	32.3	32.3	10.3	35.3	35.3	9.6	32.5	9.6	32.5	32.5
Total Split (s)	17.0	40.0	40.0	30.0	53.0	53.0	15.0	33.0	17.0	35.0	35.0
Total Split (%)	14.2%	33.3%	33.3%	25.0%	44.2%	44.2%	12.5%	27.5%	14.2%	29.2%	29.2%
Yellow Time (s)	3.3	4.0	4.0	3.3	4.0	4.0	3.6	4.4	3.6	4.4	4.4
All-Red Time (s)	2.0	1.3	1.3	2.0	1.3	1.3	1.0	1.1	1.0	1.1	1.1
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.3	5.3	5.3	5.3	5.3	5.3	4.6	5.5	4.6	5.5	5.5
Lead/Lag	Lag	Lead	Lead	Lag	Lead	Lead	Lag	Lead	Lag	Lead	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	C-Min	C-Min	None	C-Min	C-Min	None	None	None	None	None
Act Effct Green (s)	72.7	64.1	64.1	84.2	70.6	70.6	10.9	10.0	10.0	11.0	11.0
Actuated g/C Ratio	0.61	0.53	0.53	0.70	0.59	0.59	0.09	0.08	0.08	0.09	0.09
v/c Ratio	0.23	0.24	0.10	0.44	0.36	0.22	0.32	0.62	0.56	0.37	0.16
Control Delay	9.7	17.0	0.2	16.0	23.4	12.5	54.7	46.9	60.3	55.7	1.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	9.7	17.0	0.2	16.0	23.4	12.5	54.7	46.9	60.3	55.7	1.2
LOS	A	B	A	B	C	B	D	D	E	E	A
Approach Delay		13.5			19.7			48.5		50.1	
Approach LOS		B			B			D		D	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 76 (63%), Referenced to phase 2:EBTL and 6:WBTL, Start of Green	
Natural Cycle: 90	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.62	
Intersection Signal Delay: 25.0	Intersection LOS: C
Intersection Capacity Utilization 55.0%	ICU Level of Service B
Analysis Period (min) 15	

Splits and Phases: 2: Northsight Boulevard & Raintree Drive



Intersection	
Int Delay, s/veh	0.9

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	17	597	10	135	1217	19	0	0	8	22	0	4
Future Vol, veh/h	17	597	10	135	1217	19	0	0	8	22	0	4
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	100	-	105	175	-	135	-	-	0	-	-	0
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	18	649	11	147	1323	21	0	0	9	24	0	4

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	1344	0	0	660	0	0	1641	2323	325	1978	2313	662
Stage 1	-	-	-	-	-	-	685	685	-	1617	1617	-
Stage 2	-	-	-	-	-	-	956	1638	-	361	696	-
Critical Hdwy	4.14	-	-	4.14	-	-	7.54	6.54	6.94	7.54	6.54	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Follow-up Hdwy	2.22	-	-	2.22	-	-	3.52	4.02	3.32	3.52	4.02	3.32
Pot Cap-1 Maneuver	*882	-	-	1263	-	-	*354	78	*846	*325	82	*589
Stage 1	-	-	-	-	-	-	*761	676	-	*300	307	-
Stage 2	-	-	-	-	-	-	*556	296	-	*797	666	-
Platoon blocked, %	1	-	-	1	-	-	1	1	1	1	1	1
Mov Cap-1 Maneuver	*882	-	-	1263	-	-	*315	68	*846	*288	71	*589
Mov Cap-2 Maneuver	-	-	-	-	-	-	*315	68	-	*288	71	-
Stage 1	-	-	-	-	-	-	*746	662	-	*294	272	-
Stage 2	-	-	-	-	-	-	*487	261	-	*773	653	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.2	0.8	9.3	17.5
HCM LOS			A	C

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	-	846	* 882	-	-	1263	-	-	288	589
HCM Lane V/C Ratio	-	0.01	0.021	-	-	0.116	-	-	0.083	0.007
HCM Control Delay (s)	0	9.3	9.2	-	-	8.2	-	-	18.6	11.2
HCM Lane LOS	A	A	A	-	-	A	-	-	C	B
HCM 95th %tile Q(veh)	-	0	0.1	-	-	0.4	-	-	0.3	0

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

Intersection	
Int Delay, s/veh	0

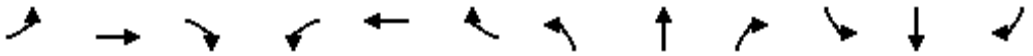
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑↑	↑↑	↱		↱
Traffic Vol, veh/h	0	636	1399	0	0	5
Future Vol, veh/h	0	636	1399	0	0	5
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	135	-	0
Veh in Median Storage, #	-	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	0	691	1521	0	0	5

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	-	0	-	0	-	761
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	3.32
Pot Cap-1 Maneuver	0	-	-	-	0	*512
Stage 1	0	-	-	-	0	-
Stage 2	0	-	-	-	0	-
Platoon blocked, %		-	-	-		1
Mov Cap-1 Maneuver	-	-	-	-	-	*512
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	WB	SB
HCM Control Delay, s	0	0	12.1
HCM LOS			B

Minor Lane/Major Mvmt	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	-	-	-	512
HCM Lane V/C Ratio	-	-	-	0.011
HCM Control Delay (s)	-	-	-	12.1
HCM Lane LOS	-	-	-	B
HCM 95th %tile Q(veh)	-	-	-	0

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



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	20	525	94	345	1269	154	20	18	57	53	55	70
Future Volume (veh/h)	20	525	94	345	1269	154	20	18	57	53	55	70
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	22	571	102	375	1379	167	22	20	62	58	60	76
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	323	2795	1247	662	2795	1247	104	211	178	196	84	107
Arrive On Green	1.00	1.00	1.00	1.00	1.00	1.00	0.11	0.11	0.11	0.11	0.11	0.11
Sat Flow, veh/h	335	3554	1585	765	3554	1585	1253	1870	1585	1316	750	950
Grp Volume(v), veh/h	22	571	102	375	1379	167	22	20	62	58	0	136
Grp Sat Flow(s),veh/h/ln	335	1777	1585	765	1777	1585	1253	1870	1585	1316	0	1699
Q Serve(g_s), s	0.0	0.0	0.0	0.0	0.0	0.0	2.1	1.2	4.3	5.0	0.0	9.3
Cycle Q Clear(g_c), s	0.0	0.0	0.0	0.0	0.0	0.0	11.3	1.2	4.3	6.1	0.0	9.3
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.56
Lane Grp Cap(c), veh/h	323	2795	1247	662	2795	1247	104	211	178	196	0	191
V/C Ratio(X)	0.07	0.20	0.08	0.57	0.49	0.13	0.21	0.09	0.35	0.30	0.00	0.71
Avail Cap(c_a), veh/h	323	2795	1247	662	2795	1247	391	639	542	497	0	581
HCM Platoon Ratio	2.00	2.00	2.00	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.31	0.31	0.31	1.00	1.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	56.8	47.8	49.2	50.5	0.0	51.4
Incr Delay (d2), s/veh	0.4	0.2	0.1	1.1	0.2	0.1	0.4	0.1	0.4	0.3	0.0	1.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	0.1	0.0	0.2	0.1	0.0	0.7	0.5	1.7	1.7	0.0	4.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.4	0.2	0.1	1.1	0.2	0.1	57.2	47.8	49.6	50.8	0.0	53.2
LnGrp LOS	A	A	A	A	A	A	E	D	D	D	A	D
Approach Vol, veh/h		695			1921			104			194	
Approach Delay, s/veh		0.2			0.4			50.9			52.5	
Approach LOS		A			A			D			D	

Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		100.1		19.9		100.1		19.9				
Change Period (Y+Rc), s		* 5.7		6.4		* 5.7		6.4				
Max Green Setting (Gmax), s		* 67		41.0		* 67		41.0				
Max Q Clear Time (g_c+I1), s		2.0		11.3		2.0		13.3				
Green Ext Time (p_c), s		1.7		0.6		6.4		0.2				

Intersection Summary												
HCM 6th Ctrl Delay			5.6									
HCM 6th LOS			A									

Notes

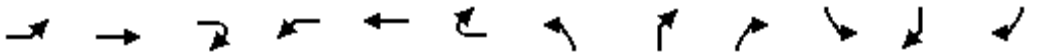
User approved pedestrian interval to be less than phase max green.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Configurations											
Traffic Volume (vph)	20	525	94	345	1269	154	20	18	57	53	55
Future Volume (vph)	20	525	94	345	1269	154	20	18	57	53	55
Turn Type	Perm	NA	Perm	Perm	NA	Perm	Perm	NA	Perm	Perm	NA
Protected Phases		2			6			8			4
Permitted Phases	2		2	6		6	8		8	4	
Detector Phase	2	2	2	6	6	6	8	8	8	4	4
Switch Phase											
Minimum Initial (s)	10.0	10.0	10.0	10.0	10.0	10.0	7.0	7.0	7.0	7.0	7.0
Minimum Split (s)	33.7	33.7	33.7	33.7	33.7	33.7	47.4	47.4	47.4	47.4	47.4
Total Split (s)	72.6	72.6	72.6	72.6	72.6	72.6	47.4	47.4	47.4	47.4	47.4
Total Split (%)	60.5%	60.5%	60.5%	60.5%	60.5%	60.5%	39.5%	39.5%	39.5%	39.5%	39.5%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.4	4.4	4.4	4.4	4.4
All-Red Time (s)	1.7	1.7	1.7	1.7	1.7	1.7	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.7	5.7	5.7	5.7	5.7	5.7	6.4	6.4	6.4	6.4	6.4
Lead/Lag											
Lead-Lag Optimize?											
Recall Mode	C-Min	C-Min	C-Min	C-Min	C-Min	C-Min	None	None	None	None	None
Act Effct Green (s)	96.1	96.1	96.1	96.1	96.1	96.1	11.8	11.8	11.8	11.8	11.8
Actuated g/C Ratio	0.80	0.80	0.80	0.80	0.80	0.80	0.10	0.10	0.10	0.10	0.10
v/c Ratio	0.08	0.20	0.08	0.58	0.49	0.13	0.23	0.11	0.29	0.43	0.67
Control Delay	5.9	4.7	2.2	7.3	4.2	1.0	53.5	48.3	15.1	59.3	52.7
Queue Delay	0.0	0.0	0.0	0.0	0.7	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	5.9	4.7	2.2	7.3	5.0	1.0	53.5	48.3	15.1	59.3	52.7
LOS	A	A	A	A	A	A	D	D	B	E	D
Approach Delay		4.4			5.1			29.6			54.7
Approach LOS		A			A			C			D

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 100 (83%), Referenced to phase 2:EBTL and 6:WBTL, Start of Green	
Natural Cycle: 105	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.67	
Intersection Signal Delay: 9.1	Intersection LOS: A
Intersection Capacity Utilization 74.9%	ICU Level of Service D
Analysis Period (min) 15	

Splits and Phases: 5: 87th Street & Raintree Drive



Movement	EBL	EBT	EBR2	WBL	WBT	WBR2	NBL	NBR	NBR2	SBL	SBR	SBR2
Lane Configurations												
Traffic Volume (vph)	319	151	191	600	377	144	781	73	202	403	230	612
Future Volume (vph)	319	151	191	600	377	144	781	73	202	403	230	612
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.7	6.8	6.8	5.6	6.8		5.4	6.1		5.4	6.1	6.1
Lane Util. Factor	0.97	0.95	1.00	0.97	0.95		0.97	0.88		0.97	0.88	1.00
Frt	1.00	1.00	0.85	1.00	0.96		1.00	0.85		1.00	0.85	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00		0.95	1.00		0.95	1.00	1.00
Satd. Flow (prot)	3433	3539	1583	3433	3392		3433	2787		3433	2787	1583
Flt Permitted	0.95	1.00	1.00	0.95	1.00		0.95	1.00		0.95	1.00	1.00
Satd. Flow (perm)	3433	3539	1583	3433	3392		3433	2787		3433	2787	1583
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	347	164	208	652	410	157	849	79	220	438	250	665
RTOR Reduction (vph)	0	0	177	0	141	0	0	200	0	0	0	346
Lane Group Flow (vph)	347	164	31	652	426	0	849	99	0	438	250	319
Turn Type	Prot	NA	Perm	Prot	NA		Prot	Prot		Prot	Prot	Prot
Protected Phases	5	2		1	6		3	8		7	4	4
Permitted Phases			2									
Actuated Green, G (s)	16.5	18.0	18.0	27.0	28.4		32.0	10.8		40.3	19.1	19.1
Effective Green, g (s)	16.5	18.0	18.0	27.0	28.4		32.0	10.8		40.3	19.1	19.1
Actuated g/C Ratio	0.14	0.15	0.15	0.22	0.24		0.27	0.09		0.34	0.16	0.16
Clearance Time (s)	5.7	6.8	6.8	5.6	6.8		5.4	6.1		5.4	6.1	6.1
Vehicle Extension (s)	2.0	2.0	2.0	2.0	2.0		2.0	2.0		2.0	2.0	2.0
Lane Grp Cap (vph)	472	530	237	772	802		915	250		1152	443	251
v/s Ratio Prot	0.10	0.05		c0.19	c0.13		c0.25	0.04		0.13	0.09	c0.20
v/s Ratio Perm			0.02									
v/c Ratio	0.74	0.31	0.13	0.84	0.53		0.93	0.40		0.38	0.56	1.27
Uniform Delay, d1	49.7	45.5	44.2	44.5	40.0		42.9	51.5		30.3	46.6	50.5
Progression Factor	0.79	1.17	4.24	1.00	1.00		1.00	1.00		1.00	1.00	1.00
Incremental Delay, d2	5.0	1.5	1.1	8.1	2.5		14.9	0.4		0.1	1.0	148.7
Delay (s)	44.3	54.5	188.6	52.6	42.5		57.7	51.9		30.4	47.6	199.1
Level of Service	D	D	F	D	D		E	D		C	D	F
Approach Delay (s)		88.4			47.9							
Approach LOS		F			D							

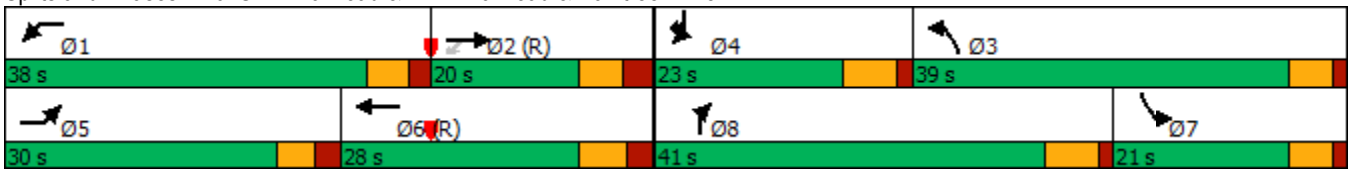
Intersection Summary			
HCM 2000 Control Delay	77.5	HCM 2000 Level of Service	E
HCM 2000 Volume to Capacity ratio	0.91		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	24.0
Intersection Capacity Utilization	89.3%	ICU Level of Service	E
Analysis Period (min)	15		

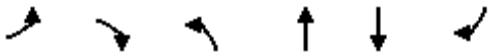
c Critical Lane Group

Lane Group	EBL	EBT	EBR2	WBL	WBT	NBL	NBR	SBL	SBR	SBR2
Lane Configurations										
Traffic Volume (vph)	319	151	191	600	377	781	73	403	230	612
Future Volume (vph)	319	151	191	600	377	781	73	403	230	612
Turn Type	Prot	NA	Perm	Prot	NA	Prot	Prot	Prot	Prot	Prot
Protected Phases	5	2		1	6	3	8	7	4	4
Permitted Phases			2							
Detector Phase	5	2	2	1	6	3	8	7	4	4
Switch Phase										
Minimum Initial (s)	5.0	10.0	10.0	5.0	10.0	5.0	10.0	5.0	10.0	10.0
Minimum Split (s)	10.7	24.8	24.8	10.6	27.8	10.4	40.1	10.4	40.1	40.1
Total Split (s)	30.0	20.0	20.0	38.0	28.0	39.0	41.0	21.0	23.0	23.0
Total Split (%)	25.0%	16.7%	16.7%	31.7%	23.3%	32.5%	34.2%	17.5%	19.2%	19.2%
Yellow Time (s)	3.3	4.0	4.0	3.6	4.4	4.0	4.7	4.0	4.7	4.7
All-Red Time (s)	2.4	2.8	2.8	2.0	2.4	1.4	1.4	1.4	1.4	1.4
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.7	6.8	6.8	5.6	6.8	5.4	6.1	5.4	6.1	6.1
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lead	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	C-Min	C-Min	None	C-Min	None	None	None	None	None
Act Effct Green (s)	16.5	18.0	18.0	27.0	28.4	32.0	10.8	40.3	19.1	19.1
Actuated g/C Ratio	0.14	0.15	0.15	0.22	0.24	0.27	0.09	0.34	0.16	0.16
v/c Ratio	0.74	0.31	0.48	0.85	0.60	0.93	0.66	0.38	0.57	1.11
Control Delay	48.8	56.9	21.5	55.2	30.7	59.4	22.6	31.7	52.6	90.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.6	0.0	0.0	0.0	0.1
Total Delay	48.8	56.9	21.5	55.2	30.8	60.1	22.6	31.7	52.6	90.1
LOS	D	E	C	E	C	E	C	C	D	F
Approach Delay		42.7			43.8					
Approach LOS		D			D					

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 17 (14%), Referenced to phase 2:EBT and 6:WBT, Start of Green	
Natural Cycle: 140	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 1.11	
Intersection Signal Delay: 51.5	Intersection LOS: D
Intersection Capacity Utilization 89.3%	ICU Level of Service E
Analysis Period (min) 15	

Splits and Phases: 6: SB Pima Road & NB Pima Road & Raintree Drive

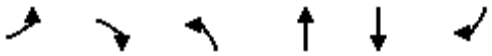




Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	0	17	0	0	1216	71
Future Volume (Veh/h)	0	17	0	0	1216	71
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	0	18	0	0	1322	77
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type				None	None	
Median storage veh)						
Upstream signal (ft)				699		
pX, platoon unblocked						
vC, conflicting volume	1360	369	1399			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	1360	369	1399			
tC, single (s)	6.8	6.9	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	100	97	100			
cM capacity (veh/h)	139	628	484			

Direction, Lane #	EB 1	SB 1	SB 2	SB 3	SB 4
Volume Total	18	378	378	378	266
Volume Left	0	0	0	0	0
Volume Right	18	0	0	0	77
cSH	628	1700	1700	1700	1700
Volume to Capacity	0.03	0.22	0.22	0.22	0.16
Queue Length 95th (ft)	2	0	0	0	0
Control Delay (s)	10.9	0.0	0.0	0.0	0.0
Lane LOS	B				
Approach Delay (s)	10.9	0.0			
Approach LOS	B				

Intersection Summary			
Average Delay	0.1		
Intersection Capacity Utilization	28.8%	ICU Level of Service	A
Analysis Period (min)	15		



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	0	123	0	0	1158	87
Future Volume (Veh/h)	0	123	0	0	1158	87
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	0	134	0	0	1259	95
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type				None	None	
Median storage veh)						
Upstream signal (ft)				1106		
pX, platoon unblocked						
vC, conflicting volume	1306	362	1354			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	1306	362	1354			
tC, single (s)	6.8	6.9	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	100	79	100			
cM capacity (veh/h)	151	634	504			

Direction, Lane #	EB 1	SB 1	SB 2	SB 3	SB 4
Volume Total	134	360	360	360	275
Volume Left	0	0	0	0	0
Volume Right	134	0	0	0	95
cSH	634	1700	1700	1700	1700
Volume to Capacity	0.21	0.21	0.21	0.21	0.16
Queue Length 95th (ft)	20	0	0	0	0
Control Delay (s)	12.2	0.0	0.0	0.0	0.0
Lane LOS	B				
Approach Delay (s)	12.2	0.0			
Approach LOS	B				

Intersection Summary			
Average Delay	1.1		
Intersection Capacity Utilization	32.5%	ICU Level of Service	A
Analysis Period (min)	15		

Intersection	
Int Delay, s/veh	5.3

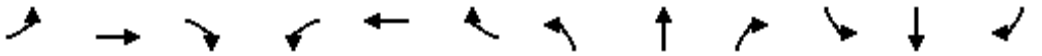
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	58	12	220	10	15	25	176	500	20	24	298	46
Future Vol, veh/h	58	12	220	10	15	25	176	500	20	24	298	46
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	100	-	-	50	-	-	100	-	110	75	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	63	13	239	11	16	27	191	543	22	26	324	50

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	1063	1348	187	1146	1351	272	374	0	0	565	0	0
Stage 1	401	401	-	925	925	-	-	-	-	-	-	-
Stage 2	662	947	-	221	426	-	-	-	-	-	-	-
Critical Hdwy	7.54	6.54	6.94	7.54	6.54	6.94	4.14	-	-	4.14	-	-
Critical Hdwy Stg 1	6.54	5.54	-	6.54	5.54	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.54	5.54	-	6.54	5.54	-	-	-	-	-	-	-
Follow-up Hdwy	3.52	4.02	3.32	3.52	4.02	3.32	2.22	-	-	2.22	-	-
Pot Cap-1 Maneuver	286	198	823	242	197	*899	1181	-	-	1273	-	-
Stage 1	597	599	-	432	449	-	-	-	-	-	-	-
Stage 2	665	437	-	761	584	-	-	-	-	-	-	-
Platoon blocked, %	1	1		1	1	1		-	-	1	-	-
Mov Cap-1 Maneuver	222	163	823	140	161	*899	1181	-	-	1273	-	-
Mov Cap-2 Maneuver	222	163	-	140	161	-	-	-	-	-	-	-
Stage 1	500	587	-	362	376	-	-	-	-	-	-	-
Stage 2	517	367	-	517	572	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	16.2	20.6	2.2	0.5
HCM LOS	C	C		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	WBLn1	WBLn2	SBL	SBT	SBR
Capacity (veh/h)	1181	-	-	222	680	140	331	1273	-	-
HCM Lane V/C Ratio	0.162	-	-	0.284	0.371	0.078	0.131	0.02	-	-
HCM Control Delay (s)	8.6	-	-	27.5	13.4	32.9	17.5	7.9	-	-
HCM Lane LOS	A	-	-	D	B	D	C	A	-	-
HCM 95th %tile Q(veh)	0.6	-	-	1.1	1.7	0.2	0.4	0.1	-	-

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



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	149	655	85	116	650	312	152	274	251	326	178	75
Future Volume (veh/h)	149	655	85	116	650	312	152	274	251	326	178	75
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	162	712	92	126	707	339	165	298	273	354	193	82
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	534	833	372	580	908	405	429	353	315	411	273	122
Arrive On Green	0.25	0.23	0.23	0.09	0.08	0.08	0.24	0.20	0.20	0.12	0.08	0.08
Sat Flow, veh/h	1781	3554	1585	1781	3554	1585	1781	1777	1585	3456	3554	1585
Grp Volume(v), veh/h	162	712	92	126	707	339	165	298	273	354	193	82
Grp Sat Flow(s),veh/h/ln	1781	1777	1585	1781	1777	1585	1781	1777	1585	1728	1777	1585
Q Serve(g_s), s	2.9	23.0	5.7	1.8	23.4	25.3	9.3	19.4	20.0	12.1	6.4	6.0
Cycle Q Clear(g_c), s	2.9	23.0	5.7	1.8	23.4	25.3	9.3	19.4	20.0	12.1	6.4	6.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	534	833	372	580	908	405	429	353	315	411	273	122
V/C Ratio(X)	0.30	0.85	0.25	0.22	0.78	0.84	0.38	0.84	0.87	0.86	0.71	0.67
Avail Cap(c_a), veh/h	534	1235	551	580	1235	551	429	526	469	472	1081	482
HCM Platoon Ratio	1.00	1.00	1.00	0.33	0.33	0.33	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	33.4	44.0	37.3	39.1	51.6	52.5	38.1	46.3	46.5	51.9	54.1	53.9
Incr Delay (d2), s/veh	0.1	10.9	1.6	0.1	6.5	18.2	0.2	5.2	7.6	12.3	1.3	2.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.6	11.2	2.3	3.4	12.0	12.8	4.0	8.9	8.4	5.8	2.8	2.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	33.5	54.9	38.9	39.2	58.1	70.7	38.3	51.5	54.1	64.3	55.4	56.4
LnGrp LOS	C	D	D	D	E	E	D	D	D	E	E	E
Approach Vol, veh/h		966			1172			736			629	
Approach Delay, s/veh		49.8			59.7			49.5			60.5	
Approach LOS		D			E			D			E	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	38.4	33.4	33.5	14.7	35.8	36.0	18.9	29.4
Change Period (Y+Rc), s	* 5.3	* 5.3	* 4.6	5.5	* 5.3	* 5.3	* 4.6	5.5
Max Green Setting (Gmax), s	* 5.7	* 42	* 15	36.5	* 5.7	* 42	* 16	35.5
Max Q Clear Time (g_c+I1), s	3.8	25.0	11.3	8.4	4.9	27.3	14.1	22.0
Green Ext Time (p_c), s	0.0	3.1	0.1	0.8	0.0	3.4	0.2	1.9

