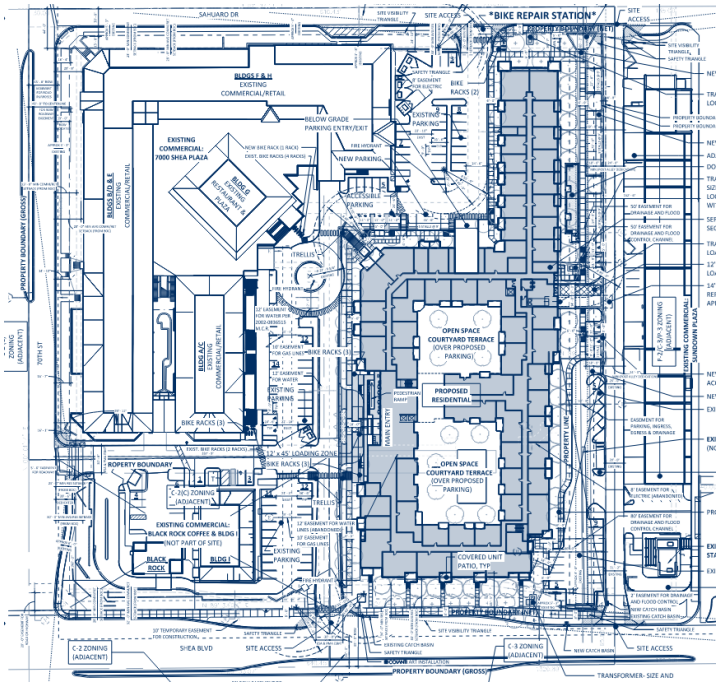
Cosanti Commons

Transportation Impact &
Mitigation Analysis



ACCEPTED
CITY OF SCOTTSDALE
TRANSPORTATION DEPARTMENT

DATE: 04/23/2024

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Project Number: 22.5400
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1. INTRODUCTION AND EXECUTIVE SUMMARY

1.1. PURPOSE OF REPORT AND STUDY OBJECTIVES

Lōkahi, LLC (Lōkahi) was retained by High Street Residential to complete a Transportation Impact & Mitigation Analysis for the proposed Cosanti Commons development generally located on the northeast corner of Shea Boulevard and 70th Street, in Scottsdale, Arizona. The objective of this Transportation Impact & Mitigation Analysis is to analyze the traffic related impacts of the proposed development to the adjacent roadway network. See **Figure 1** for the vicinity map.

1.2. EXECUTIVE SUMMARY

The proposed Cosanti Commons development will generally be located on the northeast corner of Shea Boulevard and 70th Street, in Scottsdale, Arizona. The proposed Cosanti Commons development will be comprised of a total of 196 multifamily residential units, of which, there will be 9 studio, 131 one-bedroom, and 56 two-bedroom units.

This Transportation Impact and Mitigation Analysis includes:

- Level of service analysis of existing conditions for the weekday AM and PM peak hours
- Trip Generation for the existing development
- Trip Generation for the proposed development
- Trip Generation Comparison
- Level of service analysis for the opening year (2026) weekday AM and PM peak hours
    - 2026 No Build
    - 2026 Build

The following are the intersections included in this study:

- Shea Boulevard and 70th Street (1)
- Shea Boulevard and Driveway A (2)
- Shea Boulevard and Driveway B (3)
- Shea Boulevard and 71st Place (4)
- Shea Boulevard and Scottsdale Road (5)
- 70th Street and Driveway C (6)
- 70th Street and Sahuaro Drive (7)
- Sahuaro Drive and Driveway D (8)
- Sahuaro Drive and Driveway E (9)

Existing Capacity Analysis

The AM and PM peak hour existing conditions capacity analysis were completed for the existing study intersections. The results of the capacity analysis reveal the following location with an existing level of service (LOS) E or F:

Shea Boulevard and 70th Street (1)

- Overall intersection AM peak hour operates at LOS E
- Eastbound left AM and PM peak hours operate at LOS F
- Eastbound through AM peak hour operates at LOS F
- Westbound left AM peak hour operates at LOS E
- Northbound left AM and PM peak hours operate at LOS F
- Southbound left AM and PM peak hours operate at LOS E

Shea Boulevard and 71st Place (4)

- Northbound shared left-through PM peak hour operates at LOS F
- Southbound shared left-through AM and PM peak hours operate at LOS F

Shea Boulevard and Scottsdale Road (5)

- Overall intersection PM peak hour operates at LOS E
- Eastbound left AM and PM peak hours operate at LOS E and LOS F, respectively
- Eastbound through AM peak hour operates at LOS E
- Eastbound shared through-right AM peak hour operates LOS E
- Westbound left AM and PM peak hours operate at LOS F and LOS E, respectively
- Westbound through PM peak hour operates at LOS E
- Westbound shared through-right PM peak hour operates at LOS E
- Northbound left AM and PM peak hours operate at LOS F
- Southbound left AM and PM peak hours operate at LOS E
- Southbound through PM peak hour operates at LOS E
- Southbound shared through-right PM peak hour operates at LOS E

Trip Generation

The proposed development is anticipated to generate 1,321 weekday trips with 78 occurring during the AM peak hour and 100 trips during the PM peak hour.

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 (Low-Rise)	220	196	Dwelling Units	1,321	78	19	59	100	63	37

Trip Generation Comparison

The build-out of the proposed Cosanti Commons development is anticipated to generate 3,168 (71%) fewer weekday trips, with 134 (63%) fewer trips during the AM peak hour, and 237 (70%) fewer trips during the PM peak hour than the existing 38,596 square-foot commercial building and previously approved 10,200 square foot retail and fast-food restaurant.

Trip Generation Comparison

Land Use	ITE Code	Qty	Unit	Weekday	AM Peak Hour			PM Peak Hour		
				Total	Total	In	Out	Total	In	Out
Multifamily Housing (Low-Rise)	220	196	Dwelling Units	1,321	78	19	59	100	63	37
Proposed Development Total				1,321	78	19	59	100	63	37
Shopping Plaza (40-150k) (w/o Supermarket)	821	45.81	1000 Sq Ft GFA	3,093	79	49	30	238	117	121
Fast-Food Restaurant with Drive-Through Window	934	2.99	1000 SF GFA	1,396	133	68	65	99	51	48
Existing Land Use + 2016 DRB Plan Total				4,489	212	117	95	337	168	169
Difference				-3,168	-134	-98	-36	-237	-105	-132
Percent Difference				-71%	-63%	-84%	-38%	-70%	-63%	-78%

Future Conditions - Year 2026

The Cosanti Commons development is anticipated to be constructed and ready to open in the year 2026. Therefore, year 2026 analyses was completed with and without the build out of the proposed development. An annual growth rate of 2.0% was applied to the existing traffic volumes.

A capacity analysis was completed for both the AM and PM peak hours for year 2026, with and without the build out of the proposed development. All movements operate at a LOS D or better or are maintained at the year 2026 no build level of service.

Recommendations

It is anticipated that the proposed Cosanti Commons development will maintain the future background level of service and will not have a major impact on the future operational conditions.

2. PROPOSED DEVELOPMENT

The proposed development is generally located on the northeast corner of Shea Boulevard and 70th Street in the City of Scottsdale, Arizona. The proposed Cosanti Commons development will be comprised of a total of 196 multifamily residential units, of which, there will be 9 studio, 131 one-bedroom, and 56 two-bedroom units.

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

There are five (5) access points to the proposed site. All five (5) access points are existing driveways that provide shared access to adjacent developments.

Shea Boulevard and Driveway A (2) is an existing driveway located approximately 315 feet east of 70th Street (centerline to centerline) and is a right-in and right-out only driveway. This will remain a shared-access driveway.

Shea Boulevard and Driveway B (3) is an existing driveway located approximately 130 feet west of 71st Place (centerline to centerline) and is a right-in and right-out only driveway. This will remain a shared-access driveway.

70th Street and Driveway C (6) is an existing driveway located approximately 225 feet north of Shea Boulevard (centerline to centerline) and will be a full access driveway. This will remain a shared-access driveway.

Sahuaro Drive and Driveway D (8) is an existing driveway located approximately 500 feet east of 70th Street (centerline to centerline) and will be a full access driveway. This will remain a shared-access driveway.

Sahuaro Drive and Driveway E (9) is an existing driveway located approximately 650 feet east of 70th Street (centerline to centerline) and will be a full access driveway. This will remain a shared-access driveway.

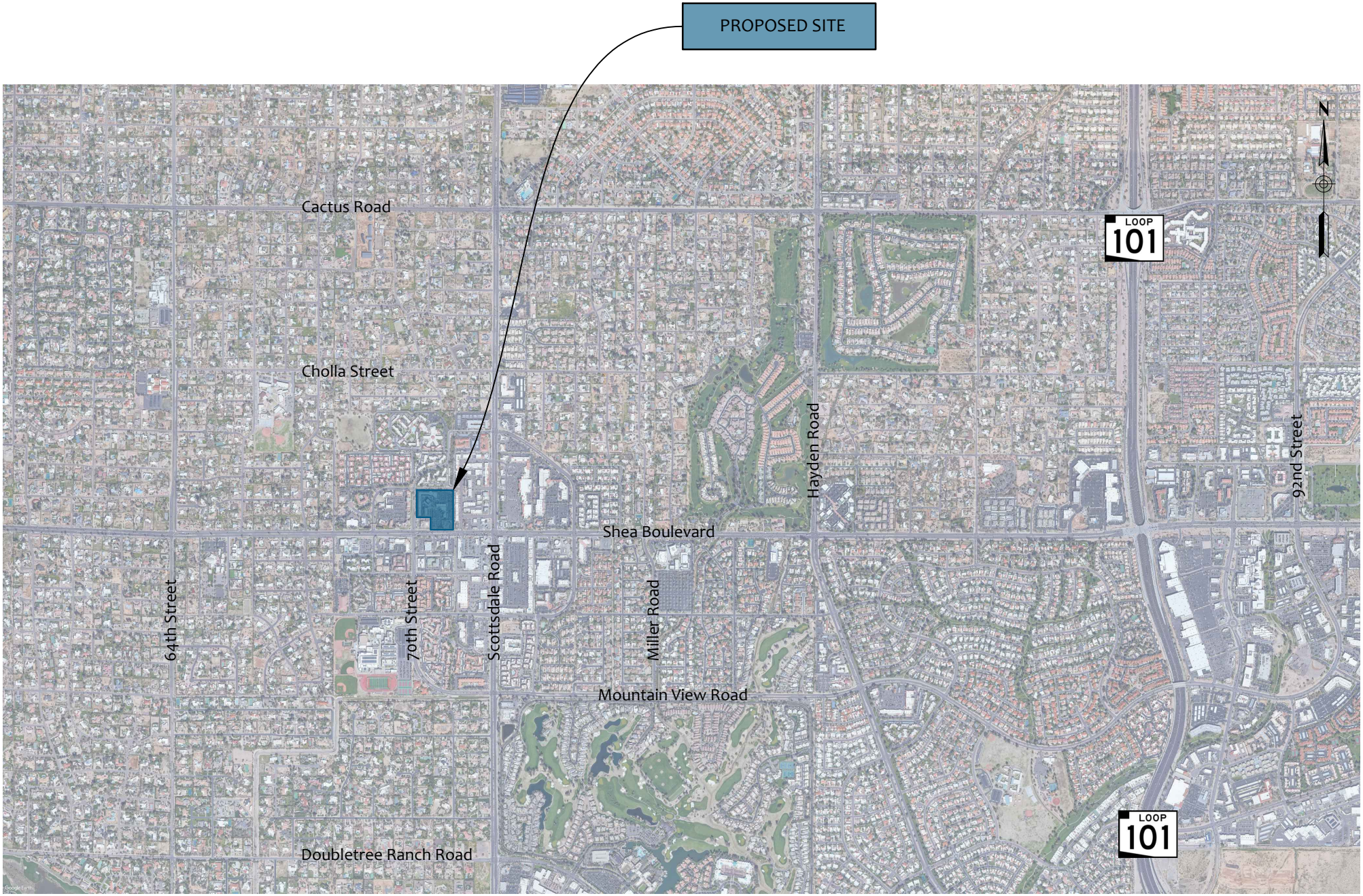


FIGURE 1 | VICINITY MAP

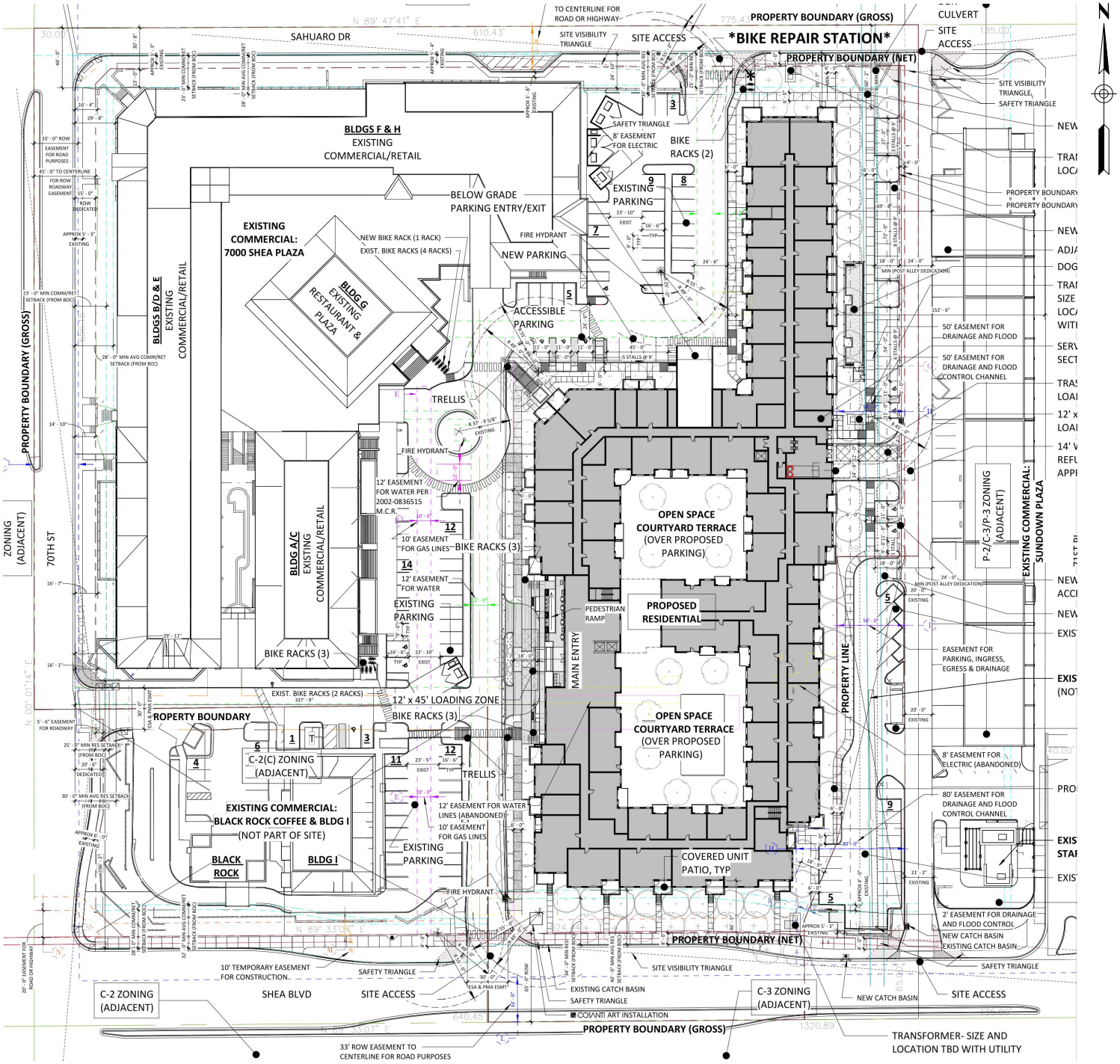
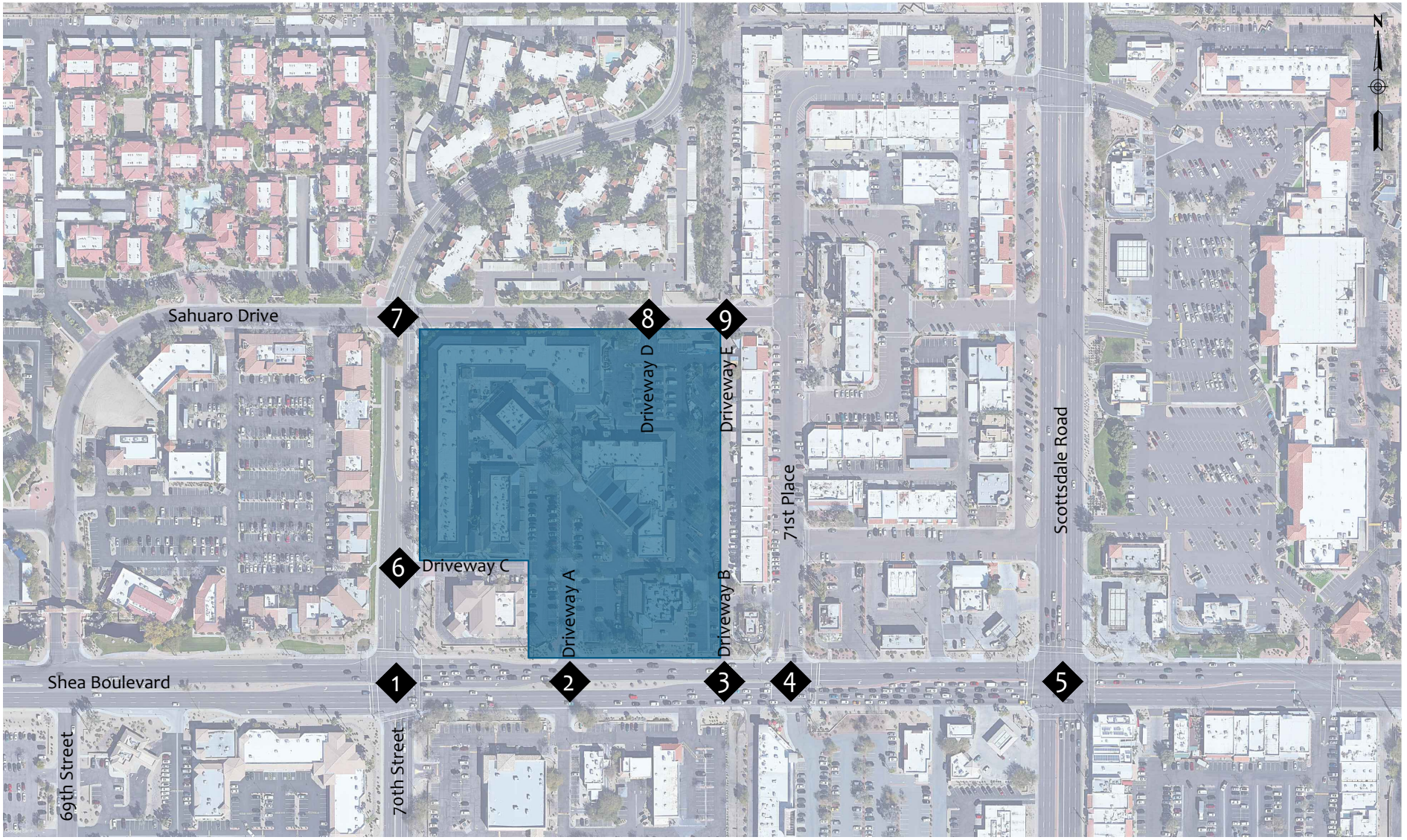


FIGURE 2 | SITE PLAN



Legend

X Intersection

FIGURE 3 | STUDY AREA

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 study area.

3.1. STUDY ROADWAY SEGMENTS

Shea Boulevard is an east-west roadway that provides three (3) travel lanes in each direction of travel, with a center raised median. The City of Scottsdale classifies Shea Boulevard as a major arterial, according to the *City of Scottsdale Transportation Master Plan,* dated July 5, 2016. The City of Scottsdale's *2022 Average Daily Segment Traffic (ADT) Volumes* map reports an ADT of 47,600 vehicles per day (vpd) along Shea Boulevard, west of Scottdale Road. There is a posted speed limit of 40 miles per hour (mph).

Scottsdale Road is a north-south roadway that provides three (3) travel lanes in each direction of travel, with a center raised median. The City of Scottsdale classifies Scottsdale Road as a major arterial, according to the *City of Scottsdale Transportation Master Plan,* dated July 5, 2016. The City of Scottsdale's *2022 Average Daily Segment Traffic (ADT) Volumes* map reports an ADT of 38,400 and 36,500 vpd along Scottsdale Road, north and south of Shea Boulevard, respectively. There is a posted speed limit of 40 mph.

70th Street is a north-south roadway that generally provides one (1) travel lane in each direction of travel. There is a posted speed limit of 25 mph.

71st Place is a north-south roadway that generally provides one (1) travel lane in each direction of travel. On street parking is provided on the east and west side of 71st Place. There is an unposted speed limit of 25 mph.

Sahuaro Drive is an east-west roadway that provides one (1) travel lane in each direction of travel. There is an unposted speed limit of 25 mph.

3.2. STUDY INTERSECTIONS

Shea Boulevard and 70th Street (1) currently operates a signalized intersection. The northbound approach provides two (2) dedicated left turn lanes and one (1) shared through-right turn lane. The southbound approach provides one (1) dedicated left turn lane, two (2) through lanes, and one (1) dedicated right turn lane. The eastbound and westbound approaches provide one (1) dedicated left turn lane, three (3) through lanes, and one (1) dedicated right turn lane.

Shea Boulevard and Driveway A (2) currently operates as a two-way stop-controlled intersection, with the stop control on the northbound and southbound approaches. Driveway A is an existing right-in and right-out driveway. The northbound and southbound approaches provide one (1) dedicated right turn lane. The eastbound and westbound approaches provide three (3) through lanes and one (1) dedicated right turn lane.

Shea Boulevard and Driveway B (3) currently operates as a one-way stop-controlled intersection, with the stop control on the southbound approach. Driveway B is an existing right-in and right-out driveway. The southbound approach provides one (1) dedicated right turn lane. The eastbound approach provides two (2) through lanes and one (1) shared through-right turn lane. The westbound approach provides three (3) through lanes.

Shea Boulevard and 71st Place (4) currently operates a signalized intersection. The northbound and southbound approaches 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) shared through-right turn lane.

Shea Boulevard and Scottsdale Road (5) currently operates a signalized intersection. The northbound and southbound approaches provide one (1) dedicated left turn lane, two (2) through lanes, 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) shared through-right turn lane.

70th Street and Driveway C (6) currently operates as a one-way stop-controlled intersection, with the stop control on the westbound approach. Driveway C is an existing full access driveway. The northbound approach provides two (2) through lanes and one (1) dedicated right turn lane. The southbound approach provides one (1) dedicated left turn lane (via a two-way left turn lane) and two (2) through lanes.

70th Street and Sahuaro Drive (7) currently operates as a four-way stop-controlled intersection. The northbound and southbound approaches provides one (1) shared left-through lane and one (1) dedicated right turn lane. The eastbound and westbound approaches provides one (1) shared left-through-right turn lane.

Sahuaro Drive and Driveway D (8) currently operates as a two-way stop-controlled intersection, with the stop control on the northbound and southbound approaches. Driveway D is an existing full access driveway. All four approaches provide one (1) shared left-through-right turn lane.

Sahuaro Drive and Driveway E (9) currently operates as a two-way stop-controlled intersection, with the stop control on the northbound and southbound approaches. Driveway D is an existing full access driveway. All four approaches provide one (1) shared left-through-right turn lane.

3.3. SURROUNDING AREA LAND USE

The proposed development is located in Scottsdale, Arizona. The proposed development is bordered by Sahuaro Drive to the north and Shea Boulevard to the south. Additionally, commercials developments border the proposed development to the east and west. The remaining vicinity area is generally occupied by residential and commercial land uses.

3.4. SITE ACCESSIBILITY

Roadway System

The study area is located in the City of Scottsdale, Arizona approximately two (2) miles west of State Route 101 (SR 101). This route provides regional access to the Phoenix metropolitan area. Within the vicinity of the proposed site there is a well-developed roadway network.

Pedestrian Facilities

Continuous sidewalks are generally provided along the study roadway segments within the study area.

Marked crosswalks are provided at the following intersections:

- Shea Boulevard and 70th Street (1)
- Shea Boulevard and 71st Place (4)
- Shea Boulevard and Scottsdale Road (5)
- 70th Street and Sahuaro Drive (7)

Bicycle Facilities

Bicycle facilities are not currently provided within the immediate study area.

Transit Facilities

Within the study area, Valley Metro Route 80 operates along Shea Boulevard. There are two (2) bus stops for Route 80 in the immediate area. There is one (1) bus stop provided on the southeast corner of Shea Boulevard and 70th Street (1). An additional bus stop is located along the north side of Shea Boulevard approximately 250-feet west of 70th Street.

Additionally, Valley Metro Route 72 operates along Scottsdale Road. There are two (2) bus stops for Route 72 in the immediate area. There is one (1) bus stop provided on the southwest corner of Shea Boulevard and Scottsdale Road (5). An additional bus stop is located along the east side of Scottsdale Road approximately 325-feet north of Shea Boulevard.

3.5. COLLISION RATES

The City of Scottsdale's 2022 Traffic Volume & Collision Report, dated September 2023, 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 major intersections that define the segment, including at minor intersections within the segment. Intersection collisions are collisions that occur at or within 100 feet of a major intersection. The collision rate and city-wide ranking for study roadway segments are shown in **Table 1**. The collision rates and city-wide ranking for the study intersections are shown in **Table 2**.

Table 1 – Collision Rates - Study Roadway Segment

Segment	From	To	Collision Rate	Rank
Shea Boulevard	70th Street	Scottsdale Road	1.78	74
Scottsdale Road	Shea Boulevard	Cholla Street	1.64	83
2022 City of Scottsdale Average Segment Collision Rate			1.17	

Table 2 – Collision Rates - Study Intersections

Intersection	Collision Rate	Rank
Shea Boulevard and Scottsdale Road	0.60	63
Shea Boulevard and 70th Street	0.49	88
2022 City of Scottsdale Average Intersection Collision Rate	0.51	

3.6. COLLISION HISTORY

The most recent 3-year collision history, from January 2020 to December 2022, was obtained from the City of Scottsdale. See **Appendix B** for collision data. The data included the following intersections and segments:

- Shea Boulevard and 70th Street (1)
- Shea Boulevard and 71st Place (2)
- Shea Boulevard and Scottsdale Road (3)

Shea Boulevard and 70th Street (1)

During the three-year period, there were a total of 29 crashes, of which 5 were possible injuries, 9 non-incapacitating injury, 2 unknown injury, with the remaining being property damage only. There was a total of 12 angle, 9 rear end, 3 sideswipe same direction, 2 single vehicle, 2 left turn, and 1 other collisions.

Shea Boulevard and 71st Place (4)

During the three-year period, there were a total of 20 crashes, of which 3 were possible injuries, 3 non-incapacitating injury, 1 unknown injury, with the remaining being property damage only. There was a total of 5 left turn, 4 angle, 4 rear end, 3 sideswipe same direction, 1 head on, 1 sideswipe opposite direction, 1 rear-to-side, and 1 other collisions.

Shea Boulevard and Scottsdale Road (5)

During the three-year period, there were a total of 62 crashes, of which 9 were possible injuries, 4 non-incapacitating injury, 3 unknown injury, with the remaining being property damage only. There was a total of 37 rear end, 14 angle, 8 sideswipe same direction, 1 single vehicle, 1 rear to rear, and 1 other collisions.

4. EXISTING CONDITIONS

4.1. EXISTING LAND USE

According to the Maricopa County Assessor, the approximate 7.26-acre site is currently occupied by two (2) commercial buildings, one (1) totaling approximately 203,659 square feet and one (1) totaling 38,596 square feet. The 38,596 square foot commercial building will be demolished as part of this proposed development. The remaining commercial building will continue to operate as it does today. The site is currently zoned for Central Business (C-2) land uses. This zoning is intended to accommodate shopping and service needs for nearby neighborhoods. See **Appendix C** for detailed parcel information.

4.2. EXISTING TRAFFIC COUNTS

A local data collection firm, All Traffic Data, was utilized to collect traffic counts. On Tuesday, February 23, 2023, turning movement counts were obtained from 7:00 to 9:00 am and from 4:00 to 6:00 pm at the following locations:

- Shea Boulevard and 70th Street (1)
- Shea Boulevard and Driveway A (2)
- Shea Boulevard and Driveway B (3)
- Shea Boulevard and 71st Place (4)
- Shea Boulevard and Scottsdale Road (5)
- 70th Street and Driveway C (6)
- 70th Street and Sahuaro Drive (7)
- Sahuaro Drive and Driveway D (8)
- Sahuaro Drive and Driveway E (9)

Additionally, on February 23, 2023, bi-directional tube counts for 24-hours in 15-minute intervals were collected along the following roadway segments:

- Shea Boulevard, east of Driveway A
- 70th Street, south of Sahuaro Drive
- Sahuaro Drive, east of 70th Street

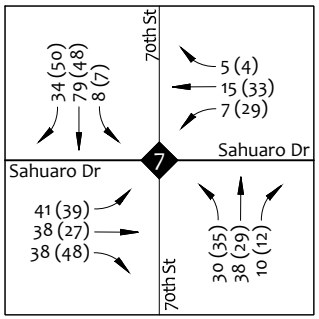
The turning movement counts were then analyzed for the highest 1-hour within each time period. The following peak hours were analyzed throughout this study.

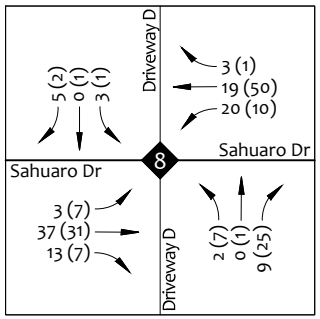
AM Peak Hour	7:30 am – 8:30 am
PM Peak Hour	4:45 pm – 5:45 pm

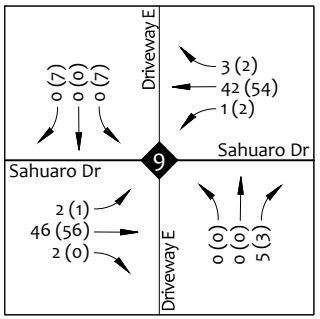
The City of Scottsdale's citywide seasonal adjustment factors were used to adjust the traffic counts. The traffic volumes were adjusted based on the month the counts were taken. Therefore, the recorded traffic volumes were divided by a factor of 1.045.

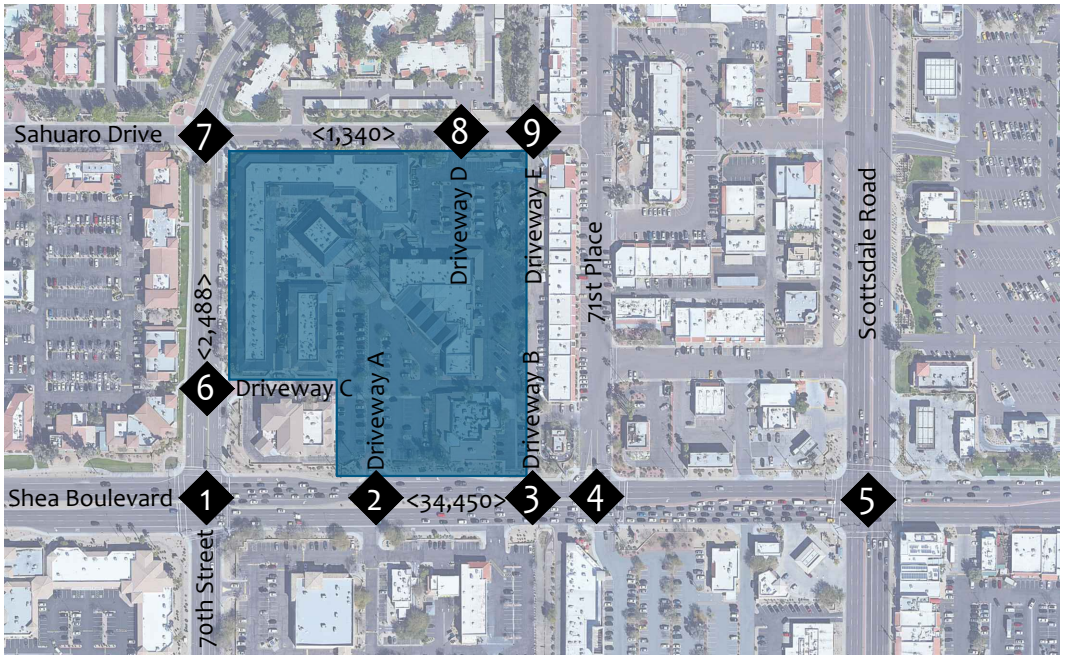
The recorded turning movement counts indicate that some u-turns movements were performed at study intersections. These u-turn volumes were added to the respective left turn movement volumes for the purposes of this study.

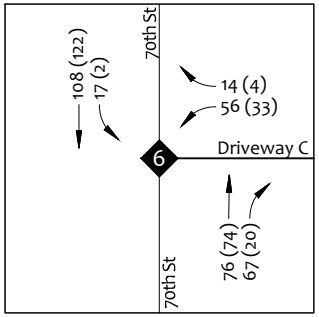
See **Appendix D** for detailed count data. See **Figure 4** for the existing adjusted AM and PM peak hour weekday traffic volumes.











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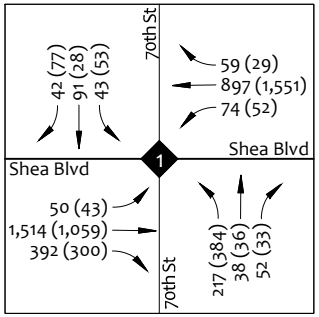
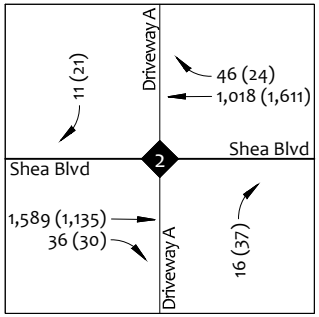
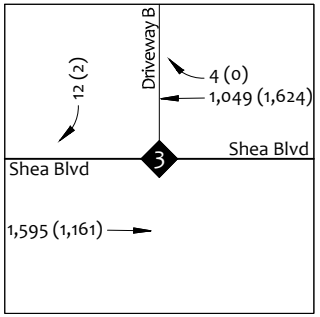
AM (PM) Peak Hour Traffic Volumes

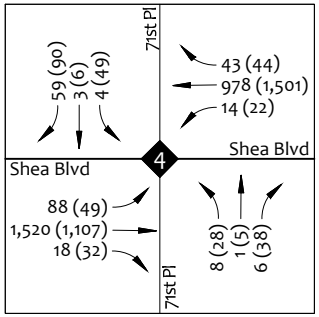
X Intersection

<ADT> Average Daily Traffic









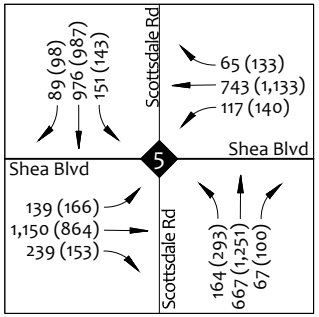


FIGURE 4 | EXISTING TRAFFIC VOLUMES

4.3. EXISTING CAPACITY ANALYSIS

The existing conditions capacity analysis was completed for the existing 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 (HCM)*. Traffic analysis software, Synchro Version 11, was used to perform the analyses using the signal timing provided by the City of Scottdale. The existing peak hour factor (PHF) was used. However, if the existing PHF was greater than 0.92, the PHF was defaulted to 0.92. See **Appendix E** for the existing signal timing.

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

Table 3 – Level of Service Criteria

Level of Service (LOS)	Control Delay per Vehicle (s/veh)	
	Signalized Intersection	Unsignalized Intersection
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 analysis reveal the following locations with an existing level of service (LOS) E or F:

Shea Boulevard and 70th Street (1)

- Overall intersection AM peak hour operates at LOS E
- Eastbound left AM and PM peak hours operate at LOS F
- Eastbound through AM peak hour operates at LOS F
- Westbound left AM peak hour operates at LOS E
- Northbound left AM and PM peak hours operate at LOS F
- Southbound left AM and PM peak hours operate at LOS E

Shea Boulevard and 71st Place (4)

- Northbound shared left-through PM peak hour operates at LOS F
- Southbound shared left-through AM and PM peak hours operate at LOS F

Shea Boulevard and Scottsdale Road (5)

- Overall intersection PM peak hour operates at LOS E
- Eastbound left AM and PM peak hours operate at LOS E and LOS F, respectively

- Eastbound through AM peak hour operates at LOS E
- Eastbound shared through-right AM peak hour operates LOS E
- Westbound left AM and PM peak hours operate at LOS F and LOS E, respectively
- Westbound through PM peak hour operates at LOS E
- Westbound shared through-right PM peak hour operates at LOS E
- Northbound left AM and PM peak hours operate at LOS F
- Southbound left AM and PM peak hours operate at LOS E
- Southbound through PM peak hour operates at LOS E
- Southbound shared through-right PM peak hour operates at LOS E

The existing AM and PM peak hour level of service and delay for unsignalized intersections are shown in **Table 4** and signalized intersection are shown in the study intersections are shown in **Table 5.**

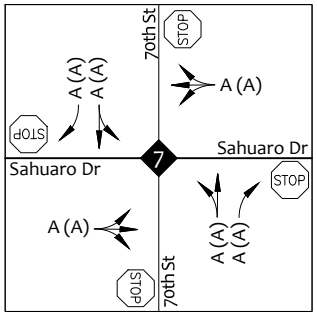
See **Figure 5** for the existing AM and PM peak hour capacity analysis. The detailed capacity analysis sheets can be found in **Appendix F**.

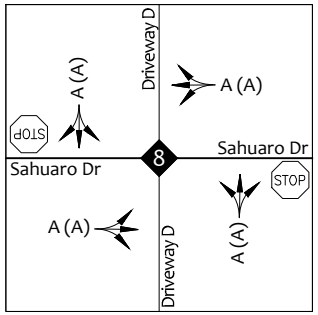
Table 4 – Existing Level of Service and Delay - Unsignalized

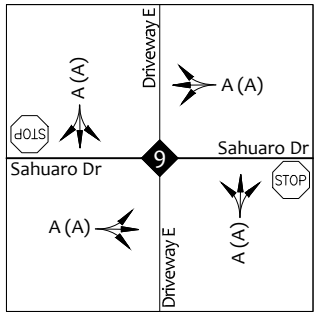
Intersection	Existing Conditions			
	AM PEAK		PM PEAK	
Unsignalized Intersections	LOS	DELAY	LOS	DELAY
Shea Boulevard and Driveway A (2)				
Northbound Right	B	11.9	B	10.9
Southbound Right	B	10.3	B	12.0
Shea Boulevard and Driveway B (3)				
Southbound Right	A	9.8	B	10.4
70th Street and Driveway C (6)				
Westbound Shared Left-Right	B	10.4	A	9.5
Southbound Left	A	7.7	A	7.4
70th Street and Sahuaro Drive (7)				
Eastbound Shared Left-Through-Right	A	8.6	A	8.2
Westbound Shared Left-Through-Right	A	8.0	A	8.2
Northbound Shared Left-Through	A	8.9	A	8.8
Northbound Right	A	7.2	A	7.2
Southbound Shared Left-Through	A	8.9	A	8.4
Southbound Right	A	7.4	A	7.4
Sahuaro Drive and Driveway D (8)				
Eastbound Shared Left-Through-Right	A	7.3	A	7.3
Westbound Shared Left-Through-Right	A	7.4	A	7.3
Northbound Shared Left-Through-Right	A	8.8	A	8.9
Southbound Shared Left-Through-Right	A	8.8	A	9.2
Sahuaro Drive and Driveway E (9)				
Eastbound Shared Left-Through-Right	A	7.3	A	7.4
Westbound Shared Left-Through-Right	A	7.3	A	7.4
Northbound Shared Left-Through-Right	A	8.6	A	8.7
Southbound Shared Left-Through-Right	A	0.0	A	9.1

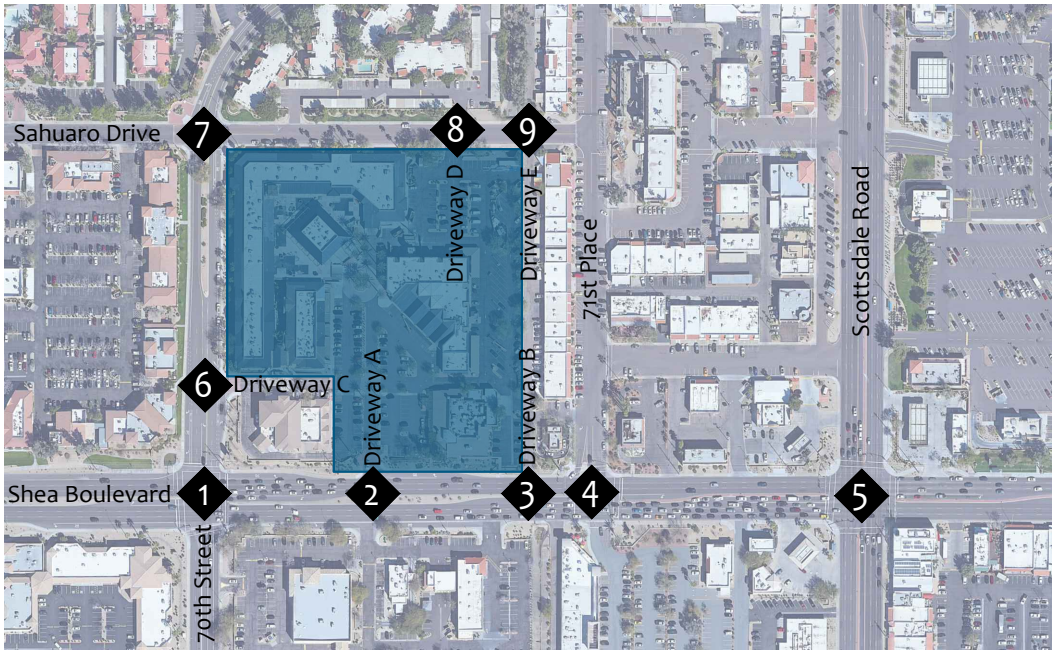
Table 5 – Existing Level of Service and Delay - Signalized

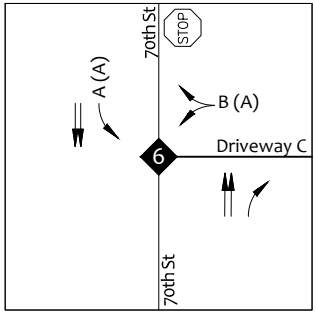
Intersection	Existing Conditions			
	AM PEAK		PM PEAK	
Signalized Intersections	LOS	DELAY	LOS	DELAY
Shea Boulevard and 70th Street (1)				
Overall Intersection	E	66.4	C	31.5
Eastbound Left	F	84.1	F	86.1
Eastbound Through	F	84.4	C	28.6
Eastbound Right	D	45.0	B	14.0
Westbound Left	E	60.0	D	49
Westbound Through	D	44.5	B	18.4
Westbound Right	D	35.4	B	12.1
Northbound Left	F	116.9	F	90.2
Northbound Shared Through-Right	C	24.3	C	34.3
Southbound Left	E	74.3	E	71.6
Southbound Through	C	29.5	D	40.0
Southbound Right	C	26.1	D	44.1
Shea Boulevard and 71st Place (4)				
Overall Intersection	B	19.4	B	15.2
Eastbound Left	C	26.3	C	21.1
Eastbound Through	C	20.7	A	9.4
Eastbound Shared Through-Right	C	21.4	A	9.8
Westbound Left	C	22.2	B	12.5
Westbound Through	A	9.9	B	10.2
Westbound Shared Through-Right	B	10.2	B	10.3
Northbound Shared Left-Through	D	54.8	F	89.5
Northbound Right	C	32.6	D	35.3
Southbound Shared Left-Through	F	135.6	F	170.7
Southbound Right	C	34.5	D	37.6
Shea Boulevard and Scottsdale Road (5)				
Overall Intersection	D	51.7	E	56.4
Eastbound Left	E	68.0	F	105.2
Eastbound Through	E	57.6	C	26.4
Eastbound Shared Through-Right	E	63.1	C	29.7
Westbound Left	F	80.2	E	76.1
Westbound Through	C	33.9	E	61
Westbound Shared Through-Right	C	34.4	E	71.0
Northbound Left	F	110.1	F	86.1
Northbound Through	D	38.1	D	45.8
Northbound Shared Through-Right	D	40.1	D	52.0
Southbound Left	E	75.7	E	71.4
Southbound Through	D	44.4	E	61.2
Southbound Shared Through-Right	D	49.2	E	71.7







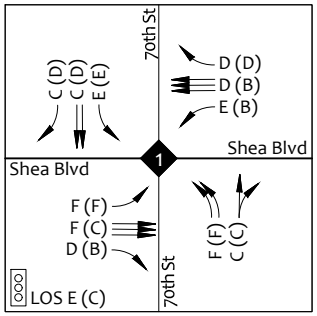


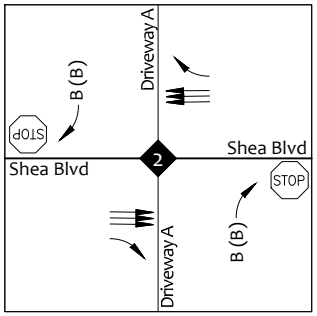


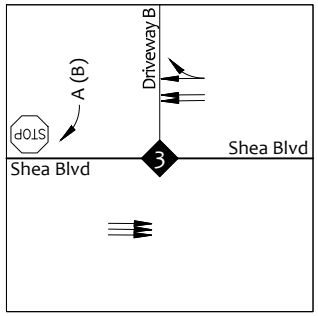
Legend

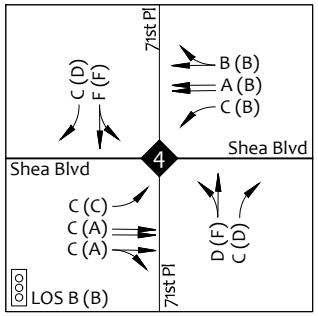
AM (PM) Peak Hour Traffic Volumes

X Intersection









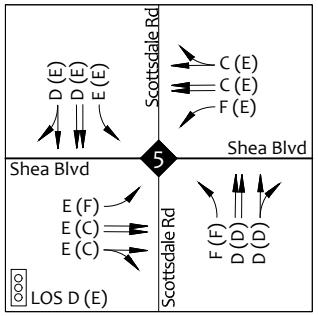


FIGURE 5 | EXISTING CAPACITY ANALYSIS

5. PROJECTED TRAFFIC

5.1. TRIP GENERATION

The trip generation for the proposed development was calculated utilizing the Institute of Transportation Engineers (ITE) publication entitled *Trip Generation, 11th 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 of land use type. This publication is considered to be the standard for the transportation engineering profession.

5.1.1. EXISTING LAND USE

According to Maricopa County Assessor, the existing parcel is occupied by a 202,319 square foot office building, 38,596 square-foot retail building, and a 6,840 square foot restaurant. Additionally, on September 15, 2016, the Development Review Board (DRB) approved a site plan for the vacant land located on the southeast corner of the existing parcel. The approved site plan included a 10,200 square foot multi-tenant building. A drive-through window was proposed on the western side of the building. This unit was assumed to be 2,986 square feet. The remaining 7,214 square feet was assumed to be retail. See **Appendix G** for the previously approved site plan and DRB case history. Therefore, utilizing ITE Land Use 821 – Shopping Plaza (40-150k) (w/o Supermarket) and ITE Land Use 934 Fast-Food Restaurant with Drive-Through Window, the trip generation for the existing land use was calculated as shown in **Table 6** below.

Table 6 – Trip Generation (Existing Land Use + 2016 DRB Plan Total)

Land Use	ITE Code	Qty	Unit	Weekday	AM Peak Hour			PM Peak Hour		
				Total	Total	In	Out	Total	In	Out
General Office Building*	710	202.32	1000 SF GFA	2,142	307	55	36	254	128	126
Shopping Plaza (40-150k) (w/o Supermarket)	821	45.81	1000 Sq Ft GFA	3,093	79	49	30	238	117	121
High-Turnover (Sit-Down) Restaurant*	932	6.84	1000 SF GFA	733	65	36	29	62	38	24
Fast-Food Restaurant with Drive-Through Window	934	2.99	1000 SF GFA	1,396	133	68	65	99	51	48
			Total	7,364	584	208	160	653	334	319

*Existing land use to remain

5.1.2. PROPOSED DEVELOPMENT

The zoning application includes the existing commercial building located on the southeast corner of 70th Street and Sahuaro Drive. The trips generated by the existing commercial building were accounted for in the existing traffic volumes that were collected. See **Section 4.2**.Therefore, only the trips generated by the proposed Cosanti Commons were included as new trips.

The proposed Cosanti Commons development will be comprised of a total of 196 multifamily residential units. The trip generation for the proposed development was calculated utilizing ITE Land Use 220 – Multifamily Housing (Low-Rise). Trip generation calculations are shown in **Table 7** below. Detailed trip generation calculations are provided in **Appendix G**.

Table 7 – 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 (Low-Rise)	220	196	Dwelling Units	1,321	78	19	59	100	63	37

The proposed development is anticipated to generate 1,321 weekday trips with 78 occurring during the AM peak hour and 100 trips during the PM peak hour.

5.2. TRIP GENERATION COMPARISON

5.2.1. PROPOSED DEVELOPMENT VERSUS EXISTING LAND USE

A trip generation comparison between the proposed Cosanti Commons development and the existing 38,596 square-foot commercial building and the previously approved multi-tenant building. was calculated. See **Table 8** below.

Table 8 – Trip Generation Comparison

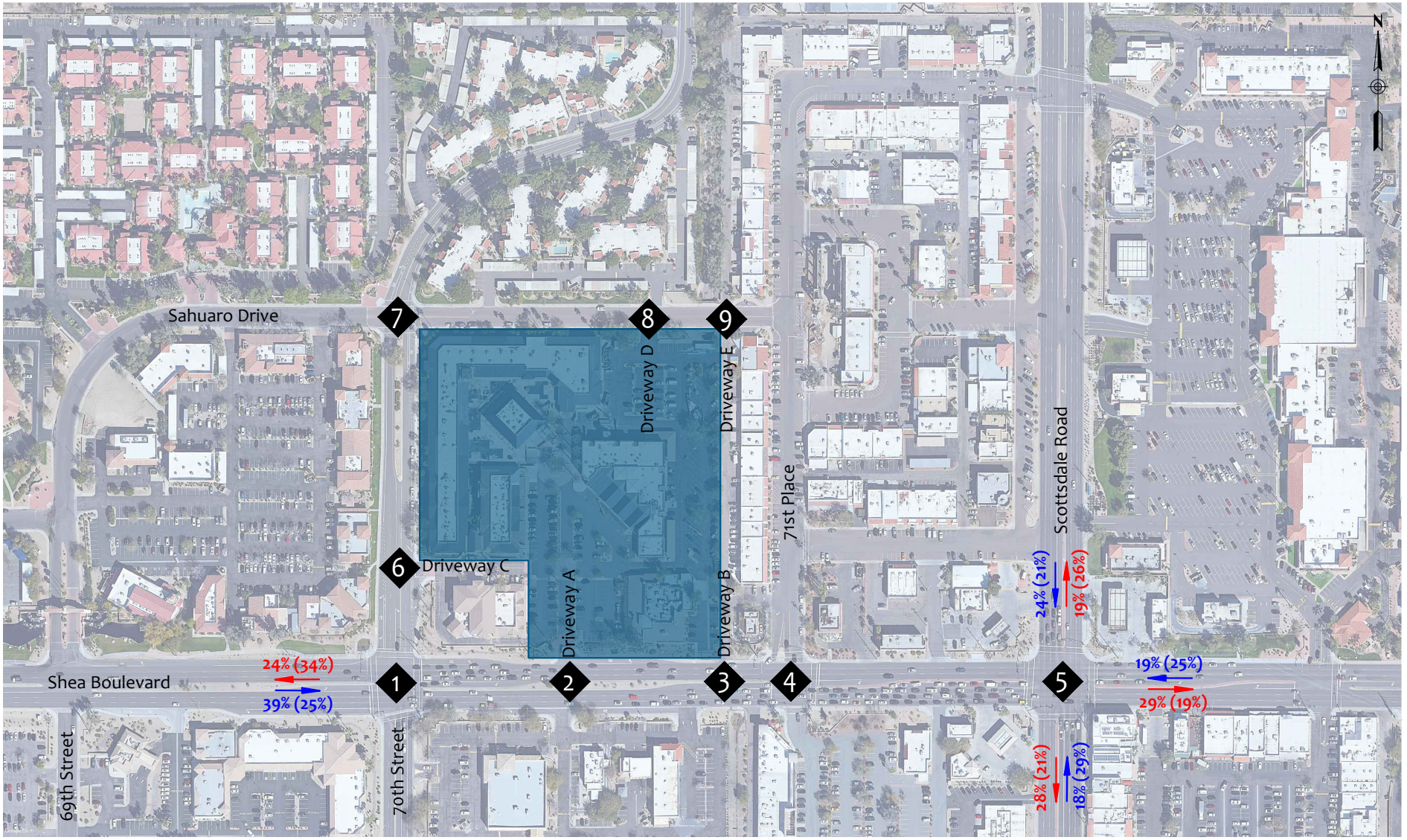
Land Use	ITE Code	Qty	Unit	Weekday	AM Peak Hour			PM Peak Hour		
				Total	Total	In	Out	Total	In	Out
Multifamily Housing (Low-Rise)	220	196	Dwelling Units	1,321	78	19	59	100	63	37
Proposed Development Total				1,321	78	19	59	100	63	37
Shopping Plaza (40-150k) (w/o Supermarket)	821	45.81	1000 Sq Ft GFA	3,093	79	49	30	238	117	121
Fast-Food Restaurant with Drive-Through Window	934	2.99	1000 SF GFA	1,396	133	68	65	99	51	48
Existing Land Use + 2016 DRB Plan Total				4,489	212	117	95	337	168	169
Difference				-3,168	-134	-98	-36	-237	-105	-132
Percent Difference				-71%	-63%	-84%	-38%	-70%	-63%	-78%

The build-out of the proposed Cosanti Commons development is anticipated to generate 3,168 (71%) fewer weekday trips, with 134 (63%) fewer trips during the AM peak hour, and 237 (70%) fewer trips during the PM peak hour than the existing 38,596 square-foot commercial building and previously approved 10,200 square foot retail and fast-food restaurant.

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 Cosanti Commons development is based on the distribution of the existing traffic. This project is being developed in a primarily developed area, so it can be assumed that the existing trip distribution will remain. The trip distribution is shown in **Figure 6.**

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 7**.



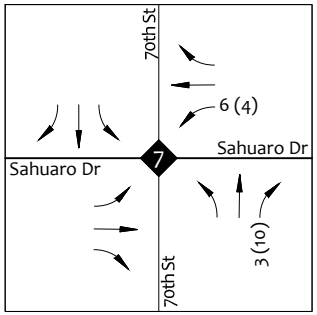
Legend

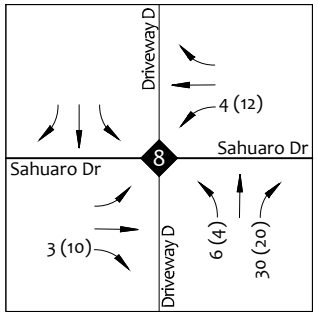
AM (PM) Inbound Trip Distribution Percentages

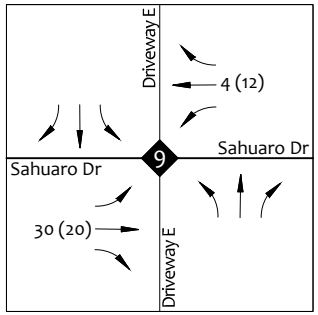
AM (PM) Outbound Trip Distribution Percentages

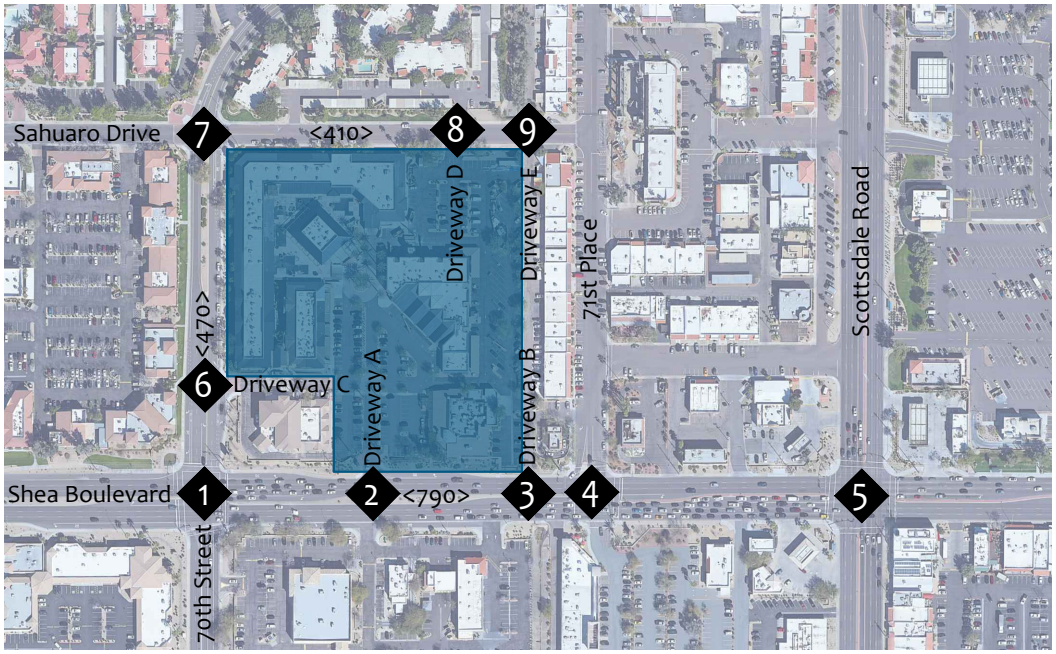
X Intersection

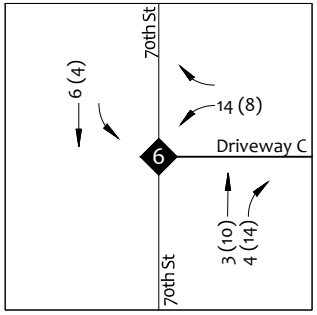
FIGURE 6 | TRIP DISTRIBUTION









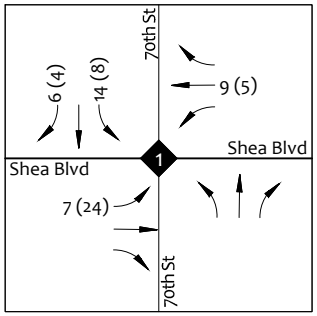


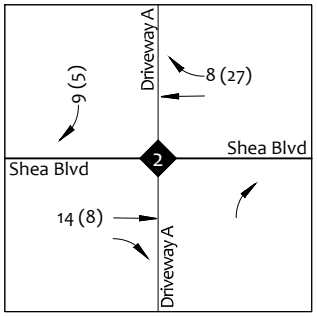
Legend

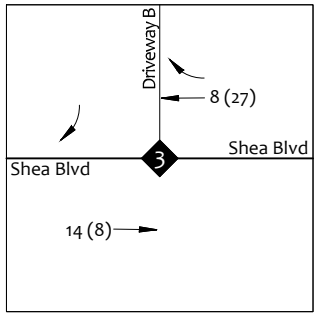
AM (PM) Peak Hour Traffic Volumes

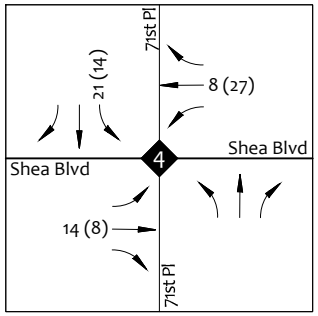
X Intersection

<ADT> Average Daily Traffic









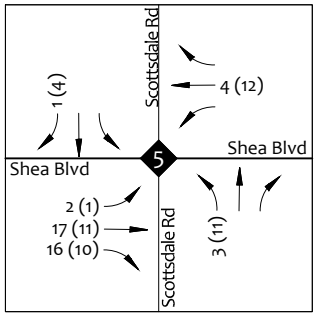


FIGURE 7 | SITE TRAFFIC VOLUMES

6. FUTURE CONDITIONS (YEAR 2026)

The proposed Cosanti Commons development is anticipated to be constructed and ready to open in the year 2026. This section analyzes the effects the proposed development will have on the surrounding roadway network during the opening year of 2026.

6.1. YEAR 2026 NO BUILD TRAFFIC VOLUMES

According to the 2019 Maricopa Associations of Governments (MAG) socioeconomic projections in the City of Scottsdale within the study area (RAZ 247), it is estimated that in the year 2018 the population was approximately 13,549. MAG estimates that the 2030 population of the surrounding area to be 15,420. This results in an approximate annual growth rate of 1.08%.

As a conservative approach, a 2.0% annual growth rate was utilized. See **Appendix H** for the MAG socioeconomic projections.

As previously discussed, a 15,754 square-foot restaurant previously occupied a portion of the site. To account for the traffic-related impacts of what is entitled on the existing site, the trips generated by the 15,754 square-foot restaurant were included as part of the no build traffic volumes.

See **Figure 8** for the year 2026 no build traffic volumes**.**

6.2. YEAR 2026 BUILD TRAFFIC VOLUMES

When the site traffic (**Figure 7**) are added to the year 2026 no build traffic (**Figure 8**), the result is the 2026 build traffic volumes. The traffic volumes discussed in Section **6.1** from the previously occupied restaurant were removed from the studied intersections. This represents the traffic volumes with the build out of the proposed development. The year 2026 build traffic volumes are shown in **Figure 9**.

6.3. YEAR 2026 NO BUILD CAPACITY ANALYSIS

The capacity and level of service for the study area intersections were evaluated for the 2026 no build scenario. The PHF was assumed to be 0.92.

