

MOUNTAIN VIEW MEDICAL CENTER REDEVELOPMENT PARKING ANALYSIS

SEC corner of Tatum Boulevard and Shea Boulevard,
Town of Paradise Valley



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The Mountain View Medical Center (MVMC) redevelopment is located at 10555 North Tatum Boulevard. The existing MVMC site encompasses approximately 10.16 net acres and consists of approximately 59,969 gross square feet of medical office land uses. The proposed redevelopment consists of approximately 91,318 net square feet of medical office land use.

CivTech has prepared a parking study that addresses the number of spaces for the proposed medical offices considering parking ratios calculated for the existing center and the future characteristics of the development. The parking analysis will be completed to meet the requirements of the Town of Paradise Valley.

EXISTING CONDITIONS

The MVMC consists of 6 existing buildings located on the southeast corner of Tatum Boulevard and Shea Boulevard. It currently consists of 59,969 gross square feet of medical office. Approximately 9,447 SF were vacant at the time of this study. There are a total of 331 existing parking spaces on site including 305 regular spaces and 26 ADA spaces. The existing site plan and unit information can be found in **Appendix A**.

Existing parking counts were conducted every 30 minutes on June 7th (Thursday) from 6:00AM to 10:00 PM. The existing conditions parking counts and resulting parking rate calculations are included in **Appendix B**. The results for the weekday count are summarized in **Table 1**.

Table 1 – Existing Parking Summary

Day	Time at Peak Use	Regular	ADA	Total
Existing Total Spaces	-	305	26	331
June 7 th (Thursday)	10:30AM	194	7	201
Max Spaces Occupied				201
Excess (Deficit) No. of Spaces				130
Excess (Deficit) Pct. of Spaces				39%

The results of the existing parking counts concluded that the parking peak occupancy on June 7th was 201 parking spaces at 10:30AM with 194 regular spaces and 7 ADA spaces occupied. There are 130 excess parking spaces (39%) on the weekday of the total 331 existing parking spaces. With the current vacancies, the existing medical office has 50,522 SF in use with a maximum of 201 spaces occupied resulting in a parking rate of approximately 0.8 parking spaces for every 200 SF.

The parking spaces and ratio were determined for the summer months. Information provided by the existing owner/tenants suggested that summer parking utilization was 90% of the winter utilization. To determine the maximum parking for the winter months an adjustment was applied to the summer maximum parking space utilization. The calculated winter maximum parking space utilization is approximately 222 parking spaces resulting in a parking rate of approximately 0.88 parking spaces per 200 square feet.

PROPOSED DEVELOPMENT

The proposed redevelopment at buildout consists of approximately 91,318 net square feet of medical center and a proposed 410 parking spaces, including 12 accessible parking spaces. The proposed parking rate is 0.88 parking spaces per 200 square feet or 4.4 parking spaces for every 1000 SF.

The Special Use Permit (SUP) Guidelines for Paradise Valley provides the Town’s Code for on-site parking requirements for medical office. The SUP Guidelines suggest that 1 parking space for every 200 SF of interior floor area should be provided. The parking information shown in the SUP Guidelines for the proposed medical office are summarized in **Table 3**.

Table 2 – Summary of Parking

Land Use	Size	Requirements Per SUP Guidelines	Required Parking Spaces
Medical Office	91,318 SF	1 Parking Space Per 200 SF	456

The Code required parking results using the SUP Guidelines for the MVMC redevelopment of 91,318 SF of medical center will require 456 parking spaces.

The existing parking ratio calculations from actual field observations results in fewer parking spaces per SF of the building than the SUP Guidelines require. The existing facility, when considering vacancies and an increase in usage by 10 percent in the winter months, requires 0.88 parking spaces for every 200 SF. The comparison between the actual parking rate calculated for the facility and the SUP guideline parking rate are provided in **Table 3** for the proposed 91,318 square foot medical facility.

Table 3 – Summary of Parking

Land Use	Size	Requirements	Required Parking Spaces
Medical Office	91,318 SF	SUP Guidelines: 1 Parking Space Per 200 SF	456
		Existing Calculations: 0.8 Parking Spaces Per 200 SF	365
		Existing Adjusted Calculations: 4.4 Parking Spaces Per 1000 SF	402

The medical office requires approximately 456 parking spaces to meet requirements shown in the SUP Guidelines. A total of 402 parking spaces are needed at the MVMC redevelopment to provide an adequate supply to support the proposed use. The development proposes to provide 410 parking spaces which exceeds the expected demand.

The Town of Paradise Valley parking rates include different requirements for specific types of medical offices such as pharmacy (1 space per 300 SF), outpatient surgical facilities (1 space per 2 employees plus 1 space per surgical room), medical laboratories (1 space per 2 employees) and physical therapy facilities (1 space per 1.5 employees) which can result in lower parking needs. The City of Scottsdale, in comparison, requires 1 space per 250 SF of medical office which the proposed redevelopment meets and exceeds. Furthermore, the growth in prominence of passenger transport services may have some effect in parking needs, though this analysis does not evaluate this mode individually.

The parking supply proposed by the MVMC redevelopment will continue to facilitate acceptable operations at the facility.

PHASING

The construction will occur in three (3) phases with Phase 1 including reconstruction of Building F (east corner of the site), Phase 2 including the reconstruction of Building A (south corner of the site) and Phase 3 reconstruction of the remaining buildings. The Town Engineer requested that parking needs be evaluated by Phase to ensure that sufficient parking is provided phases

of construction. The site plan provided in the **Attachments** indicates that Phase 1 consists of 18,697 net square feet and will provide 94 parking spaces, Phase 2 consists of 15,821 net square feet and will provide 79 parking spaces and Phase 3 consists of 56,800 net square feet and will provide 239 parking spaces. These square footages, provided parking and required parking are summarized in **Table 4**.

Table 4 – Summary of Parking

Phase	Size ⁽¹⁾	Parking Spaces by Ratio		Parking Spaces Provided
		1 per 200 SF	4.4 per 1,000 SF	
Existing	59,969 SF	300	264	331
1	69,304 SF	347	305	334
2	76,309 SF	382	336	357
3	91,318 SF	457	402	410

The project will provide over 4.4 spaces per 1,000 net square feet between each phase in addition to completion of the project.

CONCLUSIONS

The MVMC redevelopment parking evaluation findings are summarized below:

- The existing parking conditions concluded that parking peak occupancy on June 7th was 201 parking spaces with 9,447 SF of office building vacancies.
 - There are 130 excess parking spaces (39%) on the weekday of the total 331 existing parking spaces.
 - Including the current vacancies, the existing medical office has 50,522 SF in use with a maximum of 201 spaces occupied resulting in approximately 0.8 parking spaces for every 200 SF.
 - Information was obtained that 90% of the winter parking levels are in use in the summer. With the adjustment for the winter months, approximately 222 parking spaces required resulting in a rate of 0.88 parking spaces per 200 square feet or 4.4 parking spaces for every 1000 SF.
- The proposed redevelopment at buildout consists of approximately 91,318 net square feet of medical center. A total of 402 parking spaces are needed at the MVMC redevelopment to provide an adequate supply to support the proposed use. The development proposes to provide 410 parking spaces which exceeds the expected demand.
 - The medical office requires approximately 456 parking spaces per the SUP Guidelines.
 - Using the actual rate calculated for the existing medical facility and applying that rate to the proposed redevelopment, a total of 402 parking space would be required.
 - The Town of Paradise Valley parking rates include different requirements for specific types of medical offices such as pharmacy (1 space per 300 SF), outpatient surgical facilities (1 space per 2 employees plus 1 space per surgical room), medical laboratories (1 space per 2 employees) and physical therapy facilities (1 space per 1.5 employees) which can result in lower parking needs.
 - The City of Scottsdale, in comparison, requires 1 space per 250 SF of medical office which the proposed redevelopment meets and exceeds
- The parking supply proposed by the MVMC redevelopment will continue to facilitate acceptable operations at the facility.
- The project will provide over 4.4 spaces per 1,000 net square feet between each phase in addition to completion of the project.

APPENDIX

**APPENDIX A
SITE PLAN AND UNIT INFORMATION**

**APPENDIX B
EXISTING COUNTS AND CALCULATIONS**

PVMC PARKING COUNT DATA COLLECTION
 THURSDAY JUNE 7, 2018

Location		A		B		C		D		E		F	
BEGIN	END	Regular	Handicap	Regular	Handicap	Regular	Handicap	Regular	Handicap	Regular	Handicap	Regular	Handicap
Spaces from aerial		19	3	25	1	120	9	40	6	69	4	25	3
Verified Spaces		19	3	25	1	120	9	40	6	69	4	25	3
7:00	7:30	3	0	8	0	13	0	8	1	5	0	0	0
7:30	8:00	6	0	11	0	16	0	11	1	9	0	1	0
8:00	8:30	9	0	15	0	21	0	19	1	12	0	1	0
8:30	9:00	16	1	20	0	41	2	26	2	35	1	6	0
9:00	9:30	17	2	21	0	44	4	33	1	41	3	10	0
9:30	10:00	18	2	20	0	68	14	32	2	38	3	11	0
10:00	10:30	17	2	22	0	60	3	34	1	40	2	11	0
10:30	11:00	17	1	22	0	65	3	33	1	44	2	13	0
11:00	11:30	16	1	21	0	65	4	33	1	45	2	12	0
11:30	12:00	18	0	19	1	61	5	25	2	42	1	12	0
12:00	12:30	12	0	16	1	63	4	17	4	37	1	15	0
12:30	1:00	11	2	12	1	51	4	17	4	36	0	15	0
1:00	1:30	13	2	9	0	44	3	16	3	27	0	20	1
1:30	2:00	12	1	9	0	44	3	18	3	26	0	22	1
2:00	2:30	16	0	16	0	50	2	24	4	29	1	20	0
2:30	3:00	16	0	20	0	58	1	31	2	31	1	20	0
3:00	3:30	17	0	22	0	51	3	32	2	35	0	10	0
3:30	4:00	16	1	23	0	53	2	32	1	34	0	7	0
4:00	4:30	16	0	26	0	40	1	28	0	25	0	6	0
4:30	5:00	12	0	17	0	32	0	20	0	14	1	6	0
5:00	5:30	9	0	12	0	14	0	18	0	11	0	6	0
5:30	6:00	7	0	10	0	12	0	12	0	10	0	6	0
6:00	6:30	5	0	6	0	9	0	4	0	8	0	3	0

Time	A		B		C		D		E		F		Total ADA	Total Regular	Total
	Regular	ADA	Regular	ADA	Regular	ADA	Regular	ADA	Regular	ADA	Regular	ADA			
Existing Total Spaces	19	3	25	1	120	9	40	6	69	4	25	3	26	298	324
7:00 AM	3	0	8	0	13	0	8	1	5	0	0	0	1	37	38
7:30 AM	6	0	11	0	16	0	11	1	9	0	1	0	1	54	55
8:00 AM	9	0	15	0	21	0	19	1	12	0	1	0	1	77	78
8:30 AM	16	1	20	0	41	2	26	2	35	1	6	0	6	144	150
9:00 AM	17	2	21	0	44	4	30	1	41	3	10	0	10	163	173
9:30 AM	18	2	20	0	68	4	32	2	39	3	11	0	11	188	199
10:00 AM	17	2	22	0	60	3	34	1	40	2	11	0	11	184	192
10:30 AM	17	1	22	0	65	3	33	1	44	2	13	0	13	194	201
11:00 AM	16	1	21	0	65	4	33	1	45	2	12	0	12	192	200
11:30 AM	18	0	19	1	61	5	25	2	42	1	12	0	12	177	186
12:00 PM	12	0	16	1	63	4	17	4	37	1	15	0	15	160	170
12:30 PM	11	2	12	1	51	4	17	4	36	0	18	0	18	145	156
1:00 PM	13	2	9	0	44	3	16	3	27	0	20	1	20	129	138
1:30 PM	12	1	9	0	44	3	18	3	28	0	22	1	22	133	141
2:00 PM	16	0	16	0	50	2	29	4	29	1	20	0	20	160	167
2:30 PM	18	0	20	0	53	1	31	2	31	1	20	0	20	173	177
3:00 PM	17	0	22	0	51	3	32	2	35	0	10	0	10	167	172
3:30 PM	16	1	23	0	55	2	32	1	34	0	7	0	7	167	171
4:00 PM	16	0	20	0	40	1	28	0	25	0	6	0	6	135	136
4:30 PM	12	0	17	0	32	0	20	0	14	1	6	0	6	101	102
5:00 PM	9	0	12	0	19	0	18	0	11	0	6	0	6	75	75
5:30 PM	7	0	10	0	12	0	12	0	10	0	6	0	6	57	57
6:00 PM	5	0	6	0	9	0	4	0	8	0	3	0	3	35	35
Max Spaces Occupied													201		
Existing Spaces													324		
Excess (Deficit) No. of Spaces													123		
Excess (Deficit) Pct. of Spaces													38%		



Mountain View Medical Center

Traffic Impact Analysis

Southeast Corner of Tatum Blvd.
and Shea Blvd.
Mountain View, Arizona

July 2018
Project No. 18-0850

Prepared For:

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MOUNTAIN VIEW MEDICAL CENTER REDEVELOPMENT TRAFFIC IMPACT ANALYSIS

SEC of Tatum Boulevard and Shea Boulevard Paradise Valley, Arizona

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EXECUTIVE SUMMARY

The Mountain View Medical Center is located on the southeast corner of Tatum Boulevard and Shea Boulevard in Paradise Valley, Arizona. The existing medical center currently consists of $\pm 59,969$ gross square feet (SF) of medical office land use and is proposing a redevelopment to consist of $\pm 91,318$ net SF. The development provides three (3) existing access points.

CivTech has been retained by Stantec Consulting Services, Inc. to perform a traffic impact analysis (TIA) for the proposed redevelopment. The purpose of this report is to document projected traffic and any transportation impacts and needs of the proposed improvements on the surrounding streets, intersections and existing driveways.

The following conclusions and recommendations have been documented in this study.

- The redevelopment will be built out in three phases. Phase 1 consists of 18,697 SF medical use. Phase 2 adds 15,821 SF for a total of 34,518. Phase 3 adds 56,800 SF for the total of 91,318 SF.
- The redevelopment is anticipated to add approximately 1,204 daily trips to the roadway network, with 64 additional trips during the AM peak hour and 107 additional trips during the PM peak hour.
- The results of the existing conditions analysis summarized in **Table 2** indicates that all study intersections operate at overall LOS D or better with the exception of Tatum Boulevard & Shea Boulevard, Tatum Boulevard & Beryl Avenue/Tatum Corporate Center Driveway.
 - The intersection of **Tatum Boulevard and Shea Boulevard** is evaluated to operate at LOS E during the PM peak hour. This is due to high traffic volumes compared to its capacity, particularly the northbound left turn.
 - The intersection of **Tatum Boulevard & Beryl Avenue/Tatum Corporate Center Driveway** is evaluated to operate with delays in several movements during the PM peak hour. Poor levels of service during peak hours is not uncommon on side street approaches to major arterial roadways.
- The results of the proposed conditions analysis summarized in **Table 6** indicates that half of the study intersections operate at overall LOS D or better during the peak hours while the other half do not during one or more peak hours. Nearly all reported LOS with the proposed redevelopment are identical to their respective LOS without the redevelopment.
 - The intersection of **Tatum Boulevard and Shea Boulevard** continues to operate poorly during the PM peak hour due to high traffic volumes compared to its capacity, particularly the northbound left turn. The delay of the intersection is aggregated with projected future growth. Any potential future mitigation is not considered the responsibility of the developer.

- The intersections of ***Tatum Boulevard & Fry's Driveway/Medical Center Driveway*** and ***Tatum Boulevard & Beryl Avenue/Tatum Corporate Center Driveway*** have projected delays in the build and no build scenario. Poor levels of service during peak hours is not uncommon on side street approaches to major arterial roadways. No further restrictions are recommended.
- The intersection of ***50th Street and Shea Boulevard*** has projected delays due to the westbound approach capacity. If the signal does not have pedestrian recall additional time can be allotted to the westbound approach, mitigating the projected delay.
- The development will utilize existing driveways and lane configurations. No changes to existing turn lanes are recommended as part of this development.

INTRODUCTION

The Mountain View Medical Center is located on the southeast corner of Tatum Boulevard and Shea Boulevard in Paradise Valley, Arizona. The 59,969 gross square feet (SF) of medical office land use is proposed for redevelopment to become approximately 91,318 net SF. The development provides three (3) existing access points along Tatum Boulevard and Shea Boulevard. A location map is provided in **Figure 1**.

This Transportation Impact Analysis (TIA) was completed in accordance with the standard criteria set forth by the Town of Paradise Valley's Guidelines dated May, 2015. A preliminary analysis indicated that a Category 1 TIA would be required for this project. This study analyzes the traffic impact due to the proposed improvements on the surrounding street network.

Study Area

The study area for a Category 1 study is defined as all major intersections and roadway segments within 1/4 mile of the site and all major driveways within 500 feet of the project site boundary. The following site intersection has been evaluated:

- Tatum Boulevard and Desert Cove Avenue
- Tatum Boulevard and Shea Boulevard
- Tatum Boulevard and Fry's Driveway (north)/Medical Center
- Tatum Boulevard and Beryl Avenue/Tatum Corporate Center Driveway (north)
- Tatum Boulevard and Gold Dust Avenue
- Medical Center Driveway and Beryl Avenue
- Albertson's Driveway/Medical Center and Shea Boulevard
- 50th Street and Shea Boulevard

Study Years

For study purposes, it is assumed that the opening year of the redevelopment will be 2019. A Category 1 study includes the analysis of opening year/Phase 1 (2019) and 5 years after opening/buildout (2024).

Considering the Phase 1 and Phase 2 combined square footage (34,518 SF) is less than that of the existing building (59,969 SF), and the land use is unchanged, the trips generated by completion of Phase 1 and Phase 2 are expected to be less than the existing conditions. The traffic impact for the opening year (Phase 1) is expected to be less than the existing conditions and analysis thereof is not necessary. For this reason, this analysis was limited to the 5th year with Phase 3/buildout (2024).

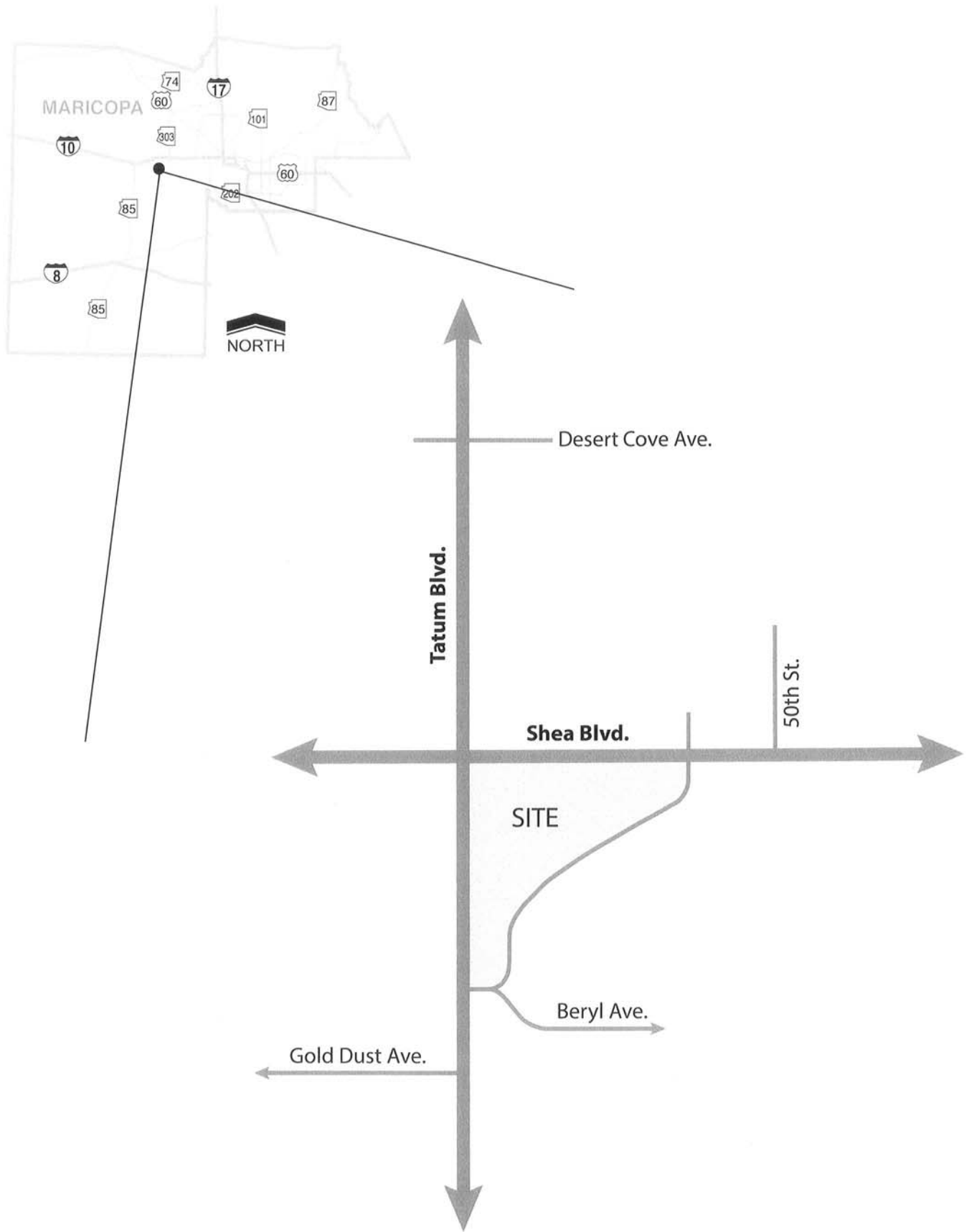


Figure 1: Vicinity Map

EXISTING CONDITIONS

The Mountain View Medical Center is located on the southeast corner of Tatum Boulevard and Shea Boulevard. The existing site encompasses approximately 10.16 net acres and consists of approximately 59,969 gross SF of medical land uses.

SURROUNDING LAND USE

North of the site is Paradise Village Gateway, a shopping center that encompasses approximately 30 acres and consists of a grocery store, coffee shops, restaurants and retail shops. South and east of the site are various neighborhoods with single-family homes. Directly west of the site is a Fry's Food Store.

ROADWAY NETWORK

The existing roadway network within the study area includes Tatum Boulevard, Shea Boulevard, Gold Dust Avenue, Beryl Avenue, Desert Cove Avenue and 50th Street.

Tatum Boulevard is a north/south six (6) lane roadway with three (3) lanes in each direction of travel, divided by a raised median north of Shea Boulevard and a two-way left-turn lane (TWLTL) south of Shea Boulevard. Tatum Boulevard is classified as a major arterial street by the City of Phoenix. Tatum Boulevard begins to the north at the intersection with Cave Creek Road and terminates to the south at the intersection with McDonald Dr. where it converts to 44th Street. The posted speed limit within the vicinity of the site is 40 mph.

Shea Boulevard is an east/west six (6) lane roadway with three (3) lanes in each direction of travel and a center raised median. Shea Boulevard is classified as a major arterial street by the City of Phoenix. Shea Boulevard begins to the west at the intersection with 24th street and terminates to the east at SR 87. Shea Boulevard provides access to SR 51, SR Loop 101 and SR 87. The posted speed limit within the vicinity of the site is 45 mph.

Gold Dust Avenue is an east/west (2) lane roadway with one (1) lane in each direction of travel and unmarked stripping within the vicinity of the site. The roadway is assumed to be a collector street. The segment of Gold Dust Avenue within the vicinity of the site begins at 44th Street and terminates ½-mile to the east at Tatum Boulevard. The posted speed limit within the vicinity of the site is 25 mph.

Beryl Avenue is a two (2) lane local street with (1) lane in each direction of travel and unmarked stripping within the vicinity of the site. The segment of Beryl Avenue within the vicinity of the site begins at Shea Boulevard and terminates ¾-mile east at 50th Place. Beryl Avenue serves as circulation for Mountain View Medical Center and the neighborhood adjacent to the Medical Center. The posted speed limit within the vicinity of the site is assumed to be 15 mph.

Desert Cove Avenue is a two (2) lane local street with one (1) lane in each direction of travel and unmarked striping within the vicinity of the site. The segment of Desert Cove Avenue within the vicinity of the site begins east of Tatum Boulevard at the driveway off Paradise Valley Office Suites and terminates 0.35 miles to the west where it converts into 50th Street. Desert Cove Avenue serves as access to Paradise Village Gateway and various multi-family housing complexes. There is no posted speed limit within the vicinity of the site.

50th Street is a two (2) lane driveway with one (2) lane in each direction of travel and unmarked striping within the vicinity of the site. The segment of 50th Street within the vicinity of the site is a 500 FT driveway that provides access to Paradise Village Gateway, Paradise Valley Plaza and a multi-family housing complex.

INTERSECTION CONFIGURATIONS AND TRAFFIC CONTROLS

The intersection of **Tatum Boulevard and Desert Cove Avenue** operates as a signalized four-legged intersection with permitted left-turns on all approaches. The northbound and southbound approaches consist of one (1) exclusive left-turn lane, two (2) through lanes and one (1) shared through/right-turn lane. The eastbound and westbound approach consists of one (1) shared left/through/right-turn lane.

The intersection of **Tatum Boulevard and Shea Boulevard** operates as a signalized four-legged intersection with protected left turns on all approaches. The northbound and southbound approaches consist of dual left-turn lanes, two (2) through lanes and one (1) shared through/right-turn lane. The eastbound and westbound approach consist of dual left-turn lanes, three (3) through lanes and one (1) dedicated right-turn lane.

The intersection of **Tatum Boulevard and Fry's Driveway (north)/Medical Center** operates as a four-legged intersection with stop control on the eastbound and westbound approaches. The northbound approach consists of one (1) left turn lane, two (2) through lanes and one (1) shared through/right-turn lane. The southbound approach consists of three (3) through lanes and one (1) dedicated right-turn lane. Left-turns into the medical driveway are not allowed. The eastbound and westbound approaches consist of one (1) shared left/through/right-turn lane. Eastbound left-turns are not permitted between the hours of 2 PM and 6 PM.

The intersection of **Tatum Boulevard and Beryl Avenue/Tatum Corporate Center Driveway (north)** operates as a four-legged intersection with stop control on the eastbound and westbound approach. The northbound approach consists of a center two-way left-turn lane, two (2) through lanes and a 24 foot outside lane that has the width for both a through and a right turn lane. The southbound approach consists of a center two-way left-turn lane, two (2) through lanes and a through/right-turn lane. The eastbound and westbound approaches consist of one (1) shared left/through/right-turn lane.

The intersection of **Tatum Boulevard and Gold Dust Avenue** operates a “T” intersection with stop control in the eastbound approach. The northbound approach consists of a two-way left-turn lane and three (3) through lanes. The southbound approach consists of two (2) through lanes and one (1) dedicated right-turn lane. The eastbound approach consists of one (1) shared left/right-turn lane.

The intersection of **Medical Center Driveway and Beryl Avenue** operates as a “T” intersection with no posted stop control yet functions as a yield in the southbound approach. The southbound approach consists of one (1) right-turn lane. The eastbound approach consists of one (1) shared left-turn/through lane. The westbound approach consists of one (1) shared through/right-turn lane.

The intersection of **Albertson’s Driveway/Medical Center and Shea Boulevard** operates as a four-legged intersection with stop control on the northbound and southbound approaches. The northbound and southbound approaches consist of one (1) restricted right-turn lane, with left-turn and through movements restricted by a median on Shea Boulevard. The eastbound approach consists of one (1) exclusive left-turn lane, two (2) through lanes and one (1) shared through/right-turn lane. The westbound approach consists of one (1) exclusive left-turn lane, three (3) through lanes, and one (1) dedicated right-turn lane.

The intersection of **50th Street and Shea Boulevard** operates as a signalized “T” intersection with permitted left-turns on all approaches. The southbound approach consists of one (1) exclusive left-turn lane and one (1) dedicated right-turn lane. The eastbound approach consists of one (1) exclusive left-turn lane and three (3) through lanes. The westbound approach consists of one (1) through lane and one (1) shared through/right-turn lane.

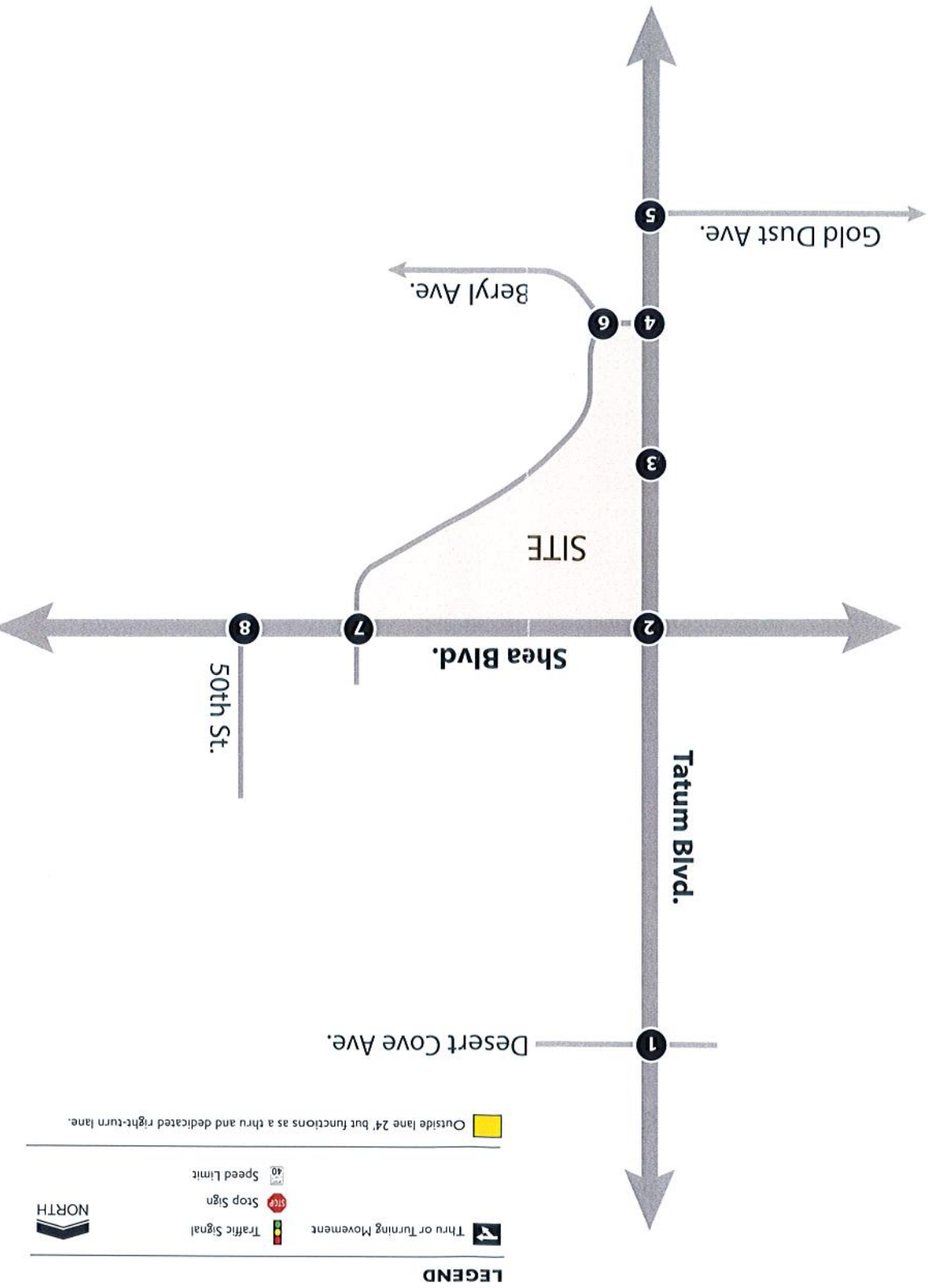
The existing lane configurations and traffic controls are illustrated **Figure 2**.

TRAFFIC VOLUMES

CivTech engaged Field Data Services of Arizona, Inc. to record traffic volumes at the proposed study intersections within the project vicinity. Peak hour volume turning movement counts were performed on either Tuesday, June 5, 2018 or Wednesday, June 6, 2018 from 7:00 AM to 9:00 AM and 4:00 PM to 6:00 PM at the study intersections. Data sheets for the recorded volumes are provided in **Appendix B**.

Since the existing volumes were collected in June during a time where the roadway is not at full capacity an adjustment factor was calculated. The City of Phoenix’s adjustment factors (from ADT) are 0.99 for June and 0.99 for Tuesday. The seasonal adjustment factor to be applied is $1 / [\text{monthly factor}] / [\text{weekday factor}] = 1.020$. An analysis using slightly older numbers considered a more conservative seasonal adjustment factor of 1.022. Existing traffic volumes were multiplied by 1.022. Also, the 59,969 gross SF of medical center was ninety percent occupied at the time the counts were conducted. To account for the vacancies, the existing volumes at the site driveways were adjusted. The adjusted existing traffic volumes for this study are illustrated in **Figure 3** for both AM and PM peak hours.

Figure 2: Existing Lane Configurations and Traffic Controls



LEGEND

- Traffic Signal
- Stop Sign
- Speed Limit 40
- Thru or Turning Movement
- Outside lane 24' but functions as a thru and dedicated right-turn lane.

NORTH

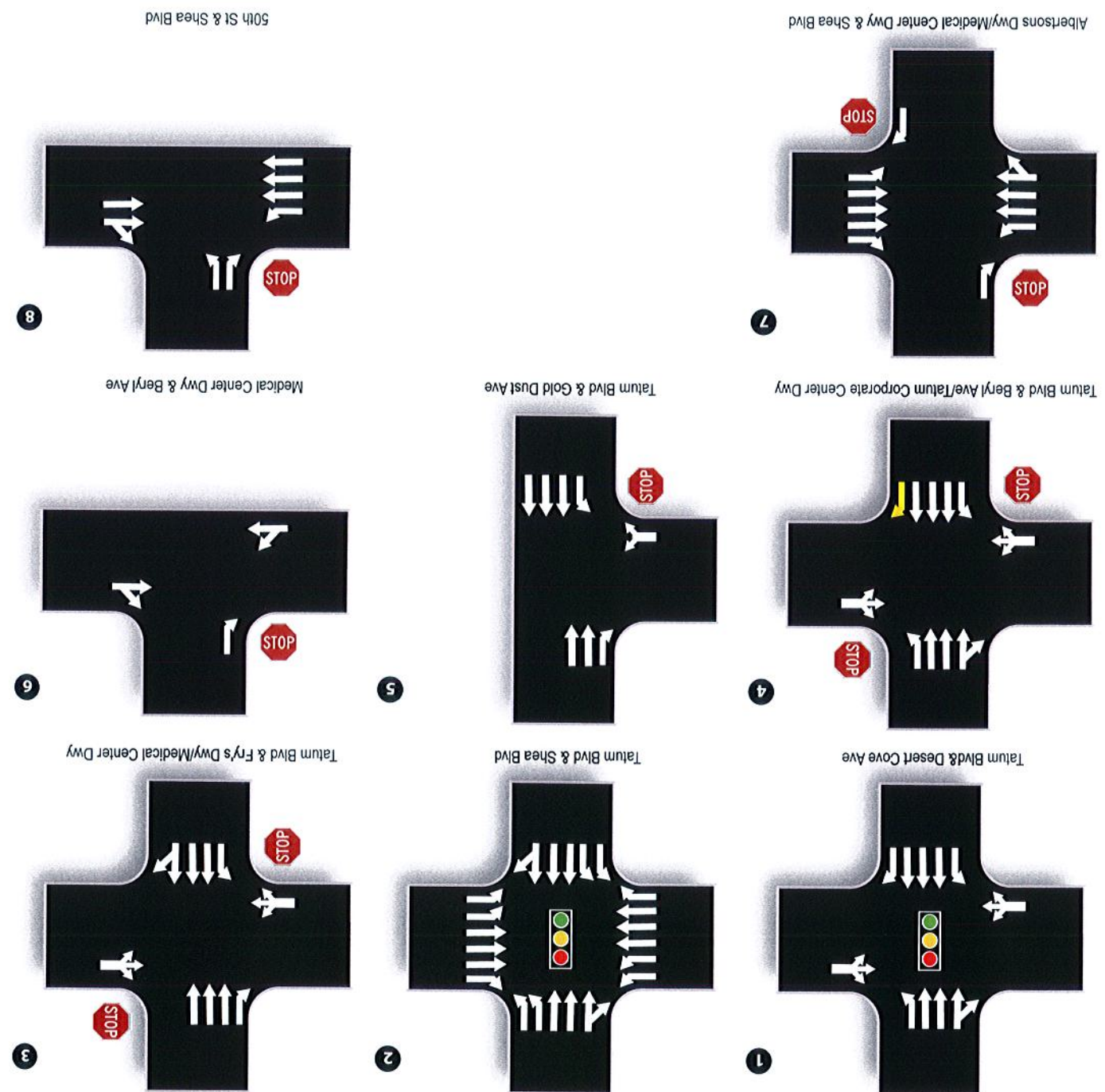
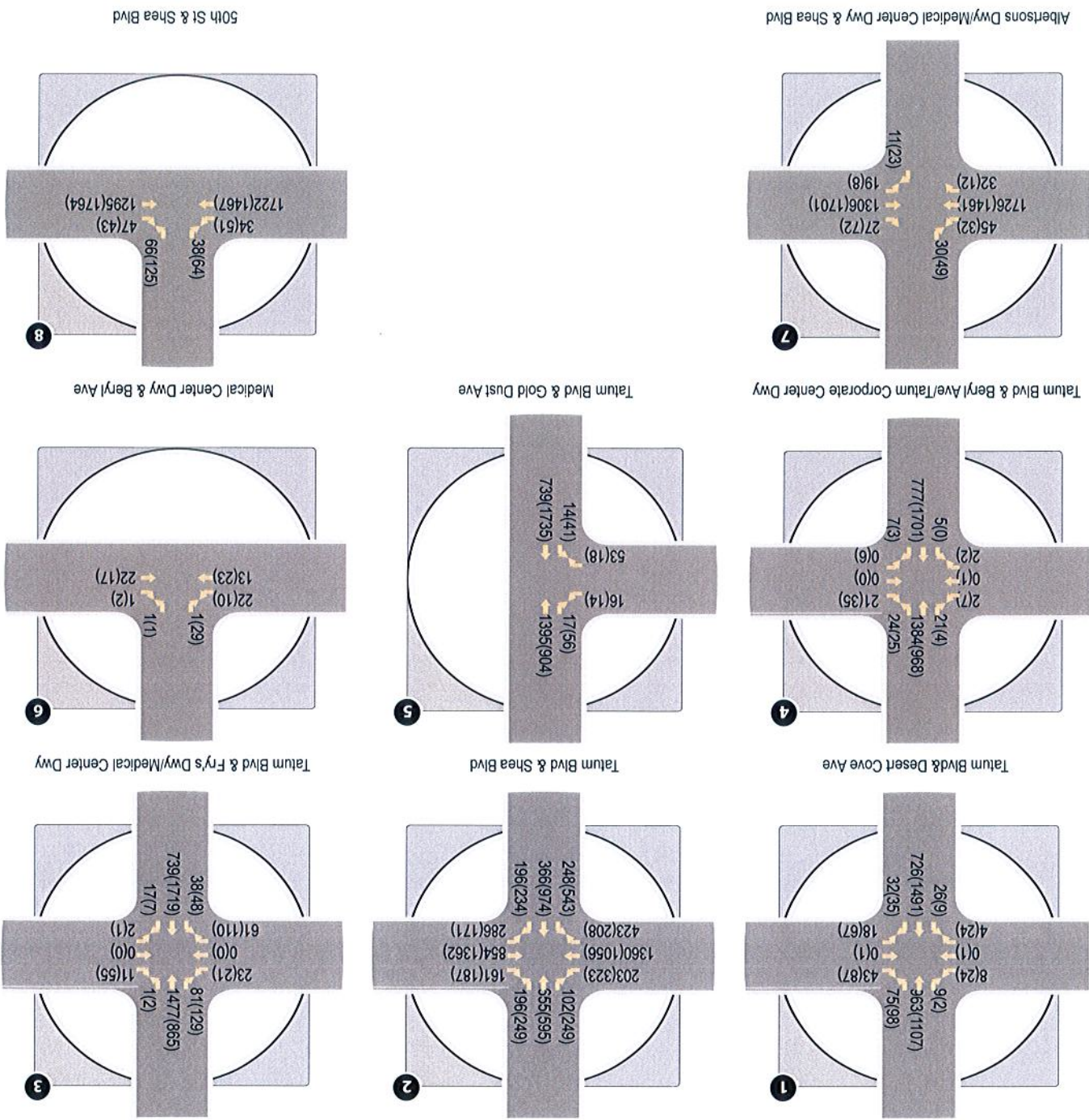
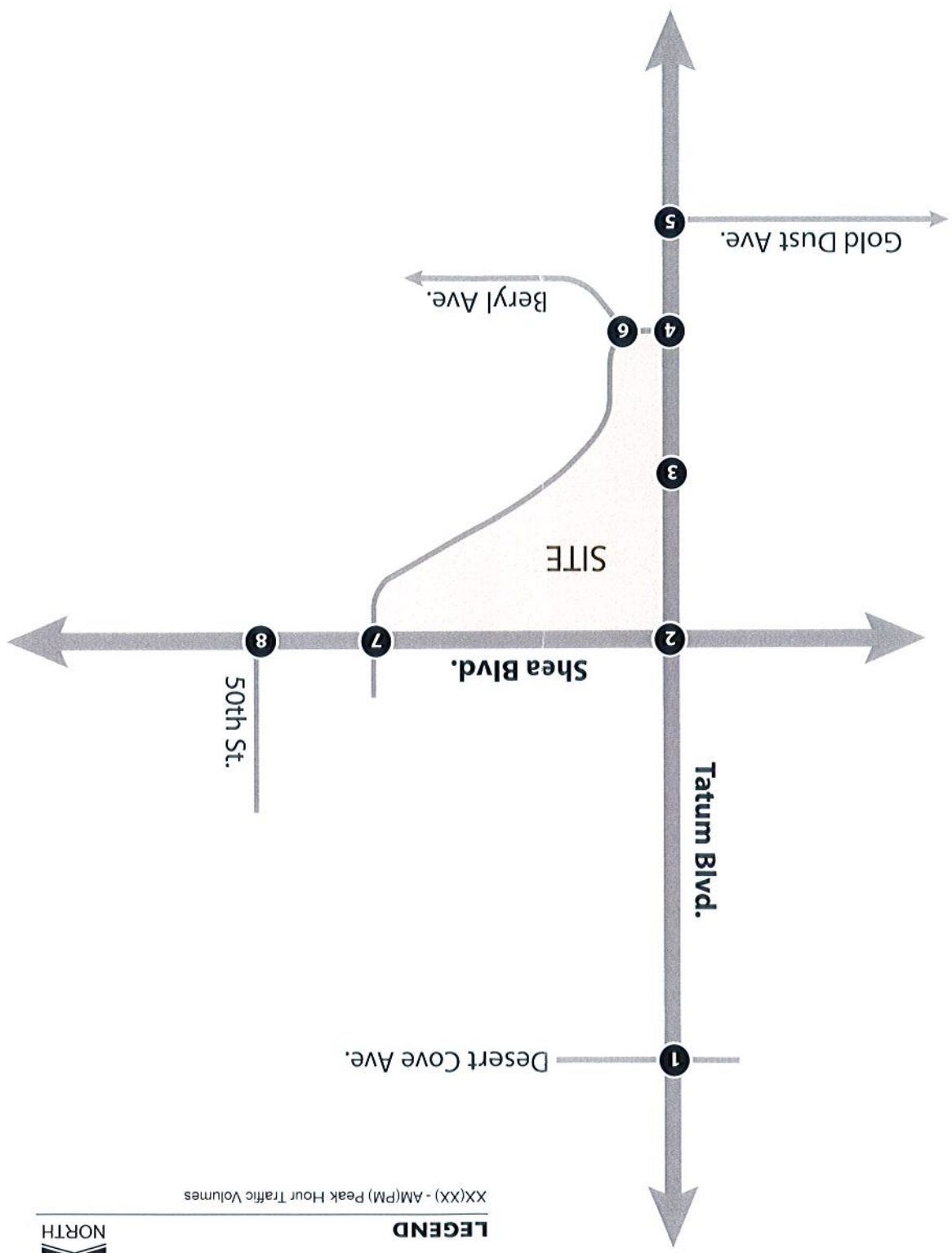


Figure 3: Existing Traffic Volumes



LEGEND
XX(XX) - AM(PM) Peak Hour Traffic Volumes



It should be noted that the traffic counts recorded vehicles making illegal left turns at the intersection of Tatum Boulevard and Fry's Driveway/Medical Center Driveway. They were left in the analysis but were not grown for future conditions.