Intersection Summary	
HCM 6th Ctrl Delay	55.0
HCM 6th LOS	D

Notes

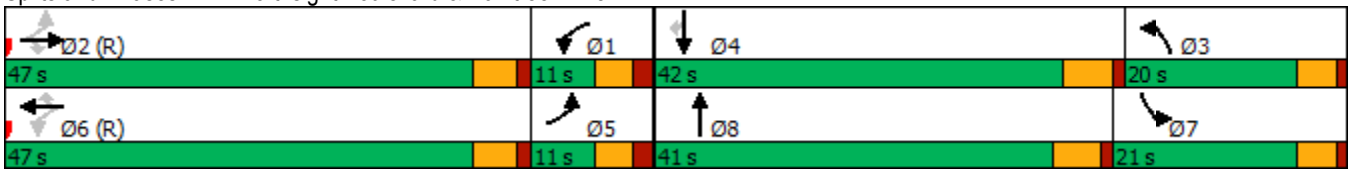
User approved pedestrian interval to be less than phase max green.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Configurations											
Traffic Volume (vph)	149	655	85	116	650	312	152	274	326	178	75
Future Volume (vph)	149	655	85	116	650	312	152	274	326	178	75
Turn Type	pm+pt	NA	Perm	pm+pt	NA	Perm	Prot	NA	Prot	NA	Perm
Protected Phases	5	2		1	6		3	8	7	4	
Permitted Phases	2		2	6		6					4
Detector Phase	5	2	2	1	6	6	3	8	7	4	4
Switch Phase											
Minimum Initial (s)	5.0	10.0	10.0	5.0	10.0	10.0	5.0	7.0	5.0	7.0	7.0
Minimum Split (s)	10.3	32.3	32.3	10.3	35.3	35.3	9.6	32.5	9.6	32.5	32.5
Total Split (s)	11.0	47.0	47.0	11.0	47.0	47.0	20.0	41.0	21.0	42.0	42.0
Total Split (%)	9.2%	39.2%	39.2%	9.2%	39.2%	39.2%	16.7%	34.2%	17.5%	35.0%	35.0%
Yellow Time (s)	3.3	4.0	4.0	3.3	4.0	4.0	3.6	4.4	3.6	4.4	4.4
All-Red Time (s)	2.0	1.3	1.3	2.0	1.3	1.3	1.0	1.1	1.0	1.1	1.1
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.3	5.3	5.3	5.3	5.3	5.3	4.6	5.5	4.6	5.5	5.5
Lead/Lag	Lag	Lead	Lead	Lag	Lead	Lead	Lag	Lead	Lag	Lead	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	C-Min	C-Min	None	C-Min	C-Min	None	None	None	None	None
Act Effct Green (s)	61.1	51.7	51.7	62.7	52.5	52.5	26.4	20.7	16.7	11.0	11.0
Actuated g/C Ratio	0.51	0.43	0.43	0.52	0.44	0.44	0.22	0.17	0.14	0.09	0.09
v/c Ratio	0.43	0.47	0.12	0.33	0.46	0.40	0.42	0.82	0.74	0.60	0.33
Control Delay	25.0	27.6	3.6	17.6	22.0	7.9	42.4	44.8	59.1	59.9	7.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	25.0	27.6	3.6	17.6	22.0	7.9	42.4	44.8	59.1	59.9	7.7
LOS	C	C	A	B	C	A	D	D	E	E	A
Approach Delay		24.9			17.4			44.3		52.7	
Approach LOS		C			B			D		D	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 31 (26%), Referenced to phase 2:EBTL and 6:WBTL, Start of Green	
Natural Cycle: 90	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.82	
Intersection Signal Delay: 31.5	Intersection LOS: C
Intersection Capacity Utilization 68.4%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 2: Northsight Boulevard & Raintree Drive



Intersection	
Int Delay, s/veh	1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	61	1194	2	4	1063	22	2	0	87	11	0	36
Future Vol, veh/h	61	1194	2	4	1063	22	2	0	87	11	0	36
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	100	-	105	175	-	135	-	-	0	-	-	0
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	66	1298	2	4	1155	24	2	0	95	12	0	39

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	1179	0	0	1300	0	0	2016	2617	649	1944	2595	578
Stage 1	-	-	-	-	-	-	1430	1430	-	1163	1163	-
Stage 2	-	-	-	-	-	-	586	1187	-	781	1432	-
Critical Hdwy	4.14	-	-	4.14	-	-	7.54	6.54	6.94	7.54	6.54	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Follow-up Hdwy	2.22	-	-	2.22	-	-	3.52	4.02	3.32	3.52	4.02	3.32
Pot Cap-1 Maneuver	*958	-	-	*882	-	-	*161	*67	*589	*161	*81	*641
Stage 1	-	-	-	-	-	-	*477	*435	-	*604	*529	-
Stage 2	-	-	-	-	-	-	*604	*529	-	*556	*433	-
Platoon blocked, %	1	-	-	1	-	-	1	1	1	1	1	1
Mov Cap-1 Maneuver	*958	-	-	*882	-	-	*143	*62	*589	*128	*75	*641
Mov Cap-2 Maneuver	-	-	-	-	-	-	*143	*62	-	*128	*75	-
Stage 1	-	-	-	-	-	-	*444	*405	-	*562	*527	-
Stage 2	-	-	-	-	-	-	*565	*527	-	*434	*403	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.4	0	12.7	16.9
HCM LOS			B	C

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	143	589	* 958	-	-	* 882	-	-	128	641
HCM Lane V/C Ratio	0.015	0.161	0.069	-	-	0.005	-	-	0.093	0.061
HCM Control Delay (s)	30.6	12.3	9	-	-	9.1	-	-	36	11
HCM Lane LOS	D	B	A	-	-	A	-	-	E	B
HCM 95th %tile Q(veh)	0	0.6	0.2	-	-	0	-	-	0.3	0.2

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

Intersection	
Int Delay, s/veh	0

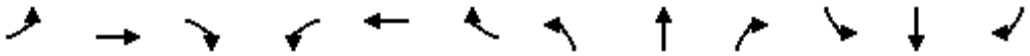
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑↑	↑↑	↱		↱
Traffic Vol, veh/h	0	1333	1116	20	0	8
Future Vol, veh/h	0	1333	1116	20	0	8
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	135	-	0
Veh in Median Storage, #	-	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	0	1449	1213	22	0	9

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	-	0	-	0	-	607
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	3.32
Pot Cap-1 Maneuver	0	-	-	-	0	*615
Stage 1	0	-	-	-	0	-
Stage 2	0	-	-	-	0	-
Platoon blocked, %		-	-	-		1
Mov Cap-1 Maneuver	-	-	-	-	-	*615
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

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

Minor Lane/Major Mvmt	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	-	-	-	615
HCM Lane V/C Ratio	-	-	-	0.014
HCM Control Delay (s)	-	-	-	10.9
HCM Lane LOS	-	-	-	B
HCM 95th %tile Q(veh)	-	-	-	0

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



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	20	1284	17	17	911	213	115	64	371	154	18	80
Future Volume (veh/h)	20	1284	17	17	911	213	115	64	371	154	18	80
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	22	1396	18	18	990	232	125	70	403	167	20	87
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	313	2230	995	181	2230	995	344	508	431	284	83	360
Arrive On Green	0.42	0.42	0.42	0.83	0.83	0.83	0.27	0.27	0.27	0.27	0.27	0.27
Sat Flow, veh/h	457	3554	1585	380	3554	1585	1287	1870	1585	921	305	1327
Grp Volume(v), veh/h	22	1396	18	18	990	232	125	70	403	167	0	107
Grp Sat Flow(s),veh/h/ln	457	1777	1585	380	1777	1585	1287	1870	1585	921	0	1632
Q Serve(g_s), s	3.8	37.1	0.8	3.5	8.8	3.6	10.1	3.4	29.8	20.1	0.0	6.1
Cycle Q Clear(g_c), s	12.5	37.1	0.8	40.6	8.8	3.6	16.2	3.4	29.8	23.5	0.0	6.1
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.81
Lane Grp Cap(c), veh/h	313	2230	995	181	2230	995	344	508	431	284	0	443
V/C Ratio(X)	0.07	0.63	0.02	0.10	0.44	0.23	0.36	0.14	0.94	0.59	0.00	0.24
Avail Cap(c_a), veh/h	313	2230	995	181	2230	995	408	602	510	330	0	525
HCM Platoon Ratio	0.67	0.67	0.67	1.33	1.33	1.33	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.64	0.64	0.64	1.00	1.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	19.4	23.7	13.2	18.5	4.4	4.0	40.4	33.1	42.7	42.0	0.0	34.1
Incr Delay (d2), s/veh	0.4	1.3	0.0	0.7	0.4	0.4	0.2	0.0	21.5	0.8	0.0	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.5	16.8	0.3	0.3	2.5	1.1	3.2	1.5	14.0	4.7	0.0	2.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	19.9	25.0	13.2	19.2	4.8	4.3	40.6	33.1	64.1	42.8	0.0	34.2
LnGrp LOS	B	C	B	B	A	A	D	C	E	D	A	C
Approach Vol, veh/h		1436			1240			598			274	
Approach Delay, s/veh		24.8			5.0			55.6			39.4	
Approach LOS		C			A			E			D	

Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		81.0		39.0		81.0		39.0				
Change Period (Y+Rc), s		* 5.7		6.4		* 5.7		6.4				
Max Green Setting (Gmax), s		* 69		38.6		* 69		38.6				
Max Q Clear Time (g_c+I1), s		39.1		25.5		42.6		31.8				
Green Ext Time (p_c), s		4.6		0.8		3.0		0.8				

Intersection Summary		
HCM 6th Ctrl Delay	24.2	
HCM 6th LOS	C	

Notes

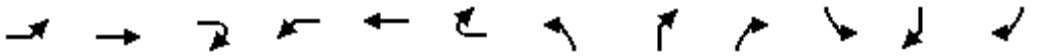
User approved pedestrian interval to be less than phase max green.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Configurations											
Traffic Volume (vph)	20	1284	17	17	911	213	115	64	371	154	18
Future Volume (vph)	20	1284	17	17	911	213	115	64	371	154	18
Turn Type	Perm	NA	Perm	Perm	NA	Perm	Perm	NA	Perm	Perm	NA
Protected Phases		2			6			8			4
Permitted Phases	2		2	6		6	8		8	4	
Detector Phase	2	2	2	6	6	6	8	8	8	4	4
Switch Phase											
Minimum Initial (s)	10.0	10.0	10.0	10.0	10.0	10.0	7.0	7.0	7.0	7.0	7.0
Minimum Split (s)	33.7	33.7	33.7	33.7	33.7	33.7	47.4	47.4	47.4	47.4	47.4
Total Split (s)	75.0	75.0	75.0	75.0	75.0	75.0	45.0	45.0	45.0	45.0	45.0
Total Split (%)	62.5%	62.5%	62.5%	62.5%	62.5%	62.5%	37.5%	37.5%	37.5%	37.5%	37.5%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.4	4.4	4.4	4.4	4.4
All-Red Time (s)	1.7	1.7	1.7	1.7	1.7	1.7	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.7	5.7	5.7	5.7	5.7	5.7	6.4	6.4	6.4	6.4	6.4
Lead/Lag											
Lead-Lag Optimize?											
Recall Mode	C-Min	C-Min	C-Min	C-Min	C-Min	C-Min	None	None	None	None	None
Act Effct Green (s)	75.2	75.2	75.2	75.2	75.2	75.2	32.7	32.7	32.7	32.7	32.7
Actuated g/C Ratio	0.63	0.63	0.63	0.63	0.63	0.63	0.27	0.27	0.27	0.27	0.27
v/c Ratio	0.08	0.63	0.02	0.12	0.45	0.22	0.36	0.14	0.87	0.46	0.21
Control Delay	16.9	21.2	7.2	14.6	15.3	6.2	36.2	30.9	56.2	39.1	9.4
Queue Delay	0.0	0.0	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	16.9	21.2	7.2	14.6	15.5	6.2	36.2	30.9	56.2	39.1	9.4
LOS	B	C	A	B	B	A	D	C	E	D	A
Approach Delay		21.0			13.8			49.0			27.5
Approach LOS		C			B			D			C

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 105 (88%), Referenced to phase 2:EBTL and 6:WBTL, Start of Green	
Natural Cycle: 85	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.87	
Intersection Signal Delay: 23.7	Intersection LOS: C
Intersection Capacity Utilization 82.4%	ICU Level of Service E
Analysis Period (min) 15	

Splits and Phases: 5: 87th Street & Raintree Drive



Movement	EBL	EBT	EBR2	WBL	WBT	WBR2	NBL	NBR	NBR2	SBL	SBR	SBR2
Lane Configurations												
Traffic Volume (vph)	729	361	729	488	487	163	374	37	352	531	224	288
Future Volume (vph)	729	361	729	488	487	163	374	37	352	531	224	288
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.7	6.8	6.8	5.6	6.8		5.4	6.1		5.4	6.1	6.1
Lane Util. Factor	0.97	0.95	1.00	0.97	0.95		0.97	0.88		0.97	0.88	1.00
Frt	1.00	1.00	0.85	1.00	0.96		1.00	0.85		1.00	0.85	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00		0.95	1.00		0.95	1.00	1.00
Satd. Flow (prot)	3433	3539	1583	3433	3406		3433	2787		3433	2787	1583
Flt Permitted	0.95	1.00	1.00	0.95	1.00		0.95	1.00		0.95	1.00	1.00
Satd. Flow (perm)	3433	3539	1583	3433	3406		3433	2787		3433	2787	1583
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	792	392	792	530	529	177	407	40	383	577	243	313
RTOR Reduction (vph)	0	0	282	0	96	0	0	349	0	0	0	275
Lane Group Flow (vph)	792	392	510	530	610	0	407	74	0	577	243	38
Turn Type	Prot	NA	Perm	Prot	NA		Prot	Prot		Prot	Prot	Prot
Protected Phases	5	2		1	6		3	8		7	4	4
Permitted Phases			2									
Actuated Green, G (s)	30.3	34.7	34.7	26.6	30.9		20.3	10.7		24.1	14.5	14.5
Effective Green, g (s)	30.3	34.7	34.7	26.6	30.9		20.3	10.7		24.1	14.5	14.5
Actuated g/C Ratio	0.25	0.29	0.29	0.22	0.26		0.17	0.09		0.20	0.12	0.12
Clearance Time (s)	5.7	6.8	6.8	5.6	6.8		5.4	6.1		5.4	6.1	6.1
Vehicle Extension (s)	2.0	2.0	2.0	2.0	2.0		2.0	2.0		2.0	2.0	2.0
Lane Grp Cap (vph)	866	1023	457	760	877		580	248		689	336	191
v/s Ratio Prot	c0.23	0.11		0.15	0.18		0.12	0.03		c0.17	c0.09	0.02
v/s Ratio Perm			c0.32									
v/c Ratio	0.91	0.38	1.12	0.70	0.70		0.70	0.30		0.84	0.72	0.20
Uniform Delay, d1	43.6	34.1	42.6	43.0	40.3		47.0	51.1		46.1	50.8	47.5
Progression Factor	0.98	0.98	1.03	1.00	1.00		1.00	1.00		1.00	1.00	1.00
Incremental Delay, d2	11.3	0.9	73.1	2.3	4.5		3.1	0.2		8.4	6.4	0.2
Delay (s)	53.9	34.4	117.1	45.3	44.8		50.1	51.4		54.4	57.2	47.7
Level of Service	D	C	F	D	D		D	D		D	E	D
Approach Delay (s)		75.4			45.0							
Approach LOS		E			D							

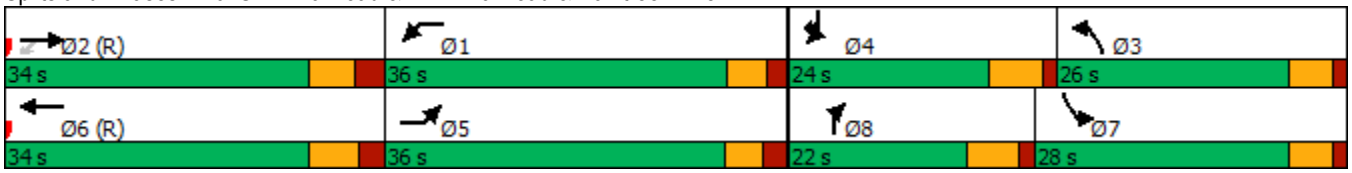
Intersection Summary			
HCM 2000 Control Delay	59.3	HCM 2000 Level of Service	E
HCM 2000 Volume to Capacity ratio	1.01		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	24.0
Intersection Capacity Utilization	87.1%	ICU Level of Service	E
Analysis Period (min)	15		

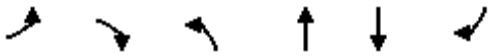
c Critical Lane Group

Lane Group	EBL	EBT	EBR2	WBL	WBT	NBL	NBR	SBL	SBR	SBR2
Lane Configurations										
Traffic Volume (vph)	729	361	729	488	487	374	37	531	224	288
Future Volume (vph)	729	361	729	488	487	374	37	531	224	288
Turn Type	Prot	NA	Perm	Prot	NA	Prot	Prot	Prot	Prot	Prot
Protected Phases	5	2		1	6	3	8	7	4	4
Permitted Phases			2							
Detector Phase	5	2	2	1	6	3	8	7	4	4
Switch Phase										
Minimum Initial (s)	5.0	10.0	10.0	5.0	10.0	5.0	10.0	5.0	10.0	10.0
Minimum Split (s)	10.7	24.8	24.8	10.6	27.8	10.4	40.1	10.4	40.1	40.1
Total Split (s)	36.0	34.0	34.0	36.0	34.0	26.0	22.0	28.0	24.0	24.0
Total Split (%)	30.0%	28.3%	28.3%	30.0%	28.3%	21.7%	18.3%	23.3%	20.0%	20.0%
Yellow Time (s)	3.3	4.0	4.0	3.6	4.4	4.0	4.7	4.0	4.7	4.7
All-Red Time (s)	2.4	2.8	2.8	2.0	2.4	1.4	1.4	1.4	1.4	1.4
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.7	6.8	6.8	5.6	6.8	5.4	6.1	5.4	6.1	6.1
Lead/Lag	Lag	Lead	Lead	Lag	Lead	Lag	Lead	Lag	Lead	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	C-Min	C-Min	None	C-Min	None	None	None	None	None
Act Effct Green (s)	30.3	34.8	34.8	26.5	31.0	20.3	10.7	24.1	14.5	14.5
Actuated g/C Ratio	0.25	0.29	0.29	0.22	0.26	0.17	0.09	0.20	0.12	0.12
v/c Ratio	0.92	0.38	1.07	0.70	0.72	0.70	0.71	0.84	0.72	0.67
Control Delay	56.1	36.5	72.0	47.8	38.6	54.2	14.8	57.7	63.2	12.9
Queue Delay	0.0	0.0	11.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	56.1	36.5	83.9	47.8	38.6	54.2	14.8	57.7	63.2	12.9
LOS	E	D	F	D	D	D	B	E	E	B
Approach Delay		63.4			42.6					
Approach LOS		E			D					

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 19 (16%), Referenced to phase 2:EBT and 6:WBT, Start of Green	
Natural Cycle: 150	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 1.07	
Intersection Signal Delay: 50.0	Intersection LOS: D
Intersection Capacity Utilization 87.1%	ICU Level of Service E
Analysis Period (min) 15	

Splits and Phases: 6: SB Pima Road & NB Pima Road & Raintree Drive

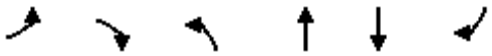




Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	0	81	0	0	981	24
Future Volume (Veh/h)	0	81	0	0	981	24
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	0	88	0	0	1066	26
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type				None	None	
Median storage veh)						
Upstream signal (ft)				699		
pX, platoon unblocked						
vC, conflicting volume	1079	280	1092			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	1079	280	1092			
tC, single (s)	6.8	6.9	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	100	88	100			
cM capacity (veh/h)	213	718	635			

Direction, Lane #	EB 1	SB 1	SB 2	SB 3	SB 4
Volume Total	88	305	305	305	178
Volume Left	0	0	0	0	0
Volume Right	88	0	0	0	26
cSH	718	1700	1700	1700	1700
Volume to Capacity	0.12	0.18	0.18	0.18	0.10
Queue Length 95th (ft)	10	0	0	0	0
Control Delay (s)	10.7	0.0	0.0	0.0	0.0
Lane LOS	B				
Approach Delay (s)	10.7	0.0			
Approach LOS	B				

Intersection Summary			
Average Delay	0.8		
Intersection Capacity Utilization	26.3%	ICU Level of Service	A
Analysis Period (min)	15		



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	0	279	0	0	722	77
Future Volume (Veh/h)	0	279	0	0	722	77
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	0	303	0	0	785	84
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type				None	None	
Median storage veh)						
Upstream signal (ft)				1106		
pX, platoon unblocked						
vC, conflicting volume	827	238	869			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	827	238	869			
tC, single (s)	6.8	6.9	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	100	60	100			
cM capacity (veh/h)	310	763	771			

Direction, Lane #	EB 1	SB 1	SB 2	SB 3	SB 4
Volume Total	303	224	224	224	196
Volume Left	0	0	0	0	0
Volume Right	303	0	0	0	84
cSH	763	1700	1700	1700	1700
Volume to Capacity	0.40	0.13	0.13	0.13	0.12
Queue Length 95th (ft)	48	0	0	0	0
Control Delay (s)	12.8	0.0	0.0	0.0	0.0
Lane LOS	B				
Approach Delay (s)	12.8	0.0			
Approach LOS	B				

Intersection Summary			
Average Delay	3.3		
Intersection Capacity Utilization	35.7%	ICU Level of Service	A
Analysis Period (min)	15		

Appendix J – Year 2021 Build Capacity Analysis

J2 design

J

3-ZN-2019
05/20/19

Intersection	
Int Delay, s/veh	2.9

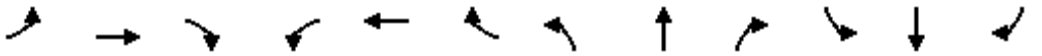
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	12	7	48	7	21	30	83	259	13	21	256	29
Future Vol, veh/h	12	7	48	7	21	30	83	259	13	21	256	29
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	100	-	-	50	-	-	100	-	110	75	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	13	8	52	8	23	33	90	282	14	23	278	32

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	673	816	155	651	818	141	310	0	0	296	0	0
Stage 1	340	340	-	462	462	-	-	-	-	-	-	-
Stage 2	333	476	-	189	356	-	-	-	-	-	-	-
Critical Hdwy	7.54	6.54	6.94	7.54	6.54	6.94	4.14	-	-	4.14	-	-
Critical Hdwy Stg 1	6.54	5.54	-	6.54	5.54	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.54	5.54	-	6.54	5.54	-	-	-	-	-	-	-
Follow-up Hdwy	3.52	4.02	3.32	3.52	4.02	3.32	2.22	-	-	2.22	-	-
Pot Cap-1 Maneuver	432	364	863	449	362	*1001	1247	-	-	1408	-	-
Stage 1	648	638	-	673	643	-	-	-	-	-	-	-
Stage 2	811	633	-	795	628	-	-	-	-	-	-	-
Platoon blocked, %	1	1		1	1	1		-	-	1	-	-
Mov Cap-1 Maneuver	369	332	863	387	331	*1001	1247	-	-	1408	-	-
Mov Cap-2 Maneuver	369	332	-	387	331	-	-	-	-	-	-	-
Stage 1	601	628	-	624	597	-	-	-	-	-	-	-
Stage 2	700	587	-	726	618	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	11.3	12.6	1.9	0.5
HCM LOS	B	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	WBLn1	WBLn2	SBL	SBT	SBR
Capacity (veh/h)	1247	-	-	369	717	387	546	1408	-	-
HCM Lane V/C Ratio	0.072	-	-	0.035	0.083	0.02	0.102	0.016	-	-
HCM Control Delay (s)	8.1	-	-	15.1	10.5	14.5	12.3	7.6	-	-
HCM Lane LOS	A	-	-	C	B	B	B	A	-	-
HCM 95th %tile Q(veh)	0.2	-	-	0.1	0.3	0.1	0.3	0	-	-

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



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	95	416	82	296	716	199	47	132	59	147	110	43
Future Volume (veh/h)	95	416	82	296	716	199	47	132	59	147	110	43
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	103	452	89	322	778	216	51	143	64	160	120	47
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	837	558	249	1012	877	391	154	199	85	216	207	92
Arrive On Green	0.44	0.16	0.16	1.00	0.49	0.49	0.09	0.08	0.08	0.06	0.06	0.06
Sat Flow, veh/h	1781	3554	1585	1781	3554	1585	1781	2425	1036	3456	3554	1585
Grp Volume(v), veh/h	103	452	89	322	778	216	51	103	104	160	120	47
Grp Sat Flow(s),veh/h/ln	1781	1777	1585	1781	1777	1585	1781	1777	1684	1728	1777	1585
Q Serve(g_s), s	0.0	14.7	6.0	0.0	23.7	11.4	3.2	6.8	7.3	5.5	3.9	3.5
Cycle Q Clear(g_c), s	0.0	14.7	6.0	0.0	23.7	11.4	3.2	6.8	7.3	5.5	3.9	3.5
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.62	1.00		1.00
Lane Grp Cap(c), veh/h	837	558	249	1012	877	391	154	146	138	216	207	92
V/C Ratio(X)	0.12	0.81	0.36	0.32	0.89	0.55	0.33	0.71	0.75	0.74	0.58	0.51
Avail Cap(c_a), veh/h	837	1442	643	1012	1442	643	154	407	386	299	814	363
HCM Platoon Ratio	1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	19.1	48.8	45.2	0.0	28.9	25.8	51.6	53.7	53.9	55.3	55.1	54.8
Incr Delay (d2), s/veh	0.0	12.0	4.0	0.1	12.8	5.5	0.5	2.3	3.1	3.3	1.0	1.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.6	7.4	2.6	0.0	8.9	4.1	1.4	3.1	3.1	2.4	1.8	1.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	19.1	60.9	49.1	0.1	41.7	31.3	52.0	56.0	57.0	58.6	56.0	56.4
LnGrp LOS	B	E	D	A	D	C	D	E	E	E	E	E
Approach Vol, veh/h		644			1316			258			327	
Approach Delay, s/veh		52.6			29.8			55.6			57.4	
Approach LOS		D			C			E			E	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	68.4	24.2	15.0	12.5	57.6	34.9	12.1	15.4
Change Period (Y+Rc), s	* 5.3	* 5.3	* 4.6	5.5	* 5.3	* 5.3	* 4.6	5.5
Max Green Setting (Gmax), s	* 13	* 49	* 10	27.5	* 13	* 49	* 10	27.5
Max Q Clear Time (g_c+I1), s	2.0	16.7	5.2	5.9	2.0	25.7	7.5	9.3
Green Ext Time (p_c), s	0.4	2.1	0.0	0.5	0.1	4.0	0.1	0.6