The year 2026 no build AM and PM peak hour level of service and delay for unsignalized intersections are shown in **Table 9** and signalized intersection are shown in the study intersections are shown in **Table 10**. The detailed capacity analysis sheets can be found in **Appendix I**.

The results of the year 2026 no build capacity analysis are shown in **Figure 10**. The results of the capacity analysis reveal that all movements operate at a LOS D or better or are maintained at the existing LOS with the exception of the following:

Shea Boulevard and Scottsdale Road (5)

- Overall intersection AM peak hour operates at LOS E
- Northbound shared through-right PM peak hour operates at LOS E

6.4. YEAR 2026 BUILD CAPACITY ANALYSIS

The capacity and level of service for the study area intersections were evaluated for the year 2026 build traffic volumes. See **Figure 9**. The PHF was assumed to be 0.92.

The year 2026 no build AM and PM peak hour level of service and delay for unsignalized intersections are shown in **Table 9** and signalized intersection are shown in the study intersections are shown in **Table 10**. The detailed capacity analysis sheets can be found in **Appendix J**.

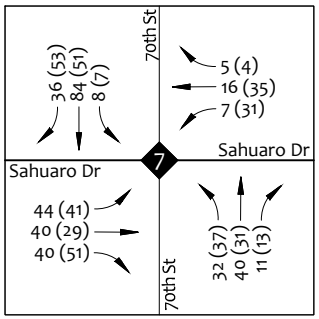
The results of the year 2026 build capacity analysis are shown in **Figure 11**. All movements operate at a LOS D or better or are maintained at the year 2026 no build level of service.

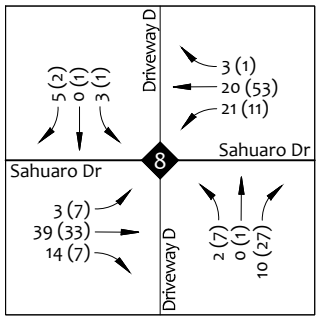
Table 9 – Year 2026 Level of Service and Delay - Unsignalized

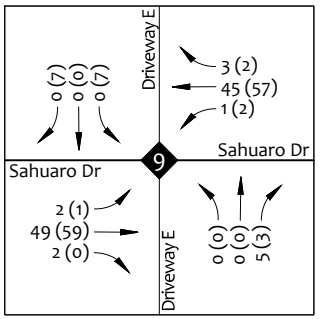
Intersection	2026 No Build Conditions				2026 Build Conditions			
	AM PEAK		PM PEAK		AM PEAK		PM PEAK	
Unsignalized Intersections	LOS	DELAY	LOS	DELAY	LOS	DELAY	LOS	DELAY
Shea Boulevard and Driveway A (2)								
Northbound Right	B	12.3	B	11.0	B	12.3	B	11.0
Southbound Right	B	10.6	B	12.5	B	10.6	B	12.4
Shea Boulevard and Driveway B (3)								
Southbound Right	A	10.0	B	10.6	A	9.8	B	10.5
70th Street and Driveway C (6)								
Westbound Shared Left-Right	A	9.8	A	9.5	B	10.0	A	9.3
Southbound Left	A	7.6	A	7.5	A	7.6	A	7.5
70th Street and Sahuaro Drive (7)								
Eastbound Shared Left-Through-Right	A	8.3	A	8.2	A	8.3	A	8.2
Westbound Shared Left-Through-Right	A	7.8	A	8.2	A	7.9	A	8.3
Northbound Shared Left-Through	A	8.7	A	8.8	A	8.7	A	8.8
Northbound Right	A	7.1	A	7.2	A	7.2	A	7.3
Southbound Shared Left-Through	A	8.6	A	8.4	A	8.6	A	8.4
Southbound Right	A	7.2	A	7.5	A	7.3	A	7.5
Sahuaro Drive and Driveway D (8)								
Eastbound Shared Left-Through-Right	A	7.3	A	7.3	A	7.3	A	7.3
Westbound Shared Left-Through-Right	A	7.4	A	7.3	A	7.4	A	7.4
Northbound Shared Left-Through-Right	A	8.7	A	8.9	A	8.9	A	9.0
Southbound Shared Left-Through-Right	A	8.8	A	9.2	A	8.9	A	9.3
Sahuaro Drive and Driveway E (9)								
Eastbound Shared Left-Through-Right	A	7.3	A	7.3	A	7.3	A	7.4
Westbound Shared Left-Through-Right	A	7.3	A	7.3	A	7.4	A	7.4
Northbound Shared Left-Through-Right	A	8.6	A	8.6	A	8.6	A	8.6
Southbound Shared Left-Through-Right	A	0.0	A	9.0	A	0.0	A	9.1

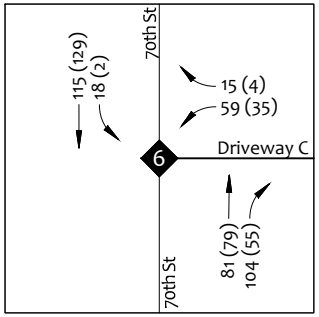
Table 10 – Year 2026 Level of Service and Delay - Signalized

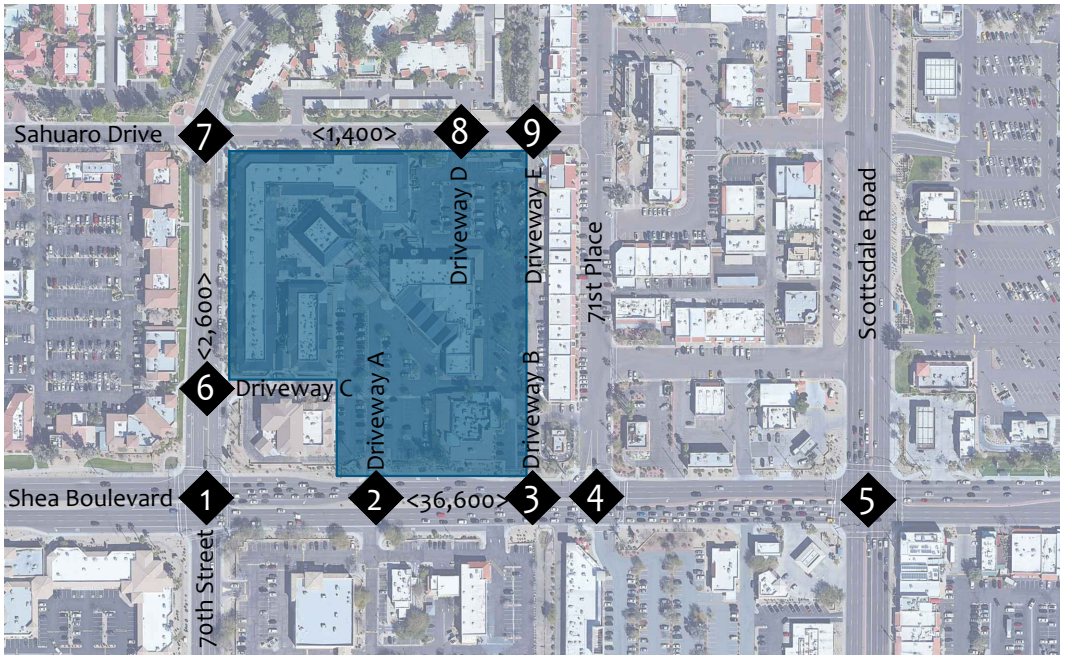
Intersection	2026 No Build Conditions				2026 Build Conditions			
	AM PEAK		PM PEAK		AM PEAK		PM PEAK	
Study Intersections	LOS	DELAY	LOS	DELAY	LOS	DELAY	LOS	DELAY
Shea Boulevard and 70th Street (1)								
Overall Intersection	E	57.8	D	38.1	E	61.2	D	37.0
Eastbound Left	F	142.0	F	183.0	F	86.9	F	140.0
Eastbound Through	F	64.9	C	29.3	F	73.2	C	28.3
Eastbound Right	D	41.1	B	18.1	D	39.6	B	18.1
Westbound Left	E	55.8	D	44.3	E	76.8	D	44.3
Westbound Through	D	42.8	C	23.0	D	46.4	C	23.0
Westbound Right	D	34.1	B	14.4	D	37.1	B	14.4
Northbound Left	F	108.1	F	106.8	F	108.1	F	106.8
Northbound Shared Through-Right	C	24.1	C	34.6	C	25.0	D	35.2
Southbound Left	E	74.7	E	70.8	E	70.5	E	69.0
Southbound Through	C	25.9	D	40.0	C	25.9	D	40.0
Southbound Right	C	26.1	D	44.4	C	26.2	D	44.7
Shea Boulevard and 71st Place (4)								
Overall Intersection	C	34.0	C	24.9	C	26.9	B	15.6
Eastbound Left	C	29.5	B	14.8	C	33.5	B	13.1
Eastbound Through	C	21.4	A	3.2	C	22.0	A	2.9
Eastbound Shared Through-Right	C	22.2	A	3.7	C	23.5	A	3.3
Westbound Left	C	23.9	A	99.4	C	33.8	A	8.8
Westbound Through	B	10.2	B	10.7	B	17.7	B	10.1
Westbound Shared Through-Right	B	10.4	B	10.7	B	18.2	B	10.1
Northbound Shared Left-Through	D	54.8	F	96.3	D	49.9	F	96.4
Northbound Right	C	32.6	D	35.4	C	23.1	D	36.2
Southbound Shared Left-Through	F	498.1	F	488.3	F	257.9	F	277.6
Southbound Right	C	34.7	D	37.9	C	24.3	D	38.9
Shea Boulevard and Scottsdale Road (5)								
Overall Intersection	E	58.3	E	69.1	E	55.6	E	67.1
Eastbound Left	E	73.4	F	365.5	E	63.1	F	328.2
Eastbound Through	E	58.6	D	36.2	E	57.3	D	38.2
Eastbound Shared Through-Right	E	65.0	D	43.9	E	62.8	D	46.6
Westbound Left	F	121.2	E	70.4	F	121.2	E	75.3
Westbound Through	C	34.6	E	56.7	C	33.9	E	60.7
Westbound Shared Through-Right	D	35.3	E	65.9	C	34.5	E	70.6
Northbound Left	F	237.3	F	155.4	F	164.3	F	129.9
Northbound Through	D	41.6	D	49.0	D	41.8	D	46.5
Northbound Shared Through-Right	D	44.5	E	56.5	D	44.7	D	53.3
Southbound Left	E	70.3	E	66.9	E	61.3	E	78.7
Southbound Through	D	45.0	E	55.6	D	48.1	D	54.9
Southbound Shared Through-Right	D	50.4	E	64.8	D	54.4	E	63.7









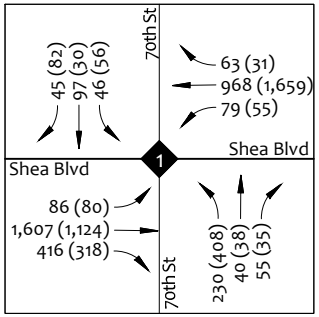


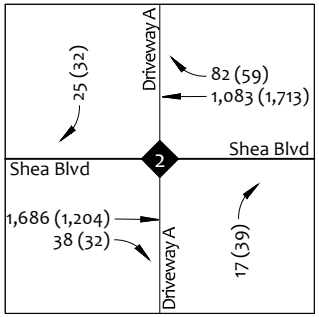
Legend

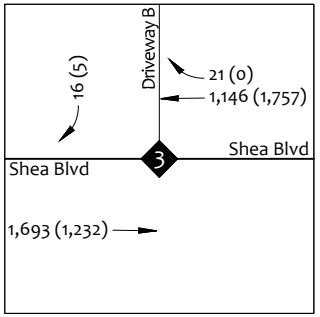
AM (PM) Peak Hour Traffic Volumes

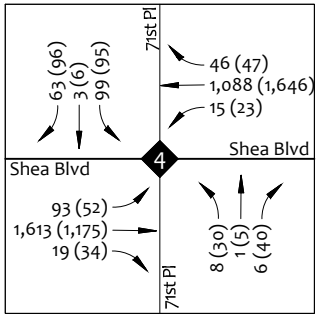
X Intersection

<ADT> Average Daily Traffic









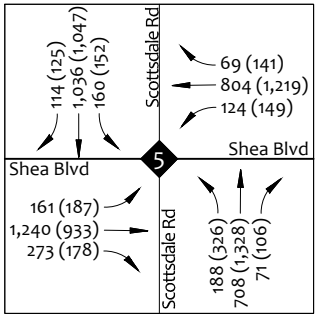
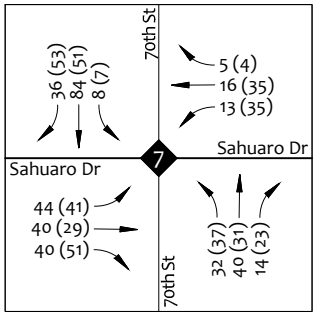
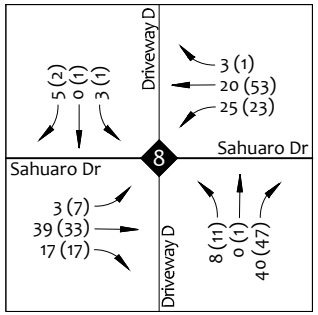
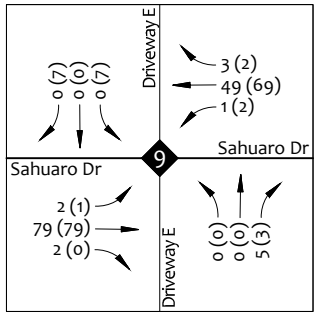
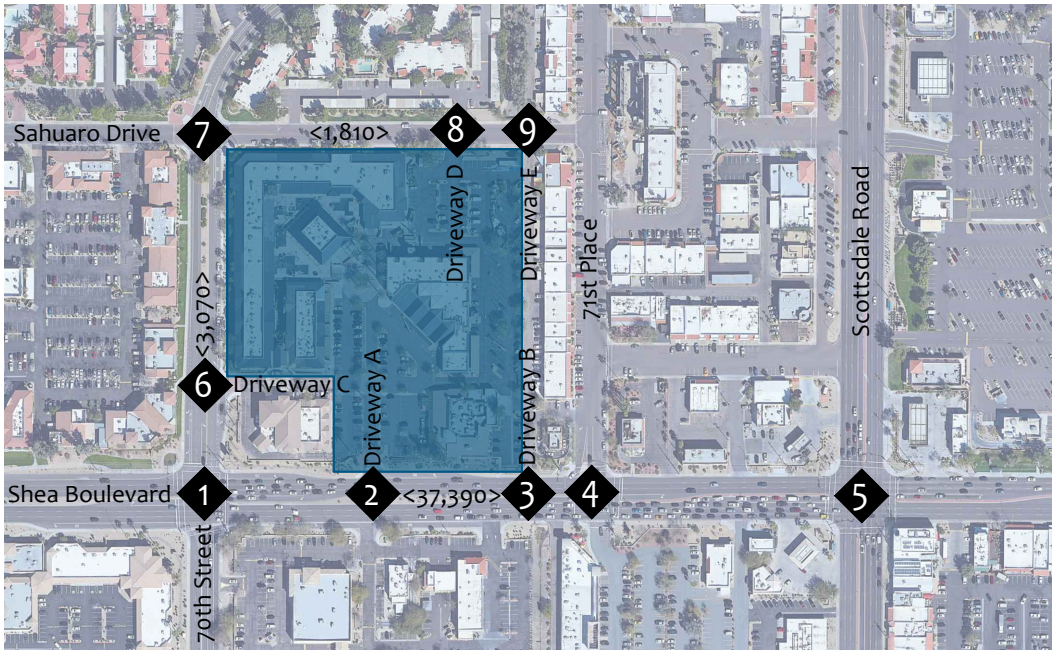


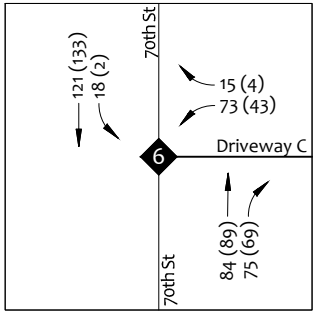
FIGURE 8 | YEAR 2026 BACKGROUND TRAFFIC VOLUMES









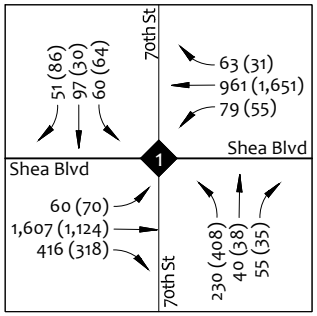


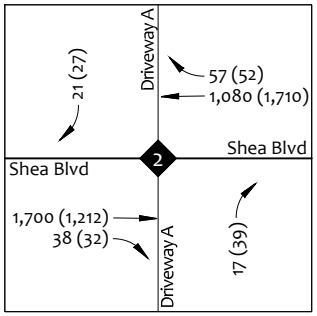
Legend

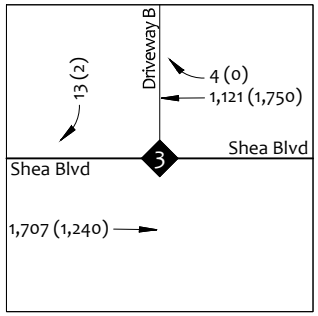
AM (PM) Peak Hour Traffic Volumes

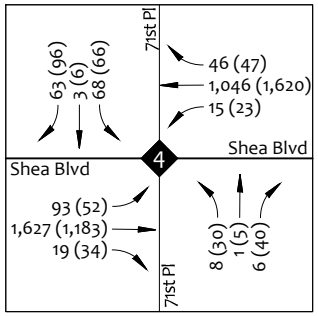
X Intersection

<ADT> Average Daily Traffic









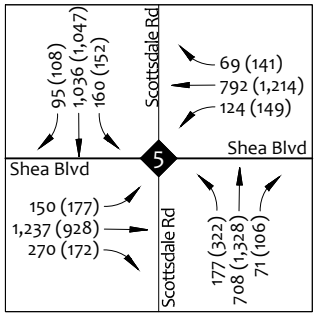
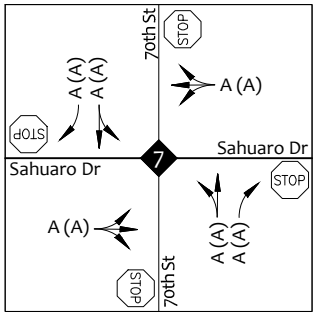
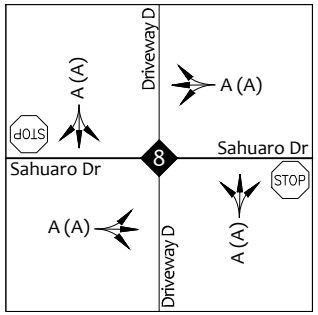
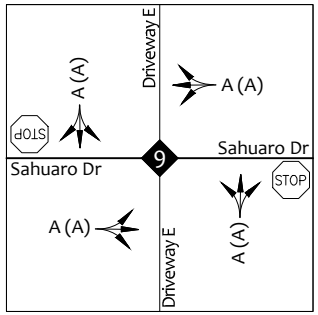
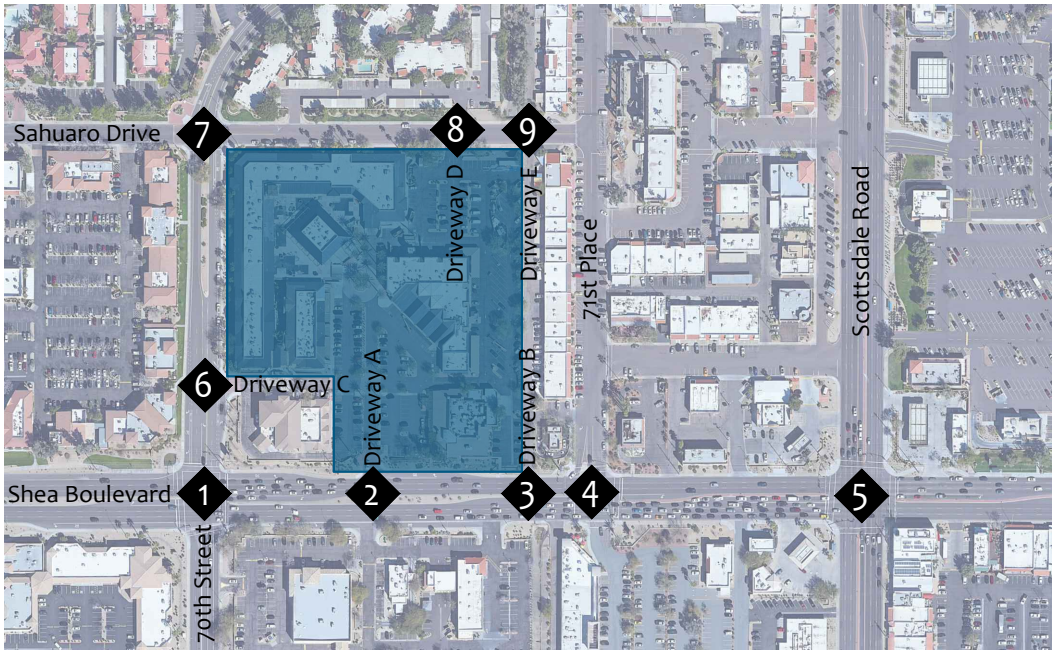


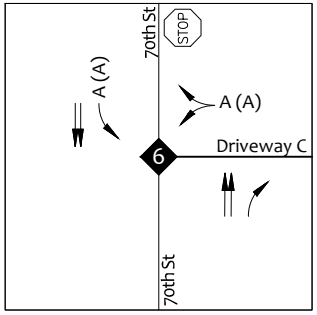
FIGURE 9 | YEAR 2026 BUILD TRAFFIC VOLUMES







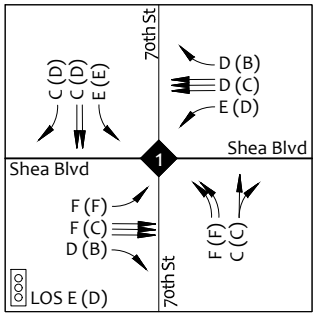


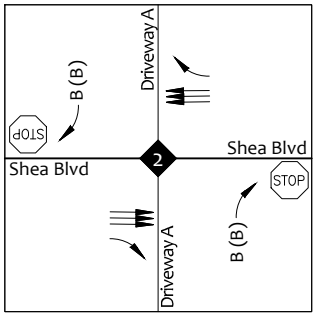


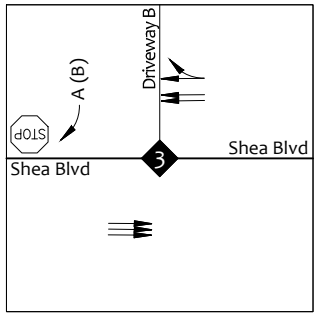
Legend

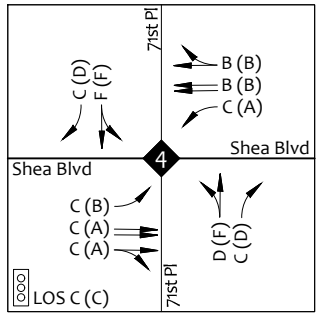
AM (PM) Peak Hour Traffic Volumes

X Intersection









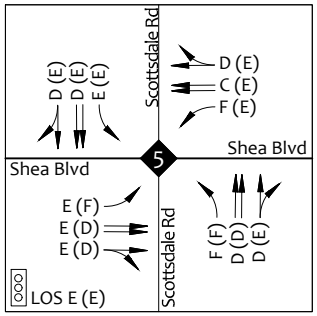
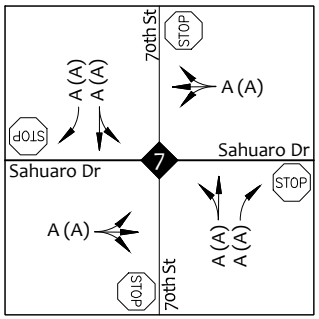
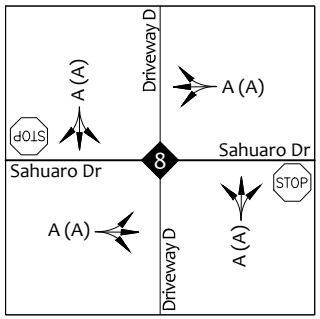
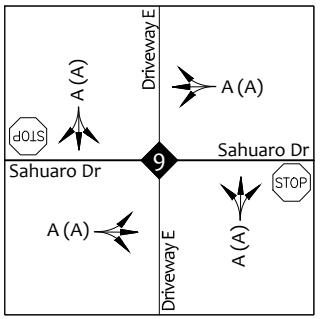
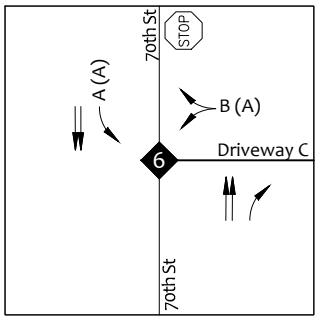


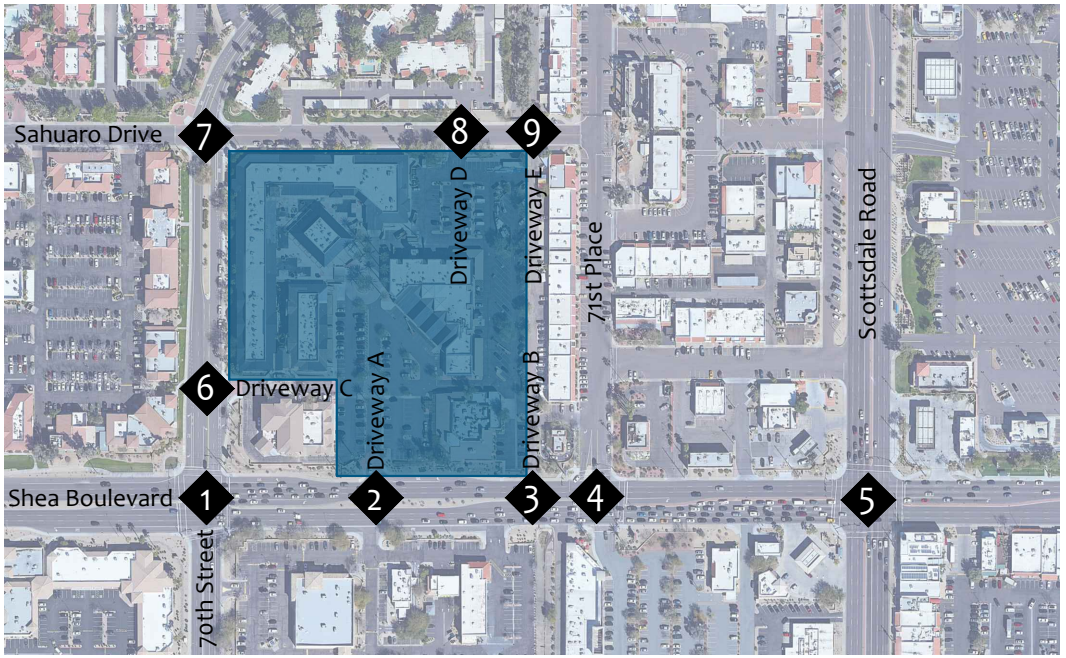
FIGURE 10 | YEAR 2026 NO BUILD CAPACITY ANALYSIS







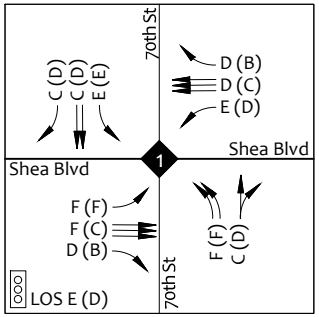


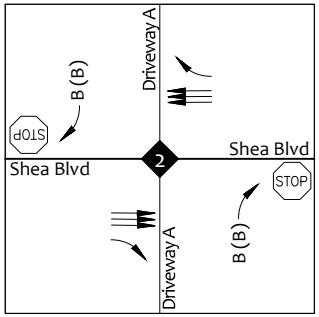


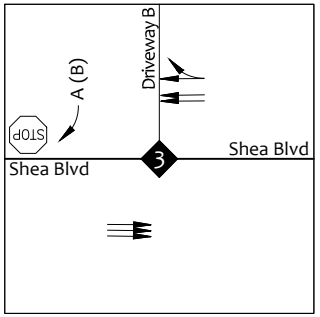
Legend

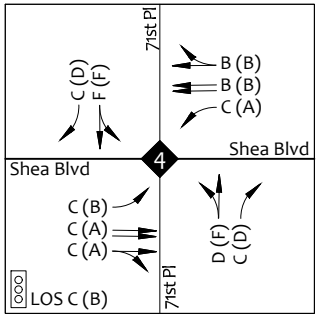
AM (PM) Peak Hour Traffic Volumes

Intersection









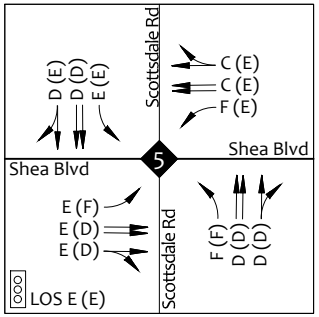


FIGURE 11 | YEAR 2026 BUILD CAPACITY ANALYSIS

7. RECOMMENDATIONS & CONCLUSIONS

The proposed Cosanti Commons development will generally be located on the northeast corner of Shea Boulevard and 70th Street, in Scottsdale, Arizona. The proposed Cosanti Commons development will be comprised of a total of 196 multifamily residential units, of which, there will be there will be 9 studio, 131 one-bedroom, and 56 two-bedroom units.

Trip Generation

The proposed development is anticipated to generate 1,321 weekday trips with 78 occurring during the AM peak hour and 100 trips during the PM peak hour.

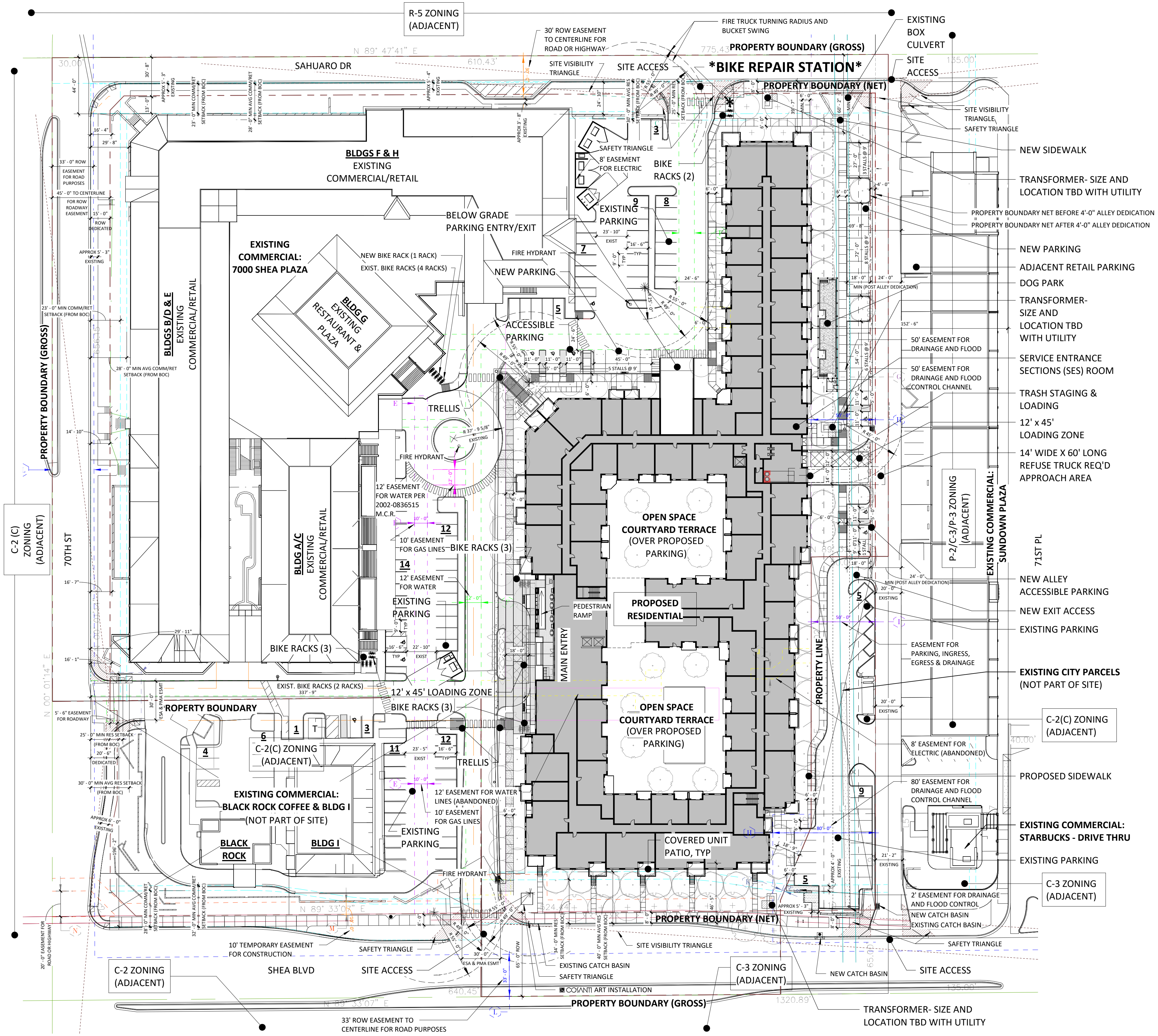
Trip Generation Comparison

The build-out of the proposed Cosanti Commons development is anticipated to generate 3,168 (71%) fewer weekday trips, with 134 (63%) fewer trips during the AM peak hour, and 237 (72%) fewer trips during the PM peak hour than the existing 38,596 square-foot commercial building and previously approved 10,200 square foot retail and fast-food restaurant.

Recommendations

It is anticipated that the proposed Cosanti Commons development will maintain the future background level of service and will not have a major impact on the future operational conditions.

Appendix A – Proposed Site Plan



1 A.21.fb **TECHNICAL REQUIREMENTS**
1" = 40'-0"

3/27/2024 3:30:36 PM

EXISTING BUILDINGS SF:

(PER CASE 30-DR-2020)

BUILDING A/C: +/-18,500 SF
BUILDING B/D: +/-18,500 SF
BUILDING E: +/-12,200 SF
BUILDING F: +/- 7,200 SF
BUILDING G: +/- 7,200 SF
BUILDING H: +/-15,600 SF
TOTAL: +/-79,200 SF

LOT 2 BLACK ROCK: +/- 1,977 SF
LOT 3 BUILDING I: +/- 5,600 SF (AZ BREAD +/-2,800 SF)

PARKING METRICS - EXISTING LOT 3:

COSANTI COMMONS
EXISTING LOT 3 PARKING *(NOT PART OF REZONE REQUEST)* — esG

STANDARD	APPROVED SITE PLAN FOR EXISTING LOT 2 (BLACK ROCK COFFEE) Case #: 30-DR-2020	GENERAL ZONING PARKING REQUIREMENT	EXISTING COMMERCIAL LOT 2 - *NOT PART OF REZONE REQUEST* (C-2 (C) ZONING)	EXISTING COMMERCIAL LOT 3 - *NOT PART OF REZONE REQUEST* (C-2 (C) ZONING)
VEHICLE PARKING PER USE [Table 9.103.A]	1:300 SF		-	
MIXED USE COMMERCIAL CENTER USE (TOTAL REQUIRED)	-	1:300 SF	1,977 SF**** / 300 **7**	5,600 SF**** / 300 **19**
TOTAL VEHICLE PARKING **PROVIDED**	-	-	**10** (SURFACE TO REMAIN)	**27** (SURFACE TO REMAIN)

**** Per Site Plan data, Black Rock Coffee Bar, Case# 30-DR-2020; Lot 3 = Building I (Arizona Bread Company and Fitness 4 Home)

PROJECT DATA SUMMARY:

Case No:	973-PA-2022
Project Address:	**COMMERCIAL/RETAIL BUILDINGS:** 7000 E Shea Blvd, Bldgs A, B, C, D, E, G, H and multiple suite numbers (existing per County) **RESIDENTIAL BUILDING:** TBD -- (7000 E Shea Blvd, Bldg J -- existing per County) Scottsdale, AZ 85254
APN (EXISTING):	**EXISTING COMMERCIAL/RETAIL SITE:** 175-42-136S (per County) **EXISTING RESIDENTIAL SITE:** 175-42-136S (per County)
APN (PROPOSED):	**OVERALL SITE:** 175-42-140 (per Plat)
QS:	**EXISTING COMMERCIAL/RETAIL SITE + RESIDENTIAL SITE:** 29-44
Zoning Classification (EXISTING):	**EXISTING COMMERCIAL/RETAIL SITE:** C-2 (Central Business) **EXISTING RESIDENTIAL SITE:** C-2 (Central Business)
Zoning Classification (PROPOSED):	**OVERALL SITE:** PUD-PSD (Planned Unit Development with Planned Shared Development Overlay)

ZONING SUMMARY:

COSANTI COMMONS
PLANNED UNIT DEVELOPMENT WITH PLANNED SHARED DEVELOPMENT OVERLAY — esG

STANDARD	APPROVED SITE PLAN FOR EXISTING COMMERCIAL Case #: 97-ZN-1986 (C-2 (C) ZONING)	PUD-PSD ZONING	PROPOSED OVERALL LOT (PUD-PSD ZONING)	EXISTING COMMERCIAL (PUD-PSD ZONING)	PROPOSED RESIDENTIAL (PUD-PSD ZONING)
USE	RETAIL, OFFICE, RESTAURANT	-	MIXED USE CENTER (RETAIL, OFFICE, DENTAL OFFICE, HAIR SALONS, HEALTH FOOD STORE, SPORTS TRAINING, CHESS INSTRUCTOR, RESTAURANT, PARKING) & MULTI-FAMILY	MIXED USE CENTER (RETAIL, OFFICE, DENTAL OFFICE, HAIR SALONS, HEALTH FOOD STORE, SPORTS TRAINING, CHESS INSTRUCTOR, RESTAURANT, PARKING)	MULTI-FAMILY
TOTAL LOT AREA (GROSS, WITH CITY-OWNED PARCELS)	N/A	0.5 min. to 15 ACRES max.	398,264 S.F. (9.143 AC)	204,162 S.F. (4.687 AC)	194,102 S.F. (4.456 AC)
TOTAL LOT AREA (GROSS, WITHOUT CITY-OWNED PARCELS)	N/A	0.5 min. to 15 ACRES max.	**375,447 S.F. (8.619 AC)**	**204,162 S.F. (4.687 AC)**	**171,285 S.F. (3.932 AC)**
TOTAL LOT AREA (NET, WITHOUT CITY-OWNED PARCELS, BEFORE 4' ALLEY DEDICATION)	N/A	-	**316,041 S.F. (7.255 AC)**	**168,073 S.F. (3.858 AC)**	**147,968 S.F. (3.397 AC)**
TOTAL FUTURE LOT AREA (NET, WITHOUT CITY-OWNED PARCELS, AFTER 4' ALLEY DEDICATION)	N/A	-	**314,532 S.F.(a) (7.221 AC)**	**168,046 S.F.(a) (3.858 AC)**	**146,486 S.F.(a) (3.363 AC)**
RESIDENTIAL GSF	N/A	-	±345,000 G.S.F.	-	±345,000 G.S.F.
DWELLING QUANTITY	N/A	-	196 UNITS	0 UNITS	196 UNITS
	-	-	EFFICIENCY: 9 UNITS 1-BR: 131 UNITS 2-BR: 56 UNITS 3-BR: 0 UNITS	EFFICIENCY: 0 UNITS 1-BR: 0 UNITS 2-BR: 0 UNITS 3-BR: 0 UNITS	EFFICIENCY: 9 UNITS 1-BR: 131 UNITS 2-BR: 56 UNITS 3-BR: 0 UNITS
TOTAL # BEDROOMS	N/A	-	252 BEDROOMS	0 BEDROOMS	252 BEDROOMS
DENSITY/INTENSITY (FAR**)	-	Residential Uses: per Development Plan	±23 DU/AC GROSS 196 / ±8.619 = ±22.74	0 DU/AC GROSS 0 / ±4.687 = 0	±50 DU/AC GROSS 196 / ±3.932 = ±49.85
(COMMERCIAL USE EXCEPTIONS SEC. 5.5005.B.3)	0.33 proposed FAR stated in case (0.8 max. FAR now)	Commercial Uses: 0.8 max. (net site area) .8 x 314,532(a) = 251,626 SF	Commercial Uses: ±80,200 SF***/314,532(a) = 0.25 FAR	Commercial Uses: ±79,200 SF***/314,532(a) = 0.25 FAR	Commercial Uses: 1,000 SF/314,532(a) = 0.0 FAR
BUILDING HEIGHT (EXCEPTIONS SEC. 5.5005.D, 5.5005.F)	34 FT (36 FT max. now)	48 FT max. -- 10 FT overage allowed for certain elements covering no more than 30% of bldg roof area	38 FT COMM/RETAIL 49 FT MAX MULTI-FAMILY	38 FT COMM/RETAIL	49 FT MAX MULTI-FAMILY includes 10 FT overage allowed for certain elements covering no more than 30% of bldg roof area
SETBACKS	-	-	-	-	-
MINIMUM AVERAGE SETBACK	-	-	REQUESTING AMENDED STANDARD FOR 'MINIMUM' AVERAGE SETBACK (PUD LANGUAGE)	REQUESTING AMENDED STANDARD FOR 'MINIMUM' AVERAGE SETBACK (PUD LANGUAGE)	REQUESTING AMENDED STANDARD FOR 'MINIMUM' AVERAGE SETBACK (PUD LANGUAGE)
SAHUARO (NORTH) - GROUND FLR RESIDENTIAL MIN./MIN. AVG.	20 FT stated in case	25 FT / 30 FT - FR. BACK OF PLANNED CURB	±39'-7"/47'-2" PROPOSED	N/A	±39'-7"/47'-2" PROPOSED
SAHUARO (NORTH) - GROUND FLR COMM/RETAIL MIN./MIN. AVG.	(25 FT required now from MF district)	23 FT / 28 FT - FR. BACK OF PLANNED CURB	24' EXISTS (ROOF OVERHANG, RAMPED WALKWAY, LOW UTILITY SCREEN WALL ENCROACH MIN SETBACK UNDER 15 FT ENCROACHMENT) / 28'-2" EXISTS	24' EXISTS (ROOF OVERHANG, RAMPED WALKWAY, LOW UTILITY SCREEN WALL ENCROACH MIN SETBACK UNDER 15 FT ENCROACHMENT) / 28'-2" EXISTS	N/A
SHEA (SOUTH) - GROUND FLR RESIDENTIAL MIN./MIN. AVG.	20 FT stated in case	34 FT / 40 FT - FR. BACK OF PLANNED CURB	±46'-5"/50'-11" PROPOSED	N/A	±46'-5"/50'-11" PROPOSED
SHEA (SOUTH) - GROUND FLR COMM/RETAIL MIN./MIN. AVG.	(front - 0 FT req'd now)	28 FT / 32 FT - FR. BACK OF PLANNED CURB	193'/205'-4" EXISTS	193'/205'-4" EXISTS	N/A
70TH ST (WEST) - GROUND FLR RESIDENTIAL MIN./MIN. AVG.	20 FT stated in case	25 FT / 30 FT - FR. BACK OF PLANNED CURB	±325'/332'-5" PROPOSED	N/A	±325'/332'-5" PROPOSED
70TH ST (WEST) - GROUND FLR COMM/RETAIL MIN./MIN. AVG.	(front - 0 FT req'd now)	23 FT / 28 FT - FR. BACK OF PLANNED CURB	29' EXISTS (ROOF OVERHANG, ENCLOSED STAIRS, EXTERIOR STEPS ENCROACH MIN SETBACK BUT UNDER 15 FT ENCROACHMENT) / 30'-1" EXISTS	29' EXISTS (ROOF OVERHANG, ENCLOSED STAIRS, EXTERIOR STEPS ENCROACH MIN SETBACK BUT UNDER 15 FT ENCROACHMENT) / 30'-1" EXISTS	N/A
BUILDING ENVELOPE (ENCROACHMENTS - SEC. 5.5005.G)	-	-	-	-	-
SAHUARO (NORTH) - ADJ. TO RESID. DISTRICT ENVELOPE	N/A	1:2 - STARTING ON RESID. DISTRICT BOUNDARY	REQUESTING ENCROACHMENT FOR EXISTING COMMERCIAL BUILDING	REQUESTING ENCROACHMENT FOR EXISTING COMMERCIAL BUILDING	COMPLIES
71ST PL (EAST) - STANDARD ENVELOPE	N/A	1:1 - STARTING UP 36 FT FR. MIN. SETBACK TO 48 FT; THEN 2:1	N/A	N/A	N/A
SHEA (SOUTH) - STANDARD ENVELOPE	N/A	1:1 - STARTING UP 36 FT FR. MIN. SETBACK TO 48 FT; THEN 2:1	COMPLIES	COMPLIES	COMPLIES
70TH ST (WEST) - STANDARD ENVELOPE	N/A	1:1 - STARTING UP 36 FT FR. MIN. SETBACK TO 48 FT; THEN 2:1	COMPLIES	COMPLIES	N/A
PRIVATE OUTDOOR LIVING SPACE	N/A	0.05 x gross floor area of the dwelling unit	COMPLIES	N/A	COMPLIES
COMMON OPEN SPACE	amount stated in case illegible (0.10 x 314,532(a) (net lot area) now = 31,453 SF plus .004 x net lot area for ea. FT of bldg height over 12 FT (.004 x 314,532(a) x 26 FT****) = ±32,711 + 31,453 = ±64,164 SF req'd now overall	0.10 x 375,447 (gross site area) = 37,545 SF	±94,600 SF OVERALL PROPOSED (±59,996 SF EXISTS OVERALL)	-	-

(a) the net area after the 4' alley dedication
** FAR calculated over the NET site area; floor area can exclude: parking areas, uncovered steps, exterior balcony space, exterior ground floor patio space, basement space used for unoccupied storage, elevator shafts & space occupied by electrical & mechanical rooms.
***Existing commercial SF of +/-79,200 SF per Site Plan data, Black Rock Coffee Bar, Case# 30-DR-2020
****Per 159-DR-86 'Elevations,' Design Review Submittal, City approved stamp dated 11/6/86

PARKING METRICS:

STANDARD	APPROVED SITE PLAN FOR EXISTING COMMERCIAL Case #: 97-ZN-1986 (C-2 (C) ZONING)	PUD-PSD ZONING	PROPOSED OVERALL LOT (PUD-PSD ZONING)	EXISTING COMMERCIAL (PUD-PSD ZONING)	PROPOSED RESIDENTIAL (PUD-PSD ZONING) --- incl. 1,000 SF commercial Cosanti Flex Space
PARKING LOCATED BETWEEN BUILDING AND STREET [Sec. 5.5006.A.]	-	-	COMPLIES	COMPLIES	COMPLIES
DRIVE AISLE SIZE [Table 9.106.A]	-	-	COMPLIES	EXISTING	COMPLIES
PARKING STALL SIZE [Table 9.106.A]	-	-	COMPLIES	EXISTING	COMPLIES
VEHICLE PARKING PER USE [Table 9.103.A]	-	-	-	-	-
MIXED USE COMMERCIAL CENTER USE TOTAL REQUIRED		1:300 SF	±79,200 SF*** / 300 264	±79,200 SF*** / 300 **264**	1,000 SF / 300 **4**
MULTIFAMILY GUEST (196 TOTAL UNITS)	-	1 PER 6 UNITS	-	-	33
MULTIFAMILY EFFICIENCY 9 UNITS	-	1.25 PER DU	-	-	12
MULTIFAMILY 1BR 131 UNITS	-	1.3 PER DU	-	-	171
MULTIFAMILY 2BR 56 UNITS	-	1.7 PER DU	-	-	96
MULTIFAMILY 3BR+ 0 UNITS	-	1.9 PER DU	-	-	0
MULTIFAMILY TOTAL REQUIRED					**312**
TOTAL VEHICLE PARKING **REQUIRED**	663 stated in case for larger overall site		**580**	**264**	**316**
TOTAL VEHICLE PARKING **PROVIDED**, INCLUDES ACCESSIBLE	561 (15% reduct.) stated in case for larger overall site	-	-	58 (SURFACE TO REMAIN) 313 (STRUCTURED) (requesting this site includes required parking for 33 guests + 4 Cosanti Flex Space required of MF residential building)	41 SURFACE (30 + 11 of the 19 SURFACE ON CITY PARCELS) 238 (STRUCTURED) (not including compacts/tandems)
			650	**TOTAL: 371**	**TOTAL: 279**
ACCESSIBLE PARKING, STRUCTURED REQUIRED (4% MIN OF THE PROVIDED)	-	-	**23**	13	10
ACCESSIBLE PARKING, SURFACE REQUIRED (4% MIN OF THE PROVIDED)	-	-	**6**	3	3
ACCESSIBLE PARKING, STRUCT. PROV. (INCLUDED IN THE PROVIDED PKG TOTALS)	-	-	**30**	20	10
ACCESSIBLE PARKING, SURFACE PROV. (INCLUDED IN THE PROVIDED PKG TOTALS)	-	-	**11**	4	7
COVERED PARKING [Sec. 9.105 I-M]	-	-	-	-	-
ACCESSIBLE TENANT COVERED PARKING PROVIDED (FOR MF DEVTS)	-	-	10	0	10
	-	**4% MIN RATIOS PROVIDED:**	10 / 238 = .042 = 4.2%	0 / 313 = .000 = 0.0%	10 / 238 = .042 = 4.2%
NONACCESSIBLE TENANT COVERED PARKING PROVIDED (FOR MF DEVTS)	-	-	228	0	228
	-	**RATIOS PROVIDED:**	228 / 238 = .958 = 95.8%	0 / 313 = .000 = 0.0%	228 / 238 = .958 = 95.8%
ACCESSIBLE VISITOR COVERED PARKING PROVIDED (FOR MF DEVTS)	-	-	2	2	0
(MF DWELLING VISITOR PKG SPACES TO BE PROVIDED IN COVERED)	-	**4% MIN RATIOS PROVIDED:**	2 / 33 = .061 = 6%	2 / 33 = .061 = 6%	0 / 238 = .000 = 0%
NONACCESSIBLE VISITOR COVERED PARKING PROVIDED (FOR MF DEVTS)	-	-	31	31	0
(MF DWELLING VISITOR PKG SPACES TO BE PROVIDED IN COVERED)	-	**RATIOS PROVIDED:**	31 / 33 = .939 = 94%	31 / 33 = .939 = 94%	0 / 238 = .000 = 0%
ACCESSIBLE NONRESIDENTIAL COVERED PARKING PROVIDED	-	-	18	18	0
(THESE ARE EXISTING)	-	**4% MIN RATIOS PROVIDED:**	18 / 280 = .064 = 6.4%	18 / 280 = .064 = 6.4%	0 / 238 = .000 = 0%
NONACCESSIBLE NONRESIDENTIAL COVERED PARKING PROVIDED	-	-	262	262	0
(THESE ARE EXISTING)	-	**EXISTING RATIOS PROVIDED:**	262 / 280 = .936 = 93.6%	262 / 280 = .936 = 93.6%	0 / 238 = .000 = 0%
TOTAL VEHICLE PARKING REQUIRED & PROVIDED			**TOTAL VEHICLE PARKING REQUIRED (OVERALL SITE) = 580; TOTAL PARKING PROVIDED (OVERALL SITE) = 650**		
			TOTAL VEHICLE PARKING SURPLUS (OVERALL SITE) =		**70**
BICYCLE PARKING PER USE [Sec. 9.103.C]	0 stated in case				
MIXED USE COMMERCIAL CENTER USE REQUIREMENT		1:10 REQ. VEH., 2 MIN., 100 MAX.	-	264 / 10 = 27	4 / 10 = 2
MULTIFAMILY USE REQUIREMENT		1:10 REQ. VEH., 2 MIN., 100 MAX.	-	33 / 10 = 4	279 / 10 = 28
BICYCLE PARKING REQUIRED (TOTALS)	0 stated in case	-	**61**	**31**	**30**
BICYCLE PARKING PROVIDED	0 provided in case				
BICYCLE PARKING SPACES, STRUCTURED	0 provided in case	-	-	0	28
BICYCLE PARKING SPACES, SURFACE	0 provided in case	-	-	20 (10 racks -- 6 existing + 4 new racks)	16 (8 racks)
BICYCLE PARKING PROVIDED (TOTALS)	0 provided in case	-	**64**	**20**	**44**
TOTAL BICYCLE PARKING REQUIRED & PROVIDED			**TOTAL BICYCLE PARKING REQUIRED (OVERALL SITE) = 61; TOTAL BICYCLE PARKING PROVIDED (OVERALL SITE) = 64**		

***Existing commercial SF of +/-79,200 SF per Site Plan data, Black Rock Coffee Bar, Case# 30-DR-2020

COSANTI COMMONS

7000 E Shea Blvd / Scottsdale AZ

esG ARCHITECTURE & DESIGN
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Minneapolis, MN 55415
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I hereby certify that this plan, specification, or report was prepared by me or under my direct supervision and that I am a duly licensed architect under the laws of the State of Arizona

Signature

Typed or Printed Name

License # Date

NOT FOR CONSTRUCTION

3/28/2024
REZONING & GPA
RESUBMITTAL #5

ORIGINAL ISSUE:

REVISIONS

No.	Description	Date

222517
PROJECT NUMBER

ESG ESG
DRAWN BY CHECKED BY

KEY PLAN

COSANTI COMMONS

TECHNICAL REQUIREMENTS

A.21.fb

Appendix B – Collision History

CITY OF SCOTTSDALE

COLLISION SUMMARY

REPORT #	DATE YYMMDD	TIME HHMM	NORTH / SOUTH ST.	TYPE	EAST WEST ST.	TYPE	DIR FROM	DIST FROM	INJ. SEV.	PHYS. COND. #1	PHYS. COND. #2	VIOLATION #1	VIOLATION #2	ACTION #1	ACTION #2	TRAV. DIR. #1	TRAV. DIR. #2	MANNER OF COLLISION	COMMENTS
2001521	200121	1503	70	ST	SHEA	BL	AT		1	0	0	13	1	1	14	NB	NB	6	
2007944	200506	1605	70	ST	SHEA	BL	AT		1	0	0	4	1	1	1	WB	WB	4	
2011527	200707	1443	70	ST	SHEA	BL	AT		3	0	0	99	99	1	1	WB	SB	2	
2014003	200819	1956	70	ST	SHEA	BL	AT		1	0	0	6	1	1	4	WB	WB	3	
2014626	200830	1045	70	ST	SHEA	BL	W	50	1	0	0	0	1	1	3	EB	EB	4	
2015249	200909	1020	70	ST	SHEA	BL	AT		1	0	0	6	1	1	1	WB	NB	2	
2018716	201101	1026	70	ST	SHEA	BL	AT		3	0	0	6	1	1	4	EB	SB	2	
2021463	201213	0806	70	ST	SHEA	BL	AT		1	0	0	6	1	4	1	EB	WB	3	
2022311	201226	1614	70	ST	SHEA	BL	AT		1	0	0	99	99	1	1	WB	NB	2	
2104003	210227	2120	70	ST	SHEA	BL	S	15	3	0		2	0	5		EB		1	
2105323	210318	1432	70	ST	SHEA	BL	S	75	99	99	0	6	1	1	3	NB	NB	4	
2108365	210430	0807	70	ST	SHEA	BL	E	50	1	0	0	7	1	5	1	NE	EB	2	
2109319	210512	1306	70	ST	SHEA	BL			1	0	0	20	1	4	4	NW	NW	6	
2109882	210520	1323	70	ST	SHEA	BL	W		3	4	0	2	1	1	2	EB	EB	4	
2110307	210526	1027	70	ST	SHEA	BL	E	400	1	0	0	7	1	5	1	WB	WB	2	
2114720	210728	0613	70	ST	SHEA	BL			2	0	0	6	1	1	4	EB	NB	2	
2115679	210811	0902	70	ST	SHEA	BL	E	50	2	0	0	2	1	1	3	EB	EB	4	
2116048	210816	1446	70	ST	SHEA	BL	E	200	1	0	0	1	1	1	1	WB	WB	97	
2117735	210910	1656	70	PL	SHEA	BL			1	4		99		99		99		1	
2119504	211006	1259	70	ST	SHEA	BL			3	0	0	4	1	1	3	WB	WB	4	
2122631	211118	1622	70	ST	SHEA	BL			99	99	0	99	1	99	14	99	99	97	
2125513	211229	1552	70	ST	SHEA	BL			1	0	0	97	1	5	1	NE	EB	2	
2201816	220126	0815	70	ST	SHEA	BL			2	0	0	6	1	1	1	WB	SB	2	
2210308	220517	1034	70	ST	SHEA	BL			2	0	0	6	1	1	1	WB	NB	2	
2212804	220621	1409	70	ST	SHEA	BL	W	250	1	99	0	12	1	8	1	WB	WB	6	
2216454	220819	0722	70	ST	SHEA	BL			2	0	0	2	1	5	3	EB	NB	2	
2219103	220929	1703	70	ST	SHEA	BL	S	500	99	0	0	99	99	13	1	WB	EB	4	
2220456	221021	1330	70	ST	SHEA	BL	S	35	1	0	0	2	1	2	3	NB	NB	4	
2220603	221024	1442	70	ST	SHEA	BL	W	160	1	0	0	2	1	1	1	EB	EB	4	
2222114	221115	1426	70	ST	SHEA	BL	S	10	3	51	0	20	1	17	1	EB	NB	2	PED
2223018	221129	1434	70	ST	SHEA	BL	W	86	1	0	0	2	1	1	3	EB	EB	4	
2223125	221201	0951	70	ST	SHEA	BL	E	31	1	0		2		8	3	EB	EB	6	
2223144	221201	1404	70	ST	SHEA	BL	S	156	1	0	0	12	1	8	1	SB	SB	6	
2223380	221205	0632	70	ST	SHEA	BL			3	0	0	2	1	1	3	EB	EB	4	
2223873	221211	1659	70	ST	SHEA	BL	E	0	1	0	0	6	1	1	4	EB	NW	2	
2003342	200214	1137	71	PL	BECKER	LN	E	244	1	0	99	2	1	1	14	EB	SB	6	

REPORT #	DATE YYMMDD	TIME HHMM	NORTH / SOUTH ST.	TYPE	EAST WEST ST.	TYPE	DIR FROM	DIST FROM	INJ. SEV.	PHYS. COND. #1	PHYS. COND. #2	VIOLATION #1	VIOLATION #2	ACTION #1	ACTION #2	TRAV. DIR. #1	TRAV. DIR. #2	MANNER OF COLLISION	COMMENTS
2122670	211119	1119	71	PL	BECKER	LN	E	30	1	0	0	99	99	10	10	SB	NB	9	
2224213	221216	1606	71	PL	BECKER	LN			1	0	0	50	1	13	1	EB	SB	2	
2000665	200110	1158	71	PL	SAHUARO	DR	AT		1	0	0	97	1	10	4	EB	SB	4	
2012702	200728	1539	71	PL	SAHUARO	DR	N	283	1	0	0	20	1	10	1	EB	SB	8	
2221159	221101	1727	71	PL	SAHUARO	DR	E	75	1	0	0	50	1	10	1	SB	WB	2	
2001045	200115	0827	71	PL	SHEA	BL	W	100	1	0	0	12	1	8	1	EB	EB	6	
2001265	200117	2312	71	PL	SHEA	BL	AT		1	4	0	7	1	5	1	WB	WB	6	
2009096	200526	1314	71	PL	SHEA	BL	W	30	1	99	0	4	1	1	3	EB	EB	4	
2011196	200701	0835	71	PL	SHEA	BL	E	50	1	0	0	2	1	1	3	EB	EB	4	
2011642	200709	0655	71	PL	SHEA	BL	AT		2	0	0	99	99	1	1	EB	SB	2	
2018917	201104	1450	71	PL	SHEA	BL	AT		1	0	0	20	1	4	1	SB	EB	3	
2019912	201120	1558	71	PL	SHEA	BL	AT		2	99	0	4	1	1	1	EB	EB	4	
2022545	201230	1131	71	PL	SHEA	BL	AT		1	0	0	12	1	8	1	EB	EB	6	
2104108	210301	1314	71	PL	SHEA	BL	AT		1	0	0	20	1	4	1	SW	EB	5	
2107800	210422	1432	71	PL	SHEA	BL	AT		99	99	0	97	1	10	14	WB	EB	7	
2122014	211110	0855	71	PL	SHEA	BL			1	99	0		1	1	14	SB	WB	97	
2122954	211123	1351	71	PL	SHEA	BL			1	0	0	2	1	1	3	EB	EB	4	
2123101	211126	0922	71	PL	SHEA	BL			2	0	0	20	1	4	1	EB	WB	3	
2207022	220402	1111	71	PL	SHEA	BL			3	0	0	20	1	4	1	NB	WB	2	
2209726	220509	1208	71	PL	SHEA	BL			3	0	0	6	1	5	1	EB	SB	2	
2210617	220521	1129	71	PL	SHEA	BL			1	0	0	20	1	4	1	NW	WB	3	
2212834	220622	0712	71	PL	SHEA	BL	N	75	1	0	0	20	1	4	1	NB	SB	3	
2214689	220721	1753	71	PL	SHEA	BL			1	3	0	13	1	1	1	EB	WB	8	
2220512	221022	2246	71	PL	SHEA	BL			1	0	0	7	1	5	1	WB	WB	2	
2220475	221214	1835	71	PL	SHEA	BL			3	0	0	20	1	4	1	NB	WB	3	
2000701	200110	1816	SCOTTSDALE	RD	SHEA	BL	N	500	99	99	0	2	1	13	14	NB	SB	5	
2001534	200121	1816	SCOTTSDALE	RD	SHEA	BL	AT		2	0	0	2	1	1	3	NB	NB	4	
2001610	200122	2112	SCOTTSDALE	RD	SHEA	BL	AT		1	4	0	2	1	1	1	NB	NB	4	
2001740	200124	1346	SCOTTSDALE	RD	SHEA	BL	AT		1	0	0	2	1	1	3	EB	EB	4	
2002869	200207	1926	SCOTTSDALE	RD	SHEA	BL	S	50	1	0	0	12	1	8	3	NB	NB	4	
2003241	200212	2003	SCOTTSDALE	RD	SHEA	BL	S	270	1	0	0	2	1	1	1	NB	NB	4	
2003572	200217	1101	SCOTTSDALE	RD	SHEA	BL	AT		2	0	0	0	0	1	1	SB	WB	2	
2004647	200302	1544	SCOTTSDALE	RD	SHEA	BL	W	232	1	0	0	2	1	1	3	EB	EB	4	
2005036	200307	1647	SCOTTSDALE	RD	SHEA	BL	AT		1	0	0	2	1	1	1	NB	NB	4	
2007154	200420	1238	SCOTTSDALE	RD	SHEA	BL	S	55	1	0	0	1	1	13	5	SB	SB	6	
2007633	200430	1336	SCOTTSDALE	RD	SHEA	BL	N	30	1	0	0	6	1	1	3	SB	SB	4	
2011209	200701	1509	SCOTTSDALE	RD	SHEA	BL	AT		3	0	0	2	1	1	3	WB	WB	4	
2012363	200722	1208	SCOTTSDALE	RD	SHEA	BL	AT		1	0	0	7	1	5	3	WB	EB	97	