EXISTING CAPACITY ANALYSIS

Peak hour capacity analyses have been conducted for the study intersections based on existing intersection lane configurations and traffic volumes. All intersections have been analyzed using the methodologies presented in the Transportation Research Board's *Highway Capacity Manual* and using Synchro software.

The concept of level of service (LOS) uses qualitative measures that characterize operational conditions within the traffic stream. The individual levels of service are described by factors that include speed, travel time, freedom to maneuver, traffic interruptions, and comfort and convenience. Six levels of service are defined for each type of facility for which analysis procedures are available. They are given letter designations A through F, with LOS A representing the best operating conditions and LOS F the worst. Each level of service represents a range of operating conditions. Levels of service for intersections are defined in terms of delay ranges. **Table 1** lists the level of service criteria for signalized and unsignalized intersections, respectively.

Table 1 - Level of Service Criteria for Controlled Intersections

Level-of-Service	Unsignalized Control Delay (sec/veh)	Signalized Control Delay (sec/veh)
A	≤ 10	≤ 10
B	> 10-20	> 10-15
C	> 20-35	> 15-25
D	> 35-55	> 25-35
E	> 55-80	> 35-50
F	> 80 (or v/c > 1)	> 50 (or v/c > 1)

Source: Exhibits 19-8, 20-2, 21-8, and 22-8, *Highway Capacity Manual 2017*

Synchro 10 software calculates the LOS per the HCM 6th edition methodology. Synchro analysis worksheets report individual movement delay/LOS and overall delay/LOS for signalized intersections; unsignalized intersection worksheets report the worst-case delay/LOS and the average overall intersection delay. Results of the existing level of service analyses are shown in **Table 2** for both AM and PM peak hours. The existing conditions analysis worksheets have been included in **Appendix C**.

Table 2 - Existing Peak Hour Levels of Service

ID	Intersection	Stop Control	Approach	LOS	
				AM	PM
1	Tatum Blvd. & Desert Cove Ave.	Signal	NB	C	B
			SB	C	B
			EB	B	C
			WB	B	C
			Overall	C	B
2	Tatum Blvd. & Shea Blvd	Signal	NB	E	E
			SB	E	D
			EB	D	D
			WB	D	F
			Overall	D	E
3	Tatum Blvd. & Fry's Dwy. /Medical Center Dwy.	2-way Stop (EB & WB)	NB Shared	B	B
			SB Shared	B	D
			EB Shared	C	B
			WB Shared	B	D
			4	Tatum Blvd. & Beryl Ave. /Tatum Corporate Center Dwy.	2-way Stop (EB & WB)
4			SB Left	B	E
			EB Shared	C	F
			WB Shared	B	F
			5	Tatum Blvd. & Gold Dust Ave.	1-way Stop (EB)
5			EB Shared	B	B
			6	Medical Center Dwy. & Beryl Ave.	1-way Yield (SB)
6			EB Left	A	A
			7	Albertson's Dwy. /Medical Center Dwy. & Shea Blvd.	2-way Stop (NB & SB)
7			WB Left	B	B
			NB Right	B	B
			SB Right	B	D
			8	50 th St. & Shea Blvd.	Signal
8			EB	C	C
			WB	C	E
			Overall	C	D

The results of the existing conditions analysis summarized in **Table 2** indicates that all study intersections operate at overall LOS D or better with the exception of Tatum Boulevard & Shea Boulevard, Tatum Boulevard & Beryl Avenue/Tatum Corporate Center Driveway.

The intersection of **Tatum Boulevard and Shea Boulevard** is evaluated to operate at LOS E during the PM peak hour. This is due to high traffic volumes compared to its capacity, particularly the northbound left turn.

The intersection of **Tatum Boulevard & Beryl Avenue/Tatum Corporate Center Driveway** is evaluated to operate with delays in several movements during the PM peak hour. Poor levels of service during peak hours is not uncommon on side street approaches to major arterial roadways.

PROPOSED IMPROVEMENTS

DESCRIPTION

The redevelopment will consist of three phases between opening year 2019 and horizon year 2024. The proposed medical center will be composed of 91,318 net SF once fully built out.

PHASING AND INTENSITY

The redevelopment will be built out in three phases. Phase 1 consists of 18,697 SF medical use. Phase 2 adds 15,821 SF for a total of 34,518. Phase 3 adds 56,800 SF for the total of 91,318 SF. Phase 1 is expected to open in 2019 and Phase 3 is anticipated to be completed by 2024.

SITE ACCESS

Access to the redeveloped building will be via the three (3) existing driveways listed below:

- Tatum Boulevard and Fry's Driveway (north)/ Medical Center
- Medical Center Driveway and Beryl Avenue
- Albertson's Driveway/Medical Center and Shea Boulevard

The driveways were previously described in the existing conditions section. The proposed site plan is displayed in **Figure 4**.

TRIP GENERATION

Generated trips were estimated for the proposed improvements at Mountain View Medical Center were estimated utilizing the data given in the latest (10th) edition of the Institute of Transportation Engineers' (ITE) *Trip Generation Manual* and the methodology discussed in the ITE *Trip Generation Handbook, 3rd Edition*. The *Trip Generation Manual* report contains data collected by various transportation professionals for a wide range of different land uses. The data are summarized in the report and average rates and equations have been established that correlate the relationship between an independent variable that describes the development size and generated trips for each categorized land use. The report provides information for daily and peak hour trips.

The Mountain View Medical Center improvements include the redevelopment of an existing 59,969-SF medical office land use to 91,318-SF medical office land use. The trips generated by Mountain View Medical Center were estimated with land use code 720 (medical offices) as there are various uses for the offices tenants have occupied. **Table 3** shows the anticipated number of trips generated at full buildout. Detailed trip generation worksheets are included in **Appendix D**.

SHEA BOULEVARD

7

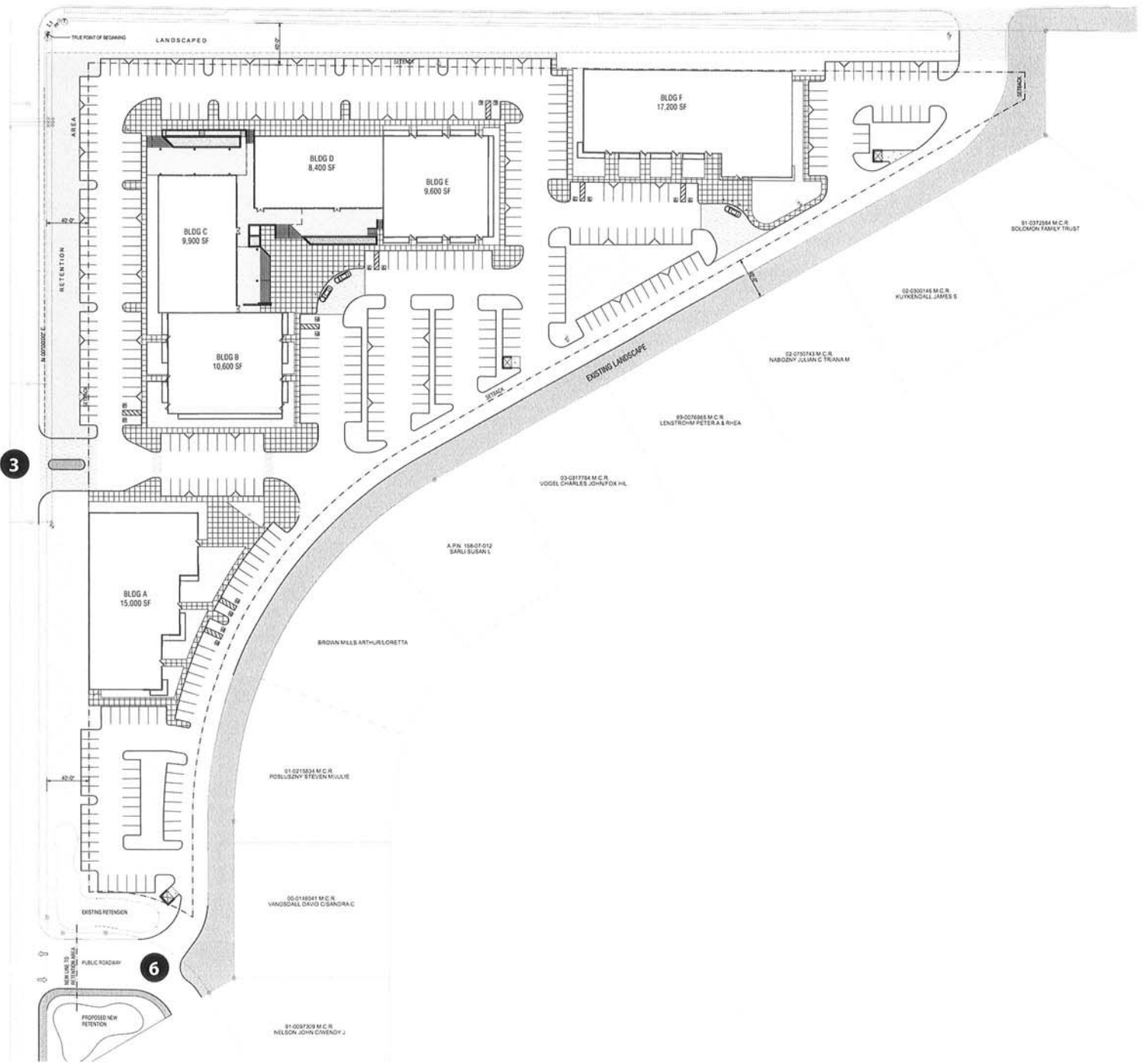


Figure 4: Site Plan and Access

Table 3 - Trip Generation Summary

Land Use	ITE Code	Size		Weekday Generated Trips						
				Daily Total	AM Peak Hour			PM Peak Hour		
					Enter	Exit	Total	Enter	Exit	Total
Medical Offices	720	91.318	KSF	3,420	161	45	206	87	225	312

After full buildout, the proposed redevelopment is anticipated to generate 3,420 weekday daily trips, 206 trips during the AM peak hour and 312 trips during the PM peak hour.

Since the total square footage of the Mountain View Medical Center has increased, the total number of trips to/from the site is anticipated to increase. **Table 4** shows the net increase of trips generated by the proposed expansion/redevelopment.

Table 4 - Trip Generation Comparison

Land Use	ITE Code	Size		Weekday Generated Trips						
				Daily Total	AM Peak Hour			PM Peak Hour		
					Enter	Exit	Total	Enter	Exit	Total
Medical Offices (new)	720	91.318	KSF	3,420	161	45	206	87	225	312
Medical Offices (existing)	720	59.969	KSF	2,216	111	31	142	57	148	205
New Trips Added				1,204	50	14	64	30	77	107

The redevelopment is anticipated to add approximately 1,204 daily trips to the roadway network, with 64 additional trips during the AM peak hour and 107 additional trips during the PM peak hour.

TRIP DISTRIBUTION AND ASSIGNMENT

It is expected that the residential development will generate trips based on future population within a 10-mile radius of the site. Future total population within a 10-mile radius of the site, as predicted by the 2020 socio-economic data compiled by the Maricopa Association of Governments (MAG), was used as a basis to estimate trip distribution for the residential development. The resulting trip distribution percentages for the study area are shown and summarized in **Table 5**.

Table 5 - Trip Distribution

Roadway (To/From)	Trip Distribution
Tatum Blvd (North)	13%
Tatum Blvd (South)	30%
Shea Boulevard (East)	12%
Shea Blvd (West)	42%
Gold Dust Ave (West)	3%
Total	100%

The percentages presented in **Table 5** are also depicted in **Figure 5** and were applied to the site trips generated to determine the AM and PM peak hour site traffic at the intersections within the study area. The resulting site generated traffic for the proposed development is presented in **Figure 6** for horizon year 2024.

FUTURE BACKGROUND TRAFFIC

CivTech utilized the 2015 and 2011 average daily traffic on Tatum Boulevard north of Shea Boulevard and on Shea Boulevard west of Tatum Boulevard as published by the Maricopa Association of Governments (MAG). The 2011 and 2015 volumes resulted in an average annual growth rate of 0.9 percent on Tatum Boulevard and 3.2 percent on Shea Boulevard. The average of the two growth rates (2.1 percent) was applied annually to the adjusted existing traffic counts to represent regional growth. This correlates to an expansion factor of 1.129 for horizon year 2024. The 2024 background peak hour traffic volumes are shown in **Figure 7**.

TOTAL TRAFFIC

Total traffic was determined by adding the site generated traffic and the projected background traffic. Total AM and PM peak hour traffic volumes are depicted in **Figure 8** for the horizon year.

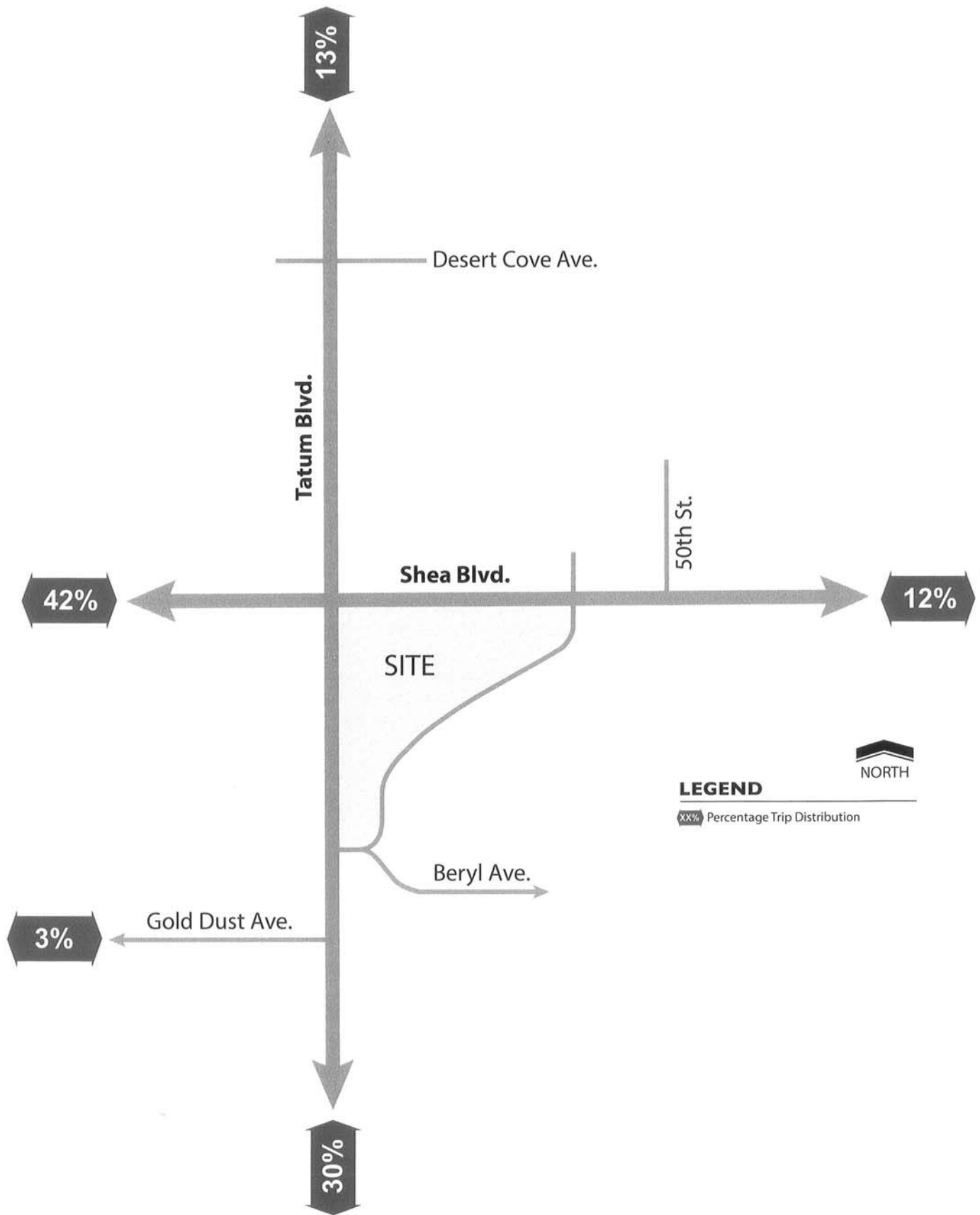
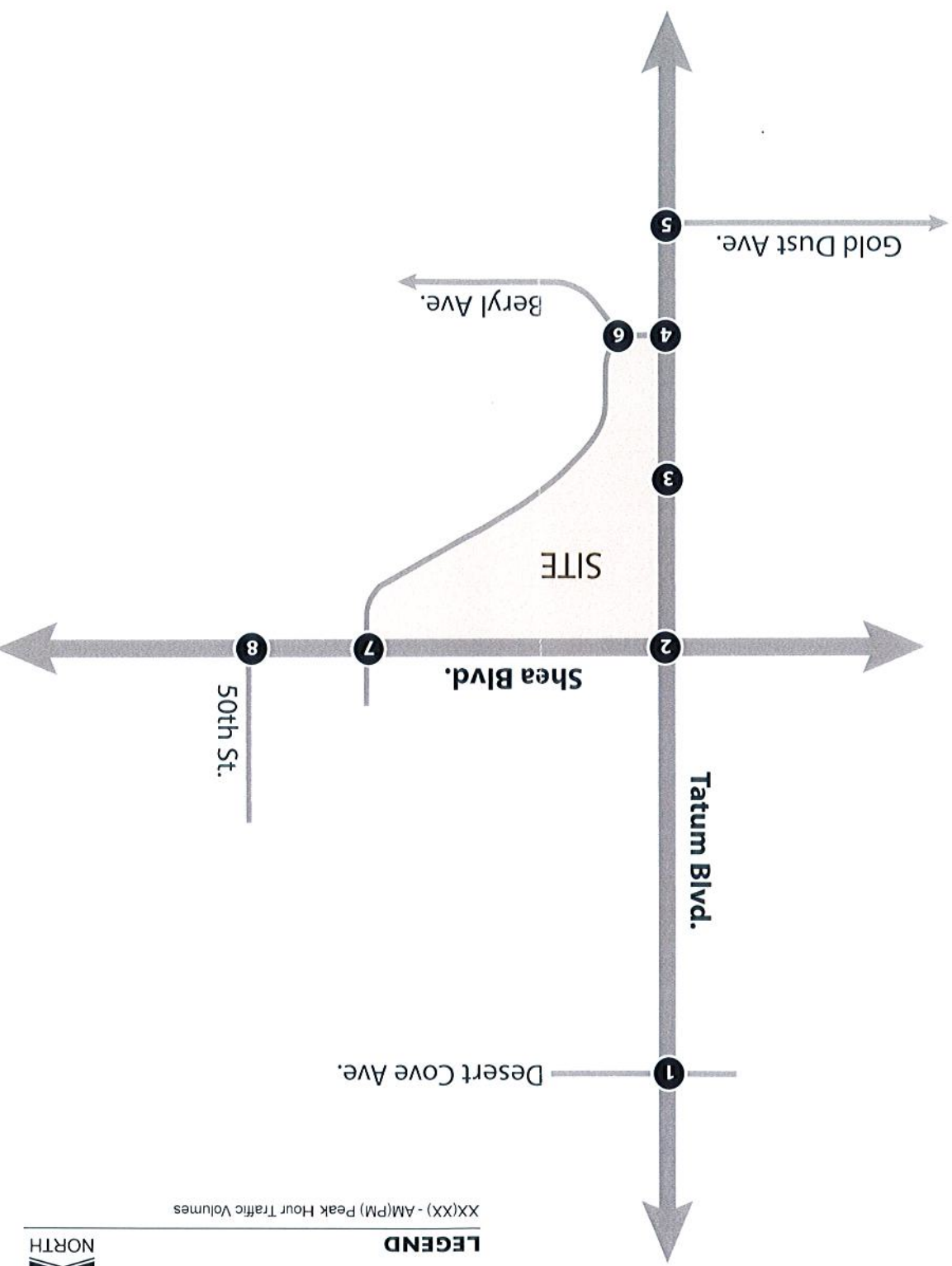


Figure 5: Vicinity Map

Figure 6: Site Generated Traffic Volumes



LEGEND
 XX(XX) - AM(PM) Peak Hour Traffic Volumes

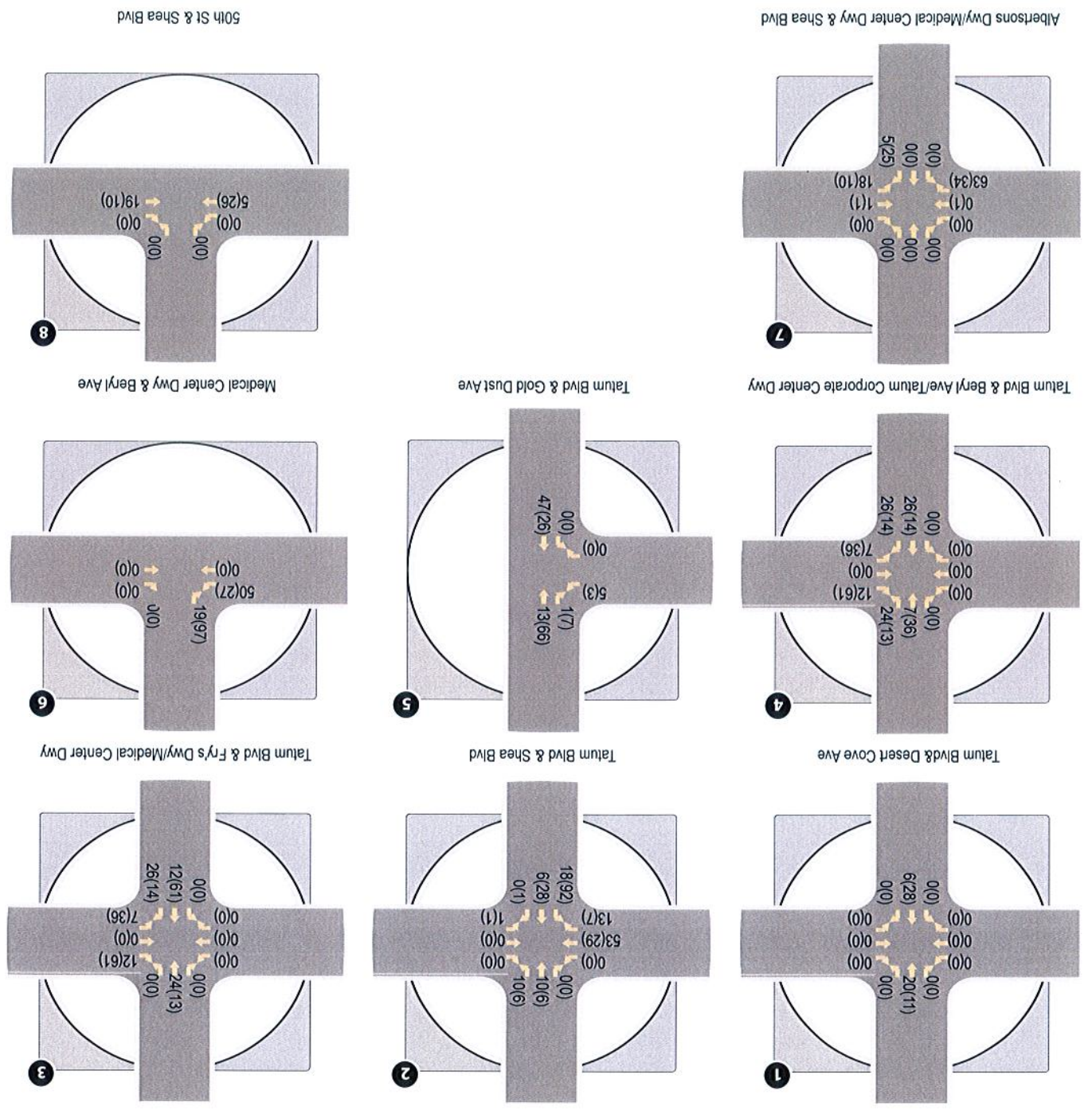
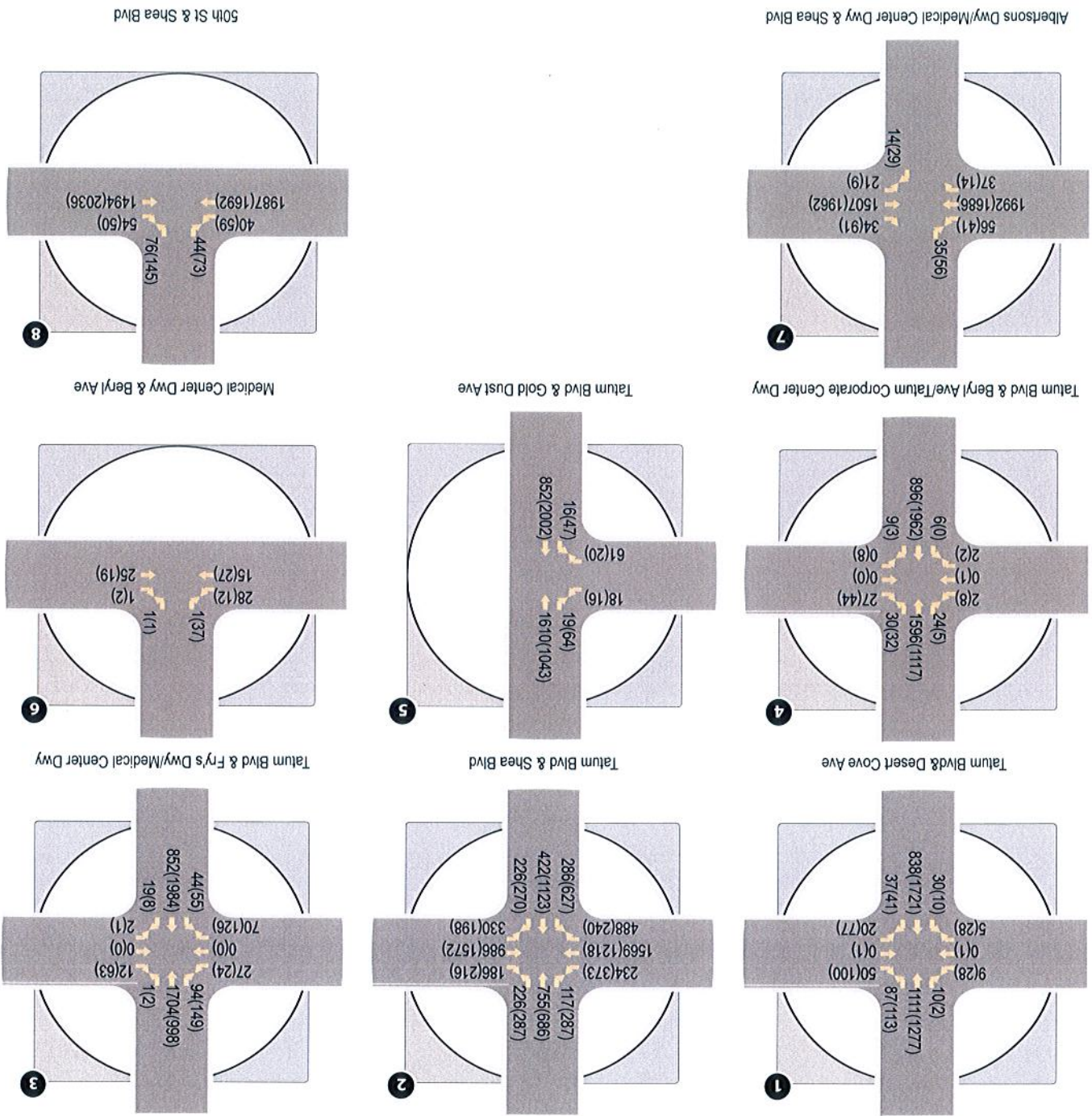
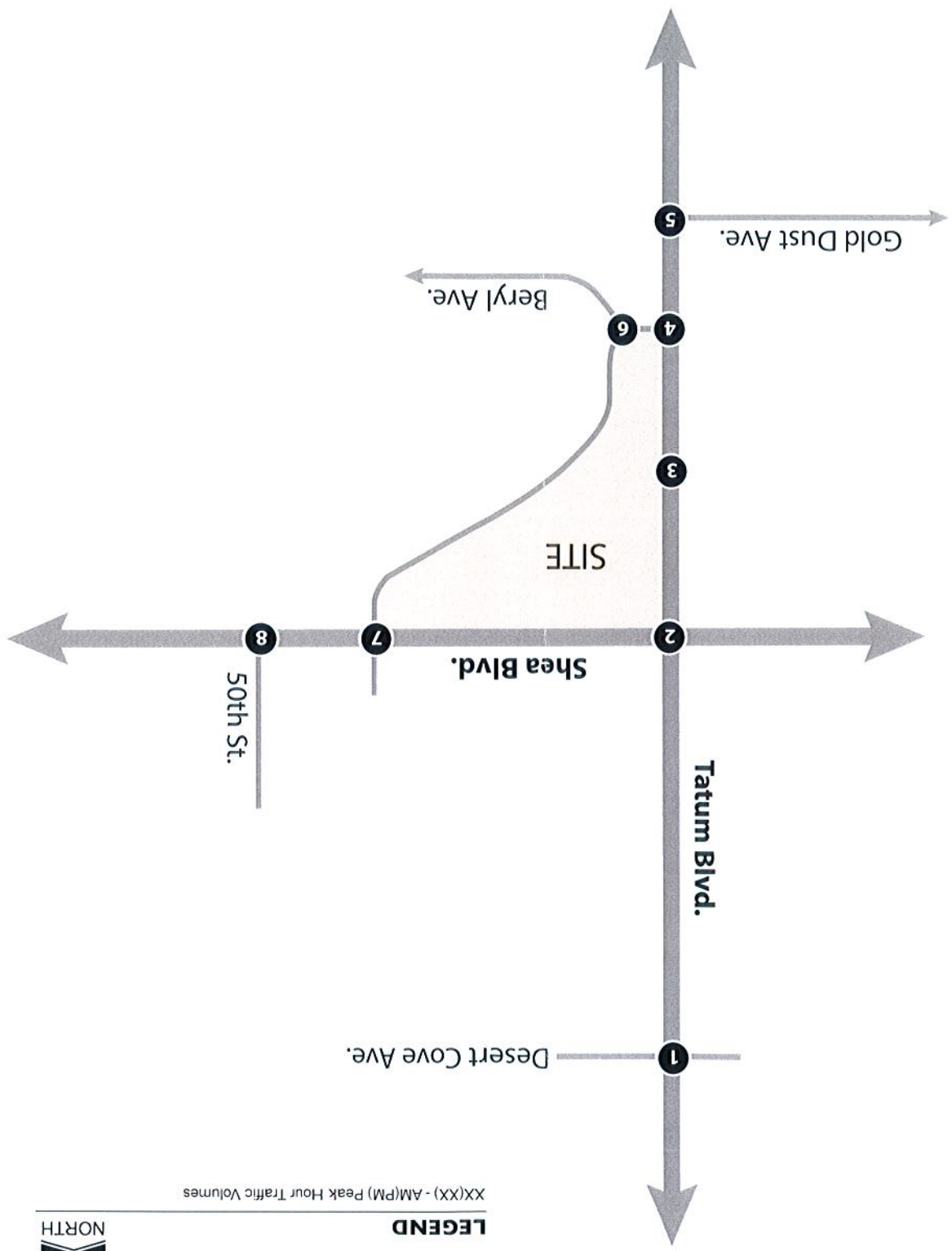




Figure 7: 2024 Background Traffic Volumes

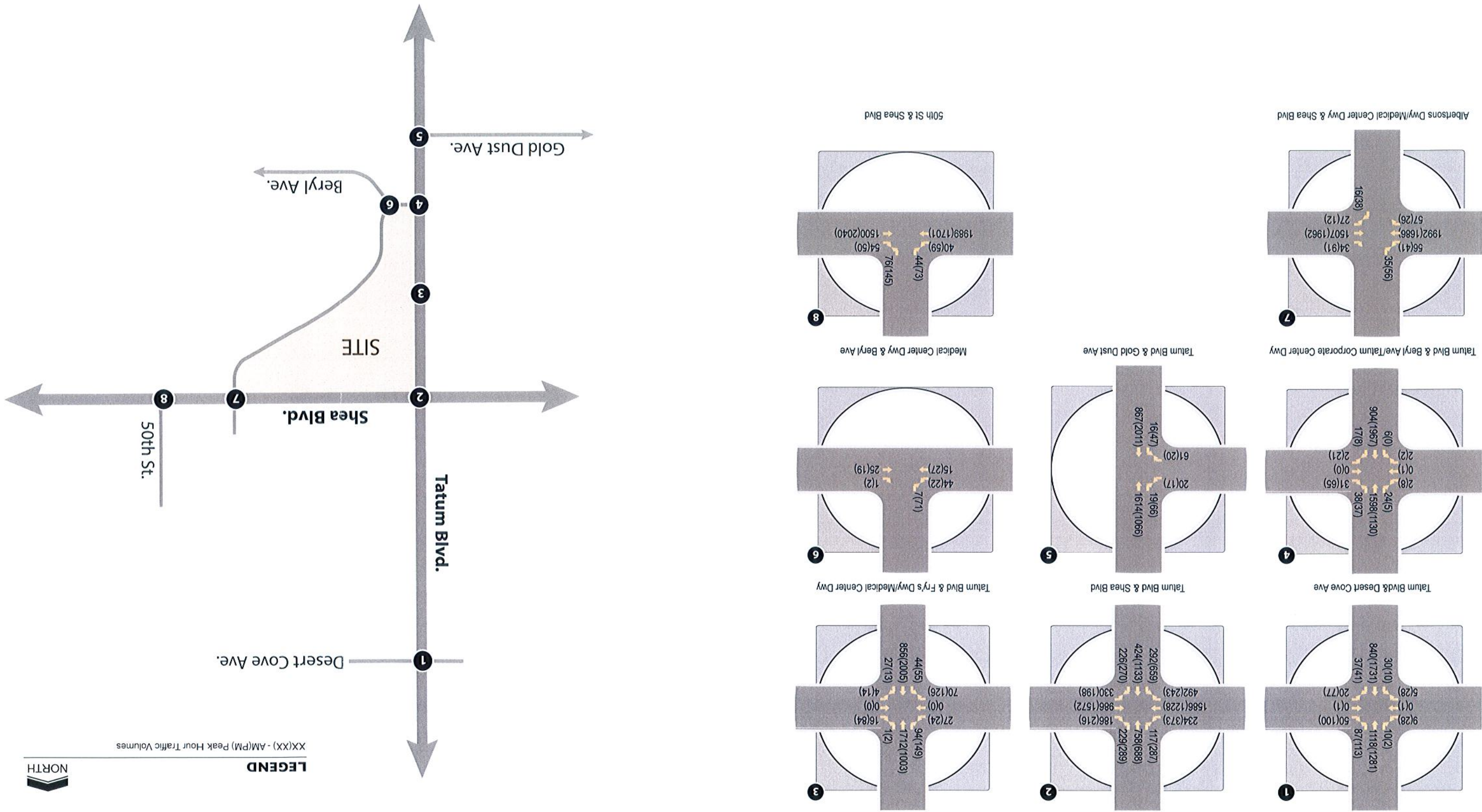


LEGEND
XX(XX) - AM(PM) Peak Hour Traffic Volumes





Figure 8: 2024 Total Traffic Volumes



INTERSECTION CAPACITY ANALYSIS

The overall intersection and approach levels of service are summarized in **Table 5** for the 2024 background and total traffic conditions. Detailed analysis worksheets for 2024 analysis can be found in **Appendix F**.