Intersection Summary	
HCM 6th Ctrl Delay	41.7
HCM 6th LOS	D

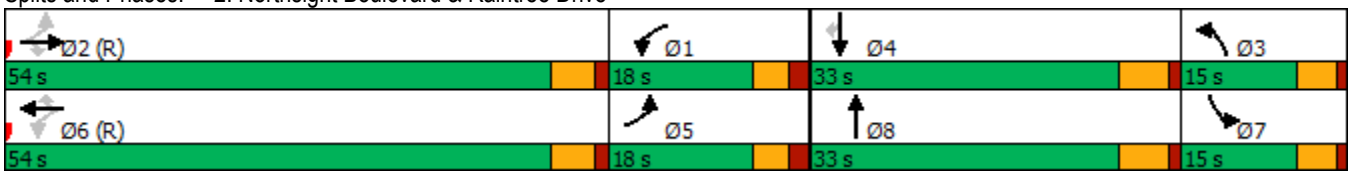
Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Configurations											
Traffic Volume (vph)	95	416	82	296	716	199	47	132	147	110	43
Future Volume (vph)	95	416	82	296	716	199	47	132	147	110	43
Turn Type	pm+pt	NA	Perm	pm+pt	NA	Perm	Prot	NA	Prot	NA	Perm
Protected Phases	5	2		1	6		3	8	7	4	
Permitted Phases	2		2	6		6					4
Detector Phase	5	2	2	1	6	6	3	8	7	4	4
Switch Phase											
Minimum Initial (s)	5.0	10.0	10.0	5.0	10.0	10.0	5.0	7.0	5.0	7.0	7.0
Minimum Split (s)	10.3	32.3	32.3	10.3	35.3	35.3	9.6	32.5	9.6	32.5	32.5
Total Split (s)	18.0	54.0	54.0	18.0	54.0	54.0	15.0	33.0	15.0	33.0	33.0
Total Split (%)	15.0%	45.0%	45.0%	15.0%	45.0%	45.0%	12.5%	27.5%	12.5%	27.5%	27.5%
Yellow Time (s)	3.3	4.0	4.0	3.3	4.0	4.0	3.6	4.4	3.6	4.4	4.4
All-Red Time (s)	2.0	1.3	1.3	2.0	1.3	1.3	1.0	1.1	1.0	1.1	1.1
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.3	5.3	5.3	5.3	5.3	5.3	4.6	5.5	4.6	5.5	5.5
Lead/Lag	Lag	Lead	Lead	Lag	Lead	Lead	Lag	Lead	Lag	Lead	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	C-Min	C-Min	None	C-Min	C-Min	None	None	None	None	None
Act Effct Green (s)	72.7	64.5	64.5	84.3	71.1	71.1	10.9	10.0	10.0	11.0	11.0
Actuated g/C Ratio	0.61	0.54	0.54	0.70	0.59	0.59	0.09	0.08	0.08	0.09	0.09
v/c Ratio	0.24	0.24	0.10	0.45	0.37	0.21	0.32	0.62	0.56	0.37	0.19
Control Delay	9.9	16.7	2.2	17.2	22.7	12.1	54.7	46.9	60.3	55.7	1.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	9.9	16.7	2.2	17.2	22.7	12.1	54.7	46.9	60.3	55.7	1.7
LOS	A	B	A	B	C	B	D	D	E	E	A
Approach Delay		13.6			19.6			48.5		50.2	
Approach LOS		B			B			D		D	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 76 (63%), Referenced to phase 2:EBTL and 6:WBTL, Start of Green	
Natural Cycle: 90	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.62	
Intersection Signal Delay: 24.9	Intersection LOS: C
Intersection Capacity Utilization 55.2%	ICU Level of Service B
Analysis Period (min) 15	

Splits and Phases: 2: Northsight Boulevard & Raintree Drive



Intersection	
Int Delay, s/veh	0.9

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	17	603	10	135	1242	19	0	0	8	22	0	4
Future Vol, veh/h	17	603	10	135	1242	19	0	0	8	22	0	4
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	100	-	105	175	-	135	-	-	0	-	-	0
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	18	655	11	147	1350	21	0	0	9	24	0	4

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	1371	0	0	666	0	0	1660	2356	328	2008	2346	675
Stage 1	-	-	-	-	-	-	691	691	-	1644	1644	-
Stage 2	-	-	-	-	-	-	969	1665	-	364	702	-
Critical Hdwy	4.14	-	-	4.14	-	-	7.54	6.54	6.94	7.54	6.54	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Follow-up Hdwy	2.22	-	-	2.22	-	-	3.52	4.02	3.32	3.52	4.02	3.32
Pot Cap-1 Maneuver	*843	-	-	1254	-	-	*330	77	*846	*330	81	*564
Stage 1	-	-	-	-	-	-	*754	670	-	*313	314	-
Stage 2	-	-	-	-	-	-	*531	301	-	*797	661	-
Platoon blocked, %	1	-	-	1	-	-	1	1	1	1	1	1
Mov Cap-1 Maneuver	*843	-	-	1254	-	-	*294	67	*846	*293	70	*564
Mov Cap-2 Maneuver	-	-	-	-	-	-	*294	67	-	*293	70	-
Stage 1	-	-	-	-	-	-	*738	656	-	*306	277	-
Stage 2	-	-	-	-	-	-	*466	266	-	*772	647	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.3	0.8	9.3	17.3
HCM LOS			A	C

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	-	846	* 843	-	-	1254	-	-	293	564
HCM Lane V/C Ratio	-	0.01	0.022	-	-	0.117	-	-	0.082	0.008
HCM Control Delay (s)	0	9.3	9.4	-	-	8.3	-	-	18.4	11.4
HCM Lane LOS	A	A	A	-	-	A	-	-	C	B
HCM 95th %tile Q(veh)	-	0	0.1	-	-	0.4	-	-	0.3	0

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

Intersection	
Int Delay, s/veh	0

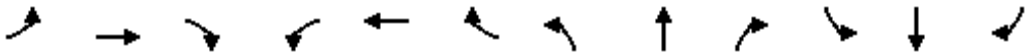
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑↑	↑↑	↱		↱
Traffic Vol, veh/h	0	642	1424	0	0	5
Future Vol, veh/h	0	642	1424	0	0	5
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	135	-	0
Veh in Median Storage, #	-	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	0	698	1548	0	0	5

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	-	0	-	0	-	774
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	3.32
Pot Cap-1 Maneuver	0	-	-	-	0	*487
Stage 1	0	-	-	-	0	-
Stage 2	0	-	-	-	0	-
Platoon blocked, %		-	-	-		1
Mov Cap-1 Maneuver	-	-	-	-	-	*487
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	WB	SB
HCM Control Delay, s	0	0	12.5
HCM LOS			B

Minor Lane/Major Mvmt	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	-	-	-	487
HCM Lane V/C Ratio	-	-	-	0.011
HCM Control Delay (s)	-	-	-	12.5
HCM Lane LOS	-	-	-	B
HCM 95th %tile Q(veh)	-	-	-	0

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



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	26	525	94	345	1269	166	20	18	57	91	55	95
Future Volume (veh/h)	26	525	94	345	1269	166	20	18	57	91	55	95
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	28	571	102	375	1379	180	22	20	62	99	60	103
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	315	2737	1221	649	2737	1221	103	241	205	217	80	137
Arrive On Green	1.00	1.00	1.00	1.00	1.00	1.00	0.13	0.13	0.13	0.13	0.13	0.13
Sat Flow, veh/h	331	3554	1585	765	3554	1585	1223	1870	1585	1316	618	1061
Grp Volume(v), veh/h	28	571	102	375	1379	180	22	20	62	99	0	163
Grp Sat Flow(s),veh/h/ln	331	1777	1585	765	1777	1585	1223	1870	1585	1316	0	1679
Q Serve(g_s), s	0.0	0.0	0.0	0.0	0.0	0.0	2.1	1.1	4.3	8.6	0.0	11.2
Cycle Q Clear(g_c), s	0.0	0.0	0.0	0.0	0.0	0.0	13.4	1.1	4.3	9.7	0.0	11.2
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.63
Lane Grp Cap(c), veh/h	315	2737	1221	649	2737	1221	103	241	205	217	0	217
V/C Ratio(X)	0.09	0.21	0.08	0.58	0.50	0.15	0.21	0.08	0.30	0.46	0.00	0.75
Avail Cap(c_a), veh/h	315	2737	1221	649	2737	1221	237	446	378	361	0	400
HCM Platoon Ratio	2.00	2.00	2.00	1.33	1.33	1.33	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.29	0.29	0.29	1.00	1.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	56.8	46.0	47.4	50.3	0.0	50.4
Incr Delay (d2), s/veh	0.6	0.2	0.1	1.1	0.2	0.1	0.4	0.1	0.3	0.6	0.0	2.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	0.1	0.0	0.2	0.1	0.0	0.7	0.5	1.7	2.9	0.0	4.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.6	0.2	0.1	1.1	0.2	0.1	57.2	46.1	47.7	50.8	0.0	52.4
LnGrp LOS	A	A	A	A	A	A	E	D	D	D	A	D
Approach Vol, veh/h		701			1934			104			262	
Approach Delay, s/veh		0.2			0.4			49.4			51.8	
Approach LOS		A			A			D			D	

Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		98.1		21.9		98.1		21.9				
Change Period (Y+Rc), s		* 5.7		6.4		* 5.7		6.4				
Max Green Setting (Gmax), s		* 79		28.6		* 79		28.6				
Max Q Clear Time (g_c+I1), s		2.0		13.2		2.0		15.4				
Green Ext Time (p_c), s		1.8		0.7		6.4		0.1				

Intersection Summary												
HCM 6th Ctrl Delay			6.5									
HCM 6th LOS			A									

Notes

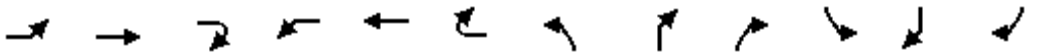
User approved pedestrian interval to be less than phase max green.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Configurations											
Traffic Volume (vph)	26	525	94	345	1269	166	20	18	57	91	55
Future Volume (vph)	26	525	94	345	1269	166	20	18	57	91	55
Turn Type	Perm	NA	Perm	Perm	NA	Perm	Perm	NA	Perm	Perm	NA
Protected Phases		2			6			8			4
Permitted Phases	2		2	6		6	8		8	4	
Detector Phase	2	2	2	6	6	6	8	8	8	4	4
Switch Phase											
Minimum Initial (s)	10.0	10.0	10.0	10.0	10.0	10.0	7.0	7.0	7.0	7.0	7.0
Minimum Split (s)	33.7	33.7	33.7	33.7	33.7	33.7	47.4	47.4	47.4	47.4	47.4
Total Split (s)	85.0	85.0	85.0	85.0	85.0	85.0	35.0	35.0	35.0	35.0	35.0
Total Split (%)	70.8%	70.8%	70.8%	70.8%	70.8%	70.8%	29.2%	29.2%	29.2%	29.2%	29.2%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.4	4.4	4.4	4.4	4.4
All-Red Time (s)	1.7	1.7	1.7	1.7	1.7	1.7	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.7	5.7	5.7	5.7	5.7	5.7	6.4	6.4	6.4	6.4	6.4
Lead/Lag											
Lead-Lag Optimize?											
Recall Mode	C-Min	C-Min	C-Min	C-Min	C-Min	C-Min	None	None	None	None	None
Act Effct Green (s)	94.9	94.9	94.9	94.9	94.9	94.9	13.0	13.0	13.0	13.0	13.0
Actuated g/C Ratio	0.79	0.79	0.79	0.79	0.79	0.79	0.11	0.11	0.11	0.11	0.11
v/c Ratio	0.11	0.20	0.08	0.58	0.49	0.14	0.25	0.10	0.27	0.66	0.67
Control Delay	7.7	4.7	2.7	8.9	5.6	1.5	53.8	46.7	14.2	71.0	43.2
Queue Delay	0.0	0.0	0.0	0.6	0.6	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	7.7	4.7	2.7	9.5	6.2	1.5	53.8	46.7	14.2	71.0	43.2
LOS	A	A	A	A	A	A	D	D	B	E	D
Approach Delay		4.5			6.4			28.8			53.7
Approach LOS		A			A			C			D

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 100 (83%), Referenced to phase 2:EBTL and 6:WBTL, Start of Green	
Natural Cycle: 105	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.67	
Intersection Signal Delay: 10.9	Intersection LOS: B
Intersection Capacity Utilization 74.9%	ICU Level of Service D
Analysis Period (min) 15	

Splits and Phases: 5: 87th Street & Raintree Drive



Movement	EBL	EBT	EBR2	WBL	WBT	WBR2	NBL	NBR	NBR2	SBL	SBR	SBR2
Lane Configurations												
Traffic Volume (vph)	336	151	212	600	377	144	791	73	202	403	241	614
Future Volume (vph)	336	151	212	600	377	144	791	73	202	403	241	614
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.7	6.8	6.8	5.6	6.8		5.4	6.1		5.4	6.1	6.1
Lane Util. Factor	0.97	0.95	1.00	0.97	0.95		0.97	0.88		0.97	0.88	1.00
Frt	1.00	1.00	0.85	1.00	0.96		1.00	0.85		1.00	0.85	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00		0.95	1.00		0.95	1.00	1.00
Satd. Flow (prot)	3433	3539	1583	3433	3392		3433	2787		3433	2787	1583
Flt Permitted	0.95	1.00	1.00	0.95	1.00		0.95	1.00		0.95	1.00	1.00
Satd. Flow (perm)	3433	3539	1583	3433	3392		3433	2787		3433	2787	1583
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	365	164	230	652	410	157	860	79	220	438	262	667
RTOR Reduction (vph)	0	0	195	0	142	0	0	200	0	0	0	339
Lane Group Flow (vph)	365	164	35	652	425	0	860	99	0	438	262	328
Turn Type	Prot	NA	Perm	Prot	NA		Prot	Prot		Prot	Prot	Prot
Protected Phases	5	2		1	6		3	8		7	4	4
Permitted Phases			2									
Actuated Green, G (s)	17.1	18.2	18.2	26.7	27.7		32.3	10.8		40.4	18.9	18.9
Effective Green, g (s)	17.1	18.2	18.2	26.7	27.7		32.3	10.8		40.4	18.9	18.9
Actuated g/C Ratio	0.14	0.15	0.15	0.22	0.23		0.27	0.09		0.34	0.16	0.16
Clearance Time (s)	5.7	6.8	6.8	5.6	6.8		5.4	6.1		5.4	6.1	6.1
Vehicle Extension (s)	2.0	2.0	2.0	2.0	2.0		2.0	2.0		2.0	2.0	2.0
Lane Grp Cap (vph)	489	536	240	763	782		924	250		1155	438	249
v/s Ratio Prot	0.11	0.05		c0.19	c0.13		c0.25	0.04		0.13	0.09	c0.21
v/s Ratio Perm			0.02									
v/c Ratio	0.75	0.31	0.15	0.85	0.54		0.93	0.40		0.38	0.60	1.32
Uniform Delay, d1	49.4	45.3	44.2	44.8	40.6		42.8	51.5		30.3	47.0	50.6
Progression Factor	0.84	1.18	3.06	1.00	1.00		1.00	1.00		1.00	1.00	1.00
Incremental Delay, d2	5.3	1.5	1.3	8.9	2.7		15.3	0.4		0.1	1.5	168.8
Delay (s)	46.6	54.9	136.4	53.7	43.3		58.1	51.9		30.3	48.5	219.3
Level of Service	D	D	F	D	D		E	D		C	D	F
Approach Delay (s)		75.6			48.9							
Approach LOS		E			D							

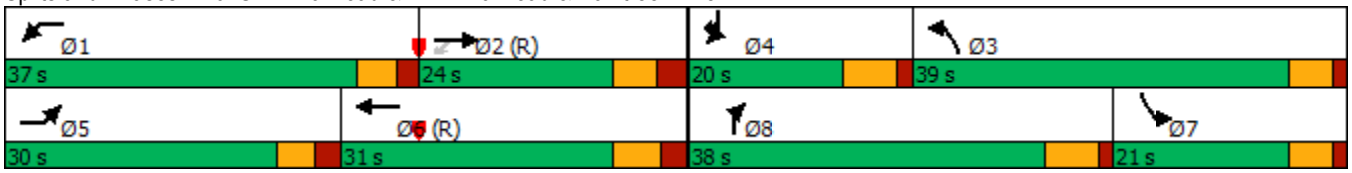
Intersection Summary			
HCM 2000 Control Delay	78.8	HCM 2000 Level of Service	E
HCM 2000 Volume to Capacity ratio	0.93		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	24.0
Intersection Capacity Utilization	89.7%	ICU Level of Service	E
Analysis Period (min)	15		

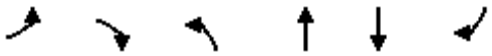
c Critical Lane Group

Lane Group	EBL	EBT	EBR2	WBL	WBT	NBL	NBR	SBL	SBR	SBR2
Lane Configurations										
Traffic Volume (vph)	336	151	212	600	377	791	73	403	241	614
Future Volume (vph)	336	151	212	600	377	791	73	403	241	614
Turn Type	Prot	NA	Perm	Prot	NA	Prot	Prot	Prot	Prot	Prot
Protected Phases	5	2		1	6	3	8	7	4	4
Permitted Phases			2							
Detector Phase	5	2	2	1	6	3	8	7	4	4
Switch Phase										
Minimum Initial (s)	5.0	10.0	10.0	5.0	10.0	5.0	10.0	5.0	10.0	10.0
Minimum Split (s)	10.7	24.8	24.8	10.6	27.8	10.4	40.1	10.4	40.1	40.1
Total Split (s)	30.0	24.0	24.0	37.0	31.0	39.0	38.0	21.0	20.0	20.0
Total Split (%)	25.0%	20.0%	20.0%	30.8%	25.8%	32.5%	31.7%	17.5%	16.7%	16.7%
Yellow Time (s)	3.3	4.0	4.0	3.6	4.4	4.0	4.7	4.0	4.7	4.7
All-Red Time (s)	2.4	2.8	2.8	2.0	2.4	1.4	1.4	1.4	1.4	1.4
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.7	6.8	6.8	5.6	6.8	5.4	6.1	5.4	6.1	6.1
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lead	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	C-Min	C-Min	None	C-Min	None	None	None	None	None
Act Effct Green (s)	17.1	18.1	18.1	26.7	27.7	32.3	10.8	40.4	18.9	18.9
Actuated g/C Ratio	0.14	0.15	0.15	0.22	0.23	0.27	0.09	0.34	0.16	0.16
v/c Ratio	0.75	0.31	0.53	0.85	0.61	0.93	0.66	0.38	0.60	1.13
Control Delay	50.8	56.6	22.1	56.1	31.0	59.9	22.6	32.0	54.0	99.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.4	0.0	0.0	0.0	0.2
Total Delay	50.8	56.6	22.1	56.1	31.1	60.4	22.6	32.0	54.0	99.2
LOS	D	E	C	E	C	E	C	C	D	F
Approach Delay		43.4			44.4					
Approach LOS		D			D					

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 17 (14%), Referenced to phase 2:EBT and 6:WBT, Start of Green	
Natural Cycle: 140	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 1.13	
Intersection Signal Delay: 53.3	Intersection LOS: D
Intersection Capacity Utilization 89.7%	ICU Level of Service E
Analysis Period (min) 15	

Splits and Phases: 6: SB Pima Road & NB Pima Road & Raintree Drive

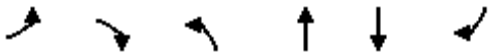




Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	0	28	0	0	1218	79
Future Volume (Veh/h)	0	28	0	0	1218	79
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	0	30	0	0	1324	86
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type				None	None	
Median storage veh)						
Upstream signal (ft)				699		
pX, platoon unblocked						
vC, conflicting volume	1367	374	1410			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	1367	374	1410			
tC, single (s)	6.8	6.9	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	100	95	100			
cM capacity (veh/h)	138	623	480			

Direction, Lane #	EB 1	SB 1	SB 2	SB 3	SB 4
Volume Total	30	378	378	378	275
Volume Left	0	0	0	0	0
Volume Right	30	0	0	0	86
cSH	623	1700	1700	1700	1700
Volume to Capacity	0.05	0.22	0.22	0.22	0.16
Queue Length 95th (ft)	4	0	0	0	0
Control Delay (s)	11.1	0.0	0.0	0.0	0.0
Lane LOS	B				
Approach Delay (s)	11.1	0.0			
Approach LOS	B				

Intersection Summary			
Average Delay	0.2		
Intersection Capacity Utilization	29.0%	ICU Level of Service	A
Analysis Period (min)	15		



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	0	123	0	0	1168	89
Future Volume (Veh/h)	0	123	0	0	1168	89
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	0	134	0	0	1270	97
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type				None	None	
Median storage veh)						
Upstream signal (ft)				1106		
pX, platoon unblocked						
vC, conflicting volume	1318	366	1367			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	1318	366	1367			
tC, single (s)	6.8	6.9	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	100	79	100			
cM capacity (veh/h)	149	631	498			

Direction, Lane #	EB 1	SB 1	SB 2	SB 3	SB 4
Volume Total	134	363	363	363	278
Volume Left	0	0	0	0	0
Volume Right	134	0	0	0	97
cSH	631	1700	1700	1700	1700
Volume to Capacity	0.21	0.21	0.21	0.21	0.16
Queue Length 95th (ft)	20	0	0	0	0
Control Delay (s)	12.2	0.0	0.0	0.0	0.0
Lane LOS	B				
Approach Delay (s)	12.2	0.0			
Approach LOS	B				

Intersection Summary			
Average Delay	1.1		
Intersection Capacity Utilization	32.7%	ICU Level of Service	A
Analysis Period (min)	15		

Intersection	
Int Delay, s/veh	5.6

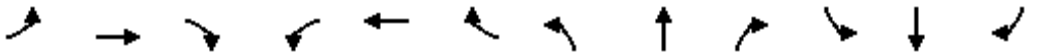
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	58	12	220	10	15	36	176	500	20	40	298	46
Future Vol, veh/h	58	12	220	10	15	36	176	500	20	40	298	46
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	100	-	-	50	-	-	100	-	110	75	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	63	13	239	11	16	39	191	543	22	43	324	50

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	1097	1382	187	1180	1385	272	374	0	0	565	0	0
Stage 1	435	435	-	925	925	-	-	-	-	-	-	-
Stage 2	662	947	-	255	460	-	-	-	-	-	-	-
Critical Hdwy	7.54	6.54	6.94	7.54	6.54	6.94	4.14	-	-	4.14	-	-
Critical Hdwy Stg 1	6.54	5.54	-	6.54	5.54	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.54	5.54	-	6.54	5.54	-	-	-	-	-	-	-
Follow-up Hdwy	3.52	4.02	3.32	3.52	4.02	3.32	2.22	-	-	2.22	-	-
Pot Cap-1 Maneuver	267	188	823	227	186	*899	1181	-	-	1273	-	-
Stage 1	570	579	-	432	449	-	-	-	-	-	-	-
Stage 2	665	437	-	727	564	-	-	-	-	-	-	-
Platoon blocked, %	1	1		1	1	1		-	-	1	-	-
Mov Cap-1 Maneuver	201	152	823	128	151	*899	1181	-	-	1273	-	-
Mov Cap-2 Maneuver	201	152	-	128	151	-	-	-	-	-	-	-
Stage 1	478	559	-	362	376	-	-	-	-	-	-	-
Stage 2	510	367	-	487	545	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	17.1	19.7	2.2	0.8
HCM LOS	C	C		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	WBLn1	WBLn2	SBL	SBT	SBR
Capacity (veh/h)	1181	-	-	201	670	128	366	1273	-	-
HCM Lane V/C Ratio	0.162	-	-	0.314	0.376	0.085	0.151	0.034	-	-
HCM Control Delay (s)	8.6	-	-	30.9	13.6	35.7	16.6	7.9	-	-
HCM Lane LOS	A	-	-	D	B	E	C	A	-	-
HCM 95th %tile Q(veh)	0.6	-	-	1.3	1.8	0.3	0.5	0.1	-	-