REPORT #	DATE YYMMDD	TIME HHMM	NORTH / SOUTH ST.	TYPE	EAST WEST ST.	TYPE	DIR FROM	DIST FROM	INJ. SEV.	PHYS. COND. #1	PHYS. COND. #2	VIOLATION #1	VIOLATION #2	ACTION #1	ACTION #2	TRAV. DIR. #1	TRAV. DIR. #2	MANNER OF COLLISION	COMMENTS
2012500	200724	1426	SCOTTSDALE	RD	SHEA	BL	AT		1	0	0	2	1	1	3	SB	SB	4	
2012856	200731	0848	SCOTTSDALE	RD	SHEA	BL	W	20	1	0	0	0	1	1	1	WB	WB	4	
2015293	200910	0753	SCOTTSDALE	RD	SHEA	BL	W	150	3	0	0	2	1	1	3	EB	EB	9	
2016917	201005	1229	SCOTTSDALE	RD	SHEA	BL	N	45	1	0	0	99	1	2	3	SB	SB	4	
2017964	201021	1808	SCOTTSDALE	RD	SHEA	BL	AT		1	0	0	0	1	1	3	NB	NB	4	
2018851	201103	1309	SCOTTSDALE	RD	SHEA	BL	AT		2	0	0	6	1	17	1	EB	NB	1	
2019623	201116	0809	SCOTTSDALE	RD	SHEA	BL	W	18	1	0	0	2	1	2	3	EB	EB	4	
2019693	201117	0700	SCOTTSDALE	RD	SHEA	BL	AT		1	0	0	6	1	1	1	NB	WB	2	
2019747	201117	2325	SCOTTSDALE	RD	SHEA	BL	AT		2	4	1	2	1	1	3	NB	NB	4	
2021339	201211	1829	SCOTTSDALE	RD	SHEA	BL	AT		99	99	0	2	1	1	3	NB	NB	4	
2100350	210106	1058	SCOTTSDALE	RD	SHEA	BL	E	307	1	0	0	2	1	1	3	WB	WB	4	
2101501	210123	1049	SCOTTSDALE	RD	SHEA	BL	AT		1	0	0	12	1	8	1	SB	SB	6	
2101612	210124	2254	SCOTTSDALE	RD	SHEA	BL	AT		1	1	4	1	0	3	1	EB	EB	4	
2101868	210128	2138	SCOTTSDALE	RD	SHEA	BL	AT		1	0	0	12	1	5	1	WB	WB	2	
2102852	210211	1012	SCOTTSDALE	RD	SHEA	BL	E	50	1	0	0	2	1	1	3	WB	WB	4	
2104293	210304	0625	SCOTTSDALE	RD	SHEA	BL	AT		2	0	0	4	1	1	1	EB	NB	2	
2105719	210324	0007	SCOTTSDALE	RD	SHEA	BL	AT		1	4	0	2	1	1	3	EB	EB	4	
2106096	210329	0815	SCOTTSDALE	RD	SHEA	BL	N	300	99	99	0	12	1	8	1	SB	SB	6	
2106626	210405	2157	SCOTTSDALE	RD	SHEA	BL	S	10	99	99	99	2	1	1	3	NB	NB	4	
2107087	210412	1605	SCOTTSDALE	RD	SHEA	BL	S	15	99	99	0	2	1	1	2	NB	NB	4	
2107125	210413	0930	SCOTTSDALE	RD	SHEA	BL	E	100	1	0	0	13	1	8	3	WB	WB	6	
2108149	210427	1020	SCOTTSDALE	RD	SHEA	BL	S	15	3	0	0	4	1	1	3	NB	NB	4	
2108477	210501	1406	SCOTTSDALE	RD	SHEA	BL	N	100	1	0	0	12	1	8	1	NB	NB	2	
2108768	210505	0732	SCOTTSDALE	RD	SHEA	BL	N	150	1	0	0	12	1	8	1	NB	NB	6	
2108961	210507	1259	SCOTTSDALE	RD	SHEA	BL	S	300	1	0	0	99	99	1	1	NB	NB	6	
2109467	210514	1213	SCOTTSDALE	RD	SHEA	BL	N	400	1	0	0	2	1	1	2	SB	SB	4	
2109819	210519	1626	SCOTTSDALE	RD	SHEA	BL			1	0	0	6	1	1	1	EB	NB	2	
2110333	210526	1412	SCOTTSDALE	RD	SHEA	BL			1	99	0	12	1	8	3	EB	EB	6	
2110781	210601	0825	SCOTTSDALE	RD	SHEA	BL	E	120	1	0	0	97	1	1	3	WB	WB	4	
2110980	210603	2114	SCOTTSDALE	RD	SHEA	BL			2	0	0	6	1	1	1	WB	SB	2	
2111043	210604	1812	SCOTTSDALE	DR	SHEA	BL			2	0	0	6	1	1	1	NB	WB	2	
2111478	210611	1700	SCOTTSDALE	RD	SHEA	BL			1	0	0	2	1	1	4	NB	NB	4	
2112979	210703	2011	SCOTTSDALE	RD	SHEA	BL			1	0	0	12	1	5	1	EB	NB	2	
2113555	210712	0437	SCOTTSDALE	RD	SHEA	BL			3	0	0	20	1	4	1	WB	EB	2	
2113781	210715	0009	SCOTTSDALE	RD	SHEA	BL			1	99	0	6	1	99	1	NB	EB	2	
2114191	210720	1206	SCOTTSDALE	RD	SHEA	BL	N	280	3	0	0	97	1	1	3	SB	SB	4	
2114329	210722	1537	SCOTTSDALE	RD	SHEA	BL			1	0	0	97	1	1	3	EB	EB	9	
2115573	210809	1306	SCOTTSDALE	RD	SHEA	BL			1	0	0	2	1	1	1	NB	NB	4	

REPORT #	DATE YYMMDD	TIME HHMM	NORTH / SOUTH ST.	TYPE	EAST WEST ST.	TYPE	DIR FROM	DIST FROM	INJ. SEV.	PHYS. COND. #1	PHYS. COND. #2	VIOLATION #1	VIOLATION #2	ACTION #1	ACTION #2	TRAV. DIR. #1	TRAV. DIR. #2	MANNER OF COLLISION	COMMENTS
2115895	210814	1106	SCOTTSDALE	RD	SHEA	BL			1	0	0		1	1	3	SB	SB	4	
2116695	210826	1330	SCOTTSDALE	RD	SHEA	BL			1	0	0	97	1	1	1	WB	WB	4	
2118185	210917	1246	SCOTTSDALE	RD	SHEA	BL	W	47	1	0	0		1	1	3	EB	EB	4	
2119736	211009	1518	SCOTTSDALE	RD	SHEA	BL	N	100	1	0	0	2	1	1	3	SB	SB	4	
2120538	211021	0709	SCOTTSDALE		SHEA	BL			1	3	0	4	1	1	3	WB	WB	4	
2121140	211029	1304	SCOTTSDALE	RD	SHEA	BL	W	100	1	0	0	12	1	8	3	EB	EB	4	
2122038	211110	1221	SCOTTSDALE	RD	SHEA	BL	W	350	1	0	0	2	1	2	3	EB	EB	4	
2124707	211217	1756	SCOTTSDALE	RD	SHEA	BL			1	0	0	99	1	2	3	SB	SB	4	
2200266	220104	1555	SCOTTSDALE	RD	SHEA	BL			1	99	0	13	1	99	1	SB	SB	6	
2200259	220105	0211	SCOTTSDALE	RD	SHEA	BL			3	4	0	2	1	1	1	NB	EB	2	
2200792	220113	0843	SCOTTSDALE	RD	SHEA	BL			1	0	0	20	1	5	1	NE	EB	2	
2201747	220125	1158	SCOTTSDALE	RD	SHEA	BL			1	0	0	2	1	1	3	WB	WB	4	
2203552	220215	0021	SCOTTSDALE	RD	SHEA	BL			1	4	0	3	1	1	1	WB	SB	2	
2203927	220220	0549	SCOTTSDALE	RD	SHEA	BL			2	4	0	6	1	1	3	EB	EB	4	
2204489	220228	1004	SCOTTSDALE	RD	SHEA	BL	W	150	1	0	0	12	1	8	1	NW	WB	6	
2204653	220302	1411	SCOTTSDALE	RD	SHEA		N	400	1	0	0	2	1	2	3	SB	SB	4	
2205193	220309	1530	SCOTTSDALE	RD	SHEA	BL			2	0	0	2	1	1	3	NB	NB	4	
2207271	220405	1805	SCOTTSDALE	RD	SHEA	BL			1	0	0	97	1	1	3	NB	NB	4	
2208474	220421	1720	SCOTTSDALE	RD	SHEA	BL			1	0	0	1	1	8	1	SB	SB	6	
2209843	220511	0827	SCOTTSDALE	RD	SHEA	BL			1	0	0	7	1	6	4	SB	SB	6	
2212366	220615	0146	SCOTTSDALE	RD	SHEA	BL	W	150	99	99		2		99		WB		1	
2215083	220727	1621	SCOTTSDALE	RD	SHEA	BL			1	99	0	12	1	8	1	EB	EB	6	
2215513	220803	1646	SCOTTSDALE	RD	SHEA	BL			1	0	0	2	1	1	3	NB	NB	4	
2215665	220805	1727	SCOTTSDALE	RD	SHEA	BL	E	225	3	97	0	2	1	1	1	wb	wb	4	
2216369	220817	1444	SCOTTSDALE	RD	SHEA	BL			1	0	0	15	1	97	1	EB	EB	4	
2217411	220903	1025	SCOTTSDALE	RD	SHEA	BL	N	100	1	0	0		1	1	3	SB	SB	4	
2222536	221121	1610	SCOTTSDALE	RD	SHEA	BL	E	195	1	51	0	51	1	51	3	51	NB	2	
2222630	221122	2247	SCOTTSDALE	RD	SHEA	BL	E	121	1	51	0	51	1	1	2	WB	WB	4	

REPORT #	DATE YYMMDD	TIME HHMM	NORTH / SOUTH ST.	TYPE	EAST WEST ST.	TYPE	DIR FROM	DIST FROM	INJ. SEV.	PHYS. COND. #1	#2	VIOLATION #1	#2	ACTION #1	#2	TRAV. DIR. #1	#2	MANNER OF COLLISION	COMMENTS

KEY

INJURY SEVERITY:
1=NO INJURY, 2=POSSIBLE INJURY, 3=NON-INCAPACITATING INJURY, 4=INCAPACITATING INJURY, 5=FATAL INJURY, 99=NOT REPORTED / UNKNOWN

PHYSICAL CONDITION:
0=NO APPARENT INFLUENCE, 1=ILLNESS, 2=PHYSICAL IMPAIRMENT, 3=FELL ASLEEP / FATIGUED 4=ALCOHOL, 5=DRUGS, 6=MEDICATIONS, A=NO TEST GIVEN, B=TEST GIVEN, C=TEST REFUSED, D=TESTING UNKNOWN, 97=OTHER, 99=UNKNOWN

VIOLATION:
1=NO IMPROPER ACTION, 2=SPEED TOO FAST FOR CONDITIONS, 3=EXCEEDED LAWFUL SPEED 4=FOLLOWED TOO CLOSELY. 5=RAN STOP SIGN, 6=DISREGAREDED TRAFFIC SIGNAL7=MADE IMPROPER TURN, 8=DROVE/RODE IN OPPOSING TRAFFIC LANE, 9=KNOWINGLY OPERATED WITH FAULTY / MISSING EQUIPMENT, 10=REQUIRED MOTORCYCLE SAFETY EQUIPMENT NOT USED, 11=PASSED IN NO PASSING ZONE, 12=UNSAFE LANE CHANGE, 13=FAILED TO KEEP IN PROPER LANE, 14=DISREGARDED PAVEMENT MARKINGS, 15=OTHER UNSAFE PASSING, 16=INATTENTION/DISTRACTION, 17=DID NOT USE CROSSWALK, 18=WALKED ON WRONG SIDE OF ROAD, 19=ELECTRONIC COMMUNICATIONS DEVICE, 20=FAILED TO YIELD RIGHT OF WAY (added August 2014), 97=OTHER, 99 UNKNOWN

ACTION:
1=GOING STRAIGHT AHEAD, 2=SLOWING IN TRAFFICWAY, 3=STOPPED IN TRAFFICWAY, 4=MAKING LEFT TURN, 5=MAKING RIGHT TURN, 6=MAKING U-TURN, 7=OVERTAKING/PASSING, 8=CHANGING LANES, 9=NEGOTIATING A CURVE, 10=BACKING, 11=AVOIDING VEH/OBJ/PED/CYCLIST/ANIMAL, 12=ENTERING PARKING POSITION, 13=LEAVING PARKING POSITION, 14=PROPERLY PARKED, 15=IMPROPERLY PARKED, 16=DRIVERLESS MOVING VEHICLE, 17=CROSING ROAD, 18=WALKING WITH TRAFFIC, 19=WALKING AGAINST TRAFFIC, 20=STANDING, 21=LYING, 22=GETTING ON OR OFF VEHICLE, 23=WORKING ON/PUSHING VEHICLE, 24=WORKING ON ROAD, 97=OTHER, 99=UKNOWN

MANNER OF COLLISION:
1=SINGLE VEHICLE, 2=ANGLE (front to side, other than left turn), 3=LEFT TURN, 4=REAR END (front to rear), 5=HEAD-ON (front to front, other than left turn), 6=SIDESWIPE (same direction), 7=SIDESWIPE (opposite direction), 8=REAR-TO-SIDE, 9=REAR TO REAR, 97=OTHER, 99=UNKNOWN

TOTAL **140**

Appendix C – Parcel Information

175-42-140 **Commercial Parcel**

This is a Commercial parcel The current owner is NEW 7000 EAST SHEA LLC. It is located in the 7000 E SHEA BOULEVARD subdivision, and MCR 170137.

MAPS | PICTOMETRY | $ VIEW/PAY TAX BILL | DEED

OWNER | VALUATIONS | ADDITIONAL INFO | MAP FERRET

SIMILAR PARCELS | REGISTER RENTAL | PRINT DETAILS

PROPERTY INFORMATION

MCR #	170137
Description	170137 7000 E SHEA BOULEVARD
Lat/Long	
Lot Size	316,041 sq ft.
Zoning	C-2
Lot #	1
High School District	SCOTTSDALE UNIFIED #48
Elementary School District	SCOTTSDALE UNIFIED SCHOOL DISTRICT
Local Jurisdiction	SCOTTSDALE
S/T/R	22 3N 4E
Market Area/Neighborhood	05/012
Subdivision (9 Parcels)	7000 E SHEA BOULEVARD

OWNER INFORMATION

NEW 7000 EAST SHEA LLC

Mailing Address	7800 E UNION AVE STE 800, DENVER, CO 80237
Deed Number	

Last Deed Date	
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

This parcel has a pending Notice of Change per ARS-42-15105, that will be mailed in September. No valuation data is available for the current year on this parcel

Tax Year	2024	2023
Full Cash Value	$na	$23,741,610
Limited Value	$na	$16,727,080
Legal Class	1.12	1.12
Description	COMMERCIAL / OTHER R/P	COMMERCIAL / OTHER R/P
Assessment Ratio	16.5%	17%
Assessed LPV	$na	$2,843,603
Property Use Code	1132	1132
PU Description	Convenience Mkt, Ret Strip, Supermkts	Convenience Mkt, Ret Strip, Supermkts
Tax Area Code	481400	481400
Valuation Source	Notice	Notice

ADDITIONAL PROPERTY INFORMATION

Additional property data.

Description	Imp #	Occupancy	Rank	CCI	Age	Sq Ft.
Neighborhood Shopping Ctr	000101	412	2	D	35	17,760
Neighborhood Shopping Ctr	000201	412	2	D	35	17,936
Neighborhood Shopping Ctr	000301	412	2	D	35	9,892
Neighborhood Shopping Ctr	000401	412	2	D	35	7,113

Description	Imp #	Occupancy	Rank	CCI	Age	Sq Ft.
Restaurant	000501	350	2	D	34	6,840
Retail Store	000601	353	2	D	34	13,574
Retail Store	000602	353	2	B	35	130,544
Site Improvements	000701	163	2	D	35	1
Retail Store	001101	353	2	C	37	38,596
Site Improvements	001201	163	2	D	37	1

MAP FERRET MAPS

Mapferret maps, also known as MapId maps, pdf maps, or output maps are now available here without having to search.

- Parcel Maps (1)
- Subdivision Maps (1)
- MCR Maps (1)
- Book/Map Maps (2)

CAUTION! USERS SHOULD INDEPENDENTLY RESEARCH AND VERIFY INFORMATION ON THIS WEBSITE BEFORE RELYING ON IT.

The Assessor's Office has compiled information on this website that it uses to identify, classify, and value real and personal property. Please contact the Maricopa County S.T.A.R. Center at (602) 506-3406 if you believe any information is incomplete, out of date, or incorrect so that appropriate corrections can be addressed. Please note that a statutory process is also available to correct errors pursuant to Arizona Revised Statutes 42-16254.

The Assessor does not guarantee that any information provided on this website is accurate, complete, or current. In many instances, the Assessor has gathered information from independent sources and made it available on this site, and the original information may have contained errors and omissions. Errors and omissions may also have occurred in the process of gathering, interpreting, and reporting the information. Information on the website is not updated in "real time". In addition, users are cautioned that the process used on this site to illustrate the boundaries of the adjacent parcels is not always consistent with the recorded documents for such parcels. The parcel boundaries depicted on this site are for illustrative purposes only, and the exact relationship of adjacent parcels should be independently researched and verified. The information provided on this site is not the equivalent of a title report or a real estate survey. Users should independently research, investigate and verify all information before relying on it or in the preparation of legal documents.

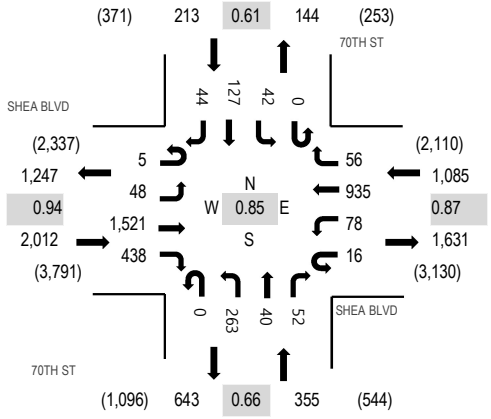
By using this website, you acknowledge having read the above and waive any right you may have to claim against Maricopa County, its officers, employees, and contractors arising out of my reliance on or the use of the information provided on this website.

Appendix D – Traffic Count Data

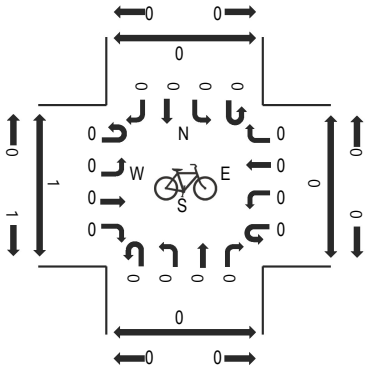
ALL TRAFFIC DATA SERVICES
(303) 216-2439
www.alltrafficdata.net

Location: 1 70TH ST & SHEA BLVD AM
Date: Thursday, February 23, 2023
Peak Hour: 07:15 AM - 08:15 AM
Peak 15-Minutes: 07:30 AM - 07:45 AM

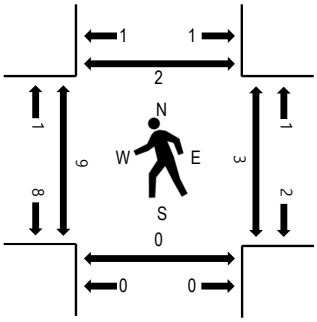
Peak Hour - Motorized Vehicles



Peak Hour - Bicycles



Peak Hour - Pedestrians



Note: Total study counts contained in parentheses.

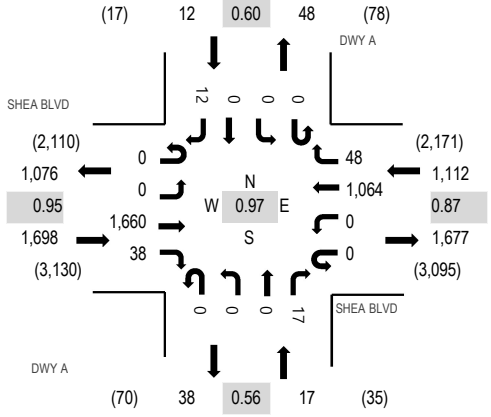
Traffic Counts - Motorized Vehicles

Interval Start Time	SHEA BLVD Eastbound				SHEA BLVD Westbound				70TH ST Northbound				70TH ST Southbound					Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total		West	East	South	North
7:00 AM	0	7	264	55	3	18	185	12	0	35	6	8	0	12	13	9	627	3,513	0	1	0	0
7:15 AM	1	8	358	125	2	26	239	5	0	63	4	10	0	13	42	10	906	3,665	3	0	0	0
7:30 AM	3	10	370	163	0	30	259	22	0	102	16	18	0	8	66	17	1,084	3,625	5	0	0	1
7:45 AM	1	16	418	75	8	16	218	16	0	68	11	16	0	11	13	9	896	3,394	0	0	0	0
8:00 AM	0	14	375	75	6	6	219	13	0	30	9	8	0	10	6	8	779	3,303	1	3	0	1
8:15 AM	1	7	419	97	3	8	241	11	0	27	4	12	0	16	10	10	866		0	0	0	0
8:30 AM	1	15	390	88	0	11	240	10	0	40	1	13	0	15	16	13	853		0	0	0	0
8:45 AM	2	13	320	100	2	19	248	14	0	28	9	6	0	16	18	10	805		2	0	0	0
Count Total	9	90	2,914	778	24	134	1,849	103	0	393	60	91	0	101	184	86	6,816		11	4	0	2
Peak Hour	5	48	1,521	438	16	78	935	56	0	263	40	52	0	42	127	44	3,665		9	3	0	2

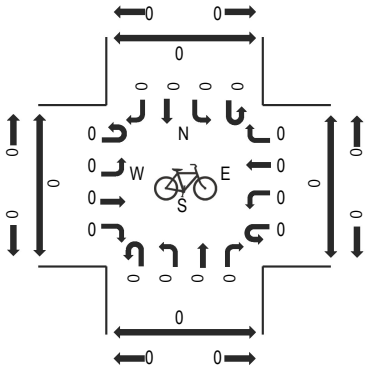
ALL TRAFFIC DATA SERVICES
(303) 216-2439
www.alltrafficdata.net

Location: 2 DWY A & SHEA BLVD AM
Date: Thursday, February 23, 2023
Peak Hour: 07:30 AM - 08:30 AM
Peak 15-Minutes: 07:45 AM - 08:00 AM

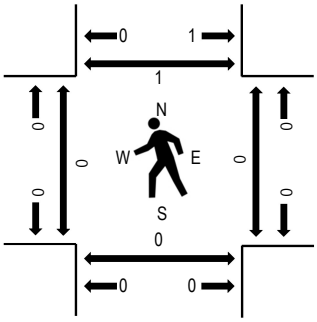
Peak Hour - Motorized Vehicles



Peak Hour - Bicycles



Peak Hour - Pedestrians



Note: Total study counts contained in parentheses.

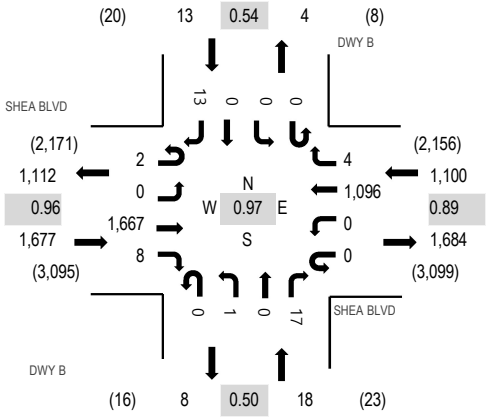
Traffic Counts - Motorized Vehicles

Interval Start Time	SHEA BLVD Eastbound				SHEA BLVD Westbound				DWY A Northbound				DWY A Southbound					Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total		West	East	South	North
7:00 AM	0	0	280	7	0	0	217	3	0	0	0	1	0	0	0	1	509	2,627	0	0	1	0
7:15 AM	0	0	373	10	0	0	271	6	0	0	0	2	0	0	0	1	663	2,776	0	0	0	0
7:30 AM	0	0	389	7	0	0	308	11	0	0	0	7	0	0	0	3	725	2,839	0	0	0	0
7:45 AM	0	0	438	15	0	0	255	12	0	0	0	7	0	0	0	3	730	2,810	0	0	0	1
8:00 AM	0	0	394	5	0	0	239	14	0	0	0	1	0	0	0	5	658	2,726	0	0	0	0
8:15 AM	0	0	439	11	0	0	262	11	0	0	0	2	0	0	0	1	726		0	0	0	0
8:30 AM	0	0	414	4	0	0	260	9	0	0	0	8	0	0	0	1	696		0	0	0	0
8:45 AM	0	0	333	11	0	0	281	12	0	0	0	7	0	0	0	2	646		0	0	0	0
Count Total	0	0	3,060	70	0	0	2,093	78	0	0	0	35	0	0	0	17	5,353		0	0	1	1
Peak Hour	0	0	1,660	38	0	0	1,064	48	0	0	0	17	0	0	0	12	2,839		0	0	0	1

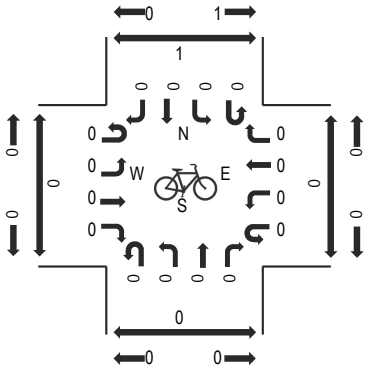
ALL TRAFFIC DATA SERVICES
(303) 216-2439
www.alltrafficdata.net

Location: 3 DWY B & SHEA BLVD AM
Date: Thursday, February 23, 2023
Peak Hour: 07:30 AM - 08:30 AM
Peak 15-Minutes: 08:15 AM - 08:30 AM

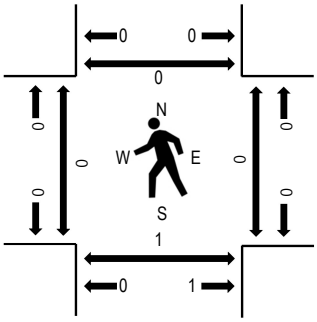
Peak Hour - Motorized Vehicles



Peak Hour - Bicycles



Peak Hour - Pedestrians



Note: Total study counts contained in parentheses.

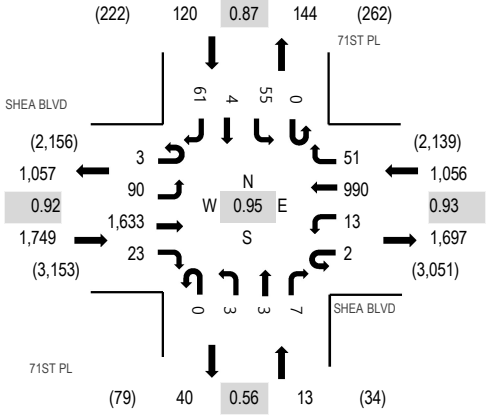
Traffic Counts - Motorized Vehicles

Interval Start Time	SHEA BLVD Eastbound				SHEA BLVD Westbound				DWY B Northbound				DWY B Southbound					Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total		West	East	South	North
7:00 AM	0	0	279	2	0	0	220	0	0	0	0	0	0	0	0	0	501	2,585	0	0	0	0
7:15 AM	0	0	375	0	0	0	274	0	0	0	0	2	0	0	0	3	654	2,740	0	0	1	0
7:30 AM	2	0	393	1	0	0	311	0	0	0	0	2	0	0	0	6	715	2,808	0	0	0	0
7:45 AM	0	0	443	2	0	0	265	2	0	0	0	1	0	0	0	2	715	2,787	0	0	0	0
8:00 AM	0	0	392	3	0	0	251	2	0	0	0	6	0	0	0	2	656	2,709	0	0	1	0
8:15 AM	0	0	439	2	0	0	269	0	0	1	0	8	0	0	0	3	722		0	0	0	0
8:30 AM	0	0	420	2	0	0	265	3	0	0	0	0	0	0	0	4	694		0	0	1	0
8:45 AM	0	0	336	4	0	0	293	1	0	0	0	3	0	0	0	0	637		0	0	0	0
Count Total	2	0	3,077	16	0	0	2,148	8	0	1	0	22	0	0	0	20	5,294		0	0	3	0
Peak Hour	2	0	1,667	8	0	0	1,096	4	0	1	0	17	0	0	0	13	2,808		0	0	1	0

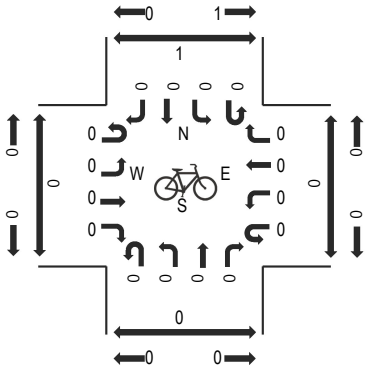
ALL TRAFFIC DATA SERVICES
(303) 216-2439
www.alltrafficdata.net

Location: 4 71ST PL & SHEA BLVD AM
Date: Thursday, February 23, 2023
Peak Hour: 07:45 AM - 08:45 AM
Peak 15-Minutes: 07:45 AM - 08:00 AM

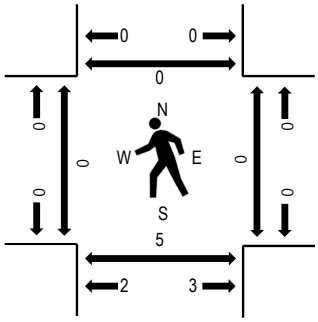
Peak Hour - Motorized Vehicles



Peak Hour - Bicycles



Peak Hour - Pedestrians



Note: Total study counts contained in parentheses.

Traffic Counts - Motorized Vehicles

Interval Start Time	SHEA BLVD Eastbound				SHEA BLVD Westbound				71ST PL Northbound				71ST PL Southbound					Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total		West	East	South	North
7:00 AM	0	10	253	4	0	0	208	5	0	2	0	0	0	10	0	10	502	2,674	0	0	0	0
7:15 AM	3	20	367	4	0	3	258	12	0	2	1	1	0	10	0	11	692	2,846	0	0	0	0
7:30 AM	5	16	352	3	0	3	282	8	0	5	0	2	0	9	1	19	705	2,907	0	0	0	0
7:45 AM	1	24	443	7	0	4	253	20	0	1	1	1	0	8	0	12	775	2,938	0	0	2	0
8:00 AM	1	22	369	3	1	3	236	5	0	0	0	1	0	17	0	16	674	2,874	0	0	1	0
8:15 AM	1	22	424	6	1	3	251	12	0	2	0	2	0	12	2	15	753		0	0	0	0
8:30 AM	0	22	397	7	0	3	250	14	0	0	2	3	0	18	2	18	736		0	0	2	0
8:45 AM	1	28	329	9	1	11	274	18	0	3	0	5	0	15	1	16	711		0	0	0	0
Count Total	12	164	2,934	43	3	30	2,012	94	0	15	4	15	0	99	6	117	5,548		0	0	5	0
Peak Hour	3	90	1,633	23	2	13	990	51	0	3	3	7	0	55	4	61	2,938		0	0	5	0

ALL TRAFFIC DATA SERVICES
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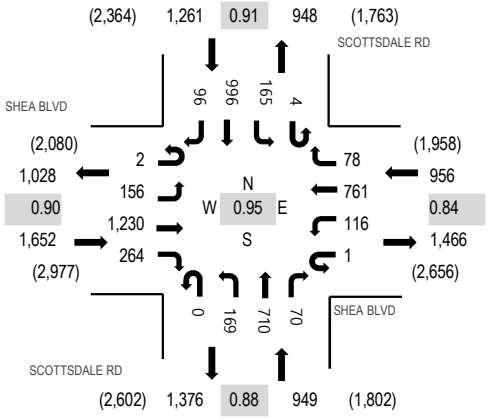
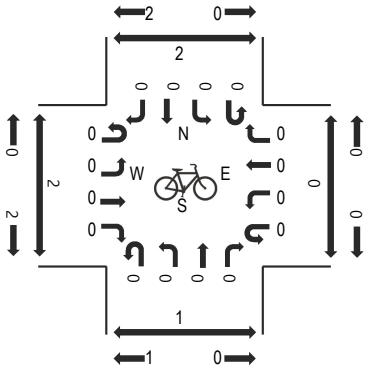
Location: 5 SCOTTSDALE RD & SHEA BLVD AM
Date: Thursday, February 23, 2023
Peak Hour: 07:45 AM - 08:45 AM
Peak 15-Minutes: 07:45 AM - 08:00 AM

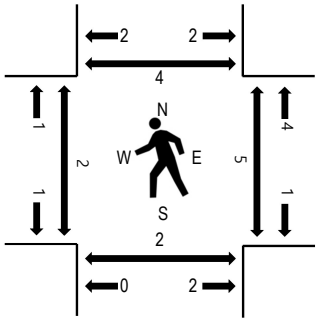
Peak Hour - Motorized Vehicles



Peak Hour - Bicycles



Peak Hour - Pedestrians



Note: Total study counts contained in parentheses.

Traffic Counts - Motorized Vehicles

Interval Start Time	SHEA BLVD Eastbound				SHEA BLVD Westbound				SCOTTSDALE RD Northbound				SCOTTSDALE RD Southbound					Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total		West	East	South	North
7:00 AM	0	21	200	36	0	27	172	12	0	30	109	12	0	26	147	16	808	4,339	0	0	0	0
7:15 AM	0	17	285	66	0	41	210	15	0	40	135	14	0	25	212	23	1,083	4,678	3	2	0	1
7:30 AM	0	31	264	49	0	33	190	7	0	49	193	20	0	37	289	23	1,185	4,772	3	5	3	2
7:45 AM	0	41	353	63	0	25	208	24	0	40	176	25	2	46	241	19	1,263	4,818	1	1	1	2
8:00 AM	1	34	262	58	0	41	171	24	0	40	175	14	0	41	261	25	1,147	4,762	0	0	1	0
8:15 AM	1	37	323	80	1	22	207	13	0	42	153	11	1	31	229	26	1,177		0	4	0	1
8:30 AM	0	44	292	63	0	28	175	17	0	47	206	20	1	47	265	26	1,231		1	0	0	1
8:45 AM	0	52	252	52	0	30	230	35	0	45	188	18	0	37	244	24	1,207		0	0	1	0
Count Total	2	277	2,231	467	1	247	1,563	147	0	333	1,335	134	4	290	1,888	182	9,101		8	12	6	7
Peak Hour	2	156	1,230	264	1	116	761	78	0	169	710	70	4	165	996	96	4,818		2	5	2	4

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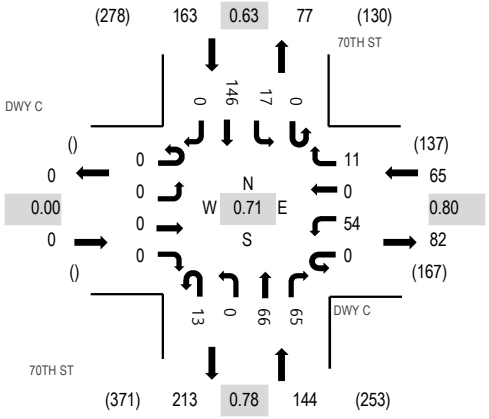
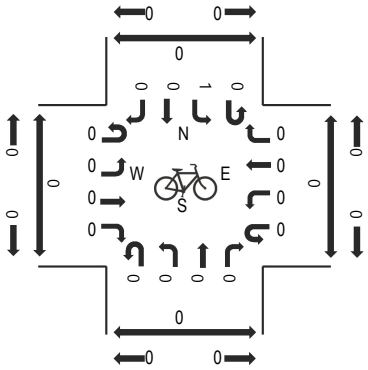
Location: 6 70TH ST & DWY C AM
Date: Thursday, February 23, 2023
Peak Hour: 07:15 AM - 08:15 AM
Peak 15-Minutes: 07:30 AM - 07:45 AM

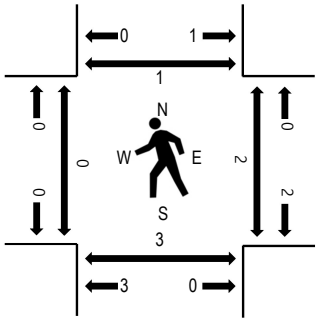
Peak Hour - Motorized Vehicles



Peak Hour - Bicycles



Peak Hour - Pedestrians



Note: Total study counts contained in parentheses.

Traffic Counts - Motorized Vehicles

Interval Start Time	DWY C Eastbound				DWY C Westbound				70TH ST Northbound				70TH ST Southbound					Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total		West	East	South	North
7:00 AM	0	0	0	0	0	11	0	1	0	0	9	16	0	2	23	0	62	366	0	1	0	0
7:15 AM	0	0	0	0	0	12	0	3	0	0	8	9	0	5	53	0	90	372	0	0	0	0
7:30 AM	0	0	0	0	0	14	0	2	12	0	17	19	0	2	65	0	131	353	0	2	2	0
7:45 AM	0	0	0	0	0	16	0	4	1	0	23	19	0	4	16	0	83	297	0	0	0	1
8:00 AM	0	0	0	0	0	12	0	2	0	0	18	18	0	6	12	0	68	302	0	0	1	0
8:15 AM	0	0	0	0	0	16	0	7	0	0	8	14	0	6	20	0	71		0	0	0	0
8:30 AM	0	0	0	0	0	14	0	1	0	0	8	18	0	4	30	0	75		0	0	0	0
8:45 AM	0	0	0	0	0	17	0	5	0	0	14	22	0	3	27	0	88		0	1	0	0
Count Total	0	0	0	0	0	112	0	25	13	0	105	135	0	32	246	0	668		0	4	3	1
Peak Hour	0	0	0	0	0	54	0	11	13	0	66	65	0	17	146	0	372		0	2	3	1

ALL TRAFFIC DATA SERVICES
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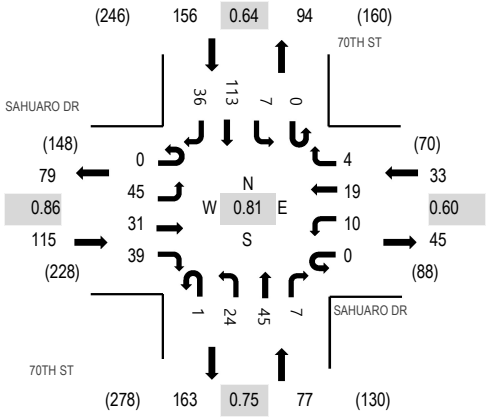
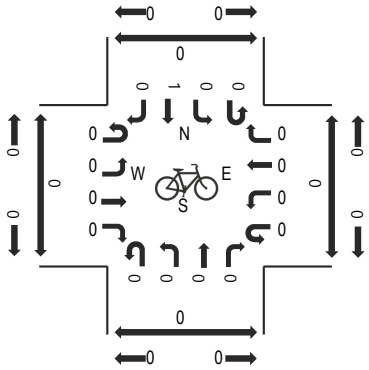
Location: 7 70TH ST & SAHUARO DR AM
Date: Thursday, February 23, 2023
Peak Hour: 07:15 AM - 08:15 AM
Peak 15-Minutes: 07:30 AM - 07:45 AM

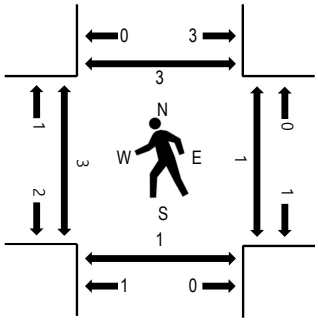
Peak Hour - Motorized Vehicles



Peak Hour - Bicycles



Peak Hour - Pedestrians



Note: Total study counts contained in parentheses.

Traffic Counts - Motorized Vehicles

Interval Start Time	SAHUARO DR Eastbound				SAHUARO DR Westbound				70TH ST Northbound				70TH ST Southbound					Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total		West	East	South	North
7:00 AM	0	4	4	9	0	2	1	2	0	4	5	1	0	0	14	7	53	361	4	0	2	0
7:15 AM	0	14	3	9	0	6	6	1	0	2	8	1	0	0	43	9	102	381	3	1	0	0
7:30 AM	0	8	9	13	0	1	4	1	1	5	13	0	0	3	52	8	118	359	0	0	1	2
7:45 AM	0	15	10	6	0	1	3	1	0	7	17	3	0	2	13	10	88	310	0	0	0	1
8:00 AM	0	8	9	11	0	2	6	1	0	10	7	3	0	2	5	9	73	313	0	0	0	0
8:15 AM	0	12	12	10	0	3	3	2	0	8	3	4	0	1	13	9	80		0	0	0	2
8:30 AM	0	6	8	12	0	4	3	0	0	1	6	2	0	0	18	9	69		0	0	0	0
8:45 AM	0	15	6	15	0	6	9	2	0	6	9	4	0	1	9	9	91		0	0	1	0
Count Total	0	82	61	85	0	25	35	10	1	43	68	18	0	9	167	70	674		7	1	4	5
Peak Hour	0	45	31	39	0	10	19	4	1	24	45	7	0	7	113	36	381		3	1	1	3

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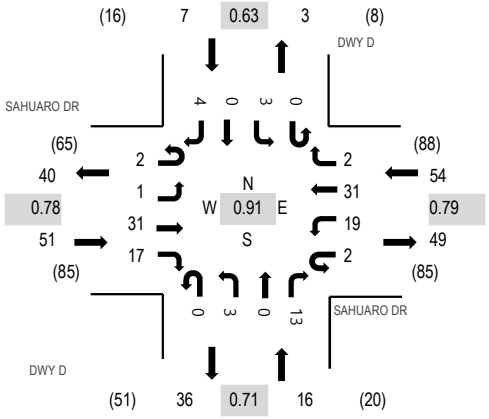
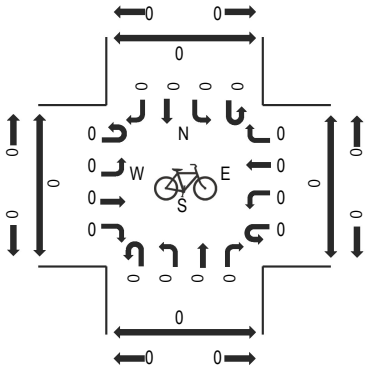
Location: 8 DWY D & SAHUARO DR AM
Date: Thursday, February 23, 2023
Peak Hour: 08:00 AM - 09:00 AM
Peak 15-Minutes: 08:00 AM - 08:15 AM

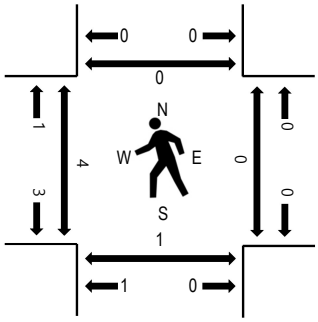
Peak Hour - Motorized Vehicles



Peak Hour - Bicycles



Peak Hour - Pedestrians



Note: Total study counts contained in parentheses.

Traffic Counts - Motorized Vehicles

Interval Start Time	SAHUARO DR Eastbound				SAHUARO DR Westbound				DWY D Northbound				DWY D Southbound					Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total		West	East	South	North
7:00 AM	0	1	5	0	0	1	3	2	0	0	0	0	0	2	0	0	14	81	0	0	0	0
7:15 AM	0	0	3	0	0	3	6	1	0	0	0	1	0	0	0	3	17	102	0	0	0	0
7:30 AM	0	0	11	0	0	2	4	0	0	0	0	0	0	0	0	4	21	119	0	0	0	2
7:45 AM	0	0	11	3	0	6	5	1	0	0	0	3	0	0	0	0	29	126	0	0	0	0
8:00 AM	1	1	7	4	0	8	6	1	0	1	0	3	0	2	0	1	35	128	0	0	0	0
8:15 AM	1	0	10	7	1	4	5	1	0	1	0	3	0	1	0	0	34		2	0	0	0
8:30 AM	0	0	9	2	0	3	8	0	0	1	0	5	0	0	0	0	28		1	0	0	0
8:45 AM	0	0	5	4	1	4	12	0	0	0	0	2	0	0	0	3	31		1	0	1	0
Count Total	2	2	61	20	2	31	49	6	0	3	0	17	0	5	0	11	209		4	0	1	2
Peak Hour	2	1	31	17	2	19	31	2	0	3	0	13	0	3	0	4	128		4	0	1	0

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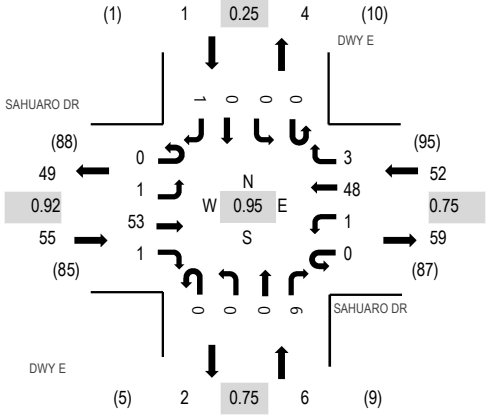
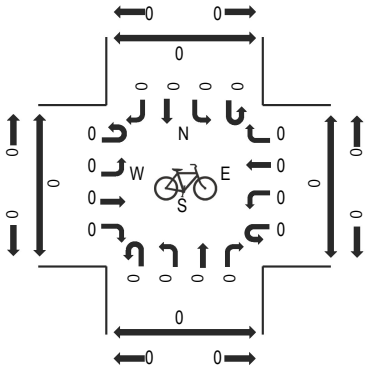
Location: 9 DWY E & SAHUARO DR AM
Date: Thursday, February 23, 2023
Peak Hour: 07:45 AM - 08:45 AM
Peak 15-Minutes: 07:45 AM - 08:00 AM

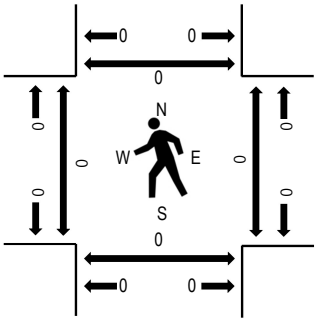
Peak Hour - Motorized Vehicles



Peak Hour - Bicycles



Peak Hour - Pedestrians



Note: Total study counts contained in parentheses.

Traffic Counts - Motorized Vehicles

Interval Start Time	SAHUARO DR Eastbound				SAHUARO DR Westbound				DWY E Northbound				DWY E Southbound					Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total		West	East	South	North
7:00 AM	0	0	7	0	0	0	6	1	0	0	0	0	0	0	0	0	14	78	0	0	0	0
7:15 AM	0	0	4	0	0	0	10	1	0	0	0	1	0	0	0	0	16	94	0	0	0	0
7:30 AM	0	1	8	2	0	0	6	0	0	0	0	1	0	0	0	0	18	105	0	0	0	2
7:45 AM	0	0	14	0	0	0	12	2	0	0	0	2	0	0	0	0	30	114	0	0	0	0
8:00 AM	0	0	12	0	0	1	15	1	0	0	0	1	0	0	0	0	30	112	0	0	0	0
8:15 AM	0	1	14	0	0	0	11	0	0	0	0	1	0	0	0	0	27		0	0	0	0
8:30 AM	0	0	13	1	0	0	10	0	0	0	0	2	0	0	0	1	27		0	0	0	0
8:45 AM	0	1	7	0	0	1	17	1	0	0	1	0	0	0	0	0	28		0	0	1	0
Count Total	0	3	79	3	0	2	87	6	0	0	1	8	0	0	0	1	190		0	0	1	2
Peak Hour	0	1	53	1	0	1	48	3	0	0	0	6	0	0	0	1	114		0	0	0	0

ALL TRAFFIC DATA SERVICES
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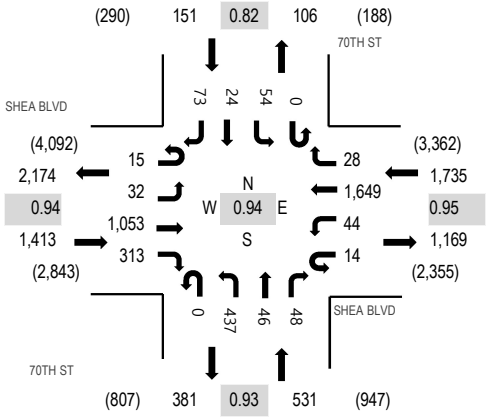
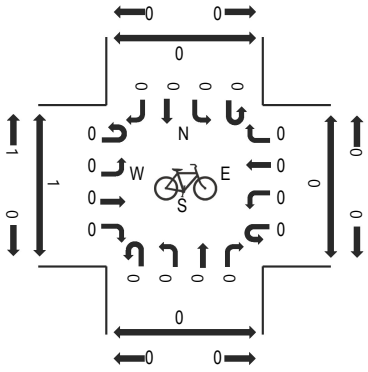
Location: 1 70TH ST & SHEA BLVD PM
Date: Thursday, February 23, 2023
Peak Hour: 04:30 PM - 05:30 PM
Peak 15-Minutes: 05:00 PM - 05:15 PM

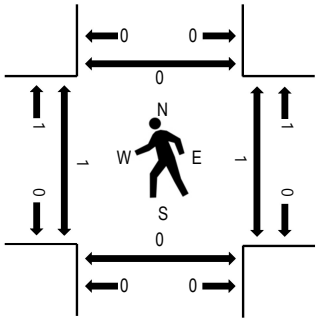
Peak Hour - Motorized Vehicles



Peak Hour - Bicycles



Peak Hour - Pedestrians



Note: Total study counts contained in parentheses.

Traffic Counts - Motorized Vehicles

Interval Start Time	SHEA BLVD Eastbound				SHEA BLVD Westbound				70TH ST Northbound				70TH ST Southbound					Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total		West	East	South	North
4:00 PM	3	8	276	89	12	14	415	2	0	87	7	16	0	15	16	13	973	3,728	1	1	0	1
4:15 PM	2	8	249	93	5	13	412	8	0	88	12	20	0	8	10	11	939	3,778	1	1	0	0
4:30 PM	4	10	246	78	3	17	393	5	0	111	14	18	0	12	2	11	924	3,830	0	0	0	0
4:45 PM	2	5	242	77	5	6	399	5	0	95	14	11	0	12	2	17	892	3,809	1	0	0	0
5:00 PM	6	10	289	81	3	12	432	10	0	113	9	8	0	13	10	27	1,023	3,714	0	1	0	0
5:15 PM	3	7	276	77	3	9	425	8	0	118	9	11	0	17	10	18	991		0	0	0	0
5:30 PM	4	8	300	79	9	7	365	7	0	75	6	5	0	13	7	18	903		2	0	0	0
5:45 PM	3	3	236	69	3	16	328	11	1	84	2	13	0	6	12	10	797		0	1	0	0
Count Total	27	59	2,114	643	43	94	3,169	56	1	771	73	102	0	96	69	125	7,442		5	4	0	1
Peak Hour	15	32	1,053	313	14	44	1,649	28	0	437	46	48	0	54	24	73	3,830		1	1	0	0

ALL TRAFFIC DATA SERVICES
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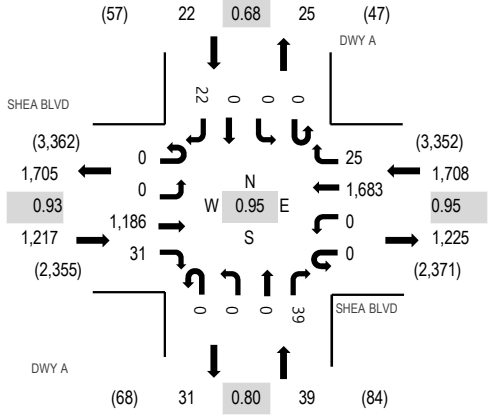
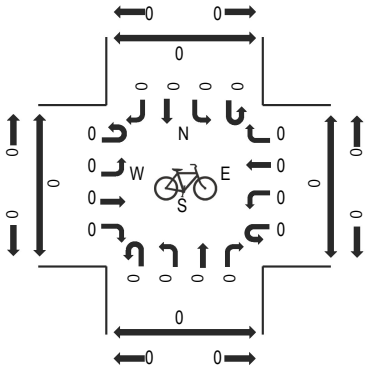
Location: 2 DWY A & SHEA BLVD PM
Date: Thursday, February 23, 2023
Peak Hour: 04:45 PM - 05:45 PM
Peak 15-Minutes: 05:00 PM - 05:15 PM

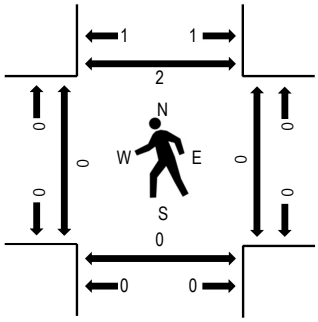
Peak Hour - Motorized Vehicles



Peak Hour - Bicycles



Peak Hour - Pedestrians



Note: Total study counts contained in parentheses.

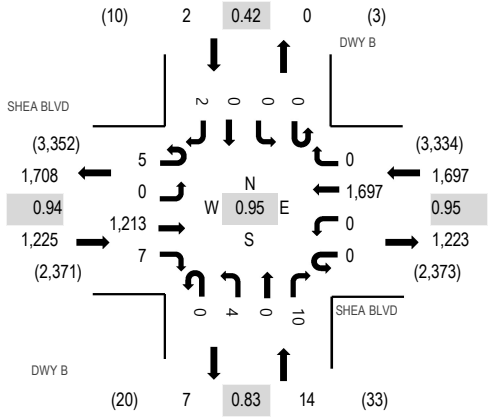
Traffic Counts - Motorized Vehicles

Interval Start Time	SHEA BLVD Eastbound				SHEA BLVD Westbound				DWY A Northbound				DWY A Southbound					Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total		West	East	South	North
4:00 PM	0	0	308	11	0	0	429	8	0	0	0	12	0	0	0	14	782	2,933	3	0	0	0
4:15 PM	0	0	271	11	0	0	428	2	0	0	0	9	0	0	0	10	731	2,936	1	0	0	0
4:30 PM	0	0	269	10	0	0	409	5	0	0	0	15	0	0	0	9	717	2,972	0	0	0	0
4:45 PM	0	0	262	8	0	0	410	6	0	0	0	12	0	0	0	5	703	2,986	0	0	0	0
5:00 PM	0	0	307	6	0	0	450	7	0	0	0	8	0	0	0	7	785	2,915	0	0	0	0
5:15 PM	0	0	301	6	0	0	437	5	0	0	0	10	0	0	0	8	767		0	0	0	0
5:30 PM	0	0	316	11	0	0	386	7	0	0	0	9	0	0	0	2	731		0	0	0	2
5:45 PM	0	0	253	5	0	0	356	7	0	0	0	9	0	0	0	2	632		0	0	0	0
Count Total	0	0	2,287	68	0	0	3,305	47	0	0	0	84	0	0	0	57	5,848		4	0	0	2
Peak Hour	0	0	1,186	31	0	0	1,683	25	0	0	0	39	0	0	0	22	2,986		0	0	0	2

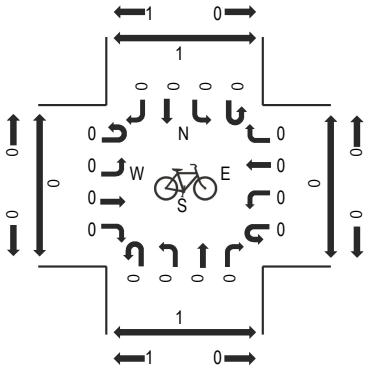
ALL TRAFFIC DATA SERVICES
(303) 216-2439
www.alltrafficdata.net

Location: 3 DWY B & SHEA BLVD PM
Date: Thursday, February 23, 2023
Peak Hour: 04:45 PM - 05:45 PM
Peak 15-Minutes: 05:00 PM - 05:15 PM

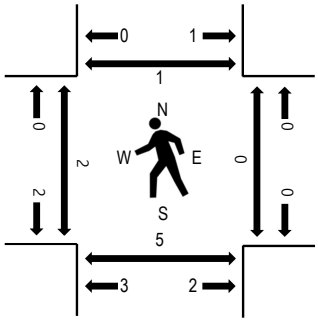
Peak Hour - Motorized Vehicles



Peak Hour - Bicycles



Peak Hour - Pedestrians



Note: Total study counts contained in parentheses.

Traffic Counts - Motorized Vehicles

Interval Start Time	SHEA BLVD Eastbound				SHEA BLVD Westbound				DWY B Northbound				DWY B Southbound					Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total		West	East	South	North
4:00 PM	0	0	316	4	0	0	437	0	0	0	0	6	0	0	0	0	763	2,872	0	0	1	0
4:15 PM	1	0	275	4	0	0	426	2	0	1	0	3	0	0	0	2	714	2,881	0	0	0	1
4:30 PM	0	0	281	3	0	0	411	1	0	0	0	5	0	0	0	3	704	2,922	0	0	0	1
4:45 PM	3	0	267	4	0	0	412	0	0	1	0	4	0	0	0	0	691	2,938	2	0	4	1
5:00 PM	2	0	311	2	0	0	453	0	0	2	0	2	0	0	0	0	772	2,876	0	0	0	0
5:15 PM	0	0	311	0	0	0	440	0	0	0	0	2	0	0	0	2	755		0	0	1	0
5:30 PM	0	0	324	1	0	0	392	0	0	1	0	2	0	0	0	0	720		0	0	0	0
5:45 PM	0	0	260	2	0	0	360	0	0	0	0	4	0	0	0	3	629		0	0	0	1
Count Total	6	0	2,345	20	0	0	3,331	3	0	5	0	28	0	0	0	10	5,748		2	0	6	4
Peak Hour	5	0	1,213	7	0	0	1,697	0	0	4	0	10	0	0	0	2	2,938		2	0	5	1

ALL TRAFFIC DATA SERVICES
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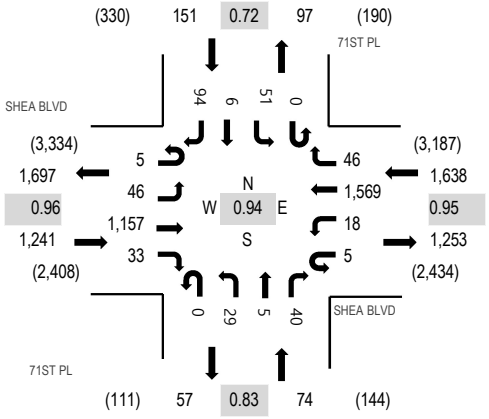
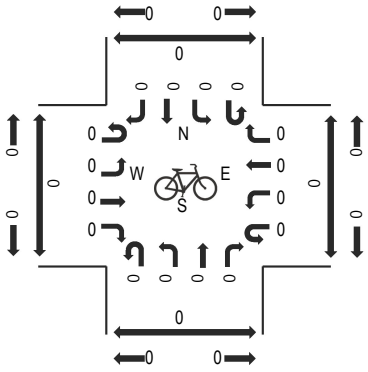
Location: 4 71ST PL & SHEA BLVD PM
Date: Thursday, February 23, 2023
Peak Hour: 04:45 PM - 05:45 PM
Peak 15-Minutes: 05:00 PM - 05:15 PM

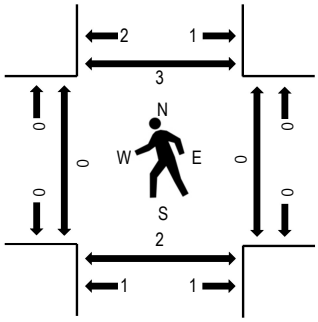
Peak Hour - Motorized Vehicles



Peak Hour - Bicycles



Peak Hour - Pedestrians



Note: Total study counts contained in parentheses.