Table 6 - Peak Hour Levels of Service

ID	Intersection	Stop Control	Approach	2024 AM (PM) LOS	
				No-Build	Build
1	Tatum Blvd. & Desert Cove Ave.	Signal	NB	C(B)	C(B)
			SB	C(B)	C(B)
			EB	B(C)	B(C)
			WB	B(C)	B(C)
			Overall	C(B)	C(B)
2	Tatum Blvd. & Shea Blvd	Signal	NB	E(F)	E(F)
			SB	E(E)	E(E)
			EB	D(E)	E(E)
			WB	D(F)	D(F)
			Overall	D(F)	D(F)
3	Tatum Blvd. & Fry's Dwy. /Medical Center Dwy.	2-way Stop (EB & WB)	NB Shared	B(B)	B(B)
			SB Thru/Right	B(E)	B(E)
			EB Shared	C(B)	C(B)
			WB Shared	B(E)	B(F)
4	Tatum Blvd. & Beryl Ave. /Tatum Corporate Center Dwy.	2-way Stop (EB & WB)	NB Left	B(A)	B(A)
			SB Left	C(F)	C(F)
			EB Shared	C(F)	C(F)
			WB Shared	B(F)	B(F)
5	Tatum Blvd. & Gold Dust Ave.	1-way Stop (EB)	NB Left	B(A)	B(A)
			EB Shared	C(C)	C(C)
6	Medical Center Dwy. & Beryl Ave.	1-way Yield (SB)	SB Right	A(A)	A(A)
			EB Left	A(A)	A(A)
7	Albertson's Dwy. /Medical Center Dwy. & Shea Blvd.	2-way Stop (NB & SB)	EB Left	B(C)	B(C)
			WB Left	B(B)	B(B)
			NB Right	B(B)	B(B)
			SB Right	B(D)	B(D)
8	50 th St. & Shea Blvd.	Signal	SB	C(C)	C(C)
			EB	C(C)	C(C)
			WB	D(F)	D(F)
			Overall	C(E)	C(E)

The results of the proposed conditions analysis summarized in **Table 6** indicates that half of the study intersections operate at overall LOS D or better during the peak hours while the other half do not during one or more peak hours. Nearly all reported LOS with the proposed redevelopment are identical to their respective LOS without the redevelopment.

The intersection of **Tatum Boulevard and Shea Boulevard** continues to operate poorly during the PM peak hour due to high traffic volumes compared to its capacity, particularly the northbound left turn. The delay of the intersection is aggregated with projected future growth. Any potential future mitigation is not considered the responsibility of the developer.

The intersections of **Tatum Boulevard & Fry’s Driveway/Medical Center Driveway** and **Tatum Boulevard & Beryl Avenue/Tatum Corporate Center Driveway** have projected delays in the build and no build scenario. Poor levels of service during peak hours is not uncommon on side street approaches to major arterial roadways. No further restrictions are recommended.

The intersection of **50th Street and Shea Boulevard** has projected delays due to the westbound approach capacity. If the signal does not have pedestrian recall additional time can be allotted to the westbound approach, mitigating the projected delay.

The proposed lane configuration and signal control is illustrated in **Figure 9**.

QUEUING ANALYSIS

Right-Turn Declaration Lanes.

Per *The Town of Paradise Valley Traffic Impact Analysis Criteria, May 2015*, the need for a deceleration lane is determined with criteria. The proposed site conditions must meet a **minimum of three** of the following criteria:

1. At least 5,000 vehicles per day are using or are expected in the near future (five years after the development is build out) to be using the adjacent street.
2. The posted speed limit is 35 mph or the 85th percentile speed limit is greater than 35 mph.
3. At least 1,000 vehicles per day are using or are expected to use the driveways(s) for the development or adjacent developments(s) (existing or future).
4. At least 90 vehicles are expected to make right turns into the driveway(s) for a one-hour period for the development or adjacent developments (existing or future).

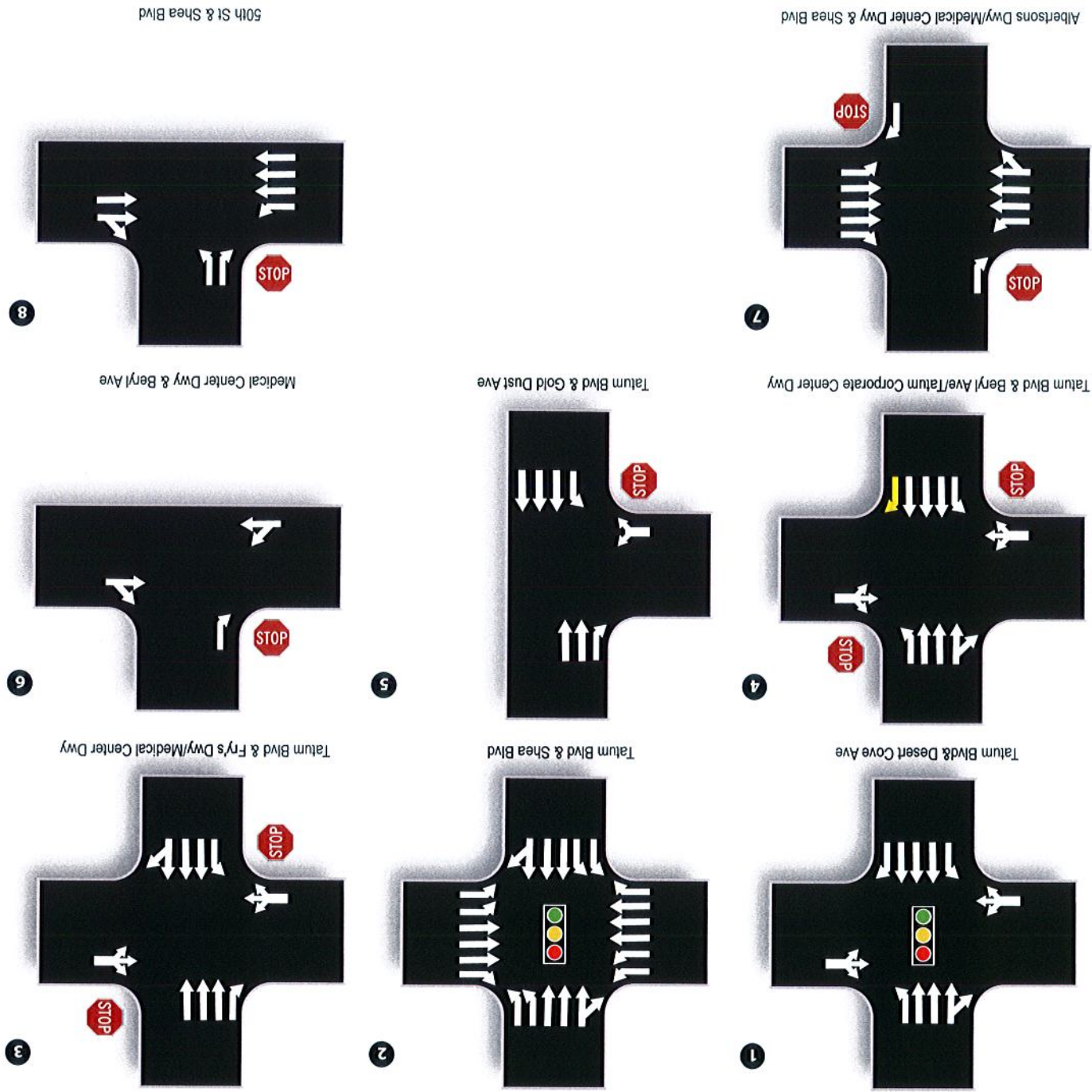
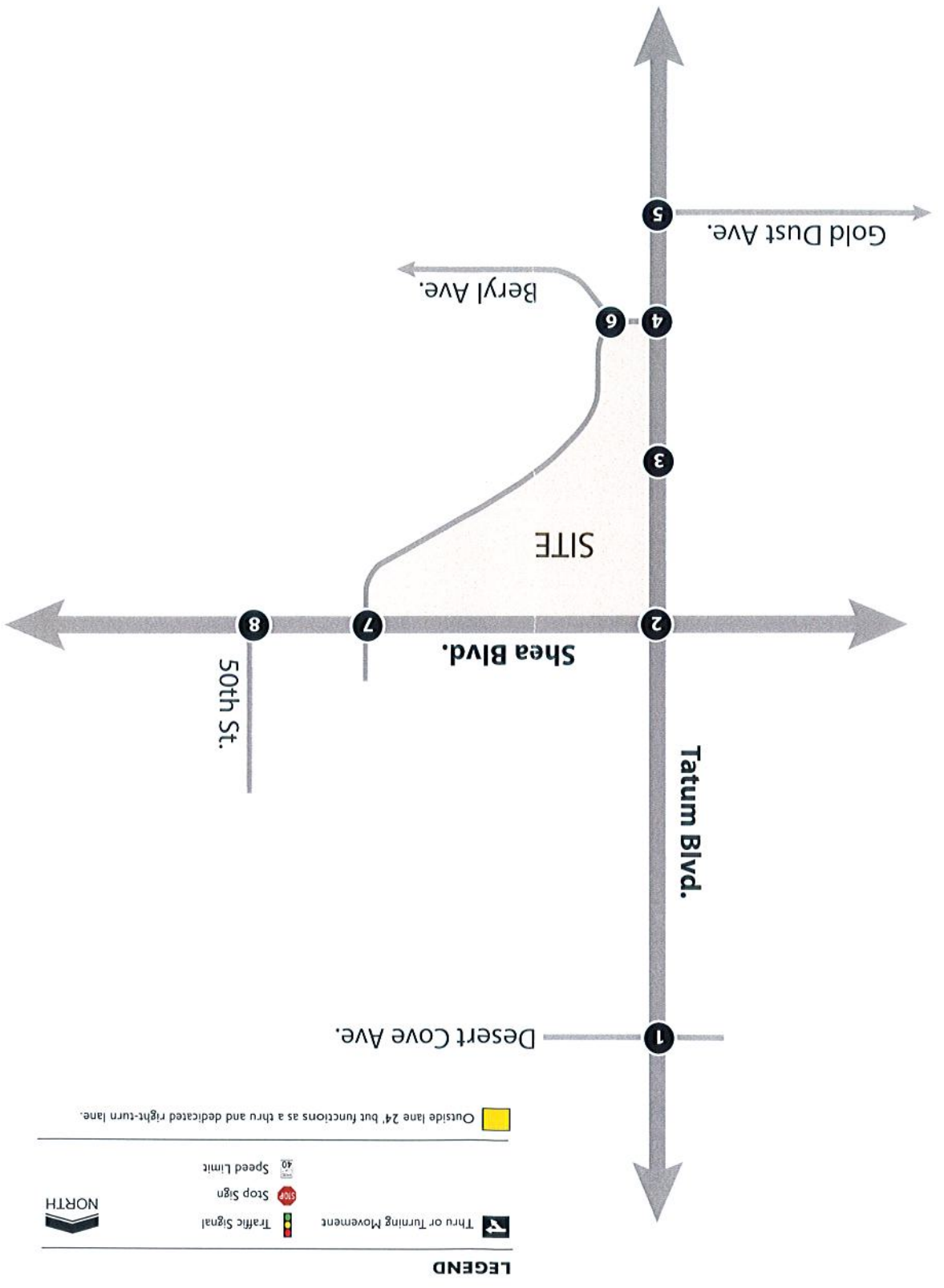
Table 7 - Right-Turn Lane Criteria

Intersection	Peak Period Right-turn Volume AM (PM)	Criteria Met?			
		Criteria 1	Criteria 2	Criteria 3	Criteria 4
Tatum Blvd & Fry’s Dwy/Medical Center Dwy	NB – 27(13)	Yes	Yes	No	No
Tatum Blvd & Beryl Avenue	NB – 17(8)	Yes	Yes	No	No
Albertson’s Dwy/Medical Center Dwy & Shea Blvd	EB – 57(26)	Yes	Yes	No	No

Turn Lane Storage

Adequate turn storage should be supplied on any approach where turn lanes are permitted and/or warranted. A queuing analysis was prepared according to the methodology documented in *AASHTO’s A Policy on Geometric Design of Highways and Streets*. The study intersections were analyzed to determine the left-turn and right-turn storage needed to accommodate the expected traffic volumes in the 2024 horizon year.

Figure 9: Proposed Lane Configurations and Traffic Controls



The storage length for a turn lane is typically estimated as the length required to hold the average number of arriving vehicles per one and one-half minutes, where unsignalized, or per two signal cycles, where signalized.¹ The formulas used for the calculations are shown below, and the resulting turn lane storage requirements for the study intersections are summarized in **Table 8** on the following page. A detailed worksheet is included in **Appendix G**.

For signalized intersections, storage length is determined by the following formula:

$$\text{Storage Length} = [1.5 \times (\text{veh/hr}) / (\text{cycles/hr})] \times 25 \text{ feet}$$

For unsignalized intersections, storage length is determined by the following formula:

$$\text{Storage Length} = [(\text{veh/hr}) / (30 \text{ periods/hr})] \times 25 \text{ feet}$$

Table 8 – Turn Lane Queue Storage

ID	Intersection	Intersection Control	Movement	2024 Queue Storage		
				Existing ⁽¹⁾	AASHTO	Recommended
1	Tatum Blvd. & Desert Cove Ave.	Signal	NB Left	100'	50'	100'
			SB Left	135'	125'	135'
			NB Right	150'	50'	150'
2	Tatum Blvd. & Shea Blvd	Signal	NB Left	190' ⁽²⁾	525' ⁽²⁾	190' ⁽²⁾⁽³⁾⁽⁴⁾⁽⁵⁾
			SB Left	195' ⁽²⁾	225' ⁽²⁾	195' ⁽²⁾⁽³⁾⁽⁴⁾
			EB Left	195' ⁽²⁾	275' ⁽²⁾	195' ⁽²⁾⁽³⁾⁽⁴⁾
			WB Left	275' ⁽²⁾	250' ⁽²⁾	275'
			EB Right	195'	725'	195' ⁽³⁾⁽⁶⁾
			WB Right	245'	325'	245' ⁽³⁾⁽⁶⁾
3	Tatum Blvd. & Fry's Dwy. /Medical Center Dwy.	2-way Stop (EB & WB)	NB Left	105'	50'	105'
			SB Right	150'	125'	150'
4	Tatum Blvd. & Beryl Ave. /Tatum Corporate Center Dwy.	2-way Stop (EB & WB)	NB Left	TWLTL	25'	TWLTL
			SB Left	TWLTL	50'	TWLTL
			SB Right	245'	25'	245'
5	Tatum Blvd. & Gold Dust Ave.	1-way Stop (EB)	NB Left	TWLTL	50'	TWLTL
			SB Right	245'	75'	245'
7	Albertson's Dwy. /Medical Center Dwy. & Shea Blvd.	2-way Stop (NB & SB)	EB Left	115'	50'	115'
			WB Left	195'	50'	195'
			EB Right	155'	100'	155'
8	50 th St. & Shea Blvd.	Signal	EB Left	95'	75'	95'
			SB Right	75'	100'	75'
			SB Left	75'	200'	75'

- (1) Measured from stop bar using Google Earth
- (2) Dual left-turn lanes
- (3) Developer does not propose modifying this lane.
- (4) The width of the dual turn lane allows additional storage within the gap.
- (5) Street is dashed 245' to indicate a queuing lane prior to the solid striped dual turn lanes.
- (6) Storage may be decreased for right turns do to less conflict during green phase and right turn on red.

The development will utilize existing driveways and lane configurations. No changes to existing turn lanes are recommended as part of this development.

¹ The American Association of Highway and Transportation Officials on pages 718-719 of its publication, *Geometric Design of Highways and Streets* ("AASHTO Green Book"), indicates that storage length for a turn lane, exclusive of taper, "should usually be based on one and one-half to two times the average number of vehicles that would store per cycle" at a signalized intersection.

CONCLUSIONS

The following conclusions and recommendations have been documented in this study:

- The redevelopment will be built out in three phases. Phase 1 consists of 18,697 SF medical use. Phase 2 adds 15,821 SF for a total of 34,518. Phase 3 adds 56,800 SF for the total of 91,318 SF.
- The redevelopment is anticipated to add approximately 1,204 daily trips to the roadway network, with 64 additional trips during the AM peak hour and 107 additional trips during the PM peak hour.
- The results of the existing conditions analysis summarized in **Table 2** indicates that all study intersections operate at overall LOS D or better with the exception of Tatum Boulevard & Shea Boulevard, Tatum Boulevard & Beryl Avenue/Tatum Corporate Center Driveway.
 - The intersection of **Tatum Boulevard and Shea Boulevard** is evaluated to operate at LOS E during the PM peak hour. This is due to high traffic volumes compared to its capacity, particularly the northbound left turn.
 - The intersection of **Tatum Boulevard & Beryl Avenue/Tatum Corporate Center Driveway** is evaluated to operate with delays in several movements during the PM peak hour. Poor levels of service during peak hours is not uncommon on side street approaches to major arterial roadways.
- The results of the proposed conditions analysis summarized in **Table 6** indicates that half of the study intersections operate at overall LOS D or better during the peak hours while the other half do not during one or more peak hours. Nearly all reported LOS with the proposed redevelopment are identical to their respective LOS without the redevelopment.
 - The intersection of **Tatum Boulevard and Shea Boulevard** continues to operate poorly during the PM peak hour due to high traffic volumes compared to its capacity, particularly the northbound left turn. The delay of the intersection is aggregated with projected future growth. Any potential future mitigation is not considered the responsibility of the developer.
 - The intersections of **Tatum Boulevard & Fry's Driveway/Medical Center Driveway** and **Tatum Boulevard & Beryl Avenue/Tatum Corporate Center Driveway** have projected delays in the build and no build scenario. Poor levels of service during peak hours is not uncommon on side street approaches to major arterial roadways. No further restrictions are recommended.
 - The intersection of **50th Street and Shea Boulevard** has projected delays due to the westbound approach capacity. If the signal does not have pedestrian recall additional time can be allotted to the westbound approach, mitigating the projected delay.

LIST OF REFERENCES

A Policy on Geometric Design of Highways and Streets, American Association of State Highway and Transportation Officials, Washington, D.C., 2011.

Design and Safety of Pedestrian Facilities, Institute of Transportation Engineers, Washington, D.C., March 1998.

Highway Capacity Manual. Transportation Research Board, National Research Council, Washington, D.C., 2010.

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Trip Generation Manual, 10th Edition, Institute of Transportation Engineers, Washington, D.C., 2016.

Trip Generation Handbook, 3rd Edition, Institute of Transportation Engineers, Washington, D.C., 2016.

Traffic Impact Analysis (TIA) Criteria, Town of Paradise Valley, 2015.

TECHNICAL APPENDIX

- APPENDIX A: REVIEW COMMENTS
- APPENDIX B: EXISTING TRAFFIC COUNTS
- APPENDIX C: EXISTING CAPACITY ANALYSIS
- APPENDIX D: TRIP GENERATION CALCULATIONS
- APPENDIX E: BACKGROUND TRAFFIC CALCULATIONS
- APPENDIX F: PEAK HOUR TRAFFIC ANALYSIS
- APPENDIX G: QUEUE LENGTH ANALYSIS

**REVIEW COMMENTS AND RESPONSES
(RESERVED)**

APPENDIX A

EXISTING TRAFFIC COUNTS

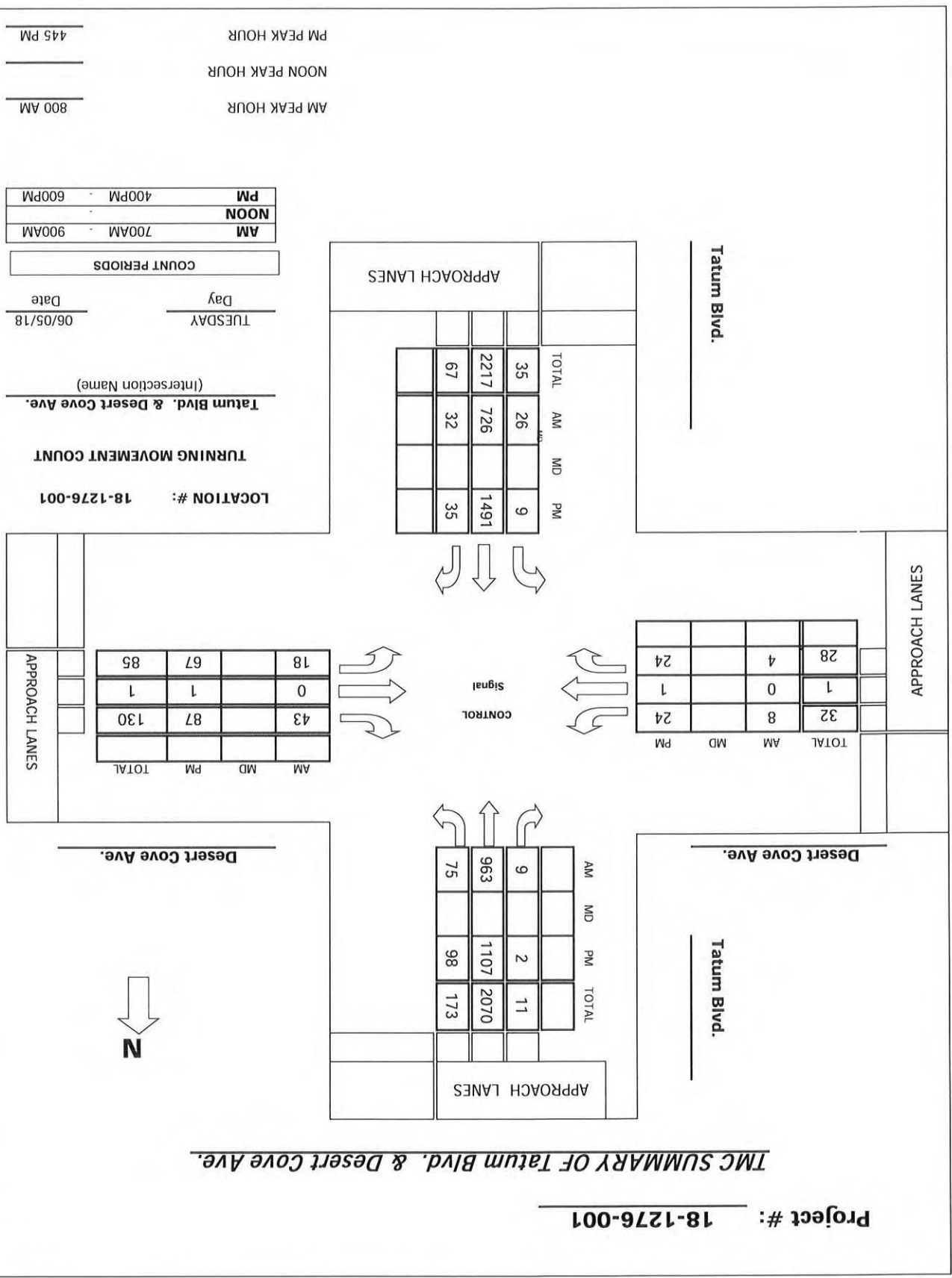
APPENDIX B

Intersection Turning Movement
Prepared by:



Project #: 18-1276-001

TMC SUMMARY OF Tatum Blvd. & Desert Cove Ave.



FIELD DATA SERVICES OF ARIZONA, INC.
520.316.6745

Intersection Turning Movement
Prepared by:



N-S STREET: Tatum Blvd. DATE: 06/05/18 LOCATION: Phoenix
E-W STREET: Desert Cove Ave. DAY: TUESDAY PROJECT #: 18-1276-001

NORTHBOUND		SOUTHBOUND			EASTBOUND			WESTBOUND					
LANES:	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
	1	3	0	1	3	0	0	1	0	0	1	0	

6:00 AM
6:15 AM
6:30 AM
6:45 AM
7:00 AM
7:15 AM
7:30 AM
7:45 AM
8:00 AM
8:15 AM
8:30 AM
8:45 AM
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9:45 AM
10:00 AM
10:15 AM
10:30 AM
10:45 AM
11:00 AM
11:15 AM
11:30 AM
11:45 AM

5	114	4	271	3	0	0	0	0	0	0	7	0	9
3	124	3	319	4	0	0	0	1	0	0	4	0	2
7	152	2	293	4	0	0	0	3	0	0	2	1	9
5	146	8	251	2	0	0	0	0	0	0	3	0	7
5	146	8	251	2	0	0	0	0	0	0	3	0	7
5	158	14	267	2	1	1	0	0	0	1	5	0	10
4	177	5	247	4	0	0	0	0	0	4	0	0	8
8	194	7	252	1	3	3	0	0	3	4	0	0	12
9	197	6	197	2	4	4	0	0	0	5	0	0	13
9	451												

TOTAL	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
46	1262	49	115	2097	22	8	1	1	7	34	1	70	3712
3.39	93.00	3.61	5.15	93.87	0.98	50.00	6.25	43.75	32.38	0.95	66.67		
1357	/	1340	2234	/	2138	16	/	165	105	/	69		

AM Peak Hr Begins at: 800 AM

PEAK VOLUMES	PEAK APPROACH %	PEAK HR. FACTOR:
26 726 32 75 963 9 8 0 4 18 0 43 1904	3.32 92.60 4.08 7.16 91.98 0.86 66.67 0.00 33.33 29.51 0.00 70.49	0.925 0.928 0.500 0.847 0.941

CONTROL: Signal
COMMENT 1: GPS: 33.586296, -111.977893

Intersection Turning Movement



N-S STREET: Tatum Blvd. DATE: 06/05/18 LOCATION: Phoenix
 E-W STREET: Desert Cove Ave. DAY: TUESDAY PROJECT#: 18-1276-001

		NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND		
LANES:		NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR
TOTAL		1	3	0	1	3	0	0	1	0	0	1	0

Time	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR
1:00 PM	6	356	7	22	249	3	4	0	4	8	1	24
1:15 PM	0	326	4	25	245	2	7	0	0	14	0	17
1:30 PM	0	321	12	18	238	0	6	0	3	19	0	25
1:45 PM	6	356	10	29	325	1	10	0	13	22	1	23
2:00 PM	0	397	9	21	278	1	6	0	7	19	0	25
2:15 PM	2	381	8	23	267	0	5	1	3	14	0	21
2:30 PM	1	357	8	25	237	0	3	0	1	12	0	18
2:45 PM	1	274	6	25	190	0	2	0	3	7	0	22
3:00 PM	1	357	8	25	237	0	3	0	1	12	0	18
3:15 PM	2	381	8	23	267	0	5	1	3	14	0	21
3:30 PM	0	397	9	21	278	1	6	0	7	19	0	25
3:45 PM	6	356	10	29	325	1	10	0	13	22	1	23
4:00 PM	5	321	12	18	238	0	6	0	3	19	0	25
4:15 PM	6	326	4	25	245	2	7	0	1	14	0	17
4:30 PM	0	321	12	18	238	0	6	0	3	19	0	25
4:45 PM	6	356	10	29	325	1	10	0	13	22	1	23
5:00 PM	0	397	9	21	278	1	6	0	7	19	0	25
5:15 PM	2	381	8	23	267	0	5	1	3	14	0	21
5:30 PM	1	357	8	25	237	0	3	0	1	12	0	18
5:45 PM	1	274	6	25	190	0	2	0	3	7	0	22
6:00 PM	1	357	8	25	237	0	3	0	1	12	0	18
6:15 PM	2	381	8	23	267	0	5	1	3	14	0	21
6:30 PM	0	397	9	21	278	1	6	0	7	19	0	25
6:45 PM	6	356	10	29	325	1	10	0	13	22	1	23

TOTAL	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
21	2768	64	188	2029	7	43	1	35	115	2	175	5448	
0.74	97.02	2.24	8.45	91.23	0.31	54.43	1.27	44.30	39.38	0.68	59.93	5448	
2853	/	2986	2224	/	2179	79	/	253	292	/	30		
App/Depart													
Volumes	2768	64	188	2029	7	43	1	35	115	2	175	5448	
Approach %	97.02	2.24	8.45	91.23	0.31	54.43	1.27	44.30	39.38	0.68	59.93	5448	

PM Peak Hr Begins at: 445 PM

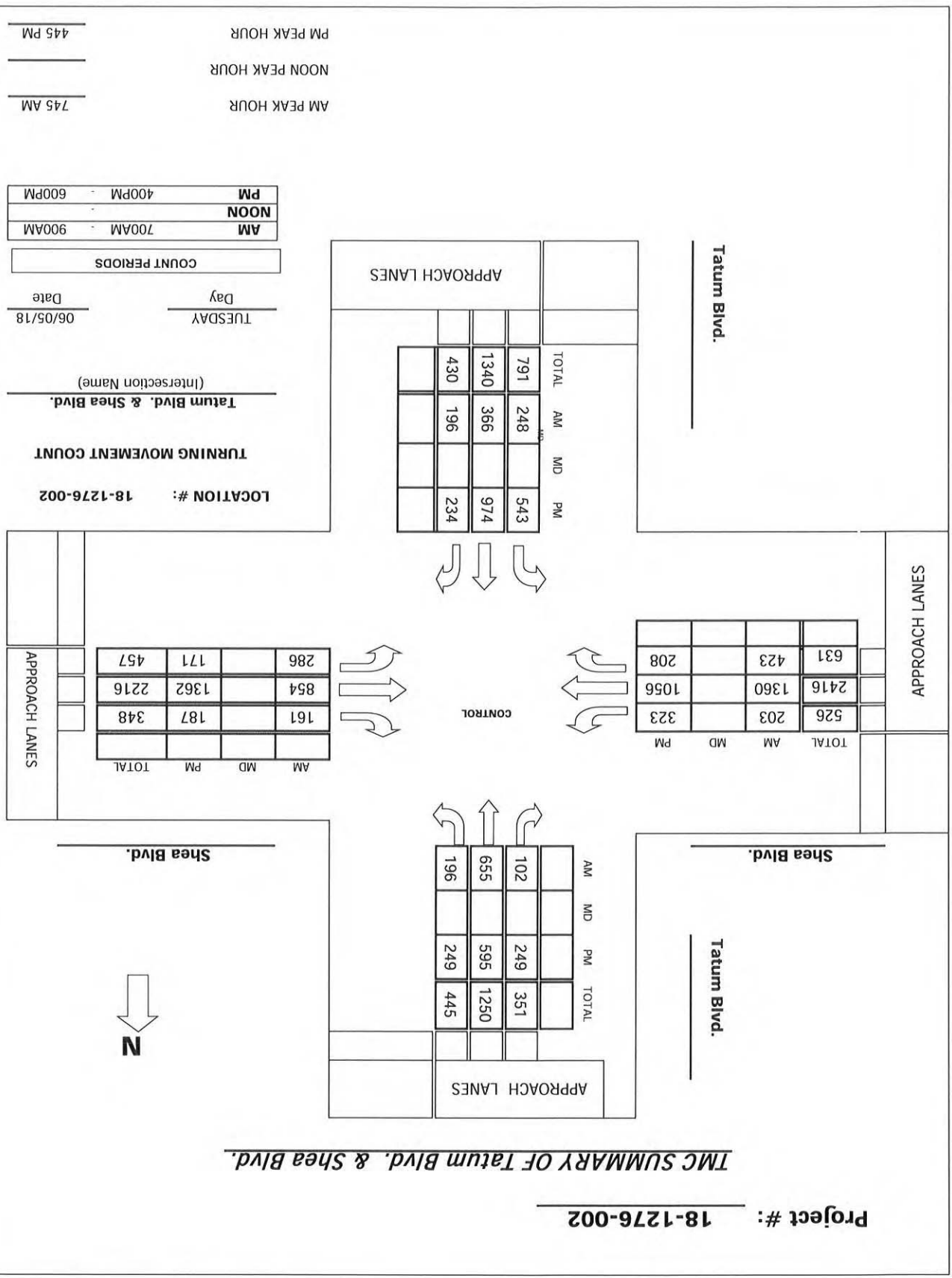
PEAK Volumes	9	1491	35	98	1107	2	24	1	24	67	1	87	2946
Approach %	0.59	97.13	2.28	8.12	91.71	0.17	48.98	2.04	48.98	43.23	0.65	56.13	2946

PEAK HR. FACTOR:	0.945	0.850	0.533	0.842	0.925
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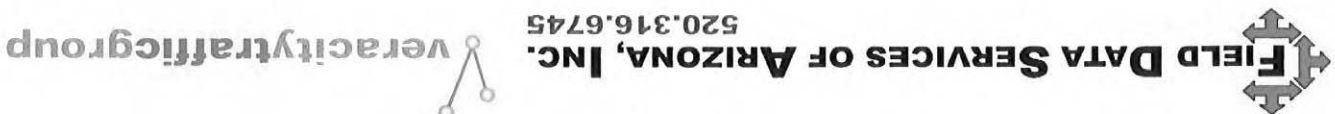
CONTROL: Signal
 COMMENT 1: 0
 GPS: 33.586296, -111.977893

Project #: **18-1276-002**

TMC SUMMARY OF Tatum Blvd. & Shea Blvd.



Intersection Turning Movement
Prepared by:



N-S STREET: Tatum Blvd.

DATE: 06/05/18

LOCATION: Phoenix

E-W STREET: Shea Blvd.