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



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	149	678	85	116	663	312	152	274	251	326	178	75
Future Volume (veh/h)	149	678	85	116	663	312	152	274	251	326	178	75
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	162	737	92	126	721	339	165	298	273	354	193	82
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	532	855	381	563	905	404	434	353	315	419	272	122
Arrive On Green	0.25	0.24	0.24	0.09	0.08	0.08	0.24	0.20	0.20	0.12	0.08	0.08
Sat Flow, veh/h	1781	3554	1585	1781	3554	1585	1781	1777	1585	3456	3554	1585
Grp Volume(v), veh/h	162	737	92	126	721	339	165	298	273	354	193	82
Grp Sat Flow(s),veh/h/ln	1781	1777	1585	1781	1777	1585	1781	1777	1585	1728	1777	1585
Q Serve(g_s), s	2.9	23.8	5.6	1.9	23.9	25.3	9.3	19.4	20.0	12.0	6.4	6.0
Cycle Q Clear(g_c), s	2.9	23.8	5.6	1.9	23.9	25.3	9.3	19.4	20.0	12.0	6.4	6.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	532	855	381	563	905	404	434	353	315	419	272	122
V/C Ratio(X)	0.30	0.86	0.24	0.22	0.80	0.84	0.38	0.84	0.87	0.84	0.71	0.67
Avail Cap(c_a), veh/h	532	1176	524	563	1176	524	434	526	469	533	1051	469
HCM Platoon Ratio	1.00	1.00	1.00	0.33	0.33	0.33	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	33.5	43.7	36.7	39.8	51.9	52.5	37.8	46.3	46.5	51.6	54.1	53.9
Incr Delay (d2), s/veh	0.1	11.1	1.5	0.1	7.2	18.6	0.2	5.2	7.6	9.7	1.3	2.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.6	11.7	2.3	3.4	12.3	12.8	4.0	8.9	8.4	5.7	2.8	2.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	33.6	54.8	38.2	39.8	59.1	71.1	38.0	51.5	54.1	61.3	55.4	56.4
LnGrp LOS	C	D	D	D	E	E	D	D	D	E	E	E
Approach Vol, veh/h		991			1186			736			629	
Approach Delay, s/veh		49.8			60.5			49.4			58.8	
Approach LOS		D			E			D			E	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	37.3	34.2	33.8	14.7	35.6	35.9	19.2	29.4
Change Period (Y+Rc), s	* 5.3	* 5.3	* 4.6	5.5	* 5.3	* 5.3	* 4.6	* 5.5
Max Green Setting (Gmax), s	* 5.7	* 40	* 18	35.5	* 5.7	* 40	* 19	* 36
Max Q Clear Time (g_c+I1), s	3.9	25.8	11.3	8.4	4.9	27.3	14.0	22.0
Green Ext Time (p_c), s	0.0	3.0	0.1	0.8	0.0	3.3	0.5	1.9

Intersection Summary	
HCM 6th Ctrl Delay	54.9
HCM 6th LOS	D

Notes

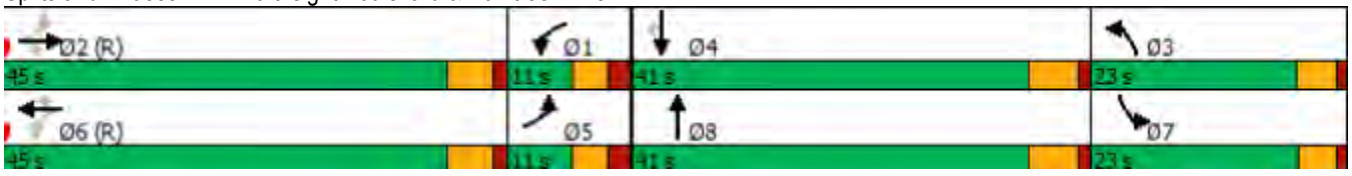
User approved pedestrian interval to be less than phase max green.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Configurations											
Traffic Volume (vph)	149	678	85	116	663	312	152	274	326	178	75
Future Volume (vph)	149	678	85	116	663	312	152	274	326	178	75
Turn Type	pm+pt	NA	Perm	pm+pt	NA	Perm	Prot	NA	Prot	NA	Perm
Protected Phases	5	2		1	6		3	8	7	4	
Permitted Phases	2		2	6		6					4
Detector Phase	5	2	2	1	6	6	3	8	7	4	4
Switch Phase											
Minimum Initial (s)	5.0	10.0	10.0	5.0	10.0	10.0	5.0	7.0	5.0	7.0	7.0
Minimum Split (s)	10.3	32.3	32.3	10.3	35.3	35.3	9.6	32.5	9.5	32.5	32.5
Total Split (s)	11.0	45.0	45.0	11.0	45.0	45.0	23.0	41.0	23.0	41.0	41.0
Total Split (%)	9.2%	37.5%	37.5%	9.2%	37.5%	37.5%	19.2%	34.2%	19.2%	34.2%	34.2%
Yellow Time (s)	3.3	4.0	4.0	3.3	4.0	4.0	3.6	4.4	3.5	4.4	4.4
All-Red Time (s)	2.0	1.3	1.3	2.0	1.3	1.3	1.0	1.1	1.0	1.1	1.1
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.3	5.3	5.3	5.3	5.3	5.3	4.6	5.5	4.5	5.5	5.5
Lead/Lag	Lag	Lead	Lead	Lag	Lead	Lead	Lag	Lead	Lag	Lead	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	C-Min	C-Min	None	C-Min	C-Min	None	None	None	None	None
Act Effct Green (s)	60.5	51.1	51.1	61.4	51.5	51.5	27.4	20.9	17.5	11.0	11.0
Actuated g/C Ratio	0.50	0.43	0.43	0.51	0.43	0.43	0.23	0.17	0.15	0.09	0.09
v/c Ratio	0.45	0.49	0.12	0.35	0.47	0.41	0.41	0.82	0.71	0.60	0.33
Control Delay	26.4	28.2	3.5	19.8	22.7	8.4	41.3	45.4	56.7	59.9	7.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	26.4	28.2	3.5	19.8	22.7	8.4	41.3	45.4	56.7	59.9	7.7
LOS	C	C	A	B	C	A	D	D	E	E	A
Approach Delay		25.6			18.3			44.5		51.3	
Approach LOS		C			B			D		D	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 31 (26%), Referenced to phase 2:EBTL and 6:WBTL, Start of Green	
Natural Cycle: 90	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.82	
Intersection Signal Delay: 31.6	Intersection LOS: C
Intersection Capacity Utilization 68.7%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 2: Northsight Boulevard & Raintree Drive



Intersection	
Int Delay, s/veh	1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	61	1217	2	4	1076	22	2	0	87	11	0	36
Future Vol, veh/h	61	1217	2	4	1076	22	2	0	87	11	0	36
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	100	-	105	175	-	135	-	-	0	-	-	0
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	66	1323	2	4	1170	24	2	0	95	12	0	39

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	1194	0	0	1325	0	0	2048	2657	662	1972	2635	585
Stage 1	-	-	-	-	-	-	1455	1455	-	1178	1178	-
Stage 2	-	-	-	-	-	-	593	1202	-	794	1457	-
Critical Hdwy	4.14	-	-	4.14	-	-	7.54	6.54	6.94	7.54	6.54	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Follow-up Hdwy	2.22	-	-	2.22	-	-	3.52	4.02	3.32	3.52	4.02	3.32
Pot Cap-1 Maneuver	*958	-	-	*882	-	-	*161	*48	*589	*161	*58	*641
Stage 1	-	-	-	-	-	-	*449	*416	-	*604	*529	-
Stage 2	-	-	-	-	-	-	*604	*529	-	*556	*414	-
Platoon blocked, %	1	-	-	1	-	-	1	1	1	1	1	1
Mov Cap-1 Maneuver	*958	-	-	*882	-	-	*143	*44	*589	*128	*54	*641
Mov Cap-2 Maneuver	-	-	-	-	-	-	*143	*44	-	*128	*54	-
Stage 1	-	-	-	-	-	-	*418	*387	-	*562	*527	-
Stage 2	-	-	-	-	-	-	*565	*527	-	*434	*386	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.4	0	12.7	16.9
HCM LOS			B	C

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	143	589	* 958	-	-	* 882	-	-	128	641
HCM Lane V/C Ratio	0.015	0.161	0.069	-	-	0.005	-	-	0.093	0.061
HCM Control Delay (s)	30.6	12.3	9	-	-	9.1	-	-	36	11
HCM Lane LOS	D	B	A	-	-	A	-	-	E	B
HCM 95th %tile Q(veh)	0	0.6	0.2	-	-	0	-	-	0.3	0.2

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

Intersection	
Int Delay, s/veh	0

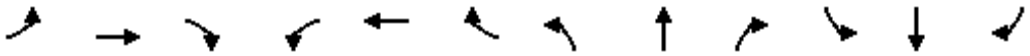
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑↑	↑↑	↱		↱
Traffic Vol, veh/h	0	1356	1129	20	0	8
Future Vol, veh/h	0	1356	1129	20	0	8
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	135	-	0
Veh in Median Storage, #	-	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	0	1474	1227	22	0	9

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	-	0	-	0	-	614
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	3.32
Pot Cap-1 Maneuver	0	-	-	-	0	*615
Stage 1	0	-	-	-	0	-
Stage 2	0	-	-	-	0	-
Platoon blocked, %		-	-	-		1
Mov Cap-1 Maneuver	-	-	-	-	-	*615
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

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

Minor Lane/Major Mvmt	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	-	-	-	615
HCM Lane V/C Ratio	-	-	-	0.014
HCM Control Delay (s)	-	-	-	10.9
HCM Lane LOS	-	-	-	B
HCM 95th %tile Q(veh)	-	-	-	0

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



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	43	1284	17	17	911	238	115	64	371	182	18	93
Future Volume (veh/h)	43	1284	17	17	911	238	115	64	371	182	18	93
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	47	1396	18	18	990	259	125	70	403	198	20	101
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	307	2230	995	181	2230	995	331	508	431	284	73	369
Arrive On Green	0.42	0.42	0.42	0.83	0.83	0.83	0.27	0.27	0.27	0.27	0.27	0.27
Sat Flow, veh/h	445	3554	1585	380	3554	1585	1270	1870	1585	921	269	1357
Grp Volume(v), veh/h	47	1396	18	18	990	259	125	70	403	198	0	121
Grp Sat Flow(s),veh/h/ln	445	1777	1585	380	1777	1585	1270	1870	1585	921	0	1626
Q Serve(g_s), s	8.6	37.1	0.8	3.5	8.8	4.1	10.3	3.4	29.8	24.9	0.0	7.0
Cycle Q Clear(g_c), s	17.4	37.1	0.8	40.6	8.8	4.1	17.3	3.4	29.8	28.3	0.0	7.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.83
Lane Grp Cap(c), veh/h	307	2230	995	181	2230	995	331	508	431	284	0	442
V/C Ratio(X)	0.15	0.63	0.02	0.10	0.44	0.26	0.38	0.14	0.94	0.70	0.00	0.27
Avail Cap(c_a), veh/h	307	2230	995	181	2230	995	394	602	510	330	0	523
HCM Platoon Ratio	0.67	0.67	0.67	1.33	1.33	1.33	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.62	0.62	0.62	1.00	1.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	21.0	23.7	13.2	18.5	4.4	4.0	41.2	33.1	42.7	43.8	0.0	34.4
Incr Delay (d2), s/veh	1.1	1.3	0.0	0.7	0.4	0.4	0.3	0.0	21.5	3.7	0.0	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.0	16.8	0.3	0.3	2.5	1.3	3.2	1.5	14.0	6.0	0.0	2.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	22.0	25.0	13.2	19.1	4.8	4.4	41.5	33.1	64.1	47.5	0.0	34.5
LnGrp LOS	C	C	B	B	A	A	D	C	E	D	A	C
Approach Vol, veh/h		1461			1267			598			319	
Approach Delay, s/veh		24.8			5.0			55.8			42.6	
Approach LOS		C			A			E			D	

Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		81.0		39.0		81.0		39.0				
Change Period (Y+Rc), s		* 5.7		6.4		* 5.7		6.4				
Max Green Setting (Gmax), s		* 69		38.6		* 69		38.6				
Max Q Clear Time (g_c+I1), s		39.1		30.3		42.6		31.8				
Green Ext Time (p_c), s		5.0		0.8		3.0		0.8				

Intersection Summary												
HCM 6th Ctrl Delay			24.5									
HCM 6th LOS			C									

Notes

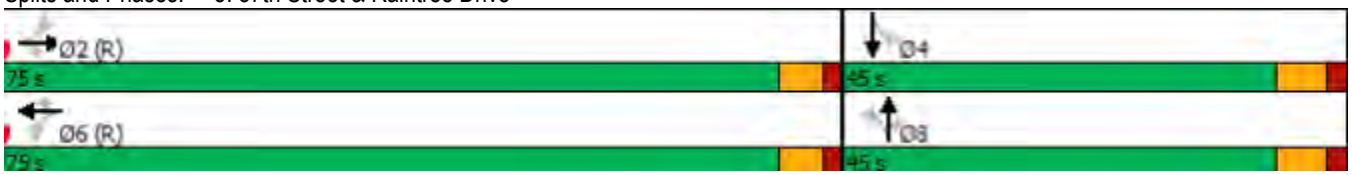
User approved pedestrian interval to be less than phase max green.

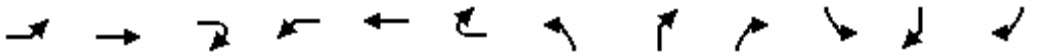
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Configurations											
Traffic Volume (vph)	43	1284	17	17	911	238	115	64	371	182	18
Future Volume (vph)	43	1284	17	17	911	238	115	64	371	182	18
Turn Type	Perm	NA	Perm	Perm	NA	Perm	Perm	NA	Perm	Perm	NA
Protected Phases		2			6			8			4
Permitted Phases	2		2	6		6	8		8	4	
Detector Phase	2	2	2	6	6	6	8	8	8	4	4
Switch Phase											
Minimum Initial (s)	10.0	10.0	10.0	10.0	10.0	10.0	7.0	7.0	7.0	7.0	7.0
Minimum Split (s)	33.7	33.7	33.7	33.7	33.7	33.7	47.4	47.4	47.4	47.4	47.4
Total Split (s)	75.0	75.0	75.0	75.0	75.0	75.0	45.0	45.0	45.0	45.0	45.0
Total Split (%)	62.5%	62.5%	62.5%	62.5%	62.5%	62.5%	37.5%	37.5%	37.5%	37.5%	37.5%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.4	4.4	4.4	4.4	4.4
All-Red Time (s)	1.7	1.7	1.7	1.7	1.7	1.7	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.7	5.7	5.7	5.7	5.7	5.7	6.4	6.4	6.4	6.4	6.4
Lead/Lag											
Lead-Lag Optimize?											
Recall Mode	C-Min	C-Min	C-Min	C-Min	C-Min	C-Min	None	None	None	None	None
Act Effct Green (s)	75.2	75.2	75.2	75.2	75.2	75.2	32.7	32.7	32.7	32.7	32.7
Actuated g/C Ratio	0.63	0.63	0.63	0.63	0.63	0.63	0.27	0.27	0.27	0.27	0.27
v/c Ratio	0.17	0.63	0.02	0.12	0.45	0.24	0.36	0.14	0.87	0.55	0.23
Control Delay	18.1	21.5	6.7	14.5	15.1	6.1	36.4	30.9	56.2	41.9	8.9
Queue Delay	0.0	0.0	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	18.1	21.5	6.7	14.5	15.3	6.1	36.4	30.9	56.2	41.9	8.9
LOS	B	C	A	B	B	A	D	C	E	D	A
Approach Delay		21.2			13.4			49.1			29.4
Approach LOS		C			B			D			C

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 105 (88%), Referenced to phase 2:EBTL and 6:WBTL, Start of Green	
Natural Cycle: 85	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.87	
Intersection Signal Delay: 23.8	Intersection LOS: C
Intersection Capacity Utilization 84.0%	ICU Level of Service E
Analysis Period (min) 15	

Splits and Phases: 5: 87th Street & Raintree Drive





Movement	EBL	EBT	EBR2	WBL	WBT	WBR2	NBL	NBR	NBR2	SBL	SBR	SBR2
Lane Configurations												
Traffic Volume (vph)	743	361	743	488	487	163	395	37	352	531	229	292
Future Volume (vph)	743	361	743	488	487	163	395	37	352	531	229	292
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.7	6.8	6.8	5.6	6.8		5.4	6.1		5.4	6.1	6.1
Lane Util. Factor	0.97	0.95	1.00	0.97	0.95		0.97	0.88		0.97	0.88	1.00
Frt	1.00	1.00	0.85	1.00	0.96		1.00	0.85		1.00	0.85	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00		0.95	1.00		0.95	1.00	1.00
Satd. Flow (prot)	3433	3539	1583	3433	3406		3433	2787		3433	2787	1583
Flt Permitted	0.95	1.00	1.00	0.95	1.00		0.95	1.00		0.95	1.00	1.00
Satd. Flow (perm)	3433	3539	1583	3433	3406		3433	2787		3433	2787	1583
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	808	392	808	530	529	177	429	40	383	577	249	317
RTOR Reduction (vph)	0	0	274	0	101	0	0	349	0	0	0	278
Lane Group Flow (vph)	808	392	534	530	605	0	429	74	0	577	249	39
Turn Type	Prot	NA	Perm	Prot	NA		Prot	Prot		Prot	Prot	Prot
Protected Phases	5	2		1	6		3	8		7	4	4
Permitted Phases			2									
Actuated Green, G (s)	32.4	33.2	33.2	25.4	26.1		22.7	10.7		26.8	14.8	14.8
Effective Green, g (s)	32.4	33.2	33.2	25.4	26.1		22.7	10.7		26.8	14.8	14.8
Actuated g/C Ratio	0.27	0.28	0.28	0.21	0.22		0.19	0.09		0.22	0.12	0.12
Clearance Time (s)	5.7	6.8	6.8	5.6	6.8		5.4	6.1		5.4	6.1	6.1
Vehicle Extension (s)	2.0	2.0	2.0	2.0	2.0		2.0	2.0		2.0	2.0	2.0
Lane Grp Cap (vph)	926	979	437	726	740		649	248		766	343	195
v/s Ratio Prot	c0.24	0.11		0.15	0.18		0.12	0.03		c0.17	c0.09	0.02
v/s Ratio Perm			c0.34									
v/c Ratio	0.87	0.40	1.22	0.73	0.82		0.66	0.30		0.75	0.73	0.20
Uniform Delay, d1	41.8	35.3	43.4	44.1	44.7		45.1	51.1		43.5	50.6	47.3
Progression Factor	0.97	0.95	1.01	1.00	1.00		1.00	1.00		1.00	1.00	1.00
Incremental Delay, d2	7.1	1.0	115.1	3.3	9.7		2.0	0.2		3.7	6.3	0.2
Delay (s)	47.5	34.6	158.9	47.4	54.4		47.0	51.4		47.3	57.0	47.5
Level of Service	D	C	F	D	D		D	D		D	E	D
Approach Delay (s)		89.8			51.4							
Approach LOS		F			D							

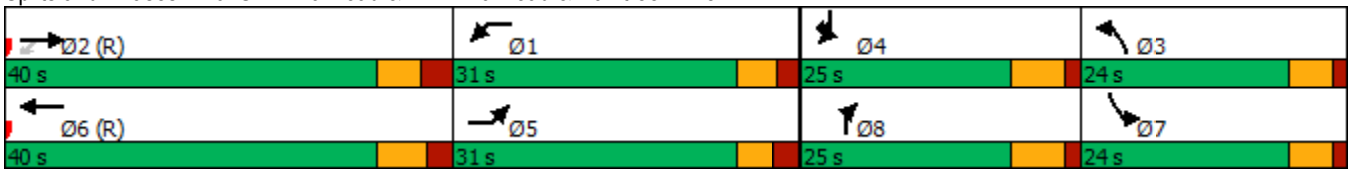
Intersection Summary			
HCM 2000 Control Delay	65.3	HCM 2000 Level of Service	E
HCM 2000 Volume to Capacity ratio	1.00		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	24.0
Intersection Capacity Utilization	87.5%	ICU Level of Service	E
Analysis Period (min)	15		

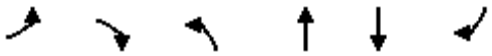
c Critical Lane Group

Lane Group	EBL	EBT	EBR2	WBL	WBT	NBL	NBR	SBL	SBR	SBR2
Lane Configurations										
Traffic Volume (vph)	743	361	743	488	487	395	37	531	229	292
Future Volume (vph)	743	361	743	488	487	395	37	531	229	292
Turn Type	Prot	NA	Perm	Prot	NA	Prot	Prot	Prot	Prot	Prot
Protected Phases	5	2		1	6	3	8	7	4	4
Permitted Phases			2							
Detector Phase	5	2	2	1	6	3	8	7	4	4
Switch Phase										
Minimum Initial (s)	5.0	10.0	10.0	5.0	10.0	5.0	10.0	5.0	10.0	10.0
Minimum Split (s)	10.7	24.8	24.8	10.6	27.8	10.4	40.1	10.4	40.1	40.1
Total Split (s)	31.0	40.0	40.0	31.0	40.0	24.0	25.0	24.0	25.0	25.0
Total Split (%)	25.8%	33.3%	33.3%	25.8%	33.3%	20.0%	20.8%	20.0%	20.8%	20.8%
Yellow Time (s)	3.3	4.0	4.0	3.6	4.4	4.0	4.7	4.0	4.7	4.7
All-Red Time (s)	2.4	2.8	2.8	2.0	2.4	1.4	1.4	1.4	1.4	1.4
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.7	6.8	6.8	5.6	6.8	5.4	6.1	5.4	6.1	6.1
Lead/Lag	Lag	Lead	Lead	Lag	Lead	Lag	Lead	Lag	Lead	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	C-Min	C-Min	None	C-Min	None	None	None	None	None
Act Effct Green (s)	32.4	33.2	33.2	25.4	26.1	22.7	10.7	26.8	14.8	14.8
Actuated g/C Ratio	0.27	0.28	0.28	0.21	0.22	0.19	0.09	0.22	0.12	0.12
v/c Ratio	0.87	0.40	1.13	0.73	0.84	0.66	0.71	0.75	0.72	0.67
Control Delay	50.5	34.8	96.6	50.9	45.9	51.5	14.8	50.9	62.6	12.6
Queue Delay	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	50.5	34.8	96.8	50.9	45.9	51.5	14.8	50.9	62.6	12.6
LOS	D	C	F	D	D	D	B	D	E	B
Approach Delay		66.1			48.0					
Approach LOS		E			D					

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 19 (16%), Referenced to phase 2:EBT and 6:WBT, Start of Green	
Natural Cycle: 150	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 1.13	
Intersection Signal Delay: 51.4	Intersection LOS: D
Intersection Capacity Utilization 87.5%	ICU Level of Service E
Analysis Period (min) 15	

Splits and Phases: 6: SB Pima Road & NB Pima Road & Raintree Drive

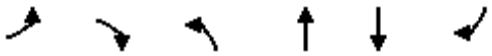




Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	0	86	0	0	985	44
Future Volume (Veh/h)	0	86	0	0	985	44
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	0	93	0	0	1071	48
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type				None	None	
Median storage veh)						
Upstream signal (ft)				699		
pX, platoon unblocked						
vC, conflicting volume	1095	292	1119			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	1095	292	1119			
tC, single (s)	6.8	6.9	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	100	87	100			
cM capacity (veh/h)	208	705	620			

Direction, Lane #	EB 1	SB 1	SB 2	SB 3	SB 4
Volume Total	93	306	306	306	201
Volume Left	0	0	0	0	0
Volume Right	93	0	0	0	48
cSH	705	1700	1700	1700	1700
Volume to Capacity	0.13	0.18	0.18	0.18	0.12
Queue Length 95th (ft)	11	0	0	0	0
Control Delay (s)	10.9	0.0	0.0	0.0	0.0
Lane LOS	B				
Approach Delay (s)	10.9	0.0			
Approach LOS	B				

Intersection Summary			
Average Delay	0.8		
Intersection Capacity Utilization	27.0%	ICU Level of Service	A
Analysis Period (min)	15		



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	0	279	0	0	746	81
Future Volume (Veh/h)	0	279	0	0	746	81
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	0	303	0	0	811	88
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type				None	None	
Median storage veh)						
Upstream signal (ft)				1106		
pX, platoon unblocked						
vC, conflicting volume	855	247	899			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	855	247	899			
tC, single (s)	6.8	6.9	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	100	60	100			
cM capacity (veh/h)	297	753	751			

Direction, Lane #	EB 1	SB 1	SB 2	SB 3	SB 4
Volume Total	303	232	232	232	204
Volume Left	0	0	0	0	0
Volume Right	303	0	0	0	88
cSH	753	1700	1700	1700	1700
Volume to Capacity	0.40	0.14	0.14	0.14	0.12
Queue Length 95th (ft)	49	0	0	0	0
Control Delay (s)	13.0	0.0	0.0	0.0	0.0
Lane LOS	B				
Approach Delay (s)	13.0	0.0			
Approach LOS	B				

Intersection Summary			
Average Delay	3.3		
Intersection Capacity Utilization	36.1%	ICU Level of Service	A
Analysis Period (min)	15		

SCOTTSDALE AIRPORT VICINITY DEVELOPMENT LONG FORM

For development projects with taxilane access and/or parcels adjacent to airport property

The owner of developments within the Airport Influence Area shall complete forms required by the City and Scottsdale Airport to comply with the Scottsdale Revised Code, Chapter 5 – Aviation and the Airpark Rules and Regulations; and submit the completed forms with final plans to the assigned city project manager.

Project Name: RAINTREE APARTMENTS	Pre-App: PROJECT NO: 866 - PA - 2018
Site Address: 8688 E RAINTREE DRIVE SCOTTSDALE, AZ 85260	
Contact name: PAUL LADENSACK	Phone: 602 - 258 - 2211

1. HEIGHT ANALYSIS, CH. 5, SEC. 5-354. GENERAL REQUIREMENTS

☐ Applicants must conduct a height analysis for all projects located within 20,000 feet of Scottsdale Airport.

1. Complete a height analysis for all structures, appurtenances or construction equipment through the FAA at: https://oeaaa.faa.gov/oeaaa/external/portal/jsp, click on the Notice Criteria Tool (left side). If you do not exceed criteria, submit this FAA response from the website with your packet or you must complete step 2.

IF required by FAA, complete Step 2

2. Submit an FAA form 7460-1 Notice of Proposed Construction or Alteration for review and determination. Please allow about 45 days for this process. A copy of the FAA's response will be required prior to final plan approval.