Traffic Counts - Motorized Vehicles

Interval Start Time	SHEA BLVD Eastbound				SHEA BLVD Westbound				71ST PL Northbound				71ST PL Southbound					Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total		West	East	South	North
4:00 PM	0	14	298	6	0	4	389	10	0	7	1	12	0	23	3	41	808	3,030	0	1	3	0
4:15 PM	2	10	273	11	0	0	399	6	0	5	1	10	0	18	1	22	758	3,044	0	0	2	0
4:30 PM	1	12	264	7	1	4	384	13	0	6	0	5	0	16	3	21	737	3,082	0	0	0	0
4:45 PM	2	8	258	8	2	6	372	4	0	11	3	7	0	17	2	27	727	3,104	0	0	0	0
5:00 PM	0	14	307	2	2	2	417	11	0	7	1	8	0	19	3	29	822	3,039	0	0	1	0
5:15 PM	0	13	298	7	0	4	416	15	0	4	0	13	0	5	1	20	796		0	0	1	0
5:30 PM	3	11	294	16	1	6	364	16	0	7	1	12	0	10	0	18	759		0	0	0	3
5:45 PM	1	15	245	8	1	3	325	10	0	15	1	7	0	8	4	19	662		0	1	0	2
Count Total	9	97	2,237	65	7	29	3,066	85	0	62	8	74	0	116	17	197	6,069		0	2	7	5
Peak Hour	5	46	1,157	33	5	18	1,569	46	0	29	5	40	0	51	6	94	3,104		0	0	2	3

ALL TRAFFIC DATA SERVICES
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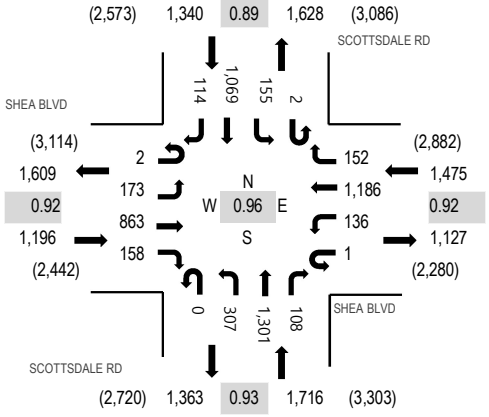
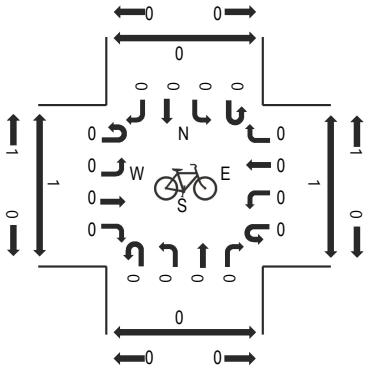
Location: 5 SCOTTSDALE RD & SHEA BLVD PM
Date: Thursday, February 23, 2023
Peak Hour: 04:30 PM - 05:30 PM
Peak 15-Minutes: 05:15 PM - 05:30 PM

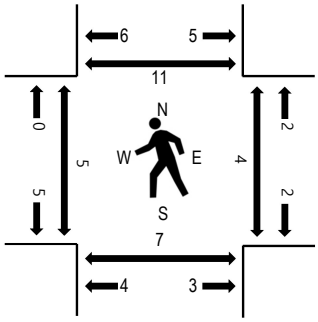
Peak Hour - Motorized Vehicles



Peak Hour - Bicycles



Peak Hour - Pedestrians



Note: Total study counts contained in parentheses.

Traffic Counts - Motorized Vehicles

Interval Start Time	SHEA BLVD Eastbound				SHEA BLVD Westbound				SCOTTSDALE RD Northbound				SCOTTSDALE RD Southbound					Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total		West	East	South	North
4:00 PM	1	49	260	52	2	44	302	35	0	82	242	26	0	37	255	26	1,413	5,578	0	0	2	0
4:15 PM	0	43	210	41	1	40	269	20	0	89	326	33	1	24	287	14	1,398	5,630	0	1	1	3
4:30 PM	1	46	207	42	0	34	311	50	0	75	272	32	1	48	259	33	1,411	5,727	1	2	1	5
4:45 PM	1	38	198	32	0	33	255	33	0	68	344	23	1	31	273	26	1,356	5,705	0	0	2	3
5:00 PM	0	44	233	52	0	38	334	29	0	83	339	20	0	31	236	26	1,465	5,622	2	1	2	2
5:15 PM	0	45	225	32	1	31	286	40	0	81	346	33	0	45	301	29	1,495		2	1	2	1
5:30 PM	1	44	247	44	0	43	309	37	0	74	278	29	0	41	221	21	1,389		0	0	0	3
5:45 PM	1	34	188	31	1	44	229	31	0	61	318	29	0	25	255	26	1,273		0	1	0	1
Count Total	5	343	1,768	326	5	307	2,295	275	0	613	2,465	225	3	282	2,087	201	11,200		5	6	10	18
Peak Hour	2	173	863	158	1	136	1,186	152	0	307	1,301	108	2	155	1,069	114	5,727		5	4	7	11

ALL TRAFFIC DATA SERVICES
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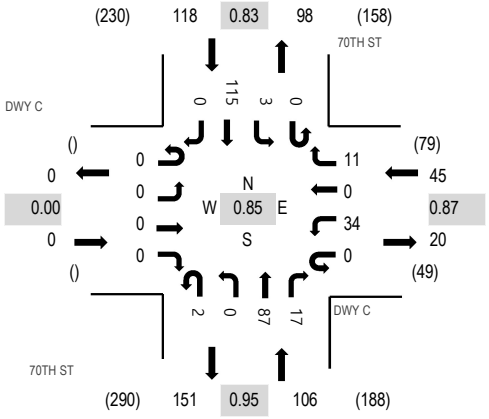
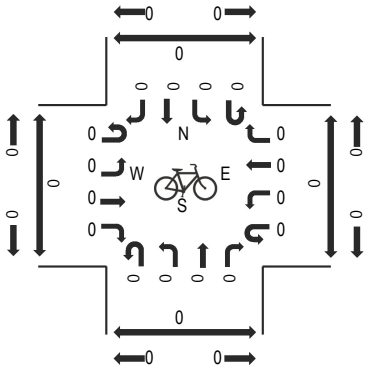
Location: 6 70TH ST & DWY C PM
Date: Thursday, February 23, 2023
Peak Hour: 04:30 PM - 05:30 PM
Peak 15-Minutes: 05:00 PM - 05:15 PM

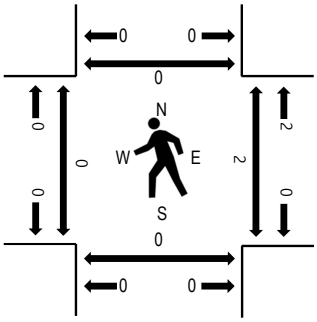
Peak Hour - Motorized Vehicles



Peak Hour - Bicycles



Peak Hour - Pedestrians



Note: Total study counts contained in parentheses.

Traffic Counts - Motorized Vehicles

Interval Start Time	DWY C Eastbound				DWY C Westbound				70TH ST Northbound				70TH ST Southbound					Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total		West	East	South	North
4:00 PM	0	0	0	0	0	12	0	2	0	0	13	4	0	3	32	0	66	243	0	0	0	0
4:15 PM	0	0	0	0	0	6	0	1	0	0	17	11	0	0	23	0	58	256	0	0	0	3
4:30 PM	0	0	0	0	0	3	0	10	2	0	22	5	0	1	20	0	63	269	0	0	0	0
4:45 PM	0	0	0	0	0	7	0	1	0	0	24	0	0	0	24	0	56	267	0	0	0	0
5:00 PM	0	0	0	0	0	11	0	0	0	0	23	6	0	0	39	0	79	254	0	2	0	0
5:15 PM	0	0	0	0	0	13	0	0	0	0	18	6	0	2	32	0	71		0	0	0	0
5:30 PM	0	0	0	0	0	4	0	3	1	0	11	9	0	0	33	0	61		0	0	0	0
5:45 PM	0	0	0	0	0	6	0	0	1	0	13	2	0	0	21	0	43		0	2	0	0
Count Total	0	0	0	0	0	62	0	17	4	0	141	43	0	6	224	0	497		0	4	0	3
Peak Hour	0	0	0	0	0	34	0	11	2	0	87	17	0	3	115	0	269		0	2	0	0

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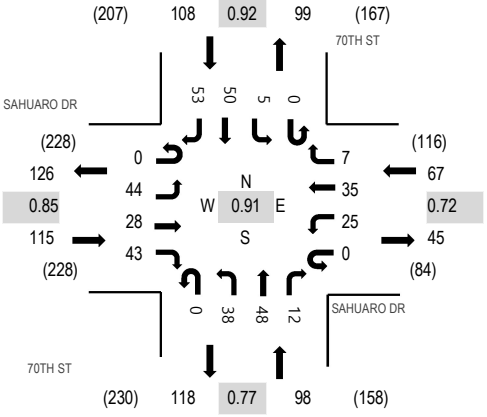
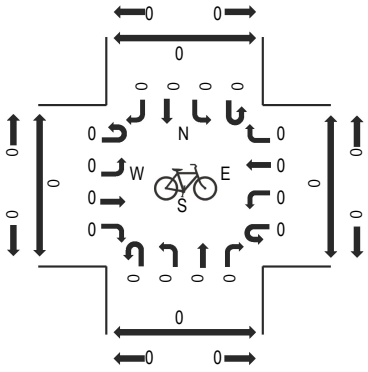
Location: 7 70TH ST & SAHUARO DR PM
Date: Thursday, February 23, 2023
Peak Hour: 04:30 PM - 05:30 PM
Peak 15-Minutes: 05:00 PM - 05:15 PM

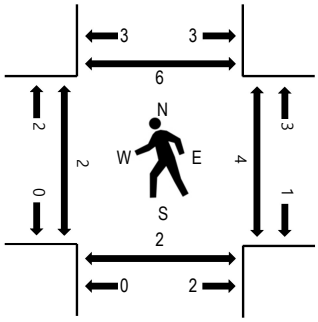
Peak Hour - Motorized Vehicles



Peak Hour - Bicycles



Peak Hour - Pedestrians



Note: Total study counts contained in parentheses.

Traffic Counts - Motorized Vehicles

Interval Start Time	SAHUARO DR Eastbound				SAHUARO DR Westbound				70TH ST Northbound				70TH ST Southbound					Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total		West	East	South	North
4:00 PM	0	15	4	20	0	3	13	1	0	3	11	1	0	1	12	13	97	356	3	1	1	3
4:15 PM	0	13	3	8	0	1	7	1	0	8	5	5	0	4	14	9	78	366	0	0	1	0
4:30 PM	0	10	6	8	0	1	8	3	0	7	22	3	0	1	12	12	93	388	0	2	0	2
4:45 PM	0	7	9	7	0	4	8	0	0	10	13	2	0	1	13	14	88	377	2	0	0	0
5:00 PM	0	13	7	15	0	11	7	1	0	13	7	3	0	2	13	15	107	353	0	2	0	2
5:15 PM	0	14	6	13	0	9	12	3	0	8	6	4	0	1	12	12	100		0	0	2	2
5:30 PM	0	7	6	15	0	6	8	0	0	6	4	4	0	3	12	11	82		0	0	0	0
5:45 PM	0	8	6	8	0	1	8	0	0	9	3	1	0	1	12	7	64		4	0	2	1
Count Total	0	87	47	94	0	36	71	9	0	64	71	23	0	14	100	93	709		9	5	6	10
Peak Hour	0	44	28	43	0	25	35	7	0	38	48	12	0	5	50	53	388		2	4	2	6

ALL TRAFFIC DATA SERVICES
(303) 216-2439
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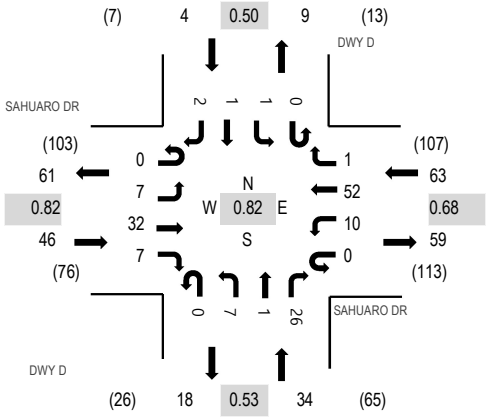
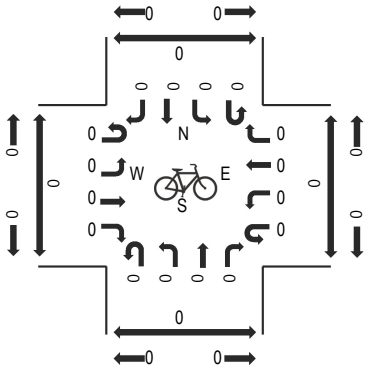
Location: 8 DWY D & SAHUARO DR PM
Date: Thursday, February 23, 2023
Peak Hour: 04:45 PM - 05:45 PM
Peak 15-Minutes: 05:00 PM - 05:15 PM

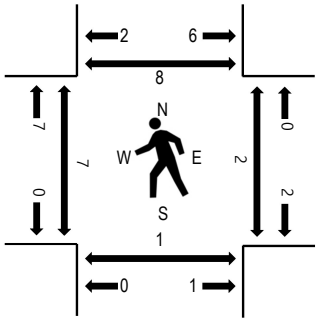
Peak Hour - Motorized Vehicles



Peak Hour - Bicycles



Peak Hour - Pedestrians



Note: Total study counts contained in parentheses.

Traffic Counts - Motorized Vehicles

Interval Start Time	SAHUARO DR Eastbound				SAHUARO DR Westbound				DWY D Northbound				DWY D Southbound					Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total		West	East	South	North
4:00 PM	0	0	5	0	0	3	12	0	0	3	0	14	0	0	0	0	37	119	1	3	0	2
4:15 PM	0	2	6	0	0	1	6	1	0	1	0	8	0	1	0	1	27	127	0	0	0	0
4:30 PM	0	0	9	1	0	1	9	0	0	0	0	3	0	1	0	0	24	137	0	0	0	0
4:45 PM	0	0	8	2	0	4	10	0	0	1	0	6	0	0	0	0	31	147	3	0	0	3
5:00 PM	0	1	7	3	0	3	20	0	0	1	0	10	0	0	0	0	45	136	1	0	0	3
5:15 PM	0	3	8	0	0	2	13	0	0	2	0	7	0	0	1	1	37		3	0	1	0
5:30 PM	0	3	9	2	0	1	9	1	0	3	1	3	0	1	0	1	34		0	2	0	2
5:45 PM	0	0	5	2	0	0	10	1	0	0	0	2	0	0	0	0	20		0	0	0	1
Count Total	0	9	57	10	0	15	89	3	0	11	1	53	0	3	1	3	255		8	5	1	11
Peak Hour	0	7	32	7	0	10	52	1	0	7	1	26	0	1	1	2	147		7	2	1	8

ALL TRAFFIC DATA SERVICES
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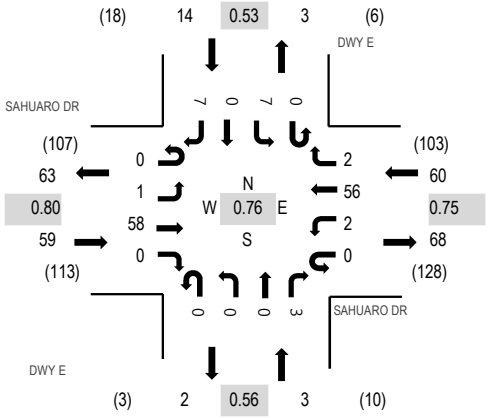
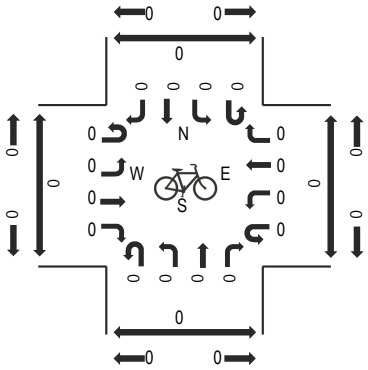
Location: 9 DWY E & SAHUARO DR PM
Date: Thursday, February 23, 2023
Peak Hour: 04:45 PM - 05:45 PM
Peak 15-Minutes: 05:00 PM - 05:15 PM

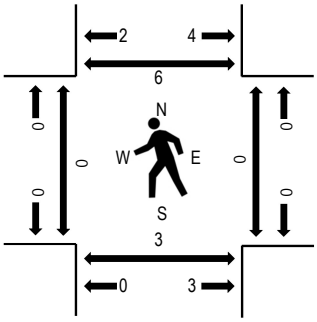
Peak Hour - Motorized Vehicles



Peak Hour - Bicycles



Peak Hour - Pedestrians



Note: Total study counts contained in parentheses.

Traffic Counts - Motorized Vehicles

Interval Start Time	SAHUARO DR Eastbound				SAHUARO DR Westbound				DWY E Northbound				DWY E Southbound					Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total		West	East	South	North
4:00 PM	0	0	19	0	0	1	15	0	0	0	0	4	0	0	0	0	39	120	3	0	1	3
4:15 PM	0	1	14	0	0	0	8	1	0	0	1	0	0	1	0	0	26	126	0	1	0	1
4:30 PM	0	0	13	0	0	0	9	0	0	1	0	0	0	0	0	0	23	134	0	0	0	0
4:45 PM	0	0	14	0	0	0	14	1	0	0	0	3	0	0	0	0	32	136	0	0	0	3
5:00 PM	0	0	17	0	0	0	19	1	0	0	0	0	0	4	0	4	45	124	0	0	0	3
5:15 PM	0	1	14	0	0	2	14	0	0	0	0	0	0	2	0	1	34		0	0	1	0
5:30 PM	0	0	13	0	0	0	9	0	0	0	0	0	0	1	0	2	25		0	0	2	0
5:45 PM	0	0	7	0	0	0	9	0	0	0	0	1	0	1	0	2	20		0	0	0	1
Count Total	0	2	111	0	0	3	97	3	0	1	1	8	0	9	0	9	244		3	1	4	11
Peak Hour	0	1	58	0	0	2	56	2	0	0	0	3	0	7	0	7	136		0	0	3	6

All Traffic Data Services

SITE 2_E - SHEA BLVD EAST OF DWY A

Time	EB	WB	Total
2/23/2023	12	13	25
2/23/2023 12:15:00 AM	11	16	27
2/23/2023 12:30:00 AM	10	15	25
2/23/2023 12:45:00 AM	14	13	27
2/23/2023 1:00:00 AM	9	10	19
2/23/2023 1:15:00 AM	5	14	19
2/23/2023 1:30:00 AM	8	8	16
2/23/2023 1:45:00 AM	10	9	19
2/23/2023 2:00:00 AM	4	8	12
2/23/2023 2:15:00 AM	10	10	20
2/23/2023 2:30:00 AM	5	4	9
2/23/2023 2:45:00 AM	6	13	19
2/23/2023 3:00:00 AM	7	6	13
2/23/2023 3:15:00 AM	8	5	13
2/23/2023 3:30:00 AM	13	3	16
2/23/2023 3:45:00 AM	15	10	25
2/23/2023 4:00:00 AM	9	10	19
2/23/2023 4:15:00 AM	24	10	34
2/23/2023 4:30:00 AM	38	19	57
2/23/2023 4:45:00 AM	52	27	79
2/23/2023 5:00:00 AM	45	26	71
2/23/2023 5:15:00 AM	70	52	122
2/23/2023 5:30:00 AM	99	45	144
2/23/2023 5:45:00 AM	123	65	188
2/23/2023 6:00:00 AM	89	62	151
2/23/2023 6:15:00 AM	144	102	246
2/23/2023 6:30:00 AM	218	117	335
2/23/2023 6:45:00 AM	287	142	429
2/23/2023 7:00:00 AM	281	220	501
2/23/2023 7:15:00 AM	375	277	652
2/23/2023 7:30:00 AM	396	319	715
2/23/2023 7:45:00 AM	445	267	712
2/23/2023 8:00:00 AM	395	253	648
2/23/2023 8:15:00 AM	441	273	714
2/23/2023 8:30:00 AM	422	269	691
2/23/2023 8:45:00 AM	340	293	633
2/23/2023 9:00:00 AM	303	267	570
2/23/2023 9:15:00 AM	296	249	545
2/23/2023 9:30:00 AM	302	289	591
2/23/2023 9:45:00 AM	300	254	554
2/23/2023 10:00:00 AM	283	306	589
2/23/2023 10:15:00 AM	248	245	493
2/23/2023 10:30:00 AM	287	286	573
2/23/2023 10:45:00 AM	277	269	546
2/23/2023 11:00:00 AM	305	280	585
2/23/2023 11:15:00 AM	273	270	543
2/23/2023 11:30:00 AM	282	300	582
2/23/2023 11:45:00 AM	300	291	591
Total	7,896	6,311	14,207
Percentage	55.6%	44.4%	
Peak Hour	7:45 AM	11:00 AM	7:30 AM
Volume	1,703	1,141	2,789
PHF	0.957	0.951	0.975

All Traffic Data Services

SITE 2_E - SHEA BLVD EAST OF DWY A

Time	EB	WB	Total
2/23/2023 12:00:00 PM	257	313	570
2/23/2023 12:15:00 PM	271	326	597
2/23/2023 12:30:00 PM	279	321	600
2/23/2023 12:45:00 PM	277	292	569
2/23/2023 1:00:00 PM	292	296	588
2/23/2023 1:15:00 PM	252	269	521
2/23/2023 1:30:00 PM	289	360	649
2/23/2023 1:45:00 PM	268	317	585
2/23/2023 2:00:00 PM	265	354	619
2/23/2023 2:15:00 PM	314	332	646
2/23/2023 2:30:00 PM	362	377	739
2/23/2023 2:45:00 PM	284	337	621
2/23/2023 3:00:00 PM	315	391	706
2/23/2023 3:15:00 PM	302	409	711
2/23/2023 3:30:00 PM	347	389	736
2/23/2023 3:45:00 PM	313	380	693
2/23/2023 4:00:00 PM	320	437	757
2/23/2023 4:15:00 PM	280	430	710
2/23/2023 4:30:00 PM	284	414	698
2/23/2023 4:45:00 PM	274	416	690
2/23/2023 5:00:00 PM	315	457	772
2/23/2023 5:15:00 PM	311	442	753
2/23/2023 5:30:00 PM	325	393	718
2/23/2023 5:45:00 PM	262	363	625
2/23/2023 6:00:00 PM	247	302	549
2/23/2023 6:15:00 PM	237	318	555
2/23/2023 6:30:00 PM	237	245	482
2/23/2023 6:45:00 PM	207	241	448
2/23/2023 7:00:00 PM	166	225	391
2/23/2023 7:15:00 PM	148	200	348
2/23/2023 7:30:00 PM	148	186	334
2/23/2023 7:45:00 PM	134	153	287
2/23/2023 8:00:00 PM	134	182	316
2/23/2023 8:15:00 PM	107	149	256
2/23/2023 8:30:00 PM	101	147	248
2/23/2023 8:45:00 PM	103	141	244
2/23/2023 9:00:00 PM	79	143	222
2/23/2023 9:15:00 PM	99	128	227
2/23/2023 9:30:00 PM	59	103	162
2/23/2023 9:45:00 PM	58	91	149
2/23/2023 10:00:00 PM	55	79	134
2/23/2023 10:15:00 PM	44	77	121
2/23/2023 10:30:00 PM	38	65	103
2/23/2023 10:45:00 PM	37	54	91
2/23/2023 11:00:00 PM	39	56	95
2/23/2023 11:15:00 PM	24	34	58
2/23/2023 11:30:00 PM	17	21	38
2/23/2023 11:45:00 PM	17	30	47
Total	9,593	12,185	21,778
Percentage	44.0%	56.0%	
Peak Hour	3:15 PM	4:30 PM	4:45 PM
Volume	1,282	1,729	2,933
PHF	0.924	0.946	0.950
Grand Total	17,489	18,496	35,985
Percentage	48.6%	51.4%	

All Traffic Data Services

SITE 7_E - SAHUARO DR EAST OF 70TH ST

Time	EB	WB	Total
2/23/2023	2	0	2
2/23/2023 12:15:00 AM	0	0	0
2/23/2023 12:30:00 AM	0	0	0
2/23/2023 12:45:00 AM	0	0	0
2/23/2023 1:00:00 AM	2	0	2
2/23/2023 1:15:00 AM	1	0	1
2/23/2023 1:30:00 AM	1	1	2
2/23/2023 1:45:00 AM	2	0	2
2/23/2023 2:00:00 AM	0	2	2
2/23/2023 2:15:00 AM	0	0	0
2/23/2023 2:30:00 AM	0	1	1
2/23/2023 2:45:00 AM	0	0	0
2/23/2023 3:00:00 AM	1	0	1
2/23/2023 3:15:00 AM	1	1	2
2/23/2023 3:30:00 AM	0	0	0
2/23/2023 3:45:00 AM	2	0	2
2/23/2023 4:00:00 AM	1	0	1
2/23/2023 4:15:00 AM	0	0	0
2/23/2023 4:30:00 AM	0	0	0
2/23/2023 4:45:00 AM	0	0	0
2/23/2023 5:00:00 AM	0	1	1
2/23/2023 5:15:00 AM	1	1	2
2/23/2023 5:30:00 AM	1	1	2
2/23/2023 5:45:00 AM	0	1	1
2/23/2023 6:00:00 AM	2	1	3
2/23/2023 6:15:00 AM	2	2	4
2/23/2023 6:30:00 AM	5	0	5
2/23/2023 6:45:00 AM	2	4	6
2/23/2023 7:00:00 AM	5	5	10
2/23/2023 7:15:00 AM	4	13	17
2/23/2023 7:30:00 AM	12	6	18
2/23/2023 7:45:00 AM	15	5	20
2/23/2023 8:00:00 AM	14	9	23
2/23/2023 8:15:00 AM	17	8	25
2/23/2023 8:30:00 AM	10	7	17
2/23/2023 8:45:00 AM	11	17	28
2/23/2023 9:00:00 AM	15	7	22
2/23/2023 9:15:00 AM	11	5	16
2/23/2023 9:30:00 AM	14	5	19
2/23/2023 9:45:00 AM	12	14	26
2/23/2023 10:00:00 AM	7	7	14
2/23/2023 10:15:00 AM	20	8	28
2/23/2023 10:30:00 AM	17	11	28
2/23/2023 10:45:00 AM	14	15	29
2/23/2023 11:00:00 AM	7	9	16
2/23/2023 11:15:00 AM	8	8	16
2/23/2023 11:30:00 AM	13	12	25
2/23/2023 11:45:00 AM	10	16	26
Total	262	203	465
Percentage	56.3%	43.7%	
Peak Hour	7:30 AM	11:00 AM	10:15 AM
Volume	58	45	101
PHF	0.853	0.703	0.871

All Traffic Data Services

SITE 7_E - SAHUARO DR EAST OF 70TH ST

Time	EB	WB	Total
2/23/2023 12:00:00 PM	27	15	42
2/23/2023 12:15:00 PM	26	21	47
2/23/2023 12:30:00 PM	20	25	45
2/23/2023 12:45:00 PM	12	15	27
2/23/2023 1:00:00 PM	7	5	12
2/23/2023 1:15:00 PM	15	14	29
2/23/2023 1:30:00 PM	13	7	20
2/23/2023 1:45:00 PM	10	15	25
2/23/2023 2:00:00 PM	13	10	23
2/23/2023 2:15:00 PM	10	16	26
2/23/2023 2:30:00 PM	19	17	36
2/23/2023 2:45:00 PM	10	13	23
2/23/2023 3:00:00 PM	17	17	34
2/23/2023 3:15:00 PM	11	14	25
2/23/2023 3:30:00 PM	7	10	17
2/23/2023 3:45:00 PM	13	19	32
2/23/2023 4:00:00 PM	6	17	23
2/23/2023 4:15:00 PM	12	9	21
2/23/2023 4:30:00 PM	10	12	22
2/23/2023 4:45:00 PM	12	12	24
2/23/2023 5:00:00 PM	12	19	31
2/23/2023 5:15:00 PM	11	24	35
2/23/2023 5:30:00 PM	13	14	27
2/23/2023 5:45:00 PM	8	9	17
2/23/2023 6:00:00 PM	8	21	29
2/23/2023 6:15:00 PM	8	8	16
2/23/2023 6:30:00 PM	9	14	23
2/23/2023 6:45:00 PM	6	5	11
2/23/2023 7:00:00 PM	3	9	12
2/23/2023 7:15:00 PM	6	7	13
2/23/2023 7:30:00 PM	4	4	8
2/23/2023 7:45:00 PM	4	4	8
2/23/2023 8:00:00 PM	4	3	7
2/23/2023 8:15:00 PM	4	4	8
2/23/2023 8:30:00 PM	9	6	15
2/23/2023 8:45:00 PM	4	4	8
2/23/2023 9:00:00 PM	3	5	8
2/23/2023 9:15:00 PM	5	6	11
2/23/2023 9:30:00 PM	5	3	8
2/23/2023 9:45:00 PM	3	2	5
2/23/2023 10:00:00 PM	1	1	2
2/23/2023 10:15:00 PM	3	2	5
2/23/2023 10:30:00 PM	0	1	1
2/23/2023 10:45:00 PM	0	2	2
2/23/2023 11:00:00 PM	1	1	2
2/23/2023 11:15:00 PM	1	3	4
2/23/2023 11:30:00 PM	0	1	1
2/23/2023 11:45:00 PM	0	0	0
Total	405	465	870
Percentage	46.6%	53.4%	
Peak Hour	12:00 PM	12:00 PM	12:00 PM
Volume	85	76	161
PHF	0.787	0.760	0.856
Grand Total	667	668	1,335
Percentage	50.0%	50.0%	

All Traffic Data Services

SITE 7_S - 70TH ST SOUTH OF SAHUARO DR

Time	NB	SB	Total
2/23/2023	1	1	2
2/23/2023 12:15:00 AM	1	1	2
2/23/2023 12:30:00 AM	0	0	0
2/23/2023 12:45:00 AM	1	1	2
2/23/2023 1:00:00 AM	2	0	2
2/23/2023 1:15:00 AM	0	1	1
2/23/2023 1:30:00 AM	0	0	0
2/23/2023 1:45:00 AM	0	0	0
2/23/2023 2:00:00 AM	0	0	0
2/23/2023 2:15:00 AM	0	0	0
2/23/2023 2:30:00 AM	0	1	1
2/23/2023 2:45:00 AM	0	0	0
2/23/2023 3:00:00 AM	1	0	1
2/23/2023 3:15:00 AM	0	0	0
2/23/2023 3:30:00 AM	0	0	0
2/23/2023 3:45:00 AM	0	1	1
2/23/2023 4:00:00 AM	1	0	1
2/23/2023 4:15:00 AM	0	0	0
2/23/2023 4:30:00 AM	0	1	1
2/23/2023 4:45:00 AM	1	0	1
2/23/2023 5:00:00 AM	0	2	2
2/23/2023 5:15:00 AM	0	4	4
2/23/2023 5:30:00 AM	3	2	5
2/23/2023 5:45:00 AM	2	4	6
2/23/2023 6:00:00 AM	3	3	6
2/23/2023 6:15:00 AM	4	6	10
2/23/2023 6:30:00 AM	5	9	14
2/23/2023 6:45:00 AM	3	12	15
2/23/2023 7:00:00 AM	10	25	35
2/23/2023 7:15:00 AM	11	58	69
2/23/2023 7:30:00 AM	19	67	86
2/23/2023 7:45:00 AM	27	20	47
2/23/2023 8:00:00 AM	20	18	38
2/23/2023 8:15:00 AM	15	26	41
2/23/2023 8:30:00 AM	9	34	43
2/23/2023 8:45:00 AM	19	30	49
2/23/2023 9:00:00 AM	12	17	29
2/23/2023 9:15:00 AM	24	19	43
2/23/2023 9:30:00 AM	14	20	34
2/23/2023 9:45:00 AM	19	22	41
2/23/2023 10:00:00 AM	26	23	49
2/23/2023 10:15:00 AM	14	28	42
2/23/2023 10:30:00 AM	10	37	47
2/23/2023 10:45:00 AM	19	35	54
2/23/2023 11:00:00 AM	13	26	39
2/23/2023 11:15:00 AM	14	22	36
2/23/2023 11:30:00 AM	15	32	47
2/23/2023 11:45:00 AM	21	39	60
Total	359	647	1,006
Percentage	35.7%	64.3%	
Peak Hour	9:15 AM	7:00 AM	7:15 AM
Volume	83	171	241
PHF	0.798	0.638	0.701

All Traffic Data Services

SITE 7_S - 70TH ST SOUTH OF SAHUARO DR

Time	NB	SB	Total
2/23/2023 12:00:00 PM	27	33	60
2/23/2023 12:15:00 PM	21	30	51
2/23/2023 12:30:00 PM	19	30	49
2/23/2023 12:45:00 PM	25	29	54
2/23/2023 1:00:00 PM	17	21	38
2/23/2023 1:15:00 PM	20	26	46
2/23/2023 1:30:00 PM	33	26	59
2/23/2023 1:45:00 PM	27	29	56
2/23/2023 2:00:00 PM	17	33	50
2/23/2023 2:15:00 PM	24	38	62
2/23/2023 2:30:00 PM	35	46	81
2/23/2023 2:45:00 PM	29	33	62
2/23/2023 3:00:00 PM	21	45	66
2/23/2023 3:15:00 PM	14	27	41
2/23/2023 3:30:00 PM	19	31	50
2/23/2023 3:45:00 PM	13	24	37
2/23/2023 4:00:00 PM	15	35	50
2/23/2023 4:15:00 PM	18	23	41
2/23/2023 4:30:00 PM	32	21	53
2/23/2023 4:45:00 PM	25	24	49
2/23/2023 5:00:00 PM	23	39	62
2/23/2023 5:15:00 PM	18	34	52
2/23/2023 5:30:00 PM	14	33	47
2/23/2023 5:45:00 PM	13	21	34
2/23/2023 6:00:00 PM	10	18	28
2/23/2023 6:15:00 PM	15	21	36
2/23/2023 6:30:00 PM	13	18	31
2/23/2023 6:45:00 PM	15	16	31
2/23/2023 7:00:00 PM	14	15	29
2/23/2023 7:15:00 PM	7	13	20
2/23/2023 7:30:00 PM	3	7	10
2/23/2023 7:45:00 PM	7	12	19
2/23/2023 8:00:00 PM	6	5	11
2/23/2023 8:15:00 PM	5	7	12
2/23/2023 8:30:00 PM	6	6	12
2/23/2023 8:45:00 PM	13	6	19
2/23/2023 9:00:00 PM	3	6	9
2/23/2023 9:15:00 PM	9	5	14
2/23/2023 9:30:00 PM	4	4	8
2/23/2023 9:45:00 PM	3	6	9
2/23/2023 10:00:00 PM	3	1	4
2/23/2023 10:15:00 PM	5	1	6
2/23/2023 10:30:00 PM	1	2	3
2/23/2023 10:45:00 PM	1	1	2
2/23/2023 11:00:00 PM	2	4	6
2/23/2023 11:15:00 PM	0	1	1
2/23/2023 11:30:00 PM	1	0	1
2/23/2023 11:45:00 PM	1	1	2
Total	666	907	1,573
Percentage	42.3%	57.7%	
Peak Hour	2:15 PM	2:15 PM	2:15 PM
Volume	109	162	271
PHF	0.779	0.880	0.836
Grand Total	1,025	1,554	2,579
Percentage	39.7%	60.3%	

Appendix E – Signal Timing

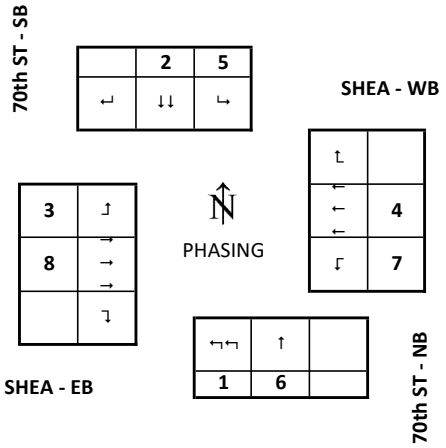
SHEA & 70th ST

System # 105

BASIC TIMING PLAN

Section #	I.P. Address	Date Designed
	MM1-5-1	
	172.27.11.5	1/6/2017

	Phase	1	2	3	4	5	6	7	8
TIMING PLAN - MM-2-1	Movement	NBL	SBT	EBL	WBT	SBL	NBT	WBL	EBT
	NOTES	L-P		L-P	COORD	L-P		PROT	COORD
	MIN GRN	5	7	5	10	5	7	5	10
	BK MGRN								
	CS MGRN								
	DLY GRN								
	WALK		4		4		4		4
	WALK2		12		17		10		17
	WLK MAX								
	PED CLR/FDW		28		19		33		19
	PD CLR2		28		19		33		19
	PC MAX								
	PED CO								
	VEH EXT	2		2		2		2	
	VH EXT2								
	MAX 1	15	50	20	50	20	50	20	50
	MAX 2	20	60	30	60	30	60	30	60
	MAX 3								
	DYM MAX	20	60	30	60	30	60	30	60
	DYM STP	5	5	5	5	5	5	5	5
	YELLOW	3.3	4.0	3.6	4.4	3.3	4	3.6	4.4
	RED CLR	1.9	1.4	2	1.1	1.9	1.5	2	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	3	4	1	2
R2	8	7	5	6
		B		B

Use Timing plan:

TOD: MIDDAY

R1	3	4	1	2
R2	8	7	5	6
		B		B

Use Timing plan:

TOD: EVENING

R1	3	4	1	2
R2	8	7	5	6
		B		B

Use Timing plan:

TOD: NIGHT

R1	3	4	1	2
R2	8	7	5	6
		B		B

Use Timing plan:

FREE

R1	3	4	1	2
R2	8	7	5	6
		B		B

Use Timing plan: 254

NOTES

Approved By
Effective Date

SHEA & 70th ST

System #	105

COORDINATOR

Section #	Date Updated
0	1/6/2017

	PHASE	1	2	3	4	5	6	7	8	
	FDW		28		19		33		19	
	YELLOW	3.3	4	3.6	4.4	3.3	4	3.6	4.4	
	ALL RED	1.9	1.4	2	1.1	1.9	1.5	2	1.1	
	WALK		28		19		33		19	

										COORD PATTERN	OFFSET
	R1	3	⮥	4	←	1	↰	2	↓		
	R2	8	→	7	⮧	5	↳	6	↑	Balanced	97
PLAN 1 AM PLAN OPERATIVE TIMES 6:00		RING 1				RING 2					
	PHASE	1	2	3	4	5	6	7	8		
	SPLIT	14	48	12	46	19	43	13	45	Target Cycle Length	
	COORD				X				X	120	
	RECALLS				V				V	Actual Cycle Length	
	GREEN	8.8	42.6	6.4	40.5	13.8	37.5	7.4	39.5	120	

										COORD PATTERN	OFFSET
	R1	3	⮥	4	←	1	↰	2	↓		
	R2	8	→	7	⮧	5	↳	6	↑	Balanced	16
PLAN 2 MIDDAY PLAN OPERATIVE TIMES 9:00		RING 1				RING 2					
	PHASE	1	2	3	4	5	6	7	8		
	SPLIT	16	28	12	64	24	20	18	58	Target Cycle Length	
	COORD				X				X	120	
	RECALLS				V				V	Actual Cycle Length	
	GREEN	10.8	22.6	6.4	58.5	###	14.5	12.4	52.5	120	

										COORD PATTERN	OFFSET
	R1	3	⮥	4	←	1	↰	2	↓		
	R2	8	→	7	⮧	5	↳	6	↑	Balanced	51
PLAN 3 PM PLAN OPERATIVE TIMES 15:00		RING 1				RING 2					
	PHASE	1	2	3	4	5	6	7	8		
	SPLIT	20	28	11	61	32	16	18	54	Target Cycle Length	
	COORD				X				X	120	
	RECALLS				V				V	Actual Cycle Length	
	GREEN	14.8	22.6	5.4	55.5	###	10.5	12.4	48.5	120	

										COORD PATTERN	OFFSET
	R1	3	⮥	4	←	1	↰	2	↓		
	R2	8	→	7	⮧	5	↳	6	↑	Balanced	73
PLAN 4 MIDNIGHT PLAN OPERATIVE TIMES		RING 1				RING 2					
	PHASE	1	2	3	4	5	6	7	8		
	SPLIT	13	22	12	43	13	22	12	43	Target Cycle Length	
	COORD				X				X	90	
	RECALLS				V				V	Actual Cycle Length	
	GREEN	7.8	16.6	6.4	37.5	7.8	16.5	6.4	37.5	90	

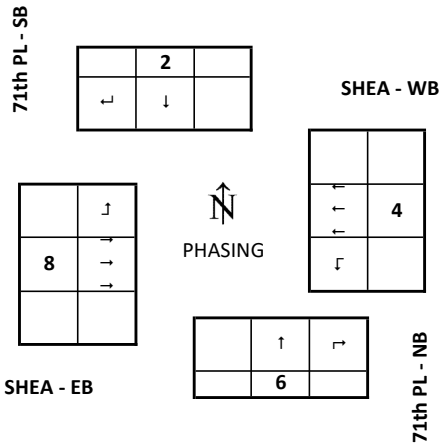
SHEA & 71th PL

System # 106

BASIC TIMING PLAN

Section #	I.P. Address	Date Designed
	MM1-5-1	
	172.27.11.06	1/6/2017

	Phase		2		4		6		8
	Movement		SBT		WBT		NBT		EBT
	NOTES				COORD				COORD
TIMING PLAN - MM-2-1	MIN GRN		7		10		7		10
	BK MGRN								
	CS MGRN								
	DLY GRN								
	WALK		0		7		7		7
	WALK2								
	WLK MAX								
	PED CLR/FDW		-		15		23		11
	PD CLR2								
	PC MAX								
	PED CO								
	VEH EXT		2		2		2		2
	VH EXT2								
	MAX 1		40		100		40		100
	MAX 2		45		105		45		105
	MAX 3								
	DYM MAX		45		90		45		90
	DYM STP								
	YELLOW		3.3		4.4		3.3		4.4
	RED CLR		1.9		1.2		1.9		1.2
	RED MAX								
	RED RVT		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 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: NIGHT
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

Approved By
Effective Date

SHEA & 71th PL

System #	106

COORDINATOR	Section #	Date Updated
	0	1/6/2017

PHASE	1	2	3	4	5	6	7	8
FDW		-		15		23		11
YELLOW		3.3		4.4		3.3		4.4
ALL RED		1.9		1.2		1.9		1.2
WALK		-		15		23		11

PLAN 1 AM PLAN OPERATIVE TIMES 6:00

									COORD PATTERN	OFFSET
R1	2	↓			4	←				
R2	6	↑			8	→			Balanced	2
	RING 1				RING 2					
PHASE		2		4		6		8		
SPLIT		37		83		37		83	Target Cycle Length	
COORD				X				X	120	
RECALLS				V				V	Actual Cycle Length	
GREEN		31.8		77.4		31.8		77.4	120	

PLAN 2 MIDDAY PLAN OPERATIVE TIMES 9:00

									COORD PATTERN	OFFSET
R1	2	↓			4	←				
R2	6	↑			8	→			Balanced	63
	RING 1				RING 2					
PHASE		2		4		6		8		
SPLIT		37		83		37		83	Target Cycle Length	
COORD				X				X	120	
RECALLS				V				V	Actual Cycle Length	
GREEN		31.8		77.4		31.8		77.4	120	

PLAN 3 PM PLAN OPERATIVE TIMES 15:00

									COORD PATTERN	OFFSET
R1	2	↓			4	←				
R2	6	↑			8	→			Balanced	84
	RING 1				RING 2					
PHASE		2		4		6		8		
SPLIT		35		85		35		85	Target Cycle Length	
COORD				X				X	120	
RECALLS				V				V	Actual Cycle Length	
GREEN		29.8		79.4		29.8		79.4	120	

PLAN 4 MIDNIGHT PLAN OPERATIVE TIMES

									COORD PATTERN	OFFSET
R1	2	↓			4	←				
R2	6	↑			8	→			Balanced	5
	RING 1				RING 2					
PHASE		2		4		6		8		
SPLIT		30		60		30		60	Target Cycle Length	
COORD				X				X	90	
RECALLS				V				V	Actual Cycle Length	
GREEN		24.8		54.4		24.8		54.4	90	

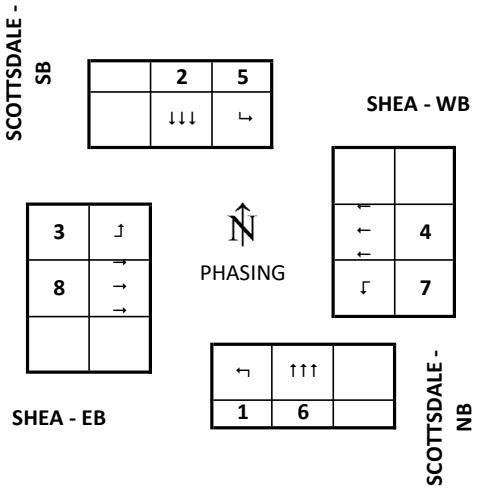
SCOTTSDALE & SHEA

System # 107

BASIC TIMING PLAN

Section #	I.P. Address	Date Designed
	MM1-5-1	
	172.27.11.07	1/15/2021

	Phase	1	2	3	4	5	6	7	8
TIMING PLAN - MM-2-1	Movement	NBL	SBT	EBL	WBT	SBL	NBT	WBL	EBT
	NOTES	L-P	COORD	PROT		PROT	COORD	L-P	
	MIN GRN	5	10	5	10	5	10	5	10
	BK MGRN								
	CS MGRN								
	DLY GRN								
	WALK		4		4		4		4
	WALK2								
	WLK MAX								
	PED CLR/FDW		21		21		22		21
	PD CLR2								
	PC MAX								
	PED CO								
	VEH EXT	2		2		2		2	
	VH EXT2								
	MAX 1	30	45	20	50	30	45	20	50
	MAX 2	40	55	35	55	40	55	35	55
	MAX 3								
	DYM MAX	40	55	35	55	40	55	35	55
	DYM STP	5	5	5	5	5	5	5	5
	YELLOW	3.6	4.4	3.6	4.4	3.6	4.4	3.6	4.4
	RED CLR	2	1.1	2	1.0	2	1.1	2	1.0
	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	1	2	4	3
R2	6	5	7	8
		B		B

Use Timing plan:

TOD: MIDDAY

R1	1	2	4	3
R2	6	5	7	8
		B		B

Use Timing plan:

TOD: EVENING

R1	1	2	4	3
R2	6	5	7	8
		B		B

Use Timing plan:

TOD: NIGHT

R1	2	1	4	3
R2	6	5	8	7
		B		B

Use Timing plan:

FREE

R1	1	2	4	3
R2	6	5	7	8
		B		B

Use Timing plan: 254

NOTES

Approved By

Effective Date

SCOTTSDALE & SHEA

System #	107

COORDINATOR	Section #	Date Updated
	0	1/15/2021

	PHASE	1	2	3	4	5	6	7	8	
	FDW		21		21		22		21	
	YELLOW	3.6	4.4	3.6	4.4	3.6	4.4	3.6	4.4	
	ALL RED	2	1.1	2	1	2	1.1	2	1	
	WALK		21		21		22		21	

										COORD PATTERN	OFFSET
PLAN 1 AM PLAN OPERATIVE TIMES 6:00	R1	1	↰	2	↓	4	←	3	↱		
	R2	6	↑	5	↳	7	↱	8	→	Balanced	40
		RING 1				RING 2					
	PHASE	1	2	3	4	5	6	7	8		
	SPLIT	18	38	24	40	21	35	17	47	Target Cycle Length	
	COORD		X				X			120	
	RECALLS		V				V			Actual Cycle Length	
	GREEN	12.4	32.5	18.4	34.6	15.4	29.5	11.4	41.6	120	

										COORD PATTERN	OFFSET
PLAN 2 MIDDAY PLAN OPERATIVE TIMES 9:00	R1	1	↰	2	↓	4	←	3	↱		
	R2	6	↑	5	↳	7	↱	8	→	Balanced	85
		RING 1				RING 2					
	PHASE	1	2	3	4	5	6	7	8		
	SPLIT	18	38	24	40	21	35	17	47	Target Cycle Length	
	COORD				X				X	120	
	RECALLS				V				V	Actual Cycle Length	
	GREEN	12.4	32.5	18.4	34.6	15.4	29.5	11.4	41.6	120	

										COORD PATTERN	OFFSET
PLAN 3 PM PLAN OPERATIVE TIMES 15:00	R1	1	↰	2	↓	4	←	3	↱		
	R2	6	↑	5	↳	7	↱	8	→	Balanced	39
		RING 1				RING 2					
	PHASE	1	2	3	4	5	6	7	8		
	SPLIT	28	35	18	39	22	41	20	37	Target Cycle Length	
	COORD				X				X	120	
	RECALLS				V				V	Actual Cycle Length	
	GREEN	22.4	29.5	12.4	33.6	16.4	35.5	14.4	31.6	120	

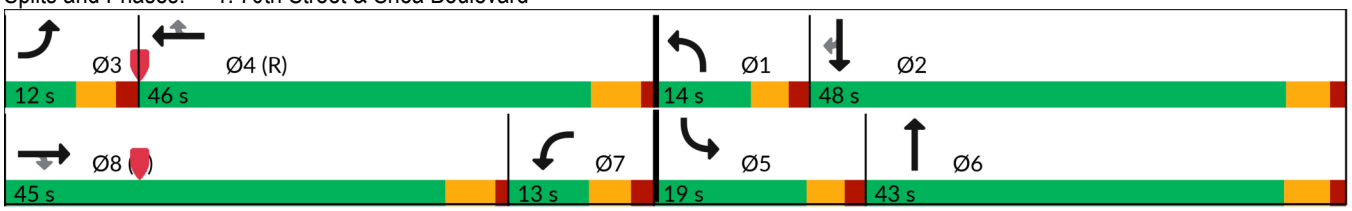
										COORD PATTERN	OFFSET
PLAN 4 MIDNIGHT PLAN OPERATIVE TIMES 22:00	R1	2	↓	1	↰	4	←	3	↱		
	R2	6	↑	5	↳	8	→	7	↱	Balanced	44
		RING 1				RING 2					
	PHASE	1	2	3	4	5	6	7	8		
	SPLIT	12	38	12	28	12	38	12	28	Target Cycle Length	
	COORD		X				X			90	
	RECALLS		V				V			Actual Cycle Length	
	GREEN	6.4	32.5	6.4	22.6	6.4	32.5	6.4	22.6	90	

Appendix F – Existing Capacity Analysis

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Configurations											
Traffic Volume (vph)	50	1514	392	74	897	59	217	38	43	91	42
Future Volume (vph)	50	1514	392	74	897	59	217	38	43	91	42
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Prot	NA	Perm
Protected Phases	3	8		7	4		1	6	5	2	
Permitted Phases			8			4					2
Detector Phase	3	8	8	7	4	4	1	6	5	2	2
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)	10.6	43.5	43.5	10.6	43.5	43.5	10.2	71.5	10.2	61.4	61.4
Total Split (s)	12.0	45.0	45.0	13.0	46.0	46.0	14.0	43.0	19.0	48.0	48.0
Total Split (%)	10.0%	37.5%	37.5%	10.8%	38.3%	38.3%	11.7%	35.8%	15.8%	40.0%	40.0%
Yellow Time (s)	3.6	4.4	4.4	3.6	4.4	4.4	3.3	4.0	3.3	4.0	4.0
All-Red Time (s)	2.0	1.1	1.1	2.0	1.1	1.1	1.9	1.5	1.9	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	0.0
Total Lost Time (s)	5.6	5.5	5.5	5.6	5.5	5.5	5.2	5.5	5.2	5.4	5.4
Lead/Lag	Lead	Lead	Lead	Lag	Lag	Lag	Lead	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	C-Max	C-Max	None	C-Max	C-Max	None	Max	None	Max	Max
Act Effct Green (s)	6.4	39.5	39.5	7.4	42.9	42.9	8.8	44.6	8.8	42.6	42.6
Actuated g/C Ratio	0.05	0.33	0.33	0.06	0.36	0.36	0.07	0.37	0.07	0.36	0.36
v/c Ratio	0.65	1.08	0.62	0.81	0.59	0.11	1.03	0.16	0.40	0.09	0.07
Control Delay (s/veh)	85.6	84.7	12.5	128.6	63.3	17.9	118.6	14.0	61.0	26.0	0.2
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 (s/veh)	85.6	84.7	12.5	128.6	63.3	17.9	118.6	14.0	61.0	26.0	0.2
LOS	F	F	B	F	E	B	F	B	E	C	A
Approach Delay (s/veh)		70.3			65.4			87.9		28.4	
Approach LOS		E			E			F		C	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 97 (81%), Referenced to phase 4:WBT and 8:EBT, Start of Green	
Natural Cycle: 150	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 1.08	
Intersection Signal Delay (s/veh): 68.3	Intersection LOS: E
Intersection Capacity Utilization 60.1%	ICU Level of Service B
Analysis Period (min) 15	

Splits and Phases: 1: 70th Street & Shea Boulevard

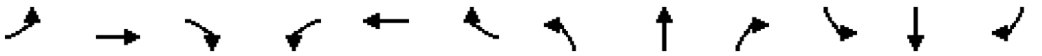


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	60	1802	467	88	1068	70	258	107	51	108	50
v/c Ratio	0.65	1.08	0.62	0.81	0.59	0.11	1.03	0.16	0.40	0.09	0.07
Control Delay (s/veh)	85.6	84.7	12.5	128.6	63.3	17.9	118.6	14.0	61.0	26.0	0.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	85.6	84.7	12.5	128.6	63.3	17.9	118.6	14.0	61.0	26.0	0.2
Queue Length 50th (ft)	46	~569	67	70	301	14	~109	24	38	28	0
Queue Length 95th (ft)	#100	#589	144	#147	327	37	#177	60	73	46	0
Internal Link Dist (ft)		664			258			163		155	
Turn Bay Length (ft)	90		250	150		105	300		80		110
Base Capacity (vph)	94	1673	754	109	1818	643	251	670	203	1256	672
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.64	1.08	0.62	0.81	0.59	0.11	1.03	0.16	0.25	0.09	0.07

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	50	1514	392	74	897	59	217	38	52	43	91	42
Future Volume (veh/h)	50	1514	392	74	897	59	217	38	52	43	91	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	60	1802	467	88	1068	70	258	45	62	51	108	50
Peak Hour Factor	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	77	1681	522	159	1911	593	253	279	384	66	1262	563
Arrive On Green	0.04	0.33	0.33	0.03	0.12	0.12	0.07	0.39	0.39	0.04	0.35	0.35
Sat Flow, veh/h	1781	5106	1585	1781	5106	1585	3456	712	981	1781	3554	1585
Grp Volume(v), veh/h	60	1802	467	88	1068	70	258	0	107	51	108	50
Grp Sat Flow(s),veh/h/ln	1781	1702	1585	1781	1702	1585	1728	0	1694	1781	1777	1585
Q Serve(g_s), s	4.0	39.5	26.9	5.8	23.6	4.7	8.8	0.0	4.9	3.4	2.4	2.5
Cycle Q Clear(g_c), s	4.0	39.5	26.9	5.8	23.6	4.7	8.8	0.0	4.9	3.4	2.4	2.5
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.58	1.00		1.00
Lane Grp Cap(c), veh/h	77	1681	522	159	1911	593	253	0	663	66	1262	563
V/C Ratio(X)	0.78	1.07	0.90	0.55	0.56	0.12	1.02	0.00	0.16	0.77	0.09	0.09
Avail Cap(c_a), veh/h	95	1681	522	159	1911	593	253	0	663	205	1262	563
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	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	56.8	40.3	24.5	55.9	43.3	35.0	55.6	0.0	23.7	57.3	25.7	25.8
Incr Delay (d2), s/veh	27.2	44.2	20.5	4.1	1.2	0.4	61.3	0.0	0.5	17.0	0.1	0.3
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	2.3	22.6	12.5	2.8	10.9	1.9	5.9	0.0	2.0	1.8	1.0	1.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	84.1	84.4	45.0	60.0	44.5	35.4	116.9	0.0	24.3	74.3	25.9	26.1
LnGrp LOS	F	F	D	E	D	D	F		C	E	C	C
Approach Vol, veh/h		2329			1226			365			209	
Approach Delay, s/veh		76.5			45.1			89.7			37.7	
Approach LOS		E			D			F			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	14.0	48.1	10.8	50.6	9.7	52.4	16.4	45.0
Change Period (Y+Rc), s	5.2	* 5.5	5.6	* 5.6	5.2	5.5	5.6	5.5
Max Green Setting (Gmax), s	8.8	* 43	6.4	* 41	13.8	37.5	7.4	39.5
Max Q Clear Time (g_c+I1), s	10.8	4.5	6.0	25.6	5.4	6.9	7.8	41.5
Green Ext Time (p_c), s	0.0	0.8	0.0	6.2	0.0	0.5	0.0	0.0

Intersection Summary	
HCM 6th Ctrl Delay, s/veh	66.4
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.

Intersection	
Int Delay, s/veh	0.1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑↑	↱		↑↑↑	↱			↱			↱
Traffic Vol, veh/h	0	1589	36	0	1018	46	0	0	16	0	0	11
Future Vol, veh/h	0	1589	36	0	1018	46	0	0	16	0	0	11
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	-	-	70	-	-	95	-	-	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	0	1727	39	0	1107	50	0	0	17	0	0	12

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	-	0	0	-	-	0	-	-	864	-	-	554
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	-	-	-	7.14	-	-	7.14
Critical Hdwy Stg 1	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	-	-	-	3.92	-	-	3.92
Pot Cap-1 Maneuver	0	-	-	0	-	-	0	0	*536	0	0	*690
Stage 1	0	-	-	0	-	-	0	0	-	0	0	-
Stage 2	0	-	-	0	-	-	0	0	-	0	0	-
Platoon blocked, %		-	-		-	-			1			1
Mov Cap-1 Maneuver	-	-	-	-	-	-	-	-	*536	-	-	*690
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s/v	0	0	11.9	10.3
HCM LOS			B	B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBT	WBR	SBLn1
Capacity (veh/h)	536	-	-	-	-	690
HCM Lane V/C Ratio	0.032	-	-	-	-	0.017
HCM Control Delay (s/veh)	11.9	-	-	-	-	10.3
HCM Lane LOS	B	-	-	-	-	B
HCM 95th %tile Q (veh)	0.1	-	-	-	-	0.1

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	1595	1049	4	0	12
Future Vol, veh/h	0	1595	1049	4	0	12
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	1734	1140	4	0	13

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	-	0	-	0	-	572
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	7.14
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	3.92
Pot Cap-1 Maneuver	0	-	-	-	0	*758
Stage 1	0	-	-	-	0	-
Stage 2	0	-	-	-	0	-
Platoon blocked, %		-	-	-		1
Mov Cap-1 Maneuver	-	-	-	-	-	*758
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	WB	SB
HCM Control Delay, s/v	0	0	9.8
HCM LOS			A

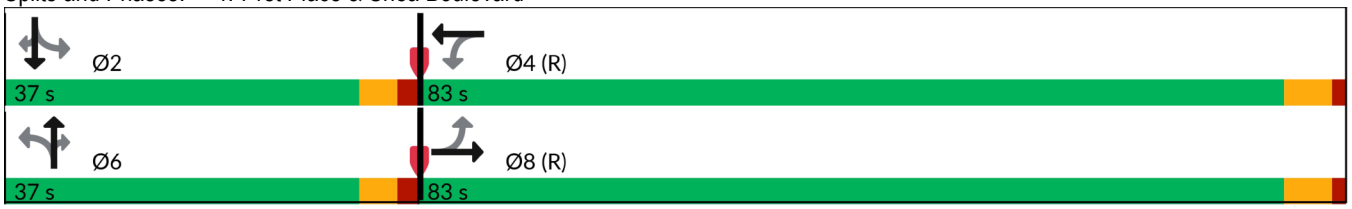
Minor Lane/Major Mvmt	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	-	-	-	758
HCM Lane V/C Ratio	-	-	-	0.017
HCM Control Delay (s/veh)	-	-	-	9.8
HCM Lane LOS	-	-	-	A
HCM 95th %tile Q (veh)	-	-	-	0.1

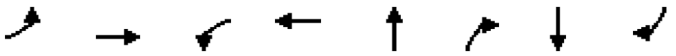
Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations										
Traffic Volume (vph)	88	1520	14	978	8	1	6	44	3	59
Future Volume (vph)	88	1520	14	978	8	1	6	44	3	59
Turn Type	Perm	NA	Perm	NA	Perm	NA	Perm	Perm	NA	Perm
Protected Phases		8		4		6			2	
Permitted Phases	8		4		6		6	2		2
Detector Phase	8	8	4	4	6	6	6	2	2	2
Switch Phase										
Minimum Initial (s)	10.0	10.0	10.0	10.0	7.0	7.0	7.0	7.0	7.0	7.0
Minimum Split (s)	32.5	32.5	36.5	36.5	51.2	51.2	51.2	22.5	22.5	22.5
Total Split (s)	83.0	83.0	83.0	83.0	37.0	37.0	37.0	37.0	37.0	37.0
Total Split (%)	69.2%	69.2%	69.2%	69.2%	30.8%	30.8%	30.8%	30.8%	30.8%	30.8%
Yellow Time (s)	4.4	4.4	4.4	4.4	3.3	3.3	3.3	3.3	3.3	3.3
All-Red Time (s)	1.2	1.2	1.2	1.2	1.9	1.9	1.9	1.9	1.9	1.9
Lost Time Adjust (s)	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0
Total Lost Time (s)	5.6	5.6	5.6	5.6		5.2	5.2		5.2	5.2
Lead/Lag										
Lead-Lag Optimize?										
Recall Mode	C-Max	C-Max	C-Max	C-Max	Max	Max	Max	Max	Max	Max
Act Effct Green (s)	77.4	77.4	77.4	77.4		31.8	31.8		31.8	31.8
Actuated g/C Ratio	0.65	0.65	0.65	0.65		0.27	0.27		0.27	0.27
v/c Ratio	0.36	0.51	0.12	0.34		0.02	0.02		0.13	0.14
Control Delay (s/veh)	19.4	21.3	9.4	11.7		33.0	1.5		34.9	8.9
Queue Delay	0.0	0.0	0.0	0.0		0.0	0.0		0.2	0.0
Total Delay (s/veh)	19.4	21.3	9.4	11.7		33.0	1.5		35.1	8.9
LOS	B	C	A	B		C	A		D	A
Approach Delay (s/veh)		21.2		11.7		20.0			20.5	
Approach LOS		C		B		C			C	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 2 (2%), Referenced to phase 4:WBTL and 8:EBTL, Start of Green	
Natural Cycle: 90	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.51	
Intersection Signal Delay (s/veh): 17.6	Intersection LOS: B
Intersection Capacity Utilization 61.0%	ICU Level of Service B
Analysis Period (min) 15	

Splits and Phases: 4: 71st Place & Shea Boulevard

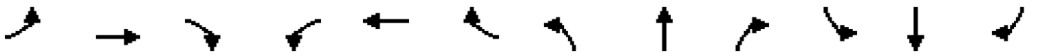




Lane Group	EBL	EBT	WBL	WBT	NBT	NBR	SBT	SBR
Lane Group Flow (vph)	96	1672	15	1110	10	7	51	64
v/c Ratio	0.36	0.51	0.12	0.34	0.02	0.02	0.13	0.14
Control Delay (s/veh)	19.4	21.3	9.4	11.7	33.0	1.5	34.9	8.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.0
Total Delay (s/veh)	19.4	21.3	9.4	11.7	33.0	1.5	35.1	8.9
Queue Length 50th (ft)	76	481	8	230	6	0	30	0
Queue Length 95th (ft)	m75	m452	m10	m268	20	2	64	34
Internal Link Dist (ft)		36		469	32		65	
Turn Bay Length (ft)	130		85					80
Base Capacity (vph)	267	3274	127	3264	422	437	381	466
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	101	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.36	0.51	0.12	0.34	0.02	0.02	0.18	0.14

Intersection Summary

m Volume for 95th percentile queue is metered by upstream signal.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	88	1520	18	14	978	43	8	1	6	44	3	59
Future Volume (veh/h)	88	1520	18	14	978	43	8	1	6	44	3	59
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	96	1652	20	15	1063	47	9	1	7	48	3	64
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	339	3354	41	183	3233	143	57	3	420	58	2	420
Arrive On Green	0.43	0.43	0.43	0.65	0.65	0.65	0.26	0.26	0.26	0.26	0.26	0.26
Sat Flow, veh/h	508	5200	63	296	5013	221	0	13	1585	1	7	1585
Grp Volume(v), veh/h	96	1081	591	15	722	388	10	0	7	51	0	64
Grp Sat Flow(s),veh/h/ln	508	1702	1859	296	1702	1830	13	0	1585	8	0	1585
Q Serve(g_s), s	16.4	27.5	27.5	3.7	11.5	11.5	0.0	0.0	0.4	0.0	0.0	3.7
Cycle Q Clear(g_c), s	27.9	27.5	27.5	31.2	11.5	11.5	31.8	0.0	0.4	31.8	0.0	3.7
Prop In Lane	1.00		0.03	1.00		0.12	0.90		1.00	0.94		1.00
Lane Grp Cap(c), veh/h	339	2196	1199	183	2196	1181	61	0	420	60	0	420
V/C Ratio(X)	0.28	0.49	0.49	0.08	0.33	0.33	0.17	0.00	0.02	0.84	0.00	0.15
Avail Cap(c_a), veh/h	339	2196	1199	183	2196	1181	61	0	420	60	0	420
HCM Platoon Ratio	0.67	0.67	0.67	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.74	0.74	0.74	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	24.2	19.9	19.9	21.6	9.6	9.6	49.0	0.0	32.6	58.8	0.0	33.8
Incr Delay (d2), s/veh	2.1	0.8	1.4	0.6	0.3	0.6	5.8	0.0	0.1	76.9	0.0	0.8
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	2.2	11.6	12.9	0.3	3.9	4.2	0.4	0.0	0.2	2.8	0.0	1.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	26.3	20.7	21.4	22.2	9.9	10.2	54.8	0.0	32.6	135.6	0.0	34.5
LnGrp LOS	C	C	C	C	A	B	D		C	F		C
Approach Vol, veh/h		1768			1125			17			115	
Approach Delay, s/veh		21.2			10.1			45.7			79.4	
Approach LOS		C			B			D			E	

Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		37.0		83.0		37.0		83.0				
Change Period (Y+Rc), s		5.2		* 5.6		5.2		* 5.6				
Max Green Setting (Gmax), s		31.8		* 77		31.8		* 77				
Max Q Clear Time (g_c+I1), s		33.8		33.2		33.8		29.9				
Green Ext Time (p_c), s		0.0		8.8		0.0		18.3				

Intersection Summary	
HCM 6th Ctrl Delay, s/veh	19.4
HCM 6th LOS	B

Notes

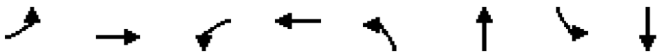
User approved pedestrian interval to be less than phase max green.