DAY: TUESDAY

PROJECT # 18-1276-002

NORTHBOUND		SOUTHBOUND			EASTBOUND			WESTBOUND					
LANES:	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
	2	3	0	2	3	0	2	3	1	2	3	1	

6:00 AM
6:15 AM
6:30 AM
6:45 AM
7:00 AM
7:15 AM
7:30 AM
7:45 AM
8:00 AM
8:15 AM
8:30 AM
8:45 AM
9:00 AM
9:15 AM
9:30 AM
9:45 AM
10:00 AM
10:15 AM
10:30 AM
10:45 AM
11:00 AM
11:15 AM
11:30 AM
11:45 AM

TOTAL	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
463	718	385	403	1347	206	387	2554	831	564	1623	296	9777	
29.57	45.85	24.58	20.60	68.87	10.53	10.26	67.71	22.03	22.71	65.36	11.92		
1566	/	1401	1956	/	2742	3772	/	3342	2483	/	2292		
App/Depart													

AM Peak Hr Begins at: 745 AM

PEAK VOLUMES	PEAK APPROACH %	PEAK HR. FACTOR:	SIGNAL	CONTROL:	COMMENT 1:	GPS:
248	30.62	0.858	33.582677, -111.977906			
366	45.19	0.854				
196	20.57	0.968				
196	24.20	0.894				
196	20.57	0.951				
102	10.70					
102	10.70					
203	10.22					
1360	68.48					
423	21.30					
286	21.98					
854	65.64					
161	12.38					
5050						

Intersection Turning Movement



FIELD DATA SERVICES OF ARIZONA, INC.
 520.316.6745
 veracitytrafficgroup

N-S STREET: Tatum Blvd. 0

DATE: 06/05/18

LOCATION: Phoenix

E-W STREET: Shea Blvd. 0

DAY: TUESDAY

PROJECT # 18-1276-002

LANES:												
NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND
NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
2	3	0	2	3	0	2	3	1	2	3	1	

TOTAL	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
1438	130	208	52	54	139	46	69	216	47	63	336	78	1438
1385	113	197	55	53	138	46	72	267	50	44	302	48	1385
1450	117	210	46	48	133	57	81	280	35	40	340	63	1450
1488	134	210	52	64	165	66	86	245	51	39	321	55	1488
1619	140	272	72	74	154	65	69	282	53	44	356	38	1619
1544	147	249	53	59	148	60	81	265	59	47	344	32	1544
1500	122	243	57	52	128	58	87	264	45	41	341	62	1500
6:00 PM	98	161	52	51	101	34	81	226	40	43	277	50	1214
6:15 PM													
6:30 PM													
6:45 PM													

TOTAL	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
11638	1001	1750	439	455	1106	432	626	2045	380	361	2617	426	11638
	31.38	54.86	13.76	22.83	55.49	21.68	20.52	67.03	12.45	10.61	76.88	12.51	
	3190	/	2802	1993	/	1847	3051	/	2939	3404	/	4050	

PM Peak Hr Begins at: 445 PM

PEAK VOLUMES	APPROACH %	PEAK HR. FACTOR:
543 974 234 249 595 249 22.78 54.44 22.78	31.01 55.63 13.36	0.904 0.926 0.980 0.968 0.950
543 974 234 249 595 249 22.78 54.44 22.78	31.01 55.63 13.36	0.904 0.926 0.980 0.968 0.950
6151	187 10.87	

CONTROL: Signal
 COMMENT 1: 0
 GPS: 33.582677, -111.977906

Intersection Turning Movement
Prepared by:



N-S STREET: Tatum Blvd. DATE: 6/6/18 LOCATION: Phoenix
 E-W STREET: Fry's Driveway North DAY: WEDNESDAY PROJECT # 18-1276-003

		NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND		
LANES:		NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR
TOTAL		1	3	0	0	3	1	0	1	0	0	1	0

		NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR
6:00 AM		5	138	4	0	345	10	3	0	15	0	0	2
6:15 AM		11	186	2	0	404	15	4	0	15	0	0	0
6:30 AM		8	199	5	0	364	22	9	0	2	0	0	3
6:45 AM		6	158	6	0	347	23	4	0	17	1	0	2
7:00 AM	522	11	186	2	0	404	15	4	0	15	0	0	0
7:15 AM	637	11	186	2	0	404	15	4	0	15	0	0	0
7:30 AM	612	8	199	5	0	364	22	9	0	2	0	0	3
7:45 AM	564	6	158	6	0	347	23	4	0	17	1	0	2
8:00 AM	637	13	196	4	1	362	21	6	0	27	1	0	6
8:15 AM	559	10	201	2	3	281	18	11	1	24	1	1	6
8:30 AM	597	11	209	5	1	320	19	8	0	17	3	0	4
8:45 AM	521	7	225	5	1	228	25	4	0	16	1	0	9
9:00 AM													
9:15 AM													
9:30 AM													
9:45 AM													
10:00 AM													
10:15 AM													
10:30 AM													
10:45 AM													
11:00 AM													
11:15 AM													
11:30 AM													
11:45 AM													

TOTAL	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
4649	71	1512	33	6	2651	153	49	1	133	7	1	32	4649
	4.39	93.56	2.04	0.21	94.34	5.44	26.78	0.55	72.68	17.50	2.50	80.00	
	1616	/	1593	2810	/	2791	183	/	40	40	/	225	

AM Peak Hr Begins at: 7:15 AM

PEAK Volumes	38	739	17	1	1477	81	23	0	61	2	0	11	2450
Approach %	4.79	93.07	2.14	0.06	94.74	5.20	27.38	0.00	72.62	15.38	0.00	84.62	
PEAK HR. FACTOR:	0.932			0.930			0.636		0.464			0.962	

CONTROL: 2-Way Stop (EB-WB)
 COMMENT 1:
 GPS: 33.581381, -111.977890

Intersection Turning Movement



FIELD DATA SERVICES OF ARIZONA, INC.
520.316.6745
veracitytrafficgroup

N-S STREET: Tatum Blvd. DATE: 6/6/18 LOCATION: Phoenix

E-W STREET: Fry's Driveway North DAY: WEDNESDAY PROJECT # 18-1276-003

NORTHBOUND		SOUTHBOUND			EASTBOUND			WESTBOUND				
NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
1	3	0	0	3	1	0	1	0	0	1	0	TOTAL
LANES:												

1:00 PM
1:15 PM
1:30 PM
1:45 PM
2:00 PM
2:15 PM
2:30 PM
2:45 PM
3:00 PM
3:15 PM
3:30 PM
3:45 PM
4:00 PM
4:15 PM
4:30 PM
4:45 PM
5:00 PM
5:15 PM
5:30 PM
5:45 PM
6:00 PM
6:15 PM
6:30 PM
6:45 PM

TOTAL	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
92	3136	18	4	1648	276	43	0	0	206	4	0	89	5516
2.83	96.61	0.55	0.21	85.48	14.32	17.27	0.00	82.73	4.30	0.00	95.70		
3246	/	3268	1928	/	1858	249	/	22	93	/	368		
App/Depart													
Volumes													
Approach %													

PM Peak Hr Begins at: 445 PM

PEAK Volumes	48	1719	7	2	865	129	21	0	110	1	0	55	2957
Approach %	2.71	96.90	0.39	0.20	86.85	12.95	16.03	0.00	83.97	1.79	0.00	98.21	
PEAK HR:	0.880	0.922	0.885	0.667	0.912								
CONTROL: 2-Way Stop (EB-WB)													
COMMENT 1: 0													
GPS: 33.581381, -111.977890													

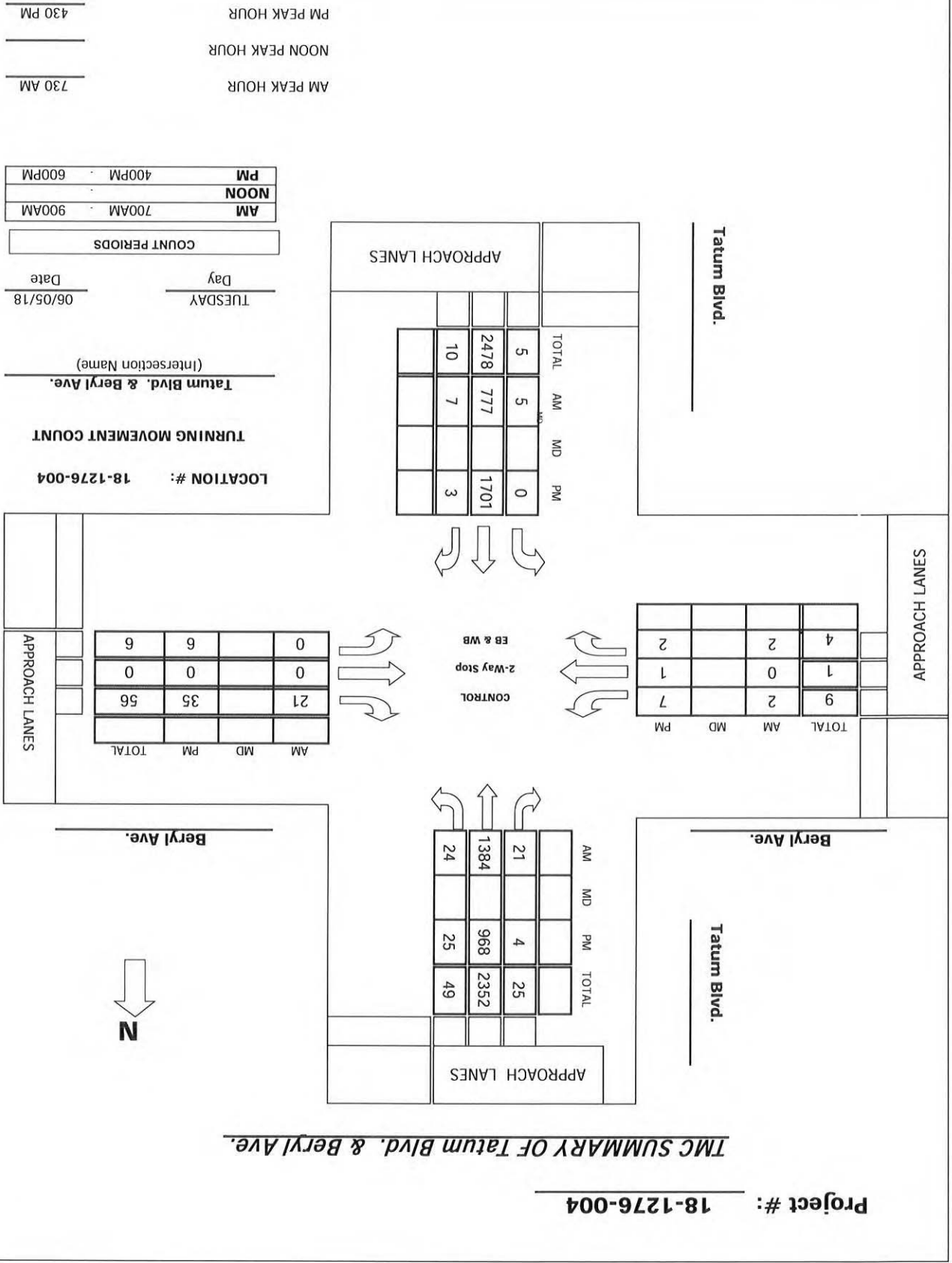
Intersection Turning Movement
Prepared by:



520.316.6745

TMC SUMMARY OF Tatum Blvd. & Beryl Ave.

Project #: 18-1276-004



Intersection Turning Movement
Prepared by:



N-S STREET: Tatum Blvd.

DATE: 06/05/18

LOCATION: Phoenix

E-W STREET: Beryl Ave.

DAY: TUESDAY

PROJECT # 18-1276-004

NORTHBOUND		EASTBOUND				WESTBOUND							
LANES:	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
	0	3	0	0	3	0	0	1	0	0	1	0	

6:00 AM
6:15 AM
6:30 AM
6:45 AM
7:00 AM
7:15 AM
7:30 AM
7:45 AM
8:00 AM
8:15 AM
8:30 AM
8:45 AM
9:00 AM
9:15 AM
9:30 AM
9:45 AM
10:00 AM
10:15 AM
10:30 AM
10:45 AM
11:00 AM
11:15 AM
11:30 AM
11:45 AM

TOTAL	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
519	0	173	1	4	334	2	0	0	0	2	0	3	519
530	0	177	2	5	336	1	0	0	0	5	0	4	530
594	1	191	1	8	382	5	1	0	0	1	0	4	594
564	3	188	3	4	358	4	0	0	0	0	0	4	564
551	1	196	2	10	332	4	1	0	0	0	0	5	551
534	0	202	1	2	312	8	0	0	0	1	0	8	534
509	0	216	1	7	270	5	2	0	0	1	0	6	509
486	0	208	1	9	258	5	1	0	0	0	0	4	486

AM Peak Hr Begins at: 730 AM

PEAK Volumes	5	777	7	24	1384	21	2	0	2	50.00	0.00	0	2	50.00	0.00	0	21	2243
Approach %	0.63	98.48	0.89	1.68	96.85	1.47	50.00	0.00	50.00	0.00	0.00	0.00	100.00	0.00	0.00	0	21	2243

PEAK HR. FACTOR: 0.972 | 0.904 | 0.500 | 0.656 | 0.944

CONTROL: 2-Way Stop (EB & WB)

COMMENT 1:

GPS: 33.580026, -111.977876

Intersection Turning Movement



FIELD DATA SERVICES OF ARIZONA, INC.
520.316.6745



N-S STREET: Tatum Blvd.

DATE: 06/05/18

LOCATION: Phoenix

E-W STREET: Beryl Ave.

DAY: TUESDAY

PROJECT # 18-1276-004

NORTHBOUND		SOUTHBOUND		EASTBOUND		WESTBOUND						
NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
0	3	0	0	3	0	0	1	0	0	1	0	
LANES:												

1:00 PM
1:15 PM
1:30 PM
1:45 PM
2:00 PM
2:15 PM
2:30 PM
2:45 PM
3:00 PM
3:15 PM
3:30 PM
3:45 PM
4:00 PM
4:15 PM
4:30 PM
4:45 PM
5:00 PM
5:15 PM
5:30 PM
5:45 PM
6:00 PM
6:15 PM
6:30 PM
6:45 PM

0	368	0	7	248	1	2	0	0	0	0	3	629
0	378	1	6	229	1	2	0	0	3	0	13	634
0	403	2	8	241	1	1	0	0	2	0	10	668
0	388	0	5	254	2	4	0	0	1	0	8	663
0	479	1	10	251	0	1	1	0	1	0	9	753
0	431	0	2	222	1	1	0	0	2	0	8	668
0	347	0	3	216	0	0	0	1	2	0	4	573
0	264	0	3	192	0	3	0	0	0	0	3	465

TOTAL												
NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
0	3058	4	44	1853	6	14	1	4	11	0	58	5053
0.00	99.87	0.13	2.31	97.37	0.32	73.68	5.26	21.05	15.94	0.00	84.06	
3062	/	3130	/	1903	/	1868	/	19	49	69	/	6
App/Depart												
Approach %												
Volumes												

PM Peak Hr Begins at: 4:30 PM

PEAK	Volumes	Approach %
0	1701	0.00
3	99.82	0.18
25	2.51	97.09
4	0.40	70.00
7	10.00	20.00
1	6	14.63
2	0	0.00
6	35	85.37
2752		

PEAK HR.	FACTOR:
0.888	0.955
0.500	0.854
0.914	

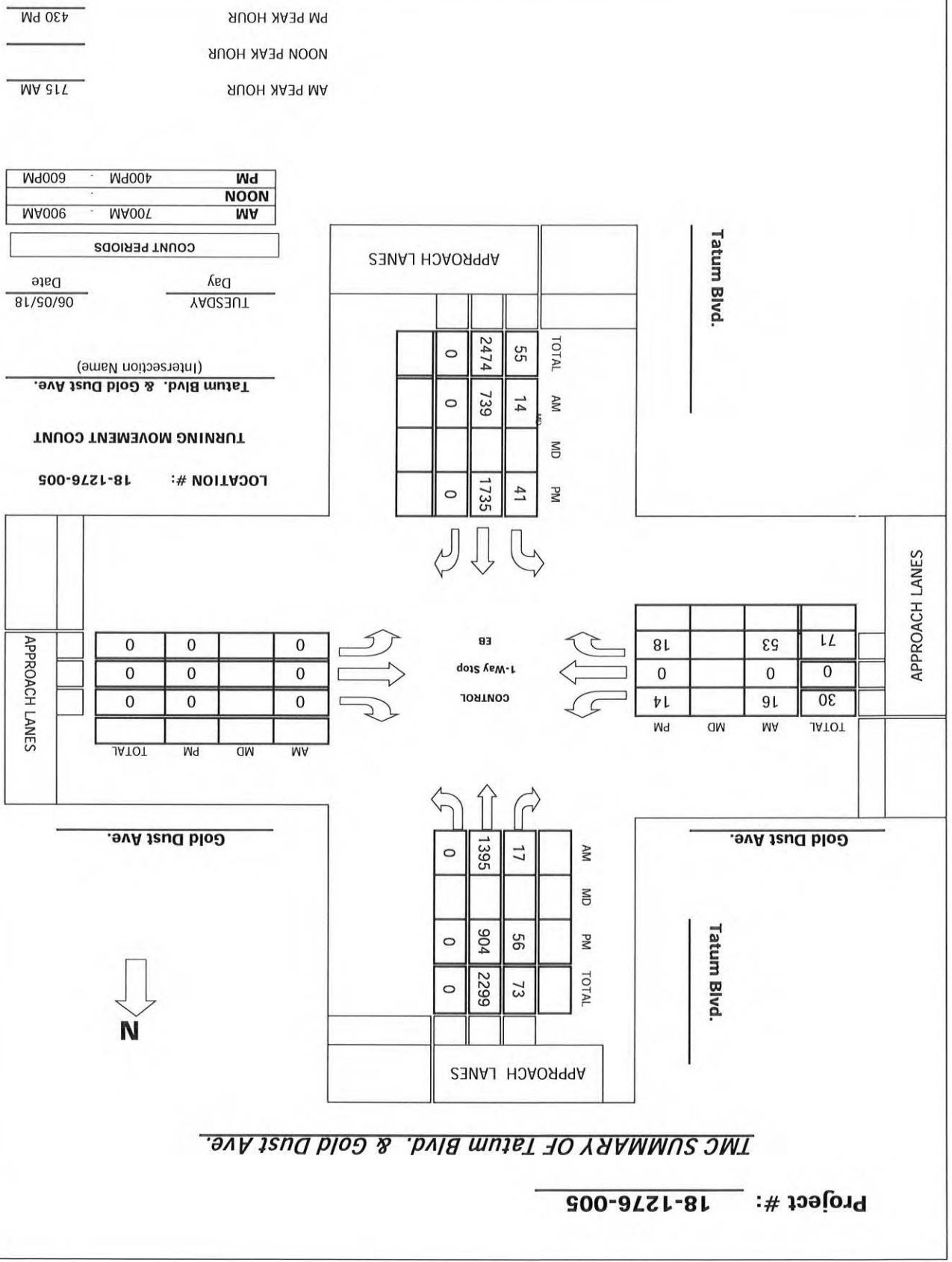
CONTROL: 2-Way Stop (EB & WB)

COMMENT 1: 0

GPS: 33.580026, -111.977876

TMC SUMMARY OF Tatum Blvd. & Gold Dust Ave.

Project #: **18-1276-005**



Intersection Turning Movement
Prepared by:



N-S STREET: Tatum Blvd. DATE: 06/05/18

E-W STREET: Gold Dust Ave. DAY: TUESDAY

LOCATION: Phoenix

PROJECT # 18-1276-005

NORTHBOUND SOUTHBOUND EASTBOUND WESTBOUND

LANES:	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
	0	3	0	0	2	1	0	1	0	0	0	0	

6:00 AM
6:15 AM
6:30 AM
6:45 AM
7:00 AM
7:15 AM
7:30 AM
7:45 AM
8:00 AM
8:15 AM
8:30 AM
8:45 AM
9:00 AM
9:15 AM
9:30 AM
9:45 AM
10:00 AM
10:15 AM
10:30 AM
10:45 AM
11:00 AM
11:15 AM
11:30 AM
11:45 AM

524	2	169	0	0	327	9	3	0	14	0	0	0	524
530	4	171	0	0	336	2	5	0	12	0	0	0	530
595	4	189	0	0	378	5	4	0	15	0	0	0	595
567	2	188	0	0	354	4	4	0	15	0	0	0	567
542	4	191	0	0	327	6	3	0	11	0	0	0	542
525	4	198	0	0	306	4	6	0	7	0	0	0	525
503	7	212	0	0	253	12	7	0	12	0	0	0	503
462	5	198	0	0	238	9	8	0	4	0	0	0	462

TOTAL	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
4248	32	1516	0	0	2519	51	40	0	90	0	0	0	4248
	2.07	97.93	0.00	0.00	98.02	1.98	30.77	0.00	69.23	###	###	###	
	1548	/	1556	2570	/	2609	130	/	0	0	/	83	

AM Peak Hr Begins at: 715 AM

PEAK Volumes	14	739	0	0	1395	17	16	0	53	0	0	0	2234
Approach %	1.86	98.14	0.00	0.00	98.80	1.20	23.19	0.00	76.81	###	###	###	

PEAK HR FACTOR:	0.965	0.922	0.908	0.000	0.939								
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CONTROL: 1-Way Stop (EB)

COMMENT 1:

GPS: 33.579076, -111.977859

Intersection Turning Movement



FIELD DATA SERVICES OF ARIZONA, INC.
 520.316.6745
 veracitytrafficgroup

N-S STREET: Tatum Blvd. DATE: 06/05/18 LOCATION: Phoenix

E-W STREET: Gold Dust Ave. 0

DAY: TUESDAY

PROJECT # 18-1276-005

NORTHBOUND		SOUTHBOUND		EASTBOUND		WESTBOUND						
NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
0	3	0	0	2	1	0	1	0	0	0	0	0
LANES:												

TOTAL	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
8	380	0	0	235	4	1	0	0	0	0	0	0	628
6	388	0	0	220	18	1	0	0	2	0	0	0	635
5	407	0	0	221	13	2	0	0	4	0	0	0	652
8	380	0	0	244	10	3	0	0	3	0	0	0	648
14	494	0	0	238	17	4	0	0	5	0	0	0	772
14	454	0	0	201	16	5	0	0	6	0	0	0	696
7	357	0	0	205	12	1	0	0	1	0	0	0	583
7	270	0	0	185	11	1	0	0	1	0	0	0	475
6:45 PM													
6:30 PM													
6:15 PM													
6:00 PM													
5:45 PM													
5:30 PM													
5:15 PM													
5:00 PM													
4:45 PM													
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3:00 PM													
2:45 PM													
2:30 PM													
2:15 PM													
2:00 PM													
1:45 PM													
1:30 PM													
1:15 PM													
1:00 PM													

TOTAL	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
69	3130	0	0	1749	101	18	0	0	22	0	0	0	5089
2.16	97.84	0.00	0.00	94.54	5.46	45.00	0.00	55.00	###	###	###	###	###
3199	/	3148	/	1850	/	1771	/	40	/	0	/	170	
App/Depart													

PM Peak Hr Begins at: 4:30 PM

PEAK	Volumes	Approach %	PEAK HR.	FACTOR:
41	1735	2.31	0.874	
0	97.69	0.00	0.941	
0	94.17	5.83	0.727	
56	43.75	0.00	0.000	
14	56.25	###	0.896	
0	0	###		
0	0	###		
0	0	###		
18	2768	###		

CONTROL: 1-Way Stop (EB)
 COMMENT 1: 0
 GPS: 33.579076, -111.977859

Intersection Turning Movement
Prepared by:



FIELD DATA SERVICES OF ARIZONA, INC.
 520.316.6745



N-S STREET: Medical Center Driveway

DATE: 06/05/18

LOCATION: Phoenix

E-W STREET: Beryl Ave.

DAY: TUESDAY

PROJECT # 18-1276-006

LANES: NL NT NR SL ST SR EL ET ER WL WT WR TOTAL

NORTHBOUND

SOUTHBOUND

EASTBOUND

WESTBOUND

6:00 AM
6:15 AM
6:30 AM
6:45 AM
7:00 AM
7:15 AM
7:30 AM
7:45 AM
8:00 AM
8:15 AM
8:30 AM
8:45 AM
9:00 AM
9:15 AM
9:30 AM
9:45 AM
10:00 AM
10:15 AM
10:30 AM
10:45 AM
11:00 AM
11:15 AM
11:30 AM
11:45 AM

TOTAL	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
Volumes	0	0	0	1	0	3	35	27	0	0	42	2	110
Approach %	###	###	###	25.00	0.00	75.00	56.45	43.55	0.00	0.00	95.45	4.55	
App/Depart	0	/	37	4	/	0	62	/	28	44	/	45	

AM Peak Hr Begins at: 800 AM

PEAK Volumes % | 0 | 0 | 0 | 1 | 0 | 1 | 22 | 13 | 0 | 0 | 22 | 1 | 60

PEAK HR. FACTOR: | 0.000 | | 0.500 | | 0.729 | | 0.719 | | 0.833 |

CONTROL: No Controls

COMMENT 1:

33.580032, -111.977364

GPS:

Intersection Turning Movement



FIELD DATA SERVICES OF ARIZONA, INC.
 520.316.6745
 veracitytrafficgroup

N-S STREET: Medical Center Driveway

DATE: 06/05/18

LOCATION: Phoenix

E-W STREET: Beryl Ave.

PROJECT # 18-1276-006

NORTHBOUND

SOUTHBOUND

EASTBOUND

WESTBOUND

LANES: NL NT NR SL ST SR EL ET ER WL WT WR TOTAL

1:00 PM
 1:15 PM
 1:30 PM
 1:45 PM
 2:00 PM
 2:15 PM
 2:30 PM
 2:45 PM
 3:00 PM
 3:15 PM
 3:30 PM
 3:45 PM
 4:00 PM
 4:15 PM
 4:30 PM
 4:45 PM
 5:00 PM
 5:15 PM
 5:30 PM
 5:45 PM
 6:00 PM
 6:15 PM
 6:30 PM
 6:45 PM

TOTAL	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
0	0	0	0	0	0	0	2	5	0	0	3	0	11
0	0	0	0	0	0	0	1	6	0	0	5	1	22
0	0	0	0	0	0	0	3	6	0	0	6	1	23
0	0	0	1	0	0	7	2	4	0	0	2	0	16
0	0	0	0	0	0	4	4	7	0	0	4	0	21
0	0	0	0	0	0	0	4	4	0	0	5	1	15
0	0	0	0	0	0	2	1	2	0	0	4	0	9
0	0	0	0	0	0	0	0	3	0	0	3	0	6
16	0	0	0	0	0	6	4	4	0	0	2	0	23
45	0	0	0	1	0	7	2	4	0	0	2	0	69
123	0	0	0	1	0	37	13	37	0	0	32	3	123
Approach %	###	###	###	2.63	0.00	97.37	26.00	74.00	0.00	0.00	91.43	8.57	
App/Depart	0	0	0	38	0	0	50	0	38	35	0	69	

PM Peak Hr Begins at: 4:15 PM

PEAK Volumes % Approach %
 0 0 0 1 0 0 29 10 23 0 0 0 0 82

PEAK HR. FACTOR: 0.000 | 0.833 | 0.750 | 0.679 | 0.891

CONTROL: No Controls
 COMMENT 1: 0
 GPS: 33.580032, -111.977364

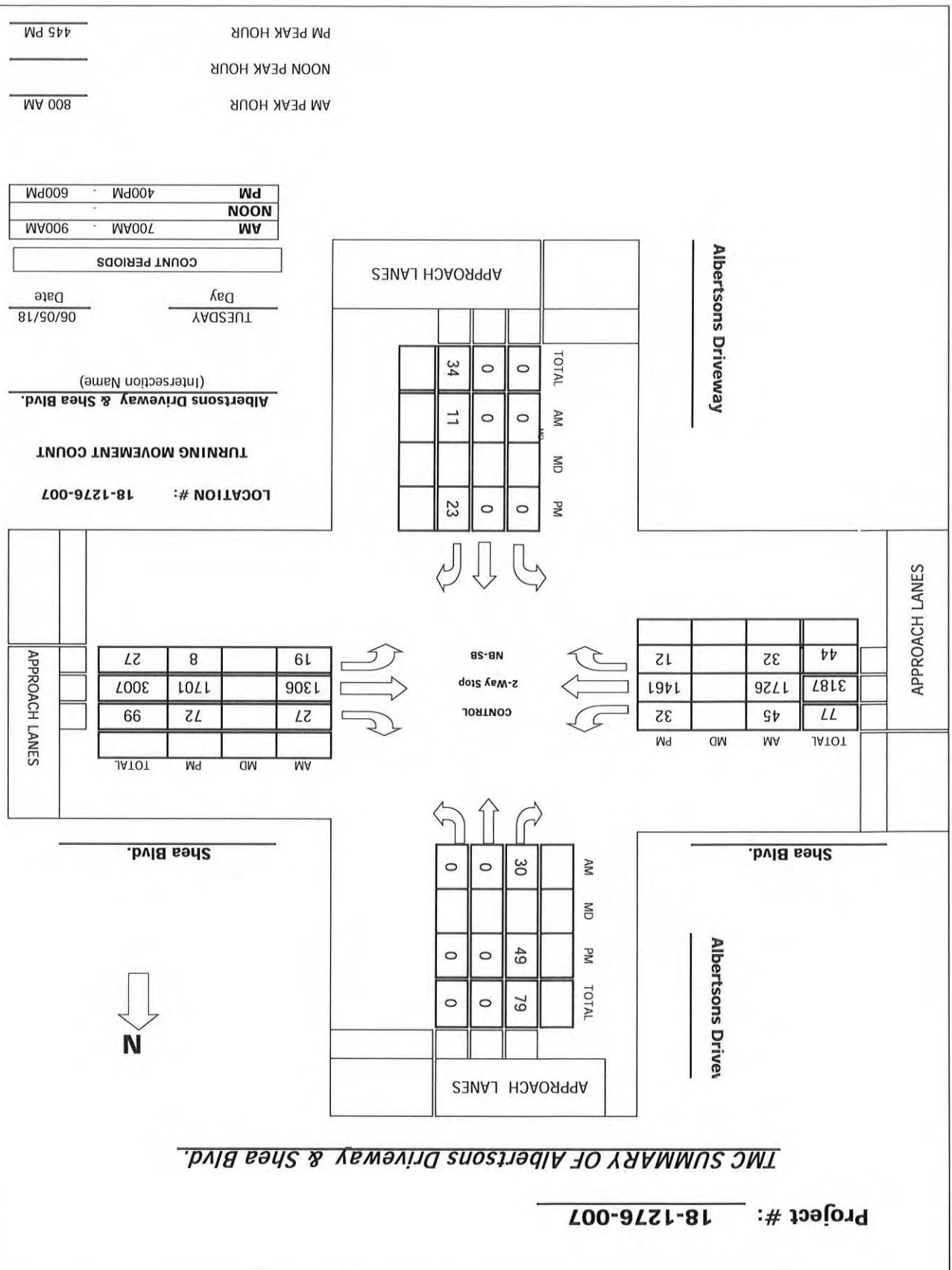
Intersection Turning Movement

Prepared by:



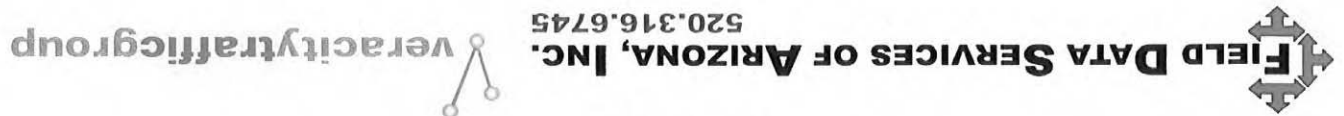
Project #: 18-1276-007

TMC SUMMARY OF Albertsons Driveway & Shea Blvd.



520.316.6745

Intersection Turning Movement
Prepared by:



520.316.6745

N-S STREET: Albertsons Driveway
 Medical Center
 E-W STREET: Shea Blvd.

DATE: 06/05/18
 LOCATION: Phoenix
 DAY: TUESDAY
 PROJECT # 18-1276-007

NORTHBOUND		SOUTHBOUND			EASTBOUND			WESTBOUND				
NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
0	0	1	0	0	1	1	3	0	0	3	1	
LANES:												

6:00 AM
6:15 AM
6:30 AM
6:45 AM
7:00 AM
7:15 AM
7:30 AM
7:45 AM
8:00 AM
8:15 AM
8:30 AM
8:45 AM
9:00 AM
9:15 AM
9:30 AM
9:45 AM
10:00 AM
10:15 AM
10:30 AM
10:45 AM
11:00 AM
11:15 AM
11:30 AM
11:45 AM

TOTAL		NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
0	0	2	0	0	0	0	6	12	328	3	1	244	4	600
0	0	3	0	0	0	0	4	15	402	7	2	270	6	700
0	0	1	0	0	0	0	7	8	431	10	6	286	2	751
0	0	2	0	0	0	0	7	6	435	8	4	322	5	789
0	0	2	0	0	0	0	6	15	410	8	4	321	6	772
0	0	1	0	0	0	0	5	11	477	6	3	343	8	854
0	0	6	0	0	0	0	12	13	404	10	8	320	8	781
0.00	0.00	0.00	0.00	0.00	0.00	0.00	100.00	2.67	95.68	1.65	1.60	96.60	1.80	5909
17	135	49	95	3402	3272	2441	2407							
App/Depart														

AM Peak Hr Begins at: 800 AM

PEAK	Volumes	Approach %	PEAK HR.	FACTOR:
0	0	0.00	0.458	
0	0	0.00	0.625	
0	0	0.00	0.912	
11	11	100.00	0.955	
0	0	0.00	0.936	
30	30	100.00		
45	45	95.73		
1726	1726	1.77		
32	32	1.41		
19	19	1306		
27	27	2.00		
3196	3196			

CONTROL: 2-Way Stop (NB-SB)

COMMENT 1:

GPS: 33.582676, -111.974761

Intersection Turning Movement



N-S STREET: Albertsons Driveway
 E-W STREET: Shea Blvd.
 DATE: 06/05/18
 DAY: TUESDAY
 LOCATION: Phoenix
 PROJECT # 18-1276-007

NORTHBOUND		SOUTHBOUND			EASTBOUND			WESTBOUND				
NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
0	0	1	0	0	1	1	3	0	0	3	1	
LANES:												

TOTAL	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
800	0	0	10	0	0	16	12	320	1	1	425	15	800
832	0	0	4	0	0	13	22	366	4	2	401	20	832
802	0	0	5	0	0	12	9	347	2	3	413	11	802
829	0	0	5	0	0	12	11	352	3	3	423	20	829
853	0	0	12	0	0	10	9	375	3	1	428	15	853
872	0	0	3	0	0	10	4	403	3	2	427	20	872
804	0	0	3	0	0	17	8	331	3	2	423	17	804
792	0	0	2	0	0	11	11	354	1	1	394	18	792
6:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	6:00 PM
6:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	6:15 PM
6:30 PM	0	0	3	0	0	17	8	331	3	2	423	17	6:30 PM
6:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	6:45 PM

TOTAL	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
6584	0	0	44	0	0	101	86	2848	20	15	3334	136	6584
Approach %	0.00	0.00	100.00	0.00	0.00	100.00	2.91	96.41	0.68	0.43	95.67	3.90	
App/Depart	44	/	222	101	/	35	2954	/	2892	3485	/	3435	

PM Peak Hr Begins at: 4:45 PM

PEAK	Volumes	Approach %	PEAK HR.	FACTOR:
0	0	0.00	0.479	
0	0	0.00	0.721	
0	0	0.00	0.918	
8	8	0.45	0.992	
12	12	0.80		
1461	1461	97.08		
32	32	2.13		
49	49	100.00		
0	0	0.00		
23	23	100.00		
0	0	0.00		
72	72	95.51		
3358	3358	4.04		

CONTROL: 2-Way Stop (NB-SB)

COMMENT 1: 0

GPS: 33.582676, -111.974761

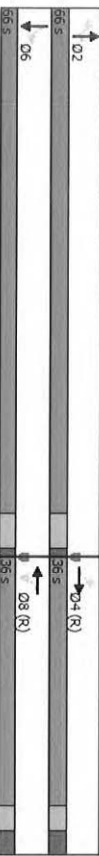
Mountain View Medical Center
Existing AM

1 : Tatum Blvd & Desert Cove Ave
Timing Report, Sorted by Phase

Phase Number	2	4	6	8
Movement	NBTL	EBTL	SBTL	WBTL
Lead/Lag				
Lead-Lag Optimize				
Recall Mode	None	C-Max	None	C-Max
Maximum Split (s)	66	36	66	36
Maximum Split (%)	64.7%	35.3%	64.7%	35.3%
Minimum Split (s)	25.3	35	25.3	35
Yellow Time (s)	4.3	3	4.3	3
All-Red Time (s)	1	3	1	3
Minimum Initial (s)	15	4	15	4
Vehicle Extension (s)	3	3	3	3
Minimum Gap (s)	3	3	3	3
Time Before Reduce (s)	0	0	0	0
Time To Reduce (s)	0	0	0	0
Walk Time (s)	8	7	8	7
Flash Dont Walk (s)	12	22	12	22
Dual Entry	Yes	Yes	Yes	Yes
Inhibit Max	Yes	Yes	Yes	Yes
Start Time (s)	55	19	55	19
End Time (s)	19	55	19	55
Yield/Force Off (s)	13.7	49	13.7	49
Yield/Force Off T10(s)	1.7	27	1.7	27
Local Start Time (s)	36	0	36	0
Local Yield (s)	96.7	30	96.7	30
Local Yield T10(s)	84.7	8	84.7	8

Intersection Summary
Cycle Length 102
Control Type Actuated-Coordinated
Natural Cycle 65
Offset: 19 (19%) Referenced to phase 4:EBTL and 8:WBTL, Start of Green

Splits and Phases: 1: Tatum Blvd & Desert Cove Ave



Mountain View Medical Center
Existing AM

1 : Tatum Blvd & Desert Cove Ave
HCM 6th Signalized Intersection Summary

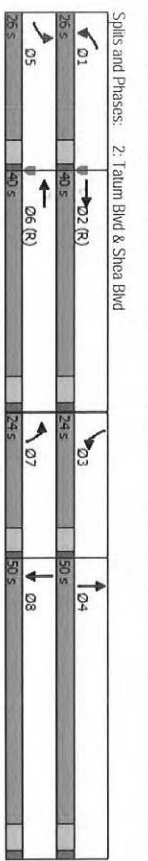
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	8	0	4	18	0	44	27	742	33	77	984	9
Traffic Volume (veh/h)	8	0	4	18	0	44	27	742	33	77	984	9
Future Volume (veh/h)	8	0	4	18	0	44	27	742	33	77	984	9
Initial Q (Qd) veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A, pb1)	1.00	1.00	1.00	1.00	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	No	No	No	No	No	No	No	No
Adj Sat Flow, veh/hln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	9	0	4	20	0	49	30	824	37	86	1093	10
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	573	233	299	23	578	169	1844	572	223	1884	17	2
Arrive On Green	0.53	0.00	0.53	0.53	0.00	0.53	0.36	0.36	0.36	0.36	0.36	0.36
Sat Flow, veh/h	972	20	441	403	44	1095	511	5106	1585	642	5278	48
Grp Volume(v), veh/h	13	0	0	69	0	0	30	824	37	86	713	390
Grp Sat Flow(s),veh/hln	1434	0	0	1542	0	0	511	1702	1585	642	1702	1862
Q Serve(g, s), s	0.0	0.0	0.0	0.0	0.0	0.0	5.1	12.5	1.6	12.0	17.3	17.3
Cycle Q Clear(g, c), s	0.4	0.0	0.0	2.1	0.0	0.0	22.4	12.5	1.6	24.6	17.3	17.3
Prop in Lane	0.69	0	0.31	0.29	0	0.71	1.00	1.00	1.00	1.00	1.00	0.03
Lane Grp Cap(c), veh/h	817	0	880	0	0	169	1844	572	223	1229	672	0
V/C Ratio(X)	0.02	0.00	0.00	0.08	0.00	0.00	0.18	0.45	0.06	0.38	0.58	0.58
Avail Cap(c), veh/h	817	0	880	0	0	288	3039	943	374	2026	1108	0
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	0.00	0.00	1.00	0.00	0.85	0.85	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	11.4	0.0	0.0	11.8	0.0	0.0	35.4	24.8	21.3	34.2	26.3	26.3
Incr Delay (d2), s/veh	0.0	0.0	0.0	0.2	0.0	0.0	0.4	0.1	0.0	1.1	0.4	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 BackQ(95%),veh/hln	0.3	0.0	0.0	1.4	0.0	0.0	1.2	8.4	1.0	3.5	11.3	12.2
Unsig. Movement Delay, s/veh	11.5	0.0	0.0	12.0	0.0	0.0	35.8	25.0	21.4	35.3	26.8	27.1
Incrp Delay(d), s/veh	11.5	0.0	0.0	12.0	0.0	0.0	35.8	25.0	21.4	35.3	26.8	27.1
Incrp LOS	B	A	A	B	A	A	D	C	C	D	C	C
Approach Vol, veh/h	13	13	13	69	69	891	1189	1189	252	275	275	275
Approach Delay, s/veh	11.5	11.5	11.5	12.0	12.0	25.2	27.5	27.5	27.5	27.5	27.5	27.5
Approach LOS	B	B	B	B	B	C	C	C	C	C	C	C
Timer -Assigned Phs	2	2	4	6	6	8	8	8	8	8	8	8
Phs Duration (G+V+RC), s	42.1	59.9	42.1	59.9	42.1	59.9	42.1	59.9	42.1	59.9	42.1	59.9
Change Period (V+RC), s	5.3	6.0	5.3	6.0	5.3	6.0	5.3	6.0	5.3	6.0	5.3	6.0
Max Green Setting (Gmax), s	60.7	30.0	60.7	30.0	60.7	30.0	60.7	30.0	60.7	30.0	60.7	30.0
Max Q Clear Time (g_c+1l), s	24.4	2.4	24.4	2.4	24.4	2.4	24.4	2.4	24.4	2.4	24.4	2.4
Green Ext Time (g_c), s	7.5	0.0	7.5	0.0	7.5	0.0	7.5	0.0	7.5	0.0	7.5	0.0
Intersection Summary	26.0											
HCM 6th Ctrl Delay	C											
HCM 6th LOS	C											

Mountain View Medical Center
Existing AM

2: Tatum Blvd & Shea Blvd
Timing Report, Sorted by Phase

Phase Number	1	2	3	4	5	6	7	8
Movement	WBL	EBT	SBL	NBT	EBL	WBT	NBL	SBT
Lead/Lag	Lead	Lag	Lead	Lag	Lead	Lag	Lead	Lag
Lead-Lag Optimize	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	C-Max	None	None	None	C-Max	None	None
Maximum Split (s)	26	40	24	50	26	40	24	50
Maximum Split (%)	18.6%	28.6%	17.1%	35.7%	18.6%	28.6%	17.1%	35.7%
Minimum Split (s)	10	36.9	20	40	10	36.9	20	40
Yellow Time (s)	4	4.3	4	4.3	4	4.3	4	4.3
All-Red Time (s)	1	1.6	1	1.7	1	1.6	1	1.7
Minimum Initial (s)	5	15	15	15	5	15	15	15
Vehicle Extension (s)	3	3	3	3	3	3	3	3
Minimum Gap (s)	3	3	3	3	3	3	3	3
Time Before Reduc (s)	0	0	0	0	0	0	0	0
Time To Reduce (s)	0	0	0	0	0	0	0	0
Walk Time (s)	8	8	8	8	8	8	8	8
Flash Dont Walk (s)	23	26	23	26	23	26	23	26
Dual Entry	No	Yes	No	Yes	No	Yes	No	Yes
Inhibit Max	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Start Time (s)	114	0	40	64	114	0	40	64
End Time (s)	0	40	64	114	0	40	64	114
Yield/force Off (s)	135	34.1	59	108	135	34.1	59	108
Yield/force Off 170(s)	135	11.1	59	82	135	11.1	59	82
Local Start Time (s)	114	0	40	64	114	0	40	64
Local Yield 170(s)	135	34.1	59	108	135	34.1	59	108
Local Yield 170(s)	135	11.1	59	82	135	11.1	59	82

