

TRANSPORTATION IMPACT ANALYSIS

ASPIRE

Escondido, California
August 21, 2019

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**Linscott, Law &
Greenspan, Engineers**

4542 Ruffner Street
Suite 100

San Diego, CA 92111

858.300.8800 T

858.300.8810 F

www.llgengineers.com

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APPENDIX

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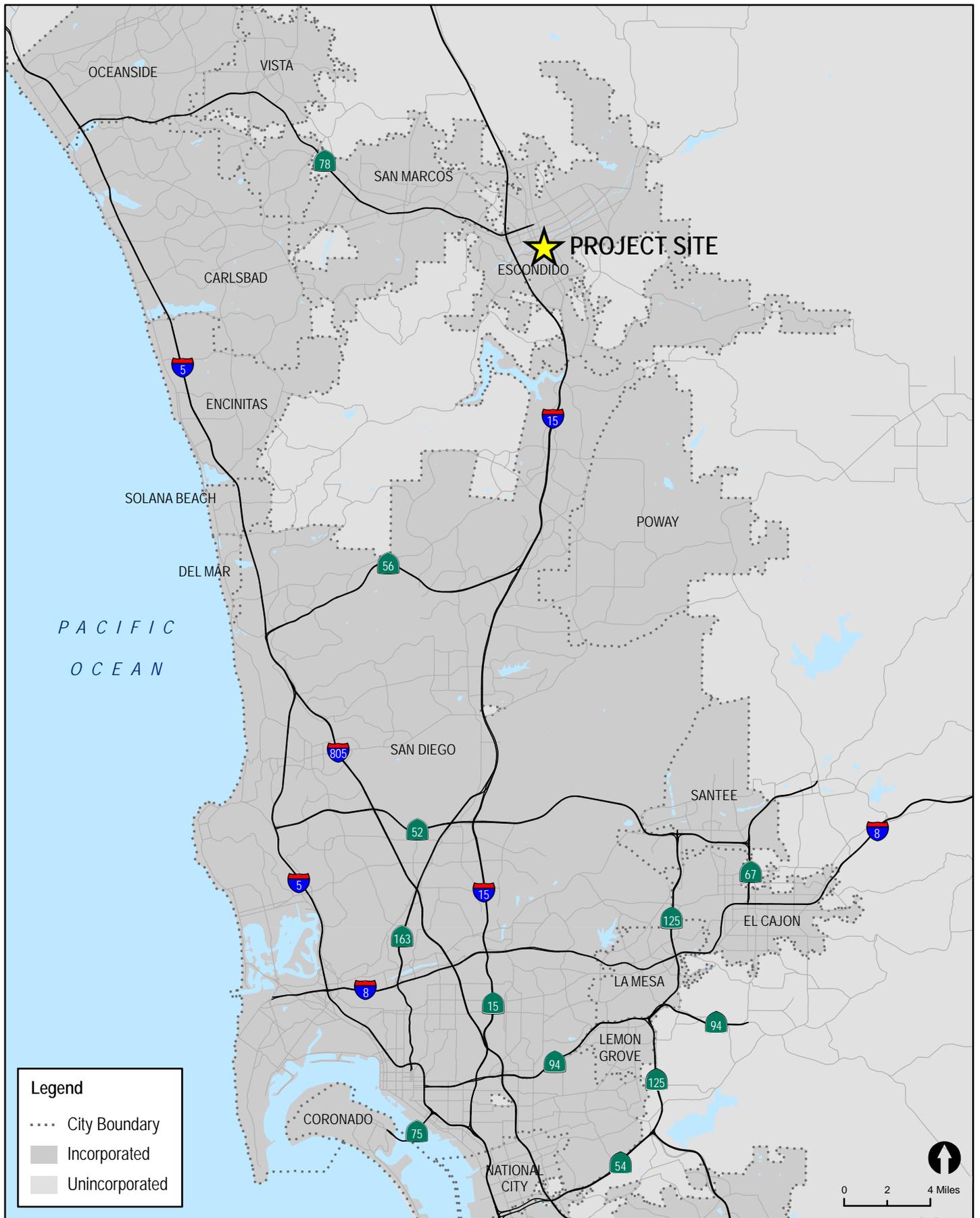
1.0 INTRODUCTION