2. TAXILANE ACCESS REVIEW, AIRPARK RULES AND REGULATIONS

☐ **Submit a full-size site plan** at a 1"= 20' scale and elevation plan for aviation staff review. The plans must depict the following: **Taxilane centerline, proposed based aircraft (if known), hangar space dimensions, staging area dimensions, vehicle access path and gate.**

- A staging area shall be greater than or equal to the size of the largest hangar on the site per *Definitions section.*
- Also proposed parcel site must include enough hangar space for each proposed aircraft to fit simultaneously inside. *Sec. 310.*

- The taxilane easement safety area must be a weight-bearing surface. Gravel for ground cover is discouraged, and if requested, must be between 2" -3" diameter. *FAA Advisory Circular Airport Design.*
- The Maximum Recommended Wingspan for aircraft stored in the airpark is 66 feet or less as stated in the *Airpark Rules and Regulations, Sec. 206*
- Vehicular access to hangar/staging area must not traverse taxilane easement and requires a gate. *Sec. 404*

☐ **Existing or proposed fuel facility.** A fuel storage area must be constructed and maintained in accordance with the regulations in *Sec. 511.*

☐ **Proposed architectural barriers** (buildings, walls, bollards, etc.) that will separate auto parking area and taxilane easement safety area.

☐ **Drop-offs, objects** exceeding 3" in height or vegetation in the taxilane safety area (50' from airpark taxilane centerline) are not permitted. *FAA Advisory Circular Airport Design.*

☐ **Exterior lighting locations.** Lighting must be illuminated downward toward taxilane.

☐ **Landscape plan.** Slope gradients should not exceed 5%; storm water retention is prohibited.

☐ **Refuse collection dumpster storage locations.** Locate away from aircraft staging, taxilane access points and airport property fence line.

☐ **Helicopter landing area** (if applicable). Proposed helicopter operations require approval from both the city and FAA and a conditional use permit. A conditional use permit is required by the City of Scottsdale. The FAA requires completion of an FAA 7480-1 Notice of Landing Area Proposal.

3. AIRCRAFT NOISE AND OVERFLIGHT DISCLOSURE, CH. 5, SEC. 5-356 & SECT. 5-357

☐ Incorporate the Airport Disclosure for Development around Scottsdale Airport language into the CC&Rs or other procedural documents and provide a copy.

☐ An avigation easement will need to be granted to the city. If not already recorded for property, submit a notarized Avigation Easement form with packet to your project manager.

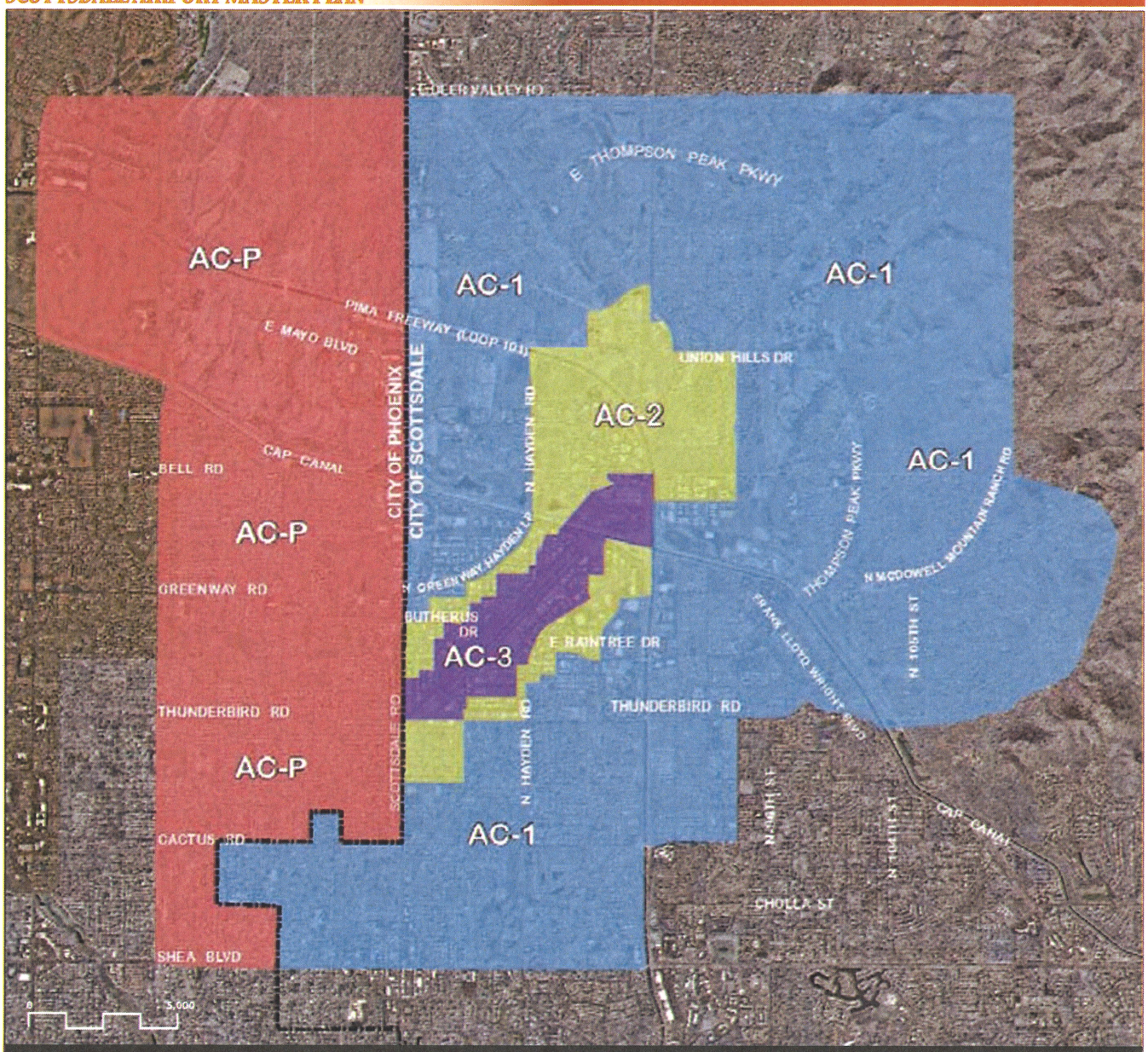
4. APPLICANT'S SIGNATURE

Signature: _____ Date: 2/14/19

Aviation Approval: Date:

Comments:

SCOTTSDALE AIRPORT
SDL



LEGEND AND TABLE KEY

Municipal Boundary

Airport Influence Areas

AC-1 AC-2 AC-3 AC-P

NP - Not Permitted
P - Permitted with Use Limitations
(1) - Avigation easement required under Sec. 5-357
(2) - Noise attenuation required under Sec. 5-358

Noise Sensitive Uses	AC[1]-3	AC-2	AC-1
Dwelling unit*	NP	P (1) (2)	P (1)
Manufactured home*	NP	P (1) (2)	P (1)
Elementary and secondary school*	NP	P (1) (2)	P (1)
Hospital*	NP	P (1) (2)	P
Travel accommodation*	NP	P (1) (2)	P
Place of worship	NP	P (1) (2)	P (1)
Cultural, civic, and social organization	NP	P (1) (2)	P (1)

* The terms dwelling unit, manufactured home, elementary and secondary school, hospital and travel accommodation defined in the Basic Zoning Ordinance.
[1] AC - Airport Compatibility District

SOURCE: Scottsdale Revised Code; August 2012

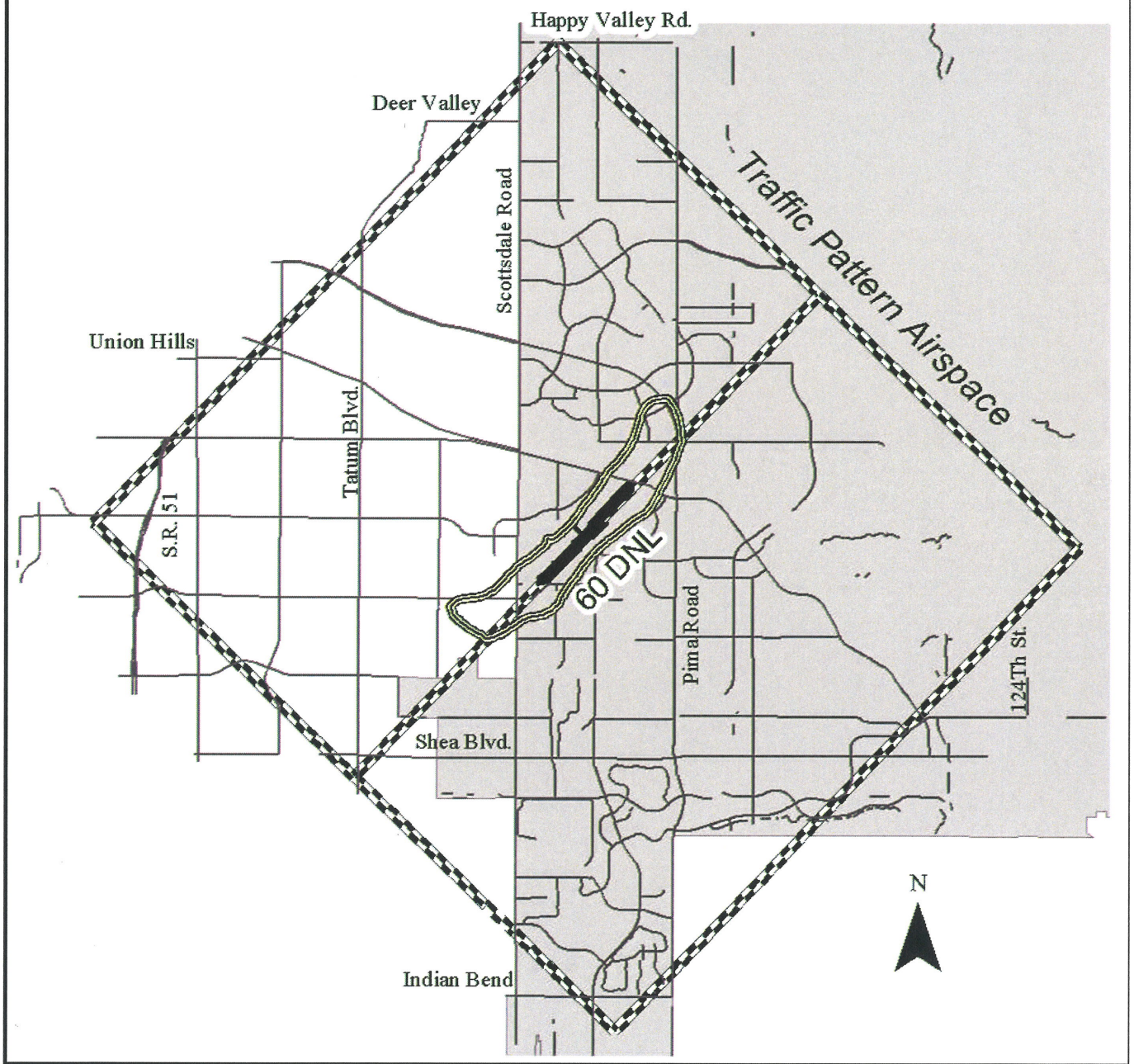
SCOTTSDALE AIRPORT SDL

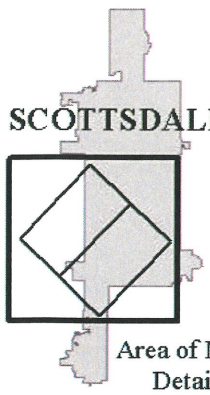
AIRPORT INFLUENCE AREA AND NOISE OVERLAY ZONES

Exhibit 1P


SCOTT
BELL RD
FRANK LLOYD WRIGHT BLVD
SCOTTSDALE AIRPORT RUNWAY
64TH ST
RD
THUNDERBIRD RD
HAYDEN RD
CACTUS RD
SCOTTSDALE RD
MILLER RD
PIMA RD
SHEA BLVD

Scottsdale Airport
Traffic Pattern Airspace





1 0.5 0 1 2 3 Miles

Map Date: October 18, 2001

SAMPLE FAIR DISCLOSURE FOR DEVELOPMENT AROUND SCOTTSDALE AIRPORT

NOTICE TO PURCHASERS

OF PROXIMITY TO THE SCOTTSDALE AIRPORT

To include in CC&R's or disclosure notice:

Proximity to Airport.
Each Owner of a Lot in the Airport Influence Area identified in Chapter 5 of the Scottsdale Revised Code acknowledges that, as of the date of this notice:

(a) The Lot is close to the Scottsdale Airport (the "Airport"), located generally between Frank Lloyd Wright Boulevard on the north, Pima Road on the east, Thunderbird Road on the south and Scottsdale Road on the west.

(b) The Airport is operated as a general aviation reliever/commercial service airport for Scottsdale and North Phoenix, and used generally for airplanes, jets and helicopters.

(c) Aircraft using the Airport may fly over the Lot and adjacent properties at altitudes that vary for several reasons, including weather conditions, aircraft type, aircraft performance and pilot proficiency.

(d) The majority of takeoffs and landings occur between 6:00 a.m. and 11:00 p.m., but the Airport is open 24 hours each day, so takeoffs and landings may occur at any time.

(e) The number of takeoffs and landings at the Airport average approximately 400 each day, but that number varies and may increase.

(f) Aircraft using the Airport will generate noise, the volume, pitch, amount and frequency of which will vary for several reasons, including weather conditions, aircraft type, aircraft altitude and aircraft number.

(g) Airport management attempts to minimize aircraft noise and its influence on Lots in the Airport Influence Zone, but there is no guarantee that such attempts will be effective or remain in place.

The Owner accepts and assumes any and all risks, burdens and inconvenience caused by or associated with the Airport and its operations (including noise), and agrees not to assert or make any claim arising out of the Airport and its operations against the City of Scottsdale, its elected and appointed officials, officers, directors, commissioners, representatives, employees, and agents.

Any questions regarding the operation of the Airport can be directed to the Airport Administration office at 480-312-2321.

WHEN RECORDED, RETURN TO:
CITY OF SCOTTSDALE
ONE STOP SHOP/RECORDS
(_____)
7447 E. Indian School Road, Suite 100
Scottsdale, AZ 85251

Exempt from Affidavit of Value
under A.R.S. § 11-1134(A)(2, 3)

CITY OF SCOTTSDALE
AVIGATION EASEMENT

Project No. _____

Q.S. _____

FOR ONE DOLLAR ($1.00) and other good and valuable consideration received _____ _____ (collectively "Grantor") grants to the City of Scottsdale, an Arizona municipal corporation ("Grantee"), a perpetual, non-exclusive easement upon, over and across the parcel of land (the "Property") described on the legal description and the sketch attached hereto as Exhibits "A" and "B". The purpose of the easement is for a right of flight for aircraft in the airspace above the Property.

1. "Aircraft" means any manned or unmanned device that flies.

2. Without limitation, the right of flight includes the right to operate aircraft over and near the Property, and cause any noise, vibration, fumes, light, exhaust, odors, fuel vapor particles, electronic interference, dust, annoyances, nuisances, emissions, and any other effects relating to operating aircraft (collectively "Aircraft Effects").

3. All Aircraft Effects are included within the scope of the easement, including without limitation those that reach or affect the Property or improvements to the Property, interfere with other uses of the Property, annoy users of the Property, and are caused or made worse by any changes in the following:

   3.1 The size, number, method of propulsion, weight, noisiness, design, fuel, category, type or other characteristics of aircraft, and in any aircraft practices, laws, rules, policies, circumstances, customs, protocols or procedures.

   3.2 The airport size, orientation, configuration, location, runway length, improvements or other characteristics, and in any airport practices, laws, rules, policies, circumstances, customs, protocols or procedures.

   3.3 The flight paths, flight frequency, flight timing, airport operations, climbing and descending, altitudes, takeoff and landing, air traffic control, and in any related aircraft and airport practices, laws, rules, policies, circumstances, customs, protocols or procedures.

3.4 Grantor's or others' personal perceptions of Aircraft Effects or sensitivity to Aircraft Effects.

4. Grantor shall not cause or allow the Property to be used to discharge fumes; smoke; dust; or electronic, light, laser or other emissions, which may obstruct visibility or adversely affect or interfere with the operation of aircraft or any navigational facilities. No building, mast, tree, vegetation, or other thing upon the Property shall exceed Federal Aviation Administration approved height restrictions.

5. Grantor has been advised and understands that:

   5.1. All or a portion of the Property is located in a noise-influence area.

   5.2. Aircraft Effects might be annoying to users of the Property and might interfere with the unrestricted use and enjoyment of the Property.

   5.3. Aircraft Effects will likely increase over time.

6. Grantor waives all rights and claims that Grantor may ever have against, and agrees not to sue, Grantee regarding Aircraft Effects. Grantor makes its waivers and agreements for itself, its successors and assigns, in favor of Grantee, and all Grantee's officers, officials, employees, agents, lessees, permittees, invitees, successors and assigns.

Grantor warrants and covenants to Grantee and its successors and assigns that Grantor is lawfully seized and possessed of the Property; that Grantor has a good and lawful right to make the conveyance described herein; and that Grantee shall have title and quiet possession against the claims of all persons.

The person executing this document on behalf of a corporation, trust or other organization warrants his or her authority to do so and that all persons necessary to bind Grantor have joined in this document. This document runs with the land in favor of Grantee's successors and assigns.

DATED this ___ day of _____, 20___.

GRANTOR: _____

for _____

_____

for _____

STATE OF ARIZONA)
) ss.
County of Maricopa)

This document was acknowledged before me this ___ day of _____, 20___, by _____ for and on behalf of_____.

_____
NOTARY PUBLIC

My commission expires:

_____

STATE OF ARIZONA)
) ss.
County of Maricopa)

This document was acknowledged before me this ___ day of _____, 20___, by ___ _____ for and on behalf of _____.

_____
NOTARY PUBLIC

My commission expires:

_____

NOTICE OF PROPOSED CONSTRUCTION OR ALTERATION

§ 77.7 Form and time of notice.

(a) If you are required to file notice under §77.9, you must submit to the FAA a completed FAA Form 7460–1, Notice of Proposed Construction or Alteration. FAA Form 7460–1 is available at FAA regional offices and on the Internet.

(b) You must submit this form at least 45 days before the start date of the proposed construction or alteration or the date an application for a construction permit is filed, whichever is earliest.

(c) If you propose construction or alteration that is also subject to the licensing requirements of the Federal Communications Commission (FCC), you must submit notice to the FAA on or before the date that the application is filed with the FCC.

(d) If you propose construction or alteration to an existing structure that exceeds 2,000 ft. in height above ground level (AGL), the FAA presumes it to be a hazard to air navigation that results in an inefficient use of airspace. You must include details explaining both why the proposal would not constitute a hazard to air navigation and why it would not cause an inefficient use of airspace.

(e) The 45-day advance notice requirement is waived if immediate construction or alteration is required because of an emergency involving essential public services, public health, or public safety. You may provide notice to the FAA by any available, expeditious means. You must file a completed FAA Form 7460–1 within 5 days of the initial notice to the FAA. Outside normal business hours, the nearest flight service station will accept emergency notices.

§ 77.9 Construction or alteration requiring notice.

If requested by the FAA, or if you propose any of the following types of construction or alteration, you must file notice with the FAA of:

(a) Any construction or alteration that is more than 200 ft. AGL at its site.

(b) Any construction or alteration that exceeds an imaginary surface extending outward and upward at any of the following slopes:

(1) 100 to 1 for a horizontal distance of 20,000 ft. from the nearest point of the nearest runway of each airport described in paragraph (d) of this section with its longest runway more than 3,200 ft. in actual length, excluding heliports.

(2) 50 to 1 for a horizontal distance of 10,000 ft. from the nearest point of the nearest runway of each airport described in paragraph (d) of this section with its longest runway no more than 3,200 ft. in actual length, excluding heliports.

(3) 25 to 1 for a horizontal distance of 5,000 ft. from the nearest point of the nearest landing and takeoff area of each heliport described in paragraph (d) of this section.

(c) Any highway, railroad, or other traverse way for mobile objects, of a height which, if adjusted upward 17 feet for an Interstate Highway that is part of the National System of Military and Interstate Highways where overcrossings are designed for a minimum of 17 feet vertical distance, 15 feet for any other public roadway, 10 feet or the height of the highest mobile object that would normally traverse the road, whichever is greater, for a private road, 23 feet for a railroad, and for a waterway or any other traverse way not previously mentioned, an amount equal to the height of the highest mobile object that would normally traverse it, would exceed a standard of paragraph (a) or (b) of this section.

(d) Any construction or alteration on any of the following airports and heliports:

(1) A public use airport listed in the Airport/Facility Directory, Alaska Supplement, or Pacific Chart Supplement of the U.S. Government Flight Information Publications;

(2) A military airport under construction, or an airport under construction that will be available for public use;

(3) An airport operated by a Federal agency or the DOD.

(4) An airport or heliport with at least one FAA-approved instrument approach procedure.

(e) You do not need to file notice for construction or alteration of:

(1) Any object that will be shielded by existing structures of a permanent and substantial nature or by natural terrain or topographic features of equal or greater height, and will be located in the congested area of a city, town, or settlement where the shielded structure will not adversely affect safety in air navigation;

(2) Any air navigation facility, airport visual approach or landing aid, aircraft arresting device, or meteorological device meeting FAA-approved siting criteria or an appropriate military service siting criteria on military airports, the location and height of which are fixed by its functional purpose;

(3) Any construction or alteration for which notice is required by any other FAA regulation.

(4) Any antenna structure of 20 feet or less in height, except one that would increase the height of another antenna structure.

Mail Processing Center
Federal Aviation Administration
Southwest Regional Office
Obstruction Evaluation Group
10101 Hillwood Parkway
Fort Worth, TX 76177
Fax: (817) 222-5920

Website: https://oeaaa.faa.gov

INSTRUCTIONS FOR COMPLETING FAA FORM 7460-1

PLEASE TYPE or PRINT

ITEM #1. Please include the name, address and phone number of a personal contact point as well as the company name.

ITEM #2. Please include the name, address and phone number of a personal contact point as well as the company name.

ITEM #3. New Construction would be a structure that has not yet been built.

Alteration is a change to an existing structure such as the addition of a side mounted antenna, a change to the marking and lighting, a change to power and/or frequency, or a change to the height. The nature of the alteration shall be included in ITEM #21 "Complete Description of Proposal".

Existing would be a correction to the latitude and/or longitude, a correction to the height, or if filing on an existing structure which has never been studied by the FAA. The reason for the notice shall be included in ITEM #21 "Complete Description of Proposal".

ITEM #4. If Permanent, so indicate. If Temporary, such as a crane or drilling derrick, enters the estimated length of time the temporary structure will be up.

ITEM #5. Enter the date that construction is expected to start and the date that construction should be completed.

ITEM #6. Please indicate the type of structure. DO NOT LEAVE BLANK.

ITEM #7. In the event that obstruction marking and lighting is required, please indicate type desired. If no preference, check "other" and indicate "no preference" DO NOT LEAVE BLANK. NOTE: High Intensity lighting shall be used only for structures over 500' AGL. In the absence of high intensity lighting for structures over 500' AGL, marking is also required.

ITEM #8. If this is an existing tower that has been registered with the FCC, enter the FCC Antenna Structure Registration number here.

ITEM #9 and #10. Latitude and longitude must be geographic coordinates, accurate to within the nearest second or to the nearest hundredth of a second if known. Latitude and longitude derived solely from a hand-held G P S instrument is NOT acceptable. A hand-held GPS is only accurate to within 100 meters (328 feet) 95 percent of the time. This data, when plotted, should match the site depiction submitted under ITEM #20.

ITEM #11. NAD 83 is preferred; however, latitude and longitude may be submitted in NAD 27. Also, in some geographic areas where NAD 27 and NAD 83 are not available other datum may be used. It is important to know which datum is used. DO NOT LEAVE BLANK.
ITEM #12. Enter the name of the nearest city and state to the site. If the structure is or will be in a city, enter the name of that city and state.

ITEM #13. Enter the full name of the nearest public-use (not private-use) airport or heliport or military airport or heliport to the site.

ITEM #14. Enter the distance from the airport or heliport listed in #13 to the structure.

ITEM #15. Enter the direction from the airport or heliport listed in #13 to the structure.

ITEM #16. Enter the site elevation above mean sea level and expressed in whole feet rounded to the nearest foot (e.g. 17'3" rounds to 17', 17'6" rounds to 18'). This data should match the ground contour elevations for site depiction submitted under ITEM #20.
ITEM #17. Enter the total structure height above ground level in whole feet rounded to the next highest foot (e.g. 17'3" rounds to 18'). The total structure height shall include anything mounted on top of the structure, such as antennas, obstruction lights, lightning rods, etc.

ITEM #18. Enter the overall height above mean sea level and expressed in whole feet. This will be the total of ITEM #16 + ITEM #17.

ITEM #19. If an FAA aeronautical study was previously conducted, enter the previous study number.

ITEM #20. Enter the relationship of the structure to roads, airports, prominent terrain, existing structures, etc. Attach an 8-1/2" x 11" non-reduced copy of the appropriate 7.5 minute U.S. Geological Survey (USGS) Quadrangle Map MARKED WITH A PRECISE INDICATION OF THE SITE LOCATION. To obtain maps, contact USGS at 1-888-275-8747 or via internet at "http://store.usgs.gov". If available, attach a copy of a documented site survey with the surveyor's certification stating the amount of vertical and horizontal accuracy in feet.

ITEM #21.

- For transmitting stations, include maximum effective radiated power (ERP) and all frequencies.
- For antennas, include the type of antenna and center of radiation (Attach the antenna pattern, if available).
- For microwave, include azimuth relative to true north.
- For overhead wires or transmission lines, include size and configuration of wires and their supporting structures (Attach depiction).
- For each pole/support, include coordinates, site elevation, and structure height above ground level or water.
- For buildings, include site orientation, coordinates of each corner, dimensions, and construction materials.
- For alterations, explain the alteration thoroughly.
- For existing structures, thoroughly explain the reason for notifying the FAA (e.g. corrections, no record or previous study, etc.).

Filing this information with the FAA does not relieve the sponsor of this construction or alteration from complying with any other federal, state or local rules or regulations. If you are not sure what other rules or regulations apply to your proposal, contact local/state aviation's and zoning authorities.