Intersection Summary
Cycle Length 140
Control Type Actuated-Coordinated
Natural Cycle 110
Offset: 0 (ft%), Referenced to phase 2:EBT and 6:WBT, Start of Green, Master Intersection



Mountain View Medical Center
Existing AM

2: Tatum Blvd & Shea Blvd
HCM 6th Signalized Intersection Summary

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	W	W	W	W	W	W	W	W	W	W	W	W
Traffic Volume (veh/h)	207	1390	432	292	873	165	233	374	200	669	669	104
Future Volume (veh/h)	207	1390	432	292	873	165	233	374	200	669	669	104
Initial Q (OB), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped Bike Adj(A, pct)	1.00	1.00	1.00	1.00	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	No	No	No	No	No	No	No	No
Adj Sat Flow, veh/hln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	230	1544	480	324	970	183	281	416	222	669	669	116
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh. %	2	2	2	2	2	2	2	2	2	2	2	2
Cap. veh/h	288	2103	653	382	2242	696	370	728	339	370	954	148
Arrive On Green	0.08	0.41	0.41	0.11	0.44	0.44	0.11	0.21	0.21	0.11	0.21	0.21
Sat Flow, veh/h	3456	5106	1585	3456	5106	1585	3456	3404	1585	3456	4460	690
Grp Volume(v), veh/h	230	1544	480	324	970	183	281	416	222	669	669	293
Grp Sat Flow(s), veh/hln	1728	1702	1585	1728	1702	1585	1728	1702	1585	1728	1702	1746
Q Serve(g), s	9.1	35.7	35.8	12.9	18.4	10.3	11.1	15.3	7.9	8.6	21.9	22.2
Cycle Q Clear(g), s	9.1	35.7	35.8	12.9	18.4	10.3	11.1	15.3	7.9	8.6	21.9	22.2
Prop In Lane	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.40
Lane Grp Cntrl(g), veh/h	288	2103	653	382	2242	696	370	728	339	370	728	374
V/C Ratio(X)	0.80	0.73	0.74	0.85	0.43	0.26	0.76	0.57	0.65	0.60	0.78	0.79
Avail Cap(c), veh/h	518	2103	653	518	2242	696	469	1070	498	469	1070	549
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(d)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.73
Uniform Delay (d), s/veh	63.0	34.7	34.7	61.1	27.2	24.9	60.7	49.3	50.3	59.6	51.9	52.0
Incr Delay (d2), s/veh	5.1	2.3	7.2	9.5	0.6	0.9	5.4	0.7	2.1	1.1	1.6	3.4
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 Back(Q)(95%), veh/h	7.6	21.6	21.4	10.2	12.2	7.4	8.9	10.9	11.8	6.6	13.9	14.6
Unsig. Movement Delay, s/veh	68.1	37.0	42.0	70.6	27.8	25.8	66.2	50.0	52.4	60.8	53.5	55.3
InCrp Delay(d), s/veh	E	D	D	E	C	C	E	D	D	E	D	E
LnGrp LOS	E	D	D	E	C	C	E	D	D	E	D	E
Approach Vol, veh/h		2254		1477			919		1081			
Approach Delay, s/veh		41.2		36.9			55.5		55.5			
Approach LOS		D		D			E		E			
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+R), s	20.5	63.6	20.0	36.0	16.7	67.4	20.0	36.0				
Change Period (Y+R), s	5.0	5.9	5.0	6	5.0	5.9	5.0	6				
Max Green Setting (Gmax), s	21.0	34	19.0	44	21.0	34	19.0	44				
Max Q Clear Time (G+C+1), s	14.9	37.8	10.6	19.9	11.1	20.4	13.1	24.2				
Green Ext. Time (p, c), s	0.6	0.0	0.5	4.5	0.5	6.3	0.5	5.7				
Intersection Summary	HCM 6th Ctrl Delay 46.1											
HCM 6th LOS	D											

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

Mountain View Medical Center
Existing AM

3: Tatum Blvd & Fry's Dwy/Medical Center Dwy
HCM 6th TWSC

Intersection												
Int Delay, s/veh												
0.9												
Movement												
E	B	E	B	E	B	E	B	E	B	E	B	E
EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	
Lane Configurations												
Traffic Vol, veh/h												
24	0	62	2	0	11	39	755	17	1	1509	83	
Future Vol, veh/h												
24	0	62	2	0	11	39	755	17	1	1509	83	
Conflicting Peds, #/hr												
0	0	0	0	0	0	0	0	0	0	0	0	
Sign Control												
Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free	
RT Channelized												
-	-	-	-	-	-	-	-	-	-	-	-	
Storage Length												
-	-	-	-	-	-	-	-	-	-	-	-	
Veh in Median Storage, #												
-	-	-	-	-	-	-	-	-	-	-	-	
Grade, %												
-	-	-	-	-	-	-	-	-	-	-	-	
Peak Hour Factor												
90	90	90	90	90	90	90	90	90	90	90	90	
Heavy Vehicles, %												
2	2	2	2	2	2	2	2	2	2	2	2	
Mvmt Flow												
27	0	69	2	0	12	43	839	19	1	1677	92	

Major/Minor												
Minor2			Minor1			Major1			Major2			
Conflicting Flow All												
2101	2623	839	1608	2706	429	1769	0	0	858	0	0	
Stage 1												
1679	1679	-	935	935	-	-	-	-	-	-	-	
Stage 2												
422	944	-	673	1771	-	-	-	-	-	-	-	
Critical Hwy												
6.44	6.54	7.14	6.44	6.54	7.14	5.34	-	-	-	-	-	
Critical Hwy Sig 1												
7.34	5.54	-	7.34	5.54	-	-	-	-	-	-	-	
Critical Hwy Sig 2												
6.74	5.54	-	6.74	5.54	-	-	-	-	-	-	-	
Follow-up Hwy												
3.82	4.02	3.92	3.82	4.02	3.92	3.12	-	-	-	-	-	
Pct Cap-1 Maneuver												
*255	*77	*571	*586	64	491	636	-	-	-	-	-	
Stage 1												
*586	*557	-	*221	342	-	-	-	-	-	-	-	
Stage 2												
*531	*339	-	*586	496	-	-	-	-	-	-	-	
Platoon blocked, %												
1	1	1	1	1	1	1	-	-	-	-	-	
Mov Cap-1 Maneuver												
*180	*49	*571	*373	41	491	636	-	-	-	-	-	
Mov Cap-2 Maneuver												
*180	*49	-	*373	41	-	-	-	-	-	-	-	
Stage 1												
*546	*385	-	*206	319	-	-	-	-	-	-	-	
Stage 2												
*483	*316	-	*356	342	-	-	-	-	-	-	-	

Approach												
EB			WB			NB			SB			
HCM Control Delay, s												
18.8			12.9			0.5			0			
HCM LOS												
C			B									

Minor Lane/Major Mvmt														
NBL			NBT			NBR			EBL			EBT		
Capacity (veh/h)														
636			355			468			458			-		
HCM Lane V/C Ratio														
0.068			-			0.269			0.031			0.002		
HCM Control Delay (s)														
11.1			-			18.8			12.9			12.9		
HCM Lane LOS														
B			-			C			B			B		
HCM 95th %ile (Q)(veh)														
0.2			-			1.1			0.1			0		

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

Intersection												
Int Delay, s/veh												
0.4												
Movement												
E	B	E	B	E	B	E	B	E	B	E	B	E
EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	
Lane Configurations												
Traffic Vol, veh/h												
2	0	2	0	0	24	5	794	8	27	1414	21	
Future Vol, veh/h												
2	0	2	0	0	24	5	794	8	27	1414	21	
Conflicting Peds, #/hr												
0	0	0	0	0	0	0	0	0	0	0	0	
Sign Control												
Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free	
RT Channelized												
-	-	-	-	-	-	-	-	-	-	-	-	
Storage Length												
-	-	-	-	-	-	-	-	-	-	-	-	
Veh in Median Storage, #												
-	-	-	-	-	-	-	-	-	-	-	-	
Grade, %												
-	-	-	-	-	-	-	-	-	-	-	-	
Peak Hour Factor												
90	90	90	90	90	90	90	90	90	90	90	90	
Heavy Vehicles, %												
2	2	2	2	2	2	2	2	2	2	2	2	
Mvmt Flow												
2	0	0	2	0	0	27	6	882	9	30	1571	23

Major/Minor												
Minor2			Minor1			Major1			Major2			
Conflicting Flow All												
2008	2546	797	1587	2533	446	1594	0	0	891	0	0	
Stage 1												
1643	1643	-	899	899	-	-	-	-	-	-	-	
Stage 2												
365	903	-	688	1654	-	-	-	-	-	-	-	
Critical Hwy												
6.44	6.54	7.14	6.44	6.54	7.14	5.34	-	-	-	-	-	
Critical Hwy Sig 1												
7.34	5.54	-	7.34	5.54	-	-	-	-	-	-	-	
Critical Hwy Sig 2												
6.74	5.54	-	6.74	5.54	-	-	-	-	-	-	-	
Follow-up Hwy												
3.82	4.02	3.92	3.82	4.02	3.92	3.12	-	-	-	-	-	
Pct Cap-1 Maneuver												
*270	*82	*590	*606	80	479	*742	-	-	-	-	-	
Stage 1												
*553	*543	-	*234	356	-	-	-	-	-	-	-	
Stage 2												
*574	*354	-	*606	534	-	-	-	-	-	-	-	
Platoon blocked, %												
1	1	1	1	1	1	1	-	-	-	-	-	
Mov Cap-1 Maneuver												
*131	*32	*590	*309	31	479	*742	-	-	-	-	-	
Mov Cap-2 Maneuver												
*131	*32	-	*309	31	-	-	-	-	-	-	-	
Stage 1												
*549	*213	-	*232	353	-	-	-	-	-	-	-	
Stage 2												
*538	*351	-	*236	209	-	-	-	-	-	-	-	

Approach												
EB			WB			NB			SB			
HCM Control Delay, s												
22.2			13			0.1			0.3			
HCM LOS												
C			B									

Minor Lane/Major Mvmt														
NBL			NBT			NBR			EBL			EBT		
Capacity (veh/h)														
*742			-			214			479			442		
HCM Lane V/C Ratio														
0.007			-			0.021			0.056			0.068		
HCM Control Delay (s)														
9.9			-			22.2			13			13.7		
HCM Lane LOS														
A			-			C			B			B		
HCM 95th %ile (Q)(veh)														
0			-			0.1			0.2			0.2		

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

Mountain View Medical Center
Existing AM

5: Tatum Blvd & Gold Dust Avenue
HCM 8th TWSC

Intersection		0.5							
Int Delay, s/veh									
Movement	EBL	EBR	NBL	NBT	SBI	SBR			
Lane Configurations	1	1	1	1	1	1			
Traffic Vol, veh/h	16	54	14	755	1426	17			
Future Vol, veh/h	16	54	14	755	1426	17			
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	-	50	-	-	-			
Vel in Median Storage, #	0	-	0	0	0	-			
Grade, %	0	-	-	-	0	0			
Peak Hour Factor	90	90	90	90	90	90			
Heavy Vehicles, %	2	2	2	2	2	2			
Mvmt Flow	18	60	16	839	1584	19			

Major/Minor	Minor2	Major1	Minor2	Major2
Conflicting Flow All	1952	792	1603	0
Stage 1	1584	-	-	-
Stage 2	368	-	-	-
Critical Hwy	629	694	414	-
Critical Hwy Sig 1	584	-	-	-
Critical Hwy Sig 2	604	-	-	-
Follow-up Hwy	367	332	222	-
Pot Cap-1 Maneuver	449	496	742	-
Stage 1	749	-	-	-
Stage 2	634	-	-	-
Platoon blocked, %	1	1	1	-
Mov Cap-1 Maneuver	439	496	742	-
Mov Cap-2 Maneuver	401	-	-	-
Stage 1	439	-	-	-
Stage 2	634	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	14.1	0.2	0
HCM LOS	B		

Minor Lane/Minor Mvmt NBL NBT EBL/1 SBT SBR
Capacity (veh/h) *742 - 471 -
HCM Lane V/C Ratio 0.021 - 0.165 -
HCM Control Delay (s) 10 - 14.1 -
HCM Lane LOS A - B -
HCM 95th %tile Q(veh) 0.1 - 0.6 -

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

Mountain View Medical Center
Existing AM

6: Beryl Ave & Medical Center Dwy
HCM 8th TWSC

Intersection		3.2							
Int Delay, s/veh									
Movement	EBL	EBT	WBT	WBR	SBL	SBR			
Lane Configurations	1	1	1	1	1	1			
Traffic Vol, veh/h	25	13	22	1	1	1			
Future Vol, veh/h	25	13	22	1	1	1			
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	-	-	-	-	0			
Vel in Median Storage, #	0	0	0	0	0	-			
Grade, %	0	0	0	0	0	0			
Peak Hour Factor	90	90	90	90	90	90			
Heavy Vehicles, %	2	2	2	2	2	2			
Mvmt Flow	28	14	24	1	1	1			

Major/Minor	Major1	Minor2	Minor2	Major2
Conflicting Flow All	25	0	0	95
Stage 1	-	-	-	25
Stage 2	-	-	-	70
Critical Hwy	412	-	-	642
Critical Hwy Sig 1	-	-	-	542
Critical Hwy Sig 2	-	-	-	542
Follow-up Hwy	2218	-	-	3518
Pot Cap-1 Maneuver	1589	-	-	905
Stage 1	-	-	-	998
Stage 2	-	-	-	953
Platoon blocked, %	-	-	-	889
Mov Cap-1 Maneuver	1589	-	-	889
Mov Cap-2 Maneuver	-	-	-	980
Stage 1	-	-	-	980
Stage 2	-	-	-	953

Approach	EB	WB	SB
HCM Control Delay, s	4.8	0	8.4
HCM LOS			A

Minor Lane/Minor Mvmt EBL EBT WBT WBR SBL SBR
Capacity (veh/h) 1589 - - - 1051
HCM Lane V/C Ratio 0.017 - - - 0.001
HCM Control Delay (s) 7.3 0 - - 8.4
HCM Lane LOS A A - - - A
HCM 95th %tile Q(veh) 0.1 - - - 0

Mountain View Medical Center Existing AM

7: Med. Center Dwy/Albertson's Dwy & Shea Blvd
HCM bh TWSC

Intersection	0.4							
Int Delay, s/veh	EBL	EBR	WBL	WBR	NBL	NBR	SBL	SBR
Lane Configurations	50	17/64	33	19	1335	30	0	12
Traffic Vol, veh/h	50	1764	33	19	1335	30	0	12
Future Vol, veh/h	0	0	0	0	0	0	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	-	-	-	-	-	-	-
Storage Length	205	-	-	85	-	150	-	-
Vel in Median Storage, #	0	0	0	0	0	0	0	0
Grade, %	0	0	0	0	0	0	0	0
Peak Hour Factor	90	90	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2	2	2
Mount Flow	56	1960	37	21	1483	33	0	13

Major/Minor	Major1	Major2	Minor1	Minor2
Conflicting Flow All	1516	0	1997	0
Stage 1	-	-	-	-
Stage 2	5.34	-	5.34	-
Critical Hwy Sig 1	-	-	-	-
Critical Hwy Sig 2	-	-	-	-
Follow-up Hwy	3.12	-	3.12	-
Pd Cap-1 Maneuver	*757	-	*623	-
Stage 1	-	-	-	-
Stage 2	-	-	-	-
Platoon blocked, %	1	-	1	-
Move Cap-1 Maneuver	*757	-	*623	-
Stage 1	-	-	-	-
Stage 2	-	-	-	-

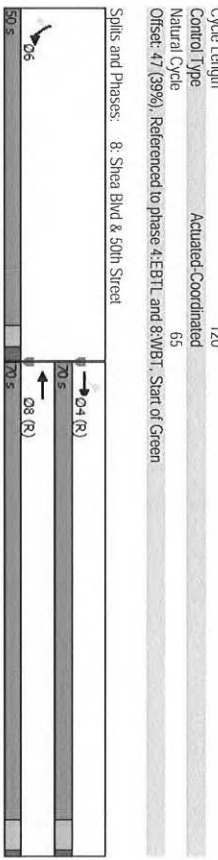
Approach	EB	WB	NB	SB
HCM Control Delay, s	0.3	0.2	12.5	11.3
HCM LOS	B	B	B	B

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

Mountain View Medical Center Existing AM

8: Shea Blvd & 50th Street
Timing Report, Sorted By Phase

Phase Number	4	6	8
Lead/Lag	EBTL	SBL	WBT
Recall Mode	C-Max	Max	C-Max
Maximum Split (s)	70	50	70
Maximum Split (%)	58.3%	41.7%	58.3%
Minimum Split (s)	25.3	29.2	25.3
Yellow Time (s)	4.3	3	4.3
All-Red Time (s)	1	2.2	1
Minimum Initial (s)	15	5	15
Vehicle Extension (s)	3	3	3
Minimum Gap (s)	3	3	3
Time Before Reduce (s)	0	0	0
Time to Reduce (s)	0	0	0
Walk Time (s)	8	8	8
Flash Dont Walk (s)	12	16	12
Dual Entry	Yes	Yes	Yes
Inhibit Max	Yes	Yes	Yes
Start Time (s)	47	117	47
End Time (s)	117	47	117
Yield/Force Off (s)	111.7	41.8	111.7
Yield/Force Off 170(s)	99.7	25.8	99.7
Local Start Time (s)	0	70	0
Local Yield (s)	64.7	114.8	64.7
Local Yield 170(s)	52.7	98.8	52.7



Mountain View Medical Center
Existing AM

8: Shea Blvd & 50th Street
HCM 6th Signalized Intersection Summary

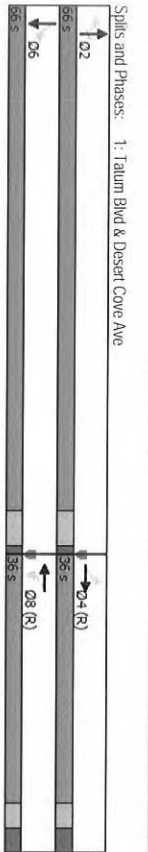
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations	↔	↔	↔	↔	↔	↔
Traffic Volume (veh/h)	35	1760	1323	48	67	39
Future Volume (veh/h)	35	1760	1323	48	67	39
Initial Q (Qb), veh	0	0	0	0	0	0
Perd Bike Adj(A_pb1)	1.00	1.00	1.00	1.00	1.00	1.00
Parking Bus Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No	No	No	No	No	No
Adj Sat Flow, veh/hln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	39	1956	1470	53	74	43
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	130	2753	1886	68	665	592
Arrive On Green	0.54	0.54	0.54	0.54	0.37	0.37
Sat Flow, veh/h	342	5274	3592	126	1781	1585
Grp Volume(v), veh/h	39	1956	745	778	74	43
Grp Sat Flow(S), veh/hln	342	1702	1777	1848	1781	1585
Q Serve(g, s), s	12.3	34.3	39.9	40.2	3.3	2.1
Cycle Q Clear(g, c), s	52.5	34.3	39.9	40.2	3.3	2.1
Prop In Lane	1.00	1.00	1.00	1.00	1.00	1.00
Lane Grp Cap(c), veh/h	130	2753	958	996	665	582
V/C Ratio(X)	0.30	0.71	0.78	0.78	0.11	0.07
Avail Cap(c, a), veh/h	130	2753	958	996	665	592
HCM Platoon Ratio	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
Uniform Delay (d), s/veh	42.9	20.7	21.9	22.0	24.6	24.2
Incl Delay (d2), s/veh	5.8	1.6	6.2	6.1	0.3	0.2
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%), veh/h	2.3	19.7	24.6	25.5	2.6	1.5
Unsig. Movement Delay, s/veh	48.7	22.2	28.1	28.1	24.9	24.5
InGrp Delay(d), s/veh	D	C	C	C	C	C
InGrp LOS	D	C	C	C	C	C
Approach Vol, veh/h	1995	1523	117			
Approach Delay, s/veh	22.8	28.1	24.8			
Approach LOS	C	C	C			
Timer - Assigned Phs		4			6	8
Phs Duration (G+Y+R), s		70.0			50.0	70.0
Change Period (Y+R), s		5.3			5.2	5.3
Max Green Setting (Gmax), s		64.7			44.8	64.7
Max Q Clear Time (G_c+1), s		54.5			5.3	42.2
Green Ext. Time (p, c), s		8.5			0.3	12.1
Intersection Summary						
HCM 6th Ctrl Delay		26.1				
HCM 6th LOS		C				

Mountain View Medical Center
Existing PM

1: Tatum Blvd & Desert Cove Ave
Timing Report, Sorted By Phase

Phase Number	2	4	6	8
Movement	NBTL	EBTL	SBTL	WBTL
Lead/Lag				
Lead-Lag Optimize	None	C-Max	None	C-Max
Recall Mode	66	36	66	36
Maximum Split (%)	64.7%	35.3%	64.7%	35.3%
Minimum Split (%)	25.3	35	25.3	35
Yellow Time (s)	4.3	3	4.3	3
All-Red Time (s)	1	3	1	3
Minimum Initial (s)	15	4	15	4
Vehicle Extension (s)	3	3	3	3
Minimum Gap (s)	3	3	3	3
Time Before Reduce (s)	0	0	0	0
Time To Reduce (s)	0	0	0	0
Walk Time (s)	8	7	8	7
Flash Dont Walk (s)	12	22	12	22
Dual Entry	Yes	Yes	Yes	Yes
Inhibit Max	Yes	Yes	Yes	Yes
Start Time (s)	86	50	86	50
End Time (s)	50	86	50	86
Yield/Force Off (s)	44.7	80	44.7	80
Yield/Force Off 170(s)	32.7	58	32.7	58
Local Start Time (s)	36	0	36	0
Local Yield (s)	96.7	30	96.7	30
Local Yield 170(s)	84.7	8	84.7	8

Intersection Summary
 Cycle Length 102
 Control Type Actuated-Coordinated
 Natural Cycle 100
 Offser: 50 (49%), Referenced to phase 4:EBTL and 8:WBTL, Start of Green



Mountain View Medical Center
Existing PM

1: Tatum Blvd & Desert Cove Ave
HCM 6th Signalized Intersection Summary

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Volume (veh/h)	25	1	25	68	1	89	9	1524	36	100	1131	2
Future Volume (veh/h)	25	1	25	68	1	89	9	1524	36	100	1131	2
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Peak Bike Adj(A_pbT)	1.00	1.00	1.00	1.00	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	No	No	No	No	No	No	No	No
Adj Sat Flow, veh/hln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	28	1	28	76	1	99	10	1693	40	111	1267	2
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap. veh/h	246	25	211	223	21	250	277	3039	943	181	3133	5
Arrive On Green	0.29	0.29	0.29	0.29	0.29	0.29	0.60	0.60	0.60	0.60	0.60	0.60
Sat Flow, veh/h	659	84	717	587	73	849	441	5106	1585	279	5265	8
Grp Volume(v), veh/h	57	0	0	176	0	0	10	1693	40	111	813	446
Grp Sat Flow(s), veh/hln	1459	0	0	1509	0	0	441	1702	1585	279	1702	1889
Q Serve(g), s	0.0	0.0	0.0	6.6	0.0	0.0	1.3	20.5	1.1	40.2	13.0	13.0
Cycle Q Clear(g, c), s	2.5	0.0	0.0	9.2	0.0	0.0	14.2	20.5	1.1	60.7	13.0	13.0
Prop In Lane	0.49	0.0	0.49	0.43	0.0	0.56	1.00	1.00	1.00	1.00	0.00	0.00
Lane Grp Cap(c), veh/h	482	0	0	494	0	0	277	3039	943	181	2026	1112
V/C Ratio(X)	0.12	0.00	0.00	0.36	0.00	0.00	0.04	0.56	0.04	0.61	0.40	0.40
Avail Cap(c), veh/h	482	0	0	494	0	0	277	3039	943	181	2026	1112
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	0.00	0.00	1.00	0.00	0.00	0.54	0.54	0.54	1.00	1.00	1.00
Uniform Delay (d), svch	26.3	0.0	0.0	28.6	0.0	0.0	14.8	12.5	8.6	31.0	11.0	11.0
Incr Delay (d2), svch	0.5	0.0	0.0	2.0	0.0	0.0	0.1	0.1	0.0	6.1	0.1	0.2
Initial Q Delay(d3), svch	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 Back(Q)(95%), veh/h	1.9	0.0	0.0	6.6	0.0	0.0	0.2	10.5	0.6	5.3	8.1	8.8
Unsig. Movement Delay, svch												
InCrp Delay(d), svch	26.8	0.0	0.0	30.6	0.0	0.0	14.8	12.6	8.6	37.1	11.1	11.2
InCrp LOS	C	A	A	C	A	A	B	B	A	D	B	B
Approach Vol, veh/h		57			776			1743			1370	
Approach Delay, svch		26.8			30.6			12.6			13.3	
Approach LOS		C			C			B			B	
Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		66.0		36.0		66.0		36.0				
Change Period (Y+Rc), s		5.3		6.0		5.3		6.0				
Max Green Setting (Gmax), s		60.7		30.0		60.7		30.0				
Max Q Clear Time (q_c+1), s		22.5		4.5		62.7		11.2				
Green Ext Time (g_c), s		18.9		0.3		0.0		0.9				
Intersection Summary												
HCM 6th Ctrl Delay								14.0				
HCM 6th LOS								B				

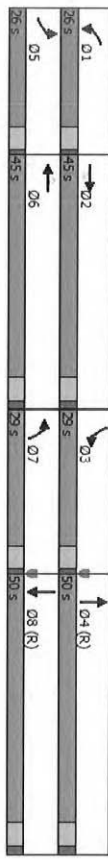
Mountain View Medical Center
Existing PM

2: Tatum Blvd & Shea Blvd
Timing Report, Sorted by Phase

Phase Number	1	2	3	4	5	6	7	8
Movement	WBL	EBT	SBL	NBT	EBL	WBT	NBL	SBT
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	C-Max	None	None	None	C-Max
Maximum Split (s)	26	45	29	50	26	45	29	50
Maximum Split (%)	17.3%	30.0%	19.3%	33.3%	17.3%	30.0%	19.3%	33.3%
Minimum Split (s)	10	36.9	20	40	10	36.9	20	40
Yellow Time (s)	4	4.3	4	4.3	4	4.3	4	4.3
All-Red Time (s)	1	1.6	1	1.7	1	1.6	1	1.7
Minimum Initial (s)	5	15	15	15	5	15	15	15
Vehicle Extension (s)	3	3	3	3	3	3	3	3
Minimum Gap (s)	3	3	3	3	3	3	3	3
Time Before Reduce (s)	0	0	0	0	0	0	0	0
Time To Reduce (s)	0	0	0	0	0	0	0	0
Walk Time (s)	8	8	8	8	8	8	8	8
Flash Dont Walk (s)	23	26	26	26	23	26	26	26
Dual Entry	No	Yes	No	Yes	No	Yes	No	Yes
Inhibit Max	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Start Time (s)	105	131	26	55	105	131	26	55
End Time (s)	131	26	55	105	131	26	55	105
Yield/force Off (s)	126	20.1	50	99	126	20.1	50	99
Yield/force Off 170(s)	126	147.1	50	73	126	147.1	50	73
Local Start Time (s)	50	76	121	0	50	76	121	0
Local Yield (s)	71	115.1	145	44	71	115.1	145	44
Local Yield 170(s)	71	92.1	145	18	71	92.1	145	18

Intersection Summary
Cycle Length: 150
Control Type: Actuated-Coordinated
Natural Cycle: 130
Offset: 55 (37%), Referenced to phase 4: NBT and 8: SBT, Start of Green

Splits and Phases: 2: Tatum Blvd & Shea Blvd



Mountain View Medical Center
Existing PM

2: Tatum Blvd & Shea Blvd
HCM 6th Signalized Intersection Summary

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	TT	TTT	F	TT	TTT	F	TT	TTT	F	TT	TTT	F
Traffic Volume (veh/h)	330	1079	213	175	1392	191	555	995	239	254	608	254
Future Volume (veh/h)	330	1079	213	175	1392	191	555	995	239	254	608	254
Initial Q (QD) 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	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	No	No	No	No	No	No	No	No
Adj Sat Flow, veh/hln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	367	1199	237	194	1547	212	617	1106	266	282	676	282
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	417	1583	491	247	1331	413	553	1531	368	346	1110	456
Arrive On Green	0.12	0.31	0.31	0.07	0.28	0.26	0.16	0.37	0.37	0.10	0.31	0.31
Sat Flow, veh/h	3456	5106	1585	3456	5106	1585	3456	5106	988	3456	3553	1459
Grp Volume(v), veh/h	367	1199	237	194	1547	212	617	916	456	282	647	311
Grp Sat Flow(s), veh/hln	1728	1702	1585	1728	1702	1585	1728	1702	1693	1728	1702	1608
Q Serve(g, s), s	15.7	31.8	18.2	8.3	39.1	17.1	24.0	34.7	12.0	24.2	24.7	24.7
Cycle Q Clear(g, c), s	15.7	31.8	18.2	8.3	39.1	17.1	24.0	34.7	12.0	24.2	24.7	24.7
Prop In Lane	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.58	1.00	1.00	0.91
Lane Grp Cap(c), veh/h	417	1583	491	247	1331	413	553	1268	631	346	1064	502
Avail Cap(c), veh/h	0.88	0.76	0.48	0.79	1.16	0.51	1.12	0.72	0.82	0.61	0.62	0.62
V/C Ratio(X)	4.84	1.583	4.91	4.84	1.331	4.13	5.53	1.268	6.31	5.53	1.064	5.02
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	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	64.9	46.7	42.0	68.5	55.5	47.3	63.0	40.4	40.4	66.1	43.8	43.9
Incr Delay (d2), s/veh	15.2	2.2	0.7	5.4	81.7	1.1	74.2	3.6	7.0	4.6	2.4	5.1
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackQ(95%),veh/hln	12.4	19.9	11.7	7.0	38.5	11.3	24.1	21.6	22.2	9.2	15.7	15.7
Unsig. Movement Delay, s/veh	80.1	48.8	42.7	74.0	137.1	48.4	137.2	44.0	47.5	70.8	46.1	49.1
Incrp Delay(d), s/veh	F	D	D	E	F	D	F	D	D	E	D	D
Incrp LOS	F	D	D	E	F	D	F	D	D	E	D	D
Approach Vol, veh/h	1803	1803	1803	1953	1989	1953	1989	1989	1240	1989	1240	1240
Approach Delay, s/veh	54.4	54.4	54.4	121.2	73.7	121.2	73.7	73.7	52.5	73.7	52.5	52.5
Approach LOS	D	D	D	F	F	F	F	F	E	F	D	D

Timer - Assigned Phs
Phs Duration (G+V+RC), s: 15.7, 52.4, 20.0, 61.9, 23.1, 45.0, 29.0, 52.9
Change Period (V+RC), s: 5.0, 5.9, 5.0, 6.6, 5.0, 5.9, 5.0, 6.6
Max Green Setting (Gmax), s: 21.0, 39.9, 24.0, 44.4, 21.0, 39.9, 24.0, 44.4
Max Q Clear Time (g-c+1l), s: 10.3, 33.8, 14.0, 36.7, 17.7, 41.1, 26.0, 26.7
Green Ext. Time (g-c), s: 0.4, 3.7, 0.7, 4.9, 0.4, 0.0, 0.0, 0.0

Intersection Summary
HCM 6th Ctrl Delay: 78.2
HCM 6th LOS: E

Mountain View Medical Center
Existing PM

3: Tatum Blvd & Fry's Dwy/Medical Center Dwy
HCM 6th TWSC

Intersection												
Int Delay, s/vch												
Movement	EBL	EBR	WBL	WBR	NBL	NBR	SBL	SBR	EBL	EBR	WBL	WBR
Lane Configurations	21	0	112	1	0	56	49	1757	7	2	884	132
Traffic Vol, veh/h	21	0	112	1	0	56	49	1757	7	2	884	132
Future Vol, veh/h	0	0	0	0	0	0	0	0	0	0	0	0
Conflicting Peds #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	-	-	-	-	-	-	-	-	-	-
Storage Length	-	-	-	-	-	105	-	-	-	-	-	-
Veh in Median Storage, #	-	-	-	-	-	0	-	-	-	-	-	-
Grade, %	-	-	-	-	-	-	-	-	-	-	-	-
Peak Hour Factor	90	90	90	90	90	90	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	23	0	124	1	0	62	54	1952	8	2	982	147

Major/Minor	Minor2	Minor1	Major1	Major2
Conflicting Flow All	1875	3054	491	2461
Stage 1	986	986	2064	2064
Stage 2	889	2068	397	1133
Critical Hdwy	644	654	714	644
Critical Hdwy Sig 1	734	554	734	554
Critical Hdwy Sig 2	674	554	674	554
Follow-up Hdwy	382	402	382	402
Pot Cap-1 Manuever	164	18	718	58
Stage 1	726	694	35	96
Stage 2	276	95	737	576
Platoon blocked, %	1	1	1	1
Mov Cap-1 Manuever	107	16	718	44
Mov Cap-2 Manuever	107	16	44	12
Stage 1	673	664	32	89
Stage 2	181	88	583	551

Approach	EB	WB	NB	SB
HCM Control Delay, s	11.1	31.1	0.3	0.1
HCM LOS	B	D		

Minor Lane/Minor Mvmt NBL NBT NBR EBL/NWB/LNT SBL SBT SBR
Capacity (veh/h) 737 - 718 200 131 -
HCM Lane V/C Ratio 0.074 - 0.173 0.317 0.017 -
HCM Control Delay (s) 10.3 - 11.1 31.1 33 -
HCM Lane LOS B - B D D -
HCM 95th %ile Q(veh) 0.2 - 0.6 1.3 0.1 -

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

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Mountain View Medical Center
Existing PM

4: Tatum Blvd & Tatum Corp. Center Dwy/Beryl Ave
HCM 6th TWSC

Intersection												
Int Delay, s/vch												
Movement	EBL	EBR	WBL	WBR	NBL	NBR	SBL	SBR	EBL	EBR	WBL	WBR
Lane Configurations	7	1	2	7	0	39	0	1738	3	28	989	4
Traffic Vol, veh/h	7	1	2	7	0	39	0	1738	3	28	989	4
Future Vol, veh/h	0	0	0	0	0	0	0	0	0	0	0	0
Conflicting Peds #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	-	-	-	-	-	-	-	-	-	-
Storage Length	-	-	-	-	-	50	-	-	-	-	-	-
Veh in Median Storage, #	-	-	-	-	-	0	-	-	-	-	-	-
Grade, %	-	-	-	-	-	-	-	-	-	-	-	-
Peak Hour Factor	90	90	90	90	90	90	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	8	1	2	8	0	43	0	1931	3	31	1099	4

Major/Minor	Minor2	Minor1	Major1	Major2
Conflicting Flow All	1163	1163	1933	1933
Stage 1	772	1934	502	1165
Stage 2	644	654	714	644
Critical Hdwy	734	554	734	554
Critical Hdwy Sig 1	674	554	674	554
Critical Hdwy Sig 2	382	402	382	402
Follow-up Hdwy	177	18	682	70
Pot Cap-1 Manuever	684	656	43	112
Stage 1	325	111	700	654
Stage 2	1	1	1	1
Platoon blocked, %	1	1	1	1
Mov Cap-1 Manuever	75	7	682	33
Mov Cap-2 Manuever	75	7	218	858
Stage 1	684	266	43	112
Stage 2	260	111	282	266

Approach	EB	WB	NB	SB
HCM Control Delay, s	119.1	57	0	1.1
HCM LOS	F	F		

Minor Lane/Minor Mvmt NBL NBT NBR EBL/NWB/LNT SBL SBT SBR
Capacity (veh/h) 888 - 42 118 135 -
HCM Lane V/C Ratio 0 - 0.265 0.433 0.23 -
HCM Control Delay (s) 0 - 119.1 57 39.5 -
HCM Lane LOS A - F F E -
HCM 95th %ile Q(veh) 0 - 0.9 1.9 0.8 -

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

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Mountain View Medical Center
Existing PM

5: Tatum Blvd & Gold Dust Avenue
HCM 6th TWSC

Intersection									
Int Delay, s/vph 0.3									
Movement	EBL	EBR	NBL	NBT	SBL	SBR			
Lane Configurations	14	18	42	1773	924	57			
Traffic Vol, veh/h	14	18	42	1773	924	57			
Future Vol, veh/h	0	0	0	0	0	0			
Conflicting Peds, #/hr	0	0	0	0	0	0			
Sign Control	Stop	Stop	Free	Free	Free	Free			
RT Channelized	-	None	-	None	-	None			
Storage Length	0	-	50	-	-	-			
Veh in Median Storage, #	0	-	0	0	0	-			
Grade, %	0	-	-	-	0	0			
Peak Hour Factor	90	90	90	90	90	90			
Heavy Vehicles, %	2	2	2	2	2	2			
Mvmt Flow	16	20	47	1970	1027	63			

Major/Minor	Minor2	Major1	Minor2		
Conflicting Flow All	1909	514	1090	0	0
Stage 1	1027	-	-	-	-
Stage 2	882	-	-	-	-
Critical Hdwy	629	694	414	-	-
Critical Hdwy Sig 1	584	-	-	-	-
Critical Hdwy Sig 2	604	-	-	-	-
Follow-up Hdwy	3.67	3.32	2.22	-	-
Pd Cap-1 Maneuver	338	*702	*1050	-	-
Stage 1	635	-	-	-	-
Stage 2	339	-	-	-	-
Platoon blocked, %	1	1	1	-	-
Mov Cap-1 Maneuver	322	*702	*1050	-	-
Mov Cap-2 Maneuver	263	-	-	-	-
Stage 1	607	-	-	-	-
Stage 2	339	-	-	-	-

Approach	EB	NB	SB		
HCM Control Delay, s	14.7	0.2	0		
HCM LOS	B				

Minor Lane/Minor Mvmt NBL NBT EBL/1 SBL SBR
Capacity (veh/h) *1050 - 406 - -
HCM Lane V/C Ratio 0.044 - 0.088 - -
HCM Control Delay (s) 8.6 - 14.7 - -
HCM Lane LOS A - B - -
HCM 95th %tile Q(veh) 0.1 - 0.3 - -

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

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Mountain View Medical Center
Existing PM

6: Beryl Ave & Medical Center Dwy
HCM 6th TWSC

Intersection									
Int Delay, s/vph 4.2									
Movement	EBL	EBT	WBT	WBR	SBL	SBR			
Lane Configurations	11	24	17	2	1	33			
Traffic Vol, veh/h	11	24	17	2	1	33			
Future Vol, veh/h	0	0	0	0	0	0			
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	90	90	90	90	90	90			
Heavy Vehicles, %	2	2	2	2	2	2			
Mvmt Flow	12	27	19	2	1	37			