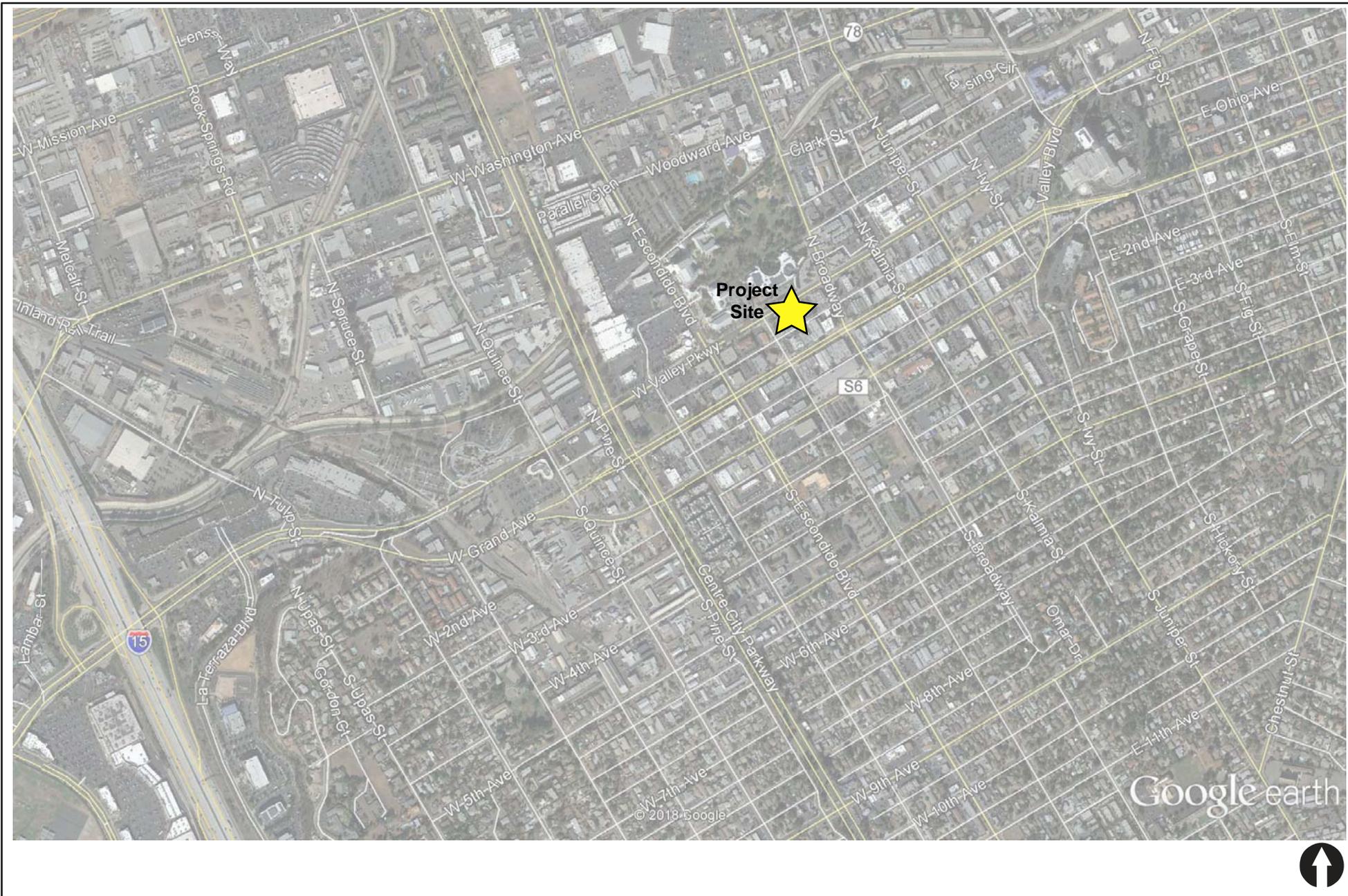
Linscott, Law and Greenspan, Engineers (LLG) has prepared the following transportation impact analysis to assess the impacts to the street system as a result of the Aspire project (“Project”), which proposes the development of 131 multi-family dwelling units and 4,289 sf of commercial space on a 1.04-acre site between W. Valley Parkway and W. Grand Avenue, adjacent to Maple Street in the City of Escondido.