Please Type or Print on This Form

Form Approved OMB No.2120-0001
Expiration Date: 10/31/2017

U.S. Department of Transportation
Federal Aviation Administration

Failure To Provide All Requested Information May Delay Processing of Your Notice

Notice of Proposed Construction or Alteration

FOR FAA USE ONLY
Aeronautical Study Number

1. Sponsor *(person, company, etc. proposing this action):*
Attn. PAUL LADENSACK of:
Name: CCBG ARCHITECTS, INC.
Address: 102 E BUCHANAN STREET
City: PHOENIX State: AZ Zip: 85004
Telephone: 602-258-2211 Fax:

2. Sponsor's Representative *(if other than #1):*
Attn. of:
Name: N/A
Address:
City: State: Zip:
Telephone: Fax:

3. Notice of: ■ New Construction ☐ Alteration ☐ Existing
4. Duration: ■ Permanent ☐ Temporary (___ months, ___ days)
5. Work Schedule: Beginning JAN 2020 End NOV 2021
6. Type: ☐ Antenna Tower ☐ Crane ■ Building ☐ Power Line ☐ Landfill ☐ Water Tank ☐ Other
7. Marking/Painting and/or Lighting Preferred:
☐ Red Lights and Paint ☐ Dual - Red and Medium Intensity
☐ White-Medium Intensity ☐ Dual - Red and high Intensity
☐ White -High Intensity ■ Other NO PREFERENCE
8. FCC Antenna Structure Registration Number *(if applicable)*:
NOT APPLICABLE

9. Latitude: 33 0 37 , 14.51 , N "
10. Longitude: 111 0 53 , 42.53 , W
11. Datum: ■ NAD 83 ☐ NAD 27 ☐ Other
12. Nearest: City: SCOTTSDALE State AZ
13. Nearest *Public-use* *(not private-use)* or Military Airport or Heliport:
SCOTTSDALE AIR PORT
14. Distance from #13. to Structure: 4,671 FEET
15. Direction from #13. to Structure: WEST
16. Site Elevation *(AMSL)*: 1,470 ft.
17. Total Structure Height *(AGL)*: 53 ft.
18. Overall Height (#16 + #17) *(AMSL)*: 1,523 ft.
19. Previous FAA Aeronautical Study Number *(if applicable)*:
N/A -OE
20. Description of Location: *(Attach a USGS 7.5 minute Quadrangle Map with the precise site marked and any certified survey)*
SEE ATTACHED FOR ALTA SURVEY

21. Complete Description of Proposal:

- THE PROPOSED APARTMENT COMPLEX WILL BE 4 STORIES TALL WITH WOOD FRAME CONSTRUCTION.
- THE BUILDING WILL BE ORIENTED TOWARDS THE EAST.
- THE OVERALL SIZE IS 595'-0" X 336'-0" AND WILL BE 127,279 SQ FT.

COORDINATES OF EACH CORNER:

NW	33° 37' 15.24" N	111° 53' 44.38" W
NE	33° 37' 14.61" N	111° 53' 37.31" W
SE	33° 37' 11.82" N	111° 53' 37.20" W
SW	33° 37' 11.61" N	111° 53' 42.88" W

Frequency/Power (kW)	

Notice is required by 14 Code of Federal Regulations, part 77 pursuant to 49 U.S.C., Section 44718. Persons who knowingly and willingly violate the notice requirements of part 77 are subject to a civil penalty of $1,000 per day until the notice is received, pursuant to 49 U.S.C., Section 46301(a)

I hereby certify that all of the above statements made by me are true, complete, and correct to the best of my knowledge. In addition, I agree to mark and/or light the structure in accordance with established marking & lighting standards as necessary.

Date	Typed or Printed Name and Title of Person Filing Notice	Signature
2/15/19	RICK LINAN PROJECT MANAGER	

FAA Form 7460-1 (5/17) Supersedes Previous Edition

NSN: 0052-00-012-0009

Notice Criteria Tool

Notice Criteria Tool - Desk Reference Guide V_2018.2.0

The requirements for filing with the Federal Aviation Administration for proposed structures vary based on a number of factors: height, proximity to an airport, location, and frequencies emitted from the structure, etc. For more details, please reference CFR Title 14 Part 77.9.

You must file with the FAA at least 45 days prior to construction if:

- your structure will exceed 200ft above ground level
- your structure will be in proximity to an airport and will exceed the slope ratio
- your structure involves construction of a traverseway (i.e. highway, railroad, waterway etc...) and once adjusted upward with the appropriate vertical distance would exceed a standard of 77.9(a) or (b)
- your structure will emit frequencies, and does not meet the conditions of the FAA Co-location Policy
- your structure will be in an instrument approach area and might exceed part 77 Subpart C
- your proposed structure will be in proximity to a navigation facility and may impact the assurance of navigation signal reception
- your structure will be on an airport or heliport
- filing has been requested by the FAA

If you require additional information regarding the filing requirements for your structure, please identify and contact the appropriate FAA representative using the Air Traffic Areas of Responsibility map for Off Airport construction, or contact the FAA Airports Region / District Office for On Airport construction.

The tool below will assist in applying Part 77 Notice Criteria.

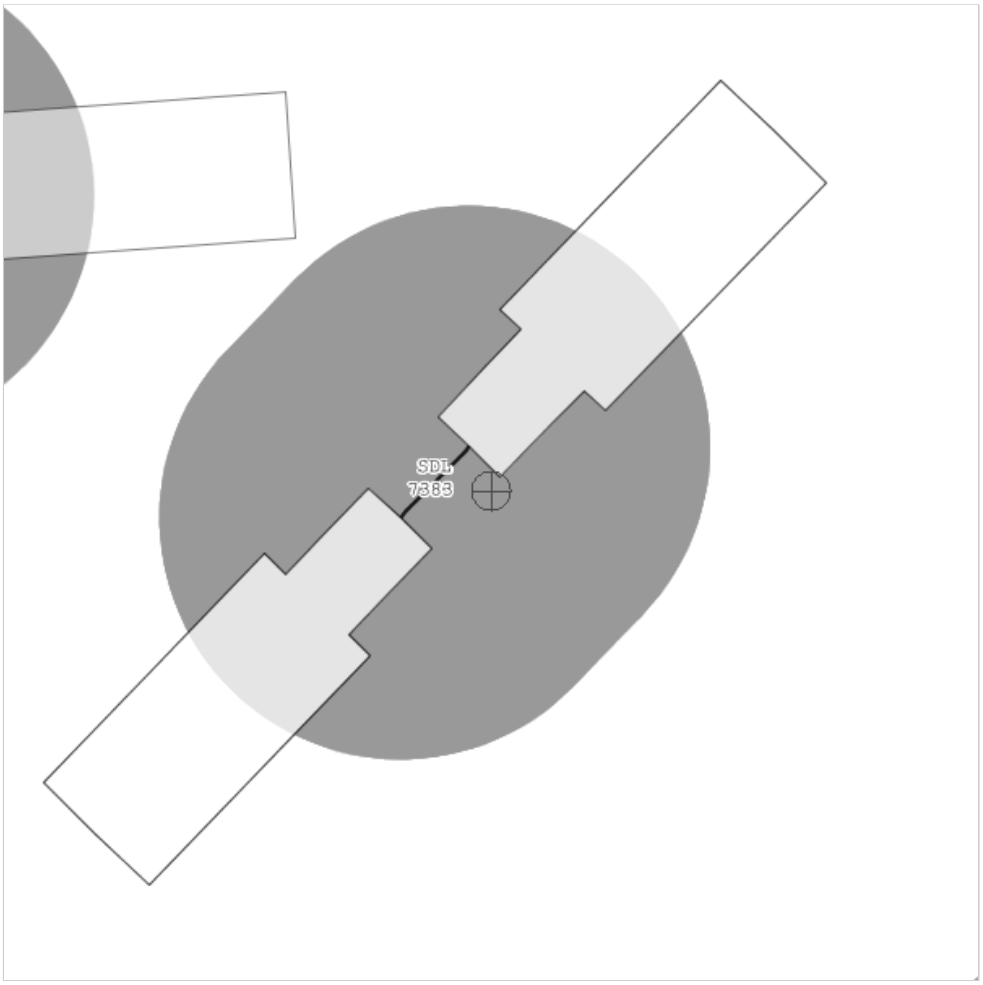
Latitude:	33 Deg 37 M 14.51 S N ▼
Longitude:	111 Deg 53 M 42.53 S W ▼
Horizontal Datum:	NAD83 ▼
Site Elevation (SE):	0 (nearest foot)
Structure Height :	52 (nearest foot)
Traverseway:	No Traverseway ▼ (Additional height is added to certain structures under 77.9(c)) User can increase the default height adjustment for Traverseway, Private Roadway and Waterway
Is structure on airport:	◉ No ○ Yes

Results

You exceed the following Notice Criteria:

Your proposed structure is in proximity to a navigation facility and may impact the assurance of navigation signal reception. The FAA, in accordance with 77.9, requests that you file.

The FAA requests that you file


SDL
7383

PROJECT DATA

LEGAL DESCRIPTION

BEING A PORTION OF THE NORTHEAST QUARTER OF SECTION 12, TOWNSHIP 3 NORTH, RANGE 4 EAST, OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA.

PARCEL NO.1:
LOT 6, NORTHSIGHT CROSSING PROPERTY, ACCORDING TO BOOK 688 OF MAPS, PAGE 12, RECORDS OF MARICOPA COUNTY, ARIZONA. FILE NO. 3097TAZ

PROJECT ADDRESS

8688 E RAINTREE DRIVE
SCOTTSDALE, AZ 85260

PARCEL ZONING

C-2

APN

215-52-034M
SUBDIVISION NORTHSIGHT 2 PAR 4

GROSS LOT AREA

242,067 SF (5.56 ACRES)

NET LOT AREA

114,788 SF (2.64 ACRES)

GROSS FLOOR AREA

127,279 SF

OPEN SPACE

CALCULATION 1: (APN 215-52-034M)
80,943 SF OPEN SPACE / 242,067 SF LOT AREA
= **33.4% OPEN SPACE PROVIDED**
= **28% OPEN SPACE REQ'D**

CALCULATION 2: (APN 215-52-034M + LOT 1 □ APN 215-52-034L)
147,048 SF OPEN SPACE / 565,331 SF LOT AREA
= **26.0% OPEN SPACE PROVIDED**
= **28% OPEN SPACE REQ'D**

* REFER TO SHEET A0.7 FOR C.O.S. APPROVED OPEN SPACE PLAN (NOV. 8, 2018)

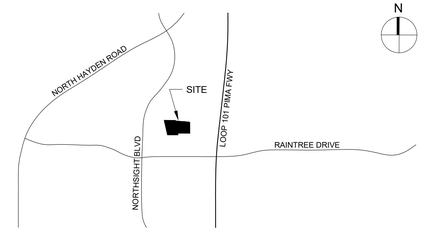
PARKING

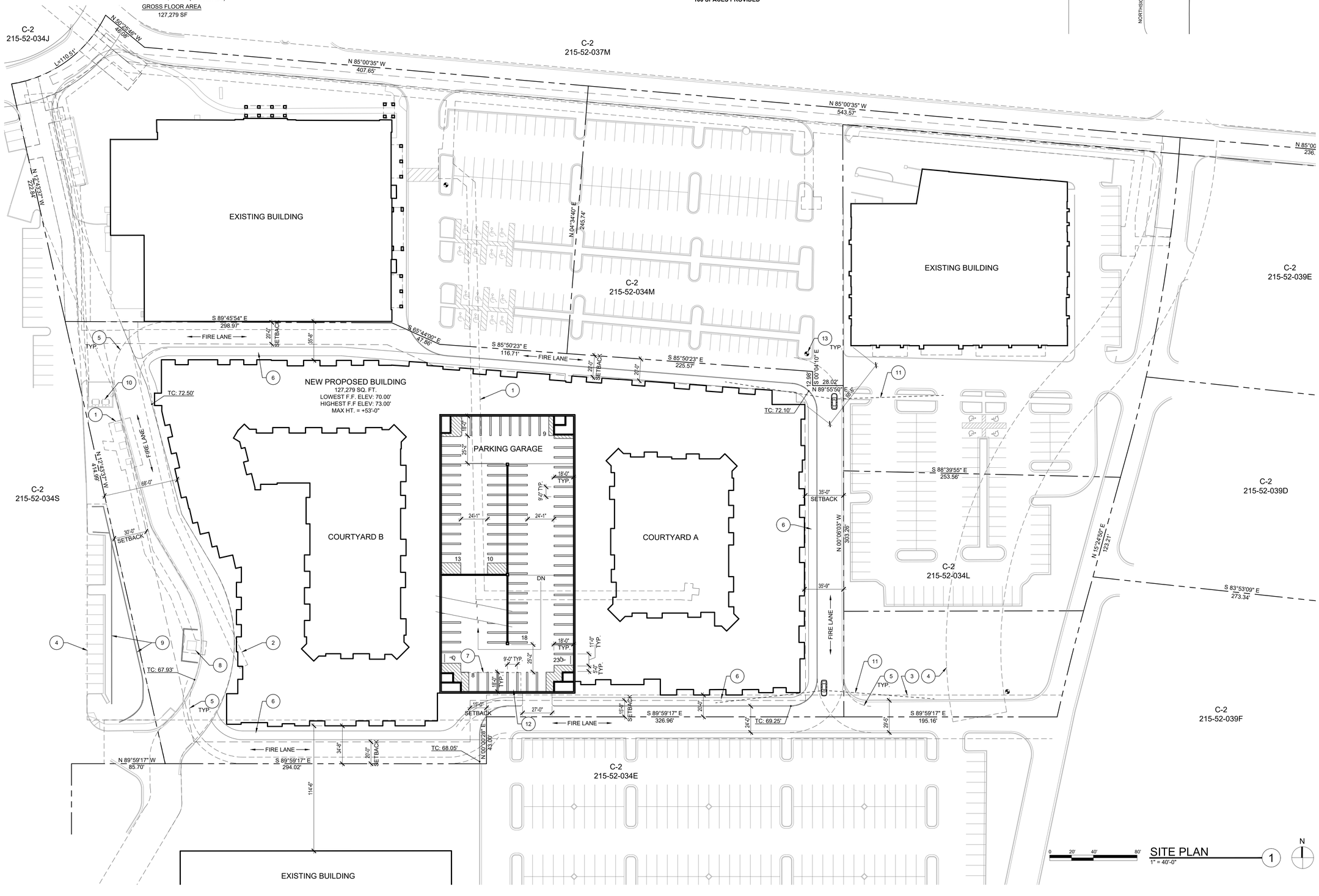
UNIT COUNT	PARKING RATIO	PARKING SPACES
226 (1 BED UNITS)	1.3	294
88 (2 BED UNITS)	1.7	150
16 (3 BED UNITS)	1.9	30
330 TOTAL UNITS		**474 SPACES REQ'D**
		519 SPACES PROVIDED
ACCESSIBLE PARKING:		
4% OF 519 PARKING SPACES =		21 SPACES REQ'D
		22 SPACES PROVIDED
BICYCLE PARKING:		
2 SPACES FOR EVERY 10 SPACES:		104 SPACES
(* NOT TO EXCEED 100 SPACES)		**100 SPACES REQ'D**
		100 SPACES PROVIDED

KEYNOTES

1. EXISTING UTILITY EASEMENT, SEE ALTA SURVEY
2. EXISTING GASLINE EASEMENT, SEE ALTA SURVEY
3. EXISTING INGRESS/ EGRESS w/ UTILITY EASEMENT, SEE ALTA SURVEY
4. EXISTING DRAINAGE EASEMENT, SEE ALTA SURVEY
5. FIRE LANE □ TURNING RADII w/ 6'-0" BUCKET SWING CLEARANCE PER C.O.S. DS□PM
6. 8'-0" CONCRETE SIDEWALK
7. BICYCLE PARKING □ FIRST FLOOR PARKING STRUCTURE, C.O.S. DETAIL 2285
8. EXISTING ABOVE GROUND UTILITY EQUIPMENT w/ SCREEN WALL
9. EXISTING 3'-0" RETAINING WALL □ RETENTION BASIN
10. EXISTING DOUBLE TRASH ENCLOSURE IN ACCORDANCE TO C.O.S. DETAIL 2147-1
11. SIGHT VISIBILITY TRIANGLE IN COMPLIANCE TO THE C.O.S. DS□PM FIGURE 5.3-26
12. FIRE RISER, KNOX BOX ACCESS SYSTEM □ OVERHEAD DOOR
13. EXISTING FIRE HYDRANT

VICINITY MAP (N.T.S.)





0 20' 40' 80'

SITE PLAN 1
1" = 40'-0"

N

CCBG
Architects, Inc.
Phoenix - San Diego
102 E. Buchanan St. Phoenix 85004
602.258.2211 f 602.255.0909
www.ccbg-arch.com

NEW APARTMENT BUILDING
RAINTREE
WOOD PARTNERS
8688 E RAINTREE DRIVE
SCOTTSDALE, AZ 85260

ISSUE

DATE	REV	FOR
02.15.19		ZONING

Drawn
JF, RL
Checked
PJL
Job Number
1826
Drawing
SITE PLAN

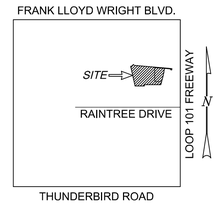
Sheet
A1.1

ALTA/NSPS LAND TITLE SURVEY

OF

8688 E RAINTREE DRIVE
SCOTTSDALE, ARIZONA
(PROPOSED LOT 3)

BEING A PORTION OF
THE NORTHEAST QUARTER OF SECTION 12,
TOWNSHIP 3 NORTH, RANGE 4 EAST,
OF THE GILA AND SALT RIVER BASE AND MERIDIAN,
MARICOPA COUNTY, ARIZONA.



VICINITY MAP
N.T.S.

PARCEL DESCRIPTION

PARCEL NO. 1

A PORTION OF LOT 1 OF NORTHSIGHT CROSSING PROPERTY, RECORDED IN BOOK 688, PAGE 12, MARICOPA COUNTY RECORDS, LYING WITHIN A PORTION OF THE NORTHEAST QUARTER OF SECTION 12, TOWNSHIP 3 NORTH, RANGE 4 EAST, OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA, MORE PARTICULARLY DESCRIBED AS FOLLOWS:

BEGINNING AT THE SOUTHWEST COMER OF SAID LOT 1;
THENCE ALONG THE WEST LINE OF SAID LOT 1, NORTH 12 DEGREES 43 MINUTES 37 SECONDS WEST, A DISTANCE OF 414.99 FEET;
THENCE LEAVING SAID WEST LINE, SOUTH 89 DEGREES 45 MINUTES 54 SECONDS EAST, A DISTANCE OF298.97 FEET;
THENCE SOUTH 65 DEGREES 44 MINUTES 00 SECONDS EAST, A DISTANCE OF 4 7 .86 FEET;
THENCE SOUTH 85 DEGREES 50 MINUTES 23 SECONDS EAST, A DISTANCE OF 342.14 FEET;
THENCE SOUTH 00 DEGREES 04 MINUTES 10 SECONDS EAST, A DISTANCE OF 12.98 FEET;
THENCE NORTH 89 DEGREES 55 MINUTES 50 SECONDS EAST, A DISTANCE OF28.02 FEET;
THENCE SOUTH 00 DEGREES 06 MINUTES 03 SECONDS EAST, A DISTANCE OF 303.26 FEET, TO THE SOUTHERLY LINE OF SAID LOT 1;
THENCE NORTH 89 DEGREES 59 MINUTES 17 SECONDS WEST, A DISTANCE OF 326.96 FEET;
THENCE SOUTH 00 DEGREES 00 MINUTES 28 SECONDS WEST, A DISTANCE OF 43.00 FEET;
THENCE NORTH 89 DEGREES 59 MINUTES 17 SECONDS WEST, A DISTANCE OF294.02 FEET, TO THE POINT OF BEGINNING.

PARCEL NO. 2:

A NON-EXCLUSIVE EASEMENT FOR PURPOSE OF INGRESS AND EGRESS FOR GENERAL ROADWAY AND FOR PURPOSES FOR INSTALLING, OPERATING, MAINTAINING AND REPAIRING UTILITY LINES AS CREATED IN EASEMENT AGREEMENT RECORDED IN RECORDING NO. 99-0132450, RECORDS OF MARICOPA COUNTY, ARIZONA;

EXCEPTING THEREFROM ANY PORTION OF SAID LAND LYING WITHIN THE HEREINABOVE DESCRIBED PARCEL 1.

PARCEL NO. 3:

A NON-EXCLUSIVE EASEMENT OVER, ACROSS AND UPON THE COMMON DRIVEWAY FOR PURPOSES OF INGRESS AND EGRESS, AND FOR PURPOSES OF INSTALLING, OPERATING, MAINTAINING AND REPAIRING UTILITY LINES AS CREATED IN PERMANENT RECIPROCAL EASEMENT AGREEMENT RECORDED IN RECORDING NO. 2002-0163513, RECORDS OF MARICOPA COUNTY, ARIZONA;

EXCEPTING THEREFROM ANY PORTION OF SAID LAND LYING WITHIN THE HEREINABOVE DESCRIBED PARCEL 1.

PARCEL NO. 4:

A NON-EXCLUSIVE EASEMENT FOR INGRESS AND EGRESS OVER DRIVEWAYS AND CONSTRUCTING, INSTALLING, OPERATING, MAINTAINING AND REPAIRING AND REPLACING UNDERGROUND UTILITY LINES INCLUDING GAS, WATER AND SEWER LINES AND CONDUIT FOR ELECTRIC AND TELEPHONE SERVICE AS CREATED IN PERMANENT RECIPROCAL EASEMENT AGREEMENT RECORDED IN RECORDING NO. 2002-0163514, RECORDS OF MARICOPA COUNTY, ARIZONA;

EXCEPTING THEREFROM ANY PORTION OF SAID LAND LYING WITHIN THE HEREINABOVE DESCRIBED PARCEL 1.

PARCEL NO. 5:

A NON-EXCLUSIVE EASEMENT FOR ACCESS AND UTILITIES AS CREATED IN RECIPROCAL EASEMENT AGREEMENT, RECORDED MAY 5, 2003 IN RECORDING NO. 2003-0569041, RECORDS OF MARICOPA COUNTY, ARIZONA;

EXCEPTING THEREFROM ANY PORTION OF SAID LAND LYING WITHIN THE HEREINABOVE DESCRIBED PARCEL 1.

PARCEL NO. 6:

A NON-EXCLUSIVE EASEMENT FOR DRAINAGE AS CREATED IN RECIPROCAL EASEMENT AGREEMENT, RECORDED IN JUNE 16, 2003, IN RECORDING NO. 2003-0776947 RECORDS OF MARICOPA COUNTY, ARIZONA.

PARCEL NO. 7:

A NON-EXCLUSIVE EASEMENT FOR INGRESS AND EGRESS AS CREATED IN " EASEMENT AGREEMENT – COMMON SERVICE DRIVEWAY", RECORDED IN RECORDING NO. 20031387400, RECORDS OF MARICOPA COUNTY, ARIZONA.

GENERAL NOTES

1. ALL TITLE INFORMATION IS BASED ON A COMMITMENT FOR TITLE INSURANCE PREPARED BY COMMONWEALTH LAND TITLE INSURANCE COMPANY, ORDER NO. 18001529-040-BN1-RLC, DATED FEBRUARY 5, 2019, AMENDMENT NO. 7, AMENDMENT DATE OF FEBRUARY 8, 2019.

2. A.R.S. 32-151 STATES THAT THE USE OF THE WORD "CERTIFY" OR "CERTIFICATION" BY A PERSON OR FIRM THAT IS REGISTERED OR CERTIFIED BY THE BOARD IS AN EXPRESSION OF PROFESSIONAL OPINION REGARDING THE FACTS OR FINDINGS THAT ARE SUBJECT TO THE CERTIFICATION AND DOES NOT CONSTITUTE A WARRANTY OR GUARANTEE.

3. SURVEY FIELD WORK WAS COMPLETED ON SEPTEMBER 10, 2018.

4. THIS SURVEYOR HAS MADE NO INVESTIGATION OR INDEPENDENT SEARCH FOR EASEMENTS OF RECORD, ENCUMBRANCES, RESTRICTIVE COVENANTS, OWNERSHIP, TITLE EVIDENCE OR ANY OTHER FACTS THAT AN ACCURATE AND CURRENT TITLE SEARCH MAY DISCLOSE.

NOTES: (Table "A" Items")

1. SET A 1/2" REBAR W/CAP "AWLS 45377" AT PROPERTY CORNERS AS SHOWN HEREON UNLESS OTHERWISE NOTED.

2. SUBJECT PROPERTY:
AREA IS 242,067.0 SQUARE FEET OR 5.557 ACRES, MORE OR LESS.

3. ADJOINER INFORMATION IS PER MARICOPA COUNTY ASSESSOR WEBSITE.

BASIS OF BEARING

THE BASIS OF BEARING AND ALL MONUMENTATION SHOWN HEREON IS BASED ON THE NORTH LINE OF LOT 1 OF NORTHSIGHT CROSSING PROPERTY USING A BEARING OF SOUTH 85 DEGREES 00 MINUTES 35 SECONDS EAST, AS SHOWN ON THE FINAL PLAT RECORDED IN BOOK 688, PAGE 12, MARICOPA COUNTY RECORDS.

THE BASIS OF BEARING AND ALL MONUMENTATION SHOWN HEREON IS BASED ON THE NORTH LINE OF LOT 1 OF NORTHSIGHT CROSSING PROPERTY USING A BEARING OF SOUTH 85 DEGREES 00 MINUTES 35 SECONDS EAST, AS SHOWN ON THE FINAL PLAT RECORDED IN BOOK 688, PAGE 12, MARICOPA COUNTY RECORDS.