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

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	139	1150	117	743	164	667	151	976
Future Volume (vph)	139	1150	117	743	164	667	151	976
Turn Type	Prot	NA	Prot	NA	Prot	NA	Prot	NA
Protected Phases	3	8	7	4	1	6	5	2
Permitted Phases								
Detector Phase	3	8	7	4	1	6	5	2
Switch Phase								
Minimum Initial (s)	5.0	5.0	5.0	10.0	5.0	10.0	5.0	10.0
Minimum Split (s)	10.6	47.4	10.6	47.4	10.6	49.5	10.6	47.5
Total Split (s)	24.0	47.0	17.0	40.0	18.0	35.0	21.0	38.0
Total Split (%)	20.0%	39.2%	14.2%	33.3%	15.0%	29.2%	17.5%	31.7%
Yellow Time (s)	3.6	4.4	3.6	4.4	3.6	4.4	3.6	4.4
All-Red Time (s)	2.0	1.0	2.0	1.0	2.0	1.1	2.0	1.1
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.6	5.4	5.6	5.4	5.6	5.5	5.6	5.5
Lead/Lag	Lead	Lag	Lead	Lag	Lead	Lag	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	C-Max	None	C-Max
Act Effct Green (s)	14.9	41.0	11.0	37.0	13.2	31.7	14.3	32.8
Actuated g/C Ratio	0.12	0.34	0.09	0.31	0.11	0.26	0.12	0.27
v/c Ratio	0.69	0.88	0.78	0.56	0.92	0.60	0.78	0.84
Control Delay (s/veh)	65.4	74.5	84.6	36.2	100.2	40.7	76.0	47.3
Queue Delay	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	65.4	74.6	84.6	36.2	100.2	40.7	76.0	47.3
LOS	E	E	F	D	F	D	E	D
Approach Delay (s/veh)		73.7		42.3		51.6		50.9
Approach LOS		E		D		D		D

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 40 (33%), Referenced to phase 2:SBT and 6:NBT, Start of Green	
Natural Cycle: 130	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.92	
Intersection Signal Delay (s/veh): 56.9	Intersection LOS: E
Intersection Capacity Utilization 82.4%	ICU Level of Service E
Analysis Period (min) 15	

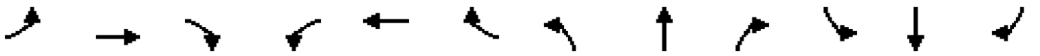
Splits and Phases: 5: Scottsdale Road & Shea Boulevard



Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	151	1510	127	879	178	798	164	1158
v/c Ratio	0.69	0.88	0.78	0.56	0.92	0.60	0.78	0.84
Control Delay (s/veh)	65.4	74.5	84.6	36.2	100.2	40.7	76.0	47.3
Queue Delay	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	65.4	74.6	84.6	36.2	100.2	40.7	76.0	47.3
Queue Length 50th (ft)	126	414	97	204	140	200	124	308
Queue Length 95th (ft)	196	467	#197	258	#285	247	#222	367
Internal Link Dist (ft)		469		1514		359		1326
Turn Bay Length (ft)	180		170		290		295	
Base Capacity (vph)	271	1743	168	1558	194	1334	227	1380
Starvation Cap Reductn	0	10	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.56	0.87	0.76	0.56	0.92	0.60	0.72	0.84

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	139	1150	239	117	743	65	164	667	67	151	976	89
Future Volume (veh/h)	139	1150	239	117	743	65	164	667	67	151	976	89
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	151	1250	260	127	808	71	178	725	73	164	1061	97
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	181	1422	296	153	1529	134	184	1353	135	191	1385	126
Arrive On Green	0.03	0.11	0.11	0.09	0.32	0.32	0.10	0.29	0.29	0.11	0.29	0.29
Sat Flow, veh/h	1781	4235	881	1781	4781	418	1781	4718	472	1781	4761	435
Grp Volume(v), veh/h	151	1005	505	127	574	305	178	522	276	164	758	400
Grp Sat Flow(s),veh/h/ln	1781	1702	1712	1781	1702	1795	1781	1702	1785	1781	1702	1792
Q Serve(g_s), s	10.1	34.9	34.9	8.4	16.6	16.7	11.9	15.5	15.7	10.9	24.4	24.4
Cycle Q Clear(g_c), s	10.1	34.9	34.9	8.4	16.6	16.7	11.9	15.5	15.7	10.9	24.4	24.4
Prop In Lane	1.00		0.51	1.00		0.23	1.00		0.26	1.00		0.24
Lane Grp Cap(c), veh/h	181	1143	575	153	1089	574	184	976	512	191	990	521
V/C Ratio(X)	0.83	0.88	0.88	0.83	0.53	0.53	0.97	0.53	0.54	0.86	0.77	0.77
Avail Cap(c_a), veh/h	273	1180	593	169	1089	574	184	976	512	229	990	521
HCM Platoon Ratio	0.33	0.33	0.33	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.85	0.85	0.85	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	57.0	51.0	51.0	54.0	33.4	33.4	53.6	36.0	36.1	52.6	38.8	38.8
Incr Delay (d2), s/veh	11.0	6.7	12.1	26.2	0.5	0.9	56.5	2.1	4.0	23.0	5.6	10.3
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	5.3	16.9	17.9	4.8	6.7	7.2	8.1	6.5	7.2	6.0	10.6	11.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	68.0	57.6	63.1	80.2	33.9	34.4	110.1	38.1	40.1	75.7	44.4	49.2
LnGrp LOS	E	E	E	F	C	C	F	D	D	E	D	D
Approach Vol, veh/h		1661			1006			976			1322	
Approach Delay, s/veh		60.2			39.9			51.8			49.7	
Approach LOS		E			D			D			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	18.0	40.4	17.8	43.8	18.5	39.9	15.9	45.7
Change Period (Y+Rc), s	5.6	5.5	5.6	5.4	5.6	5.5	5.6	5.4
Max Green Setting (Gmax), s	12.4	32.5	18.4	34.6	15.4	29.5	11.4	41.6
Max Q Clear Time (g_c+I1), s	13.9	26.4	12.1	18.7	12.9	17.7	10.4	36.9
Green Ext Time (p_c), s	0.0	3.4	0.2	4.7	0.1	3.7	0.0	3.4

Intersection Summary	
HCM 6th Ctrl Delay, s/veh	51.7
HCM 6th LOS	D

Notes

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

Intersection	
Int Delay, s/veh	2.5

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	56	14	76	67	17	108
Future Vol, veh/h	56	14	76	67	17	108
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	65	75	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	67	67	67	67	67	67
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	84	21	113	100	25	161

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	244	57	0	0	213	0
Stage 1	113	-	-	-	-	-
Stage 2	131	-	-	-	-	-
Critical Hdwy	6.84	6.94	-	-	4.14	-
Critical Hdwy Stg 1	5.84	-	-	-	-	-
Critical Hdwy Stg 2	5.84	-	-	-	-	-
Follow-up Hdwy	3.52	3.32	-	-	2.22	-
Pot Cap-1 Maneuver	738	1021	-	-	1367	-
Stage 1	914	-	-	-	-	-
Stage 2	881	-	-	-	-	-
Platoon blocked, %	1	1	-	-	1	-
Mov Cap-1 Maneuver	725	1021	-	-	1367	-
Mov Cap-2 Maneuver	725	-	-	-	-	-
Stage 1	914	-	-	-	-	-
Stage 2	865	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s/v	10.4	0	1
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	770	1367	-
HCM Lane V/C Ratio	-	-	0.136	0.019	-
HCM Control Delay (s/veh)	-	-	10.4	7.7	-
HCM Lane LOS	-	-	B	A	-
HCM 95th %tile Q (veh)	-	-	0.5	0.1	-

Intersection	
Intersection Delay, s/veh	8.5
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	41	38	38	7	15	5	30	38	10	8	79	34
Future Vol, veh/h	41	38	38	7	15	5	30	38	10	8	79	34
Peak Hour Factor	0.76	0.76	0.76	0.76	0.76	0.76	0.76	0.76	0.76	0.76	0.76	0.76
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	54	50	50	9	20	7	39	50	13	11	104	45
Number of Lanes	0	1	0	0	1	0	0	1	1	0	1	1

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	2	2
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	2	2	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	2	2	1	1
HCM Control Delay, s/veh	8.6	8	8.7	8.5
HCM LOS	A	A	A	A

Lane	NBLn1	NBLn2	EBLn1	WBLn1	SBLn1	SBLn2
Vol Left, %	44%	0%	35%	26%	9%	0%
Vol Thru, %	56%	0%	32%	56%	91%	0%
Vol Right, %	0%	100%	32%	19%	0%	100%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	68	10	117	27	87	34
LT Vol	30	0	41	7	8	0
Through Vol	38	0	38	15	79	0
RT Vol	0	10	38	5	0	34
Lane Flow Rate	89	13	154	36	114	45
Geometry Grp	5	5	2	2	5	5
Degree of Util (X)	0.133	0.016	0.192	0.046	0.163	0.054
Departure Headway (Hd)	5.35	4.423	4.495	4.702	5.127	4.377
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes
Cap	671	809	799	761	701	819
Service Time	3.078	2.151	2.516	2.731	2.852	2.102
HCM Lane V/C Ratio	0.133	0.016	0.193	0.047	0.163	0.055
HCM Control Delay, s/veh	8.9	7.2	8.6	8	8.9	7.4
HCM Lane LOS	A	A	A	A	A	A
HCM 95th-tile Q	0.5	0	0.7	0.1	0.6	0.2

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	3	37	13	20	19	3	2	0	9	3	0	5
Future Vol, veh/h	3	37	13	20	19	3	2	0	9	3	0	5
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	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	85	85	85	85	85	85	85	85	85	85	85	85
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	4	44	15	24	22	4	2	0	11	4	0	6

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	26	0	0	59	0	0	135	134	52	137	139	24
Stage 1	-	-	-	-	-	-	60	60	-	72	72	-
Stage 2	-	-	-	-	-	-	75	74	-	65	67	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1588	-	-	1545	-	-	836	757	1016	834	752	1052
Stage 1	-	-	-	-	-	-	951	845	-	938	835	-
Stage 2	-	-	-	-	-	-	934	833	-	946	839	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1588	-	-	1545	-	-	819	743	1016	813	738	1052
Mov Cap-2 Maneuver	-	-	-	-	-	-	819	743	-	813	738	-
Stage 1	-	-	-	-	-	-	948	842	-	935	822	-
Stage 2	-	-	-	-	-	-	914	820	-	933	836	-

Approach	EB	WB	NB	SB
HCM Control Delay, s/v	0.4	3.5	8.8	8.8
HCM LOS			A	A

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	973	1588	-	-	1545	-	-	948
HCM Lane V/C Ratio	0.013	0.002	-	-	0.015	-	-	0.01
HCM Control Delay (s/veh)	8.8	7.3	0	-	7.4	0	-	8.8
HCM Lane LOS	A	A	A	-	A	A	-	A
HCM 95th %tile Q (veh)	0	0	-	-	0	-	-	0

Intersection	
Int Delay, s/veh	0.7

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	2	46	2	1	42	3	0	0	5	0	0	0
Future Vol, veh/h	2	46	2	1	42	3	0	0	5	0	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	86	86	86	86	86	86	86	86	86	86	86	86
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	2	53	2	1	49	3	0	0	6	0	0	0

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	52	0	0	55	0	0	111	112	54	114	112	51
Stage 1	-	-	-	-	-	-	58	58	-	53	53	-
Stage 2	-	-	-	-	-	-	53	54	-	61	59	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1554	-	-	1550	-	-	867	778	1013	863	778	1017
Stage 1	-	-	-	-	-	-	954	847	-	960	851	-
Stage 2	-	-	-	-	-	-	960	850	-	950	846	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1554	-	-	1550	-	-	865	776	1013	857	776	1017
Mov Cap-2 Maneuver	-	-	-	-	-	-	865	776	-	857	776	-
Stage 1	-	-	-	-	-	-	953	846	-	959	850	-
Stage 2	-	-	-	-	-	-	959	849	-	944	845	-

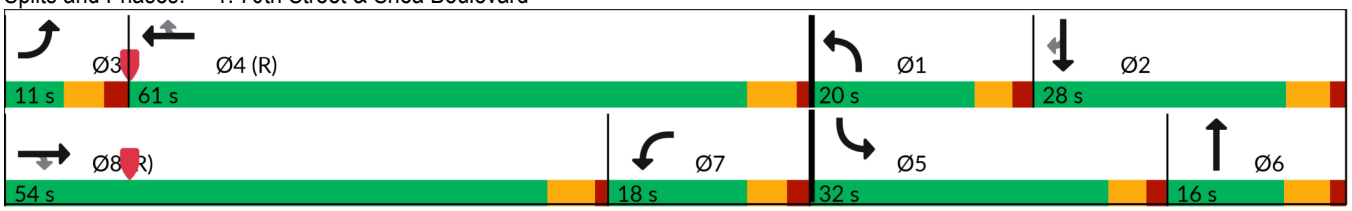
Approach	EB	WB	NB	SB
HCM Control Delay, s/v	0.3	0.2	8.6	0
HCM LOS			A	A

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	1013	1554	-	-	1550	-	-	-
HCM Lane V/C Ratio	0.006	0.001	-	-	0.001	-	-	-
HCM Control Delay (s/veh)	8.6	7.3	0	-	7.3	0	-	0
HCM Lane LOS	A	A	A	-	A	A	-	A
HCM 95th %tile Q (veh)	0	0	-	-	0	-	-	-

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Configurations											
Traffic Volume (vph)	43	1059	300	52	1551	29	384	36	53	28	77
Future Volume (vph)	43	1059	300	52	1551	29	384	36	53	28	77
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Prot	NA	Perm
Protected Phases	3	8		7	4		1	6	5	2	
Permitted Phases			8			4					2
Detector Phase	3	8	8	7	4	4	1	6	5	2	2
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)	10.6	43.5	43.5	10.6	43.5	43.5	10.2	71.5	10.2	61.4	61.4
Total Split (s)	11.0	54.0	54.0	18.0	61.0	61.0	20.0	16.0	32.0	28.0	28.0
Total Split (%)	9.2%	45.0%	45.0%	15.0%	50.8%	50.8%	16.7%	13.3%	26.7%	23.3%	23.3%
Yellow Time (s)	3.6	4.4	4.4	3.6	4.4	4.4	3.3	4.0	3.3	4.0	4.0
All-Red Time (s)	2.0	1.1	1.1	2.0	1.1	1.1	1.9	1.5	1.9	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	0.0
Total Lost Time (s)	5.6	5.5	5.5	5.6	5.5	5.5	5.2	5.5	5.2	5.4	5.4
Lead/Lag	Lead	Lead	Lead	Lag	Lag	Lag	Lead	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	C-Max	C-Max	None	C-Max	C-Max	None	Max	None	Max	Max
Act Effct Green (s)	5.4	52.1	52.1	11.1	57.7	57.7	14.8	30.2	9.3	22.6	22.6
Actuated g/C Ratio	0.05	0.43	0.43	0.09	0.48	0.48	0.12	0.25	0.08	0.19	0.19
v/c Ratio	0.59	0.52	0.37	0.35	0.69	0.04	0.99	0.16	0.42	0.05	0.19
Control Delay (s/veh)	85.8	26.8	3.8	75.4	45.0	0.2	93.1	25.5	61.3	40.2	1.0
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 (s/veh)	85.8	26.8	3.8	75.4	45.0	0.2	93.1	25.5	61.3	40.2	1.0
LOS	F	C	A	E	D	A	F	C	E	D	A
Approach Delay (s/veh)		23.7			45.2			82.8		28.1	
Approach LOS		C			D			F		C	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 51 (43%), Referenced to phase 4:WBT and 8:EBT, Start of Green	
Natural Cycle: 150	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.99	
Intersection Signal Delay (s/veh): 40.9	Intersection LOS: D
Intersection Capacity Utilization 65.6%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 1: 70th Street & Shea Boulevard

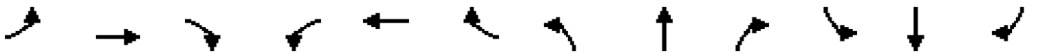


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	47	1151	326	57	1686	32	417	75	58	30	84
v/c Ratio	0.59	0.52	0.37	0.35	0.69	0.04	0.99	0.16	0.42	0.05	0.19
Control Delay (s/veh)	85.8	26.8	3.8	75.4	45.0	0.2	93.1	25.5	61.3	40.2	1.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	85.8	26.8	3.8	75.4	45.0	0.2	93.1	25.5	61.3	40.2	1.0
Queue Length 50th (ft)	36	247	0	44	472	0	168	28	44	10	0
Queue Length 95th (ft)	#94	294	56	87	521	m0	#273	72	86	24	0
Internal Link Dist (ft)		664			258			163		155	
Turn Bay Length (ft)	90		250	150		105	300		80		110
Base Capacity (vph)	79	2207	872	182	2444	848	423	457	395	666	437
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.59	0.52	0.37	0.31	0.69	0.04	0.99	0.16	0.15	0.05	0.19

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	43	1059	300	52	1551	29	384	36	33	53	28	77
Future Volume (veh/h)	43	1059	300	52	1551	29	384	36	33	53	28	77
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	1151	326	57	1686	32	417	39	36	58	30	84
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	60	2064	641	183	2410	748	426	241	222	76	669	299
Arrive On Green	0.03	0.40	0.40	0.14	0.63	0.63	0.12	0.27	0.27	0.04	0.19	0.19
Sat Flow, veh/h	1781	5106	1585	1781	5106	1585	3456	895	826	1781	3554	1585
Grp Volume(v), veh/h	47	1151	326	57	1686	32	417	0	75	58	30	84
Grp Sat Flow(s),veh/h/ln	1781	1702	1585	1781	1702	1585	1728	0	1722	1781	1777	1585
Q Serve(g_s), s	3.1	20.8	11.9	3.5	26.3	0.9	14.4	0.0	4.0	3.9	0.8	5.5
Cycle Q Clear(g_c), s	3.1	20.8	11.9	3.5	26.3	0.9	14.4	0.0	4.0	3.9	0.8	5.5
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.48	1.00		1.00
Lane Grp Cap(c), veh/h	60	2064	641	183	2410	748	426	0	463	76	669	299
V/C Ratio(X)	0.78	0.56	0.51	0.31	0.70	0.04	0.98	0.00	0.16	0.77	0.04	0.28
Avail Cap(c_a), veh/h	80	2064	641	184	2410	748	426	0	463	398	669	299
HCM Platoon Ratio	1.00	1.00	1.00	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	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	57.5	27.5	11.1	48.0	16.7	12.0	52.4	0.0	33.5	56.9	39.9	41.7
Incr Delay (d2), s/veh	28.5	1.1	2.9	1.0	1.7	0.1	37.8	0.0	0.7	14.7	0.1	2.3
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	1.9	8.3	4.3	1.5	8.1	0.3	8.3	0.0	1.7	2.0	0.4	2.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	86.1	28.6	14.0	49.0	18.4	12.1	90.2	0.0	34.3	71.6	40.0	44.1
LnGrp LOS	F	C	B	D	B	B	F		C	E	D	D
Approach Vol, veh/h		1524			1775			492			172	
Approach Delay, s/veh		27.2			19.3			81.7			52.6	
Approach LOS		C			B			F			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	20.0	28.1	9.7	62.2	10.3	37.8	17.9	54.0
Change Period (Y+Rc), s	5.2	* 5.5	5.6	* 5.6	5.2	5.5	5.6	5.5
Max Green Setting (Gmax), s	14.8	* 23	5.4	* 56	26.8	10.5	12.4	48.5
Max Q Clear Time (g_c+I1), s	16.4	7.5	5.1	28.3	5.9	6.0	5.5	22.8
Green Ext Time (p_c), s	0.0	0.3	0.0	14.0	0.1	0.1	0.0	9.8

Intersection Summary	
HCM 6th Ctrl Delay, s/veh	31.5
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.

Intersection	
Int Delay, s/veh	0.2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑↑	↱		↑↑↑	↱			↱			↱
Traffic Vol, veh/h	0	1135	30	0	1611	24	0	0	37	0	0	21
Future Vol, veh/h	0	1135	30	0	1611	24	0	0	37	0	0	21
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	-	-	70	-	-	95	-	-	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	0	1234	33	0	1751	26	0	0	40	0	0	23

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	-	0	0	-	-	0	-	-	617	-	-	876
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	-	-	-	7.14	-	-	7.14
Critical Hdwy Stg 1	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	-	-	-	3.92	-	-	3.92
Pot Cap-1 Maneuver	0	-	-	0	-	-	0	0	*646	0	0	*536
Stage 1	0	-	-	0	-	-	0	0	-	0	0	-
Stage 2	0	-	-	0	-	-	0	0	-	0	0	-
Platoon blocked, %		-	-		-	-			1			1
Mov Cap-1 Maneuver	-	-	-	-	-	-	-	-	*646	-	-	*536
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s/v	0	0	10.9	12
HCM LOS			B	B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBT	WBR	SBLn1
Capacity (veh/h)	646	-	-	-	-	536
HCM Lane V/C Ratio	0.062	-	-	-	-	0.043
HCM Control Delay (s/veh)	10.9	-	-	-	-	12
HCM Lane LOS	B	-	-	-	-	B
HCM 95th %tile Q (veh)	0.2	-	-	-	-	0.1

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	1161	1624	0	0	2
Future Vol, veh/h	0	1161	1624	0	0	2
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	1262	1765	0	0	2

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	-	0	-	0	-	883
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	7.14
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	3.92
Pot Cap-1 Maneuver	0	-	-	-	0	*673
Stage 1	0	-	-	-	0	-
Stage 2	0	-	-	-	0	-
Platoon blocked, %		-	-	-		1
Mov Cap-1 Maneuver	-	-	-	-	-	*673
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	WB	SB
HCM Control Delay, s/v	0	0	10.4
HCM LOS			B

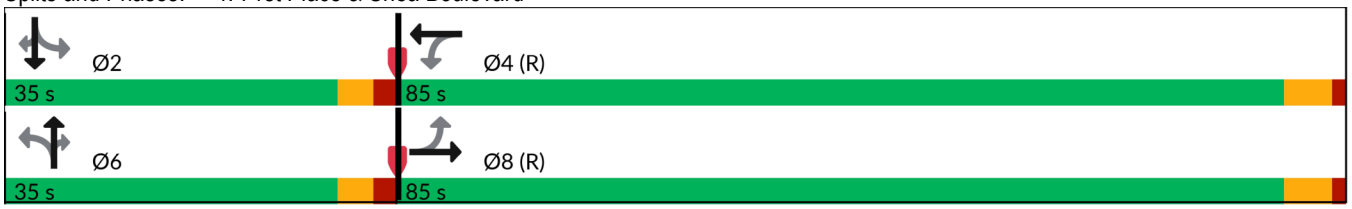
Minor Lane/Major Mvmt	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	-	-	-	673
HCM Lane V/C Ratio	-	-	-	0.003
HCM Control Delay (s/veh)	-	-	-	10.4
HCM Lane LOS	-	-	-	B
HCM 95th %tile Q (veh)	-	-	-	0

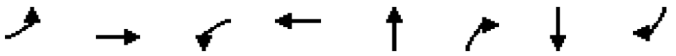
Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations										
Traffic Volume (vph)	49	1107	22	1501	28	5	38	49	6	90
Future Volume (vph)	49	1107	22	1501	28	5	38	49	6	90
Turn Type	Perm	NA	Perm	NA	Perm	NA	Perm	Perm	NA	Perm
Protected Phases		8		4		6			2	
Permitted Phases	8		4		6		6	2		2
Detector Phase	8	8	4	4	6	6	6	2	2	2
Switch Phase										
Minimum Initial (s)	10.0	10.0	10.0	10.0	7.0	7.0	7.0	7.0	7.0	7.0
Minimum Split (s)	32.5	32.5	36.5	36.5	51.2	51.2	51.2	22.5	22.5	22.5
Total Split (s)	85.0	85.0	85.0	85.0	35.0	35.0	35.0	35.0	35.0	35.0
Total Split (%)	70.8%	70.8%	70.8%	70.8%	29.2%	29.2%	29.2%	29.2%	29.2%	29.2%
Yellow Time (s)	4.4	4.4	4.4	4.4	3.3	3.3	3.3	3.3	3.3	3.3
All-Red Time (s)	1.2	1.2	1.2	1.2	1.9	1.9	1.9	1.9	1.9	1.9
Lost Time Adjust (s)	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0
Total Lost Time (s)	5.6	5.6	5.6	5.6		5.2	5.2		5.2	5.2
Lead/Lag										
Lead-Lag Optimize?										
Recall Mode	C-Max	C-Max	C-Max	C-Max	Max	Max	Max	Max	Max	Max
Act Effct Green (s)	79.4	79.4	79.4	79.4		29.8	29.8		29.8	29.8
Actuated g/C Ratio	0.66	0.66	0.66	0.66		0.25	0.25		0.25	0.25
v/c Ratio	0.40	0.37	0.10	0.50		0.10	0.10		0.17	0.23
Control Delay (s/veh)	38.6	23.7	2.0	2.0		35.8	10.9		37.1	23.8
Queue Delay	0.0	0.0	0.0	0.4		0.0	0.0		0.0	0.0
Total Delay (s/veh)	38.6	23.7	2.0	2.4		35.8	10.9		37.1	23.8
LOS	D	C	A	A		D	B		D	C
Approach Delay (s/veh)		24.3		2.3		22.4			28.9	
Approach LOS		C		A		C			C	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 84 (70%), Referenced to phase 4:WBTL and 8:EBTL, Start of Green	
Natural Cycle: 90	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.50	
Intersection Signal Delay (s/veh): 12.9	Intersection LOS: B
Intersection Capacity Utilization 59.4%	ICU Level of Service B
Analysis Period (min) 15	

Splits and Phases: 4: 71st Place & Shea Boulevard

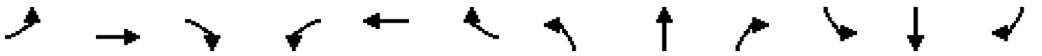




Lane Group	EBL	EBT	WBL	WBT	NBT	NBR	SBT	SBR
Lane Group Flow (vph)	53	1238	24	1680	35	41	60	98
v/c Ratio	0.40	0.37	0.10	0.50	0.10	0.10	0.17	0.23
Control Delay (s/veh)	38.6	23.7	2.0	2.0	35.8	10.9	37.1	23.8
Queue Delay	0.0	0.0	0.0	0.4	0.0	0.0	0.0	0.0
Total Delay (s/veh)	38.6	23.7	2.0	2.4	35.8	10.9	37.1	23.8
Queue Length 50th (ft)	40	340	1	36	21	0	37	36
Queue Length 95th (ft)	m82	384	m2	m38	49	29	75	83
Internal Link Dist (ft)		36		469	32		65	
Turn Bay Length (ft)	130		85					80
Base Capacity (vph)	132	3353	236	3354	363	423	350	422
Starvation Cap Reductn	0	0	0	980	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.40	0.37	0.10	0.71	0.10	0.10	0.17	0.23

Intersection Summary

m Volume for 95th percentile queue is metered by upstream signal.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	49	1107	32	22	1501	44	28	5	38	49	6	90
Future Volume (veh/h)	49	1107	32	22	1501	44	28	5	38	49	6	90
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	53	1203	35	24	1632	48	30	5	41	53	7	98
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	208	3374	98	311	3373	99	56	5	394	57	4	394
Arrive On Green	0.66	0.66	0.66	0.66	0.66	0.66	0.25	0.25	0.25	0.25	0.25	0.25
Sat Flow, veh/h	294	5099	148	450	5098	150	0	21	1585	0	17	1585
Grp Volume(v), veh/h	53	803	435	24	1090	590	35	0	41	60	0	98
Grp Sat Flow(s),veh/h/ln	294	1702	1844	450	1702	1843	21	0	1585	17	0	1585
Q Serve(g_s), s	13.1	12.5	12.5	3.0	19.1	19.1	0.0	0.0	2.4	0.0	0.0	5.9
Cycle Q Clear(g_c), s	32.3	12.5	12.5	15.5	19.1	19.1	29.8	0.0	2.4	29.8	0.0	5.9
Prop In Lane	1.00		0.08	1.00		0.08	0.86		1.00	0.88		1.00
Lane Grp Cap(c), veh/h	208	2252	1220	311	2252	1220	61	0	394	61	0	394
V/C Ratio(X)	0.26	0.36	0.36	0.08	0.48	0.48	0.57	0.00	0.10	0.99	0.00	0.25
Avail Cap(c_a), veh/h	208	2252	1220	311	2252	1220	61	0	394	61	0	394
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.16	0.16	0.16	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	18.1	9.0	9.0	12.4	10.1	10.1	55.6	0.0	34.8	58.0	0.0	36.1
Incr Delay (d2), s/veh	2.9	0.4	0.8	0.1	0.1	0.2	33.9	0.0	0.5	112.7	0.0	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	1.0	4.2	4.7	0.3	6.2	6.8	1.6	0.0	1.0	3.7	0.0	2.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	21.1	9.4	9.8	12.5	10.2	10.3	89.5	0.0	35.3	170.7	0.0	37.6
LnGrp LOS	C	A	A	B	B	B	F		D	F		D
Approach Vol, veh/h		1291			1704			76			158	
Approach Delay, s/veh		10.0			10.3			60.3			88.2	
Approach LOS		B			B			E			F	

Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		35.0		85.0		35.0		85.0				
Change Period (Y+Rc), s		5.2		* 5.6		5.2		* 5.6				
Max Green Setting (Gmax), s		29.8		* 79		29.8		* 79				
Max Q Clear Time (g_c+I1), s		31.8		21.1		31.8		34.3				
Green Ext Time (p_c), s		0.0		17.5		0.0		11.8				

Intersection Summary	
HCM 6th Ctrl Delay, s/veh	15.2
HCM 6th LOS	B

Notes

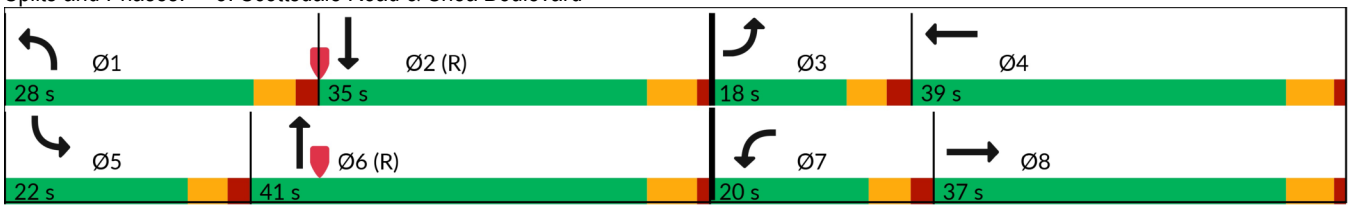
User approved pedestrian interval to be less than phase max green.

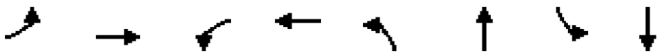
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	166	864	140	1133	293	1251	143	987
Future Volume (vph)	166	864	140	1133	293	1251	143	987
Turn Type	Prot	NA	Prot	NA	Prot	NA	Prot	NA
Protected Phases	3	8	7	4	1	6	5	2
Permitted Phases								
Detector Phase	3	8	7	4	1	6	5	2
Switch Phase								
Minimum Initial (s)	5.0	5.0	5.0	10.0	5.0	10.0	5.0	10.0
Minimum Split (s)	10.6	47.4	10.6	47.4	10.6	49.5	10.6	47.5
Total Split (s)	18.0	37.0	20.0	39.0	28.0	41.0	22.0	35.0
Total Split (%)	15.0%	30.8%	16.7%	32.5%	23.3%	34.2%	18.3%	29.2%
Yellow Time (s)	3.6	4.4	3.6	4.4	3.6	4.4	3.6	4.4
All-Red Time (s)	2.0	1.0	2.0	1.0	2.0	1.1	2.0	1.1
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.6	5.4	5.6	5.4	5.6	5.5	5.6	5.5
Lead/Lag	Lead	Lag	Lead	Lag	Lead	Lag	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	C-Max	None	C-Max
Act Effct Green (s)	12.4	32.6	13.4	33.6	22.4	37.5	14.4	29.5
Actuated g/C Ratio	0.10	0.27	0.11	0.28	0.19	0.31	0.12	0.25
v/c Ratio	0.99	0.81	0.77	0.97	0.96	0.93	0.73	0.95
Control Delay (s/veh)	144.4	15.2	76.8	61.0	90.0	51.4	70.9	60.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	144.4	15.2	76.8	61.0	90.0	51.4	70.9	60.3
LOS	F	B	E	E	F	D	E	E
Approach Delay (s/veh)		33.3		62.6		58.3		61.6
Approach LOS		C		E		E		E

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 39 (33%), Referenced to phase 2:SBT and 6:NBT, Start of Green	
Natural Cycle: 140	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.99	
Intersection Signal Delay (s/veh): 54.7	Intersection LOS: D
Intersection Capacity Utilization 90.0%	ICU Level of Service E
Analysis Period (min) 15	

Splits and Phases: 5: Scottsdale Road & Shea Boulevard





Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	180	1105	152	1377	318	1469	155	1180
v/c Ratio	0.99	0.81	0.77	0.97	0.96	0.93	0.73	0.95
Control Delay (s/veh)	144.4	15.2	76.8	61.0	90.0	51.4	70.9	60.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	144.4	15.2	76.8	61.0	90.0	51.4	70.9	60.3
Queue Length 50th (ft)	150	44	115	383	247	407	116	327
Queue Length 95th (ft)	#298	53	#211	#489	#428	#521	188	#423
Internal Link Dist (ft)		469		1514		359		1326
Turn Bay Length (ft)	180		170		290		295	
Base Capacity (vph)	182	1369	212	1413	330	1579	241	1242
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.99	0.81	0.72	0.97	0.96	0.93	0.64	0.95

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	166	864	153	140	1133	133	293	1251	100	143	987	98
Future Volume (veh/h)	166	864	153	140	1133	133	293	1251	100	143	987	98
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	180	939	166	152	1232	145	318	1360	109	155	1073	107
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	184	1232	217	179	1294	152	333	1592	128	183	1163	116
Arrive On Green	0.21	0.56	0.56	0.10	0.28	0.28	0.19	0.33	0.33	0.10	0.25	0.25
Sat Flow, veh/h	1781	4367	769	1781	4631	545	1781	4819	386	1781	4720	470
Grp Volume(v), veh/h	180	731	374	152	905	472	318	961	508	155	774	406
Grp Sat Flow(s),veh/h/ln	1781	1702	1732	1781	1702	1772	1781	1702	1801	1781	1702	1786
Q Serve(g_s), s	12.1	19.7	19.8	10.1	31.3	31.3	21.2	31.6	31.6	10.3	26.6	26.7
Cycle Q Clear(g_c), s	12.1	19.7	19.8	10.1	31.3	31.3	21.2	31.6	31.6	10.3	26.6	26.7
Prop In Lane	1.00		0.44	1.00		0.31	1.00		0.21	1.00		0.26
Lane Grp Cap(c), veh/h	184	961	489	179	951	495	333	1124	595	183	839	440
V/C Ratio(X)	0.98	0.76	0.76	0.85	0.95	0.95	0.96	0.85	0.85	0.85	0.92	0.92
Avail Cap(c_a), veh/h	184	961	489	214	953	496	333	1124	595	243	839	440
HCM Platoon Ratio	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.94	0.94	0.94	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	47.5	23.0	23.1	53.1	42.4	42.4	48.3	37.5	37.5	52.9	44.1	44.1
Incr Delay (d2), s/veh	57.7	3.4	6.7	23.0	18.5	28.6	37.8	8.3	14.5	18.5	17.1	27.6
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	7.6	5.6	6.2	5.5	15.1	17.1	12.6	13.9	15.7	5.4	12.8	14.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	105.2	26.4	29.7	76.1	61.0	71.0	86.1	45.8	52.0	71.4	61.2	71.7
LnGrp LOS	F	C	C	E	E	E	F	D	D	E	E	E
Approach Vol, veh/h		1285			1529			1787			1335	
Approach Delay, s/veh		38.4			65.6			54.8			65.6	
Approach LOS		D			E			D			E	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	28.0	35.1	18.0	38.9	17.9	45.1	17.7	39.3
Change Period (Y+Rc), s	5.6	5.5	5.6	5.4	5.6	5.5	5.6	5.4
Max Green Setting (Gmax), s	22.4	29.5	12.4	33.6	16.4	35.5	14.4	31.6
Max Q Clear Time (g_c+I1), s	23.2	28.7	14.1	33.3	12.3	33.6	12.1	21.8
Green Ext Time (p_c), s	0.0	0.6	0.0	0.2	0.1	1.4	0.1	4.6

Intersection Summary	
HCM 6th Ctrl Delay, s/veh	56.4
HCM 6th LOS	E

Notes

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

Intersection	
Int Delay, s/veh	1.4

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	33	4	74	20	2	122
Future Vol, veh/h	33	4	74	20	2	122
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	65	75	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	85	85	85	85	85	85
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	39	5	87	24	2	144

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	163	44	0	0	111	0
Stage 1	87	-	-	-	-	-
Stage 2	76	-	-	-	-	-
Critical Hdwy	6.84	6.94	-	-	4.14	-
Critical Hdwy Stg 1	5.84	-	-	-	-	-
Critical Hdwy Stg 2	5.84	-	-	-	-	-
Follow-up Hdwy	3.52	3.32	-	-	2.22	-
Pot Cap-1 Maneuver	829	1041	-	-	1492	-
Stage 1	941	-	-	-	-	-
Stage 2	938	-	-	-	-	-
Platoon blocked, %	1	1	-	-	1	-
Mov Cap-1 Maneuver	828	1041	-	-	1492	-
Mov Cap-2 Maneuver	828	-	-	-	-	-
Stage 1	941	-	-	-	-	-
Stage 2	937	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s/v	9.5	0	0.1
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	847	1492	-
HCM Lane V/C Ratio	-	-	0.051	0.002	-
HCM Control Delay (s/veh)	-	-	9.5	7.4	-
HCM Lane LOS	-	-	A	A	-
HCM 95th %tile Q (veh)	-	-	0.2	0	-

Intersection	
Intersection Delay, s/veh	8.2
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	39	27	48	29	33	4	35	29	12	7	48	50
Future Vol, veh/h	39	27	48	29	33	4	35	29	12	7	48	50
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	44	31	55	33	38	5	40	33	14	8	55	57
Number of Lanes	0	1	0	0	1	0	0	1	1	0	1	1

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	2	2
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	2	2	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	2	2	1	1
HCM Control Delay, s/veh	8.2	8.2	8.5	7.9
HCM LOS	A	A	A	A

Lane	NBLn1	NBLn2	EBLn1	WBLn1	SBLn1	SBLn2
Vol Left, %	55%	0%	34%	44%	13%	0%
Vol Thru, %	45%	0%	24%	50%	87%	0%
Vol Right, %	0%	100%	42%	6%	0%	100%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	64	12	114	66	55	50
LT Vol	35	0	39	29	7	0
Through Vol	29	0	27	33	48	0
RT Vol	0	12	48	4	0	50
Lane Flow Rate	73	14	130	75	63	57
Geometry Grp	5	5	2	2	5	5
Degree of Util (X)	0.109	0.017	0.156	0.097	0.089	0.069
Departure Headway (Hd)	5.389	4.409	4.341	4.633	5.154	4.386
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes
Cap	665	812	828	775	696	817
Service Time	3.116	2.136	2.36	2.654	2.881	2.112
HCM Lane V/C Ratio	0.11	0.017	0.157	0.097	0.091	0.07
HCM Control Delay, s/veh	8.8	7.2	8.2	8.2	8.4	7.4
HCM Lane LOS	A	A	A	A	A	A
HCM 95th-tile Q	0.4	0.1	0.6	0.3	0.3	0.2

Intersection	
Int Delay, s/veh	3.2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	7	31	7	10	50	1	7	1	25	1	1	2
Future Vol, veh/h	7	31	7	10	50	1	7	1	25	1	1	2
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	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	82	82	82	82	82	82	82	82	82	82	82	82
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	9	38	9	12	61	1	9	1	30	1	1	2

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	62	0	0	47	0	0	148	147	43	162	151	62
Stage 1	-	-	-	-	-	-	61	61	-	86	86	-
Stage 2	-	-	-	-	-	-	87	86	-	76	65	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1541	-	-	1560	-	-	820	744	1027	803	741	1003
Stage 1	-	-	-	-	-	-	950	844	-	922	824	-
Stage 2	-	-	-	-	-	-	921	824	-	933	841	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1541	-	-	1560	-	-	809	734	1027	770	731	1003
Mov Cap-2 Maneuver	-	-	-	-	-	-	809	734	-	770	731	-
Stage 1	-	-	-	-	-	-	944	839	-	916	817	-
Stage 2	-	-	-	-	-	-	910	817	-	899	836	-

Approach	EB	WB	NB	SB
HCM Control Delay, s/v	1.1	1.2	8.9	9.2
HCM LOS			A	A

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	960	1541	-	-	1560	-	-	858
HCM Lane V/C Ratio	0.042	0.006	-	-	0.008	-	-	0.006
HCM Control Delay (s/veh)	8.9	7.3	0	-	7.3	0	-	9.2
HCM Lane LOS	A	A	A	-	A	A	-	A
HCM 95th %tile Q (veh)	0.1	0	-	-	0	-	-	0

Intersection	
Int Delay, s/veh	1.3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	1	56	0	2	54	2	0	0	3	7	0	7
Future Vol, veh/h	1	56	0	2	54	2	0	0	3	7	0	7
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	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	76	76	76	76	76	76	76	76	76	76	76	76
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	1	74	0	3	71	3	0	0	4	9	0	9

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	74	0	0	74	0	0	159	156	74	157	155	73
Stage 1	-	-	-	-	-	-	76	76	-	79	79	-
Stage 2	-	-	-	-	-	-	83	80	-	78	76	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1526	-	-	1526	-	-	807	736	988	809	737	989
Stage 1	-	-	-	-	-	-	933	832	-	930	829	-
Stage 2	-	-	-	-	-	-	925	828	-	931	832	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1526	-	-	1526	-	-	797	734	988	804	735	989
Mov Cap-2 Maneuver	-	-	-	-	-	-	797	734	-	804	735	-
Stage 1	-	-	-	-	-	-	932	831	-	929	827	-
Stage 2	-	-	-	-	-	-	915	826	-	926	831	-

Approach	EB	WB	NB	SB
HCM Control Delay, s/v	0.1	0.3	8.7	9.1
HCM LOS			A	A

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	988	1526	-	-	1526	-	-	887
HCM Lane V/C Ratio	0.004	0.001	-	-	0.002	-	-	0.021
HCM Control Delay (s/veh)	8.7	7.4	0	-	7.4	0	-	9.1
HCM Lane LOS	A	A	A	-	A	A	-	A
HCM 95th %tile Q (veh)	0	0	-	-	0	-	-	0.1

Appendix G – Trip Generation

Block 7000

Completed:

Checked:

Trip Generation Calculations, 11th Edition

Proposed Development

220 Multifamily Housing (Low-Rise) (One to Three 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 (Low-Rise)	220	196	Dwelling Units	6.74	50%	50%	0.40	24%	76%	0.51	63%	37%	1,321	661	660	78	19	59	100	63	37	Average
Multifamily Housing (Low-Rise)	220	196	Dwelling Units	2.46	50%	50%	0.13	24%	76%	0.08	63%	37%	482	241	241	25	6	19	16	10	6	Minimum
Multifamily Housing (Low-Rise)	220	196	Dwelling Units	12.50	50%	50%	0.73	24%	76%	1.04	63%	37%	2,450	1,225	1,225	143	34	109	204	129	75	Maximum
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 (Low-Rise)	220	196	Dwelling Units	T=6.41(X)+75.31	50%	50%	T=0.31(X)+22.85	24%	76%	T=0.43(X)+20.55	63%	37%	1,332	666	666	84	20	64	105	66	39	Equation

Multifamily Housing (Low-Rise)	Standard Deviation	1.79	0.12	0.15	
	Number of Studies	22	49	59	
	Average Size	229	249	241	
	R^2	0.86	0.79	0.84	

Block 7000

Completed:

Checked:

Trip Generation Calculations, 11th Edition

Existing Development

934 Fast-Food Restaurant with Drive-Through Window

Land Use	ITE Code	Qty	Unit	Weekday Rate	Weekday % In	Weekday % Out	AM Peak Hour Rate	AM Peak Hour % In	AM Peak Hour % Out	PM Peak Hour Rate	PM Peak Hour % In	PM Peak Hour % Out	Weekday Total	Weekday In	Weekday Out	AM Peak Hour Total	AM Peak Hour In	AM Peak Hour Out	PM Peak Hour Total	PM Peak Hour In	PM Peak Hour Out	
Fast-Food Restaurant with Drive-Through Window	934	2.986	1000 SF GFA	467.48	50%	50%	44.61	51%	49%	33.03	52%	48%	1,396	698	698	133	68	65	99	51	48	Average
Fast-Food Restaurant with Drive-Through Window	934	2.986	1000 SF GFA	98.89	50%	50%	1.05	51%	49%	8.77	52%	48%	295	148	147	3	2	1	26	14	12	Minimum
Fast-Food Restaurant with Drive-Through Window	934	2.986	1000 SF GFA	1,137.66	50%	50%	164.25	51%	49%	117.22	52%	48%	3,397	1,699	1,698	490	250	240	350	182	168	Maximum
Land Use	ITE Code	Qty	Unit	Weekday Equation	Weekday % In	Weekday % Out	AM Peak Hour Equation	AM Peak Hour % In	AM Peak Hour % Out	PM Peak Hour Equation	PM Peak Hour % In	PM Peak Hour % Out	Weekday Total	Weekday In	Weekday Out	AM Peak Hour Total	AM Peak Hour In	AM Peak Hour Out	PM Peak Hour Total	PM Peak Hour In	PM Peak Hour Out	
Fast-Food Restaurant with Drive-Through Window	934	2.986	1000 SF GFA	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Equation

Fast-Food Restaurant with Drive-Through Window	Standard Deviation	238.62	27.14	17.59
	Number of Studies	71	96	190
	Average Size	3	4	3
	R^2	N/A	N/A	N/A

821 Shopping Plaza (40-150k) (w/o Supermarket)

Land Use	ITE Code	Qty	Unit	Weekday Rate	Weekday % In	Weekday % Out	AM Peak Hour Rate	AM Peak Hour % In	AM Peak Hour % Out	PM Peak Hour Rate	PM Peak Hour % In	PM Peak Hour % Out	Weekday Total	Weekday In	Weekday Out	AM Peak Hour Total	AM Peak Hour In	AM Peak Hour Out	PM Peak Hour Total	PM Peak Hour In	PM Peak Hour Out	
Shopping Plaza (40-150k) (w/o Supermarket)	821	46	1000 Sq Ft GFA	67.52	50%	50%	1.73	62%	38%	5.19	49%	51%	3,093	1,546	1,547	79	49	30	238	117	121	**Average**
Shopping Plaza (40-150k) (w/o Supermarket)	821	46	1000 Sq Ft GFA	43.29	50%	50%	0.29	62%	38%	2.55	49%	51%	1,983	991	992	13	8	5	117	57	60	Minimum
Shopping Plaza (40-150k) (w/o Supermarket)	821	46	1000 Sq Ft GFA	91.06	50%	50%	3.77	62%	38%	15.31	49%	51%	4,171	2,085	2,086	173	107	66	701	343	358	Maximum
Land Use	ITE Code	Qty	Unit	Weekday Equation	Weekday % In	Weekday % Out	AM Peak Hour Equation	AM Peak Hour % In	AM Peak Hour % Out	PM Peak Hour Equation	PM Peak Hour % In	PM Peak Hour % Out	Weekday Total	Weekday In	Weekday Out	AM Peak Hour Total	AM Peak Hour In	AM Peak Hour Out	PM Peak Hour Total	PM Peak Hour In	PM Peak Hour Out	
Shopping Plaza (40-150k) (w/o Supermarket)	821	46	1000 Sq Ft GFA	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Equation

Shopping Plaza (40-150k) (w/o Supermarket)	Standard Deviation	19.25	1.06	2.28
	Number of Studies	7	13	42
	Average Size	59	67	79
	R^2	N/A	N/A	N/A

710 General Office Building

Land Use	ITE Code	Qty	Unit	Weekday Rate	Weekday % In	Weekday % Out	AM Peak Hour Rate	AM Peak Hour % In	AM Peak Hour % Out	PM Peak Hour Rate	PM Peak Hour % In	PM Peak Hour % Out	Weekday Total	Weekday In	Weekday Out	AM Peak Hour Total	AM Peak Hour In	AM Peak Hour Out	PM Peak Hour Total	PM Peak Hour In	PM Peak Hour Out	
General Office Building	710	202.3	1000 SF GFA	10.84	50%	50%	1.52	88%	12%	1.44	17%	83%	2,193	1,097	1,096	308	271	37	291	49	242	Average
General Office Building	710	202.3	1000 SF GFA	3.27	50%	50%	0.32	88%	12%	0.26	17%	83%	662	331	331	65	57	8	53	9	44	Minimum
General Office Building	710	202.3	1000 SF GFA	27.56	50%	50%	4.93	88%	12%	6.2	17%	83%	5,576	2,788	2,788	997	877	120	1,254	213	1041	Maximum
Land Use	ITE Code	Qty	Unit	Weekday Rate	Weekday % In	Weekday % Out	AM Peak Hour Rate	AM Peak Hour % In	AM Peak Hour % Out	PM Peak Hour Rate	PM Peak Hour % In	PM Peak Hour % Out	Weekday Total	Weekday In	Weekday Out	AM Peak Hour Total	AM Peak Hour In	AM Peak Hour Out	PM Peak Hour Total	PM Peak Hour In	PM Peak Hour Out	
General Office Building	710	202.3	1000 SF GFA	Ln(T)=0.87Ln(X)+3.05	50%	50%	Ln(T)=0.86Ln(X)+1.16	88%	12%	Ln(T)=0.83Ln(X)+1.29	17%	83%	2,142	1,071	1,071	307	270	37	298	51	247	Equation

General Office Building	Standard Deviation	4.76	0.58	0.6
	Number of Studies	59	221	232
	Average Size	163	201	199
	R^2	0.78	0.78	0.77

932 High-Turnover (Sit-Down) Restaurant

Land Use	ITE Code	Qty	Unit	Weekday Rate	Weekday % In	Weekday % Out	AM Peak Hour Rate	AM Peak Hour % In	AM Peak Hour % Out	PM Peak Hour Rate	PM Peak Hour % In	PM Peak Hour % Out	Weekday Total	Weekday In	Weekday Out	AM Peak Hour Total	AM Peak Hour In	AM Peak Hour Out	PM Peak Hour Total	PM Peak Hour In	PM Peak Hour Out	
High-Turnover (Sit-Down) Restaurant	**932**	**6.840**	**1000 SF GFA**	**107.20**	**50%**	**50%**	**9.57**	**55%**	**45%**	**9.05**	**61%**	**39%**	**733**	**367**	**366**	**65**	**36**	**29**	**62**	**38**	**24**	**Average**
High-Turnover (Sit-Down) Restaurant	932	6.840	1000 SF GFA	13.04	50%	50%	0.76	55%	45%	0.92	61%	39%	89	45	44	5	3	2	6	4	2	Minimum
High-Turnover (Sit-Down) Restaurant	932	6.840	1000 SF GFA	742.41	50%	50%	102.39	55%	45%	62.00	61%	39%	5,078	2,539	2,539	700	385	315	424	259	165	Maximum
Land Use	ITE Code	Qty	Unit	Weekday Equation	Weekday % In	Weekday % Out	AM Peak Hour Equation	AM Peak Hour % In	AM Peak Hour % Out	PM Peak Hour Equation	PM Peak Hour % In	PM Peak Hour % Out	Weekday Total	Weekday In	Weekday Out	AM Peak Hour Total	AM Peak Hour In	AM Peak Hour Out	PM Peak Hour Total	PM Peak Hour In	PM Peak Hour Out	
High-Turnover (Sit-Down) Restaurant	932	6.840	1000 SF GFA	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Equation

High-Turnover (Sit-Down) Restaurant	Standard Deviation	66.72	11.61	6.18
	Number of Studies	50	37	104
	Average Size	5	5	6
	R^2	N/A	N/A	N/A

DEVELOPMENT REVIEW BOARD REPORT

Meeting Date:	September 15, 2016	Item No. 6
General Plan Element:	*Character and Design*	
General Plan Goal:	*Foster quality design that enhances Scottsdale as a unique southwestern desert community.*	

ACTION

7 Thousand Shea - Building K
16-DR-2016

Location: 7000 E. Shea Boulevard

Request: Request approval of the site plan, landscape plan, and building elevations for a new commercial building, with drive-through service, and approximately 10,200 square feet of building area.

OWNER

7 Thousand Shea Boulevard, LLC
818-703-9600

ARCHITECT/DESIGNER

Suite 6 Architecture + Planning, Inc.

ENGINEER

Kland Civil Engineer

APPLICANT CONTACT

Dean Munkachy, AIA
Suite 6 Architecture + Planning, Inc.
480-348-7800

BACKGROUND

Zoning

This site is zoned Central Business (C-2). The C-2 zoning district is intended to permit uses for recurring shopping and service needs for multiple neighborhoods.

Context

Located approximately 450 feet east of the intersection of E. Shea Boulevard and N. 70th Street, the surrounding developments are commercial uses including retail, service, and restaurant uses.

Adjacent Uses and Zoning

- North Existing retail and service uses in the larger shopping center, zoned Central Business (C-2).

Action Taken _____

- South — E. Shea Boulevard abuts the property to the south. Existing service and restaurant uses are located farther south in the Highway Commercial (C-3) zoning district.
- East — An existing drive-through restaurant is located east of the site in the Highway Commercial (C-3) zoning district.
- West — Existing retail and service uses in the larger shopping center zoned Central Business (C-2).

Key Items for Consideration

- Conformance with City of Scottsdale Commercial Design Guidelines

DEVELOPMENT PROPOSAL

Goal/Purpose of Request

The applicant is seeking approval of the site plan, landscape plan, and building elevations for a new multi-tenant retail building, including drive-through service, for the existing site. The existing building and a portion of the parking on the site will be demolished to allow the redevelopment of the site.

Neighborhood Communication

The City mailed notification postcards to the surrounding property owners within 750 feet of the site, and has posted the property notifying the public of the Development Review Board hearing. As of the date of this report, staff has not received any neighborhood or citizen correspondence regarding the applicant's request.

DEVELOPMENT REVIEW BOARD CRITERIA ANALYSIS

The development site is the current location of a large restaurant. The existing one-story restaurant building on the site has been in place since the 1980s. The applicant's proposal is to remove the existing building from the site and replace it with a new, one-story, multi-tenant commercial building, including a drive-through restaurant. The new building will be located on the east-west axis with the drive-through on the far west side of the building. Other improvements to the site include new parking, landscape, hardscape, and pedestrian access.

Access to the site will remain primarily as it exists on the site today, with the exception of the relocation of a driveway into the site from the adjacent alley to the east. That driveway will be relocated farther north to align with the drive aisle on the northern portion of the development project. The site will continue to utilize access from an existing main entry driveway west of the site into the surrounding larger shopping center. A new parking configuration will be introduced for this portion of the site to accommodate the location of the new building as new parking spaces will wrap the building on three sides. The queueing lane for the drive-through will be located on the north side of the building away from the main pedestrian access to the building. In addition, new screen walls will be provided along a portion of the E. Shea Boulevard frontage to match those existing today. The walls will complement additional landscaping along that frontage to screen parked cars at the site. An existing pedestrian walkway will connect the building to the sidewalk along E. Shea Boulevard. Pedestrian access to the building is located on the south side of the building with a service sidewalk provided on the north side of the building. A pedestrian connection is provided to the surrounding center at the northwestern portion of the site. Open space has been provided primarily in the large setback from E. Shea Boulevard and along the front of the building.

The proposed multi-tenant building incorporates a contemporary style with the use of multiple types of materials including stucco, steel, aluminum storefront, composite wood, and cement tile. The one-story building utilizes varied massing to enhance the façades of the buildings. Shade devices will be provided for all window and door locations, with some windows being recessed into the wall system to allow additional shading. Exterior building lighting has been designed to meet the City requirements and all mechanical equipment and utilities have been appropriately screened or integrated with the building design. The development project utilizes muted earth tones, consistent with City policies and guidelines and incorporates an accent color at both ends of the building to bring additional visual interest to the ends of the building.

New landscaping will be utilized in areas adjacent to the new building and the revised parking areas on the east and west sides of the building. Existing landscaping will be retained and enhanced in the large open space area between the E. Shea Boulevard and the development site. New landscaping will utilize drought-tolerant plant material per City guidelines. Plant species include Palo Brea, Chitalpa, and Mexican Bird of Paradise trees, as well as Agave, Aloe, and Yucca varieties. The plants will be arranged to create a lush landscape between the building and landscape areas surrounding the building.

Development Information

• Existing Use:	Restaurant
• Proposed Use:	Commercial with drive-through restaurant
• Parcel Size:	3.2 gross acres 2.9 net acres 124,878 square feet
• Building / Commercial space:	10,200 square feet
• Floor Area Ratio Allowed:	0.8
• Floor Area Ratio Proposed:	0.38
• Building Height Allowed:	36 feet, excluding rooftop appurtenances
• Building Height Proposed:	27 feet 10 inches, including rooftop appurtenances
• Parking Required:	447 spaces (entire shopping center)
• Parking Provided:	634 spaces (entire shopping center)
• Open Space Required:	19,008 square feet / 0.44 acres
• Open Space Provided:	19,008 square feet / 0.44 acres

STAFF RECOMMENDATION

Recommended Approach:

Staff recommends that the Development Review Board approve the 7 Thousand Shea – Building K project per the attached stipulations, finding that the provisions of the Character and Design Element of the General Plan and the Development Review Criteria have been met.

RESPONSIBLE DEPARTMENT

Planning and Development Services

Current Planning Services

STAFF CONTACT

Brad Carr, AICP, LEED-AP
Senior Planner
480-312-7713
E-mail: bcarr@ScottsdaleAZ.gov

APPROVED BY

Brad Carr, AICP, LEED-AP, Report Author — Date: 8·25·2016

Steve Venker, Development Review Board Coordinator — Date: 8/29/16
Phone: 480-312-2831 E-mail: svenker@scottsdaleaz.gov

Randy Grant, Director — Date: 8/30/16
Planning and Development Services
480-312-2664, rgrant@scottsdaleaz.gov

ATTACHMENTS

A. Stipulations/Zoning Ordinance Requirements
1. Applicant's Narrative
2. Context Aerial
2A. Close-Up Aerial
3. Zoning Map
4. Context Aerial with Site Plan
5. Site Plan
6. Building Elevations
7. Perspectives
8. Landscape Plans

Stipulations for the Development Review Board Application: 7 Thousand Shea - Building K Case Number: 16-DR-2016

These stipulations are intended to protect the public health, safety, welfare, and the City of Scottsdale.