Figure 1-1 shows the Project vicinity and *Figure 1-2* illustrates, in more detail, the site location.

The transportation analysis presented in this report includes the following:

- Project Description
- Existing Conditions
- Analysis Approach and Methodology
- Significance Criteria
- Analysis of Existing Conditions
- Project Trip Generation/Distribution/Assignment
- Cumulative Projects Discussion
- Analysis of Near-Term Scenarios
- General Plan Year 2035 Analysis
- Parking
- Significance of Impacts and Mitigation Measures





2.0 PROJECT DESCRIPTION

2.1 Project Location

The Project site is located at 137 W. Valley Parkway, bound by W. Valley Parkway to the north, Maple Street Plaza to the west, a commercial building to the east, and an alley to the south in the downtown area of Escondido. The property is 1.04 acres and is located within the Downtown Specific Plan Area.

2.2 Project Description

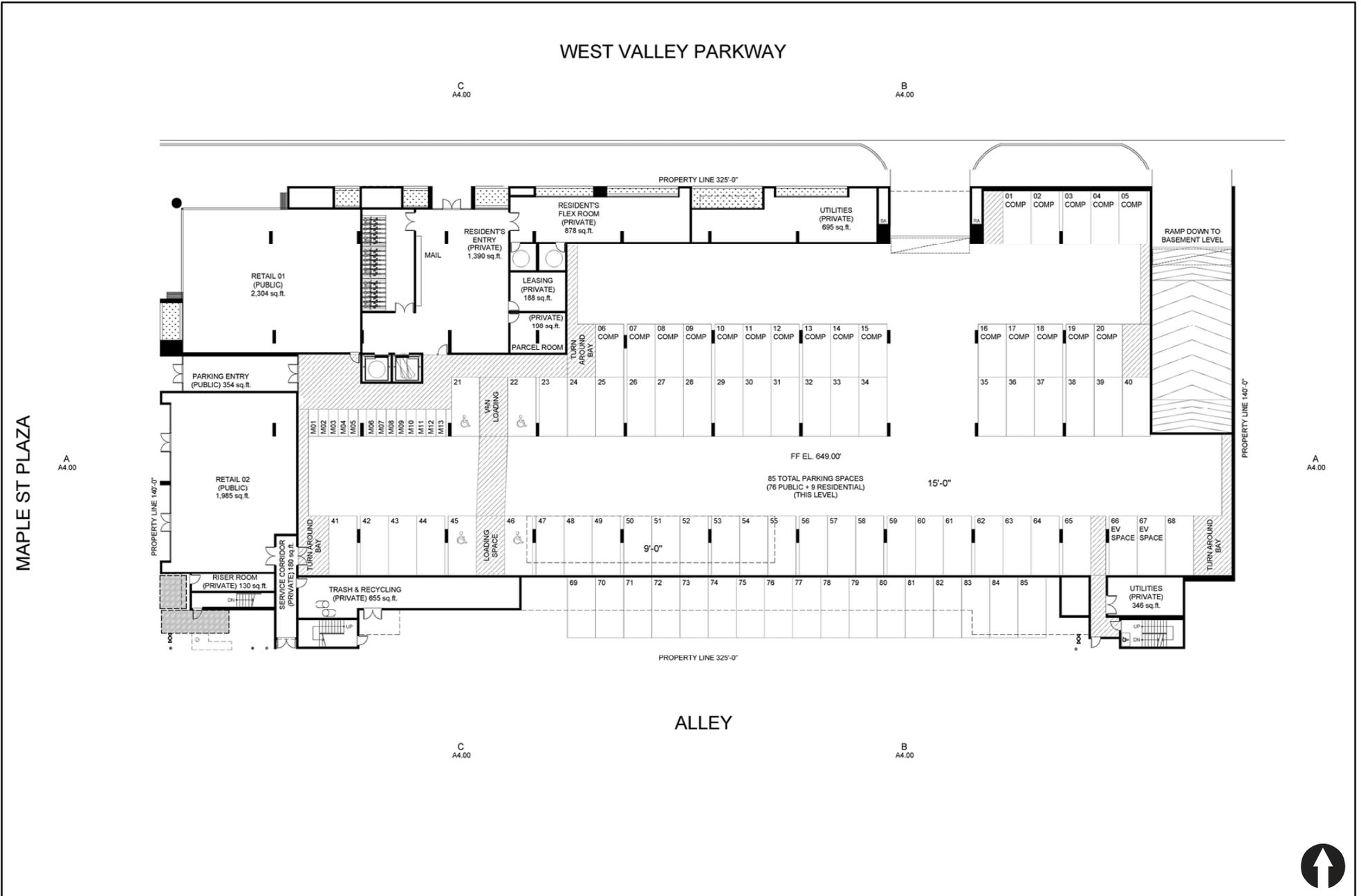
The Project proposes to construct a six-story mixed-use building that includes 131 residential units, approximately 229 parking spaces, common areas and amenities, and approximately 4,289 square feet (SF) of commercial space. 76 of the parking spaces provided within the Project's street level floor will be allocated for public parking.