Major/Minor	Major1	Major2	Minor2		
Conflicting Flow All	21	0	0	71	20
Stage 1	-	-	-	20	-
Stage 2	-	-	-	51	-
Critical Hdwy	412	-	-	642	622
Critical Hdwy Sig 1	-	-	-	542	-
Critical Hdwy Sig 2	-	-	-	542	-
Follow-up Hdwy	2.218	-	-	3.518	3.318
Pd Cap-1 Maneuver	1595	-	-	933	1058
Stage 1	-	-	-	1003	-
Stage 2	-	-	-	971	-
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	1595	-	-	926	1058
Mov Cap-2 Maneuver	-	-	-	926	-
Stage 1	-	-	-	995	-
Stage 2	-	-	-	971	-

Approach	EB	WB	SB		
HCM Control Delay, s	2.3	0	8.5		
HCM LOS			A		

Minor Lane/Minor Mvmt EBL EBT WBT WBR SBL SBR
Capacity (veh/h) 1595 - - - 1058
HCM Lane V/C Ratio 0.008 - - - 0.035
HCM Control Delay (s) 7.3 0 - - 8.5
HCM Lane LOS A A - - - A
HCM 95th %tile Q(veh) 0 - - - 0.1

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

07/03/2018 Synchro 10 Report
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Mountain View Medical Center Existing PM

7: Med. Center Dwy/Albertson's Dwy & Shea Blvd HCM 6th TWSC

8: Shea Blvd & 50th Street Timing Report, Sorted By Phase

Intersection	Int Delay	sveh	0.5									
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	36	1493	12	8	1738	81	0	0	26	0	0	50
Traffic Vol, veh/h	36	1493	12	8	1738	81	0	0	26	0	0	50
Future Vol, veh/h	0	0	0	0	0	0	0	0	0	0	0	0
Conflicting Peds, #/hr	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	205	-	-	85	-	150	-	-	0	-	-	0
Veh in Median Storage, #	0	0	0	0	0	0	0	0	0	0	0	0
Grade, %	90	90	90	90	90	90	90	90	90	90	90	90
Peak Hour Factor	2	2	2	2	2	2	2	2	2	2	2	2
Heavy Vehicles, %	40	1659	13	9	1931	90	0	0	29	0	0	56
Mvmt Flow												

Major/Minor	Major1	Major2	Minor1	Minor2
Conflicting Flow All	2021	0	1672	0
Stage 1	-	-	-	-
Stage 2	5.34	5.34	-	-
Critical Hdwy	-	-	-	-
Critical Hdwy Sig 1	-	-	7.14	-
Critical Hdwy Sig 2	-	-	-	-
Follow-up Hdwy	3.12	3.12	-	-
Pot Cap-1 Maneuver	598	183	0	267
Stage 1	-	-	0	0
Stage 2	1	-	0	0
Platoon Blocked, %	598	183	-	267
Mov Cap-1 Maneuver	-	-	-	-
Mov Cap-2 Maneuver	-	-	-	-
Stage 1	-	-	-	-
Stage 2	-	-	-	-

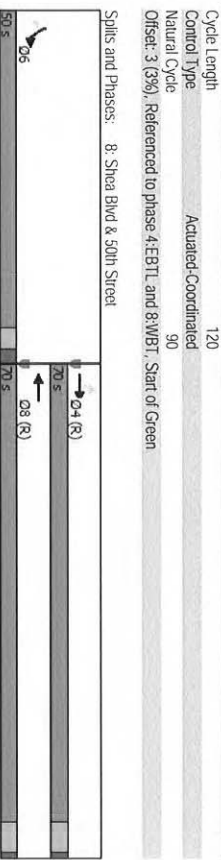
Approach	EB	WB	NB	SB
HCM Control Delay, s	0.3	0.1	20.1	12.9
HCM LOS			C	B

Minor Lane	Major	Wmt	NBLnt	EBL	EBT	EBR	WBL	WBT	WBR	NBLnt	WBR	SBLnt
Capacity (veh/h)	267	598	-	-	183	-	-	-	-	514	-	-
HCM Lane V/C Ratio	0.108	0.067	-	-	0.049	-	-	-	-	0.108	-	-
HCM Control Delay (s)	20.1	11.5	-	-	25.7	-	-	-	-	12.9	-	-
HCM Lane LOS	C	B	-	-	D	-	-	-	-	B	-	-
HCM 95th %ile Q(veh)	0.4	0.2	-	-	0.2	-	-	-	-	0.4	-	-

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

Phase Number	4	6	8
Movement	EBTL	SBL	WBT
Lead/Lag			
Lead/Lag Optimize			
Recall Mode	C-Max	Max	C-Max
Maximum Split (s)	70	50	70
Maximum Split (%)	58.3%	41.7%	58.3%
Minimum Split (s)	25.3	29.2	25.3
Yellow Time (s)	4.3	3	4.3
All-Red Time (s)	1	2.2	1
Minimum Initial (s)	15	5	15
Vehicle Extension (s)	3	3	3
Minimum Gap (s)	3	3	3
Time Before Reduce (s)	0	0	0
Time To Reduce (s)	0	0	0
Walk Time (s)	8	8	8
Flash-Dont Walk (s)	12	16	12
Dual Entry	Yes	Yes	Yes
Inhibit Max	Yes	Yes	Yes
Start Time (s)	3	73	3
End Time (s)	73	3	73
Yield/Force Off (s)	67.7	117.8	67.7
Yield/Force Off (70s)	55.7	101.8	55.7
Local Start Time (s)	0	70	0
Local Yield (s)	64.7	114.8	64.7
Local Yield 170(s)	52.7	98.8	52.7

Intersection Summary	120
Cycle Length	120
Control Type	Actuated-Coordinated
Natural Cycle	90
Offset: 3 (3%), Referenced to phase 4:EBTL and 8:WBT. Start of Green	



Mountain View Medical Center
Existing PM

8: Shea Blvd & 50th Street
HCM 6th Signalized Intersection Summary

Movement	EBL	EBI	WBI	WBR	SBL	SBR
Lane Configurations	↑	↑↑↑	↑↑	↑	↑	↑
Traffic Volume (veh/h)	52	1499	1803	44	128	65
Future Volume (veh/h)	52	1499	1803	44	128	65
Initial Q (Qb), veh	0	0	0	0	0	0
Pre-Bike Adj(A_pb1)	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
Work Zone On Approach	No	No	No	No	No	No
Adj Sat Flow, veh/hln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	58	1666	2003	49	142	72
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	60	2753	1912	47	665	592
Arrive On Green	0.54	0.54	0.54	0.54	0.37	0.37
Sat Flow, veh/h	205	5274	3639	86	1781	1585
Grp Volume(v), veh/h	58	1666	1000	1052	142	72
Grp Sat Flow(s), veh/hln	205	1702	1777	1895	1781	1585
Q Serve(g, s), s	0.0	26.8	64.7	64.7	6.5	3.6
Cycle Q Clear(g, c), s	64.7	26.8	64.7	64.7	6.5	3.6
Prop In Lane	1.00			0.05	1.00	1.00
Lane Grp Cap(c), veh/h	60	2753	958	1000	665	592
V/C Ratio(X)	0.97	0.61	1.04	1.05	0.21	0.12
Avail Cap(c, a), veh/h	60	2753	958	1000	665	592
HCM Platoon Ratio	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
Uniform Delay (d), s/veh	60.0	18.9	27.6	27.7	25.6	24.7
Incr Delay (d2), s/veh	107.0	1.0	41.1	43.2	0.7	0.4
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back(Q)(95%),veh/ln	6.4	15.9	48.6	51.5	5.2	2.6
Unsig. Movement Delay, s/veh	167.0	19.9	68.7	70.9	26.3	25.1
Incrp LOS	F	B	F	F	C	C
Approach Vol, veh/h	1724	2052	214			
Approach Delay, s/veh	24.9	69.8	25.9			
Approach LOS	C	E	C			
Timer - Assigned Phs		4		6		8
Phs Duration (G+Y+Rc), s	70.0		50.0	70.0		
Change Period (Y+Rc), s	5.3		5.2	5.3		
Max Green Setting (Gmax), s	64.7		44.8	64.7		
Max Q Clear Time (g_c+1), s	66.7		8.5	66.7		
Green Ext Time (p_c), s	0.0		0.0	0.0		
Intersection Summary			48.0			
HCM 6th Ctrl Delay			D			
HCM 6th LOS			D			

TRIP GENERATION CALCULATIONS

APPENDIX D

Mountain View Medical Office

Proposed

Land Use Types and Size	Amount Units	ITE LUC	ITE Land Use Name
Proposed Use	91,318 KSF	720	Medical-Dental Office Building
Medical Office (Existing)	59,969 KSF	720	Medical-Dental Office Building

-Abbreviations: ITE = Institute of Transportation Engineers, LUC = land use code, SF = square feet, KSF = 1,000 square feet, DU = Dwelling Units, Keys = keyed guest units.

Weighted Average Rate or Fitted Curve Equation Used in Analysis?	ADT		AM		PM		(not used)
	Trips	ADT	Trips	AM	Trips	PM	
Proposed Use	Fitted Curve	3,420	Fitted Curve	206	Fitted Curve	312	
Medical Office	Fitted Curve	2,216	Fitted Curve	142	Fitted Curve	205	

Notes: -ITE methodology per the *Trip Generation Handbook* is the basis for deciding which rate/equation to use. Exceptions are highlighted.

Note: The proposed minus the existing trips (red text) generated, results in the net number of base trips.

Base Trips		ADT			AM			PM			(not used)		
		% In	In	Out	Total	% In	In	Out	Total	% In		In	Out
Proposed Use		50%	1,710	1,710	3,420	78%	161	45	206	28%	87	225	312
Medical Office (Existing)		50%	1,108	1,108	2,216	78%	111	31	142	28%	57	148	205
Net			602	602	1,204		50	14	64		30	77	107

Notes: -Per ITE's *Trip Generation Handbook*, 3rd edition, the rates in the *Trip Generation Manual* represent base trip generation rates for "low-density, single-use, suburban developments with little or no transit service, limited bicycle access, and little or no convenient pedestrian access" and that the "analyst needs to adjust the baseline vehicle trip generation" if the subject development is an infill site, mixed-use development, transit-friendly development, is located within an urban core area or near a school, and/or other conditions.
-The base trips projected for the site are displayed in the table above. The following pages, if any, present appropriate adjustments to the base volumes and/or separate trip types.



BACKGROUND TRAFFIC CALCULATIONS

APPENDIX E

Source(s) <http://azmag.gov/Programs/Transportation/System-Analysis-and-Forecasting/Traffic-Volur>

Location of counts: Tatum Boulevard north of Shea Boulevard

Year	Volume	Avg Growth Rate to 2015	Expansion Factor to 2015
Beginning 2015	35,100		
End 2011	33,900	0.9%	1.035

Location of counts: Shea Boulevard East of Tatum Boulevard

Year	Volume	Avg Growth Rate to 2015	Expansion Factor to 2015
Beginning 2015	45,200		
End 2011	39,800	3.2%	0.882

Growth Rate Average 2.1%

Growth Rate Used 2.1%
Per-Year Multiplier 1.021

Year	Expansion Factor(s)
2018	1.000
2019	1.021
2020	1.041
2021	1.063
2022	1.085
2023	1.107
2024	1.129
2025	1.153
2026	1.176
2027	1.200
2028	1.225
2029	1.250
2030	1.276
2031	1.302
2032	1.329
2033	1.356
2034	1.384
2035	1.412
2036	1.441
2037	1.470
2038	1.501

<- Expansion factor to opening year

<- Expansion factor to 5 years after opening

PEAK HOUR TRAFFIC ANALYSIS

APPENDIX F

Mountain View Medical Center
Background AM

1: Tatum Blvd & Desert Cove Ave
Timing Report, Sorted By Phase

Phase Number	2	4	6	8
Movement	NBTL	EBTL	SBTL	WBTL
Lead/Lag				
Lead/Lag Optimize	None	C-Max	None	C-Max
Recall Mode	66	36	66	36
Maximum Split (s)	64.7%	35.3%	64.7%	35.3%
Maximum Split (%)	25.3	35	25.3	35
Minimum Split (s)	4.3	3	4.3	3
Yellow Time (s)	1	3	1	3
All-Red Time (s)	15	4	15	4
Minimum Interval (s)	3	3	3	3
Vehicle Extension (s)	3	3	3	3
Minimum Gap (s)	0	0	0	0
Time Before Reduce (s)	0	0	0	0
Time To Reduce (s)	0	0	0	0
Walk Time (s)	8	7	8	7
Flash Dont Walk (s)	12	22	12	22
Dual Entry	Yes	Yes	Yes	Yes
Inhibit Max	Yes	Yes	Yes	Yes
Start Time (s)	55	19	55	19
End Time (s)	19	55	19	55
Yield/Force Off (s)	13.7	49	13.7	49
Yield/Force Off 170(s)	1.7	27	1.7	27
Local Start Time (s)	36	0	36	0
Local Yield (s)	96.7	30	96.7	30
Local Yield 170(s)	84.7	8	84.7	8
Intersection Summary				
Cycle Length	102			
Control Type	Actuated-Coordinated			
Natural Cycle	65			
Officer: 19 (79%), Referenced to phase 4(EBTL) and 8(WBTL), Start of Green				

Spills and Phases: 1: Tatum Blvd & Desert Cove Ave
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Cmteach
Synchro 10 Report
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Mountain View Medical Center
Background AM

1: Tatum Blvd & Desert Cove Ave
HCM 6th Signalized Intersection Summary

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	9	0	5	20	0	50	30	838	37	87	1111	10
Traffic Volume (veh/h)	9	0	5	20	0	50	30	838	37	87	1111	10
Future Volume (veh/h)	0	0	0	0	0	0	0	0	0	0	0	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pb1)	1.00	1.00	1.00	1.00	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	No	No	No	No	No	No	No	No
Adj Sat Flow, veh/hln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	10	0	6	22	0	56	33	931	41	97	1234	11
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	476	13	259	230	23	530	173	2102	652	233	2149	19
Arrive On Green	0.48	0.00	0.48	0.48	0.00	0.48	0.41	0.41	0.41	0.41	0.41	0.41
Sat Flow, veh/h	877	27	543	387	49	1109	447	5106	1585	578	5220	47
Grp Volume(v), veh/hln	16	0	0	78	0	0	33	931	41	97	805	440
Grp Sat Flow(s), veh/hln	1447	0	0	1544	0	0	447	1702	1585	578	1702	1862
Q Serv(g_s), s	0.0	0.0	0.0	0.0	0.0	0.0	6.3	13.4	1.6	14.8	18.6	18.6
Cycle Q Clear(g_c), s	0.5	0.0	0.0	2.6	0.0	0.0	24.9	13.4	1.6	28.2	18.6	18.6
Prop In Lane	0.62	0.00	0.37	0.28	0.00	0.72	1.00	1.00	1.00	1.00	1.00	0.02
Lane Grp Cap(c), veh/h	748	0	0	783	0	0	173	2102	652	233	1401	766
V/C Ratio(X)	0.02	0.00	0.00	0.10	0.00	0.00	0.19	0.44	0.06	0.42	0.57	0.57
Avail Cap(c), veh/h	748	0	0	783	0	0	255	3039	943	339	2026	1108
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	0.00	0.00	1.00	0.00	0.00	0.84	0.84	0.84	1.00	1.00	1.00
Uniform Delay (d), svch	14.0	0.0	0.0	14.6	0.0	0.0	32.7	21.6	18.1	31.7	23.1	23.1
Incr Delay (d2), svch	0.1	0.0	0.0	0.3	0.0	0.0	0.4	0.1	0.0	1.2	0.4	0.7
Initial Q Delay (d3), svch	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 BackQ(95%),veh/hln	0.4	0.0	0.0	1.9	0.0	0.0	1.3	8.7	1.1	3.8	11.8	12.8
Unsig. Movement Delay, svch	14.1	0.0	0.0	14.9	0.0	0.0	33.1	21.7	18.2	32.9	23.5	23.8
Incrp LOS	B	A	A	B	A	A	C	C	B	C	C	C
Approach Vol, veh/h	16	16	16	78	16	1005	1005	1005	1342	1342	1342	1342
Approach Delay, svch	14.1	14.1	14.1	14.9	14.9	21.9	21.9	21.9	24.3	24.3	24.3	24.3
Approach LOS	B	B	B	B	B	C	C	C	C	C	C	C
Timer - Assigned Phs	2	4	6	8								
Phs Duration (G+Y+Rc), s	47.3	54.7	47.3	54.7								
Change Period (Y+Rc), s	5.3	6.0	5.3	6.0								
Max Green Setting (Gmax), s	60.7	30.0	60.7	30.0								
Max Q Clear Time (g_c+I1), s	26.9	2.5	30.2	4.6								
Green Ext Time (p_c), s	8.7	0.0	11.8	0.4								
Intersection Summary												
HCM 6th Ctrl Delay	22.9											
HCM 6th LOS	C											

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Mountain View Medical Center
Background AM

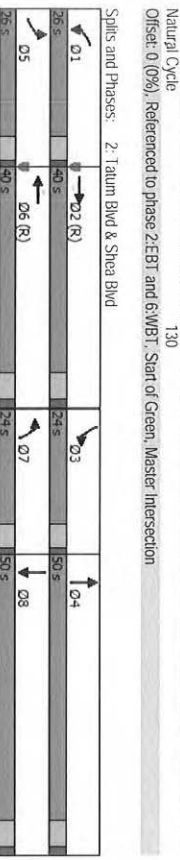
2: Tatum Blvd & Shea Blvd
Timing Report, Sorted by Phase

Phase Number	1	2	3	4	5	6	7	8
Movement	WBL	EBT	SBL	NBT	EBL	WBT	NBL	SBT
Lead Lag	Lead	Lag	Lead	Lag	Lead	Lag	Lead	Lag
Lead/Lag Optimize	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	C-Max	None	None	None	C-Max	None	None
Maximum Split (s)	26	40	24	50	26	40	24	50
Maximum Split (%)	18.6%	28.6%	17.1%	35.7%	18.6%	28.6%	17.1%	35.7%
Minimum Split (s)	10	36.9	20	40	10	36.9	20	40
Yellow Time (s)	4	4.3	4	4.3	4	4.3	4	4.3
All-Red Time (s)	1	1.6	1	1.7	1	1.6	1	1.7
Minimum Initial (s)	5	15	15	15	5	15	15	15
Voice Extension (s)	3	3	3	3	3	3	3	3
Minimum Gap (s)	3	3	3	3	3	3	3	3
Time Before Reduce (s)	0	0	0	0	0	0	0	0
Time To Reduce (s)	0	0	0	0	0	0	0	0
Walk Time (s)	8	23	8	26	8	23	8	26
Flash Dont Walk (s)	No	Yes	No	Yes	No	Yes	No	Yes
Dual Entry	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Inhibit Max	114	0	40	64	114	0	40	64
Start Time (s)	0	40	64	114	0	40	64	114
End Time (s)	135	34.1	59	108	135	34.1	59	108
Yield/Force Off (s)	135	11.1	59	82	135	11.1	59	82
Local Start Time (s)	135	34.1	59	108	135	34.1	59	108
Local Yield 170(s)	135	11.1	59	82	135	11.1	59	82

Intersection Summary

Cycle Length	140
Control Type	Actuated-Coordinated
Natural Cycle Offset: 0 (0%)	130

Referenced to phase 2:EBT and 6:WBT, Start of Green, Master Intersection



Mountain View Medical Center
Background AM

2: Tatum Blvd & Shea Blvd
HCM 6th Signalized Intersection Summary

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	T	T	T	T	T	T	T	T	T	T	T	T
Traffic Volume (veh/h)	234	1569	488	330	986	186	286	422	226	226	755	117
Future Volume (veh/h)	234	1569	488	330	986	186	286	422	226	226	755	117
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Peak Bike Adj(A, pct)	1.00	1.00	1.00	1.00	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	No	No	No	No	No	No	No	No
Adj Sat Flow, veh/hln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	260	1743	542	367	1096	207	318	469	251	251	839	130
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh. %	2	2	2	2	2	2	2	2	2	2	2	2
Cap. veh/h	319	1924	597	423	2079	645	373	807	376	376	1055	162
Arrive On Green	0.09	0.38	0.38	0.12	0.41	0.41	0.11	0.24	0.24	0.24	0.24	0.24
Sat. Flow, veh/h	3456	5106	1585	3456	5106	1585	3456	3404	1585	3456	4463	688
Grp Volume(v), veh/h	260	1743	542	367	1096	207	318	469	251	251	839	130
Grp Sat Flow(s),veh/hln	1728	1702	1585	1728	1702	1585	1728	1702	1585	1728	1702	1747
Q Servng. s, s	10.3	45.2	45.3	14.6	22.7	12.5	12.7	17.1	20.1	9.8	24.7	24.9
Cycle Q Clear(g. c), s	10.3	45.2	45.3	14.6	22.7	12.5	12.7	17.1	20.1	9.8	24.7	24.9
Prop In Lane	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.39
Lane Grp Cap(c), veh/h	319	1924	597	423	2079	645	373	807	376	370	804	413
V/C Ratio(x)	0.82	0.91	0.91	0.87	0.53	0.32	0.85	0.58	0.67	0.68	0.79	0.80
Avail Cap(c), veh/h	518	1924	597	518	2079	645	469	1070	498	469	1070	549
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	1.00	1.00	1.00	1.00	0.75
Uniform Delay (d), s/veh	62.4	41.3	41.3	60.3	31.3	28.3	61.3	47.2	48.4	60.2	50.3	50.3
Incr Delay (d2), s/veh	5.1	7.6	20.0	12.4	1.0	1.3	11.7	0.7	2.1	2.1	2.3	4.7
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 Back(Q)(95%), s/veh	8.4	27.6	28.4	11.5	14.6	8.7	10.3	11.8	12.9	7.4	15.5	16.3
Unsig. Movement Delay, s/veh	67.5	48.9	61.3	72.7	32.3	29.6	73.1	47.9	50.5	62.2	52.6	55.0
LnGrp Delay(d), s/veh	E	D	E	E	C	C	E	D	D	E	D	E
LnGrp LOS	E	D	E	E	C	C	E	D	D	E	D	E
Approach Vol, veh/h	2545	2545	2545	1670	1670	1038	1038	1038	1038	1038	1220	1220
Approach Delay, s/veh	53.5	53.5	53.5	40.8	40.8	56.2	56.2	56.2	56.2	56.2	55.2	55.2
Approach LOS	D	D	D	D	D	E	E	E	E	E	E	E
Timer -Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	22.2	58.6	20.0	39.2	17.9	62.9	20.1	38.1				
Change Period (Y+Rc), s	5.0	5.9	5.0	6	5.0	5.9	5.0	6				
Max Green Setting (Gmax), s	21.0	34	19.0	44	21.0	34	19.0	44				
Max Q Clear Time (q, c+11), s	16.6	47.3	11.8	22.1	12.3	24.7	14.7	28.9				
Green Ext Time (p, c), s	0.6	0.0	0.5	5.0	0.6	5.5	0.5	6.2				

Intersection												
Int Delay, s/vch												
	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Int Delay, s/vch	0.9											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔
Traffic Vol, veh/h	27	0	70	2	0	12	44	852	19	1,704	94	
Future Vol, veh/h	27	0	70	2	0	12	44	852	19	1,704	94	
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	105	-	-	-	-	150
Veh in Median Storage, #	0	0	0	0	0	0	0	0	0	0	0	0
Grade, %	0	0	0	0	0	0	0	0	0	0	0	0
Peak Hour Factor	90	90	90	90	90	90	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	30	0	78	2	0	13	49	947	21	1,893	104	

Major/Minor	Minor2	Minor1	Major1	Major2
Conflicting Flow All	2372 2961	947 1815	3055 484	1997 0
Stage 1	1895 1895	- 1056 1056	- -	- -
Stage 2	477 1066	- 759 1999	- -	- -
Critical Hdwy	6.44 6.54	7.14 6.44	6.54 7.14	5.34 -
Critical Hdwy Sig 1	7.34 5.54	- 7.34 5.54	- -	- 5.34 -
Critical Hdwy Sig 2	6.74 5.54	- 6.74 5.54	- -	- -
Follow-up Hdwy	3.82 4.02	3.92 3.82	4.02 3.92	3.12 -
Pol Cap-1 Maneuver	212 *47	*514 *528	37 452	622 -
Stage 1	528 *502	- 182 300	- -	- -
Stage 2	*492 *297	- *528 482	- -	- -
Platoon blocked, %	1 1	1 1	1 1	1 1
Mov Cap-1 Maneuver	193 *43	*514 *421	34 452	622 -
Mov Cap-2 Maneuver	193 *43	*421 34	- -	- 406 -
Stage 1	486 *502	- 168 276	- -	- -
Stage 2	440 *274	- 448 482	- -	- -

Approach	EB	WB	NB	SB
HCM Control Delay, s	19.7	13.3	0.5	0
HCM LOS	C	B		

Minor Lane/Minor Mvmt	NBL	NBT	NBR	EBL	EBT	EBR	SBL	SBT	SBR
Capacity (veh/h)	622	-	351	447	406	-	-	-	-
HCM Lane V/C Ratio	0.079	-	0.307	0.035	0.003	-	-	-	-
HCM Control Delay (s)	11.3	-	19.7	13.3	13.9	-	-	-	-
HCM Lane LOS	B	-	C	B	B	-	-	-	-
HCM 95th %ile Q(veh)	0.3	-	1.3	0.1	0	-	-	-	-

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

Intersection												
Int Delay, s/vch												
	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Int Delay, s/vch	0.4											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL <td>NBT <td>NBR <td>SBL <td>SBT <td>SBR</td> </td></td></td></td>	NBT <td>NBR <td>SBL <td>SBT <td>SBR</td> </td></td></td>	NBR <td>SBL <td>SBT <td>SBR</td> </td></td>	SBL <td>SBT <td>SBR</td> </td>	SBT <td>SBR</td>	SBR
Lane Configurations	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔
Traffic Vol, veh/h	2	0	2	0	0	27	6	896	9	30	1596	24
Future Vol, veh/h	2	0	2	0	0	27	6	896	9	30	1596	24
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	50	-	-	-	-	0
Veh in Median Storage, #	0	0	0	0	0	0	0	0	0	0	0	0
Grade, %	0	0	0	0	0	0	0	0	0	0	0	0
Peak Hour Factor	90	90	90	90	90	90	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	2	0	2	0	0	30	7	996	10	33	1773	27

Major/Minor	Minor2	Minor1	Major1	Major2
Conflicting Flow All	1853 1853	2265 2873	900 1790	2881 503
Stage 1	1853 1853	- 1015 1015	- -	- -
Stage 2	412 1020	- 775 1866	- -	- -
Critical Hdwy	6.44 6.54	7.14 6.44	6.54 7.14	5.34 -
Critical Hdwy Sig 1	7.34 5.54	- 7.34 5.54	- -	- 5.34 -
Critical Hdwy Sig 2	6.74 5.54	- 6.74 5.54	- -	- -
Follow-up Hdwy	3.82 4.02	3.92 3.82	4.02 3.92	3.12 -
Pol Cap-1 Maneuver	204 48	*562 *567	47 440	682 -
Stage 1	484 486	- 194 314	- -	- 389 -
Stage 2	538 312	- *567 476	- -	- -
Platoon blocked, %	1 1	1 1	1 1	1 1
Mov Cap-1 Maneuver	177 43	*562 *524	43 440	682 -
Mov Cap-2 Maneuver	177 43	*524 43	- -	- 389 -
Stage 1	479 445	- 192 311	- -	- -
Stage 2	496 309	- *517 435	- -	- -

Approach	EB	WB	NB	SB
HCM Control Delay, s	18.7	13.8	0.1	0.3
HCM LOS	C	B		

Minor Lane/Minor Mvmt	NBL	NBT	NBR	EBL	EBT	EBR	SBL	SBT	SBR
Capacity (veh/h)	682	-	268	440	389	-	-	-	-
HCM Lane V/C Ratio	0.01	-	0.017	0.068	0.086	-	-	-	-
HCM Control Delay (s)	10.3	-	18.7	13.8	15.1	-	-	-	-
HCM Lane LOS	B	-	C	B	C	-	-	-	-
HCM 95th %ile Q(veh)	0	-	0.1	0.2	0.3	-	-	-	-

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

Mountain View Medical Center
Background AM

5: Tatum Blvd & Gold Dust Avenue
HCM 6th TWSC

Intersection		0.6							
Int Delay, s/vch									
Movement									
Lane Configurations	EBL	EBR	NBL	NBT	SBL	SBR			
Traffic Vol, veh/h	18	61	16	852	1610	19			
Future Vol, veh/h	18	61	16	852	1610	19			
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	-	50	-	0	0			
Veh in Median Storage, #	0	-	-	0	0	0			
Grade, %	0	-	-	-	0	0			
Peak Hour Factor	90	90	90	90	90	90			
Heavy Vehicles, %	2	2	2	2	2	2			
Mvmt Flow	20	88	18	947	1789	21			

Major/Minor	Minor2	Major1	Major2
Conflicting Flow All	2204	895	1810
Stage 1	1789	-	-
Stage 2	415	-	-
Critical Hdwy	6.29	6.94	4.14
Critical Hdwy Sig 1	5.84	-	-
Critical Hdwy Sig 2	6.04	-	-
Follow-up Hdwy	3.67	3.32	2.22
Pol Cap-1 Maneuver	388	407	608
Stage 1	388	-	-
Stage 2	600	-	-
Platoon blocked, %	1	1	1
Mov Cap-1 Maneuver	357	407	608
Mov Cap-2 Maneuver	326	-	-
Stage 1	357	-	-
Stage 2	600	-	-

Approach	EB	NB	SB
HCM Control Delay, s	17.1	0.2	0
HCM LOS	C		

Minor Lane/Minor Mvmt NBL NBT EBL/1 SBT SBR
Capacity (veh/h) * 608 - 385 - - -
HCM Lane V/C Ratio 0.029 - 0.228 - - -
HCM Control Delay (s) 11.1 - 17.1 - - -
HCM Lane LOS B - C - - -
HCM 95th %tile Q(veh) 0.1 - 0.9 - - -

Mountain View Medical Center
Background AM

6: Beryl Ave & Medical Center Dwy
HCM 6th TWSC

Intersection		3.1							
Int Delay, s/vch									
Movement									
Lane Configurations	EBL	EBT	WBT	WBR	SBL	SBR			
Traffic Vol, veh/h	28	15	25	1	1	1			
Future Vol, veh/h	28	15	25	1	1	1			
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	-	-	-	-	0			
Veh in Median Storage, #	0	0	0	0	0	0			
Grade, %	0	-	-	-	-	0			
Peak Hour Factor	90	90	90	90	90	90			
Heavy Vehicles, %	2	2	2	2	2	2			
Mvmt Flow	31	17	28	1	1	1			

Major/Minor	Major1	Major2	Minor2
Conflicting Flow All	29	0	108
Stage 1	-	-	29
Stage 2	-	-	79
Critical Hdwy	4.12	-	6.42
Critical Hdwy Sig 1	-	-	5.42
Critical Hdwy Sig 2	-	-	5.42
Follow-up Hdwy	2.218	-	3.318
Pol Cap-1 Maneuver	1584	-	889
Stage 1	1584	-	994
Stage 2	-	-	944
Platoon blocked, %	-	-	871
Mov Cap-1 Maneuver	1584	-	871
Mov Cap-2 Maneuver	-	-	871
Stage 1	-	-	974
Stage 2	-	-	944

Approach	EB	WB	SB
HCM Control Delay, s	4.8	0	8.4
HCM LOS	A		A

Minor Lane/Minor Mvmt EBL EBT WBT WBR SBL/1
Capacity (veh/h) 1584 - - - 1046
HCM Lane V/C Ratio 0.02 - - - 0.001
HCM Control Delay (s) 7.3 - 0 - - 8.4
HCM Lane LOS A - A - - A
HCM 95th %tile Q(veh) 0.1 - - - 0

Intersection	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Initial Delay, s/vch	0.4											
Lane Configurations	↔ ↑↑↑	↔ ↑↑↑	↔ ↑↑↑	↔ ↑↑↑	↔ ↑↑↑	↔ ↑↑↑	↔ ↑↑↑	↔ ↑↑↑	↔ ↑↑↑	↔ ↑↑↑	↔ ↑↑↑	↔ ↑↑↑
Traffic Vol, veh/h	56	1992	37	21	1507	34	0	0	14	0	0	35
Future Vol, veh/h	56	1992	37	21	1507	34	0	0	14	0	0	35
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	-	-	-	-	-	-	-	-	-	-
Storage Length	205	-	-	85	-	150	-	-	-	-	-	-
Van in Median Storage, #	0	0	0	0	0	0	0	0	0	0	0	0
Grade, %	0	0	0	0	0	0	0	0	0	0	0	0
Peak Hour Factor	90	90	90	90	90	90	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mount Flow	62	2213	41	23	1674	38	0	0	16	0	0	39

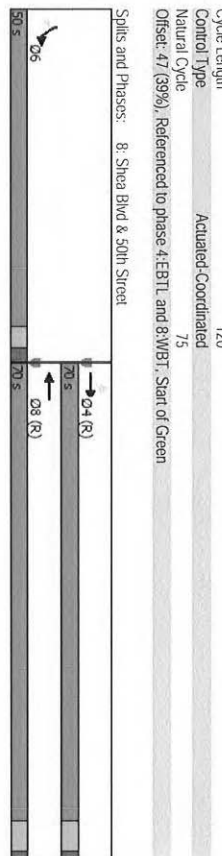
Major/Minor	Major1	Major2	Minor1	Minor2
Conflicting Flow All	1712	0	2254	0
Stage 1	-	-	-	-
Stage 2	5:34	-	5:34	-
Critical Hwy Sig 1	-	-	-	-
Critical Hwy Sig 2	-	-	-	-
Follow-up Heavy	3:12	-	3:12	-
Plat Cap-1 Maneuver	*701	-	*552	-
Stage 1	-	-	-	-
Stage 2	-	-	-	-
Platoon blocked, %	1	-	1	-
Major Cap-1 Maneuver	*701	-	*552	-
Minor Cap-2 Maneuver	-	-	-	-
Stage 1	-	-	-	-
Stage 2	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.3	0.2	13.5	11.9
HCM LOS			B	B

Minor Lane/Minor/Mvmt	NBL/NT	EBL	EBT	EBR	WBL	WBT	WBR	SBL	SBT	SBR
Capacity (veh/h)	439	*701	-	-	552	-	-	558	-	-
HCM Lane V/C Ratio	0.035	0.089	-	-	0.042	-	-	0.07	-	-
HCM Control Delay (s)	13.5	10.6	-	-	11.8	-	-	11.9	-	-
HCM Lane LOS	B	B	-	-	B	-	-	B	-	-
HCM 95th %ile Q(veh)	0.1	0.3	-	-	0.1	-	-	0.2	-	-

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

Phase Number	4	6	8
Movement	EBTL	SBL	WBT
Lead/Lag			
Lead/Lag Optimize			
Recall Mode	C-Max	Max	C-Max
Maximum Split (s)	70	50	70
Maximum Split (%)	58.3%	41.7%	58.3%
Minimum Split (s)	25.3	29.2	25.3
Yellow Time (s)	4.3	3	4.3
All-Red Time (s)	1	2.2	1
Minimum Initial (s)	15	5	15
Vehicle Extension (s)	3	3	3
Minimum Gap (s)	3	3	3
Time Before Reduce (s)	0	0	0
Time To Reduce (s)	0	0	0
Walk Time (s)	8	8	8
Flash Dont Walk (s)	12	16	12
Dual Entry	Yes	Yes	Yes
Inhibit Max	Yes	Yes	Yes
Start Time (s)	47	117	47
End Time (s)	117	47	117
Yield/Force Off (s)	111.7	41.8	111.7
Yield/Force Off 170(s)	99.7	25.8	99.7
Local Start Time (s)	0	70	0
Local Yield (s)	64.7	114.8	64.7
Local Yield 170(s)	52.7	98.8	52.7

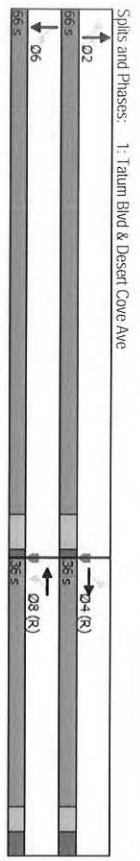


Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations	←	←←	←	←	←	←
Traffic Volume (veh/h)	40	1987	1494	54	76	44
Future Volume (veh/h)	40	1987	1494	54	76	44
Initial Q (Qb), veh	0	0	0	0	0	0
Port Bike Adj(A, pct)	1.00	1.00	1.00	1.00	1.00	1.00
Parking Bus. Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No	No	No	No	No	No
Adj Sat Flow, veh/hln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	44	2208	1660	60	84	49
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	94	2753	1886	68	665	592
Arrive On Green	0.54	0.54	0.54	0.54	0.37	0.37
Sat Flow, veh/h	283	5274	3592	126	1781	1585
Grp Volume(v), veh/h	44	2208	840	880	84	49
Grp Sat Flow(s),veh/hln	283	1702	1777	1848	1781	1585
Q Serve(g), s	14.4	42.1	49.6	50.3	3.7	2.4
Cycle Q Clear(g), s	64.7	42.1	49.6	50.3	3.7	2.4
Prop In Lane	1.00			0.07	1.00	1.00
Lane Grp Cap(g), veh/h	94	2753	958	996	665	592
V/C Ratio(x)	0.47	0.80	0.88	0.88	0.13	0.08
Avail Cap(c), veh/h	94	2753	958	996	665	592
HCM Platoon Ratio	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
Uniform Delay (d), s/veh	54.4	22.4	24.2	24.3	24.7	24.3
Incr Delay (d2), s/veh	15.8	2.6	11.1	11.3	0.4	0.3
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back(Q)(95%),veh/hln	3.2	23.6	30.7	32.2	3.0	1.7
Unsig. Movement Delay, s/veh	70.2	25.0	35.3	35.6	25.1	24.6
LnGrp LOS	E	C	D	D	C	C
Approach Vol, veh/h	2252	1720		133		
Approach Delay, s/veh	25.9	35.5		24.9		
Approach LOS	C	D		C		
Timer -Assigned Phs			4		6	8
Pls Duration (G+Y+Rc), s	70.0				50.0	70.0
Change Period (Y+Rc), s	5.3				5.2	5.3
Max Green Setting (Gmax), s	64.7				44.8	64.7
Max Q Clear Time (g_c+1t), s	66.7				5.7	52.3
Green Ext Time (g_c), s	0.0				0.4	9.1
Intersection Summary						
HCM 6th C/I Delay		29.9				
HCM 6th LOS		C				