BENCHMARK

BENCHMARK IS A CITY OF PHOENIX BRASS CAP IN HANDHOLE BEING THE SOUTH 1/4 CORNER OF SECTION 12, T3N, R4E.

ELEVATION = 1434.36' NAVD 88

CERTIFICATION

TO: 101 MEGA RAINTREE, LLC, A DELAWARE LIMITED LIABILITY COMPANY
WP WEST ACQUISITION, L.L.C., A GEORGIA LIMITED LIABILITY COMPANY
COMMONWEALTH LAND TITLE INSURANCE COMPANY

THIS IS TO CERTIFY THAT THIS MAP OR PLAT AND THE SURVEY ON WHICH IT IS BASED WERE MADE IN ACCORDANCE WITH THE 2016 MINIMUM STANDARD DETAIL REQUIREMENTS FOR ALTA/NSPS LAND TITLE SURVEYS, JOINTLY ESTABLISHED AND ADOPTED BY ALTA AND NSPS, AND INCLUDES ITEMS 1, 2, 4, 8, AND 13 OF TABLE A THEREOF. THE FIELDWORK WAS COMPLETED ON SEPTEMBER 10, 2018.

REGISTERED LAND SURVEYOR
CERTIFICATE NO.
45377
DANIEL D. ARMIJO
9-11-19
ARIZONA U.S.A.
Expires 12/31/20

ALTA/NSPS LAND TITLE SURVEY
8688 E RAINTREE DRIVE
SCOTTSDALE, ARIZONA
NE 1/4 OF SECTION 12
TOWNSHIP 3 NORTH, RANGE 4 EAST
OF THE G.S.R.B. & M.
MARICOPA COUNTY, ARIZONA

AW LAND SURVEYING, LLC
P.O. BOX 2170, CHANDLER, AZ 85244
(480) 244-7630 (480) 243-4287

DRAWN BY: DDA	CHECKED BY: DDA	DATE: 02/12/19	JOB NO.: 18-073	SHEET NO. 1 OF 5

SCHEDULE "B" ITEMS

1. Intentionally omitted.

2. Reservations contained in the Patent

   From: The United States of America
   Recording Date: March 13, 1975
   Recording No: Docket 11071, page 88

   Which among other things recites as follows:

   Subject to any vested and accrued water rights for mining, agricultural, manufacturing or other purposes and rights to ditches and reservoirs used in connection with such water rights, as may be recognized and acknowledged by the local customs, laws and decisions of the courts; and the reservation from the lands hereby granted of a right of way thereon for ditches or canals constructed by the authority of the United States and a right of way not exceeding 33 feet in width, for roadway and for public utility purposes, located across said land or as near as practicable to the exterior boundaries of the Land.
   Thereafter, the effect of City of Scottsdale, Release of Easement recorded March 11, 1994 in Recording No. 94-0202449.

   (Affect G.L.O. Lot 39)

3. Reservations contained in the Patent

   From: The United States of America
   Recording Date: August 6, 1954
   Recording No: Docket 1407, page 76

   Which among other things recites as follows:

   Subject to any vested and accrued water rights for mining, agricultural, manufacturing or other purposes and rights to ditches and reservoirs used in connection with such water rights, as may be recognized and acknowledged by the local customs, laws and decisions of the courts; and the reservation from the lands hereby granted of a right of way thereon for ditches or canals constructed by the authority of the United States and a right of way not exceeding 33 feet in width, for roadway and for public utility purposes, located across said land or as near as practicable to the exterior boundaries of the Land.

   Thereafter, the effect of City of Scottsdale, Release of Easement recorded March 11, 1994 in Recording No. 94-0202449.
   (Affect G.L.O. Lot 40)

4. Reservations contained in the Patent

   From: The United States of America
   Recording Date: September 2, 1980
   Recording No: Docket 14657, page 226

   Which among other things recites as follows:

   Subject to any vested and accrued water rights for mining, agricultural, manufacturing or other purposes and rights to ditches and reservoirs used in connection with such water rights, as may be recognized and acknowledged by the local customs, laws and decisions of the courts; and the reservation from the lands hereby granted of a right of way thereon for ditches or canals constructed by the authority of the United States and a right of way not exceeding 33 feet in width, for roadway and for public utility purposes, located across said land or as near as practicable to the exterior boundaries of the Land.

   Thereafter, the effect of City of Scottsdale, Release of Easement recorded March 11, 1994 in Recording No. 94-0202449.
   (Affect G.L.O. Lot 41)

5. Water rights, claims or title to water, whether or not disclosed by the public records.

6. The right of entry to prospect for, mine and remove the minerals excepted from the description of said Land in Schedule A.

7. Intentionally omitted.

DOES NOT AFFECT SUBJECT PROPERTY (EASEMENT LOCATED ON NORTHERLY PORTION OF LOT 1 - BK 688, PG 12)

8. Matters contained in that certain document

   Entitled: Reciprocal Easement Agreement
   Dated: December 17, 1998
   Executed by: Mall At The Crossroads, Inc., a Washington corporation and Wal-Mar Stores, Inc., a Delaware corporation
   Recording Date: February 10, 1999
   Recording No: 99-0132450
   Reference is hereby made to said document for full particulars.

AFFECTS SUBJECT PROPERTY (PLOTTED AND SHOWN ON SURVEY)

9. Matters contained in that certain document

   Entitled: Permanent Reciprocal Easement Agreement
   Dated: February 13, 2002
   Executed by: Mall At The Crossroads, Inc., a Washington corporation and Continental 123 Fund L.L.C., a Wisconsin limited liability company
   Recording Date: February 15, 2002
   Recording No: 20020163513
   Reference is hereby made to said document for full particulars.

DOES NOT AFFECT SUBJECT PROPERTY (EASEMENT LOCATED AT THE EASTERLY PORTION OF LOT 1 - BK 688, PG 12)

10. Matters contained in that certain document

    Entitled: Permanent Reciprocal Easement Agreement
    Dated: February 13, 2002
    Executed by: Mall At The Crossroads, Inc., a Washington corporation and Continental 123 Fund L.L.C., a Wisconsin limited liability company
    Recording Date: February 15, 2002
    Recording No: 20020163514
    Reference is hereby made to said document for full particulars.

AFFECTS SUBJECT PROPERTY (NOT PLOTTED; BLANKET IN NATURE)

11. Matters contained in that certain document

    Entitled: City of Scottsdale Lot Split Approval
    Dated: April 17, 2002
    Recording Date: April 26, 2002
    Recording No: 2002-0431053
    Reference is hereby made to said document for full particulars.

AFFECTS SUBJECT PROPERTY (NOT PLOTTED; BLANKET IN NATURE)

12. Matters contained in that certain document

    Entitled: Agreement
    Dated: December 13, 2002
    Executed by: Mall At The Crossroads, Inc., a Washington corporation and Continental 123 Fund L.L.C., a Wisconsin limited liability company
    Recording Date: December 26, 2002
    Recording No: 20021396457
    Reference is hereby made to said document for full particulars.

SCHEDULE "B" ITEMS

DOES NOT AFFECT SUBJECT PROPERTY (EASEMENT LOCATED ON NORTHWESTERLY PORTION OF LOT 1 - BK 688, PG 12)

13. Matters contained in that certain document

    Entitled: Reciprocal Easement Agreement – Buthrus Driveway
    Dated: May 5, 2003
    Executed by: Mall At The Crossroads, Inc., a Washington corporation and Northsight Crossing, L.L.C., a Nevada limited liability company
    Recording Date: May 5, 2003
    Recording No: 20030569041
    Reference is hereby made to said document for full particulars.

AFFECTS SUBJECT PROPERTY (PLOTTED AND SHOWN ON SURVEY)

14. Matters contained in that certain document

    Entitled: Reciprocal Easement Agreement – Common Service Driveway
    Dated: May 5, 2003
    Executed by: Mall At The Crossroads, Inc., a Washington corporation and Northsight Crossing, L.L.C., a Nevada limited liability company
    Recording Date: May 5, 2003
    Recording No: 20030569042
    Reference is hereby made to said document for full particulars.

DOES NOT AFFECT SUBJECT PROPERTY (EASEMENT LOCATED ON NORTHWESTERLY PORTION OF LOT 1 - BK 688, PG 12)

15. Matters contained in that certain document

    Entitled: Reciprocal Easement Agreement
    Dated: June 16, 2003
    Executed by: Mall At The Crossroads, Inc., a Washington corporation and Darlar, LLC, an Arizona limited liability company
    Recording Date: June 16, 2003
    Recording No: 20030776947
    Reference is hereby made to said document for full particulars.

AFFECTS SUBJECT PROPERTY (PLOTTED AND SHOWN ON SURVEY)

16. Easement(s) for the purpose(s) shown below and rights incidental thereto, as granted in a document:

    Granted to: City of Scottsdale
    Purpose: water line
    Recording Date: July 8, 2003
    Recording No: 20030885261
    Affects: said land more particularly described therein

17. Intentionally omitted.

18. Intentionally omitted.

19. Intentionally omitted.

20. Intentionally omitted.

AFFECTS SUBJECT PROPERTY (PLOTTED AND SHOWN ON SURVEY)

21. Matters contained in that certain document

    Entitled: Easement Agreement – Common Service Driveway
    Dated: September 30, 2003
    Executed by: KS Scottsdale Funding Company, Inc., a Delaware corporation and NSHE LISCO, LLC, an Arizona limited liability company
    Recording Date: October 2, 2003
    Recording No: 20031387400
    Reference is hereby made to said document for full particulars.

22. Intentionally omitted.

AFFECTS SUBJECT PROPERTY (PLOTTED AND SHOWN ON SURVEY)

23. Easement(s) for the purpose(s) shown below and rights incidental thereto, as granted in a document:

    Granted to: Southwest Gas Corporation
    Purpose: pipelines and appurtenances
    Recording Date: June 21, 2004
    Recording No: 2004-0698519
    Affects: said land more particularly described therein

AFFECTS SUBJECT PROPERTY (PLOTTED AND SHOWN ON SURVEY)

24. Easement(s) for the purpose(s) shown below and rights incidental thereto, as granted in a document:

    Granted to: Arizona Public Service Company
    Purpose: electric lines and appurtenant facilities and fixtures
    Recording Date: October 1, 2004
    Recording No: 2004-1156144
    Affects: said land more particularly descried therein

SCHEDULE "B" ITEMS

25. Intentionally omitted.

26. Intentionally omitted.

27. Intentionally omitted.

28. Any rights of the parties in possession of a portion of, or all of, said Land, which rights are not disclosed by the Public Records.

29. Matters which may be disclosed by an inspection of said Land that is satisfactory to the Company, and/or by inquiry of the parties in possession thereof.

AFFECTS SUBJECT PROPERTY (PLOTTED AND SHOWN ON SURVEY)

30. Any rights, interests, or claims which may exist or arise by reason of the following matters disclosed by survey,

    Job No.: 18-073
    Dated: September 18, 2018
    Prepared by: AW Land Surveying, LLC
    Matters shown:

    A. Portion of 1-story building encroaches on gas line easement recorded in Document No. 2004-0698519.

TEMPORARY ACCESS EASEMENT DOC. NO. 2002-0163515, MCR NOT REFERENCED ON TITLE COMMITMENT (NOT SHOWN HEREON)

    B. Portion of 1-story building encroaches on 40' temporary access easement recorded in Document No.

AFFECTS SUBJECT PROPERTY (PLOTTED AND SHOWN ON SURVEY)

31. Easements, covenants, conditions and restrictions as set forth on the recorded plat recorded in Book 683 of Maps, Page 46.

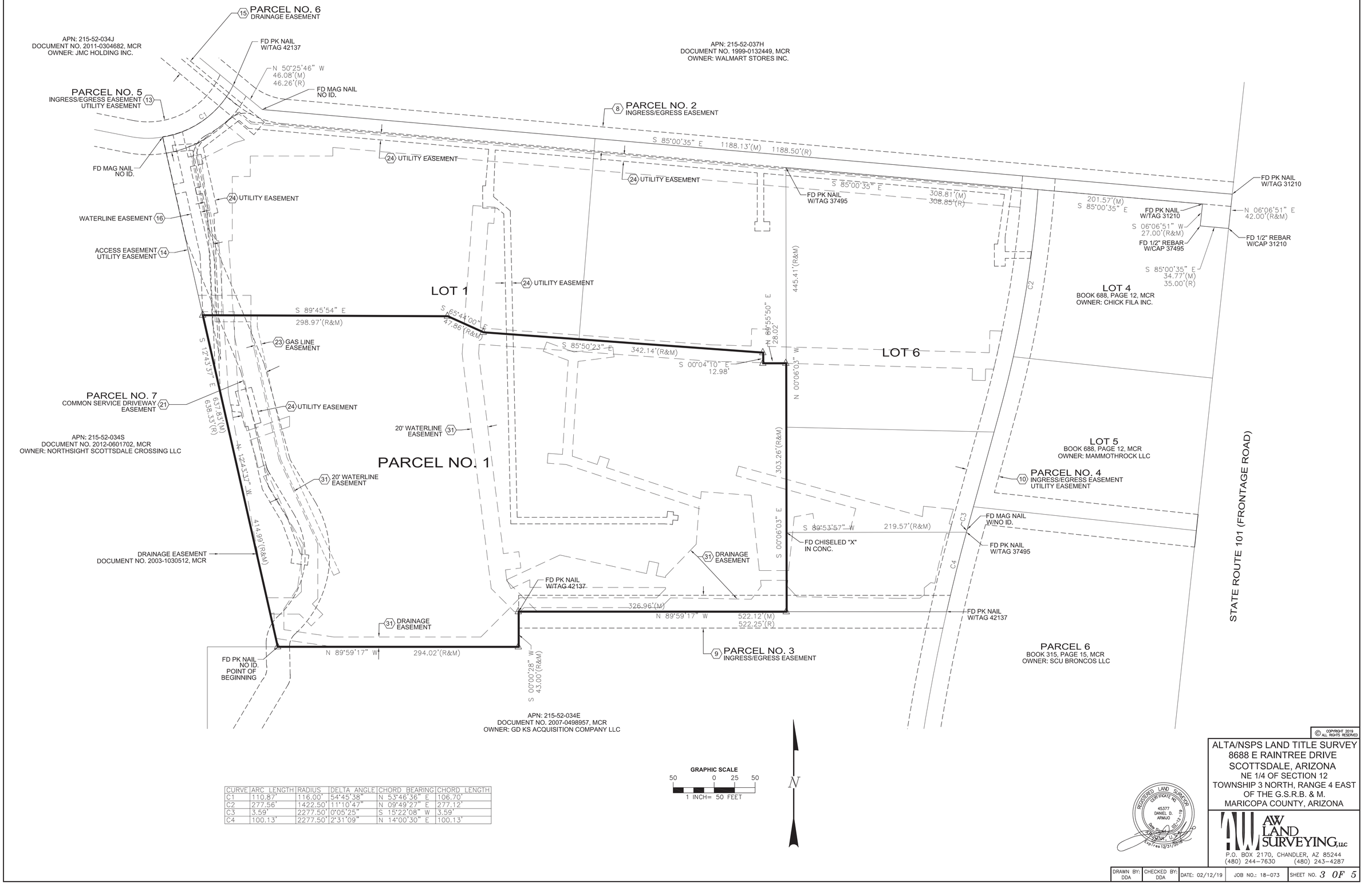
32. Property taxes, which are a lien not yet due and payable, including any assessments collected with taxes to be levied for the year 2019.

ALTA/NSPS LAND TITLE SURVEY
8688 E RAINTREE DRIVE
SCOTTSDALE, ARIZONA
NE 1/4 OF SECTION 12
TOWNSHIP 3 NORTH, RANGE 4 EAST
OF THE G.S.R.B. & M.
MARICOPA COUNTY, ARIZONA

REGISTERED LAND SURVEYOR
CERTIFICATE NO.
45377
DANIEL D.
ARMIJO
Date Signed 02-12-19
Expires 12/31/20

AW LAND SURVEYING, LLC
P.O. BOX 2170, CHANDLER, AZ 85244
(480) 244-7630 (480) 243-4287

DRAWN BY: DDA	CHECKED BY: DDA	DATE: 02/12/19	JOB NO.: 18-073	SHEET NO. 2 OF 5



CURVE	ARC LENGTH	RADIUS	DELTA ANGLE	CHORD BEARING	CHORD LENGTH
C1	110.87'	116.00'	54°45'38"	N 53°46'36" E	106.70'
C2	277.56'	1422.50'	11°10'47"	N 09°49'27" E	277.12'
C3	3.59'	2277.50'	0°05'25"	S 15°22'08" W	3.59'
C4	100.13'	2277.50'	2°31'09"	N 14°00'30" E	100.13'

ALTA/NSPS LAND TITLE SURVEY
8688 E RAINTREE DRIVE
SCOTTSDALE, ARIZONA
NE 1/4 OF SECTION 12
TOWNSHIP 3 NORTH, RANGE 4 EAST
OF THE G.S.R.B. & M.
MARICOPA COUNTY, ARIZONA

REGISTERED LAND SURVEYOR
CERTIFICATE NO.
45377
DANIEL D.
ARNUO
Date Signed 12-12-19
Expires 12/31/2019

AW LAND SURVEYING, LLC
P.O. BOX 2170, CHANDLER, AZ 85244
(480) 244-7630 (480) 243-4287

DRAWN BY:	CHECKED BY:	DATE:	JOB NO.:	SHEET NO.
DDA	DDA	02/12/19	18-073	3 OF 5

NW CORNER
LOT 1
FD MAG NAIL
NO ID.

N 12°43'37" W
222.84'

BUILDING FACE
IS 0.1'N OF PROPERTY LINE

S 89°45'54" E
298.97'(R&M)

BUILDING FACE
IS ON PROPERTY LINE

S 65°44'00" E
47.86'(R&M)

S 85°50'23" E
342.14'(R&M)

WATERLINE
EASEMENT (16)

(23) GAS LINE
EASEMENT

(13) ACCESS EASEMENT
UTILITY EASEMENT

(24) UTILITY EASEMENT

(31) 20' WLE

(2) COMMON SERVICE DRIVEWAY
EASEMENT

(29) GAS LINE
EASEMENT

(22) UTILITY EASEMENT

(9) INGRESS/EGRESS EASEMENT
UTILITY EASEMENT

(28) DE

(31) DE

RETENTION
AREA

1 STORY BUILDING

30A

FD PK NAIL
W/TAG 42137

S 00°00'28" W
43.00'(R&M)

N 89°59'17" W
294.02'(R&M)

15.4'

52.2'

APN: 215-52-034S
DOCUMENT NO. 2012-0601702, MCR
OWNER: NORTHSIGHT SCOTTSDALE CROSSING LLC

APN: 215-52-034E
DOCUMENT NO. 2007-0498957, MCR
OWNER: GD KS ACQUISITION COMPANY LLC

POINT OF BEGINNING
SW CORNER-LOT 1
FD PK NAIL NO ID.

MATCH SHEET 4
MATCH SHEET 5

LEGEND

MCR	MARICOPA COUNTY RECORDS
APN	ASSESSOR PARCEL NUMBER
CB	CATCH BASIN
SDG	STORM DRAIN GRATE
EM	ELECTRIC METER
LP	LIGHT POLE
EJB	ELECTRIC JUNCTION BOX
SCO	SEWER CLEANOUT
GM	GAS METER
GI	GREASE INTERCEPTOR
ECB	ELECTRIC CABINET
CTR	CABLE TV RISER
FH	FIRE HYDRANT
WV	WATER VALVE
WMB	WATER METER BOX
WBP	WATER BACKFLOW PREVENTOR
FDC	FIRE DEPARTMENT CONNECTION
ICB	IRRIGATION CONTROL BOX
HW	HEADWALL
E-VLT	ELECTRIC VAULT
EM	ELECTRIC METER
(D)	STORMDRAIN MANHOLE
(S)	SEWER MANHOLE
	BARRIER POST
	SIGN
	CONCRETE
	PROPERTY LINE
	EASEMENT LINE AS NOTED
	ADJOINER LINE
	PLOTTABLE SCHEDULE "B" ITEM
TC: XX.XX	TOP OF CURB ELEVATION
GE: XX.XX	GUTTER ELEVATION
PE: XX.XX	PAVEMENT ELEVATION
CE: XX.XX	CONCRETE ELEVATION
FFE: XX.XX	FINISH FLOOR ELEVATION
△	PROPERTY CORNER SET 1/2" REBAR OR PK NAIL W/TAG "AWLS 45377" UNLESS OTHERWISE NOTED

N

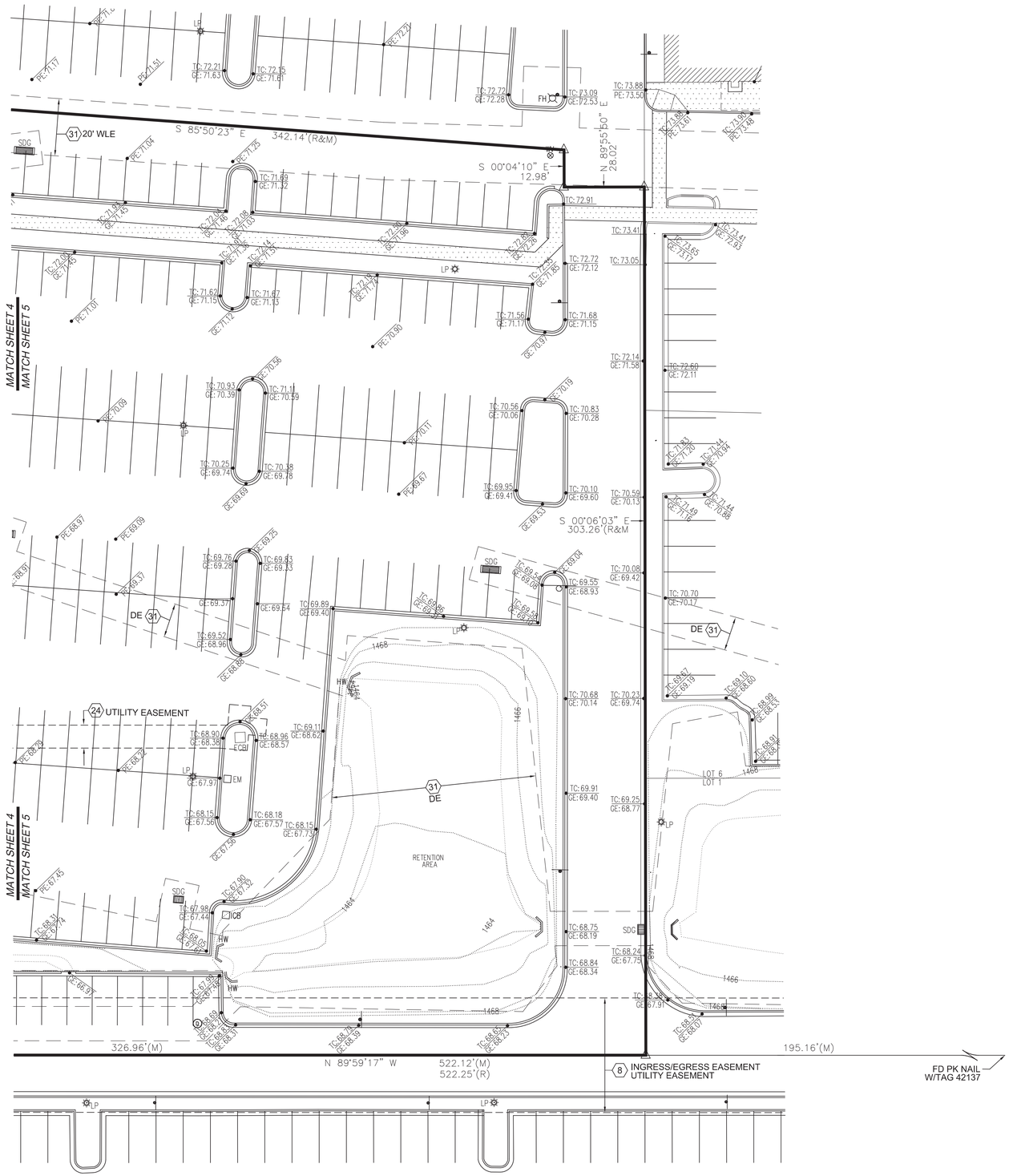
GRAPHIC SCALE
20 0 10 20
1 INCH= 20 FEET

ALTA/NSPS LAND TITLE SURVEY
8688 E RAINTREE DRIVE
SCOTTSDALE, ARIZONA
NE 1/4 OF SECTION 12
TOWNSHIP 3 NORTH, RANGE 4 EAST
OF THE G.S.R.B. & M.
MARICOPA COUNTY, ARIZONA

REGISTERED LAND SURVEYOR
CERTIFICATE NO.
45377
DANIEL D.
ARMIJO
Expires 12/31/2019

AW LAND SURVEYING, LLC
P.O. BOX 2170, CHANDLER, AZ 85244
(480) 244-7630 (480) 243-4287

DRAWN BY:	CHECKED BY:	DATE:	JOB NO.:	SHEET NO.
DDA	DDA	02/12/19	18-073	4 OF 5



APN: 215-52-034E
DOCUMENT NO. 2007-0498957, MCR
OWNER: GD KS ACQUISITION COMPANY LLC

LEGEND

MCR	MARICOPA COUNTY RECORDS
APN	ASSESSOR PARCEL NUMBER
CB	CATCH BASIN
SDG	STORM DRAIN GRATE
EM	ELECTRIC METER
LP	LIGHT POLE
EJB	ELECTRIC JUNCTION BOX
SCO	SEWER CLEANOUT
GM	GAS METER
GI	GREASE INTERCEPTOR
ECB	ELECTRIC CABINET
CTR	CABLE TV RISER
FH	FIRE HYDRANT
WV	WATER VALVE
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(D)	STORMDRAIN MANHOLE
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	BARRIER POST
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CE: XX.XX	CONCRETE ELEVATION
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MARICOPA COUNTY, ARIZONA