Access to the garage parking will be via an unsignalized left-in/left-out only driveway on W. Valley Parkway, on the eastern side of the site. Approximately 17 surface parking spaces adjacent the building will be accessed via the alley.

The project will also include the following offsite improvements within the public right-of-way:

- Drainage improvements within Alley Way
- Installation of 2 concrete drive approaches
- Installation of new water, sewer and fire services
- Installation of new fire hydrants for a total of 4, one near each corner of the building
- Removal of existing curb inlet and installation of new curb inlet within W. Valley Parkway
- Removal and replacement of existing concrete sidewalk along W. Valley Parkway
- Installation of an underground storm drain pipe within sidewalk along W. Valley Parkway

Figure 2-1 depicts the conceptual Project site plan.



MAPLE ST PLAZA



3.0 EXISTING CONDITIONS

Effective evaluation of the transportation impacts associated with the proposed Project requires an understanding of the existing transportation system within the Project study area. **Figure 3-1** depicts existing conditions, including signalized/unsignalized intersections and lane configurations.

The study area includes the following eight (8) existing intersections and six (6) street segments. These locations were selected using the methodology published in the City of Escondido Traffic Impact Study Guideline.

Intersections:

1. W. Valley Parkway/ N. Escondido Boulevard
2. W. Valley Parkway/ Maple Street
3. Valley Parkway/ N. Broadway
4. W. Grand Avenue/ S. Escondido Boulevard
5. W. Grand Avenue / S. Maple Street
6. W. Grand Avenue / S. Broadway
7. N. Escondido Boulevard / Alley
8. N. Broadway / Alley

Street Segments:

W. Valley Parkway

1. N. Orange Street to N. Escondido Boulevard
2. N. Escondido Boulevard to N. Broadway

W. Grand Avenue

3. N. Escondido Boulevard to N. Broadway

S. Broadway

4. Valley Parkway to Grand Avenue
5. Grand Avenue to 2nd Avenue

W. 2nd Avenue

6. N. Escondido Boulevard to N. Broadway

3.1 Existing Roadway Conditions

The following is a brief description of the streets in the Project study area.

W. Valley Parkway is an east-west roadway classified on the City of Escondido Mobility Element as a Prime Arterial between Tulip Street and 9th Avenue and as a Collector Street from Tulip Street to Hickory Street. In the Project study area it is currently built as a three-lane roadway with one-way westbound travel. On-street parking is provided intermittently on the south side of the roadway. A protected two-way cycle track is provided on the north side of the roadway. The posted speed limit is 35 mph.

W. Grand Avenue is an east-west facility that is classified on the City of Escondido Mobility Element as a Collector Street. In the project study area it is currently built as a four-lane roadway with two lanes in each direction and on-street parking provided on both sides of the roadway. The posted speed limit is 30 mph.

2nd Avenue is an east-west roadway classified as a Collector on the City of Escondido Mobility Element. In the vicinity of the Project it is built as a three-lane roadway with one-way eastbound travel. On-street parking is typically allowed on both sides of the roadway. The posted speed limit is 30 mph.