Mountain View Medical Center
Background PM

1: Tatum Blvd & Desert Cove Ave
Timing Report, Sorted By Phase

Phase Number	2	4	6	8
Movement	NBTL	EBTL	SBTL	WBTL
Lead/Lag				
Lead-Lag Optimize				
Recall Mode	None	C-Max	None	C-Max
Maximum Split (%)	64.7%	35.3%	64.7%	35.3%
Minimum Split (%)	25.3	35	25.3	35
Yellow Time (s)	4.3	3	4.3	3
All-Red Time (s)	1	3	1	3
Minimum Initial (s)	15	4	15	4
Vehicle Extension (s)	3	3	3	3
Minimum Gap (s)	3	3	3	3
Time Before Reduce (s)	0	0	0	0
Time To Reduce (s)	0	0	0	0
Walk Time (s)	8	7	8	7
Flash Dont Walk (s)	12	22	12	22
Dual Entry	Yes	Yes	Yes	Yes
Inhibit Max	Yes	Yes	Yes	Yes
Start Time (s)	86	50	86	50
End Time (s)	50	86	50	86
Yield/Force Off (s)	44.7	80	44.7	80
Yield/Force Off 170(s)	32.7	58	32.7	58
Local Start Time (s)	36	0	36	0
Local Yield (s)	96.7	30	96.7	30
Local Yield 170(s)	84.7	8	84.7	8



Mountain View Medical Center
Background PM

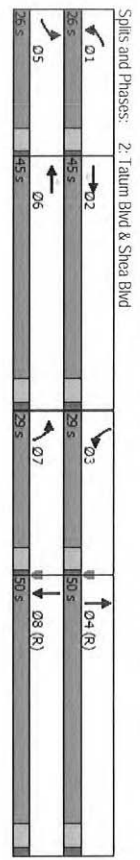
1: Tatum Blvd & Desert Cove Ave
HCM 6th Signalized Intersection Summary

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	28	1	28	77	1	100	10	1721	41	113	1277	2
Traffic Volume (veh/h)	28	1	28	77	1	100	10	1721	41	113	1277	2
Future Volume (veh/h)	0	0	0	0	0	0	0	0	0	0	0	0
Initial Q (QD), veh	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Adj(A, pb1)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Parking Bus Adj	No	No	No	No	No	No	No	No	No	No	No	No
Work Zone On Approach	No	No	No	No	No	No	No	No	No	No	No	No
Adj Sat Flow, veh/hln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	31	1	31	86	1	111	11	1912	46	126	1419	2
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh. %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	243	24	208	225	21	249	239	3039	943	150	3134	4
Arrive On Green	0.29	0.29	0.29	0.29	0.29	0.29	0.60	0.60	0.60	0.60	0.60	0.60
Sat Flow, veh/h	647	81	706	592	72	847	378	5106	1585	224	5266	7
Grp Volume(v), veh/h	63	0	0	198	0	0	11	1912	46	126	917	504
Grp Sat Flow(s),veh/hln	1434	0	0	1510	0	0	378	1702	1585	224	1702	1889
Q Serve(g, s), s	0.0	0.0	0.0	7.6	0.0	0.0	1.7	24.7	1.2	36.0	15.2	15.2
Cycle Q Clear(g, c), s	2.9	0.0	0.0	10.5	0.0	0.0	16.9	24.7	1.2	60.7	15.2	15.2
Prop In Lane	0.49	0	0.49	0.43	0	0.56	1.00	1.00	1.00	1.00	1.00	0.00
Lane Grp Cap(c), veh/h	474	0	0	495	0	0	239	3039	943	150	2026	1112
V/C Ratio(X)	0.13	0.00	0.00	0.40	0.00	0.00	0.05	0.63	0.05	0.84	0.45	0.45
Avail Cap(c), veh/h	474	0	0	495	0	0	239	3039	943	150	2026	1112
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(f)	1.00	0.00	0.00	1.00	0.00	0.00	0.34	0.34	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	26.4	0.0	0.0	29.0	0.0	0.0	16.1	13.4	8.6	39.7	11.4	11.4
Incr Delay (d2), s/veh	0.6	0.0	0.0	2.4	0.0	0.0	0.0	0.1	0.0	32.9	0.2	0.3
Initial Q Delay(QD), 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 BackQ(95%), s/veh	2.2	0.0	0.0	7.6	0.0	0.0	0.3	11.6	0.7	8.1	9.2	10.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	27.0	0.0	0.0	31.4	0.0	0.0	16.2	13.5	8.6	72.6	11.6	11.7
LnGrp LOS	C	A	A	C	A	A	B	B	A	E	B	B
Approach Vol, veh/h	63	A	A	198	A	A	1999	A	A	1547	B	B
Approach Delay, s/veh	27.0	C	C	31.4	C	C	13.4	B	B	16.6	B	B
Approach LOS	C	C	C	C	C	C	B	B	B	B	B	B
Timer - Assigned Pkts	2			4			6			8		
Pkts Duration (G+Y+Rc), s	66.0			36.0			66.0			36.0		
Change Period (Y+Rc), s	5.3			6.0			5.3			6.0		
Max Green Setting (Gmax), s	60.7			30.0			60.7			30.0		
Max Q Clear Time (q_c+1), s	26.7			4.9			62.7			12.5		
Green Ext Time (p_c), s	20.9			0.3			0.0			1.0		

Mountain View Medical Center
Background PM

2: Tatum Blvd & Shea Blvd
Timing Report, Sorted By Phase

Phase Number	1	2	3	4	5	6	7	8
Movement	WBL	EBT	SBL	NBT	EBL	WBT	NBL	SBT
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	C-Max	None	None	None	C-Max
Maximum Split (s)	26	45	29	50	26	45	29	50
Maximum Split (%)	17.3%	30.0%	19.3%	33.3%	17.3%	30.0%	19.3%	33.3%
Minimum Split (s)	10	36.9	20	40	10	36.9	20	40
All-Red Time (s)	4	4.3	4	4.3	4	4.3	4	4.3
Minimum Initial (s)	1.6	1.6	1.7	1.7	1.6	1.6	1.7	1.7
Vehicle Extension (s)	3	3	3	3	3	3	3	3
Minimum Gap (s)	3	3	3	3	3	3	3	3
Time Before Reduce (s)	0	0	0	0	0	0	0	0
Time To Reduce (s)	0	0	0	0	0	0	0	0
Walk Time (s)	8	8	8	8	8	8	8	8
Flash Dont Walk (s)	23	23	26	26	23	23	26	26
Inhibit Max	No	Yes	No	Yes	No	Yes	No	Yes
Inhibit Min	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Start Time (s)	105	131	26	55	105	131	26	55
End Time (s)	131	26	55	105	131	26	55	105
Yield/Force Off (s)	126	20.1	50	99	126	20.1	50	99
Yield/Force Off 170(s)	126	147.1	50	73	126	147.1	50	73
Local Start Time (s)	50	76	121	0	50	76	121	0
Local Yield (s)	71	115.1	145	44	71	115.1	145	44
Local Yield 170(s)	71	92.1	145	18	71	92.1	145	18
Intersection Summary	150							
Cycle Length	150							
Control Type	Actuated-Coordinated							
Natural Cycle	150							
Offset: s (37%)	Referenced to phase 4:NBT and 8:SBT, Start of Green							



Mountain View Medical Center
Background PM

2: Tatum Blvd & Shea Blvd
HCM 6th Signalized Intersection Summary

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	TT	TT	F	TT	TT	F	TT	TT	F	TT	TT	TT
Traffic Volume (veh/h)	373	1218	240	198	1572	216	627	1123	270	287	686	287
Future Volume (veh/h)	373	1218	240	198	1572	216	627	1123	270	287	686	287
Initial Q (Q0), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A, pb1)	1.00	1.00	1.00	1.00	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	No	No	No	No	No	No	No	No
Adj Sat Flow, veh/hln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	414	1333	267	220	1747	240	697	1248	300	319	762	319
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	459	1605	498	274	1331	413	553	1445	347	376	1064	441
Arrive On Green	0.13	0.31	0.31	0.08	0.28	0.26	0.16	0.35	0.35	0.11	0.30	0.30
Sat Flow, veh/h	3456	5106	1585	3456	5106	1585	3456	5106	1585	3456	5106	1585
Grp Volume(v), veh/h	414	1333	267	220	1747	240	697	1034	514	319	732	349
Grp Sat Flow(s), veh/hln	1728	1702	1585	1728	1702	1585	1728	1702	1693	1728	1702	1606
Q Serve(g, s)	17.7	37.1	20.8	9.4	39.1	19.8	24.0	42.4	42.4	13.6	28.8	29.1
Cycle Q Clear(g, c), s	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Prop In Lane	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lane Grp Cap(c), veh/h	459	1605	498	274	1331	413	553	1197	595	376	1023	483
Vic Ratio(x)	0.90	0.84	0.54	0.80	1.31	0.58	1.26	0.86	0.86	0.56	0.72	0.72
Avail Cap(c), veh/h	484	1605	498	484	1331	413	553	1197	595	553	1023	483
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	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	64.1	48.0	42.4	67.9	55.5	48.3	63.0	45.3	65.6	46.8	46.9	46.9
Incr Delay (d2), s/veh	19.3	4.3	1.1	5.5	146.1	2.0	131.3	8.4	15.4	7.2	3.8	8.0
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%), s/veh	14.0	23.0	13.2	7.8	51.4	12.8	31.2	26.5	27.8	10.3	18.3	18.3
Unsig. Movement Delay, s/veh	83.4	52.2	43.5	73.4	201.6	50.4	194.3	53.7	60.6	72.8	50.6	54.9
Incrp Delay(d), s/veh	F	D	D	E	F	D	F	D	E	E	D	D
Incrp LOS	F	D	D	E	F	D	F	D	E	E	D	D
Approach Vol, veh/h	2034		2207		2245		1400		2245		1400	
Approach Delay, s/veh	57.4		172.3		98.9		56.7		98.9		56.7	
Approach LOS	E		F		F		E		F		E	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	16.9	53.1	21.3	58.7	24.9	45.0	29.0	51.1				
Change Period (Y+Rc), s	5.0	* 5.9	5.0	* 6	5.0	* 5.9	5.0	* 6				
Max Green Setting (Gmax), s	21.0	* 39	24.0	* 44	21.0	* 39	24.0	* 44				
Max Q Clear Time (g_c+1l), s	11.4	39.1	15.6	44.4	19.7	41.1	26.0	31.1				
Green Ext Time (p, c), s	0.5	0.0	0.7	0.0	0.2	0.0	0.0	0.0				
Intersection Summary	101.3											
HCM 6th Ctrl Delay	F											
HCM 6th LOS	F											

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

Mountain View Medical Center
Background PM

3: Tatum Blvd & Fry's Dwy/Medical Center Dwy
HCM 6th TWSC

Intersection												
In Delay, s/veh												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	24	0	126	1	0	63	55	1984	8	2	998	149
Traffic Vol, veh/h	24	0	126	1	0	63	55	1984	8	2	998	149
Future Vol, veh/h	0	0	0	0	0	0	0	0	0	0	0	0
Conflicting Peds. #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	None	-	-	None	-
Storage Length	-	-	-	-	-	-	-	105	-	-	-	150
Veh in Median Storage, #	-	-	-	-	-	-	-	-	-	-	-	-
Grade, %	-	-	-	-	-	-	-	-	-	-	-	-
Peak Hour Factor	90	90	90	90	90	90	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	27	0	140	1	0	70	61	2204	9	2	1109	166

Major/Minor	Minor2	Minor1	Major1	Major2
Conflicting Flow All	2117 3448	555 2779	3610 1107	1275 0
Stage 1	1113 1113	- 2331 2331	- -	- -
Stage 2	1004 2335	- 448 1279	- -	- -
Critical Hdwy	6.44 6.54	7.14 6.44	6.54 7.14	5.34 -
Critical Hdwy Sig 1	7.34 5.54	- 7.34 5.54	- -	- 5.34 -
Critical Hdwy Sig 2	6.74 5.54	- 6.74 5.54	- -	- -
Follow-up Hdwy	3.82 4.02	3.92 3.82	4.02 3.92	3.12 -
Pot Cap-1 Maneuver	1.27 -9	882 -36	6 176	720 -
Stage 1	*700 666	*22 70	- -	- -
Stage 2	*234 69	*700 562	- -	- -
Platoon blocked, %	1 1	1 1	1 1	- -
Mov Cap-1 Maneuver	*67 8	*882 -25	5 176	720 -
Mov Cap-2 Maneuver	*67 8	*25 5	- -	- 97 -
Stage 1	*641 616	- 20 64	- -	- -
Stage 2	*129 63	- 515 520	- -	- -

Approach	EB	WB	NB	SB
HCM Control Delay, s	11.6	44	0.3	0.1
HCM LOS	B	E		

Minor Lane/Minor Mvmt NBL NBT NBR EBL/EBL/EBL/EBL SBL SBT SBR
Capacity (veh/h) 720 - - 682 161 97 - -
HCM Lane V/C Ratio 0.085 - - 0.205 0.442 0.023 - -
HCM Control Delay (s) 10.5 - - 11.6 44 43 - -
HCM Lane LOS B - - B E E - -
HCM 95th %ile Q(veh) 0.3 - - 0.8 2 0.1 - -

Notes
- Volume exceeds capacity \$. Delay exceeds 300s + Computation Not Defined *. All major volume in platoon

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Mountain View Medical Center
Background PM

4: Tatum Blvd & Tatum Corp. Center Dwy/Beryl Ave
HCM 6th TWSC

Intersection												
In Delay, s/veh												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	8	1	2	8	0	44	0	1962	3	32	1117	5
Traffic Vol, veh/h	8	1	2	8	0	44	0	1962	3	32	1117	5
Future Vol, veh/h	0	0	0	0	0	0	0	0	0	0	0	0
Conflicting Peds. #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	None	-	-	None	-
Storage Length	-	-	-	-	-	-	-	50	-	-	-	-
Veh in Median Storage, #	-	-	-	-	-	-	-	-	-	-	-	-
Grade, %	-	-	-	-	-	-	-	-	-	-	-	-
Peak Hour Factor	90	90	90	90	90	90	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	9	1	2	9	0	49	0	2180	3	36	1241	6

Major/Minor	Minor2	Minor1	Major1	Major2
Conflicting Flow All	2188 3499	624 2751	3501 1092	1247 0
Stage 1	1316 1316	- 2182 2182	- -	- -
Stage 2	872 2183	- 569 1319	- -	- -
Critical Hdwy	6.44 6.54	7.14 6.44	6.54 7.14	5.34 -
Critical Hdwy Sig 1	7.34 5.54	- 7.34 5.54	- -	- 5.34 -
Critical Hdwy Sig 2	6.74 5.54	- 6.74 5.54	- -	- -
Follow-up Hdwy	3.82 4.02	3.92 3.82	4.02 3.92	3.12 -
Pot Cap-1 Maneuver	1.33 -8	647 -44	8 180	814 -
Stage 1	*664 632	*28 83	- -	- -
Stage 2	*282 83	*664 632	- -	- -
Platoon blocked, %	1 1	1 1	1 1	- -
Mov Cap-1 Maneuver	*70 5	*647 -26	5 180	814 -
Mov Cap-2 Maneuver	*70 5	*26 5	- -	- 101 -
Stage 1	*664 407	- 28 83	- -	- -
Stage 2	*205 83	- 425 407	- -	- -

Approach	EB	WB	NB	SB
HCM Control Delay, s	155.3	91.2	0	1.6
HCM LOS	F	F		

Minor Lane/Minor Mvmt NBL NBT NBR EBL/EBL/EBL/EBL SBL SBT SBR
Capacity (veh/h) * 814 - - 35 94 101 - -
HCM Lane V/C Ratio - - - 0.349 0.615 0.352 - -
HCM Control Delay (s) 0 - - 155.3 91.2 58.9 - -
HCM Lane LOS A - - F F F - -
HCM 95th %ile Q(veh) 0 - - 1.1 2.9 1.4 - -

Notes
- Volume exceeds capacity \$. Delay exceeds 300s + Computation Not Defined *. All major volume in platoon

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Mountain View Medical Center
Background PM

5: Tatum Blvd & Gold Dust Avenue
HCM 6th TWSC

Intersection									
Int Delay, s/veh	0.3								
Movement	EBL	EBR	NBL	NBT	SBL	SBR			
Lane Configurations	Y	Y	AAA	AA	AA	F			
Traffic Vol, veh/h	16	20	47	2002	1043	64			
Future Vol, veh/h	16	20	47	2002	1043	64			
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	-	50	-	-	-			
Vehicle in Median Storage, #	0	-	0	0	0	-			
Grade, %	0	-	-	-	0	0			
Peak Hour Factor	90	90	90	90	90	90			
Heavy Vehicles, %	2	2	2	2	2	2			
Warrant Flow	18	22	52	2224	1159	71			

Major/Minor	Minor2	Major1	Minor2		
Conflicting Flow All	2153	580	1230	0	0
Stage 1	1159	-	-	-	-
Stage 2	994	-	-	-	-
Critical Hdwy	629	694	414	-	-
Critical Hdwy Sig 1	584	-	-	-	-
Critical Hdwy Sig 2	604	-	-	-	-
Follow-up Hdwy	3.67	3.32	2.22	-	-
Pot Cap-1 Maneuver	299	639	956	-	-
Stage 1	579	-	-	-	-
Stage 2	294	-	-	-	-
Platoon blocked, %	1	1	1	-	-
Move Cap-1 Maneuver	283	639	956	-	-
Move Cap-2 Maneuver	214	-	-	-	-
Stage 1	547	-	-	-	-
Stage 2	294	-	-	-	-

Approach	EB	NB	SB		
HCM Control Delay, s	17	0.2	0		
HCM LOS	C				

Minor Lane: Major / Minor NBL NBT EBL / EBT SBL SBR

Capacity (veh/h) - 956 - 339 - -

HCM Lane V/C Ratio 0.055 - 0.118 - -

HCM Control Delay (s) 9 - 17 - -

HCM Lane LOS A - C - -

HCM 95th %ile Q(veh) 0.2 - 0.4 - -

Notes

-- Volume exceeds capacity \$. Delay exceeds 300s +: Computation Not Defined *: All major volume in platoon

Mountain View Medical Center
Background PM

6: Beryl Ave & Medical Center Dwy
HCM 6th TWSC

Intersection									
Int Delay, s/veh	4.2								
Movement	EBL	EBT	WBT	WBR	SBL	SBR			
Lane Configurations	Y	Y	Y	Y	Y	F			
Traffic Vol, veh/h	12	27	19	2	1	37			
Future Vol, veh/h	12	27	19	2	1	37			
Conflicting Peds, #/hr	0	0	0	0	0	0			
Sign Control	Free	Free	Free	Free	Free	Stop			
RT Channelized	-	None	-	None	-	None			
Storage Length	0	-	-	-	-	0			
Vehicle in Median Storage, #	0	0	0	0	0	0			
Grade, %	0	-	-	-	0	0			
Peak Hour Factor	90	90	90	90	90	90			
Heavy Vehicles, %	2	2	2	2	2	2			
Warrant Flow	13	30	21	2	1	41			

Major/Minor	Major1	Major2	Minor2		
Conflicting Flow All	23	0	0	78	22
Stage 1	-	-	-	22	-
Stage 2	-	-	-	56	-
Critical Hdwy	412	-	-	642	622
Critical Hdwy Sig 1	-	-	-	542	-
Critical Hdwy Sig 2	-	-	-	542	-
Follow-up Hdwy	2.218	-	-	3.518	3.318
Pot Cap-1 Maneuver	1592	-	-	925	1055
Stage 1	-	-	-	1001	-
Stage 2	-	-	-	967	-
Platoon blocked, %	-	-	-	-	-
Move Cap-1 Maneuver	1592	-	-	918	1055
Move Cap-2 Maneuver	918	-	-	918	-
Stage 1	-	-	-	993	-
Stage 2	-	-	-	967	-

Approach	EB	WB	SB		
HCM Control Delay, s	2.2	0	8.6		
HCM LOS			A		

Minor Lane: Major / Minor EBL EBT WBT WBR SBL SBR

Capacity (veh/h) 1592 - - - - 1055

HCM Lane V/C Ratio 0.008 - - - - 0.039

HCM Control Delay (s) 7.3 0 - - - 8.6

HCM Lane LOS A A - - - A

HCM 95th %ile Q(veh) 0 - - - - 0.1

Notes

Intersection	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
In Delay, s/veh	0.6											
Lane Configurations	↑ ↑ ↑ ↑	↑ ↑ ↑ ↑	↑ ↑ ↑ ↑	↑ ↑ ↑ ↑	↑ ↑ ↑ ↑	↑ ↑ ↑ ↑	↑	↑	↑	↑	↑	↑
Traffic Vol, veh/h	41	1686	14	9	1962	91	0	0	29	0	0	56
Future Vol, veh/h	41	1686	14	9	1962	91	0	0	29	0	0	56
Conflicting Peas, #/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	205	-	-	85	-	150	-	-	0	-	-	0
Vel in Median Storage, #	0	0	0	0	0	0	0	0	0	0	0	0
Grade, %	0	0	0	0	0	0	0	0	0	0	0	0
Peak Hour Factor	90	90	90	90	90	90	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Minrt Flow	46	1873	16	10	2180	101	0	0	32	0	0	62

Major/Minor	Major1	Major2	Minor1	Minor2
Conflicting Flow All	2281	0	1889	0
Stage 1	-	-	-	-
Stage 2	-	-	-	-
Critical Hwy Sig 1	5:34	-	5:34	-
Critical Hwy Sig 2	-	-	-	-
Follow-up Hdwy Sig 2	-	-	-	-
Pot Cap-1 Maneuver	3:12	-	3:12	-
Stage 1	-	-	-	-
Stage 2	-	-	-	-
Platoon blocked %	1	-	0	0
Mov Cap-1 Maneuver	*563	-	142	-
Mov Cap-2 Maneuver	-	-	-	-
Stage 1	-	-	-	-
Stage 2	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.3	0.1	23.6	14.4
HCM LOS			C	B

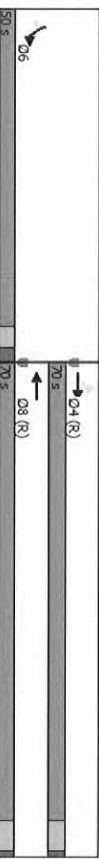
Minor Lane/Minor Mvmt	NBLNT	EBL	EBT	EBR	WBL	WBT	WBR	SBL	SBT	SBR
Capacity (veh/h)	226	563	-	142	-	-	-	447	-	-
HCM Lane V/C Ratio	0.143	0.081	-	0.07	-	-	-	0.139	-	-
HCM Control Delay (s)	23.6	12	-	32.3	-	-	-	14.4	-	-
HCM Lane LOS	C	B	-	D	-	-	-	B	-	-
HCM 95th %ile Q(veh)	0.5	0.3	-	0.2	-	-	-	0.5	-	-

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

Phase Number	EBTL	SBL	WBT
4	6	8	
Recall Mode	C:Max	Max	C:Max
Maximum Split (s)	70	50	70
Maximum Split (%)	58.3%	41.7%	58.3%
Minimum Split (s)	25.3	29.2	25.3
Yellow Time (s)	4.3	3	4.3
All-Red Time (s)	1	2.2	1
Minimum Initial (s)	15	5	15
Vehicle Extension (s)	3	3	3
Minimum Gap (s)	3	3	3
Time Before Reduce (s)	0	0	0
Time To Reduce (s)	0	0	0
Walk Time (s)	8	8	8
Flash Dont Walk (s)	12	16	12
Dual Entry	Yes	Yes	Yes
Inhibit Max	Yes	Yes	Yes
Start Time (s)	3	73	3
End Time (s)	73	3	73
Yield/Force Off (s)	67.7	117.8	67.7
Yield/Force Off 170(s)	55.7	101.8	55.7
Local Start Time (s)	0	70	0
Local Yield (s)	64.7	114.8	64.7
Local Yield 170(s)	52.7	98.8	52.7

Intersection Summary	120
Cycle Length	120
Control Type	Actuated-Coordinated
Natural Cycle	100
Offset: 3 (3%), Referenced to phase 4:EBTL and 8:WBT. Start of Green	

Splits and Phases: 8: Shea Blvd & 50th Street



Mountain View Medical Center
Background PM

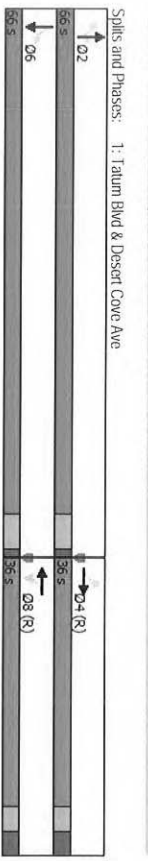
8: Shea Blvd & 50th Street
HCM 6th Signalized Intersection Summary

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Line Configurations	Y	AAA	AB		Y	F
Traffic Volume (veh/h)	59	1692	2036	50	145	73
Future Volume (veh/h)	59	1692	2036	50	145	73
Initial Q (Ob.) veh	0	0	0	0	0	0
Ped Bike Adj(A_pbT)	1.00	0	0	1.00	1.00	1.00
Parking Bus Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No	No	No	No	No	No
Adj Sat Flow, veh/h	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	66	1880	2262	56	161	81
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh. %	2	2	2	2	2	2
Cap. veh/h	60	2753	1911	47	665	592
Arrive On Green	0.54	0.54	0.54	0.54	0.37	0.37
Sat Flow, veh/h	157	5274	3638	87	1781	1585
Grp Volume(V), veh/h	66	1880	1129	1189	161	81
Grp Sat Flow(S), veh/h	157	1702	1777	1855	1781	1585
Q Serv(d), s	0.0	32.2	64.7	64.7	7.5	4.0
Cycle Q Clear(G), s	64.7	32.2	64.7	64.7	7.5	4.0
Prop In Lane	1.00			0.05	1.00	1.00
Lane Grp Cap(c), veh/h	60	2753	968	1000	665	592
V/C Ratio(X)	1.10	0.68	1.18	1.19	0.24	0.14
Avail Cap(c), veh/h	60	2753	968	1000	665	592
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(f)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	60.0	20.2	27.6	27.7	25.9	24.8
Incr Delay (d2), s/veh	146.4	1.4	91.4	95.1	0.9	0.5
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%), veh/h	7.7	18.6	70.2	74.8	6.0	2.9
Unsig. Movement Delay, s/veh	206.4	21.6	119.0	122.7	26.8	25.3
LnGrp Delay(d), s/veh	F	C	F	F	C	C
LnGrp LOS	F	C	F	F	C	C
Approach Vol, veh/h	1946	2318		242		
Approach Delay, s/veh	27.8	120.9		26.3		
Approach LOS	C	F		C		
Timer - Assigned Pts	4		6		8	
Pts Duration (G+Y+R), s	70.0		50.0		70.0	
Change Period (Y+R), s	5.3		5.2		5.3	
Max Green Setting (Gmax), s	64.7		44.8		64.7	
Max Q Clear Time (q_c+1), s	66.7		9.5		66.7	
Green Ext Time (q_c), s	0.0		0.7		0.0	
Intersection Summary						
HCM 6th Ctrl Delay			75.6			
HCM 6th LOS			E			

Mountain View Medical Center
Total AM

1: Tatum Blvd & Desert Cove Ave
Timing Report, Sorted by Phase

Phase Number	2	4	6	8
Movement	NBTL	EBTL	SBTL	WBTL
Lead/Lag				
Lead-Lag Optimize				
Recall Mode	None	C-Max	None	C-Max
Maximum Split (s)	66	36	66	36
Maximum Split (%)	64.7%	35.3%	64.7%	35.3%
Minimum Split (s)	25.3	35	25.3	35
Yellow Time (s)	4.3	3	4.3	3
All-Red Time (s)	1	3	1	3
Minimum Initial (s)	15	4	15	4
Vehicle Extension (s)	3	3	3	3
Minimum Gap (s)	3	3	3	3
Time Before Reduce (s)	0	0	0	0
Time to Reduce (s)	0	0	0	0
Walk Time (s)	8	7	8	7
Flash Dont Walk (s)	12	22	12	22
Dual Entry	Yes	Yes	Yes	Yes
Inhibit Max	Yes	Yes	Yes	Yes
Start Time (s)	55	19	55	19
End Time (s)	19	55	19	55
Yield/Force Off (s)	13.7	49	13.7	49
Yield/Force Off 170(S)	1.7	27	1.7	27
Local Start Time (s)	36	0	36	0
Local Yield (s)	96.7	30	96.7	30
Local Yield 170(S)	84.7	8	84.7	8



Mountain View Medical Center
Total AM

1: Tatum Blvd & Desert Cove Ave
HCM 6th Signalized Intersection Summary

Movement	EBL	EBI	EBR	WBL	WBI	WBR	NBL	NBI	NBR	SBL	SBI	SBR
Lane Configurations	9	0	5	20	0	50	30	840	37	87	1118	10
Traffic Volume (veh/h)	9	0	5	20	0	50	30	840	37	87	1118	10
Future Volume (veh/h)	9	0	5	20	0	50	30	840	37	87	1118	10
Initial Q (Qd), veh	0	0	0	0	0	0	0	0	0	0	0	0
Per-Bike Adj (A_pbT)	1.00	1.00	1.00	1.00	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	No	No	No	No	No	No	No	No
Adj Sat Flow, veh/hln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	10	0	6	22	0	56	33	933	41	97	1242	11
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh. %	2	2	2	2	2	2	2	2	2	2	2	2
Cap. veh/h	475	13	259	230	23	528	172	2107	654	233	2154	19
Arrive On Green	0.48	0.00	0.48	0.48	0.00	0.48	0.41	0.41	0.41	0.41	0.41	0.41
Sat Flow, veh/h	877	27	543	387	49	1109	443	5106	1585	577	5220	46
Grp Volume (v), veh/hln	16	0	78	0	0	33	933	41	97	810	443	443
Grp Sat Flow (s), veh/hln	1447	0	1544	0	0	443	1702	1585	577	1702	1862	1862
Q Serve (s), s	0.0	0.0	0.0	0.0	0.0	6.3	13.4	1.6	14.8	18.7	18.7	18.7
Cycle Q Clear (c), s	0.5	0.0	0.0	2.6	0.0	25.0	13.4	1.0	28.2	18.7	18.7	18.7
Prop In Lane	0.62	0.0	0.37	0.28	0.0	0.72	1.00	1.00	1.00	1.00	1.00	1.00
Lane Grp Cap (c), veh/h	747	0	781	0	0	172	2107	654	233	1405	769	769
V/C Ratio (X)	0.02	0.00	0.00	0.10	0.00	0.19	0.44	0.06	0.42	0.58	0.58	0.58
Avail Cap (c), veh/h	747	0	781	0	0	253	3039	943	338	2026	1108	1108
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 (f)	1.00	0.00	0.00	1.00	0.00	0.84	0.84	0.84	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	14.1	0.0	0.0	14.7	0.0	32.7	21.5	18.1	31.7	23.1	23.1	23.1
Incr Delay (d2), s/veh	0.1	0.0	0.0	0.3	0.0	0.4	0.1	0.1	1.2	0.4	0.7	0.7
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 BackQ (Q95%), veh/h	0.4	0.0	0.0	1.9	0.0	1.3	8.7	1.1	3.8	11.8	12.8	12.8
Unsig. Movement Delay, s/veh	14.2	0.0	0.0	14.9	0.0	33.2	21.6	18.1	32.8	23.5	23.8	23.8
LnGrp Delay (d), s/veh	B	A	A	B	A	A	C	C	B	C	C	C
LnGrp LOS	B	A	A	B	A	A	C	C	B	C	C	C
Approach Vol, veh/h	16	78	14.9	78	14.9	78	14.9	78	14.9	78	14.9	78
Approach Delay, s/veh	14.2	14.2	14.9	14.9	14.9	14.9	14.9	14.9	14.9	14.9	14.9	14.9
Approach LOS	B	B	B	B	B	B	C	C	B	C	C	C
Timer - Assigned Pkts	2	4	4	4	4	4	4	4	4	4	4	4
Pkts Duration (G+Y+R), s	47.4	54.6	54.6	54.6	54.6	54.6	54.6	54.6	54.6	54.6	54.6	54.6
Change Period (Y+R), s	5.3	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0
Max Green Setting (Gmax), s	60.7	30.0	30.0	30.0	30.0	30.0	30.0	30.0	30.0	30.0	30.0	30.0
Max Q Clear Time (g_c+11), s	27.0	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5
Green Ext. Time (g_c), s	8.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Mountain View Medical Center 3: Tatum Blvd & Fry's Dwy/Medical Center Dwy
Total AM HCM 6th TWSC

Intersection	In Delay, s/veh	EBL	EBR	WBL	WBR	NBL	NBR	SBL	SBR
Intersection	0.9								
In Delay, s/veh	0.9								
Movement	EBL	EBR	WBL	WBR	NBL	NBR	SBL	SBR	
Lane Configurations	27	0	70	4	0	16	44	856	27
Traffic Vol, veh/h	27	0	70	4	0	16	44	856	27
Future Vol, veh/h	27	0	70	4	0	16	44	856	27
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	105	-	-	150
Veh in Median Storage, #	-	-	-	-	-	-	-	-	-
Grade, %	-	-	-	-	-	-	-	-	-
Peak Hour Factor	90	90	90	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2
Mvmt Flow	30	0	78	4	0	18	49	951	30
									1902
									104

Major/Minor	Minor2	Minor1	Major1	Major2
Conflicting Flow All	2382 2983	951 1827	3072 491	2006 0
Stage 1	1904 1904	- 1064	1064	-
Stage 2	478 1079	- 763	2008	-
Critical Hdwy	6:44 6:54	7:14 6:44	6:54 7:14	5:34
Critical Hdwy Sig 1	7:34 5:54	- 7:34	5:54	-
Critical Hdwy Sig 2	6:74 5:54	- 6:74	5:54	-
Follow-up Hdwy	3:82 4:02	3:92 3:82	4:02 3:92	3:12
Pd Cap-1 Maneuver	*207 *44	*514 *528	35 448	611
Stage 1	*528 *502	*180 298	-	-
Stage 2	*491 *293	*528 475	-	-
Platoon blocked, %	1	1	1	1
Mov Cap-1 Maneuver	*187 *41	*514 *421	33 448	611
Mov Cap-2 Maneuver	*187 *41	*421 *33	448 611	400
Stage 1	*466 *502	*166 274	-	-
Stage 2	*434 *270	*448 475	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	20	13.6	0.5	0
HCM LOS	C	B		

Notes
 --: Volume exceeds capacity \$. Delay exceeds 300s +: Computation Not Defined *: All major volume in platoon
 07/03/2018 Synchro 10 Report
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Mountain View Medical Center 4: Tatum Blvd & Tatum Corp. Center Dwy/Beryl Ave
Total AM HCM 6th TWSC

Intersection	In Delay, s/veh	EBL	EBR	WBL	WBR	NBL	NBR	SBL	SBR
Intersection	0.5								
In Delay, s/veh	0.5								
Movement	EBL	EBR	WBL	WBR	NBL	NBR	SBL	SBR	
Lane Configurations	2	0	2	2	0	31	6	904	17
Traffic Vol, veh/h	2	0	2	2	0	31	6	904	17
Future Vol, veh/h	2	0	2	2	0	31	6	904	17
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	50	-	-	0
Veh in Median Storage, #	-	-	-	-	-	-	-	-	-
Grade, %	-	-	-	-	-	-	-	-	-
Peak Hour Factor	90	90	90	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2
Mvmt Flow	2	0	2	2	0	34	7	1004	19
									42
									1776
									27

Major/Minor	Minor2	Minor1	Major1	Major2
Conflicting Flow All	2290 2911	902 1822	2915 512	1803 0
Stage 1	1874 1874	- 1028	1028	-
Stage 2	416 1037	- 794	1887	-
Critical Hdwy	6:44 6:54	7:14 6:44	6:54 7:14	5:34
Critical Hdwy Sig 1	7:34 5:54	- 7:34	5:54	-
Critical Hdwy Sig 2	6:74 5:54	- 6:74	5:54	-
Follow-up Hdwy	3:82 4:02	3:92 3:82	4:02 3:92	3:12
Pd Cap-1 Maneuver	*222 *48	*533 *547	48 434	*671
Stage 1	*547 *521	*190 310	-	-
Stage 2	*535 *307	*547 517	-	-
Platoon blocked, %	1	1	1	1
Mov Cap-1 Maneuver	*185 *43	*533 *495	42 434	*671
Mov Cap-2 Maneuver	*185 *43	*495 42	434 *671	382
Stage 1	*542 *463	*188 307	-	-
Stage 2	*487 *304	*485 460	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	18.3	14	0.1	0.4
HCM LOS	C	B		

Notes
 --: Volume exceeds capacity \$. Delay exceeds 300s +: Computation Not Defined *: All major volume in platoon
 07/03/2018 Synchro 10 Report
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Mountain View Medical Center
Total AM

5: Tatum Blvd & Gold Dust Avenue
HCM 6th TWSC

Intersection									
Int Delay, s/veh									
	EBL	EBR	NBL	NBT	SBI	SBR			
Int Delay, s/veh	0.6								
Movement									
Lane Configurations	W	W	T	T	T	T			
Traffic Vol, veh/h	20	61	16	867	1614	19			
Future Vol, veh/h	20	61	16	867	1614	19			
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	-	50	-	0	0			
Veh in Median Storage, #	0	-	-	0	0	-			
Grade, %	0	-	-	-	-	-			
Peak Hour Factor	90	90	90	90	90	90			
Heavy Vehicles, %	2	2	2	2	2	2			
Mvmt Flow	22	68	18	963	1793	21			

Material/Mover									
	Minor2	Major1	Minor2						
Conflicting Flow All	2214	897	1814	0	-	0			
Stage 1	1783	-	-	-	-	-			
Stage 2	421	-	-	-	-	-			
Critical Hdwy	6.29	6.94	4.14	-	-	-			
Critical Hdwy Sig 1	5.84	-	-	-	-	-			
Critical Hdwy Sig 2	6.04	-	-	-	-	-			
Follow-up Hdwy	3.67	3.32	2.22	-	-	-			
Pol Cap-1 Maneuver	388	407	608	-	-	-			
Stage 1	388	-	-	-	-	-			
Stage 2	595	-	-	-	-	-			
Platoon blocked, %	1	1	1	-	-	-			
Mov Cap-1 Maneuver	357	407	608	-	-	-			
Mov Cap-2 Maneuver	326	-	-	-	-	-			
Stage 1	357	-	-	-	-	-			
Stage 2	395	-	-	-	-	-			

Approach									
	EB	NB	SB						
HCM Control Delay, s	17.3	0.2	0						
HCM LOS	C								

Minor Lane/Major Mvmt									
	NBL	NBT	EBL	EBT	SBI	SBR			
Capacity (Veh/h)	608	-	383	-	-	-			
HCM Lane VIC Ratio	0.029	-	0.235	-	-	-			
HCM Control Delay (s)	11.1	-	17.3	-	-	-			
HCM Lane LOS	B	-	C	-	-	-			
HCM 95th %ile Q(veh)	0.1	-	0.9	-	-	-			

NOTES
 -- Volume exceeds capacity \$: Delay exceeds 300s +: Computation Not Defined *: All major volume in platoon

Mountain View Medical Center
Total AM

6: Beryl Ave & Medical Center Dwy
HCM 6th TWSC

Intersection									
Int Delay, s/veh									
	EBL	EBT	WBT	WBR	SBI	SBR			
Int Delay, s/veh	4.2								
Movement									
Lane Configurations	W	W	T	T	T	T			
Traffic Vol, veh/h	44	15	25	1	1	7			
Future Vol, veh/h	44	15	25	1	1	7			
Conflicting Peds, #/hr	0	0	0	0	0	0			
Sign Control	Free	Free	Free	Free	Stop	Stop			
RT Channelized	-	None	-	None	-	None			
Storage Length	-	-	-	-	-	0			
Veh in Median Storage, #	-	0	0	-	-	0			
Grade, %	-	0	0	-	-	0			
Peak Hour Factor	90	90	90	90	90	90			
Heavy Vehicles, %	2	2	2	2	2	2			
Mvmt Flow	49	17	28	1	1	8			