REGISTERED LAND SURVEYOR
CERTIFICATE NO.
45377
DANIEL D. ARMIJO
Date Signed 02-12-19
ARIZONA U.S.A.
Expires 12/31/20

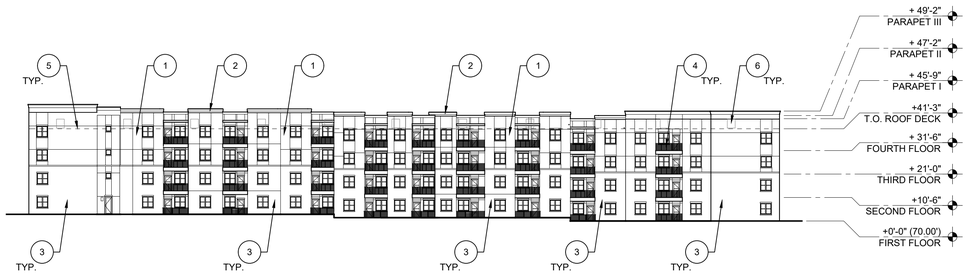
AW LAND SURVEYING, LLC
P.O. BOX 2170, CHANDLER, AZ 85244
(480) 244-7630 (480) 243-4287

DRAWN BY:	CHECKED BY:	DATE:	JOB NO.:	SHEET NO.
DDA	DDA	02/12/19	18-073	5 OF 5

KEYNOTES

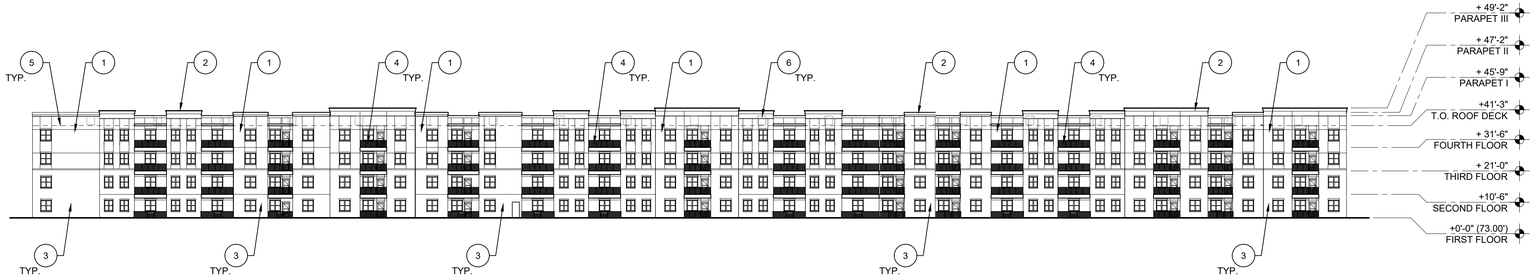
1. STUCCO - SAND FINISH (TAN) DUNN EDWARDS
2. STUCCO - SAND FINISH (COLD GRAY) DUNN EDWARDS
3. EXPOSED STONE - FOUNDERS FINISH (GRAY) OLDCASTLE QUIKBRIK 8"x4"x16"
4. STEEL RAILING - (CHARCOAL) DUNN EDWARDS
5. LINE OF ROOF BEYOND
6. MECHANICAL UNIT BEYOND

* LOWEST PARAPET PROVIDES 100% SCREEN COVERAGE FOR ALL MECHANICAL UNITS



0 16' 32' 64'

WEST ELEVATION 4
1/32" = 1'-0"

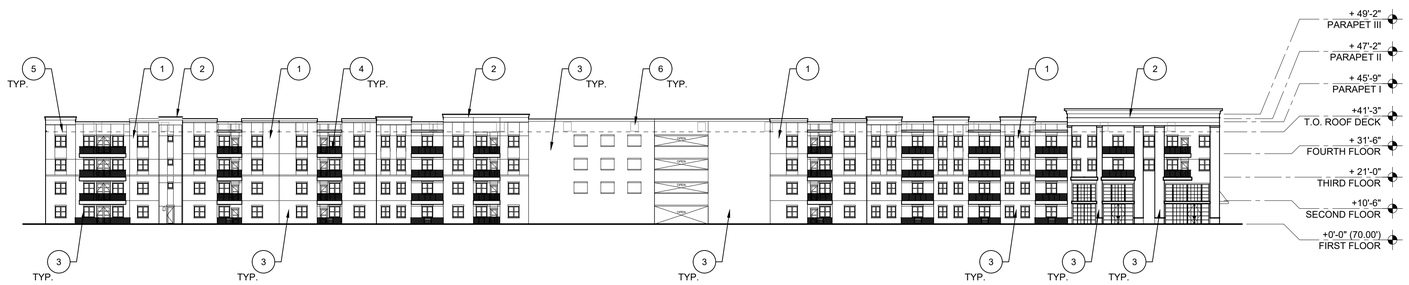


0 16' 32' 64'

NORTH ELEVATION 3
1/32" = 1'-0"

0 16' 32' 64'

EAST ELEVATION 2
1/32" = 1'-0"



0 16' 32' 64'

SOUTH ELEVATION 1
1/32" = 1'-0"

CCBG
Architects, Inc.
Phoenix - San Diego
102 E. Buchanan St. Phoenix 85004
602.258.2211 f 602.255.0909
www.ccbg-arch.com

NEW APARTMENT BUILDING
RAINTREE
WOOD PARTNERS
8688 E RAINTREE DRIVE
SCOTTSDALE, AZ 85260

ISSUE

DATE	REV	FOR
02.15.19		ZONING

Drawn
RL
Checked
PJL
Job Number
1826
Drawing
ELEVATIONS

Sheet
A3.1

SCOTTSDALE AIRPORT
SDL

COMMISSION INFORMATION REPORT

Discussion and possible action on a recommendation to the Planning Commission and City Council regarding cases 2-GP-2019 and 3-ZN-2019

Agenda Item No.: 5

Meeting Date: 08/21/19

Contact: Brad Carr, AICP, Principal Planner

Phone: (480) 312-7713

ACTION

Discussion and possible action for a recommendation to the Planning Commission and City Council regarding cases 2-GP-2019 and 3-ZN-2019, a request for a Non-Major General Plan Amendment to the Greater Airpark Character Area Plan Future Land Use Map from the Airpark Mixed Use (AMU) land use designation to the Airpark Mixed Use-Residential (AMU-R) land use designation, and a Zoning District Map Amendment from the Central Business (C-2) zoning district to the Planned Airpark Core Development-Airpark Mixed Use, Planned Shared Development overlay (PCP-AMU PSD) and Planned Airpark Core Development-Airpark Mixed Use Residential, Planned Shared Development overlay (PCP-AMU-R PSD) zoning districts for a +/- 13.1-acre site acre site located at 8688 E. Raintree Drive, to allow for a mixed-use development containing residential and non-residential uses.

PURPOSE

To provide the Airport Advisory Commission information on the proposed Non-Major General Plan Amendment and Zoning District Map Amendment for a site located with the Airport Influence Area, as it relates to the 14 CFR Part 150 Noise Compatibility Study.

KEY CONSIDERATIONS

- Proximity of proposed site to Scottsdale Airport (approximately 4,000 feet east of runway)
- Proposed site located within the AC-1 Airport Influence Zone
- Entire proposed development is located outside of the 55 DNL noise contour
- Scottsdale Airport 14 CFR Part 150 Noise Compatibility Study Land Use Measure #2, #4, and #6 are triggered
- Sec. 5-356 of the City Code permits the proposed uses with the conditions of submitting a Fair Disclosure Statement and an Avigation Easement
- Transition from primarily single-use, retail site to mixed-use development
- Allowed building height will increase from 36 feet to 53 feet
- 330 residential units proposed (apartments)
- As part of the approval process, the applicant will be required to conduct an FAA height analysis, and submit the response prior to any final city approvals

OTHER RELATED POLICIES, REFERENCES

- Scottsdale General Plan 2001, as amended
- 2010 Greater Airpark Character Area Plan
- 2005 Scottsdale Airport 14 CFR Part 150 Noise Compatibility Study
- Zoning Ordinance

Attachment(s):

1. Vicinity Map
2. Site Plan
3. Part 150 Airport Influence Zones Map
4. Part 150 Noise Contour Map

Raintree Mixed Use

ATTACHMENT #1

2-GP-2019 & 3-ZN-2019

VICINITY MAP (N.T.S.)

KEYNOTES

1. EXISTING ABOVE GROUND UTILITY EQUIPMENT w/ SCREEN WALL TO BE RELOCATED
2. EXISTING GASLINE EASEMENT, SEE ALTA SURVEY TO BE ABANDONED
3. EXISTING INGRESS/ EGRESS w/ UTILITY EASEMENT, SEE ALTA SURVEY
4. EXISTING DRAINAGE EASEMENT, SEE ALTA SURVEY
5. 24'-0" MIN. DRIVE WIDTH FIRE LANE & TURNING RADII (25'-0" INSIDE/ 49'-0" OUTSIDE/ 55'-0" BUCKET SWING) CLEARANCE PER C.O.S. DS&PM 2-1.303(5).
6. 8'-0" CONCRETE SIDEWALK
7. BICYCLE PARKING @ FIRST FLOOR PARKING STRUCTURE, C.O.S. DETAIL 2285
8. PROPOSED LOCATION FOR NEW ABOVE GROUND UTILITY EQUIPMENT w/ SCREENING
9. EXISTING 3'-0" RETAINING WALL @ RETENTION BASIN
10. TRASH ENCLOSURE ON ADJACENT PROPERTY. (NOT SCOPE OF WORK)
11. TRASH COMPACTOR ENCLOSURE, IN ACCORDANCE TO DS&PM CH.2-1.309
12. SIGHT VISIBILITY TRIANGLE IN COMPLIANCE TO THE C.O.S. DS&PM FIGURE 5.3-26
13. EXISTING FIRE HYDRANT
14. PROPOSED FIRE HYDRANT LOCATED LESS THAN 700'-0" FROM NEAREST EXISTING FIRE HYDRANT PER C.O.S ZONING ORDINANCE 507.5.1.2.
15. PROPOSED 20'-0" WATER EASEMENT, SEE ALTA SURVEY
16. FIRE RISER ROOM
17. FIRE DEPARTMENT CONNECTION
18. ELECTRONIC VEHICLE GATE FOR TENANT PARKING BEYOND
19. LOADING ZONE 12' x 45'
20. DOUBLE TRASH ENCLOSURE FOR RECYCLING, IN ACCORDANCE TO C.O.S. DETAIL 2147-1. TRASH CHUTES LOCATED AT PARKING GARAGE; VALET TRASH WILL BE PROVIDED FOR TENANTS.

PROJECT DATA

LEGAL DESCRIPTION

BEING A PORTION OF THE NORTHEAST QUARTER OF SECTION 12, TOWNSHIP 3 NORTH, RANGE 4 EAST, OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA.

PARCEL NO.1:
LOT 6, NORTHSIGHT CROSSING PROPERTY, ACCORDING TO BOOK 688 OF MAPS, PAGE 12, RECORDS OF MARICOPA COUNTY, ARIZONA. FILE NO. 3097TAZ

PROJECT ADDRESS
8688 E RAINTREE DRIVE
SCOTTSDALE, AZ 85260

PARCEL ZONING
C-2

APN
215-52-034M
SUBDIVISION NORTHSIGHT 2 PAR 4

GROSS LOT AREA
242,067 SF (5.56 ACRES)

NET LOT AREA
115,783 SF (2.66 ACRES)

GROSS FLOOR AREA
126,284 SF

OPEN SPACE
CALCULATION 1: (APN 215-52-034M)
85,964 SF OPEN SPACE / 242,067 SF LOT AREA
= **35.5% OPEN SPACE PROVIDED**
= **28% OPEN SPACE REQ'D**

CALCULATION 2: (APN 215-52-034M + LOT 1 & APN 215-52-034L)
182,083 SF OPEN SPACE / 565,331 SF LOT AREA
= **32.2% OPEN SPACE PROVIDED**
= **28% OPEN SPACE REQ'D**

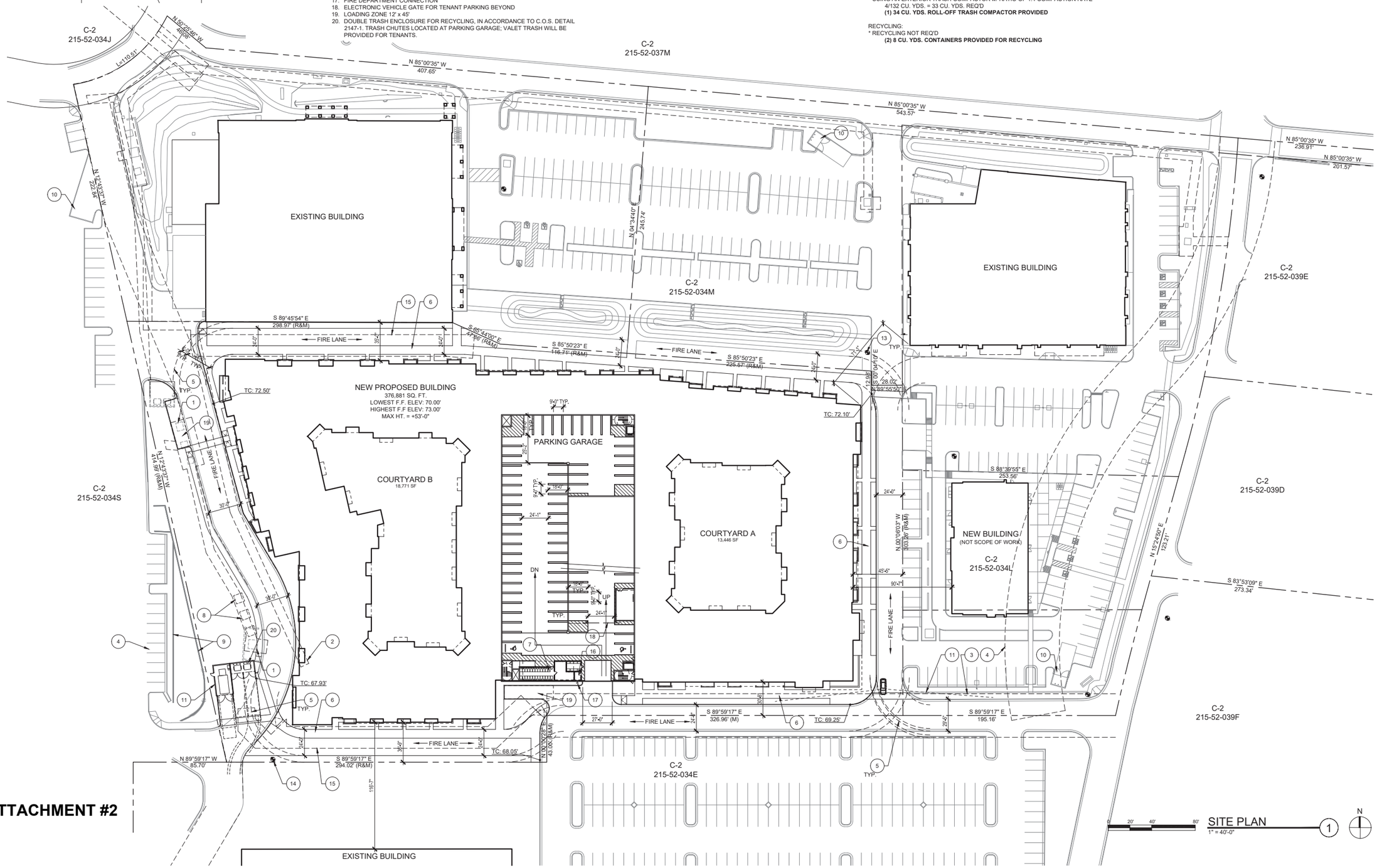
* REFER TO SHEET A0.7 FOR C.O.S. APPROVED OPEN SPACE PLAN (NOV. 8, 2018)

REFUSE CALCULATIONS
TRASH
* PER CITY OF SCOTTSDALE, 1 ENCLOSURE FOR EVERY 20 UNITS
20/330 APARTMENT UNITS = 16.5 TRASH CONTAINERS REQ'D
16.5 CONTAINERS x 8 CU. YDS. = 132 CU. YDS. REQ'D
* USING AN EXTERIOR TRASH COMPACTOR w/ RATIO OF 1:4 COMPACTION RATE
4/132 CU. YDS. = 33 CU. YDS. REQ'D
(1) 34 CU. YDS. ROLL-OFF TRASH COMPACTOR PROVIDED

RECYCLING:
* RECYCLING NOT REQ'D
(2) 8 CU. YDS. CONTAINERS PROVIDED FOR RECYCLING

PARKING

UNIT COUNT	PARKING RATIO	PARKING SPACES
211 (1 BED UNITS)	1.3	274
105 (2 BED UNITS)	1.7	179
14 (3 BED UNITS)	1.9	27
330 TOTAL UNITS		**479 SPACES REQ'D**
		512 SPACES PROVIDED
ACCESSIBLE PARKING:		
4% OF 512 PARKING SPACES =		21 SPACES REQ'D
		22 SPACES PROVIDED
BICYCLE PARKING:		
2 SPACES FOR EVERY 10 SPACES:		103 SPACES
(* NOT TO EXCEED 100 SPACES)		**100 SPACES REQ'D**
		100 SPACES PROVIDED



ATTACHMENT #2

SITE PLAN
1" = 40'-0"

CCBG Architects, Inc.
Phoenix · San Diego
102 East Buchanan Street
Phoenix,AZ 85004 602.258.2211
www.ccbgarchitects.com

NEW APARTMENT BUILDING
RAINTREE
WOOD PARTNERS
8688 E RAINTREE DRIVE
SCOTTSDALE, AZ 85260

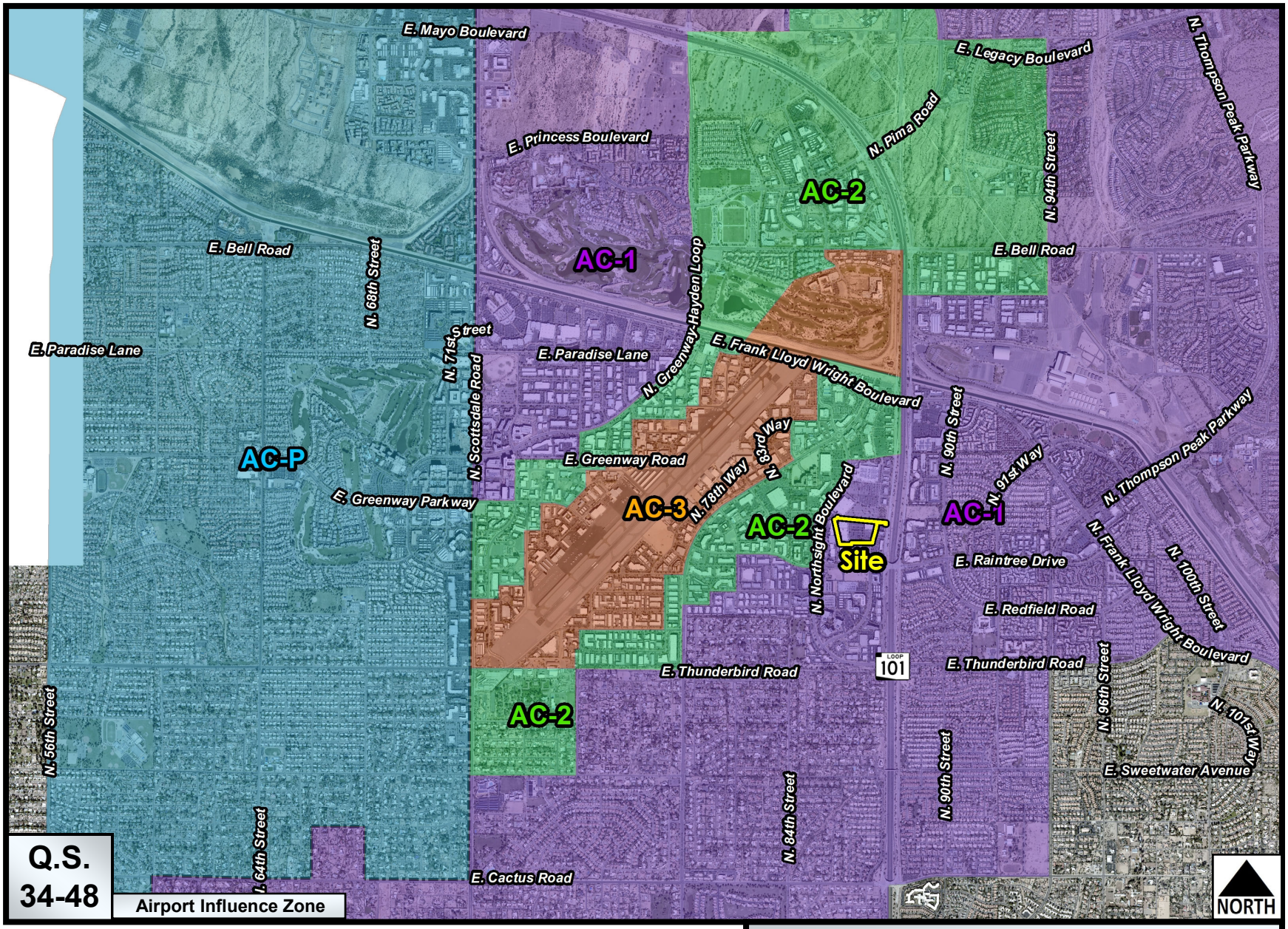
ISSUE

DATE	REV	FOR
05.17.19		ZONING RESUBMITTAL
07.18.19		ZONING RESUBMITTAL

Drawn
JF, RL
Checked
PJL
Job Number
1826
Drawing
SITE PLAN

Sheet
A1.1

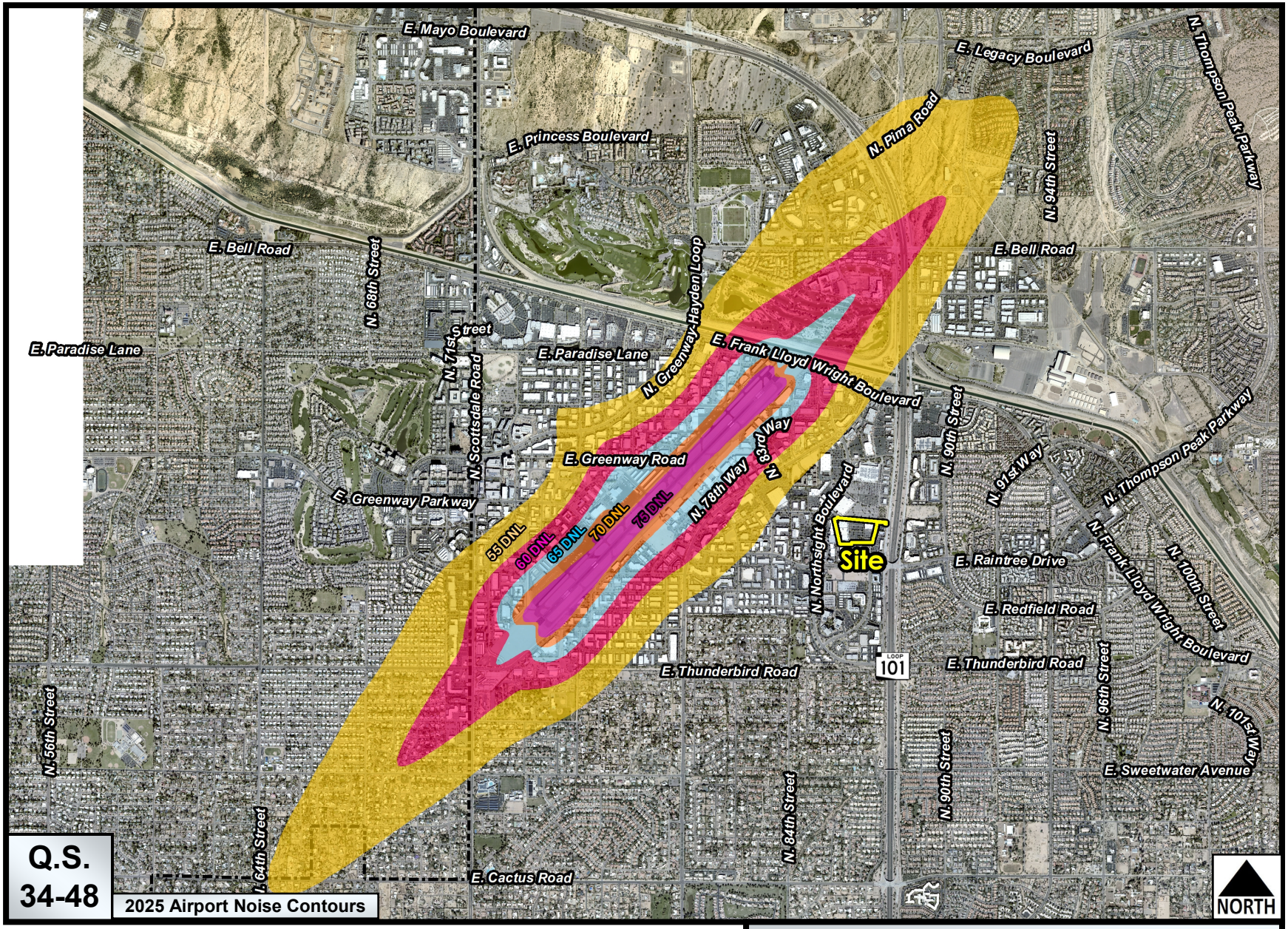
3-ZN-2019
7/22/2019



Raintree Mixed Use

ATTACHMENT #3

2-GP-2019 & 3-ZN-2019



Raintree Mixed Use

ATTACHMENT #4

2-GP-2019 & 3-ZN-2019