APPLICABLE DOCUMENTS AND PLANS:

1. Except as required by the Scottsdale Revised Code, the Design Standards and Policies Manual (DSPM), and the other stipulations herein, the site design and construction shall substantially conform to the following documents:
   a. Architectural elements, including dimensions, materials, form, color, and texture shall be constructed to be consistent with the building elevations submitted by Suite Six Architecture + Planning, with a city staff date of 7/18/2016.
   b. The location and configuration of all site improvements shall be consistent with the site plan submitted by Suite Six Architecture + Planning, with a city staff date of 7/18/2016.
   c. Landscape improvements, including quantity, size, and location shall be installed to be consistent with the preliminary landscape plan submitted by Collaborative V Design Studio, with a city staff date of 7/18/2016.
   d. The case drainage report submitted by Kland Civil Engineers and accepted in concept by the Stormwater Management Department of the Planning and Development Services.

RELEVANT CASES:

Ordinance

A. At the time of review, the applicable Zoning case for the site was 97-ZN-1986.

ARCHITECTURAL DESIGN:

DRB Stipulations

2. All exterior window glazing shall be recessed a minimum of fifty (50) percent of the wall depth, including glass windows within any tower/clerestory elements. The amount or recess shall be measured from the face of the exterior wall to the face of the glazing, exclusive of external detailing. With the final plan submittal the developer shall provide head, jamb and sill details clearly showing the amount of recess for all window types.
3. All exterior doors shall be recessed a minimum of thirty (30) percent of the wall depth, the amount of recess shall be measured from the face of the exterior wall to the face of the glazing, exclusive of external detailing. With the final plan submittal the developer shall provide head, jamb and sill details clearly showing the amount of recess for all door types.

4. Roof drainage systems shall be interior to the building, except that overflow scuppers are permitted. If overflow scuppers are provided, they shall be integrated with the architectural design. Areas that are rooftop drainage shall be designed and constructed to minimize erosion or staining of nearby building walls and directs water away from the building foundations, per Scottsdale Design Standards & Policies Manual Section 2-1.401.4.

5. *With the final plans submittal, the owner shall modify the building elevations to increase the size of the columns supporting the roof structure over the drive through window and wrap the columns in the same, or similar, stone material to that which is provided on the building, to the satisfaction of Planning final plans review staff.*

6. *With the final plans submittal, the owner shall modify the building elevations to increase the depth of the parapet that is located above tenant spaces at either end of the building to ensure that they have additional mass in relation to the remainder of the building, to the satisfaction of Planning final plans review staff.*

SITE DESIGN:

DRB Stipulations

7. *With the final plans submittal, the owner shall modify the trash enclosure configuration so that it does not conflict with city standards for sight visibility, to the satisfaction of Engineering final plans review staff.*

8. *With the final plans submittal, the owner shall modify the existing landscape island at the end of the row of parking on the north side of the project site to ensure that it does not encroach into the adjacent drive aisle and maintains a minimum of twenty-four (24) feet clearance for vehicle traffic, to the satisfaction of Engineering final plans review staff.*

9. Refuse enclosures shall be constructed in conformance with the City of Scottsdale Design Standards and Policy Manual Section 2-1.804 and City of Scottsdale Supplements to MAG Standard Details, unless otherwise approved by Engineering final plan review staff. Details for construction of refuse enclosures can be found in the City of Scottsdale Supplements to MAG Standards Details, 2146-1, 2 (2 is grease containment) for single enclosures, and 2147-1, 2 (2 is grease containment) for double enclosures.

LANDSCAPE DESIGN:

Ordinance

B. With the final plans submittal, the conceptual landscape plan shall be revised to include summary data indicating the landscape area (in square feet) of on-site, right-of-way, and parking lot landscaping, in compliance with Zoning Ordinance Section 10.200.

DRB Stipulations

10. Prior to the issuance of a building permit, the owner shall submit landscape improvement plans that demonstrate how the salvaged vegetation from the site will be incorporated into the design of the landscape improvements.

11. *With the final plans submittal, the owner shall modify the landscape plans to add a minimum of five (5) landscape pots and/or raised landscape planters, with a minimum of 36 inches in diameter. The landscape pots and/or raised landscape planers shall have a sufficient depth to*

support the root system of the plants located in the pots/planters, and an automatic irrigation system.

EXTERIOR LIGHTING:

Ordinance

C. All exterior luminaires mounted eight (8) feet or higher, above finished grade, shall be directed downward.

DRB Stipulations

12. All exterior luminaires shall meet all IES requirements for full cutoff, and shall be aimed downward and away from property line except for sign lighting.

13. Incorporate the following parking lot and site lighting into the project's design:

    Parking Lot and Site Lighting:

    a. The maintained average horizontal luminance level, at grade on the site, shall not exceed 2.0-foot-candles. All exterior luminaires shall be included in this calculation.

    b. The maintained maximum horizontal luminance level, at grade on the site, shall not exceed 8.0-foot-candles. All exterior luminaires shall be included in this calculation.

    c. The initial vertical luminance at 6-foot above grade, along the entire property line shall not exceed 0.8-foot-candles. All exterior luminaires shall be included in this calculation.

    d. The total lumen per luminaire shall not exceed 24,000 lumens.

EASEMENTS DEDICATIONS AND RELATED IMPROVEMENTS:

Ordinance

D. Before any building permit is issued for the site, the owner shall dedicate a sight distance easement over sight distance triangle(s) in conformance with figures 5.3-26 and 5.3-27 of Section 5.3 of the DSPM.

WATER AND WASTEWATER STIPULATIONS:

DRB Stipulations

14. Existing water and sewer service lines to this site shall be utilized, or shall be disconnected at the main pursuant to the Water Resources Services Department requirements.

15. *With the final improvement plans submittal, the owner shall address any relocation of water and sewer service, grease interceptor(s) location, fire lines, etc. per the DSPM.*

DRAINAGE AND FLOOD CONTROL:

DRB Stipulations

16. With the improvement plan submittal, the owner shall submit a final drainage report that demonstrates consistency with the DSPM and the case drainage report accepted in concept by the Stormwater Manager or designee.

7000 Shea - Building K

Demolition and New Construction of Multi-Tenant Retail
at the
Northeast Corner of 70th Street and Shea Boulevard in
Scottsdale, Arizona

PROJECT NARRATIVE

March 17, 2016

ATTACHMENT #1

16-DR-2016
3/17/16

7000 Shea - Building K

TABLE OF CONTENTS

7000 Shea - Building K

PROJECT TEAM

DEVELOPER	Younan Properties 5959 Topanga Cyn Blvd, Suite 200 Woodland Hills, California 91364 Contact: Ms Adriana Mora 818 703 9600
ARCHITECT	SUITE 6 Architecture + Planning 6111 N. Cattletrack Road Scottsdale, Arizona 85250 Contact: Dean Munkachy, AIA 480 348 7800
LANDSCAPE ARCHITECT	Collaborative V Design Studio, Inc. 7116 E 1st Avenue, Suite 103 Scottsdale, Arizona 85251 Contact: Aaron Hillman 480 347 0590
CIVIL ENGINEER	Kland Civil Engineers 7227 N 16th Street, Suite 217 Phoenix, Arizona 85020 Contact: Leslie Kland, PE 480 344 0420
ELECTRICAL ENGINEER	Kraemer Consulting Engineers 2050 W Whispering Wind Drive Phoenix, Arizona 85085 Contact: Mark D. Bentley 602 285 1669

7000 Shea - Building K

NEC 70th Street and Shea Boulevard
Scottsdale, Arizona

PROJECT NARRATIVE

I. OVERVIEW

7000 Shea is an existing +/- 8.3 net acre commercial project at the northeast corner of 70th Street and Shea Boulevard. The property is zoned C-2 PCD and is designated for Commercial Uses in the General Plan. The current configuration consists of approximately 140,000 sf of tenant space in four (4) basic structures. The northwest corner of the site is a collection of multi-tenant buildings with adjoining courtyards over two subterranean parking levels. At the northeast is a one and two level multi-tenant building that has housed retail, restaurant and office uses. The southwest corner contains a multi-tenant building with a drive through drive cleaner and other uses. On the southeast corner, a roughly 14,000 square foot single tenant restaurant and parking exists. The site interior consists mainly of service parking and landscaping which has been recently modified and enhanced with new wayfinding elements such as signage and traffic calming strategies.

This application pertains to the +/- 1.2 acres at the southeast corner. The program includes demolition of the freestanding restaurant and replacement with a new, +/- 10,000 square foot multi-tenant building with drive-through capability for an endcap tenant. Minor re-grading for the area and reconfiguration of parking to serve the new tenants is also required for this phase of work.

II. PROJECT VISION

Property Ownership's desire is to create a higher and better use of the project frontage, which has languished for several years due to the obsolete nature of a 14,000 square foot sit-down restaurant. The building layout and orientation are not deemed reusable for the current leasing market where visibility, ease of access and modern facilities are in demand.

The project has historically been multi-faceted, embodying a mix of uses in a village-like configuration. The improvements proposed continue in that tradition, working with the dominant materials and colors of the center, but introducing a more design-forward theme.

Site work will modernize the front parking areas with a more efficient layout and more options for circulation through and from adjacent properties. All improvements, insofar as they support the new program, will reinforce and enhance the landscape and pedestrian character that currently exists.

III. DEVELOPMENT REVIEW BOARD CRITERIA

A. GENERAL PLAN/ZONING ORDINANCE

Ongoing use of the property is consistent with the General Plan classification of Commercial encouraging retail goods and services appropriately scaled for the adjacent neighborhood. This proposal is to replace existing single tenant space with less multi-tenant space and will not change the essential ongoing use of the property. The site is zoned C-2 and will offer the same or similar uses going forward.

The project adheres to numerous goals and approaches outlined in the General Plan. For example, Economic Vitality (EV) Element, Goal No. 7 encourages the sustainability of the "...long term economic well being of the city and its citizens through redevelopment and revitalizations efforts." The approach recommended by the General Plan for this goal is to "Encourage and support the renovation and reuse of underutilized or vacant parcels/buildings/shopping centers."

B. HEALTH SAFETY AND WELFARE

The project will continue to utilize and connect pedestrian and vehicular connections to major streets and adjacent properties. Connecting two separate parking areas with a continuous driveway will allow for better traffic flow and distribution. The new multi-tenant building can provide a wider array of goods and services to be offered in the same underused area, thus enhancing the welfare of local patrons.

C. SPATIAL RELATIONSHIPS

The project will not change the essential layout of the buildings and their relationships to one another or adjacent properties. The new multi-tenant building is smaller than the existing building with a more rectangular footprint, but all interior connections and distances between buildings are maintained.

D. CIRCULATION/INGRESS AND EGRESS

The project makes major improvements to the off-street parking facilities, redistibuting the parking more equitably around the structure. Circulation nodes, including a new driveway entrance from the adjacent alleyway will enhance traffic flow and give patrons more options for ingress and egress at peak times.

E. ARCHITECTURE/CHARACTER

The context of this project is the general commercial cluster that rings the major intersection of Scottsdale Road and Shea Boulevard. The area has historically

been low scale, combining southwestern design idioms like spanish mission, territorial ranch and adobe. The 7000 Shea project is no exception, containing within its acreage several distinctly different building forms, gabled and flat roofs, colonnades and simple shopfronts with awnings. The restaurant building which is being demolished has a decidedly different character from the rest of the center, with wood columns and heavy timber elements which purposefully make it stand out from the main corpus.

In the vicinity, it is worth noting several contemporary buildings that now comfortably co-exist within the fabric of highly themed shopping centers. Notably, the new MidFirst Bank, McDonald's and the Hopdoddy restaurant, all at or adjacent to the Shea Scottsdale Center, which houses Safeway. Directly south of the subject property is Scottsdale Commons, which underwent a major facelift in 2009, and now sports distinctive roof forms, towers and brick textures which previously were not found in the trade area.

The proposed response at 7000 Shea-Building K is to recognize stylistic changes in the vicinity, yet introduce an updated appearance without losing the scale and charm of the existing building campus. The new design, discussed in further detail herein, suggests how this balance has been addressed through an integrated approach which blends architectural detail, site design and landscape enhancements.

F. SCREENING

All mechanical equipment and refuse containers will be screened from public view by site walls, service courtyards or parapet walls as before.

G. CONSISTENCY WITH GUIDELINES

Conformance with governing guidelines is discussed in further detail in the following sections.

IV. SITE DEVELOPMENT/ CONFORMANCE WITH SCOTTSDALE DESIGN STANDARDS

Development Guidelines and Implementation

The design team has carefully considered the governing documents for site planning and design including: The Design Standards and Policies Manual (DSPM); Sensitive Design Program; Commercial Design Guidelines; and Lighting and Shading Guidelines. Specific responses are discussed below:

A. SENSITIVE DESIGN PRINCIPLES

1. The design character of any area should be enhanced and strengthened by new development

- The project team recognizes the existing and evolving context of the area, and responds to its unique character with appropriately scaled and appointed improvements.

2. Development, through appropriate siting and orientation of buildings, should recognize and preserve established major vistas, as well as protect natural features

- The project maintains and enhances the essential relationship of structures as sited next to one another, and in their pedestrian and vehicular connection to adjacent properties. Views into and out of the site are unchanged.

3. Development should be sensitive to existing topography and landscaping

- No major topography changes are proposed, and the landscape palette will be largely the same.

4. Development should protect the character of the Sonoran desert by preserving and restoring natural habitats and ecological processes.

- The project will remove some non-native plant material and otherwise maintain its low water-use palette.

5. The design of the public realm, including streetscapes, parks, plazas and civic amenities, is an opportunity to provide identity to the community and convey its design expectations.

- The project design maintains its essential character and makes additional shade and landscape improvements in key areas to combat heat buildup.

6. Developments should integrate alternative modes of transportation, including bicycles and bus access, within the pedestrian network that encourage social contact and interaction within the community.

- All existing facilities are maintained. Pedestrian connection from Shea is kept in its current location and re-designed to meet ADA considerations of grade and cross slope. Bicycle parking on site will be replaced in a location nearer to the building.

7. Development should show consideration for the pedestrian by providing landscaping and shading elements as well as inviting access connections to adjacent development.

- Perimeter landscaping will remain largely unchanged, however at the building edges upgrades including new planting areas between parking and the building will provide visual relief and cooling effects. Walkways adjacent to the new storefronts will be kept largely open with overhead shade canopies to encourage outdoor activity and seating.

8. Buildings should be designed with a logical hierarchy of masses.

- The new building's design incorporates stepped forms, protrusions and varying parapet heights to create a hierarchy similar to, but not imitative of the existing center. Each change in plane is accompanied by a consequential change in wall materials, to create a visually intriguing arrangement of forms.

9. The design of the built environment should respond to the desert environment.

- The building incorporates shade canopies at all glass areas in response to the need to decrease heat build up, particularly in the pedestrian areas. Building materials are chosen to provide durable and lasting quality which resist heat and sun degradation.

10. Developments should strive to incorporate sustainable and healthy building practices and products.

- The new building's envelope will meet current energy codes, assuring a much more efficient energy profile than currently exists at the site. Ownership has planned for extra trash facilities near the new project to install recycling containers and waste grease recycling, both of which will encourage sustainable practices and reduce the waste stream.

11. Landscape design should respond to the desert environment by utilizing a variety of mature landscape materials indigenous to the arid region.

- Perimeter landscaping, which is low water-use will remain largely unchanged. Some existing mature materials will be salvaged and re-used within the project.

12. Site design should incorporate techniques for efficient water use by providing desert adapted landscaping and preserving native plants

- Perimeter landscaping will remain largely unchanged. Some existing mature materials will be salvaged and re-used within the project.

13. The extent and quality of lighting should be integrally designed as part of the built environment.

- The new lighting will match recently installed LED fixtures with full cut off. Specialty fixtures will be added such as wall sconces and overhead fixtures to provide interest at the storefront areas.

14. Signage should consider the distinctive qualities and character of the surrounding context in terms of size, color, location and illumination.

- Signage will be appropriate to the existing scale of the improvements and illuminated in keeping with other adjacent retail properties.

B. COMMERCIAL DESIGN GUIDELINES

SITE DESIGN

- The existing site and parking layout have historically created issues relative to parking efficiency, due to the creation of separate, unjoined parking fields. The small parking field to the east is particulary problematic now as it dead-ends near a drainage structure, thus inhibiting good traffic flow. The new plan contemplates several significant modifications to the parking field which conjoins the two areas, and distributes parking more evenly around the proposed structure, a multi-tenant shop building.
- As a part of this new parking scheme, our team has worked with Planning and Traffic staff to come up with a dual eastern driveway scenario that adjusts access from the existing alley, and allows for more points of egress to and from adjacent properties. The new parking field is approximately 4 parking spaces larger than previous counts in the area.
- The proposed building will feature a drive through lane and pick up window, both on the north side of the proposed structure, which will fully screen this activity from Shea. The cueing length is in excess of the 140' recommended in the DSPM, and any menu boards and/or speakers will be directed toward the interior of the site. None of this function is located adjacent to any nearby residential zoning.
- Parking lot screen walls to match the existing design, height and materials will be ex-

tended along those stretches of the frontage to continue the design intent and unify the frontage of the project.

- A key pedestrian connection point will be maintained from Shea, through an accessible pathway directly to the new shops. A new walkway connection to Building J (north) will be added to maintain an accessible path between buildings. An existing pathway to the west will be maintained and connected to the shops walkway.
- A pedestrian pathway will encompass the building on nearly three sides which will consist of hardscape, landscape and shaded overhangs from the building. The area will be designated for outdoor dining uses and pedestrian pathway to encourage a lively atmosphere. Tenants will be encouraged to add living-wall planters and other creative separation devices for their seating areas.

ARCHITECTURE-CONTEXT AND HISTORY

- Recent nearby development and new leasing opportunities have caused the new ownership of 7000 Shea to reassess its suitability for multiple tenancy and for ways to upgrade the appearance and functionality of the site and buildings.
- The project has been constructed and renovated in several phases since the 1980's and has kept its one and two story collection of buildings in a more or less casual setting. The project's most unique feature was the introduction of two levels of subterranean parking, which allowed for greater at-grade building coverage than the average retail center. The existing architectural style is predominantly Southwestern Suburban Ranch with subdued desert colors, faux stone, post-modern details and a mix of hipped, gabled and flat roof forms. The overall effect of the center is a modestly eclectic village.
- The building which currently occupies the subject area is an approximately 14,000 square foot sit-down restaurant which maintains the wood columns and chimney structure of the original themed restaurant tenant. This building is deemed functionally obsolete for the new tenant market.

ARCHITECTURE-PROPOSED REPLACEMENT BUILDING

- The new, smaller building has been conceptualized as a complimentary, yet not identical part of the overall center, much in the way the existing structure relates to and departs from the remainder of the campus.
- Elements that support continuity include: similar earth-toned stucco elements, matching stone veneers, flat parapets, roofline undulation, horizontal shade structures and storefront finishes.
- Departures from the original buildings include: additions of new, complimentary materials, simpler roof lines, reduced ornamentation and varying storefront heights.

ARCHITECTURE-RENOVATION OF EXISTING CENTERS

1. When a new use/addition is proposed to an existing commercial development the newly constructed portion of the building should appear as an originally conceived part of the design. The new additions should match the scale and reflect the proportions of the original structure where they adjoin or are adjacent. New construction of a different height and bulk, than that of the original structure, should not occur abruptly.

- The new building, while physically smaller than the building it replaces, will still be recognizable as a part of the overall center. Care has been taken to interpret the successful parts of the existing center such as shaded walkways, interconnected pathways and perimeter landscaping. The proposed building will actually have slightly less height and bulk than the restaurant, sitting back further from the curb.

2. New additions should match the existing approved architecture of the existing center. The extension of arcade elements, lighting, pathways and fenestration patterns, structural rhythms and use of materials should exhibit a seamless transition between the existing and new construction

- As discussed above, the center has historically included a mildly ecelectic series of facades which increase its interest and keep the center from being too slavish to a style. The proposed building facades will feature: stucco in colors already used throughout the center, stone veneer and storefronts to match the center. Intentional departures from the center are meant to communicate a new direction for the leasing strategy, making it more competitive with surrounding, upgraded properties in the context area. Not imitating some of the more dated design elements of the center is a conscious choice pointed at an evolving, and competitive marketplace. The overall effect will be to encourage future buildings and renovations toward the same goal of contextual interpretation.

ARCHITECTURE-CLIMATIC RESPONSE

- The new Building K will be a far more efficient building than the one it replaces, if due mainly to prevailing energy codes at the time of construction. In addition, the glass storefronts will be substantially shaded by projecting overhead awnings that will keep pedestrians out of the sun, and direct UV from entering the glass. Glassed areas are recessed from 15 to 34 inches from adjacent piers, giving additional protection from low angled rays.

ARCHITECTURE-DETAILS, MATERIALS AND COLORS

- The new Building K will feature a varied color and material palette, carefully chosen for its appropriateness to the context of the existing center and the tradce area. Stucco finishes and colors will match those found at the center, as will the use of stone veneer, albeit in slightly different applications.
- New additions to the palette include precast concrete, cement composite panels and painted steel accents. These materials are largely used as accent against the native palette described above, and are intended to signal the strong intention toward a more contemporary theme.

LANDSCAPE DESIGN-OVERALL PROJECT

- The existing shopping center underwent a landscape and parking renovation in 2013, new plant materials were brought in to freshen up the aesthetic of the existing aging development. The landscape theme for the proposed building replacement is to continue with the 2013 renovation landscape concept. In addition to the new planting within the site, the existing frontage will be updated by cleaning up some material that has been historically in conflict with the large power lines along Shea Boulevard.
- Parking screen walls will be added to match the existing walls with shrubs and ground-cover planted near the walls from the street side to soften their appearance from Shea.
- The new parking areas and hardscape areas adjacent to the walks will be planted with plant materials selected from the ADWR- Arizona Department of Water Resources Low Water Use Plant List.
- The colorful shrubs, accents and ground covers will be planted in strong massings to create interest and reinforce the architectural character of the buildings.

LIGHTING DESIGN-OVERALL PROJECT

- Some lighting in the parking lots and pedestrian areas is HID source, largely outdated. New lighting throughout the parking lot in the subject area will provide a series of poles with LED output for better energy efficiency and more even levels of light coverage.
- Specialty sconces and downlights will also be added at the retail building to compliment and enhance the architectural experience of the area.
- An initial photometric study with light fixture cut sheets has been submitted with this application for further information.

SIGNAGE AND COPORATE IDENTITY-OVERALL PROJECT

- An existing multi-tenant identification sign on Shea Boulevard will be maintained for this phase of work.
- Tenant signage is anticipated and allowed at the retail as either wall mounted, or ledge mounted at the shade canopies. Individual letter signs will be strongly encouraged or required.
- Raceway signage will not be allowed.
- Signage criteria to limit sizes, illumination and locations will be developed for separate approval if required.

END OF NARRATIVE

ATTACHMENT #2

7 Thousand Shea – Building K

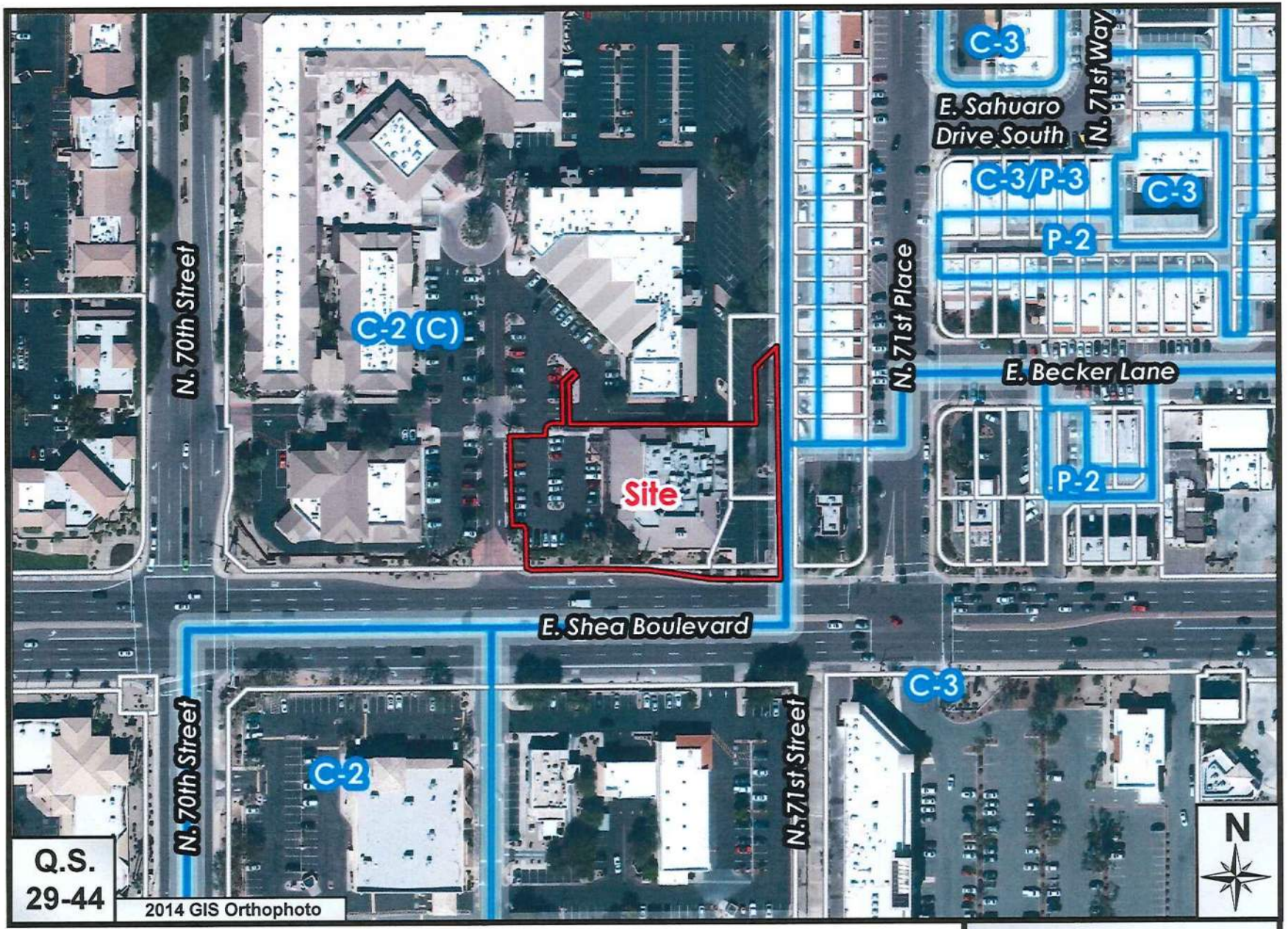
16-DR-2016

ATTACHMENT #2A

7 Thousand Shea – Building K

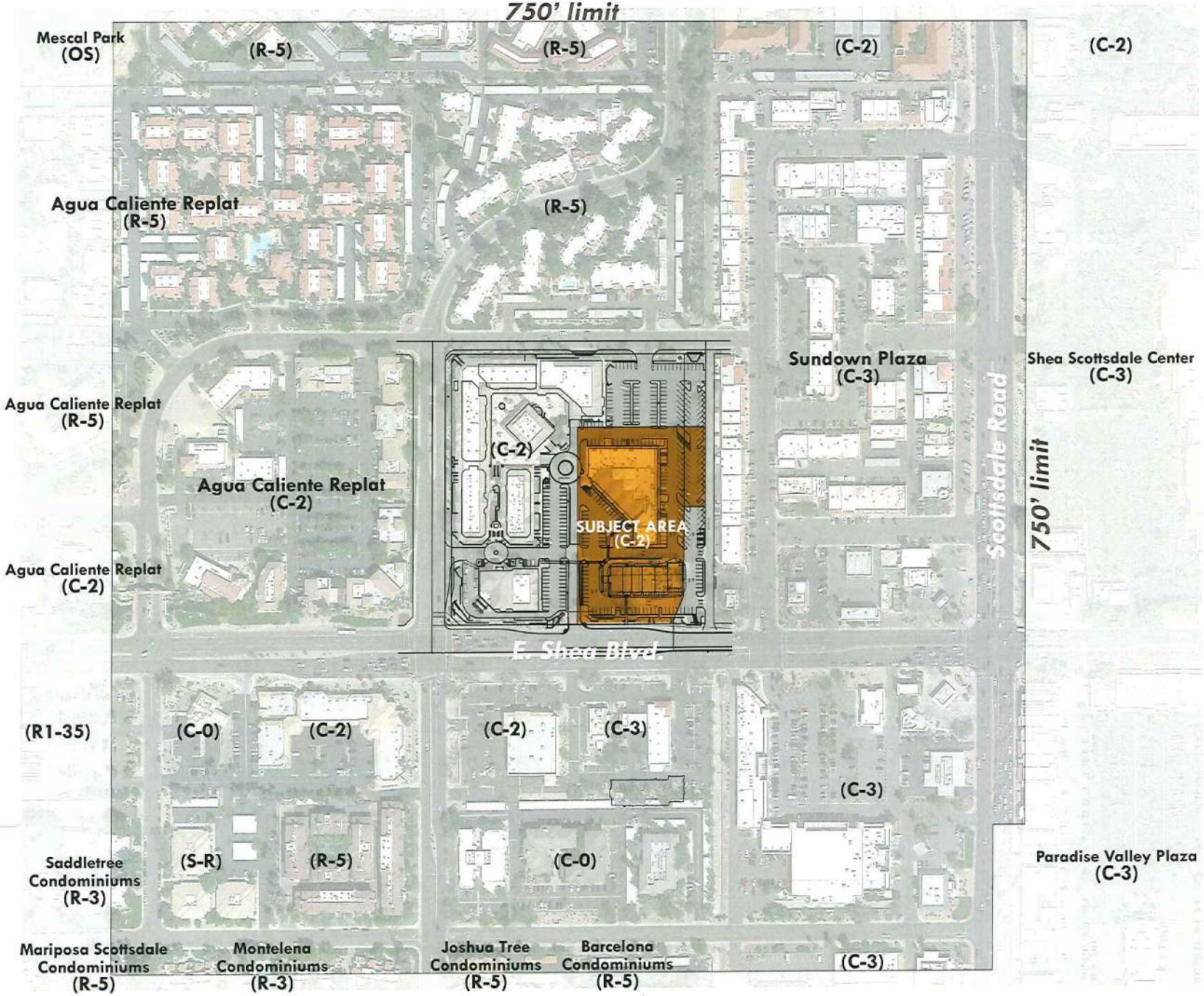
16-DR-2016

ATTACHMENT #3



7 Thousand Shea – Building K

16-DR-2016

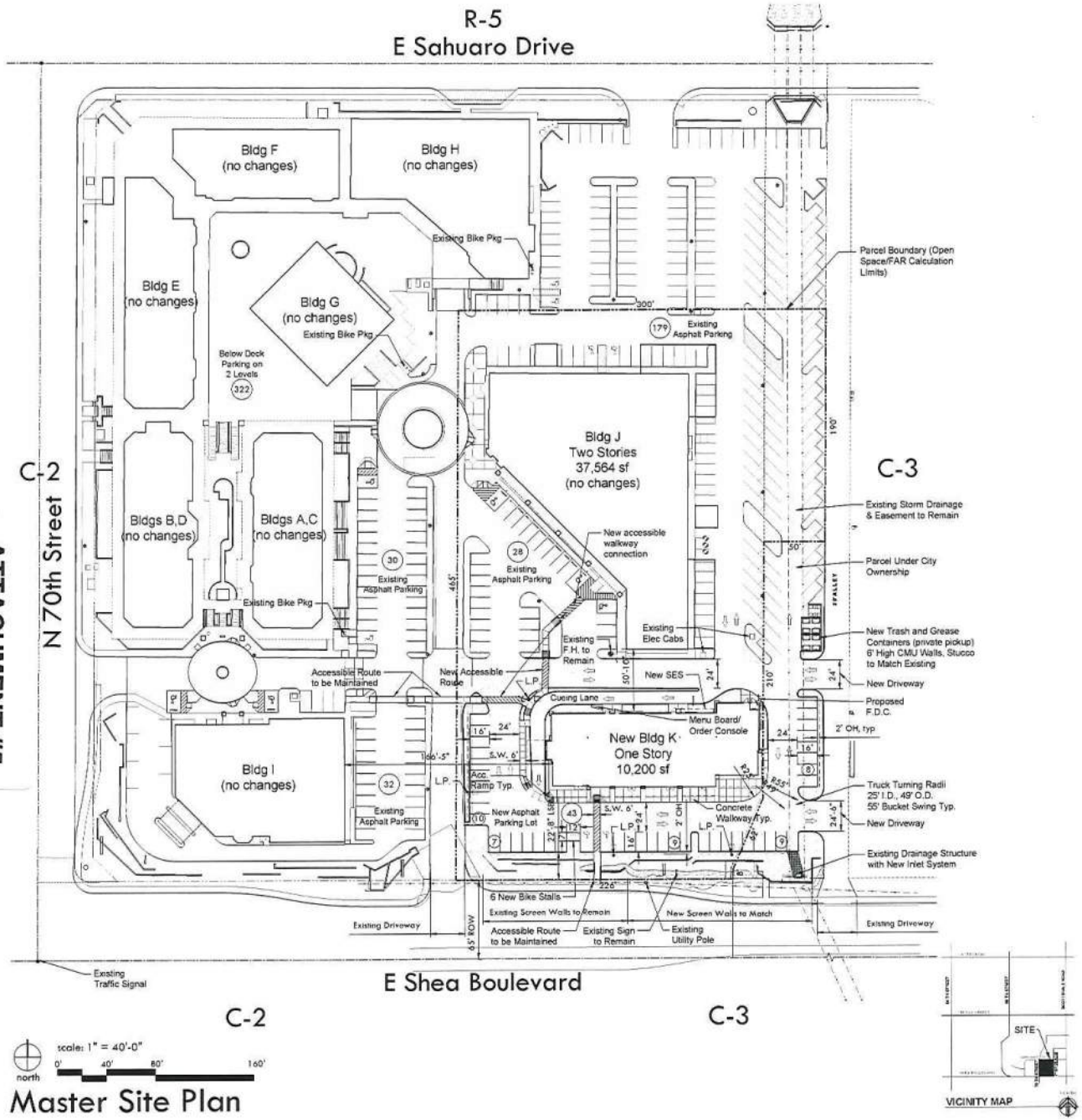


ATTACHMENT #4

E. 7000 Shea Blvd.
Context Aerial-750'

16-DR-2016
7/18/2016

ATTACHMENT #5



Master Site Plan

PROJECT DESCRIPTION

DEMOLITION OF AN EXISTING SIT-DOWN RESTAURANT AND REPLACEMENT WITH A NEW, 10,200 SF MULTI-TENANT BUILDING WITH DRIVE THROUGH. PARKING CONFIGURATION CHANGES TO THE IMMEDIATE AREA

PROJECT INFORMATION

Project Name	**7000 Shea - Building K**
Project Address	7000 E Shea Boulevard Scottsdale, Arizona 85254
Owner	**7000 E Shea Boulevard, LLC** c/o Younan Properties, 5959 Topanga Cyn Blvd Woodland Hills, CA 91364 Contact: Adriana Mora Tel: 818-715-9467 Email: amora@younanproperties.com
Architect-Retail	**SUITE 6 architecture + planning** 6111 N. Cattletrack Road Scottsdale, Arizona 85250 Contact: Dean Munkachy Tel: 480-348-7800 Email: dean@suite6.net

SITE DATA

Existing Zoning		C-2
Overall Property		GROSS: 449,131 sf (10.31 ac) NET: 363,647 sf (8.35 ac)
Subject Parcel(s)		NET: 124,878 sf (2.87 ac)
APN 175-42-136P, 175-42-136Q, 175-42-138G		
GLA Building K		10,200 sf
GLA Building J		37,564 sf
GLA Subject Pcl		47,764 sf
FAR-Subject Pcl		0.38
Total GLA-Project (Post Development)		133,915 sf
PARKING QUANTITIES		
Required		
Mixed Use-Autos	(1/300)	447 sp
Bike Pkg Req'd	(1/10)	45 sp
Provided		
Standard Spaces		602 sp
ADA Spaces		32 sp
Total Parking Prov'd		634 sp
Total Bike Prov'd		45 sp
OPEN SPACE		
Required	17.20%	21,479 sf
Frontage Prov'd		4,824 sf
Other Prov'd		14,184 sf
Total Prov'd		19,008 sf
PARKING LOT LANDSCAPE AREA		
Required		7,885 sf
Provided		7,920 sf

suite six architecture + planning

6111 N. Cattletrack Road
Scottsdale, Arizona 85250
480.348.7800 p
480.874.2121 f

Seal

Expires 9/30/2018

7000 Shea Building K

MULTI TENANT RETAIL
Scottsdale, Arizona

- Development Review Set
- Bid Set
- City Submittal
- Construction Set

Revisions:

Ownership of Instruments of Service:

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Title:

Date: July 13, 2016
Project Number: 404
Drawn by:

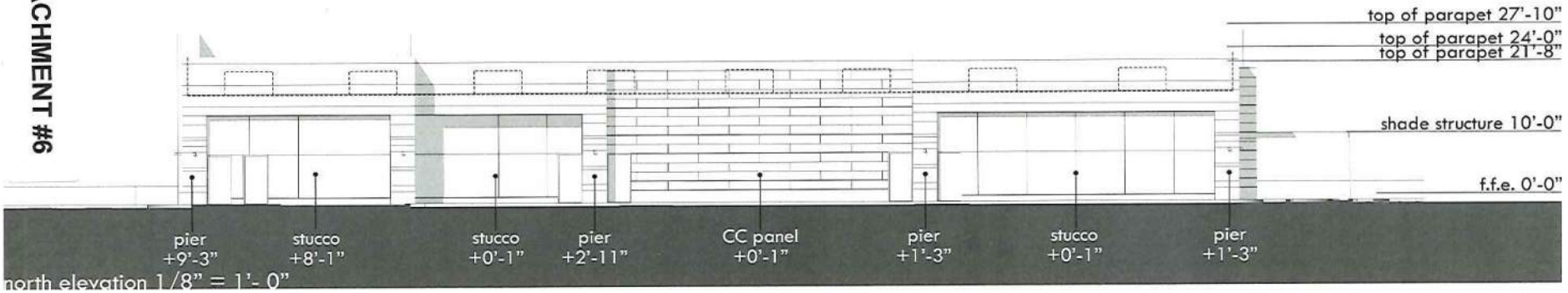
Sheet Number

A1.0

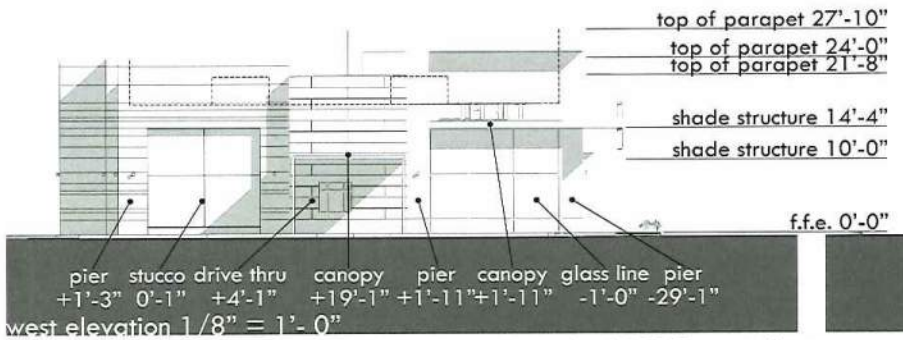
Site Plan

16-DR-2016
7/18/2016

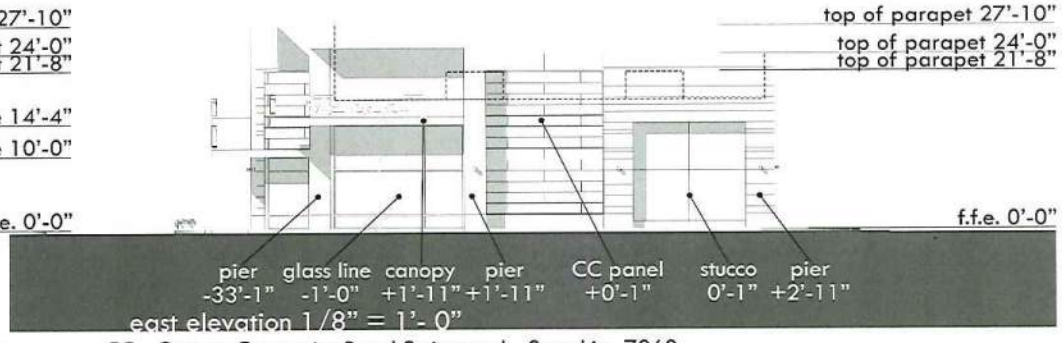
ATTACHMENT #6



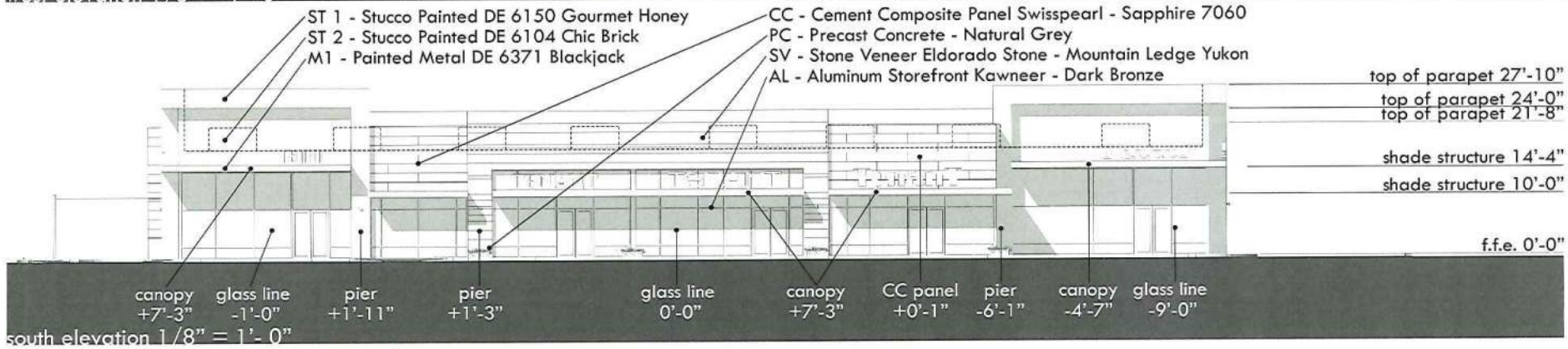
north elevation 1/8" = 1'- 0"



west elevation 1/8" = 1'- 0"



east elevation 1/8" = 1'- 0"



south elevation 1/8" = 1'- 0"

Note:
- all roof drainage to occur with internal downspouts or scuppers only, no visible downspouts
- mechanical on roof will be screened by existing parapet wall and will not be visible from street

0' 8' 16' 24'

16-DR-2016
7/18/2016

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7000 Shea Building K
MULTI TENANT RETAIL
Scottsdale, Arizona

Development Review Set
Bid Set
City Submittal
Construction Set

Revisions: July 13, 2016

Ownership of Instruments of Service:

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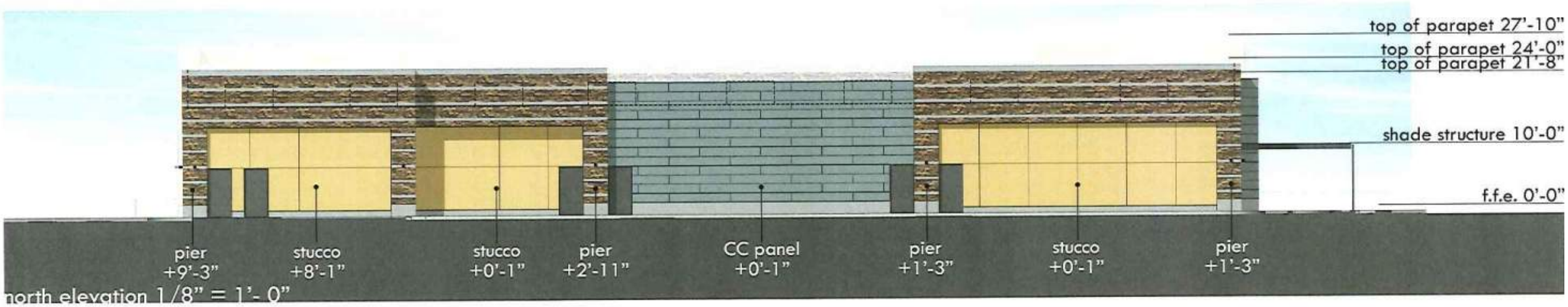
Title:

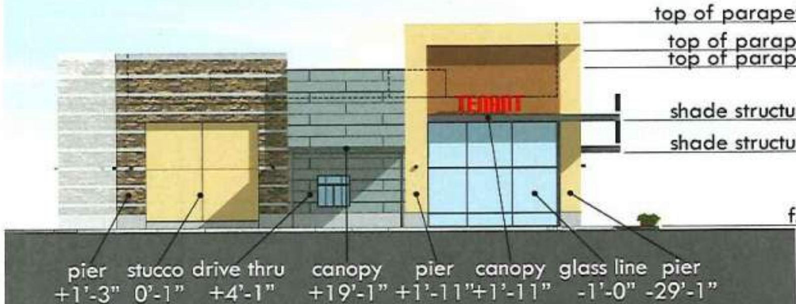
Date: March 17, 2016
Project Number: 484
Drawn by:

Sheet Number

A3.1
Elevations-B/W



north elevation 1/8" = 1'- 0"



west elevation 1/8" = 1'- 0"

east elevation 1/8" = 1'- 0"

ST 1 - Stucco Painted DE 6150 Gourmet Honey
ST 2 - Stucco Painted DE 6104 Chic Brick
M1 - Painted Metal DE 6371 Blackjack
CC - Cement Composite Panel Swisspearl - Sapphire 7060
PC - Precast Concrete - Natural Grey
SV - Stone Veneer Eldorado Stone - Mountain Ledge Yukon
AL - Aluminum Storefront Kawneer - Dark Bronze

south elevation 1/8" = 1'- 0"

Note:
- all roof drainage to occur with internal downspouts or scuppers only, no visible downspouts
- mechanical on roof will be screened by existing parapet wall and will not be visible from street

16-DR-2016
7/18/2016

0' 8' 16' 24'

suite six
architecture + planning

Seal

7000 Shea Building K
MULTI TENANT RETAIL
Scottsdale, Arizona

▲ Development Review Set
△ Bid Set
△ City Submittal
△ Construction Set

Revisions: July 15, 2016

Ownership of Instruments of Service:

Title:

Date: March 17, 2016
Project Number: 454
Drawn by:

Sheet Number

A3.2
Elevations-Color

view southwest corner

view northwest corner

view south elevation

ATTACHMENT #7

view northeast corner

view southeast corner

suite six
architecture + planning

Seal

DEAN W MUNKACHY
ARIZONA U.S.A.

Expires 9/30/2018

7000 Shea Building K

MULTI TENANT RETAIL
Scottsdale, Arizona

▲ Development Review Set
△ Bid Set
△ City Submittal
△ Construction Set

Revisions: July 15, 2016

Ownership of Instruments of Service:

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Title:

Date: March 17, 2016
Project Number: 404
Drawn by:

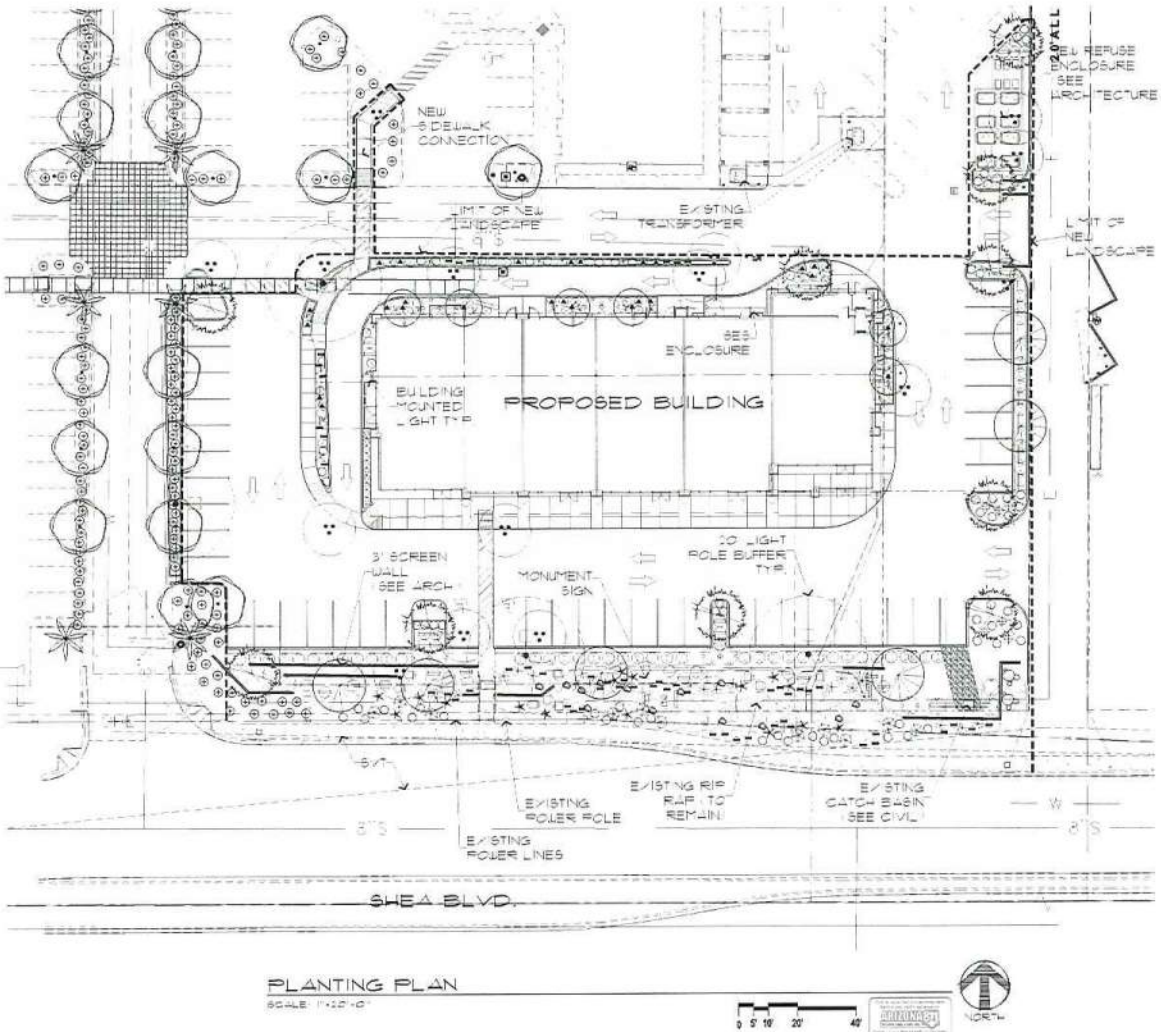
Sheet Number

A3.3

Perspective Views

16-DR-2016
7/18/2016

ATTACHMENT #8



PLANTING PLAN

SCALE: 1"=20'-0"

0 5' 10' 20' 40'

NORTH

PLANT SCHEDULE

SYMBOL	BOTANICAL NAME	COMMON NAME	SIZE	QTY	COMMENTS
	TREES				
	Existing Palm Tree To Remain				
	Existing Tree To Be Removed				
	Existing Tree To Remain				
	Chitalpa Tashkentensis	Chitalpa	36" Box 3" Caliper	10	Multi-Trunk, Dense Canopy
	Cercidium Praecox	Palo Brea	36" Box 3" Caliper	8	Low Breaking Upright Form
	Caesalpinia Mexicana	Mexican Bird of Paradise	24" Box 1" Caliper	6	Multi-Trunk, Dense Canopy
	CACTI/ACCENTS				
	Existing Saguaro To Remain				
	Hesperaloe Parviflora	Red Yucca	5-Gal	6	As Per Plan
	Muhlenbergia Rigida	Nashville Grass	5-Gal	22	As Per Plan
	Pedilanthus Macrocarpus	Lady Slipper	5-Gal	28	As Per Plan
	Agave Desmettiana	Agave	5-Gal	11	As Per Plan
	Asclepias Subulata	Desert Milkweed	5-Gal	16	As Per Plan
	Aloe Barbadensis 'Yellow'	Medicinal Aloe 'Yellow'	5-Gal	25	Yellow Flower
	SHRUBS				
	Existing Shrub To Remain				
	Nerium 'Petite Pink'	'Petite Pink' Oleander	5-Gal	51	As Per Plan
	Justicia Californica	Chuparosa	5-Gal	10	As Per Plan
	Tecoma 'Sparky'	'Sparky' Tecoma	5-Gal	15	As Per Plan
	Ruellia Peninsularis	Baja Ruellia	5-Gal	35	As Per Plan
	Myrtus Compacta	Compact Myrtle	5-Gal	10	As Per Plan
	GROUND COVERS				
	Lantana 'New Gold'	'New Gold' Lantana	1-Gal	67	As Per Plan
	Aloe 'Blue Elf'	'Blue Elf' Aloe	1-Gal	20	As Per Plan
	Bouteloua Gracilis 'Blonde Ambition'	'Blonde Ambition' Grama	1-Gal	53	As Per Plan
	MISCELLANEOUS				
DG	Decomposed Granite - Size and Color to match existing shopping center. 3" depth in all planting areas typ.				
	Existing Boulder To Remain		N/A		

NOTES:

1. Decomposed granite to be size and color as noted, applied over pre-emergent.

SITE DATA:

Open Space Calculations
Required Open Space
Maximum Bldg Height = +/-30'
First 15' of Height = 10% Net Area = 10%x204,878=20,488 sf
Next 15' of Height = 15% OOO=104,878 =8,998 sf

Open Space Required (not including parking lot landscaping)
=20,488 + 8,998 =21,478 sf
=17.5%

Open Space Provided
Frontage = 4,824 sf
Common = 14,154 sf
Total Provided = 19,008 sf

Parking Lot Landscaping Required=50,595 sf x 15% = 7,589 sf
Parking Lot Landscaping Provided=7,610 sf

16-DR-2016
7/18/2016

COLLABORATIVE DESIGN STUDIO

COLLABORATIVE V. DESIGN STUDIO INC.
7116 EAST 1ST AVE., SUITE 103
SCOTTSDALE, ARIZONA 85251
OFFICE: 480-347-0590
FAX: 480-656-6012

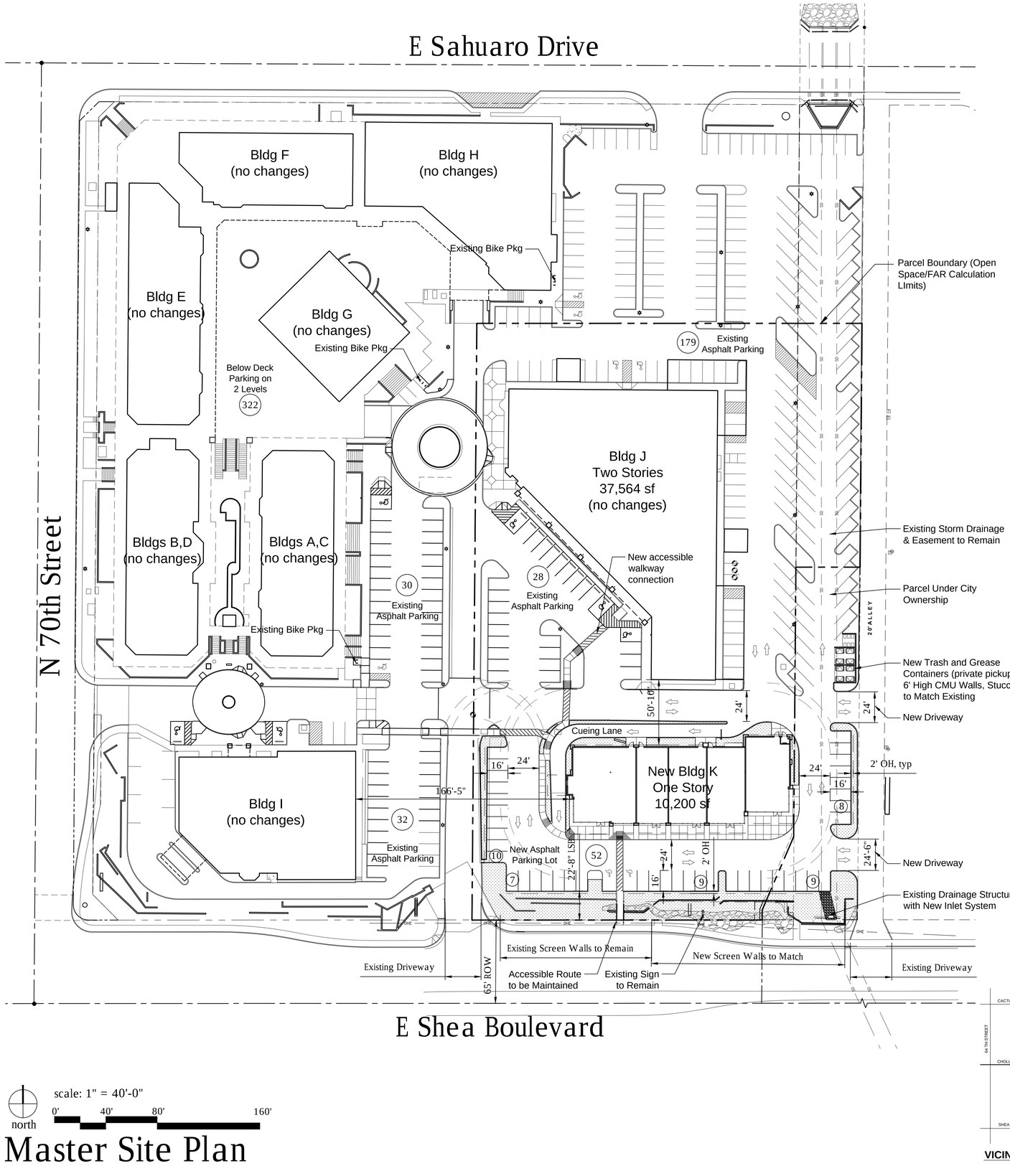
LANDSCAPE IMPROVEMENTS
7000 SHEA
7000 EAST SHEA, SCOTTSDALE, ARIZONA

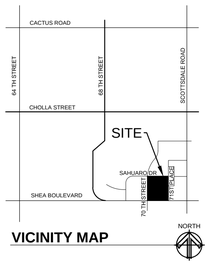
CONCEPTUAL PLANTING PLAN

07.14.16 1ST DR COMMENT

7000 SHEA

L1.0





north

scale: 1" = 40'-0"

0' 40' 80' 160'

Master Site Plan

PROJECT DESCRIPTION

DEMOLITION OF AN EXISTING SIT-DOWN RESTAURANT AND REPLACEMENT WITH A NEW, 10,200 SF MULTI-TENANT BUILDING WITH DRIVE THROUGH. PARKING CONFIGURATION CHANGES TO THE IMMEDIATE AREA

PROJECT INFORMATION

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Project Address	7000 E Shea Boulevard
	Scottsdale, Arizona 85254
Owner	**7000 E Shea Boulevard, LLC**
	c/o Younan Properties,
	5959 Topanga Cyn Blvd
	Woodland Hills, CA 91364
	Contact: Adriana Mora
	Tel: 818-715-9467
	Email: amora@younanproperties.com
Architect-Retail	**SUITE 6 architecture + planning**
	6111 N. Cattletrack Road
	Scottsdale, Arizona 85250
	Contact: Dean Munkachy
	Tel: 480-348-7800
	Email: dean@suite6.net

SITE DATA

Existing Zoning		C-2
Overall Property		GROSS: 449,131 sf (10.31 ac)
		NET: 363,647 sf (8.35 ac)
Subject Parcel(s)		NET: 124,878 sf (2.87 ac)
APN 175-42-136P, 175-42-136Q, 175-42-138G		
GLA Building K		10,200 sf
GLA Building J		37,564 sf
GLA Subject Pcl		47,764 sf
FAR-Subject Pcl		0.38
Total GLA-Project (Post Development)		133,915 sf

PARKING QUANTITIES

Required		
Mixed Use-Autos	(1/300)	447 sp
Bike Pkg Req'd	(1/10)	45 sp
Provided		
Standard Spaces		602 sp
ADA Spaces		32 sp
Total Parking Prov'd		634 sp
Total Bike Prov'd		45 sp

OPEN SPACE

Required	17.20%	21,479 sf
Frontage Prov'd		xxxxx sf
Other Prov'd		xxxxx sf
Total Prov'd		xxxxx sf

PARKING LOT LANDSCAPE AREA

Required	xxxx sf
Provided	xxxx sf

suite six
architecture + planning
6111 N. Cattletrack
Scottsdale, Arizona 85250
480.348.7800 p
480.874.2612 f

Seal

REGISTERED ARCHITECT
CERTIFICATE NO.
20144
DEAN W MUNKACHY
ARIZONA U.S.A.
Expires 9/30/2018

7000 Shea Building K

MULTI TENANT RETAIL
Scottsdale, Arizona

- ▲ Development Review Set
- △ Bid Set
- △ City Submittal
- △ Construction Set

Revisions:

Title:

Date: March 17, 2016

Project Number: 484

Drawn by:

Sheet Number

A1.0

Site Plan

Appendix H – MAG Socioeconomic Projections

Socioeconomic Projections

Population and Employment

by Municipal Planning Area, Jurisdiction, and Regional Analysis Zone

June 2019

MARICOPA ASSOCIATION of GOVERNMENTS

302 North 1st Avenue, Suite 300
Phoenix, Arizona 85003
(602) 254-6300

Maricopa Association of Governments
Table 1: Total Population by Municipal Planning Area
July 1, 2018 and Projections July 1, 2020 to July 1, 2055

	Total Population					
Municipal Planning Area	**2018**	**2020**	**2030**	**2040**	**2050**	**2055**
Apache Junction	59,000	60,800	70,000	92,000	117,100	132,600
Avondale	84,200	86,700	101,800	111,900	119,000	122,100
Buckeye	89,000	97,700	186,600	305,400	409,900	459,300
Carefree	3,700	3,800	4,100	4,200	4,200	4,300
Cave Creek	5,900	6,000	6,500	7,000	7,200	7,300
Chandler	270,300	279,500	309,100	321,100	329,000	332,400
El Mirage	34,300	35,100	36,500	36,900	37,200	37,200
Florence	79,400	85,500	120,300	160,500	209,900	231,400
Fort McDowell Yavapai Native Nation	1,000	1,100	1,100	1,100	1,100	1,100
Fountain Hills	24,000	24,700	26,200	26,600	26,900	27,000
Gila Bend	2,500	2,700	3,700	3,700	3,900	4,200
Gila River Indian Native Nation	12,000	12,200	12,300	12,300	12,300	12,300
Gilbert	256,500	265,900	293,500	308,800	318,100	321,400
Glendale	272,200	279,100	306,400	323,400	333,200	338,800
Goodyear	87,300	92,100	140,300	192,200	228,600	247,900
Guadalupe	6,300	6,400	6,700	6,800	6,800	6,800
Litchfield Park	13,300	14,000	15,400	15,700	16,100	16,400
Maricopa	59,800	67,000	90,800	106,400	121,600	128,900
Mesa	533,400	552,800	607,500	649,400	680,000	690,300
Paradise Valley	14,000	14,100	14,700	15,100	15,200	15,300
Peoria	188,500	196,600	232,400	273,700	312,600	329,900
Phoenix	1,653,500	1,697,700	1,881,900	2,019,300	2,117,400	2,155,300
Queen Creek	58,700	65,000	90,900	109,000	120,900	128,500
Salt River Pima-Maricopa Native Nation	6,800	6,100	5,700	5,800	5,800	5,800
Scottsdale	245,500	253,800	281,900	299,400	311,400	316,700
Surprise	144,000	150,300	216,700	307,500	383,300	417,200
Tempe	185,300	190,000	217,100	247,000	272,400	282,200
Tolleson	7,000	7,100	8,600	10,300	11,400	11,800
Unicorporated Pinal County	66,800	68,600	79,100	93,700	110,800	122,700
Unincorporated Maricopa County	97,900	101,200	110,500	116,800	137,000	152,600
Wickenburg	8,200	8,500	9,400	9,500	9,800	10,000
Youngtown	6,600	6,800	7,300	7,700	7,800	7,800

Notes: Numbers rounded to the nearest 100. These projections include both the Maricopa County and Pinal County portions for Apache Junction, Queen Creek, and the Gila River Indian Community. Peoria and Wickenburg include only the Maricopa County portion.