Material/Mover									
	Major1	Major2	Minor2						
Conflicting Flow All	29	0	144	29					
Stage 1	-	-	-	29					
Stage 2	-	-	-	115					
Critical Hdwy	4.12	-	-	6.42	6.22				
Critical Hdwy Sig 1	-	-	-	5.42	-				
Critical Hdwy Sig 2	-	-	-	5.42	-				
Follow-up Hdwy	2.218	-	-	3.318	3.318				
Pol Cap-1 Maneuver	1584	-	-	849	1046				
Stage 1	-	-	-	994	-				
Stage 2	-	-	-	910	-				
Platoon blocked, %	-	-	-	-	-				
Mov Cap-1 Maneuver	1584	-	-	823	1046				
Mov Cap-2 Maneuver	-	-	-	823	-				
Stage 1	-	-	-	963	-				
Stage 2	-	-	-	910	-				

Approach									
	EB	WB	SB						
HCM Control Delay, s	5.5	0	8.5						
HCM LOS			A						

Minor Lane/Major Mvmt									
	EBL	EBT	WBT	WBR	SBI	SBR			
Capacity (Veh/h)	1584	-	-	-	-	1046			
HCM Lane VIC Ratio	0.031	-	-	-	-	0.007			
HCM Control Delay (s)	7.3	0	-	-	-	8.5			
HCM Lane LOS	A	A	-	-	-	A			
HCM 95th %ile Q(veh)	0.1	-	-	-	-	0			

NOTES
 -- Volume exceeds capacity \$: Delay exceeds 300s +: Computation Not Defined *: All major volume in platoon

Intersection	In Delay, s/veh	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑↑↑	↑↑↑↑	↑↑↑↑	↑↑↑↑	↑↑↑↑	↑↑↑↑	↑↑↑↑	↑↑↑↑	↑↑↑↑	↑↑↑↑	↑↑↑↑	↑↑↑↑
Traffic Vol, veh/h	56	1992	57	27	1507	34	0	0	16	0	0	0	35
Future Vol, veh/h	56	1992	57	27	1507	34	0	0	16	0	0	0	35
Conflicting Peds, #/hr	0	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	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	-	None
Storage Length	205	-	-	85	-	150	-	-	0	-	-	-	0
Veh in Median Storage, #	0	0	0	0	0	0	0	0	0	0	0	0	0
Grade, %	90	90	90	90	90	90	90	90	90	90	90	90	90
Peak Hour Factor	2	2	2	2	2	2	2	2	2	2	2	2	2
Heavy Vehicles, %	62	2213	63	30	1674	38	0	0	18	0	0	0	39

Major/Minor	Major1	Major2	Minor1	Minor2
Conflicting Flow All	1712	0	2276	0
Stage 1	-	-	-	-
Stage 2	-	-	-	-
Critical Hdwy Spt 1	5.34	-	5.34	-
Critical Hdwy Spt 2	-	-	-	-
Follow-up Hdwy	3.12	-	3.12	-
Pot. Cap-1 Maneuver	701	-	552	-
Stage 1	-	-	-	-
Stage 2	-	-	-	-
Platoon blocked, %	1	-	1	-
Mov. Cap-1 Maneuver	701	-	552	-
Mov. Cap-2 Maneuver	-	-	-	-
Stage 1	-	-	-	-
Stage 2	-	-	-	-

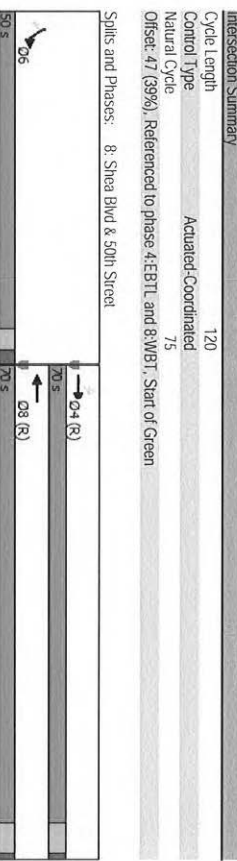
Approach	EB	WB	NB	SB
HCM Control Delay, s	0.3	0.2	13.5	11.9
HCM LOS			B	B

Minor Lane/Minor Hwmt	NBL/NT	EBL	EBT	EBR	WBL	WBT	WBR	SBL/ST	SBR
Capacity (veh/h)	439	701	-	552	-	558	-	-	-
HCM Lane V/C Ratio	0.04	0.089	-	0.054	-	0.07	-	-	-
HCM Control Delay (s)	13.5	10.6	-	11.9	-	11.9	-	-	-
HCM Lane LOS	B	B	-	B	-	B	-	-	-
HCM 95th %tile Q(veh)	0.1	0.3	-	0.2	-	0.2	-	-	-

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

Phase Number	EBTL	SBL	WBT
4	6	8	
6			8
8			

Recall Mode	C-Max	Max	C-Max
Maximum Split (s)	70	50	70
Maximum Split (%)	58.3%	41.7%	58.3%
Minimum Split (s)	25.3	29.2	25.3
Yellow Time (s)	4.3	3	4.3
All-Red Time (s)	1	2.2	1
Minimum Initial (s)	15	5	15
Vehicle Extension (s)	3	3	3
Minimum Gap (s)	3	3	3
Time Before Reduce (s)	0	0	0
Time To Reduce (s)	0	0	0
Walk Time (s)	8	8	8
Flash/Dont Walk (s)	12	16	12
Dual Entry	Yes	Yes	Yes
Inhibit Max	Yes	Yes	Yes
Start Time (s)	47	117	47
End Time (s)	117	47	117
Yield/Force Off (s)	111.7	41.8	111.7
Yield/Force Off T70(s)	99.7	25.8	99.7
Local Start Time (s)	0	70	0
Local Yield (s)	64.7	114.8	64.7
Local Yield T70(s)	52.7	98.8	52.7



Mountain View Medical Center
Total AM

8: Shea Blvd & 50th Street
HCM 6th Signalized Intersection Summary

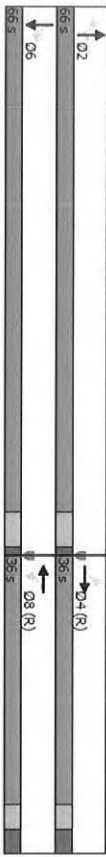
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations	↔	↔	↔	↔	↔	↔
Traffic Volume (veh/h)	40	1989	1500	54	76	44
Future Volume (veh/h)	40	1989	1500	54	76	44
Initial Q (Qb) Veh	0	0	0	0	0	0
Ped Bike Adj(A, pb1)	1.00	1.00	1.00	1.00	1.00	1.00
Parking Bus Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No	No	No	No	No	No
Adj Sat Flow, veh/hln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	44	2270	1667	60	84	49
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh. %	2	2	2	2	2	2
Cap, veh/h	93	2753	1887	68	665	592
Arrive On Green	0.54	0.54	0.54	0.54	0.37	0.37
Sat Flow, veh/h	281	5274	3593	125	1781	1585
Grp Volume(v), veh/h	44	2270	843	884	84	49
Grp Sat Flow(S),veh/hln	281	1702	1777	1848	1781	1585
Q Serve(g, s), s	14.0	42.2	50.0	50.7	3.7	2.4
Cycle Q Clear(g, c), s	64.7	42.2	50.0	64.7	3.7	2.4
Prop In Lane	1.00	1.00	1.00	0.07	1.00	1.00
Lane Grp Cap(c), veh/h	93	2753	988	996	665	592
V/C Ratio(X)	0.47	0.80	0.88	0.89	0.13	0.08
Avail Cap(c, a), veh/h	93	2753	988	996	665	592
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(f)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	54.8	22.5	24.3	24.4	24.7	24.3
Incr Delay (d2), s/veh	16.3	2.6	11.4	11.5	0.4	0.3
Initial Q Delay(iQ),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackQ(95%),veh/h	3.2	23.6	31.0	32.4	3.0	1.7
Unsig. Movement Delay, s/veh	71.1	25.1	35.7	36.0	25.1	24.6
LnGrp Delay(d),s/veh	E	C	D	D	C	C
LnGrp LOS	E	C	D	D	C	C
Approach Vol, veh/h	2254	1727	133	249		
Approach Delay, s/veh	25.9	35.8				
Approach LOS	C	D	C	C		
Timer - Assigned Pts	4	6	8			
Pns Duration (G+Y+Rc), s	70.0	50.0	70.0			
Change Period (Y+Rc), s	5.3	5.2	5.3			
Max Green Setting (Gmax), s	64.7	44.8	64.7			
Max Q Clear Time (q_c+1), s	66.7	5.7	52.7			
Green Ext Time (p, c), s	0.0	0.4	8.9			
Intersection Summary	HCM 6th Ctrl Delay 30.1 C					
HCM 6th LOS	C					

Mountain View Medical Center
Total PM

1: Tatum Blvd & Desert Cove Ave
Timing Report, Sorted By Phase

Phase Number	2	4	6	8
Movement	NBTL	EBTL	SBTL	WBTL
Lead/Lag				
Recall Mode	None	C-Max	None	C-Max
Maximum Split (%)	64.7%	35.3%	64.7%	35.3%
Minimum Split (%)	25.3	35	25.3	35
Yellow Time (s)	4.3	3	4.3	3
All-Red Time (s)	1	3	1	3
Minimum Initial (s)	15	4	15	4
Vehicle Extension (s)	3	3	3	3
Minimum Gap (s)	3	3	3	3
Time Before Reduce (s)	0	0	0	0
Time To Reduce (s)	0	0	0	0
Walk Dont Walk (s)	8	7	8	7
Flash Dont Walk (s)	12	22	12	22
Dual Entry	Yes	Yes	Yes	Yes
Inhibit Max	Yes	Yes	Yes	Yes
Start Time (s)	86	50	86	50
End Time (s)	50	86	50	86
Yield/force Off (s)	44.7	80	44.7	80
Yield/force Off 170(s)	32.7	58	32.7	58
Local Start Time (s)	36	0	36	0
Local Yield (s)	96.7	30	96.7	30
Local Yield 170(s)	84.7	8	84.7	8
Intersection Summary				
Cycle Length	102			
Control Type	Actuated-Coordinated			
Natural Cycle	150			
Offset: 50 (49%), Referenced to phase 4:EBTL and 8:WBTL, Start of Green				

Splits and Phases: 1: Tatum Blvd & Desert Cove Ave



Mountain View Medical Center
Total PM

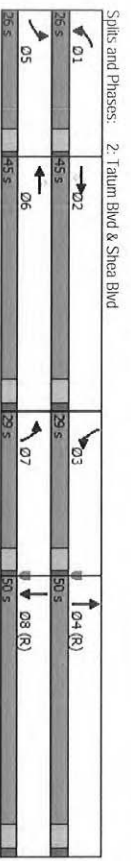
1: Tatum Blvd & Desert Cove Ave
HCM 6th Signalized Intersection Summary

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	EB	EB	EB	WB	WB	WB	NB	NB	NB	SB	SB	SB
Traffic Volume (veh/h)	28	1	28	77	1	100	10	1731	41	113	1281	2
Future Volume (veh/h)	28	1	28	77	1	100	10	1731	41	113	1281	2
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped Bike Adj(A), pb1	1.00	1.00	1.00	1.00	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	No	No	No	No	No	No	No	No
Adj Sat Flow, veh/h	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	31	1	31	86	1	111	11	1923	46	126	1423	2
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	243	24	208	225	21	249	238	3039	943	148	3134	4
Arrive On Green	0.29	0.29	0.29	0.29	0.29	0.29	0.60	0.60	0.60	0.60	0.60	0.60
Sat Flow, veh/h	647	81	706	592	72	847	376	5106	1585	222	5266	7
Grp Volume(v), veh/h	63	0	0	198	0	0	11	1823	46	126	920	505
Grp Sat Flow(s), veh/h	1434	0	0	1510	0	0	376	1702	1585	222	1702	1869
Q Serve(g, s), s	0.0	0.0	0.0	7.6	0.0	0.0	1.7	25.0	1.2	35.7	15.3	15.3
Cycle Q Clear(g, c), s	2.9	0.0	0.0	10.5	0.0	0.0	17.0	25.0	1.2	60.7	15.3	15.3
Prop In Lane	0.49	0	0	0.43	0	0.56	1.00	1.00	1.00	1.00	1.00	0.00
Lane Grp Cap(c), veh/h	474	0	0	495	0	0	238	3039	943	148	2026	1112
V/C Ratio(X)	0.13	0.00	0.00	0.40	0.00	0.00	0.05	0.63	0.05	0.85	0.45	0.45
Avail Cap(c), veh/h	474	0	0	495	0	0	238	3039	943	148	2026	1112
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(f)	1.00	0.00	0.00	1.00	0.00	0.00	0.33	0.33	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	26.4	0.0	0.0	29.0	0.0	0.0	16.2	13.4	8.6	40.0	11.5	11.5
Incr Delay (d2), s/veh	0.6	0.0	0.0	2.4	0.0	0.0	0.0	0.1	0.0	34.6	0.2	0.3
Initial Q Delay(Qd), 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 BackQ(95%), s/veh	2.2	0.0	0.0	7.6	0.0	0.0	0.3	11.7	0.7	8.2	9.3	10.0
Unsig. Movement Delay, s/veh	27.0	0.0	0.0	31.4	0.0	0.0	16.2	13.6	8.6	74.5	11.6	11.7
LnGrp Delay(d), s/veh	C	A	A	C	A	A	B	B	A	E	B	B
LnGrp LOS	C	A	A	C	A	A	B	B	A	E	B	B
Approach Vol, veh/h	63	198	1980	31.4	15.8							
Approach Delay, s/veh	27.0	C	C	31.4	15.8							
Approach LOS	C	C	C	C	B							
Timer - Assigned Pks	2	4	6	8								
Pks Duration (G+Y+Rc), s	66.0	36.0	66.0	36.0								
Change Period (Y+Rc), s	5.3	6.0	5.3	6.0								
Max Green Setting (Gmax), s	60.7	30.0	60.7	30.0								
Max Q Clear Time (g-c+1), s	27.0	4.9	62.7	12.5								
Green Ext Time (p-c), s	21.0	0.3	0.0	1.0								
Intersection Summary												
HCM 6th Ctrl Delay	16.0											
HCM 6th LOS	B											

Mountain View Medical Center
Total PM

2: Tatum Blvd & Shea Blvd
Timing Report, Sorted by Phase

Phase Number	1	2	3	4	5	6	7	8
Movement	WBL	EBT	SBL	NBT	EBL	WBT	NBL	SBT
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	C-Max	None	None	None	C-Max
Maximum Split (%)	26	45	29	50	26	45	29	50
Minimum Split (%)	17.3%	30.0%	19.3%	33.3%	17.3%	30.0%	19.3%	33.3%
Minimum Split (s)	10	36.9	20	40	10	36.9	20	40
Yellow Time (s)	4	4.3	4	4.3	4	4.3	4	4.3
All-Red Time (s)	1	1.6	1	1.7	1	1.6	1	1.7
Minimum Initial (s)	5	15	15	15	5	15	15	15
Vehicle Extension (s)	3	3	3	3	3	3	3	3
Minimum Gap (s)	3	3	3	3	3	3	3	3
Time Before Reduce (s)	0	0	0	0	0	0	0	0
Time To Reduce (s)	0	0	0	0	0	0	0	0
Walk Time (s)	8	8	8	8	8	8	8	8
Flash Don't Walk (s)	23	26	26	26	23	23	26	26
Dual Entry	No	Yes	No	Yes	No	Yes	No	Yes
Inhibit Max	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Start Time (s)	105	131	26	55	105	131	26	55
End Time (s)	131	26	55	105	131	26	55	105
Yield/Force Off (s)	126	20.1	50	99	126	20.1	50	99
Yield/Force Off 170(s)	126	147.1	50	73	126	147.1	50	73
Local Start Time (s)	50	76	121	0	50	76	121	0
Local Yield (s)	71	115.1	145	44	71	115.1	145	44
Local Yield 170(s)	71	92.1	145	18	71	92.1	145	18



Splits and Phases: 2: Tatum Blvd & Shea Blvd

Mountain View Medical Center
Total PM

2: Tatum Blvd & Shea Blvd
HCM 6th Signalized Intersection Summary

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	TT	TTT	F	TT	TTT	F	TT	TTT	F	TT	TTT	TTT
Traffic Volume (veh/h)	373	1228	243	198	1572	216	659	1133	270	289	688	287
Future Volume (veh/h)	373	1228	243	198	1572	216	659	1133	270	289	688	287
Initial Q (Qd), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj (Adj _{PB})	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	No	No	No	No	No	No	No	No
Adj Sat Flow, veh/hln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	414	1364	270	220	1747	240	732	1259	300	321	764	319
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Cap, veh/h	459	1605	498	274	1331	413	553	1445	344	378	1065	441
Arrive On Green	0.13	0.31	0.31	0.08	0.26	0.16	0.35	0.35	0.11	0.30	0.30	0.30
Sat Flow, veh/h	3456	5106	1585	3456	5106	1585	3456	4117	981	3456	3544	1466
Gap Volume (v) veh/hln	414	1364	270	220	1747	240	732	1041	518	321	734	349
Gap Sat Flow (s) veh/hln	1728	1702	1585	1728	1702	1585	1728	1702	1694	1728	1702	1606
Q Serve (s), s	17.7	37.5	21.1	9.4	39.1	19.8	24.0	42.9	13.7	28.8	29.2	29.2
Cycle Q Clear (g, c), s	17.7	37.5	21.1	9.4	39.1	19.8	24.0	42.9	13.7	28.8	29.2	29.2
Prop In Lane	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.58	1.00	0.91	0.91
Lane Grp Cap (c), veh/h	459	1605	498	274	1331	413	553	1195	595	378	1023	483
V/C Ratio (X)	0.90	0.85	0.54	0.80	1.31	0.58	1.32	0.87	0.85	0.72	0.72	0.72
Avail Cap (c), veh/h	484	1605	498	484	1331	413	553	1195	595	378	1023	483
HCM Pattern 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 (f)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.88	0.88	0.88
Uniform Delay (d), s/veh	64.1	48.1	42.5	67.9	55.5	48.3	63.0	45.5	65.6	46.8	46.9	46.9
Incr Delay (d2), s/veh	19.3	4.5	1.2	5.5	14.6	2.0	15.0	8.8	16.1	7.3	3.8	8.1
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%), veh/h	14.0	23.3	13.3	7.8	51.4	12.8	34.5	26.8	28.1	10.3	18.3	18.3
Unsig. Movement Delay, s/veh	83.4	52.7	43.7	73.4	201.6	50.4	221.0	54.3	61.6	72.9	50.6	55.0
LnGrp Delay (s) veh/h	F	D	D	E	F	D	F	D	E	E	D	D
LnGrp LOS	F	D	D	E	F	D	F	D	E	E	D	D
Approach Vol, veh/h	2048	2207	2207	2207	2207	2207	2207	2207	2207	2207	2207	2207
Approach Delay, s/veh	57.7	172.3	172.3	172.3	172.3	172.3	172.3	172.3	172.3	172.3	172.3	172.3
Approach LOS	E	F	F	F	F	F	F	F	F	F	F	F
Timer - Assigned Pkts	1	2	3	4	5	6	7	8				
Pkts Duration (G+Y+Rc), s	16.9	53.1	21.4	58.7	24.9	45.0	29.0	51.1				
Change Period (Y+Rc), s	5.0	5.9	5.0	6.6	5.0	5.9	5.0	6.6				
Max Green Setting (Gmax), s	21.0	39.9	24.0	44.4	21.0	39.9	24.0	44.4				
Max Q Clear Time (g+c+1), s	11.4	39.5	15.7	44.9	19.7	41.1	26.0	31.2				
Green Ext. Time (g, c), s	0.5	0.0	0.7	0.0	0.2	0.0	0.0	0.0				

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

Mountain View Medical Center
Total PM

3: Tatum Blvd & Fry's Dwy/Medical Center Dwy
HCM 6th TWSC

Intersection	In/Delay	svch	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Int Delay: svch	7.5													
Movement														
Lane Configurations		EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	
Traffic Vol: veh/h	24	0	126	14	0	84	55	2005	13	2	1003	149		
Future Vol: veh/h	24	0	126	14	0	84	55	2005	13	2	1003	149		
Conflicting Peeds: #/hr	0	0	0	0	0	0	0	0	0	0	0	0	0	
Sign Control	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free	Free	Free	
RT Channelized	-	-	None	-	-	None	-	None	-	-	None	-	None	
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-	-	
Veh In/Median Storage: #	0	0	0	0	0	0	0	0	0	0	0	0	0	
Grade: %	0	0	0	0	0	0	0	0	0	0	0	0	0	
Peak Hour Factor	90	90	90	90	90	90	90	90	90	90	90	90	90	
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2	2	
Mvmt Flow	27	0	140	16	0	93	61	2228	14	2	1114	166		

Water/Minor	Minor2	Minor1	Major1	Major2
Conflicting Flow All	2131 3482	557 2807	3641 1121	1280
Stage 1	1118 1118	- 2357	2357	-
Stage 2	1013 2364	- 450	1284	-
Critical Hdwy	6.44 6.54	7.14 6.44	6.54 7.14	5.34
Critical Hdwy Sig 1	7.34 5.54	- 7.34	5.54	-
Critical Hdwy Sig 2	6.74 5.54	- 6.74	5.54	-
Follow-up Hdwy	3.82 4.02	3.92 3.82	4.02 3.92	3.12
Pot Cap-1 Maneuver	124 *8	*882 *34	6 172	715
Stage 1	*700 *666	*21 68	-	-
Stage 2	*231 *67	- *700	588	-
Platoon blocked, %	1	1	1	1
Mov Cap-1 Maneuver	*50 *7	*682 *24	5 172	715
Mov Cap-2 Maneuver	50 *7	- *24	5	-
Stage 1	*641 *613	- *19	62	-
Stage 2	97 61	- *513	514	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	11.6	241.3	0.3	0.1
HCM LOS	B	F		

Minor Lane/Minor Mvmt NBL NBT NBR EBL/WB/LT SBL SBT SBR
Capacity (veh/h) 715 - - 682 91 94 -
HCM Lane V/C Ratio 0.085 - - 0.205 1.197 0.024 -
HCM Control Delay (s) 10.5 - - 11.6 241.3 44.2 -
HCM Lane LOS B - - B F E - -
HCM 95th %ile Q(veh) 0.3 - - 0.8 7.6 0.1 -

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

Mountain View Medical Center
Total PM

4: Tatum Blvd & Tatum Corp. Center Dwy/Beryl Ave
HCM 6th TWSC

Intersection	In/Delay	svch	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Int Delay: svch	11													
Movement														
Lane Configurations		EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	
Traffic Vol: veh/h	8	1	2	21	0	65	0	1967	8	37	1130	5		
Future Vol: veh/h	8	1	2	21	0	65	0	1967	8	37	1130	5		
Conflicting Peeds: #/hr	0	0	0	0	0	0	0	0	0	0	0	0	0	
Sign Control	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free	Free	Free	
RT Channelized	-	-	None	-	-	None	-	None	-	-	None	-	None	
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-	-	
Veh In/Median Storage: #	0	0	0	0	0	0	0	0	0	0	0	0	0	
Grade: %	0	0	0	0	0	0	0	0	0	0	0	0	0	
Peak Hour Factor	90	90	90	90	90	90	90	90	90	90	90	90	90	
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2	2	
Mvmt Flow	9	1	2	23	0	72	0	2185	9	41	1255	6		

Water/Minor	Minor2	Minor1	Major1	Major2
Conflicting Flow All	1341 1341	2215 3536	631 2776	3535 1098
Stage 1	1341 1341	- 2191	2191	-
Stage 2	874 2195	- 585	1344	-
Critical Hdwy	6.44 6.54	7.14 6.44	6.54 7.14	5.34
Critical Hdwy Sig 1	7.34 5.54	- 7.34	5.54	-
Critical Hdwy Sig 2	6.74 5.54	- 6.74	5.54	-
Follow-up Hdwy	3.82 4.02	3.92 3.82	4.02 3.92	3.12
Pot Cap-1 Maneuver	126 8	*647 *41	8 178	*814
Stage 1	642 618	*28 82	-	-
Stage 2	282 82	- *664	615	-
Platoon blocked, %	1	1	1	1
Mov Cap-1 Maneuver	51 5	*647 *23	5 178	*814
Mov Cap-2 Maneuver	51 5	- *23	5	-
Stage 1	642 362	- *28	82	-
Stage 2	168 82	- *387	360	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	182.8	\$ 363.6	0	2.1
HCM LOS	F	F		

Minor Lane/Minor Mvmt NBL NBT NBR EBL/WB/LT SBL SBT SBR
Capacity (veh/h) *814 - - 31 67 99 -
HCM Lane V/C Ratio - - - 0.394 1.426 0.415 -
HCM Control Delay (s) 0 - - 182.85 363.6 65.1 -
HCM Lane LOS A - - F F F - -
HCM 95th %ile Q(veh) 0 - - 1.3 8 1.7 -

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

Mountain View Medical Center
Total PM

5: Tatum Blvd & Gold Dust Avenue
HCM 6th TWSC

Intersection	In Delay s/veh							
Movement	EBL	EBR	NBL	NBI	SBI	SBR		
Lane Configurations	↓	↑	↑	↑	↑	↑		
Traffic Vol, veh/h	17	20	47	2011	1066	66		
Future Vol, veh/h	17	20	47	2011	1066	66		
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	-	50	-	0	0		
Veh in Median Storage, #	0	-	-	-	0	0		
Grade, %	0	-	-	-	0	0		
Peak Hour Factor	90	90	90	90	90	90		
Heavy Vehicles, %	2	2	2	2	2	2		
Mgmt Flow	19	22	52	2234	1184	73		

Major/Minor	Minor2	Major1	Minor2		
Conflicting Flow All	2182	592	1257	0	0
Stage 1	1184	-	-	-	-
Stage 2	998	-	-	-	-
Critical Hdwy	6.29	6.94	4.14	-	-
Critical Hdwy Sig 1	5.84	-	-	-	-
Critical Hdwy Sig 2	6.04	-	-	-	-
Follow-up Hdwy	3.67	3.32	2.22	-	-
Pot Cap-1 Maneuver	*281	639	956	-	-
Stage 1	*579	-	-	-	-
Stage 2	*293	-	-	-	-
Platoon blocked, %	1	1	1	-	-
Mov Cap-1 Maneuver	*266	639	956	-	-
Mov Cap-2 Maneuver	*218	-	-	-	-
Stage 1	*547	-	-	-	-
Stage 2	*293	-	-	-	-

Approach	EB	NB	SB		
HCM Control Delay, s	17.1	0.2	0		
HCM LOS	C				

Minor Lane: Major Mvmt NBL NBI EBL N1 SBI SBR
Capacity (veh/h) *966 *339
HCM Lane V/C Ratio 0.055 0.121
HCM Control Delay (s) 9 17.1
HCM Lane LOS A C
HCM 95th %ile Q(veh) 0.2 0.4

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

Mountain View Medical Center
Total PM

6: Beryl Ave & Medical Center Dwy
HCM 6th TWSC

Intersection	In Delay s/veh							
Movement	EBL	EBI	WBI	WBR	SBL	SBR		
Lane Configurations	↓	↓	↓	↓	↓	↓		
Traffic Vol, veh/h	22	27	19	2	1	71		
Future Vol, veh/h	22	27	19	2	1	71		
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	-	-	-	-	0		
Veh in Median Storage, #	0	0	0	-	-	0		
Grade, %	0	0	0	-	-	0		
Peak Hour Factor	90	90	90	90	90	90		
Heavy Vehicles, %	2	2	2	2	2	2		
Mgmt Flow	24	30	21	2	1	79		

Major/Minor	Major1	Minor2	Minor2		
Conflicting Flow All	23	0	0	100	22
Stage 1	-	-	-	22	-
Stage 2	-	-	-	78	-
Critical Hdwy	4.12	-	-	6.42	6.22
Critical Hdwy Sig 1	-	-	-	5.42	-
Critical Hdwy Sig 2	-	-	-	5.42	-
Follow-up Hdwy	2.218	-	-	3.518	3.318
Pot Cap-1 Maneuver	1592	-	-	899	1055
Stage 1	-	-	-	1001	-
Stage 2	-	-	-	945	-
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	1592	-	-	886	1055
Mov Cap-2 Maneuver	-	-	-	886	-
Stage 1	-	-	-	986	-
Stage 2	-	-	-	945	-

Approach	EB	WB	SB		
HCM Control Delay, s	3.3	0	8.7		
HCM LOS			A		

Minor Lane: Major Mvmt EBL EBI WBI WBR SBL SBR
Capacity (veh/h) 1592 - - 1055
HCM Lane V/C Ratio 0.015 - - 0.075
HCM Control Delay (s) 7.3 0 - 8.7
HCM Lane LOS A A - A
HCM 95th %ile Q(veh) 0 - - 0.2

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

Intersection	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Int Delay Sweeh	0.7											
Movement	EBL EBT EBR WBL WBT WBR NBL NBT NBR SBL SBT SBR											
Lane Configurations	T T T T T T T T T T T T T T											
Traffic Vol, veh/h	41	1686	26	12	1962	91	0	0	38	0	0	56
Future Vol, veh/h	41	1686	26	12	1962	91	0	0	38	0	0	56
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											
Storage Length	205	None										
Vehicle in Median Storage, #	0	None										
Grade, %	0	None										
Peak Hour Factor	90	90	90	90	90	90	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	46	1873	29	13	2180	101	0	0	42	0	0	62

Major/Minor	Major1	Major2	Minor1	Minor2
Conflicting Flow All	2281	0	1902	0
Stage 1	-	-	-	-
Stage 2	-	-	-	-
Critical Hdwy Sig 1	5.34	5.34	-	7.14
Critical Hdwy Sig 2	-	-	-	-
Follow-up Hdwy	3.12	3.12	-	3.92
Pot-Cap-1 Maneuver	*563	140	0	224
Stage 1	-	-	-	-
Stage 2	-	-	-	-
Platoon blocked, %	1	-	-	0
Mov Cap-1 Maneuver	*563	140	-	224
Mov Cap-2 Maneuver	-	-	-	-
Stage 1	-	-	-	-
Stage 2	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.3	0.2	24.8	14.4
HCM LOS	C	C	C	B

Minor/Lane/Minor Mvmt	NBLnt	EBL	EBT	EBR	WBL	WBT	WBR	SBLnt
Capacity (veh/h)	224	*563	-	-	140	-	-	447
HCM Lane V/C Ratio	0.188	0.081	-	-	0.095	-	-	0.139
HCM Control Delay (s)	24.8	12	-	-	33.4	-	-	14.4
HCM Lane LOS	C	B	-	-	D	-	-	B
HCM 95th %tile (Qveh)	0.7	0.3	-	-	0.3	-	-	0.5

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

Phase Number	4	6	8
Movement	EBTL	SBL	WBT
Lead/Lag	Lead/Lag Optimize		
Recall Mode	CallMax	Max	CallMax
Maximum Split (s)	70	50	70
Maximum Split (%)	58.3%	41.7%	58.3%
Minimum Split (s)	25.3	29.2	25.3
Yellow Time (s)	4.3	3	4.3
All-Red Time (s)	1	2.2	1
Minimum Initial (s)	15	5	15
Vehicle Extension (s)	3	3	3
Minimum Gap (s)	3	3	3
Time Before Reduce (s)	0	0	0
Time To Reduce (s)	0	0	0
Walk Time (s)	8	8	8
Flash Dont Walk (s)	12	16	12
Dual Entry	Yes	Yes	Yes
Inhibit Max	Yes	Yes	Yes
Start Time (s)	3	73	3
End Time (s)	73	3	73
Yield/force Off (s)	67.7	117.8	67.7
Yield/force Off T70(s)	55.7	101.8	55.7
Local Start Time (s)	0	70	0
Local Yield (s)	64.7	114.8	64.7
Local Yield T70(s)	52.7	98.8	52.7

Intersection Summary	120
Cycle Length	120
Control Type	Actuated-Coordinated
Natural Cycle	100
Offset: 3 (3%)	Referenced to phase 4:EBTL and 8:WBT, Start of Green

Splits and Phases: 8: Shea Blvd & 50th Street

Mountain View Medical Center
Total PM

8: Shea Blvd & 50th Street
HCM 6th Signalized Intersection Summary

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations	↔	↔	↔	↔	↔	↔
Traffic Volume (veh/h)	59	1701	2040	50	145	73
Future Volume (veh/h)	59	1701	2040	50	145	73
Initial Q (Db), veh	0	0	0	0	0	0
Ped Bike Adj(A, pb1)	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
Work Zone On Approach	No	No	No	No	No	No
Adj Sat Flow, veh/hln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	66	1890	2267	56	161	81
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh %	2	2	2	2	2	2
Cap, veh/h	60	2753	1911	47	665	592
Arrive On Green	0.54	0.54	0.54	0.54	0.37	0.37
Sat Flow, veh/h	157	5274	3638	87	1781	1585
Grp Volume(v), veh/h	66	1890	1132	1191	161	81
Grp Sat Flow(S), veh/hln	157	1702	1777	1855	1781	1585
Q Serve(q, s), s	0.0	32.5	64.7	64.7	7.5	4.0
Cycle Q Clear(q, c), s	64.7	32.5	64.7	64.7	7.5	4.0
Prop In Lane	1.00	2753	988	1000	665	592
Lane Grp Cap(c), veh/h	60	2753	988	1000	665	592
V/C Ratio(X)	1.10	0.69	1.18	1.19	0.24	0.14
Avail Cap(c-a), veh/h	60	2753	988	1000	665	592
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(f)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	60.0	20.2	27.6	27.7	25.9	24.8
Incr Delay (d2), s/veh	146.4	1.4	92.4	96.1	0.9	0.5
Initial Q Delay(i3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackQ(95%), veh/h	7.7	18.7	70.7	75.3	6.0	2.9
Unsig. Movement Delay, s/veh						
LnGrp Delay(d), s/veh	206.4	21.6	120.1	123.8	26.8	25.3
LnGrp LOS	F	C	F	F	C	C
Approach Vol, veh/h		1956	2323	242		
Approach Delay, s/veh		27.9	122.0	26.3		
Approach LOS		C	F	C		
Time - Assigned PIs			4		6	8
Pis Duration (G+Y+Rc), s			70.0		50.0	70.0
Change Period (Y+Rc), s			5.3		5.2	5.3
Max Green Setting (Gmax), s			64.7		44.8	64.7
Max Q Clear Time (q-c+1), s			66.7		9.5	66.7
Green Ext Time (p-c), s			0.0		0.7	0.0
Intersection Summary						
HCM 6th Ctrl Delay			76.1			
HCM 6th LOS			E			

QUEUE LENGTH ANALYSIS

APPENDIX G

Cycles: 1.5

Average Vehicle Length (ft): 25
 Intersection Cycle Length (sec): varies

Equation Used: storage length = 1.5 x (vehicles/hour)/(cycles/hour) x average vehicle length

Intersection	Approach	AM Peak	Midday	PM Peak	Peak	Max vehs per 1.5 cycles	Max trucks per 1.5 cycles	Storage Length
Tatum Blvd & Desert Cove Ave (102 Second Cycle)	NB Left	29	10	2	0	0	0	50'
	SB Left	85	111	5	0	0	0	125'
	EB Left	9	27	2	0	0	0	50'
	WB Left	20	76	4	0	0	0	100'
	NB Right	36	40	2	0	0	0	50'
	SB Right	10	2	1	0	0	0	25'
	EB Right	5	27	2	0	0	0	50'
	WB Right	49	98	5	0	0	0	125'
Tatum Blvd & Shea Blvd (140 Second Cycle)	NB Left	298	705	42	0	0	0	525'
	SB Left	231	287	17	0	0	0	225'
	EB Left	229	365	22	0	0	0	275'
	WB Left	324	194	19	0	0	0	250'
	NB Right	221	265	16	0	0	0	400'
	SB Right	115	281	17	0	0	0	425'
	EB Right	491	242	29	0	0	0	725'
	WB Right	182	211	13	0	0	0	325'
50th St & Shea Blvd (120 Second Cycle)	NB Left	0	0	0	0	0	0	0'
	SB Left	75	141	8	0	0	0	200'
	EB Left	38	58	3	0	0	0	75'
	WB Left	0	0	0	0	0	0	0'
	NB Right	0	0	0	0	0	0	0'
	SB Right	43	72	4	0	0	0	100'
	EB Right	0	0	0	0	0	0	0'
	WB Right	53	49	3	0	0	0	75'

Calculations for dual turn lanes are underlined

Unsignalized Intersection

2024

Average Vehicle Length (ft): 25

Equation Used: storage length = 2 x (vehicles/hour)/(60 minutes/hour) x average vehicle length

Intersection	Approach	AM Peak (veh/hr)	Midday Peak (veh/hr)	PM Peak (veh/hr)	Veh per 2 minutes	Trucks per 2 minutes	Storage Length
Tatum Blvd & Fry's Dwy/Medical Center Dwy	NB Left	43	0	54	2	0	50'
	SB Left	1	0	2	1	0	25'
	EB Left	26	0	24	1	0	25'
	WB Left	9	0	37	2	0	50'
	NB Right	45	0	22	2	0	50'
	SB Right	91	0	146	5	0	125'
	EB Right	69	0	124	5	0	125'
	WB Right	24	0	123	5	0	125'
Tatum Blvd & Beryl Ave/Tatum Corporate Center Dwy	NB Left	6	0	0	1	0	25'
	SB Left	51	0	41	2	0	50'
	EB Left	2	0	8	1	0	25'
	WB Left	7	0	43	2	0	50'
	NB Right	34	0	17	2	0	50'
	SB Right	24	0	5	1	0	25'
	EB Right	2	0	2	1	0	25'
	WB Right	36	0	101	4	0	100'
Tatum Blvd & Gold Dust Ave	NB Left	16	0	46	2	0	50'
	SB Left	0	0	0	0	0	0'
	EB Left	23	0	19	1	0	25'
	WB Left	0	0	0	0	0	0'
	NB Right	0	0	0	0	0	0'
	SB Right	20	0	70	3	0	75'
	EB Right	60	0	20	2	0	50'
	WB Right	0	0	0	0	0	0'
Medical Center Dwy & Beryl Ave	NB Left	0	0	0	0	0	0'
	SB Left	1	0	1	1	0	25'
	EB Left	75	0	38	3	0	75'
	WB Left	0	0	0	0	0	0'
	NB Right	0	0	0	0	0	0'
	SB Right	20	0	130	5	0	125'
	EB Right	0	0	0	0	0	0'
	WB Right	1	0	2	1	0	25'
Albertsons Dwy/Medical Center Dwy & Shea Blvd	NB Left	0	0	0	0	0	0'
	SB Left	0	0	0	0	0	0'
	EB Left	51	0	36	2	0	50'
	WB Left	39	0	19	2	0	50'
	NB Right	17	0	51	2	0	50'
	SB Right	34	0	55	2	0	50'
	EB Right	99	0	48	4	0	100'
	WB Right	30	0	81	3	0	75'