Source: Maricopa Association of Governments (MAG) Socioeconomic Projections of Population and Employment by Municipal Planning Area (MPA) and Regional Analysis Zone (RAZ), June 2019

For explanation of variables and complete notation on this series, please refer to the Notes and Caveats in Appendix A.

Maricopa Association of Governments
Table 2: Total Employment by Municipal Planning Area
July 1, 2018 and Projections July 1, 2020 to July 1, 2055

	Total Employment					
Municipal Planning Area	**2018**	**2020**	**2030**	**2040**	**2050**	**2055**
Apache Junction	7,800	8,800	13,100	17,800	26,400	30,500
Avondale	22,400	23,200	30,400	36,200	42,800	45,400
Buckeye	21,600	26,900	42,900	64,500	98,000	128,900
Carefree	1,600	1,600	2,100	2,400	2,500	2,600
Cave Creek	2,200	2,400	2,700	2,900	3,000	3,200
Chandler	145,500	154,700	182,300	202,100	215,200	222,000
El Mirage	5,000	5,100	6,500	7,200	8,000	8,900
Florence	11,000	12,100	17,000	26,400	40,900	51,100
Fort McDowell Yavapai Native Nation	2,200	2,400	2,400	2,500	2,600	2,600
Fountain Hills	7,100	7,700	9,100	9,800	10,200	10,300
Gila Bend	900	900	1,200	1,300	1,500	1,700
Gila River Indian Native Nation	10,500	10,700	11,500	13,100	14,800	15,500
Gilbert	92,800	98,600	120,200	135,900	146,600	152,200
Glendale	103,800	111,400	134,000	153,100	168,900	175,900
Goodyear	35,900	37,200	50,600	69,000	92,600	102,500
Guadalupe	1,300	1,300	1,500	1,600	1,600	1,600
Litchfield Park	3,800	4,400	5,200	5,900	6,400	6,700
Maricopa	6,200	7,100	11,400	18,200	28,200	33,500
Mesa	197,200	205,900	249,000	296,000	333,700	351,000
Paradise Valley	6,300	6,300	6,800	7,100	7,500	7,700
Peoria	58,200	62,400	73,100	84,800	91,900	96,300
Phoenix	897,700	937,600	1,084,000	1,189,200	1,264,900	1,298,900
Queen Creek	15,500	16,400	19,900	24,000	28,900	31,100
Salt River Pima-Maricopa Native Nation	21,200	22,900	28,200	33,900	35,900	36,400
Scottsdale	197,200	207,400	235,500	252,000	261,700	267,000
Surprise	33,600	36,400	59,500	86,400	113,400	130,500
Tempe	190,000	200,500	231,200	257,700	280,000	290,900
Tolleson	17,700	18,300	21,200	23,900	26,000	26,700
Unicorporated Pinal County	3,500	3,900	6,000	8,900	13,500	17,800
Unincorporated Maricopa County	28,600	31,500	35,500	41,100	51,200	58,400
Wickenburg	4,400	4,600	5,200	5,600	6,000	6,200
Youngtown	1,500	1,800	2,200	2,700	2,800	3,100

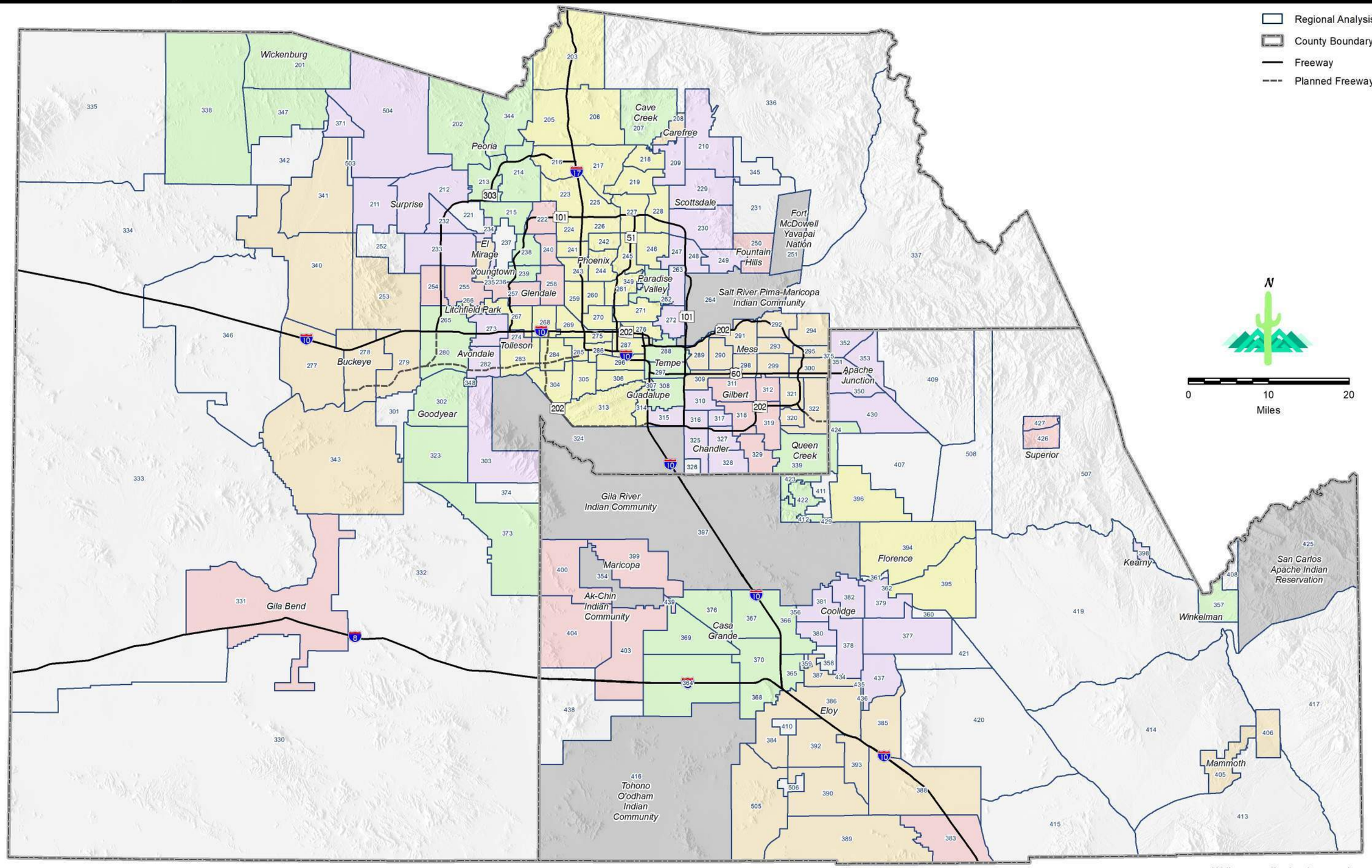
Notes: Numbers rounded to the nearest 100. These projections include both the Maricopa County and Pinal County portions for Apache Junction, Queen Creek, and the Gila River Indian Community. Peoria and Wickenburg include only the Maricopa County portion.

Source: Maricopa Association of Governments (MAG) Socioeconomic Projections of Population and Employment by Municipal Planning Area (MPA) and Regional Analysis Zone (RAZ), June 2019

For explanation of variables and complete notation on this series, please refer to the Notes and Caveats in Appendix A.

Regional Analysis Zones (RAZ), 2019
Maricopa and Pinal Counties, Arizona

MARICOPA ASSOCIATION of GOVERNMENTS



Source: MAG and the MAG member agencies, CAG and the CAG member agencies

Date: May 2019

Maricopa Association of Governments
Table 4: Population by Regional Analysis Zone (RAZ) by MPA
July 1, 2018 and Projections July 1, 2020 to July 1, 2055

RAZ	County	Total Population					
		2018	2020	2030	2040	2050	2055
	Total	1,653,469	1,697,722	1,881,876	2,019,269	2,117,427	2,155,333
Queen Creek MPA							
339	**Maricopa County**	49,781	53,579	72,670	82,172	87,155	89,586
422	**Pinal County**	13	13	300	437	564	638
423	**Pinal County**	1,286	1,410	3,714	6,136	7,457	8,686
424	**Pinal County**	7,642	10,003	14,200	20,287	25,759	29,586
	Total	58,722	65,005	90,884	109,032	120,935	128,496
Salt River Pima-Maricopa Native Nation MPA							
264	**Maricopa County**	6,798	6,073	5,708	5,820	5,820	5,820
	Total	6,798	6,073	5,708	5,820	5,820	5,820
Scottsdale MPA							
209	**Maricopa County**	12,188	12,605	13,961	14,512	14,984	15,255
210	**Maricopa County**	6,013	6,591	10,463	12,339	13,491	13,961
229	**Maricopa County**	20,542	21,269	25,221	27,864	29,698	30,229
230	**Maricopa County**	32,232	33,028	38,882	43,580	46,789	48,510
247	**Maricopa County**	13,549	13,858	15,420	16,342	16,871	17,019
248	**Maricopa County**	36,178	37,227	38,468	38,807	39,048	39,143
249	**Maricopa County**	20,903	21,410	22,543	22,768	22,839	22,848
263	**Maricopa County**	34,908	35,814	37,002	37,252	37,584	37,773
272	**Maricopa County**	68,987	71,970	79,910	85,942	90,054	91,927
	Total	245,500	253,772	281,870	299,406	311,358	316,665
Surprise MPA							
211	**Maricopa County**	863	884	4,471	23,112	36,704	40,737
212	**Maricopa County**	10,265	11,365	37,615	69,296	85,862	93,806
232	**Maricopa County**	29,296	30,200	34,506	37,144	37,927	38,313
233	**Maricopa County**	87,834	91,276	111,822	119,384	123,777	126,523
234	**Maricopa County**	8,969	9,467	10,460	10,878	11,335	11,488
371	**Maricopa County**	342	344	434	734	2,584	4,316
504	**Maricopa County**	6,460	6,718	17,425	46,912	85,127	102,004
	Total	144,029	150,254	216,733	307,460	383,316	417,187
Tempe MPA							
288	**Maricopa County**	73,442	76,444	100,651	129,202	150,094	157,410
297	**Maricopa County**	53,146	54,092	56,336	57,432	61,780	64,273
308	**Maricopa County**	58,756	59,473	60,120	60,348	60,476	60,559
	Total	185,344	190,009	217,107	246,982	272,350	282,242

Notes: Numbers rounded to the nearest 100. These projections include both the Maricopa County and Pinal County portions for Apache Junction, Queen Creek, and the Gila River Indian Community. Peoria and Wickenburg include only the Maricopa County portion.

Source: Maricopa Association of Governments (MAG) Socioeconomic Projections of Population and Employment by Municipal Planning Area (MPA) and Regional Analysis Zone (RAZ), May 2019

For explanation of variables and complete notation on this series, please refer to the Notes and Caveats in Appendix A.

Maricopa Association of Governments
Table 5: Employment by Regional Analysis Zone (RAZ) by MPA
July 1, 2018 and Projections July 1, 2020 to July 1, 2055

		Total Employment					
RAZ	County	2018	2020	2030	2040	2050	2055
	Total	897,713	937,622	1,083,980	1,189,209	1,264,941	1,298,903
Queen Creek MPA							
339	**Maricopa County**	13,933	14,696	16,482	18,825	20,733	21,151
422	**Pinal County**	9	8	18	22	31	39
423	**Pinal County**	89	109	351	620	1,068	1,639
424	**Pinal County**	1,435	1,576	3,073	4,571	7,020	8,309
	Total	15,466	16,389	19,924	24,038	28,852	31,138
Salt River Pima-Maricopa Native Nation MPA							
264	**Maricopa County**	21,160	22,869	28,215	33,871	35,903	36,442
	Total	21,160	22,869	28,215	33,871	35,903	36,442
Scottsdale MPA							
209	**Maricopa County**	4,488	4,659	4,851	5,174	5,161	5,344
210	**Maricopa County**	2,386	3,018	2,759	3,091	3,139	3,191
229	**Maricopa County**	9,604	10,005	11,231	11,962	12,193	12,896
230	**Maricopa County**	23,272	24,919	32,112	36,968	40,834	42,136
247	**Maricopa County**	44,254	47,089	52,652	54,822	55,679	56,105
248	**Maricopa County**	29,603	30,901	33,285	34,001	34,234	34,548
249	**Maricopa County**	7,409	7,692	8,179	8,684	8,906	9,045
263	**Maricopa County**	26,351	26,961	28,903	30,245	30,919	31,381
272	**Maricopa County**	49,833	52,185	61,540	67,039	70,676	72,330
	Total	197,200	207,429	235,512	251,986	261,741	266,976
Surprise MPA							
211	**Maricopa County**	60	53	1,560	3,172	4,766	7,017
212	**Maricopa County**	2,008	2,338	5,821	9,965	13,362	15,709
232	**Maricopa County**	8,349	9,228	11,297	12,187	12,875	13,116
233	**Maricopa County**	19,943	21,079	32,661	44,032	52,007	57,402
234	**Maricopa County**	2,588	2,711	3,354	3,922	4,239	4,386
371	**Maricopa County**	18	20	327	423	2,381	2,937
504	**Maricopa County**	677	1,020	4,460	12,695	23,763	29,886
	Total	33,643	36,449	59,480	86,396	113,393	130,453
Tempe MPA							
288	**Maricopa County**	88,927	94,229	111,010	128,894	144,714	152,703
297	**Maricopa County**	44,730	47,069	53,149	57,125	60,725	62,552
308	**Maricopa County**	56,380	59,208	67,052	71,701	74,542	75,596
	Total	190,037	200,506	231,211	257,720	279,981	290,851

Notes: Numbers rounded to the nearest 100. These projections include both the Maricopa County and Pinal County portions for Apache Junction, Queen Creek, and the Gila River Indian Community. Peoria and Wickenburg include only the Maricopa County portion.

Source: Maricopa Association of Governments (MAG) Socioeconomic Projections of Population and Employment by Municipal Planning Area (MPA) and Regional Analysis Zone (RAZ), May 2019

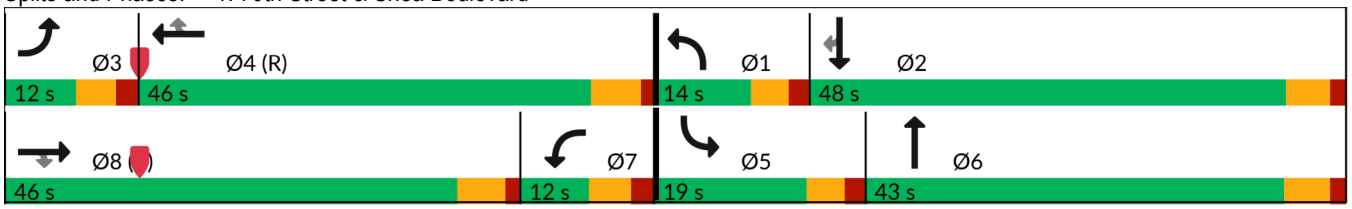
For explanation of variables and complete notation on this series, please refer to the Notes and Caveats in Appendix A.

Appendix I – Year 2026 No Build Capacity Analysis

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Configurations											
Traffic Volume (vph)	86	1607	416	79	968	63	230	40	46	97	45
Future Volume (vph)	86	1607	416	79	968	63	230	40	46	97	45
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Prot	NA	Perm
Protected Phases	3	8		7	4		1	6	5	2	
Permitted Phases			8			4					2
Detector Phase	3	8	8	7	4	4	1	6	5	2	2
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)	10.6	43.5	43.5	10.6	43.5	43.5	10.2	71.5	10.2	61.4	61.4
Total Split (s)	12.0	46.0	46.0	12.0	46.0	46.0	14.0	43.0	19.0	48.0	48.0
Total Split (%)	10.0%	38.3%	38.3%	10.0%	38.3%	38.3%	11.7%	35.8%	15.8%	40.0%	40.0%
Yellow Time (s)	3.6	4.4	4.4	3.6	4.4	4.4	3.3	4.0	3.3	4.0	4.0
All-Red Time (s)	2.0	1.1	1.1	2.0	1.1	1.1	1.9	1.5	1.9	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	0.0
Total Lost Time (s)	5.6	5.5	5.5	5.6	5.5	5.5	5.2	5.5	5.2	5.4	5.4
Lead/Lag	Lead	Lead	Lead	Lag	Lag	Lag	Lead	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	C-Max	C-Max	None	C-Max	C-Max	None	Max	None	Max	Max
Act Effct Green (s)	6.4	40.5	40.5	6.4	40.5	40.5	8.8	44.7	8.8	42.6	42.6
Actuated g/C Ratio	0.05	0.34	0.34	0.05	0.34	0.34	0.07	0.37	0.07	0.36	0.36
v/c Ratio	0.99	1.02	0.59	0.91	0.61	0.11	1.00	0.15	0.39	0.08	0.07
Control Delay (s/veh)	147.1	65.9	10.8	154.9	67.7	19.1	111.6	13.5	60.8	26.0	0.2
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 (s/veh)	147.1	65.9	10.8	154.9	67.7	19.1	111.6	13.5	60.8	26.0	0.2
LOS	F	E	B	F	E	B	F	B	E	C	A
Approach Delay (s/veh)		58.3			71.1			83.0		28.3	
Approach LOS		E			E			F		C	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 97 (81%), Referenced to phase 4:WBT and 8:EBT, Start of Green	
Natural Cycle: 150	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 1.02	
Intersection Signal Delay (s/veh): 62.8	Intersection LOS: E
Intersection Capacity Utilization 62.5%	ICU Level of Service B
Analysis Period (min) 15	

Splits and Phases: 1: 70th Street & Shea Boulevard



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	93	1747	452	86	1052	68	250	103	50	105	49
v/c Ratio	0.99	1.02	0.59	0.91	0.61	0.11	1.00	0.15	0.39	0.08	0.07
Control Delay (s/veh)	147.1	65.9	10.8	154.9	67.7	19.1	111.6	13.5	60.8	26.0	0.2
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 (s/veh)	147.1	65.9	10.8	154.9	67.7	19.1	111.6	13.5	60.8	26.0	0.2
Queue Length 50th (ft)	73	~524	55	69	301	14	101	22	38	28	0
Queue Length 95th (ft)	#185	#622	161	#172	350	57	#188	64	77	48	0
Internal Link Dist (ft)		664			258			163		155	
Turn Bay Length (ft)	90		250	150		105	300		80		110
Base Capacity (vph)	94	1716	767	94	1716	614	251	670	203	1256	672
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.99	1.02	0.59	0.91	0.61	0.11	1.00	0.15	0.25	0.08	0.07

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	86	1607	416	79	968	63	230	40	55	46	97	45
Future Volume (veh/h)	86	1607	416	79	968	63	230	40	55	46	97	45
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	93	1747	452	86	1052	68	250	43	60	50	105	49
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	95	1723	535	194	2004	622	253	277	387	65	1262	563
Arrive On Green	0.05	0.34	0.34	0.04	0.13	0.13	0.07	0.39	0.39	0.04	0.35	0.35
Sat Flow, veh/h	1781	5106	1585	1781	5106	1585	3456	707	986	1781	3554	1585
Grp Volume(v), veh/h	93	1747	452	86	1052	68	250	0	103	50	105	49
Grp Sat Flow(s),veh/h/ln	1781	1702	1585	1781	1702	1585	1728	0	1693	1781	1777	1585
Q Serve(g_s), s	6.3	40.5	26.6	5.7	23.1	4.5	8.7	0.0	4.7	3.3	2.4	2.5
Cycle Q Clear(g_c), s	6.3	40.5	26.6	5.7	23.1	4.5	8.7	0.0	4.7	3.3	2.4	2.5
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.58	1.00		1.00
Lane Grp Cap(c), veh/h	95	1723	535	194	2004	622	253	0	664	65	1262	563
V/C Ratio(X)	0.98	1.01	0.84	0.44	0.52	0.11	0.99	0.00	0.16	0.77	0.08	0.09
Avail Cap(c_a), veh/h	95	1723	535	194	2004	622	253	0	664	205	1262	563
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	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	56.7	39.8	26.0	54.3	41.8	33.7	55.5	0.0	23.6	57.3	25.7	25.8
Incr Delay (d2), s/veh	85.2	25.1	15.1	1.6	1.0	0.4	52.6	0.0	0.5	17.4	0.1	0.3
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	5.0	20.1	11.7	2.7	10.7	1.8	5.5	0.0	1.9	1.8	1.0	1.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	142.0	64.9	41.1	55.8	42.8	34.1	108.1	0.0	24.1	74.7	25.9	26.1
LnGrp LOS	F	F	D	E	D	C	F		C	E	C	C
Approach Vol, veh/h		2292			1206			353			204	
Approach Delay, s/veh		63.3			43.2			83.6			37.9	
Approach LOS		E			D			F			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	14.0	48.1	12.0	52.9	9.6	52.5	18.9	46.0
Change Period (Y+Rc), s	5.2	* 5.5	5.6	* 5.6	5.2	5.5	5.6	5.5
Max Green Setting (Gmax), s	8.8	* 43	6.4	* 41	13.8	37.5	6.4	40.5
Max Q Clear Time (g_c+I1), s	10.7	4.5	8.3	25.1	5.3	6.7	7.7	42.5
Green Ext Time (p_c), s	0.0	0.7	0.0	6.2	0.0	0.5	0.0	0.0

Intersection Summary	
HCM 6th Ctrl Delay, s/veh	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.

Intersection	
Int Delay, s/veh	0.2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑↑	↱		↑↑↑	↱			↱			↱
Traffic Vol, veh/h	0	1686	38	0	1080	82	0	0	17	0	0	25
Future Vol, veh/h	0	1686	38	0	1080	82	0	0	17	0	0	25
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	-	-	70	-	-	95	-	-	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	0	1833	41	0	1174	89	0	0	18	0	0	27

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	-	0	0	-	-	0	-	-	917	-	-	587
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	-	-	-	7.14	-	-	7.14
Critical Hdwy Stg 1	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	-	-	-	3.92	-	-	3.92
Pot Cap-1 Maneuver	0	-	-	0	-	-	0	0	*514	0	0	*668
Stage 1	0	-	-	0	-	-	0	0	-	0	0	-
Stage 2	0	-	-	0	-	-	0	0	-	0	0	-
Platoon blocked, %		-	-		-	-			1			1
Mov Cap-1 Maneuver	-	-	-	-	-	-	-	-	*514	-	-	*668
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s/v	0	0	12.3	10.6
HCM LOS			B	B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBT	WBR	SBLn1
Capacity (veh/h)	514	-	-	-	-	668
HCM Lane V/C Ratio	0.036	-	-	-	-	0.041
HCM Control Delay (s/veh)	12.3	-	-	-	-	10.6
HCM Lane LOS	B	-	-	-	-	B
HCM 95th %tile Q (veh)	0.1	-	-	-	-	0.1

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

Intersection	
Int Delay, s/veh	0.1

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	0	1693	1146	21	0	16
Future Vol, veh/h	0	1693	1146	21	0	16
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	1840	1246	23	0	17

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	-	0	-	0	-	635
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	7.14
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	3.92
Pot Cap-1 Maneuver	0	-	-	-	0	*744
Stage 1	0	-	-	-	0	-
Stage 2	0	-	-	-	0	-
Platoon blocked, %		-	-	-		1
Mov Cap-1 Maneuver	-	-	-	-	-	*744
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	WB	SB
HCM Control Delay, s/v	0	0	10
HCM LOS			B

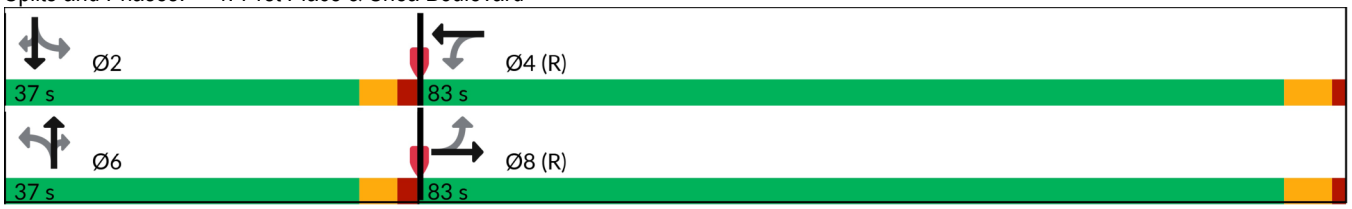
Minor Lane/Major Mvmt	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	-	-	-	744
HCM Lane V/C Ratio	-	-	-	0.023
HCM Control Delay (s/veh)	-	-	-	10
HCM Lane LOS	-	-	-	B
HCM 95th %tile Q (veh)	-	-	-	0.1

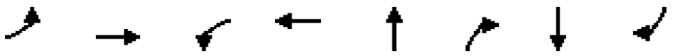
Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations										
Traffic Volume (vph)	93	1613	15	1088	8	1	6	99	3	63
Future Volume (vph)	93	1613	15	1088	8	1	6	99	3	63
Turn Type	Perm	NA	Perm	NA	Perm	NA	Perm	Perm	NA	Perm
Protected Phases		8		4		6			2	
Permitted Phases	8		4		6		6	2		2
Detector Phase	8	8	4	4	6	6	6	2	2	2
Switch Phase										
Minimum Initial (s)	10.0	10.0	10.0	10.0	7.0	7.0	7.0	7.0	7.0	7.0
Minimum Split (s)	32.5	32.5	36.5	36.5	51.2	51.2	51.2	22.5	22.5	22.5
Total Split (s)	83.0	83.0	83.0	83.0	37.0	37.0	37.0	37.0	37.0	37.0
Total Split (%)	69.2%	69.2%	69.2%	69.2%	30.8%	30.8%	30.8%	30.8%	30.8%	30.8%
Yellow Time (s)	4.4	4.4	4.4	4.4	3.3	3.3	3.3	3.3	3.3	3.3
All-Red Time (s)	1.2	1.2	1.2	1.2	1.9	1.9	1.9	1.9	1.9	1.9
Lost Time Adjust (s)	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0
Total Lost Time (s)	5.6	5.6	5.6	5.6		5.2	5.2		5.2	5.2
Lead/Lag										
Lead-Lag Optimize?										
Recall Mode	C-Max	C-Max	C-Max	C-Max	Max	Max	Max	Max	Max	Max
Act Effct Green (s)	77.4	77.4	77.4	77.4		31.8	31.8		31.8	31.8
Actuated g/C Ratio	0.65	0.65	0.65	0.65		0.27	0.27		0.27	0.27
v/c Ratio	0.44	0.54	0.15	0.38		0.02	0.02		0.31	0.14
Control Delay (s/veh)	23.8	22.4	12.5	13.7		33.0	1.5		38.3	8.7
Queue Delay	0.0	0.1	0.0	0.0		0.0	0.0		1.3	0.0
Total Delay (s/veh)	23.8	22.4	12.5	13.7		33.0	1.5		39.6	8.7
LOS	C	C	B	B		C	A		D	A
Approach Delay (s/veh)		22.5		13.6		20.0			27.8	
Approach LOS		C		B		C			C	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 2 (2%), Referenced to phase 4:WBTL and 8:EBTL, Start of Green	
Natural Cycle: 90	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.54	
Intersection Signal Delay (s/veh): 19.5	Intersection LOS: B
Intersection Capacity Utilization 65.9%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 4: 71st Place & Shea Boulevard

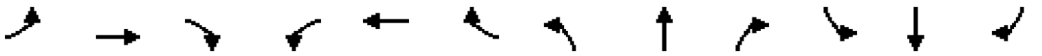




Lane Group	EBL	EBT	WBL	WBT	NBT	NBR	SBT	SBR
Lane Group Flow (vph)	101	1774	16	1233	10	7	111	68
v/c Ratio	0.44	0.54	0.15	0.38	0.02	0.02	0.31	0.14
Control Delay (s/veh)	23.8	22.4	12.5	13.7	33.0	1.5	38.3	8.7
Queue Delay	0.0	0.1	0.0	0.0	0.0	0.0	1.3	0.0
Total Delay (s/veh)	23.8	22.4	12.5	13.7	33.0	1.5	39.6	8.7
Queue Length 50th (ft)	79	510	8	265	6	0	69	0
Queue Length 95th (ft)	m82	m504	m13	m292	20	2	123	36
Internal Link Dist (ft)		36		469	32		65	
Turn Bay Length (ft)	130		85					80
Base Capacity (vph)	229	3274	110	3264	412	437	357	469
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	333	0	0	0	0	119	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.44	0.60	0.15	0.38	0.02	0.02	0.47	0.14

Intersection Summary

m Volume for 95th percentile queue is metered by upstream signal.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	93	1613	19	15	1088	46	8	1	6	99	3	63
Future Volume (veh/h)	93	1613	19	15	1088	46	8	1	6	99	3	63
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	101	1753	21	16	1183	50	9	1	7	108	3	68
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	302	3355	40	167	3240	137	57	3	420	59	1	420
Arrive On Green	0.43	0.43	0.43	0.65	0.65	0.65	0.26	0.26	0.26	0.26	0.26	0.26
Sat Flow, veh/h	452	5201	62	268	5024	212	0	13	1585	0	3	1585
Grp Volume(v), veh/h	101	1147	627	16	801	432	10	0	7	111	0	68
Grp Sat Flow(s),veh/h/ln	452	1702	1859	268	1702	1832	13	0	1585	3	0	1585
Q Serve(g_s), s	20.2	29.7	29.7	4.6	13.1	13.1	0.0	0.0	0.4	0.0	0.0	4.0
Cycle Q Clear(g_c), s	33.4	29.7	29.7	34.3	13.1	13.1	31.8	0.0	0.4	31.8	0.0	4.0
Prop In Lane	1.00		0.03	1.00		0.12	0.90		1.00	0.97		1.00
Lane Grp Cap(c), veh/h	302	2196	1199	167	2196	1182	60	0	420	60	0	420
V/C Ratio(X)	0.33	0.52	0.52	0.10	0.37	0.37	0.17	0.00	0.02	1.85	0.00	0.16
Avail Cap(c_a), veh/h	302	2196	1199	167	2196	1182	60	0	420	60	0	420
HCM Platoon Ratio	0.67	0.67	0.67	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.63	0.63	0.63	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	26.5	20.5	20.5	23.1	9.9	9.9	49.0	0.0	32.6	59.5	0.0	33.9
Incr Delay (d2), s/veh	3.0	0.9	1.6	0.7	0.3	0.6	5.8	0.0	0.1	438.6	0.0	0.8
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	2.5	12.5	13.9	0.3	4.4	4.8	0.4	0.0	0.2	9.1	0.0	1.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	29.5	21.4	22.2	23.9	10.2	10.4	54.8	0.0	32.6	498.1	0.0	34.7
LnGrp LOS	C	C	C	C	B	B	D		C	F		C
Approach Vol, veh/h		1875			1249			17			179	
Approach Delay, s/veh		22.1			10.5			45.7			322.1	
Approach LOS		C			B			D			F	

Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		37.0		83.0		37.0		83.0				
Change Period (Y+Rc), s		5.2		* 5.6		5.2		* 5.6				
Max Green Setting (Gmax), s		31.8		* 77		31.8		* 77				
Max Q Clear Time (g_c+I1), s		33.8		36.3		33.8		35.4				
Green Ext Time (p_c), s		0.0		10.2		0.0		19.5				

Intersection Summary												
HCM 6th Ctrl Delay, s/veh			34.0									
HCM 6th LOS			C									

Notes

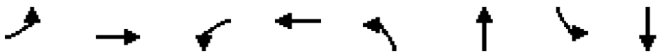
User approved pedestrian interval to be less than phase max green.

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

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	161	1240	124	804	168	708	160	1036
Future Volume (vph)	161	1240	124	804	168	708	160	1036
Turn Type	Prot	NA	Prot	NA	Prot	NA	Prot	NA
Protected Phases	3	8	7	4	1	6	5	2
Permitted Phases								
Detector Phase	3	8	7	4	1	6	5	2
Switch Phase								
Minimum Initial (s)	5.0	5.0	5.0	10.0	5.0	10.0	5.0	10.0
Minimum Split (s)	10.6	47.4	10.6	47.4	10.6	49.5	10.6	47.5
Total Split (s)	23.0	49.0	15.0	41.0	15.0	32.0	24.0	41.0
Total Split (%)	19.2%	40.8%	12.5%	34.2%	12.5%	26.7%	20.0%	34.2%
Yellow Time (s)	3.6	4.4	3.6	4.4	3.6	4.4	3.6	4.4
All-Red Time (s)	2.0	1.0	2.0	1.0	2.0	1.1	2.0	1.1
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.6	5.4	5.6	5.4	5.6	5.5	5.6	5.5
Lead/Lag	Lead	Lag	Lead	Lag	Lead	Lag	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	C-Max	None	C-Max
Act Effct Green (s)	15.6	43.3	9.4	37.1	9.7	29.4	15.8	35.5
Actuated g/C Ratio	0.13	0.36	0.08	0.31	0.08	0.25	0.13	0.30
v/c Ratio	0.76	0.91	0.98	0.61	1.29	0.68	0.75	0.84
Control Delay (s/veh)	68.1	75.8	126.7	37.0	214.9	44.4	69.5	45.1
Queue Delay	0.0	7.5	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	68.1	83.3	126.7	37.0	214.9	44.4	69.5	45.1
LOS	E	F	F	D	F	D	E	D
Approach Delay (s/veh)		81.8		48.2		74.7		48.0
Approach LOS		F		D		E		D

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 40 (33%), Referenced to phase 2:SBT and 6:NBT, Start of Green	
Natural Cycle: 130	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 1.29	
Intersection Signal Delay (s/veh): 64.7	Intersection LOS: E
Intersection Capacity Utilization 87.2%	ICU Level of Service E
Analysis Period (min) 15	

Splits and Phases: 5: Scottsdale Road & Shea Boulevard



Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	175	1645	135	949	183	847	174	1250
v/c Ratio	0.76	0.91	0.98	0.61	1.29	0.68	0.75	0.84
Control Delay (s/veh)	68.1	75.8	126.7	37.0	214.9	44.4	69.5	45.1
Queue Delay	0.0	7.5	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	68.1	83.3	126.7	37.0	214.9	44.4	69.5	45.1
Queue Length 50th (ft)	145	488	106	229	~183	219	130	328
Queue Length 95th (ft)	#228	540	#236	279	#332	273	206	387
Internal Link Dist (ft)		469		1514		359		1326
Turn Bay Length (ft)	180		170		290		295	
Base Capacity (vph)	256	1827	138	1563	142	1237	271	1493
Starvation Cap Reductn	0	166	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.68	0.99	0.98	0.61	1.29	0.68	0.64	0.84

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	161	1240	273	124	804	69	168	708	71	160	1036	114
Future Volume (veh/h)	161	1240	273	124	804	69	168	708	71	160	1036	114
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	175	1348	297	135	874	75	183	770	77	174	1126	124
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	205	1496	329	140	1535	131	140	1258	125	203	1410	155
Arrive On Green	0.04	0.12	0.12	0.08	0.32	0.32	0.08	0.27	0.27	0.11	0.30	0.30
Sat Flow, veh/h	1781	4187	921	1781	4791	410	1781	4721	469	1781	4668	514
Grp Volume(v), veh/h	175	1096	549	135	620	329	183	554	293	174	821	429
Grp Sat Flow(s),veh/h/ln	1781	1702	1704	1781	1702	1797	1781	1702	1786	1781	1702	1778
Q Serve(g_s), s	11.7	38.1	38.2	9.1	18.2	18.3	9.4	17.1	17.3	11.5	26.6	26.7
Cycle Q Clear(g_c), s	11.7	38.1	38.2	9.1	18.2	18.3	9.4	17.1	17.3	11.5	26.6	26.7
Prop In Lane	1.00		0.54	1.00		0.23	1.00		0.26	1.00		0.29
Lane Grp Cap(c), veh/h	205	1216	609	140	1091	576	140	907	476	203	1028	537
V/C Ratio(X)	0.85	0.90	0.90	0.97	0.57	0.57	1.31	0.61	0.62	0.86	0.80	0.80
Avail Cap(c_a), veh/h	258	1237	619	140	1091	576	140	907	476	273	1028	537
HCM Platoon Ratio	0.33	0.33	0.33	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.83	0.83	0.83	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	56.7	50.8	50.9	55.1	33.9	33.9	55.3	38.6	38.6	52.2	38.5	38.5
Incr Delay (d2), s/veh	16.7	7.8	14.1	66.1	0.7	1.4	182.0	3.1	5.9	18.1	6.5	11.8
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	6.5	18.6	19.8	6.5	7.3	7.9	11.2	7.3	8.1	6.0	11.6	12.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	73.4	58.6	65.0	121.2	34.6	35.3	237.3	41.6	44.5	70.3	45.0	50.4
LnGrp LOS	E	E	E	F	C	D	F	D	D	E	D	D
Approach Vol, veh/h		1820			1084			1030			1424	
Approach Delay, s/veh		62.0			45.6			77.2			49.7	
Approach LOS		E			D			E			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	15.0	41.7	19.4	43.8	19.3	37.5	15.0	48.3
Change Period (Y+Rc), s	5.6	5.5	5.6	5.4	5.6	5.5	5.6	5.4
Max Green Setting (Gmax), s	9.4	35.5	17.4	35.6	18.4	26.5	9.4	43.6
Max Q Clear Time (g_c+I1), s	11.4	28.7	13.7	20.3	13.5	19.3	11.1	40.2
Green Ext Time (p_c), s	0.0	4.0	0.1	5.1	0.2	2.9	0.0	2.7

Intersection Summary	
HCM 6th Ctrl Delay, s/veh	58.3
HCM 6th LOS	E

Notes

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

Intersection	
Int Delay, s/veh	2.2

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	59	15	81	104	18	115
Future Vol, veh/h	59	15	81	104	18	115
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	65	75	-
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	64	16	88	113	20	125

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	191	44	0	0	201	0
Stage 1	88	-	-	-	-	-
Stage 2	103	-	-	-	-	-
Critical Hdwy	6.84	6.94	-	-	4.14	-
Critical Hdwy Stg 1	5.84	-	-	-	-	-
Critical Hdwy Stg 2	5.84	-	-	-	-	-
Follow-up Hdwy	3.52	3.32	-	-	2.22	-
Pot Cap-1 Maneuver	796	1041	-	-	1381	-
Stage 1	940	-	-	-	-	-
Stage 2	910	-	-	-	-	-
Platoon blocked, %	1	1	-	-	1	-
Mov Cap-1 Maneuver	785	1041	-	-	1381	-
Mov Cap-2 Maneuver	785	-	-	-	-	-
Stage 1	940	-	-	-	-	-
Stage 2	897	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s/v	9.8	0	1
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	826	1381	-
HCM Lane V/C Ratio	-	-	0.097	0.014	-
HCM Control Delay (s/veh)	-	-	9.8	7.6	-
HCM Lane LOS	-	-	A	A	-
HCM 95th %tile Q (veh)	-	-	0.3	0	-

Intersection	
Intersection Delay, s/veh	8.3
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	44	40	40	7	16	5	32	40	11	8	84	36
Future Vol, veh/h	44	40	40	7	16	5	32	40	11	8	84	36
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	48	43	43	8	17	5	35	43	12	9	91	39
Number of Lanes	0	1	0	0	1	0	0	1	1	0	1	1

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	2	2
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	2	2	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	2	2	1	1
HCM Control Delay, s/veh	8.3	7.8	8.5	8.2
HCM LOS	A	A	A	A

Lane	NBLn1	NBLn2	EBLn1	WBLn1	SBLn1	SBLn2
Vol Left, %	44%	0%	35%	25%	9%	0%
Vol Thru, %	56%	0%	32%	57%	91%	0%
Vol Right, %	0%	100%	32%	18%	0%	100%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	72	11	124	28	92	36
LT Vol	32	0	44	7	8	0
Through Vol	40	0	40	16	84	0
RT Vol	0	11	40	5	0	36
Lane Flow Rate	78	12	135	30	100	39
Geometry Grp	5	5	2	2	5	5
Degree of Util (X)	0.114	0.014	0.165	0.039	0.14	0.047
Departure Headway (Hd)	5.265	4.338	4.406	4.592	5.045	4.298
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes
Cap	682	826	817	781	712	834
Service Time	2.987	2.06	2.422	2.614	2.766	2.018
HCM Lane V/C Ratio	0.114	0.015	0.165	0.038	0.14	0.047
HCM Control Delay, s/veh	8.7	7.1	8.3	7.8	8.6	7.2
HCM Lane LOS	A	A	A	A	A	A
HCM 95th-tile Q	0.4	0	0.6	0.1	0.5	0.1

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	3	39	14	21	20	3	2	0	10	3	0	5
Future Vol, veh/h	3	39	14	21	20	3	2	0	10	3	0	5
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	-	-	-	-	-	-	-	-	-	-	-	-
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	3	42	15	23	22	3	2	0	11	3	0	5

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	25	0	0	57	0	0	128	127	50	131	133	24
Stage 1	-	-	-	-	-	-	56	56	-	70	70	-
Stage 2	-	-	-	-	-	-	72	71	-	61	63	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1589	-	-	1547	-	-	845	764	1018	841	758	1052
Stage 1	-	-	-	-	-	-	956	848	-	940	837	-
Stage 2	-	-	-	-	-	-	938	836	-	950	842	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1589	-	-	1547	-	-	830	751	1018	822	745	1052
Mov Cap-2 Maneuver	-	-	-	-	-	-	830	751	-	822	745	-
Stage 1	-	-	-	-	-	-	954	846	-	938	824	-
Stage 2	-	-	-	-	-	-	919	823	-	938	840	-

Approach	EB	WB	NB	SB
HCM Control Delay, s/v	0.4	3.5	8.7	8.8
HCM LOS			A	A

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	981	1589	-	-	1547	-	-	952
HCM Lane V/C Ratio	0.013	0.002	-	-	0.015	-	-	0.009
HCM Control Delay (s/veh)	8.7	7.3	0	-	7.4	0	-	8.8
HCM Lane LOS	A	A	A	-	A	A	-	A
HCM 95th %tile Q (veh)	0	0	-	-	0	-	-	0

Intersection	
Int Delay, s/veh	0.6

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	2	49	2	1	45	3	0	0	5	0	0	0
Future Vol, veh/h	2	49	2	1	45	3	0	0	5	0	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
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	2	53	2	1	49	3	0	0	5	0	0	0

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	52	0	0	55	0	0	111	112	54	114	112	51
Stage 1	-	-	-	-	-	-	58	58	-	53	53	-
Stage 2	-	-	-	-	-	-	53	54	-	61	59	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1554	-	-	1550	-	-	867	778	1013	863	778	1017
Stage 1	-	-	-	-	-	-	954	847	-	960	851	-
Stage 2	-	-	-	-	-	-	960	850	-	950	846	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1554	-	-	1550	-	-	865	776	1013	857	776	1017
Mov Cap-2 Maneuver	-	-	-	-	-	-	865	776	-	857	776	-
Stage 1	-	-	-	-	-	-	953	846	-	959	850	-
Stage 2	-	-	-	-	-	-	959	849	-	944	845	-

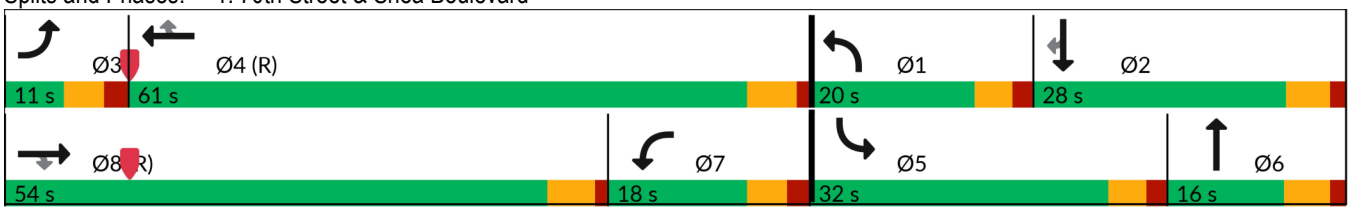
Approach	EB	WB	NB	SB
HCM Control Delay, s/v	0.3	0.1	8.6	0
HCM LOS			A	A

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	1013	1554	-	-	1550	-	-	-
HCM Lane V/C Ratio	0.005	0.001	-	-	0.001	-	-	-
HCM Control Delay (s/veh)	8.6	7.3	0	-	7.3	0	-	0
HCM Lane LOS	A	A	A	-	A	A	-	A
HCM 95th %tile Q (veh)	0	0	-	-	0	-	-	-

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Configurations											
Traffic Volume (vph)	80	1124	318	55	1659	31	408	38	56	30	82
Future Volume (vph)	80	1124	318	55	1659	31	408	38	56	30	82
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Prot	NA	Perm
Protected Phases	3	8		7	4		1	6	5	2	
Permitted Phases			8			4					2
Detector Phase	3	8	8	7	4	4	1	6	5	2	2
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)	10.6	43.5	43.5	10.6	43.5	43.5	10.2	71.5	10.2	61.4	61.4
Total Split (s)	11.0	54.0	54.0	18.0	61.0	61.0	20.0	16.0	32.0	28.0	28.0
Total Split (%)	9.2%	45.0%	45.0%	15.0%	50.8%	50.8%	16.7%	13.3%	26.7%	23.3%	23.3%
Yellow Time (s)	3.6	4.4	4.4	3.6	4.4	4.4	3.3	4.0	3.3	4.0	4.0
All-Red Time (s)	2.0	1.1	1.1	2.0	1.1	1.1	1.9	1.5	1.9	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	0.0
Total Lost Time (s)	5.6	5.5	5.5	5.6	5.5	5.5	5.2	5.5	5.2	5.4	5.4
Lead/Lag	Lead	Lead	Lead	Lag	Lag	Lag	Lead	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	C-Max	C-Max	None	C-Max	C-Max	None	Max	None	Max	Max
Act Effct Green (s)	5.4	52.1	52.1	11.1	55.5	55.5	14.8	30.0	9.5	22.6	22.6
Actuated g/C Ratio	0.05	0.43	0.43	0.09	0.46	0.46	0.12	0.25	0.08	0.19	0.19
v/c Ratio	1.10	0.55	0.39	0.37	0.77	0.04	1.05	0.17	0.44	0.05	0.20
Control Delay (s/veh)	184.0	27.4	3.8	74.1	47.1	0.1	107.3	26.2	61.5	40.3	1.0
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 (s/veh)	184.0	27.4	3.8	74.1	47.1	0.1	107.3	26.2	61.5	40.3	1.0
LOS	F	C	A	E	D	A	F	C	E	D	A
Approach Delay (s/veh)		30.7			47.1			95.0		28.3	
Approach LOS		C			D			F		C	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 51 (43%), Referenced to phase 4:WBT and 8:EBT, Start of Green	
Natural Cycle: 150	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 1.10	
Intersection Signal Delay (s/veh): 45.8	Intersection LOS: D
Intersection Capacity Utilization 68.6%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 1: 70th Street & Shea Boulevard



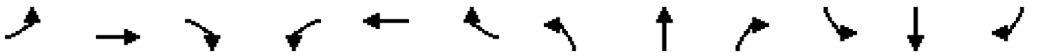
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	87	1222	346	60	1803	34	443	79	61	33	89
v/c Ratio	1.10	0.55	0.39	0.37	0.77	0.04	1.05	0.17	0.44	0.05	0.20
Control Delay (s/veh)	184.0	27.4	3.8	74.1	47.1	0.1	107.3	26.2	61.5	40.3	1.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	184.0	27.4	3.8	74.1	47.1	0.1	107.3	26.2	61.5	40.3	1.0
Queue Length 50th (ft)	~76	268	0	46	502	0	~192	30	46	11	0
Queue Length 95th (ft)	#184	316	58	m84	549	m0	#297	76	89	26	0
Internal Link Dist (ft)		664			258			163		155	
Turn Bay Length (ft)	90		250	150		105	300		80		110
Base Capacity (vph)	79	2207	882	182	2351	822	423	454	395	666	437
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	1.10	0.55	0.39	0.33	0.77	0.04	1.05	0.17	0.15	0.05	0.20

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	80	1124	318	55	1659	31	408	38	35	56	30	82
Future Volume (veh/h)	80	1124	318	55	1659	31	408	38	35	56	30	82
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	87	1222	346	60	1803	34	443	41	38	61	33	89
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	80	2064	641	284	2642	820	426	238	221	80	669	299
Arrive On Green	0.05	0.40	0.40	0.16	0.52	0.52	0.12	0.27	0.27	0.04	0.19	0.19
Sat Flow, veh/h	1781	5106	1585	1781	5106	1585	3456	893	828	1781	3554	1585
Grp Volume(v), veh/h	87	1222	346	60	1803	34	443	0	79	61	33	89
Grp Sat Flow(s),veh/h/ln	1781	1702	1585	1781	1702	1585	1728	0	1721	1781	1777	1585
Q Serve(g_s), s	5.4	22.5	14.7	3.5	31.6	1.3	14.8	0.0	4.2	4.1	0.9	5.8
Cycle Q Clear(g_c), s	5.4	22.5	14.7	3.5	31.6	1.3	14.8	0.0	4.2	4.1	0.9	5.8
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.48	1.00		1.00
Lane Grp Cap(c), veh/h	80	2064	641	284	2642	820	426	0	460	80	669	299
V/C Ratio(X)	1.09	0.59	0.54	0.21	0.68	0.04	1.04	0.00	0.17	0.77	0.05	0.30
Avail Cap(c_a), veh/h	80	2064	641	284	2642	820	426	0	460	398	669	299
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	57.3	28.0	14.9	43.9	21.6	14.3	52.6	0.0	33.8	56.7	39.9	41.9
Incr Delay (d2), s/veh	125.7	1.3	3.2	0.4	1.4	0.1	54.2	0.0	0.8	14.1	0.1	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	5.2	9.0	5.5	1.5	12.0	0.5	9.4	0.0	1.8	2.1	0.4	2.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	183.0	29.3	18.1	44.3	23.0	14.4	106.8	0.0	34.6	70.8	40.0	44.4
LnGrp LOS	F	C	B	D	C	B	F		C	E	D	D
Approach Vol, veh/h		1655			1897			522			183	
Approach Delay, s/veh		35.0			23.6			95.9			52.4	
Approach LOS		D			C			F			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	20.0	28.1	11.0	67.9	10.6	37.5	24.9	54.0
Change Period (Y+Rc), s	5.2	* 5.5	5.6	* 5.6	5.2	5.5	5.6	5.5
Max Green Setting (Gmax), s	14.8	* 23	5.4	* 56	26.8	10.5	12.4	48.5
Max Q Clear Time (g_c+I1), s	16.8	7.8	7.4	33.6	6.1	6.2	5.5	24.5
Green Ext Time (p_c), s	0.0	0.3	0.0	13.3	0.1	0.1	0.0	10.3

Intersection Summary	
HCM 6th Ctrl Delay, s/veh	38.1
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.

Intersection	
Int Delay, s/veh	0.3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑↑	↱		↑↑↑	↱			↱			↱
Traffic Vol, veh/h	0	1204	32	0	1713	59	0	0	39	0	0	32
Future Vol, veh/h	0	1204	32	0	1713	59	0	0	39	0	0	32
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	-	-	70	-	-	95	-	-	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	0	1309	35	0	1862	64	0	0	42	0	0	35

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	-	0	0	-	-	0	-	-	655	-	-	931
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	-	-	-	7.14	-	-	7.14
Critical Hdwy Stg 1	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	-	-	-	3.92	-	-	3.92
Pot Cap-1 Maneuver	0	-	-	0	-	-	0	0	*646	0	0	*514
Stage 1	0	-	-	0	-	-	0	0	-	0	0	-
Stage 2	0	-	-	0	-	-	0	0	-	0	0	-
Platoon blocked, %		-	-		-	-			1			1
Mov Cap-1 Maneuver	-	-	-	-	-	-	-	-	*646	-	-	*514
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s/v	0	0	11	12.5
HCM LOS			B	B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBT	WBR	SBLn1
Capacity (veh/h)	646	-	-	-	-	514
HCM Lane V/C Ratio	0.066	-	-	-	-	0.068
HCM Control Delay (s/veh)	11	-	-	-	-	12.5
HCM Lane LOS	B	-	-	-	-	B
HCM 95th %tile Q (veh)	0.2	-	-	-	-	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	1232	1757	0	0	5
Future Vol, veh/h	0	1232	1757	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	-	-	-	-	-	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	1339	1910	0	0	5

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	-	0	-	0	-	955
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	7.14
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	3.92
Pot Cap-1 Maneuver	0	-	-	-	0	*645
Stage 1	0	-	-	-	0	-
Stage 2	0	-	-	-	0	-
Platoon blocked, %		-	-	-		1
Mov Cap-1 Maneuver	-	-	-	-	-	*645
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	WB	SB
HCM Control Delay, s/v	0	0	10.6
HCM LOS			B

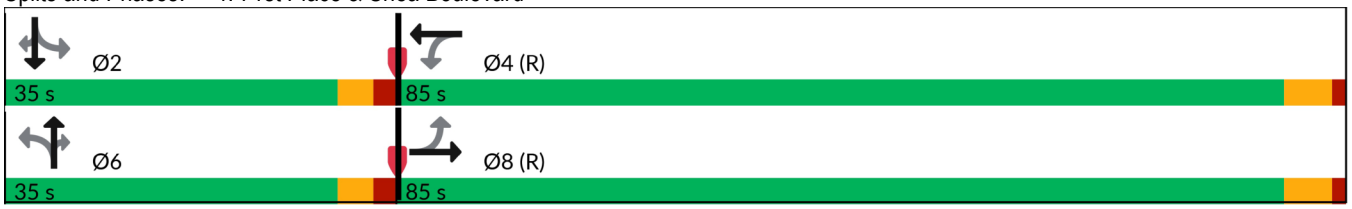
Minor Lane/Major Mvmt	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	-	-	-	645
HCM Lane V/C Ratio	-	-	-	0.008
HCM Control Delay (s/veh)	-	-	-	10.6
HCM Lane LOS	-	-	-	B
HCM 95th %tile Q (veh)	-	-	-	0

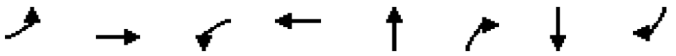
Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations										
Traffic Volume (vph)	52	1175	23	1646	30	5	40	95	6	96
Future Volume (vph)	52	1175	23	1646	30	5	40	95	6	96
Turn Type	Perm	NA	Perm	NA	Perm	NA	Perm	Perm	NA	Perm
Protected Phases		8		4		6			2	
Permitted Phases	8		4		6		6	2		2
Detector Phase	8	8	4	4	6	6	6	2	2	2
Switch Phase										
Minimum Initial (s)	10.0	10.0	10.0	10.0	7.0	7.0	7.0	7.0	7.0	7.0
Minimum Split (s)	32.5	32.5	36.5	36.5	51.2	51.2	51.2	22.5	22.5	22.5
Total Split (s)	85.0	85.0	85.0	85.0	35.0	35.0	35.0	35.0	35.0	35.0
Total Split (%)	70.8%	70.8%	70.8%	70.8%	29.2%	29.2%	29.2%	29.2%	29.2%	29.2%
Yellow Time (s)	4.4	4.4	4.4	4.4	3.3	3.3	3.3	3.3	3.3	3.3
All-Red Time (s)	1.2	1.2	1.2	1.2	1.9	1.9	1.9	1.9	1.9	1.9
Lost Time Adjust (s)	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0
Total Lost Time (s)	5.6	5.6	5.6	5.6		5.2	5.2		5.2	5.2
Lead/Lag										
Lead-Lag Optimize?										
Recall Mode	C-Max	C-Max	C-Max	C-Max	Max	Max	Max	Max	Max	Max
Act Effct Green (s)	79.4	79.4	79.4	79.4		29.8	29.8		29.8	29.8
Actuated g/C Ratio	0.66	0.66	0.66	0.66		0.25	0.25		0.25	0.25
v/c Ratio	0.54	0.39	0.12	0.55		0.11	0.10		0.33	0.25
Control Delay (s/veh)	53.6	24.0	2.0	2.1		36.0	10.8		40.4	28.1
Queue Delay	0.0	0.0	0.0	0.5		0.0	0.0		0.0	0.0
Total Delay (s/veh)	53.6	24.0	2.0	2.6		36.0	10.8		40.4	28.1
LOS	D	C	A	A		D	B		D	C
Approach Delay (s/veh)		25.2		2.6		22.6			34.4	
Approach LOS		C		A		C			C	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 84 (70%), Referenced to phase 4:WBTL and 8:EBTL, Start of Green	
Natural Cycle: 90	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.55	
Intersection Signal Delay (s/veh): 13.8	Intersection LOS: B
Intersection Capacity Utilization 64.5%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 4: 71st Place & Shea Boulevard

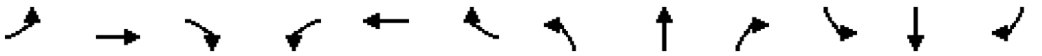




Lane Group	EBL	EBT	WBL	WBT	NBT	NBR	SBT	SBR
Lane Group Flow (vph)	57	1314	25	1840	38	43	110	104
v/c Ratio	0.54	0.39	0.12	0.55	0.11	0.10	0.33	0.25
Control Delay (s/veh)	53.6	24.0	2.0	2.1	36.0	10.8	40.4	28.1
Queue Delay	0.0	0.0	0.0	0.5	0.0	0.0	0.0	0.0
Total Delay (s/veh)	53.6	24.0	2.0	2.6	36.0	10.8	40.4	28.1
Queue Length 50th (ft)	43	361	2	46	23	0	70	47
Queue Length 95th (ft)	m87	406	m2	m46	53	30	125	96
Internal Link Dist (ft)		36		469	32		65	
Turn Bay Length (ft)	130		85					80
Base Capacity (vph)	105	3353	215	3353	347	425	329	414
Starvation Cap Reductn	0	0	0	931	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.54	0.39	0.12	0.76	0.11	0.10	0.33	0.25

Intersection Summary

m Volume for 95th percentile queue is metered by upstream signal.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	52	1175	34	23	1646	47	30	5	40	95	6	96
Future Volume (veh/h)	52	1175	34	23	1646	47	30	5	40	95	6	96
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	57	1277	37	25	1789	51	33	5	43	103	7	104
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	181	3375	98	318	3376	96	56	5	394	58	2	394
Arrive On Green	0.88	0.88	0.88	0.66	0.66	0.66	0.25	0.25	0.25	0.25	0.25	0.25
Sat Flow, veh/h	252	5100	148	418	5103	145	0	19	1585	0	9	1585
Grp Volume(v), veh/h	57	852	462	25	1193	647	38	0	43	110	0	104
Grp Sat Flow(s),veh/h/ln	252	1702	1844	418	1702	1844	19	0	1585	9	0	1585
Q Serve(g_s), s	14.1	5.4	5.4	2.9	21.9	21.9	0.0	0.0	2.5	0.0	0.0	6.3
Cycle Q Clear(g_c), s	36.1	5.4	5.4	8.3	21.9	21.9	29.8	0.0	2.5	29.8	0.0	6.3
Prop In Lane	1.00		0.08	1.00		0.08	0.87		1.00	0.94		1.00
Lane Grp Cap(c), veh/h	181	2252	1220	318	2252	1220	61	0	394	60	0	394
V/C Ratio(X)	0.32	0.38	0.38	0.08	0.53	0.53	0.63	0.00	0.11	1.83	0.00	0.26
Avail Cap(c_a), veh/h	181	2252	1220	318	2252	1220	61	0	394	60	0	394
HCM Platoon Ratio	1.33	1.33	1.33	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.09	0.09	0.09	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	10.3	2.8	2.8	9.4	10.6	10.6	56.3	0.0	34.8	59.0	0.0	36.3
Incr Delay (d2), s/veh	4.5	0.5	0.9	0.0	0.1	0.1	39.9	0.0	0.6	429.4	0.0	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	0.8	1.4	1.7	0.2	7.1	7.7	1.8	0.0	1.0	9.0	0.0	2.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	14.8	3.2	3.7	9.4	10.7	10.7	96.3	0.0	35.4	488.3	0.0	37.9
LnGrp LOS	B	A	A	A	B	B	F		D	F		D
Approach Vol, veh/h		1371			1865			81			214	
Approach Delay, s/veh		3.9			10.7			64.0			269.4	
Approach LOS		A			B			E			F	

Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		35.0		85.0		35.0		85.0				
Change Period (Y+Rc), s		5.2		* 5.6		5.2		* 5.6				
Max Green Setting (Gmax), s		29.8		* 79		29.8		* 79				
Max Q Clear Time (g_c+I1), s		31.8		23.9		31.8		38.1				
Green Ext Time (p_c), s		0.0		20.5		0.0		13.2				

Intersection Summary		
HCM 6th Ctrl Delay, s/veh	24.9	
HCM 6th LOS	C	

Notes

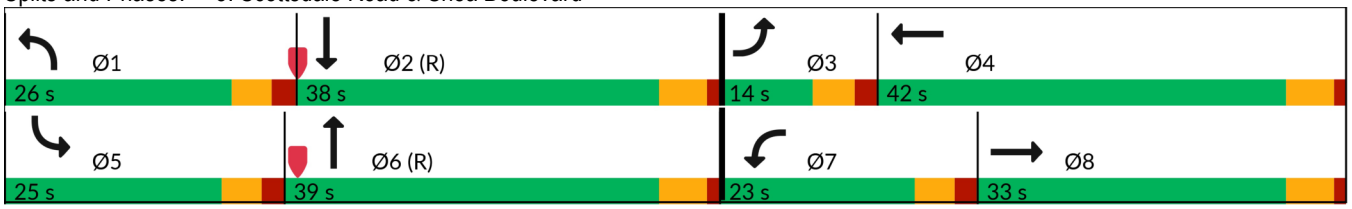
User approved pedestrian interval to be less than phase max green.

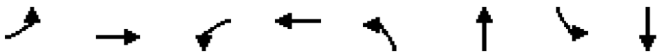
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	187	933	149	1219	326	1328	152	1047
Future Volume (vph)	187	933	149	1219	326	1328	152	1047
Turn Type	Prot	NA	Prot	NA	Prot	NA	Prot	NA
Protected Phases	3	8	7	4	1	6	5	2
Permitted Phases								
Detector Phase	3	8	7	4	1	6	5	2
Switch Phase								
Minimum Initial (s)	5.0	5.0	5.0	10.0	5.0	10.0	5.0	10.0
Minimum Split (s)	10.6	47.4	10.6	47.4	10.6	49.5	10.6	47.5
Total Split (s)	14.0	33.0	23.0	42.0	26.0	39.0	25.0	38.0
Total Split (%)	11.7%	27.5%	19.2%	35.0%	21.7%	32.5%	20.8%	31.7%
Yellow Time (s)	3.6	4.4	3.6	4.4	3.6	4.4	3.6	4.4
All-Red Time (s)	2.0	1.0	2.0	1.0	2.0	1.1	2.0	1.1
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.6	5.4	5.6	5.4	5.6	5.5	5.6	5.5
Lead/Lag	Lead	Lag	Lead	Lag	Lead	Lag	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	C-Max	None	C-Max
Act Effct Green (s)	8.4	30.0	15.0	36.6	20.4	37.1	15.8	32.5
Actuated g/C Ratio	0.07	0.25	0.13	0.31	0.17	0.31	0.13	0.27
v/c Ratio	1.65	0.96	0.73	0.96	1.18	1.00	0.71	0.93
Control Delay (s/veh)	369.3	33.8	69.8	56.1	153.6	63.7	66.3	55.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	369.3	33.8	69.8	56.1	153.6	63.7	66.3	55.1
LOS	F	C	E	E	F	E	E	E
Approach Delay (s/veh)		82.1		57.5		80.3		56.4
Approach LOS		F		E		F		E

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 39 (33%), Referenced to phase 2:SBT and 6:NBT, Start of Green	
Natural Cycle: 150	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 1.65	
Intersection Signal Delay (s/veh): 69.5	Intersection LOS: E
Intersection Capacity Utilization 96.5%	ICU Level of Service F
Analysis Period (min) 15	

Splits and Phases: 5: Scottsdale Road & Shea Boulevard





Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	203	1207	162	1478	354	1558	165	1274
v/c Ratio	1.65	0.96	0.73	0.96	1.18	1.00	0.71	0.93
Control Delay (s/veh)	369.3	33.8	69.8	56.1	153.6	63.7	66.3	55.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	369.3	33.8	69.8	56.1	153.6	63.7	66.3	55.1
Queue Length 50th (ft)	~235	359	121	408	~328	~451	123	349
Queue Length 95th (ft)	#392	#132	194	#512	#518	#601	194	#441
Internal Link Dist (ft)		469		1514		359		1326
Turn Bay Length (ft)	180		170		290		295	
Base Capacity (vph)	123	1263	256	1538	300	1562	286	1367
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	1.65	0.96	0.63	0.96	1.18	1.00	0.58	0.93

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	187	933	178	149	1219	141	326	1328	106	152	1047	125
Future Volume (veh/h)	187	933	178	149	1219	141	326	1328	106	152	1047	125
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	203	1014	193	162	1325	153	354	1443	115	165	1138	136
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	125	1146	218	190	1406	162	303	1611	128	194	1262	151
Arrive On Green	0.14	0.53	0.53	0.11	0.30	0.30	0.17	0.33	0.33	0.11	0.27	0.27
Sat Flow, veh/h	1781	4309	819	1781	4642	536	1781	4821	384	1781	4623	552
Grp Volume(v), veh/h	203	801	406	162	972	506	354	1019	539	165	838	436
Grp Sat Flow(s),veh/h/ln	1781	1702	1723	1781	1702	1774	1781	1702	1801	1781	1702	1771
Q Serve(g_s), s	8.4	24.9	25.1	10.7	33.4	33.4	20.4	34.1	34.1	10.9	28.5	28.5
Cycle Q Clear(g_c), s	8.4	24.9	25.1	10.7	33.4	33.4	20.4	34.1	34.1	10.9	28.5	28.5
Prop In Lane	1.00		0.48	1.00		0.30	1.00		0.21	1.00		0.31
Lane Grp Cap(c), veh/h	125	906	458	190	1031	537	303	1137	602	194	929	483
V/C Ratio(X)	1.63	0.88	0.89	0.85	0.94	0.94	1.17	0.90	0.90	0.85	0.90	0.90
Avail Cap(c_a), veh/h	125	906	458	258	1038	541	303	1137	602	288	929	483
HCM Platoon Ratio	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.93	0.93	0.93	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	51.6	26.4	26.5	52.7	40.8	40.8	49.8	38.0	38.0	52.5	42.1	42.1
Incr Delay (d2), s/veh	313.9	9.7	17.5	17.8	15.9	25.1	105.7	11.0	18.5	14.4	13.6	22.7
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	14.3	7.6	8.7	5.6	15.7	17.7	17.7	15.3	17.5	5.5	13.2	15.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	365.5	36.2	43.9	70.4	56.7	65.9	155.5	49.0	56.5	66.9	55.6	64.8
LnGrp LOS	F	D	D	E	E	E	F	D	E	E	E	E
Approach Vol, veh/h		1410			1640			1912			1439	
Approach Delay, s/veh		85.8			60.9			70.8			59.7	
Approach LOS		F			E			E			E	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	26.0	38.3	14.0	41.7	18.7	45.6	18.4	37.3
Change Period (Y+Rc), s	5.6	5.5	5.6	5.4	5.6	5.5	5.6	5.4
Max Green Setting (Gmax), s	20.4	32.5	8.4	36.6	19.4	33.5	17.4	27.6
Max Q Clear Time (g_c+I1), s	22.4	30.5	10.4	35.4	12.9	36.1	12.7	27.1
Green Ext Time (p_c), s	0.0	1.4	0.0	0.9	0.2	0.0	0.2	0.4

Intersection Summary	
HCM 6th Ctrl Delay, s/veh	69.1
HCM 6th LOS	E

Notes

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

Intersection	
Int Delay, s/veh	1.3

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	35	4	79	55	2	129
Future Vol, veh/h	35	4	79	55	2	129
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	65	75	-
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	38	4	86	60	2	140

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	160	43	0	0	146	0
Stage 1	86	-	-	-	-	-
Stage 2	74	-	-	-	-	-
Critical Hdwy	6.84	6.94	-	-	4.14	-
Critical Hdwy Stg 1	5.84	-	-	-	-	-
Critical Hdwy Stg 2	5.84	-	-	-	-	-
Follow-up Hdwy	3.52	3.32	-	-	2.22	-
Pot Cap-1 Maneuver	833	1042	-	-	1448	-
Stage 1	942	-	-	-	-	-
Stage 2	940	-	-	-	-	-
Platoon blocked, %	1	1	-	-	1	-
Mov Cap-1 Maneuver	832	1042	-	-	1448	-
Mov Cap-2 Maneuver	832	-	-	-	-	-
Stage 1	942	-	-	-	-	-
Stage 2	939	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s/v	9.5	0	0.1
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	850	1448	-
HCM Lane V/C Ratio	-	-	0.05	0.002	-
HCM Control Delay (s/veh)	-	-	9.5	7.5	-
HCM Lane LOS	-	-	A	A	-
HCM 95th %tile Q (veh)	-	-	0.2	0	-

Intersection	
Intersection Delay, s/veh	8.2
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	41	29	51	31	35	4	37	31	13	7	51	53
Future Vol, veh/h	41	29	51	31	35	4	37	31	13	7	51	53
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	45	32	55	34	38	4	40	34	14	8	55	58
Number of Lanes	0	1	0	0	1	0	0	1	1	0	1	1

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	2	2
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	2	2	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	2	2	1	1
HCM Control Delay, s/veh	8.2	8.2	8.5	8
HCM LOS	A	A	A	A

Lane	NBLn1	NBLn2	EBLn1	WBLn1	SBLn1	SBLn2
Vol Left, %	54%	0%	34%	44%	12%	0%
Vol Thru, %	46%	0%	24%	50%	88%	0%
Vol Right, %	0%	100%	42%	6%	0%	100%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	68	13	121	70	58	53
LT Vol	37	0	41	31	7	0
Through Vol	31	0	29	35	51	0
RT Vol	0	13	51	4	0	53
Lane Flow Rate	74	14	132	76	63	58
Geometry Grp	5	5	2	2	5	5
Degree of Util (X)	0.111	0.017	0.159	0.098	0.09	0.07
Departure Headway (Hd)	5.399	4.421	4.351	4.648	5.163	4.398
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes
Cap	664	810	826	772	695	815
Service Time	3.124	2.146	2.367	2.667	2.887	2.122
HCM Lane V/C Ratio	0.111	0.017	0.16	0.098	0.091	0.071
HCM Control Delay, s/veh	8.8	7.2	8.2	8.2	8.4	7.5
HCM Lane LOS	A	A	A	A	A	A
HCM 95th-tile Q	0.4	0.1	0.6	0.3	0.3	0.2

Intersection	
Int Delay, s/veh	3.2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	7	33	7	11	53	1	7	1	27	1	1	2
Future Vol, veh/h	7	33	7	11	53	1	7	1	27	1	1	2
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	-	-	-	-	-	-	-	-	-	-	-	-
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	8	36	8	12	58	1	8	1	29	1	1	2

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	59	0	0	44	0	0	140	139	40	154	143	59
Stage 1	-	-	-	-	-	-	56	56	-	83	83	-
Stage 2	-	-	-	-	-	-	84	83	-	71	60	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1545	-	-	1564	-	-	830	752	1031	813	748	1007
Stage 1	-	-	-	-	-	-	956	848	-	925	826	-
Stage 2	-	-	-	-	-	-	924	826	-	939	845	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1545	-	-	1564	-	-	819	742	1031	781	738	1007
Mov Cap-2 Maneuver	-	-	-	-	-	-	819	742	-	781	738	-
Stage 1	-	-	-	-	-	-	951	844	-	920	819	-
Stage 2	-	-	-	-	-	-	913	819	-	907	841	-

Approach	EB	WB	NB	SB
HCM Control Delay, s/v	1.1	1.2	8.9	9.2
HCM LOS			A	A

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	970	1545	-	-	1564	-	-	866
HCM Lane V/C Ratio	0.039	0.005	-	-	0.008	-	-	0.005
HCM Control Delay (s/veh)	8.9	7.3	0	-	7.3	0	-	9.2
HCM Lane LOS	A	A	A	-	A	A	-	A
HCM 95th %tile Q (veh)	0.1	0	-	-	0	-	-	0

Intersection	
Int Delay, s/veh	1.2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	1	59	0	2	57	2	0	0	3	7	0	7
Future Vol, veh/h	1	59	0	2	57	2	0	0	3	7	0	7
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	-	-	-	-	-	-	-	-	-	-	-	-
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	1	64	0	2	62	2	0	0	3	8	0	8

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	64	0	0	64	0	0	137	134	64	135	133	63
Stage 1	-	-	-	-	-	-	66	66	-	67	67	-
Stage 2	-	-	-	-	-	-	71	68	-	68	66	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1538	-	-	1538	-	-	834	757	1000	836	758	1002
Stage 1	-	-	-	-	-	-	945	840	-	943	839	-
Stage 2	-	-	-	-	-	-	939	838	-	942	840	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1538	-	-	1538	-	-	826	755	1000	832	756	1002
Mov Cap-2 Maneuver	-	-	-	-	-	-	826	755	-	832	756	-
Stage 1	-	-	-	-	-	-	944	839	-	942	838	-
Stage 2	-	-	-	-	-	-	931	837	-	938	839	-

Approach	EB	WB	NB	SB
HCM Control Delay, s/v	0.1	0.2	8.6	9
HCM LOS			A	A

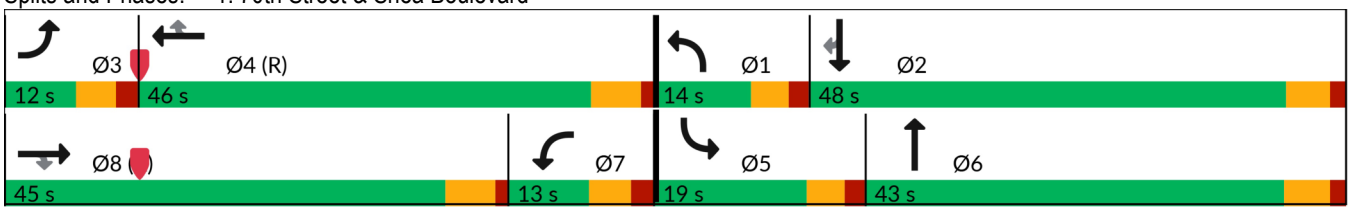
Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	1000	1538	-	-	1538	-	-	909
HCM Lane V/C Ratio	0.003	0.001	-	-	0.001	-	-	0.017
HCM Control Delay (s/veh)	8.6	7.3	0	-	7.3	0	-	9
HCM Lane LOS	A	A	A	-	A	A	-	A
HCM 95th %tile Q (veh)	0	0	-	-	0	-	-	0.1

Appendix J – Year 2026 Build Capacity Analysis

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Configurations											
Traffic Volume (vph)	61	1607	416	79	961	63	230	40	60	97	51
Future Volume (vph)	61	1607	416	79	961	63	230	40	60	97	51
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Prot	NA	Perm
Protected Phases	3	8		7	4		1	6	5	2	
Permitted Phases			8			4					2
Detector Phase	3	8	8	7	4	4	1	6	5	2	2
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)	10.6	43.5	43.5	10.6	43.5	43.5	10.2	71.5	10.2	61.4	61.4
Total Split (s)	12.0	45.0	45.0	13.0	46.0	46.0	14.0	43.0	19.0	48.0	48.0
Total Split (%)	10.0%	37.5%	37.5%	10.8%	38.3%	38.3%	11.7%	35.8%	15.8%	40.0%	40.0%
Yellow Time (s)	3.6	4.4	4.4	3.6	4.4	4.4	3.3	4.0	3.3	4.0	4.0
All-Red Time (s)	2.0	1.1	1.1	2.0	1.1	1.1	1.9	1.5	1.9	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	0.0
Total Lost Time (s)	5.6	5.5	5.5	5.6	5.5	5.5	5.2	5.5	5.2	5.4	5.4
Lead/Lag	Lead	Lead	Lead	Lag	Lag	Lag	Lead	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	C-Max	C-Max	None	C-Max	C-Max	None	Max	None	Max	Max
Act Effct Green (s)	6.4	39.5	39.5	7.4	42.9	42.9	8.8	43.8	9.8	42.6	42.6
Actuated g/C Ratio	0.05	0.33	0.33	0.06	0.36	0.36	0.07	0.37	0.08	0.36	0.36
v/c Ratio	0.70	1.04	0.60	0.79	0.57	0.11	1.00	0.16	0.45	0.08	0.08
Control Delay (s/veh)	92.2	74.0	11.5	123.9	62.9	18.5	111.6	14.0	61.8	26.0	0.2
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 (s/veh)	92.2	74.0	11.5	123.9	62.9	18.5	111.6	14.0	61.8	26.0	0.2
LOS	F	E	B	F	E	B	F	B	E	C	A
Approach Delay (s/veh)		62.0			64.8			83.1		30.0	
Approach LOS		E			E			F		C	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 97 (81%), Referenced to phase 4:WBT and 8:EBT, Start of Green	
Natural Cycle: 150	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 1.04	
Intersection Signal Delay (s/veh): 62.9	Intersection LOS: E
Intersection Capacity Utilization 62.5%	ICU Level of Service B
Analysis Period (min) 15	

Splits and Phases: 1: 70th Street & Shea Boulevard

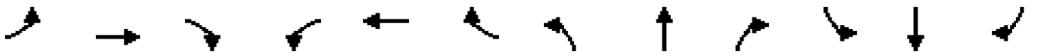


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	66	1747	452	86	1045	68	250	103	65	105	55
v/c Ratio	0.70	1.04	0.60	0.79	0.57	0.11	1.00	0.16	0.45	0.08	0.08
Control Delay (s/veh)	92.2	74.0	11.5	123.9	62.9	18.5	111.6	14.0	61.8	26.0	0.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	92.2	74.0	11.5	123.9	62.9	18.5	111.6	14.0	61.8	26.0	0.2
Queue Length 50th (ft)	51	~537	58	64	278	18	101	22	49	28	0
Queue Length 95th (ft)	#125	#634	168	#151	328	53	#188	65	93	48	0
Internal Link Dist (ft)		664			258			163		155	
Turn Bay Length (ft)	90		250	150		105	300		80		110
Base Capacity (vph)	94	1673	753	109	1818	643	251	658	203	1256	672
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.70	1.04	0.60	0.79	0.57	0.11	1.00	0.16	0.32	0.08	0.08

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	61	1607	416	79	961	63	230	40	55	60	97	51
Future Volume (veh/h)	61	1607	416	79	961	63	230	40	55	60	97	51
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	66	1747	452	86	1045	68	250	43	60	65	105	55
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	84	1681	522	119	1776	551	253	269	376	84	1262	563
Arrive On Green	0.05	0.33	0.33	0.02	0.11	0.11	0.07	0.38	0.38	0.05	0.35	0.35
Sat Flow, veh/h	1781	5106	1585	1781	5106	1585	3456	707	986	1781	3554	1585
Grp Volume(v), veh/h	66	1747	452	86	1045	68	250	0	103	65	105	55
Grp Sat Flow(s),veh/h/ln	1781	1702	1585	1781	1702	1585	1728	0	1693	1781	1777	1585
Q Serve(g_s), s	4.4	39.5	24.6	5.8	23.3	4.6	8.7	0.0	4.8	4.3	2.4	2.8
Cycle Q Clear(g_c), s	4.4	39.5	24.6	5.8	23.3	4.6	8.7	0.0	4.8	4.3	2.4	2.8
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.58	1.00		1.00
Lane Grp Cap(c), veh/h	84	1681	522	119	1776	551	253	0	645	84	1262	563
V/C Ratio(X)	0.78	1.04	0.87	0.72	0.59	0.12	0.99	0.00	0.16	0.77	0.08	0.10
Avail Cap(c_a), veh/h	95	1681	522	119	1776	551	253	0	645	205	1262	563
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	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	56.5	40.3	22.2	57.6	45.0	36.7	55.5	0.0	24.5	56.5	25.7	25.9
Incr Delay (d2), s/veh	30.4	32.9	17.4	19.2	1.4	0.5	52.6	0.0	0.5	14.0	0.1	0.3
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	2.6	20.8	11.1	3.2	10.8	1.8	5.5	0.0	2.0	2.2	1.0	1.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	86.9	73.2	39.6	76.8	46.4	37.1	108.1	0.0	25.0	70.5	25.9	26.2
LnGrp LOS	F	F	D	E	D	D	F		C	E	C	C
Approach Vol, veh/h		2265			1199			353			225	
Approach Delay, s/veh		66.9			48.1			83.9			38.8	
Approach LOS		E			D			F			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	14.0	48.1	11.3	47.3	10.9	51.2	13.6	45.0
Change Period (Y+Rc), s	5.2	* 5.5	5.6	* 5.6	5.2	5.5	5.6	5.5
Max Green Setting (Gmax), s	8.8	* 43	6.4	* 41	13.8	37.5	7.4	39.5
Max Q Clear Time (g_c+I1), s	10.7	4.8	6.4	25.3	6.3	6.8	7.8	41.5
Green Ext Time (p_c), s	0.0	0.8	0.0	6.1	0.1	0.5	0.0	0.0

Intersection Summary	
HCM 6th Ctrl Delay, s/veh	61.2
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.

Intersection	
Int Delay, s/veh	0.1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑↑	↱		↑↑↑	↱			↱			↱
Traffic Vol, veh/h	0	1700	38	0	1080	57	0	0	17	0	0	21
Future Vol, veh/h	0	1700	38	0	1080	57	0	0	17	0	0	21
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	-	-	70	-	-	95	-	-	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	0	1848	41	0	1174	62	0	0	18	0	0	23

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	-	0	0	-	-	0	-	-	924	-	-	587
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	-	-	-	7.14	-	-	7.14
Critical Hdwy Stg 1	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	-	-	-	3.92	-	-	3.92
Pot Cap-1 Maneuver	0	-	-	0	-	-	0	0	*514	0	0	*668
Stage 1	0	-	-	0	-	-	0	0	-	0	0	-
Stage 2	0	-	-	0	-	-	0	0	-	0	0	-
Platoon blocked, %		-	-		-	-			1			1
Mov Cap-1 Maneuver	-	-	-	-	-	-	-	-	*514	-	-	*668
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s/v	0	0	12.3	10.6
HCM LOS			B	B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBT	WBR	SBLn1
Capacity (veh/h)	514	-	-	-	-	668
HCM Lane V/C Ratio	0.036	-	-	-	-	0.034
HCM Control Delay (s/veh)	12.3	-	-	-	-	10.6
HCM Lane LOS	B	-	-	-	-	B
HCM 95th %tile Q (veh)	0.1	-	-	-	-	0.1

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	1707	1121	4	0	13
Future Vol, veh/h	0	1707	1121	4	0	13
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	1855	1218	4	0	14

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	-	0	-	0	-	611
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	7.14
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	3.92
Pot Cap-1 Maneuver	0	-	-	-	0	*758
Stage 1	0	-	-	-	0	-
Stage 2	0	-	-	-	0	-
Platoon blocked, %		-	-	-		1
Mov Cap-1 Maneuver	-	-	-	-	-	*758
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	WB	SB
HCM Control Delay, s/v	0	0	9.8
HCM LOS			A

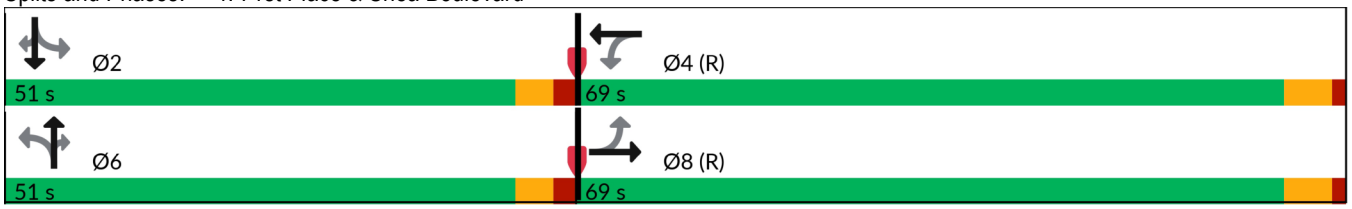
Minor Lane/Major Mvmt	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	-	-	-	758
HCM Lane V/C Ratio	-	-	-	0.019
HCM Control Delay (s/veh)	-	-	-	9.8
HCM Lane LOS	-	-	-	A
HCM 95th %tile Q (veh)	-	-	-	0.1

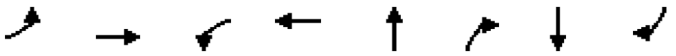
Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations										
Traffic Volume (vph)	93	1627	15	1046	8	1	6	68	3	63
Future Volume (vph)	93	1627	15	1046	8	1	6	68	3	63
Turn Type	Perm	NA	Perm	NA	Perm	NA	Perm	Perm	NA	Perm
Protected Phases		8		4		6			2	
Permitted Phases	8		4		6		6	2		2
Detector Phase	8	8	4	4	6	6	6	2	2	2
Switch Phase										
Minimum Initial (s)	10.0	10.0	10.0	10.0	7.0	7.0	7.0	7.0	7.0	7.0
Minimum Split (s)	32.5	32.5	36.5	36.5	51.2	51.2	51.2	22.5	22.5	22.5
Total Split (s)	69.0	69.0	69.0	69.0	51.0	51.0	51.0	51.0	51.0	51.0
Total Split (%)	57.5%	57.5%	57.5%	57.5%	42.5%	42.5%	42.5%	42.5%	42.5%	42.5%
Yellow Time (s)	4.4	4.4	4.4	4.4	3.3	3.3	3.3	3.3	3.3	3.3
All-Red Time (s)	1.2	1.2	1.2	1.2	1.9	1.9	1.9	1.9	1.9	1.9
Lost Time Adjust (s)	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0
Total Lost Time (s)	5.6	5.6	5.6	5.6		5.2	5.2		5.2	5.2
Lead/Lag										
Lead-Lag Optimize?										
Recall Mode	C-Max	C-Max	C-Max	C-Max	Max	Max	Max	Max	Max	Max
Act Effct Green (s)	63.4	63.4	63.4	63.4		45.8	45.8		45.8	45.8
Actuated g/C Ratio	0.53	0.53	0.53	0.53		0.38	0.38		0.38	0.38
v/c Ratio	0.57	0.67	0.24	0.44		0.02	0.01		0.14	0.11
Control Delay (s/veh)	25.8	21.5	24.9	20.6		23.3	1.0		25.3	7.5
Queue Delay	0.0	0.2	0.0	0.0		0.0	0.0		0.1	0.0
Total Delay (s/veh)	25.8	21.7	24.9	20.6		23.3	1.0		25.4	7.5
LOS	C	C	C	C		C	A		C	A
Approach Delay (s/veh)		21.9		20.7		14.1			17.0	
Approach LOS		C		C		B			B	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 0 (0%), Referenced to phase 4:WBTL and 8:EBTL, Start of Green	
Natural Cycle: 90	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.67	
Intersection Signal Delay (s/veh): 21.2	Intersection LOS: C
Intersection Capacity Utilization 64.4%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 4: 71st Place & Shea Boulevard

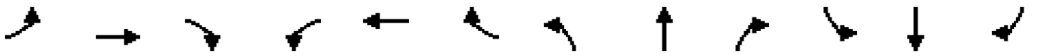




Lane Group	EBL	EBT	WBL	WBT	NBT	NBR	SBT	SBR
Lane Group Flow (vph)	101	1789	16	1187	10	7	77	68
v/c Ratio	0.57	0.67	0.24	0.44	0.02	0.01	0.14	0.11
Control Delay (s/veh)	25.8	21.5	24.9	20.6	23.3	1.0	25.3	7.5
Queue Delay	0.0	0.2	0.0	0.0	0.0	0.0	0.1	0.0
Total Delay (s/veh)	25.8	21.7	24.9	20.6	23.3	1.0	25.4	7.5
Queue Length 50th (ft)	79	515	0	278	5	0	39	3
Queue Length 95th (ft)	m81	m498	m15	m328	16	2	74	33
Internal Link Dist (ft)		36		469	32		65	
Turn Bay Length (ft)	130		85					80
Base Capacity (vph)	178	2682	68	2674	613	619	537	641
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	217	0	0	0	0	131	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.57	0.73	0.24	0.44	0.02	0.01	0.19	0.11

Intersection Summary

m Volume for 95th percentile queue is metered by upstream signal.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	93	1627	19	15	1046	46	8	1	6	68	3	63
Future Volume (veh/h)	93	1627	19	15	1046	46	8	1	6	68	3	63
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	101	1768	21	16	1137	50	9	1	7	74	3	68
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	244	2748	33	136	2649	116	57	3	605	60	1	605
Arrive On Green	0.53	0.53	0.53	0.53	0.53	0.53	0.38	0.38	0.38	0.38	0.38	0.38
Sat Flow, veh/h	472	5202	62	265	5014	220	1	9	1585	3	3	1585
Grp Volume(v), veh/h	101	1157	632	16	772	415	10	0	7	77	0	68
Grp Sat Flow(s),veh/h/ln	472	1702	1859	265	1702	1831	10	0	1585	6	0	1585
Q Serve(g_s), s	19.9	29.1	29.2	5.5	16.6	16.6	0.0	0.0	0.3	0.1	0.0	3.3
Cycle Q Clear(g_c), s	36.5	29.1	29.2	34.7	16.6	16.6	45.8	0.0	0.3	45.8	0.0	3.3
Prop In Lane	1.00		0.03	1.00		0.12	0.90		1.00	0.96		1.00
Lane Grp Cap(c), veh/h	244	1798	982	136	1798	967	61	0	605	61	0	605
V/C Ratio(X)	0.41	0.64	0.64	0.12	0.43	0.43	0.16	0.00	0.01	1.26	0.00	0.11
Avail Cap(c_a), veh/h	244	1798	982	136	1798	967	61	0	605	61	0	605
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.65	0.65	0.65	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	28.4	20.2	20.2	32.6	17.3	17.3	44.2	0.0	23.0	59.1	0.0	24.0
Incr Delay (d2), s/veh	5.1	1.8	3.2	1.2	0.5	0.9	5.7	0.0	0.0	198.9	0.0	0.4
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	2.5	11.1	12.5	0.4	6.2	6.8	0.4	0.0	0.1	5.2	0.0	1.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	33.5	22.0	23.5	33.8	17.7	18.2	49.9	0.0	23.1	257.9	0.0	24.3
LnGrp LOS	C	C	C	C	B	B	D		C	F		C
Approach Vol, veh/h		1890			1203			17			145	
Approach Delay, s/veh		23.1			18.1			38.9			148.4	
Approach LOS		C			B			D			F	

Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		51.0		69.0		51.0		69.0				
Change Period (Y+Rc), s		5.2		* 5.6		5.2		* 5.6				
Max Green Setting (Gmax), s		45.8		* 63		45.8		* 63				
Max Q Clear Time (g_c+I1), s		47.8		36.7		47.8		38.5				
Green Ext Time (p_c), s		0.0		8.7		0.0		14.9				

Intersection Summary												
HCM 6th Ctrl Delay, s/veh			26.9									
HCM 6th LOS			C									

Notes

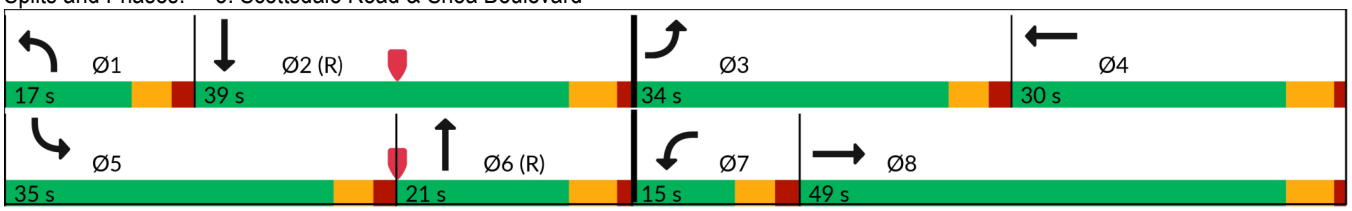
User approved pedestrian interval to be less than phase max green.

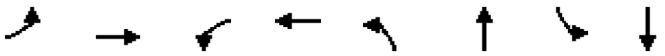
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	150	1237	124	792	177	708	160	1036
Future Volume (vph)	150	1237	124	792	177	708	160	1036
Turn Type	Prot	NA	Prot	NA	Prot	NA	Prot	NA
Protected Phases	3	8	7	4	1	6	5	2
Permitted Phases								
Detector Phase	3	8	7	4	1	6	5	2
Switch Phase								
Minimum Initial (s)	5.0	5.0	5.0	10.0	5.0	10.0	5.0	10.0
Minimum Split (s)	10.6	47.4	10.6	47.4	10.6	49.5	10.6	47.5
Total Split (s)	34.0	49.0	15.0	30.0	17.0	21.0	35.0	39.0
Total Split (%)	28.3%	40.8%	12.5%	25.0%	14.2%	17.5%	29.2%	32.5%
Yellow Time (s)	3.6	4.4	3.6	4.4	3.6	4.4	3.6	4.4
All-Red Time (s)	2.0	1.0	2.0	1.0	2.0	1.1	2.0	1.1
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.6	5.4	5.6	5.4	5.6	5.5	5.6	5.5
Lead/Lag	Lead	Lag	Lead	Lag	Lead	Lag	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	C-Max	None	C-Max
Act Effct Green (s)	16.4	43.3	9.4	36.3	11.7	28.1	17.1	33.5
Actuated g/C Ratio	0.14	0.36	0.08	0.30	0.10	0.23	0.14	0.28
v/c Ratio	0.68	0.90	0.98	0.61	1.11	0.72	0.69	0.87
Control Delay (s/veh)	49.4	68.5	126.7	38.1	150.5	46.5	62.7	48.8
Queue Delay	0.0	7.2	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	49.4	75.6	126.7	38.1	150.5	46.5	62.7	48.8
LOS	D	E	F	D	F	D	E	D
Approach Delay (s/veh)		73.3		49.3		65.7		50.5
Approach LOS		E		D		E		D

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 40 (33%), Referenced to phase 2:SBT and 6:NBT, Start of Green	
Natural Cycle: 130	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 1.11	
Intersection Signal Delay (s/veh): 61.0	Intersection LOS: E
Intersection Capacity Utilization 87.1%	ICU Level of Service E
Analysis Period (min) 15	

Splits and Phases: 5: Scottsdale Road & Shea Boulevard





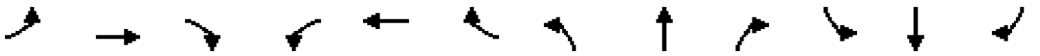
Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	163	1638	135	936	192	847	174	1229
v/c Ratio	0.68	0.90	0.98	0.61	1.11	0.72	0.69	0.87
Control Delay (s/veh)	49.4	68.5	126.7	38.1	150.5	46.5	62.7	48.8
Queue Delay	0.0	7.2	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	49.4	75.6	126.7	38.1	150.5	46.5	62.7	48.8
Queue Length 50th (ft)	136	489	106	223	~174	220	130	330
Queue Length 95th (ft)	m200	540	#236	292	#324	#318	196	390
Internal Link Dist (ft)		469		1514		359		1326
Turn Bay Length (ft)	180		170		290		295	
Base Capacity (vph)	418	1826	138	1527	173	1184	433	1409
Starvation Cap Reductn	0	168	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.39	0.99	0.98	0.61	1.11	0.72	0.40	0.87

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	150	1237	270	124	792	69	177	708	71	160	1036	95
Future Volume (veh/h)	150	1237	270	124	792	69	177	708	71	160	1036	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	163	1345	293	135	861	75	192	770	77	174	1126	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	196	1497	326	140	1555	135	169	1253	125	205	1361	124
Arrive On Green	0.04	0.12	0.12	0.08	0.33	0.33	0.09	0.27	0.27	0.12	0.29	0.29
Sat Flow, veh/h	1781	4197	913	1781	4784	415	1781	4721	469	1781	4761	435
Grp Volume(v), veh/h	163	1091	547	135	612	324	192	554	293	174	805	424
Grp Sat Flow(s),veh/h/ln	1781	1702	1706	1781	1702	1796	1781	1702	1786	1781	1702	1792
Q Serve(g_s), s	10.9	37.9	38.0	9.1	17.7	17.9	11.4	17.1	17.3	11.5	26.5	26.6
Cycle Q Clear(g_c), s	10.9	37.9	38.0	9.1	17.7	17.9	11.4	17.1	17.3	11.5	26.5	26.6
Prop In Lane	1.00		0.54	1.00		0.23	1.00		0.26	1.00		0.24
Lane Grp Cap(c), veh/h	196	1214	609	140	1107	584	169	904	474	205	973	512
V/C Ratio(X)	0.83	0.90	0.90	0.97	0.55	0.56	1.13	0.61	0.62	0.85	0.83	0.83
Avail Cap(c_a), veh/h	422	1237	620	140	1107	584	169	904	474	436	973	512
HCM Platoon Ratio	0.33	0.33	0.33	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.70	0.70	0.70	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	56.7	50.8	50.8	55.1	33.3	33.4	54.3	38.7	38.7	52.1	40.1	40.1
Incr Delay (d2), s/veh	6.3	6.5	12.0	66.1	0.6	1.2	110.0	3.1	5.9	9.3	8.0	14.3
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	5.5	18.3	19.3	6.5	7.1	7.7	10.1	7.3	8.1	5.5	11.8	13.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	63.1	57.3	62.8	121.2	33.9	34.5	164.3	41.8	44.7	61.3	48.1	54.4
LnGrp LOS	E	E	E	F	C	C	F	D	D	E	D	D
Approach Vol, veh/h		1801			1071			1039			1403	
Approach Delay, s/veh		59.5			45.1			65.2			51.7	
Approach LOS		E			D			E			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	17.0	39.8	18.8	44.4	19.4	37.4	15.0	48.2
Change Period (Y+Rc), s	5.6	5.5	5.6	5.4	5.6	5.5	5.6	5.4
Max Green Setting (Gmax), s	11.4	33.5	28.4	24.6	29.4	15.5	9.4	43.6
Max Q Clear Time (g_c+I1), s	13.4	28.6	12.9	19.9	13.5	19.3	11.1	40.0
Green Ext Time (p_c), s	0.0	3.0	0.3	2.3	0.4	0.0	0.0	2.8

Intersection Summary	
HCM 6th Ctrl Delay, s/veh	55.6
HCM 6th LOS	E

Notes

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

Intersection	
Int Delay, s/veh	2.6

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	73	15	84	75	18	121
Future Vol, veh/h	73	15	84	75	18	121
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	65	75	-
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	79	16	91	82	20	132

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	197	46	0	0	173	0
Stage 1	91	-	-	-	-	-
Stage 2	106	-	-	-	-	-
Critical Hdwy	6.84	6.94	-	-	4.14	-
Critical Hdwy Stg 1	5.84	-	-	-	-	-
Critical Hdwy Stg 2	5.84	-	-	-	-	-
Follow-up Hdwy	3.52	3.32	-	-	2.22	-
Pot Cap-1 Maneuver	789	1038	-	-	1415	-
Stage 1	937	-	-	-	-	-
Stage 2	907	-	-	-	-	-
Platoon blocked, %	1	1	-	-	1	-
Mov Cap-1 Maneuver	778	1038	-	-	1415	-
Mov Cap-2 Maneuver	778	-	-	-	-	-
Stage 1	937	-	-	-	-	-
Stage 2	894	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s/v	10	0	1
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	813	1415	-
HCM Lane V/C Ratio	-	-	0.118	0.014	-
HCM Control Delay (s/veh)	-	-	10	7.6	-
HCM Lane LOS	-	-	B	A	-
HCM 95th %tile Q (veh)	-	-	0.4	0	-

Intersection	
Intersection Delay, s/veh	8.3
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	44	40	40	13	16	5	32	40	14	8	84	36
Future Vol, veh/h	44	40	40	13	16	5	32	40	14	8	84	36
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	48	43	43	14	17	5	35	43	15	9	91	39
Number of Lanes	0	1	0	0	1	0	0	1	1	0	1	1

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	2	2
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	2	2	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	2	2	1	1
HCM Control Delay, s/veh	8.3	7.9	8.5	8.2
HCM LOS	A	A	A	A

Lane	NBLn1	NBLn2	EBLn1	WBLn1	SBLn1	SBLn2
Vol Left, %	44%	0%	35%	38%	9%	0%
Vol Thru, %	56%	0%	32%	47%	91%	0%
Vol Right, %	0%	100%	32%	15%	0%	100%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	72	14	124	34	92	36
LT Vol	32	0	44	13	8	0
Through Vol	40	0	40	16	84	0
RT Vol	0	14	40	5	0	36
Lane Flow Rate	78	15	135	37	100	39
Geometry Grp	5	5	2	2	5	5
Degree of Util (X)	0.115	0.018	0.166	0.048	0.141	0.047
Departure Headway (Hd)	5.282	4.354	4.424	4.648	5.065	4.317
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes
Cap	679	822	813	771	709	830
Service Time	3.008	2.081	2.441	2.671	2.789	2.042
HCM Lane V/C Ratio	0.115	0.018	0.166	0.048	0.141	0.047
HCM Control Delay, s/veh	8.7	7.2	8.3	7.9	8.6	7.3
HCM Lane LOS	A	A	A	A	A	A
HCM 95th-tile Q	0.4	0.1	0.6	0.2	0.5	0.1

Intersection	
Int Delay, s/veh	4.3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	3	39	17	25	20	3	8	0	40	3	0	5
Future Vol, veh/h	3	39	17	25	20	3	8	0	40	3	0	5
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	-	-	-	-	-	-	-	-	-	-	-	-
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	3	42	18	27	22	3	9	0	43	3	0	5

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	25	0	0	60	0	0	137	136	51	157	144	24
Stage 1	-	-	-	-	-	-	57	57	-	78	78	-
Stage 2	-	-	-	-	-	-	80	79	-	79	66	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1589	-	-	1544	-	-	834	755	1017	809	747	1052
Stage 1	-	-	-	-	-	-	955	847	-	931	830	-
Stage 2	-	-	-	-	-	-	929	829	-	930	840	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1589	-	-	1544	-	-	817	740	1017	763	732	1052
Mov Cap-2 Maneuver	-	-	-	-	-	-	817	740	-	763	732	-
Stage 1	-	-	-	-	-	-	953	845	-	929	815	-
Stage 2	-	-	-	-	-	-	908	814	-	888	838	-

Approach	EB	WB	NB	SB
HCM Control Delay, s/v	0.4	3.8	8.9	8.9
HCM LOS			A	A

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	977	1589	-	-	1544	-	-	921
HCM Lane V/C Ratio	0.053	0.002	-	-	0.018	-	-	0.009
HCM Control Delay (s/veh)	8.9	7.3	0	-	7.4	0	-	8.9
HCM Lane LOS	A	A	A	-	A	A	-	A
HCM 95th %tile Q (veh)	0.2	0	-	-	0.1	-	-	0

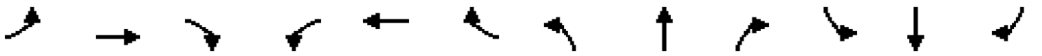
Intersection	
Int Delay, s/veh	0.5

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	2	79	2	1	49	3	0	0	5	0	0	0
Future Vol, veh/h	2	79	2	1	49	3	0	0	5	0	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
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	2	86	2	1	53	3	0	0	5	0	0	0

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	56	0	0	88	0	0	148	149	87	151	149	55
Stage 1	-	-	-	-	-	-	91	91	-	57	57	-
Stage 2	-	-	-	-	-	-	57	58	-	94	92	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1549	-	-	1508	-	-	820	743	971	816	743	1012
Stage 1	-	-	-	-	-	-	916	820	-	955	847	-
Stage 2	-	-	-	-	-	-	955	847	-	913	819	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1549	-	-	1508	-	-	818	742	971	810	742	1012
Mov Cap-2 Maneuver	-	-	-	-	-	-	818	742	-	810	742	-
Stage 1	-	-	-	-	-	-	915	819	-	954	846	-
Stage 2	-	-	-	-	-	-	954	846	-	907	818	-

Approach	EB	WB	NB	SB
HCM Control Delay, s/v	0.2	0.1	8.7	0
HCM LOS			A	A

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	971	1549	-	-	1508	-	-	-
HCM Lane V/C Ratio	0.006	0.001	-	-	0.001	-	-	-
HCM Control Delay (s/veh)	8.7	7.3	0	-	7.4	0	-	0
HCM Lane LOS	A	A	A	-	A	A	-	A
HCM 95th %tile Q (veh)	0	0	-	-	0	-	-	-



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	70	1124	318	55	1651	31	408	38	35	64	30	86
Future Volume (veh/h)	70	1124	318	55	1651	31	408	38	35	64	30	86
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	76	1222	346	60	1795	34	443	41	38	70	33	93
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	80	2064	641	284	2642	820	426	233	216	91	669	299
Arrive On Green	0.05	0.40	0.40	0.16	0.52	0.52	0.12	0.26	0.26	0.05	0.19	0.19
Sat Flow, veh/h	1781	5106	1585	1781	5106	1585	3456	893	828	1781	3554	1585
Grp Volume(v), veh/h	76	1222	346	60	1795	34	443	0	79	70	33	93
Grp Sat Flow(s),veh/h/ln	1781	1702	1585	1781	1702	1585	1728	0	1721	1781	1777	1585
Q Serve(g_s), s	5.1	22.5	14.7	3.5	31.4	1.3	14.8	0.0	4.3	4.7	0.9	6.1
Cycle Q Clear(g_c), s	5.1	22.5	14.7	3.5	31.4	1.3	14.8	0.0	4.3	4.7	0.9	6.1
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.48	1.00		1.00
Lane Grp Cap(c), veh/h	80	2064	641	284	2642	820	426	0	449	91	669	299
V/C Ratio(X)	0.95	0.59	0.54	0.21	0.68	0.04	1.04	0.00	0.18	0.77	0.05	0.31
Avail Cap(c_a), veh/h	80	2064	641	284	2642	820	426	0	449	398	669	299
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	57.2	28.0	14.9	43.9	21.5	14.3	52.6	0.0	34.4	56.2	39.9	42.0
Incr Delay (d2), s/veh	82.9	1.3	3.2	0.4	1.4	0.1	54.2	0.0	0.9	12.7	0.1	2.7
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	4.1	9.0	5.5	1.5	11.9	0.5	9.4	0.0	1.9	2.4	0.4	2.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	140.0	29.3	18.1	44.3	23.0	14.4	106.8	0.0	35.2	69.0	40.0	44.7
LnGrp LOS	F	C	B	D	C	B	F		D	E	D	D
Approach Vol, veh/h		1644			1889			522			196	
Approach Delay, s/veh		32.0			23.5			96.0			52.6	
Approach LOS		C			C			F			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	20.0	28.1	11.0	67.9	11.3	36.8	24.9	54.0
Change Period (Y+Rc), s	5.2	* 5.5	5.6	* 5.6	5.2	5.5	5.6	5.5
Max Green Setting (Gmax), s	14.8	* 23	5.4	* 56	26.8	10.5	12.4	48.5
Max Q Clear Time (g_c+I1), s	16.8	8.1	7.1	33.4	6.7	6.3	5.5	24.5
Green Ext Time (p_c), s	0.0	0.3	0.0	13.3	0.1	0.1	0.0	10.3

Intersection Summary	
HCM 6th Ctrl Delay, s/veh	37.0
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.

Intersection	
Int Delay, s/veh	0.2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑↑	↱		↑↑↑	↱			↱			↱
Traffic Vol, veh/h	0	1212	32	0	1710	52	0	0	39	0	0	27
Future Vol, veh/h	0	1212	32	0	1710	52	0	0	39	0	0	27
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	-	-	70	-	-	95	-	-	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	0	1317	35	0	1859	57	0	0	42	0	0	29

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	-	0	0	-	-	0	-	-	659	-	-	930
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	-	-	-	7.14	-	-	7.14
Critical Hdwy Stg 1	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	-	-	-	3.92	-	-	3.92
Pot Cap-1 Maneuver	0	-	-	0	-	-	0	0	*646	0	0	*514
Stage 1	0	-	-	0	-	-	0	0	-	0	0	-
Stage 2	0	-	-	0	-	-	0	0	-	0	0	-
Platoon blocked, %		-	-		-	-			1			1
Mov Cap-1 Maneuver	-	-	-	-	-	-	-	-	*646	-	-	*514
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s/v	0	0	11	12.4
HCM LOS			B	B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBT	WBR	SBLn1
Capacity (veh/h)	646	-	-	-	-	514
HCM Lane V/C Ratio	0.066	-	-	-	-	0.057
HCM Control Delay (s/veh)	11	-	-	-	-	12.4
HCM Lane LOS	B	-	-	-	-	B
HCM 95th %tile Q (veh)	0.2	-	-	-	-	0.2

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

Intersection	
Int Delay, s/veh	0

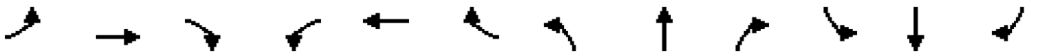
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	0	1240	1750	0	0	2
Future Vol, veh/h	0	1240	1750	0	0	2
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	1348	1902	0	0	2

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	-	0	-	0	-	951
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	7.14
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	3.92
Pot Cap-1 Maneuver	0	-	-	-	0	*659
Stage 1	0	-	-	-	0	-
Stage 2	0	-	-	-	0	-
Platoon blocked, %		-	-	-		1
Mov Cap-1 Maneuver	-	-	-	-	-	*659
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	WB	SB
HCM Control Delay, s/v	0	0	10.5
HCM LOS			B

Minor Lane/Major Mvmt	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	-	-	-	659
HCM Lane V/C Ratio	-	-	-	0.003
HCM Control Delay (s/veh)	-	-	-	10.5
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)	52	1183	34	23	1620	47	30	5	40	66	6	96
Future Volume (veh/h)	52	1183	34	23	1620	47	30	5	40	66	6	96
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	57	1286	37	25	1761	51	33	5	43	72	7	104
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	188	3418	98	321	3417	99	56	5	380	57	3	380
Arrive On Green	0.89	0.89	0.89	0.67	0.67	0.67	0.24	0.24	0.24	0.24	0.24	0.24
Sat Flow, veh/h	259	5101	147	415	5100	148	0	20	1585	0	13	1585
Grp Volume(v), veh/h	57	858	465	25	1175	637	38	0	43	79	0	104
Grp Sat Flow(s),veh/h/ln	259	1702	1844	415	1702	1844	20	0	1585	13	0	1585
Q Serve(g_s), s	12.7	5.0	5.0	2.9	20.9	20.9	0.0	0.0	2.5	0.0	0.0	6.4
Cycle Q Clear(g_c), s	33.6	5.0	5.0	7.8	20.9	20.9	28.8	0.0	2.5	28.8	0.0	6.4
Prop In Lane	1.00		0.08	1.00		0.08	0.87		1.00	0.91		1.00
Lane Grp Cap(c), veh/h	188	2281	1235	321	2281	1235	61	0	380	60	0	380
V/C Ratio(X)	0.30	0.38	0.38	0.08	0.52	0.52	0.63	0.00	0.11	1.31	0.00	0.27
Avail Cap(c_a), veh/h	188	2281	1235	321	2281	1235	61	0	380	60	0	380
HCM Platoon Ratio	1.33	1.33	1.33	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.09	0.09	0.09	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	9.0	2.4	2.4	8.8	10.0	10.0	56.4	0.0	35.6	58.6	0.0	37.1
Incr Delay (d2), s/veh	4.1	0.5	0.9	0.0	0.1	0.1	39.9	0.0	0.6	219.0	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	0.7	1.3	1.5	0.2	6.7	7.3	1.8	0.0	1.0	5.5	0.0	2.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	13.1	2.9	3.3	8.8	10.1	10.1	96.4	0.0	36.2	277.6	0.0	38.9
LnGrp LOS	B	A	A	A	B	B	F		D	F		D
Approach Vol, veh/h		1380			1837			81			183	
Approach Delay, s/veh		3.5			10.1			64.4			141.9	
Approach LOS		A			B			E			F	

Timer - Assigned Phs	2	4	6	8
Phs Duration (G+Y+Rc), s	34.0	86.0	34.0	86.0
Change Period (Y+Rc), s	5.2	* 5.6	5.2	* 5.6
Max Green Setting (Gmax), s	28.8	* 80	28.8	* 80
Max Q Clear Time (g_c+I1), s	30.8	22.9	30.8	35.6
Green Ext Time (p_c), s	0.0	20.1	0.0	13.5

Intersection Summary	
HCM 6th Ctrl Delay, s/veh	15.6
HCM 6th LOS	B

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.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	177	928	172	149	1214	141	322	1328	106	152	1047	108
Future Volume (veh/h)	177	928	172	149	1214	141	322	1328	106	152	1047	108
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	192	1009	187	162	1320	153	350	1443	115	165	1138	117
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	125	1127	208	190	1376	160	318	1646	131	192	1274	131
Arrive On Green	0.14	0.52	0.52	0.11	0.30	0.30	0.18	0.34	0.34	0.11	0.27	0.27
Sat Flow, veh/h	1781	4329	801	1781	4640	538	1781	4821	384	1781	4704	483
Grp Volume(v), veh/h	192	793	403	162	968	505	350	1019	539	165	823	432
Grp Sat Flow(s),veh/h/ln	1781	1702	1726	1781	1702	1774	1781	1702	1801	1781	1702	1783
Q Serve(g_s), s	8.4	25.1	25.2	10.7	33.6	33.6	21.4	33.8	33.8	10.9	27.9	27.9
Cycle Q Clear(g_c), s	8.4	25.1	25.2	10.7	33.6	33.6	21.4	33.8	33.8	10.9	27.9	27.9
Prop In Lane	1.00		0.46	1.00		0.30	1.00		0.21	1.00		0.27
Lane Grp Cap(c), veh/h	125	886	449	190	1010	526	318	1162	615	192	922	483
V/C Ratio(X)	1.54	0.90	0.90	0.85	0.96	0.96	1.10	0.88	0.88	0.86	0.89	0.89
Avail Cap(c_a), veh/h	125	886	449	229	1010	526	318	1162	615	214	922	483
HCM Platoon Ratio	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.93	0.93	0.93	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	51.6	27.3	27.3	52.7	41.5	41.5	49.3	37.1	37.1	52.6	42.1	42.1
Incr Delay (d2), s/veh	276.6	10.9	19.3	22.6	19.2	29.1	80.6	9.4	16.1	26.1	12.8	21.6
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	18.0	7.9	9.1	5.9	16.2	18.3	16.3	14.9	16.9	6.2	12.9	14.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	328.2	38.2	46.6	75.3	60.7	70.6	129.9	46.5	53.3	78.7	54.9	63.7
LnGrp LOS	F	D	D	E	E	E	F	D	D	E	D	E
Approach Vol, veh/h		1388			1635			1908			1420	
Approach Delay, s/veh		80.8			65.2			63.7			60.3	
Approach LOS		F			E			E			E	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	27.0	38.0	14.0	41.0	18.5	46.5	18.4	36.6
Change Period (Y+Rc), s	5.6	5.5	5.6	5.4	5.6	5.5	5.6	5.4
Max Green Setting (Gmax), s	21.4	32.5	8.4	35.6	14.4	39.5	15.4	28.6
Max Q Clear Time (g_c+I1), s	23.4	29.9	10.4	35.6	12.9	35.8	12.7	27.2
Green Ext Time (p_c), s	0.0	1.7	0.0	0.0	0.1	2.8	0.1	0.9

Intersection Summary	
HCM 6th Ctrl Delay, s/veh	67.1
HCM 6th LOS	E

Notes

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

Intersection	
Int Delay, s/veh	1.3

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	43	4	89	69	2	133
Future Vol, veh/h	43	4	89	69	2	133
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	65	75	-
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	47	4	97	75	2	145

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	174	49	0	0	172	0
Stage 1	97	-	-	-	-	-
Stage 2	77	-	-	-	-	-
Critical Hdwy	6.84	6.94	-	-	4.14	-
Critical Hdwy Stg 1	5.84	-	-	-	-	-
Critical Hdwy Stg 2	5.84	-	-	-	-	-
Follow-up Hdwy	3.52	3.32	-	-	2.22	-
Pot Cap-1 Maneuver	881	*1049	-	-	1467	-
Stage 1	986	-	-	-	-	-
Stage 2	937	-	-	-	-	-
Platoon blocked, %	1	1	-	-	1	-
Mov Cap-1 Maneuver	880	*1049	-	-	1467	-
Mov Cap-2 Maneuver	880	-	-	-	-	-
Stage 1	986	-	-	-	-	-
Stage 2	936	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s/v	9.3	0	0.1
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	892	1467	-
HCM Lane V/C Ratio	-	-	0.057	0.001	-
HCM Control Delay (s/veh)	-	-	9.3	7.5	-
HCM Lane LOS	-	-	A	A	-
HCM 95th %tile Q (veh)	-	-	0.2	0	-

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

Intersection	
Intersection Delay, s/veh	8.2
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	41	29	51	35	35	4	37	31	23	7	51	53
Future Vol, veh/h	41	29	51	35	35	4	37	31	23	7	51	53
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	45	32	55	38	38	4	40	34	25	8	55	58
Number of Lanes	0	1	0	0	1	0	0	1	1	0	1	1

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	2	2
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	2	2	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	2	2	1	1
HCM Control Delay, s/veh	8.2	8.3	8.4	8
HCM LOS	A	A	A	A

Lane	NBLn1	NBLn2	EBLn1	WBLn1	SBLn1	SBLn2
Vol Left, %	54%	0%	34%	47%	12%	0%
Vol Thru, %	46%	0%	24%	47%	88%	0%
Vol Right, %	0%	100%	42%	5%	0%	100%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	68	23	121	74	58	53
LT Vol	37	0	41	35	7	0
Through Vol	31	0	29	35	51	0
RT Vol	0	23	51	4	0	53
Lane Flow Rate	74	25	132	80	63	58
Geometry Grp	5	5	2	2	5	5
Degree of Util (X)	0.111	0.031	0.16	0.105	0.091	0.071
Departure Headway (Hd)	5.411	4.433	4.378	4.678	5.184	4.419
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes
Cap	662	807	819	767	692	810
Service Time	3.142	2.163	2.401	2.704	2.913	2.148
HCM Lane V/C Ratio	0.112	0.031	0.161	0.104	0.091	0.072
HCM Control Delay, s/veh	8.8	7.3	8.2	8.3	8.4	7.5
HCM Lane LOS	A	A	A	A	A	A
HCM 95th-tile Q	0.4	0.1	0.6	0.4	0.3	0.2

Intersection	
Int Delay, s/veh	3.6

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	7	33	17	23	53	1	11	1	33	1	1	2
Future Vol, veh/h	7	33	17	23	53	1	11	1	33	1	1	2
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	-	-	-	-	-	-	-	-	-	-	-	-
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	8	36	18	25	58	1	12	1	36	1	1	2

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	59	0	0	54	0	0	171	170	45	189	179	59
Stage 1	-	-	-	-	-	-	61	61	-	109	109	-
Stage 2	-	-	-	-	-	-	110	109	-	80	70	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1545	-	-	1551	-	-	792	723	1025	771	715	1007
Stage 1	-	-	-	-	-	-	950	844	-	896	805	-
Stage 2	-	-	-	-	-	-	895	805	-	929	837	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1545	-	-	1551	-	-	776	707	1025	731	699	1007
Mov Cap-2 Maneuver	-	-	-	-	-	-	776	707	-	731	699	-
Stage 1	-	-	-	-	-	-	945	840	-	892	791	-
Stage 2	-	-	-	-	-	-	877	791	-	891	833	-

Approach	EB	WB	NB	SB
HCM Control Delay, s/v	0.9	2.2	9	9.3
HCM LOS			A	A

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	942	1545	-	-	1551	-	-	836
HCM Lane V/C Ratio	0.052	0.005	-	-	0.016	-	-	0.005
HCM Control Delay (s/veh)	9	7.3	0	-	7.4	0	-	9.3
HCM Lane LOS	A	A	A	-	A	A	-	A
HCM 95th %tile Q (veh)	0.2	0	-	-	0	-	-	0

Intersection	
Int Delay, s/veh	1.1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	1	65	0	2	69	2	0	0	3	7	0	7
Future Vol, veh/h	1	65	0	2	69	2	0	0	3	7	0	7
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	-	-	-	-	-	-	-	-	-	-	-	-
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	1	71	0	2	75	2	0	0	3	8	0	8

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	77	0	0	71	0	0	157	154	71	155	153	76
Stage 1	-	-	-	-	-	-	73	73	-	80	80	-
Stage 2	-	-	-	-	-	-	84	81	-	75	73	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1522	-	-	1529	-	-	809	738	991	812	739	985
Stage 1	-	-	-	-	-	-	937	834	-	929	828	-
Stage 2	-	-	-	-	-	-	924	828	-	934	834	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1522	-	-	1529	-	-	802	737	991	808	738	985
Mov Cap-2 Maneuver	-	-	-	-	-	-	802	737	-	808	738	-
Stage 1	-	-	-	-	-	-	936	833	-	928	827	-
Stage 2	-	-	-	-	-	-	916	827	-	930	833	-

Approach	EB	WB	NB	SB
HCM Control Delay, s/v	0.1	0.2	8.6	9.1
HCM LOS			A	A

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	991	1522	-	-	1529	-	-	888
HCM Lane V/C Ratio	0.003	0.001	-	-	0.001	-	-	0.017
HCM Control Delay (s/veh)	8.6	7.4	0	-	7.4	0	-	9.1
HCM Lane LOS	A	A	A	-	A	A	-	A
HCM 95th %tile Q (veh)	0	0	-	-	0	-	-	0.1