N. Escondido Boulevard is a north-south facility classified as a Collector Street on the City of Escondido Mobility Element. In the project study area it is currently built as a four-lane roadway with two lanes in each direction and a left turn lane at the intersections in the project vicinity. On-street parking is not permitted and the posted speed limit is 35 mph.

S. Broadway is a north-south facility classified as a Major Road on the City of Escondido Mobility Element. In the project study area, north of Grand Avenue, it is currently built as a four-lane roadway with two lanes in each direction with a left turn lane and right turn lane at the intersections in the project vicinity. South of Grand Avenue, it is built as a two-lane roadway. On-street parking is provided on both sides of the roadway, parallel parking north of Grand Avenue and angle parking to the south. The posted speed limit is 30 mph.

The **Alley** is an east/west facility that is unclassified on the City of Escondido Circulation Element. In the project study area it is currently built as a single lane one-way alleyway. No on-street parking or posted speed limit is provided in the alley.

3.2 Existing Transit Conditions

Public transit service in the area is provided by North County Transit District (NCTD). The following NCTD bus routes provide stops within ¼ mile of the Project site.

Route 217 (San Jacinto- Hemet- Temecula- Escondido) provides service via I-15 and SR-79 to Mt. San Jacinto College and includes stops at Equity & Ynez, County Center, Promenade Mall, Hemet Valley Mall and Mt. San Jacinto College. The nearest stops to the project are located at 2nd Avenue / Broadway and Valley Parkway / Juniper Street.

Route 350 (Escondido to Del Lago Transit Station via Westfield North County Mall) provides service between the Escondido Transit Center and Del Lago Transit Center via Escondido Boulevard, Sunset and Bear Valley Parkway. The nearest stops to the project site are located at 2nd Avenue / Broadway and Valley Parkway / Juniper Street.

Route 351/352 (Escondido Circulator) provides service between the Escondido Transit Center and Midway Drive / Valley Parkway via Grand Avenue and Washington Avenue. The nearest stop pairing is located at Grand Avenue / Juniper Street.

Route 354 (Orange Glen High School via Mission, Lincoln and Citrus) provides service between the Escondido Transit Center and Orange Glen High School along Escondido Boulevard, Lincoln, Midway and Valley Parkway. The nearest stops to the project site are located at 2nd Avenue / Broadway and Valley Parkway / Juniper Street.

Route 355/357 (El Norte Parkway & Valley Parkway) provides circulator service along El Norte Parkway, Valley Parkway, and Grand Avenue and includes stops at the Escondido Transit Center, Palomar Health Downtown Campus, and Palomar College Escondido Branch. The nearest stops to the Project site are located at 2nd Avenue / Broadway and Valley Parkway / Juniper Street.

Route 358/359 (N. Broadway, Country Club and El Norte Parkway) provides service between the Escondido Transit Center and Country Club-Rincon via N. Broadway and El Norte Parkway. The nearest stops to the project site are located at 2nd Avenue / Broadway and Valley Parkway / Juniper Street.

Route 371 (FLEX) provides service from the Escondido Transit Center to Ramona via San Pasqual Valley Road, Weekend Villa, Pine Street and Main Street and includes a stop at San Pasqual Academy. The nearest stops to the project site are located at 2nd Avenue / Broadway and Valley Parkway / Juniper Street.

Route 388 (Escondido to Pala) provides service between the Escondido Transit Center and Pala Casino via Valley Parkway, Valley Center Road, and Pala Road. Route 388 also includes stops at Valley View Casino, Harrah's Rincon Casino, and Casino Pauma. The nearest stops to the Project site are located at 2nd Avenue / Broadway and Valley Parkway / Juniper Street.

3.3 Existing Bicycle Circulation

A Class IV bikeway cycle track is provided on the north side of W. Valley Parkway, providing two-way bicycle circulation and physical separation from motorized traffic through the core city area. In conjunction with other bicycle facilities in the area, this cycle track connects the Inland Rail Trail with the Escondido Creek Trail.

3.4 Existing Traffic Volumes

Table 3-1 is a summary of the average daily traffic volumes (ADTs) based on counts taken in May 2018 and May 2019, when local schools were in session.

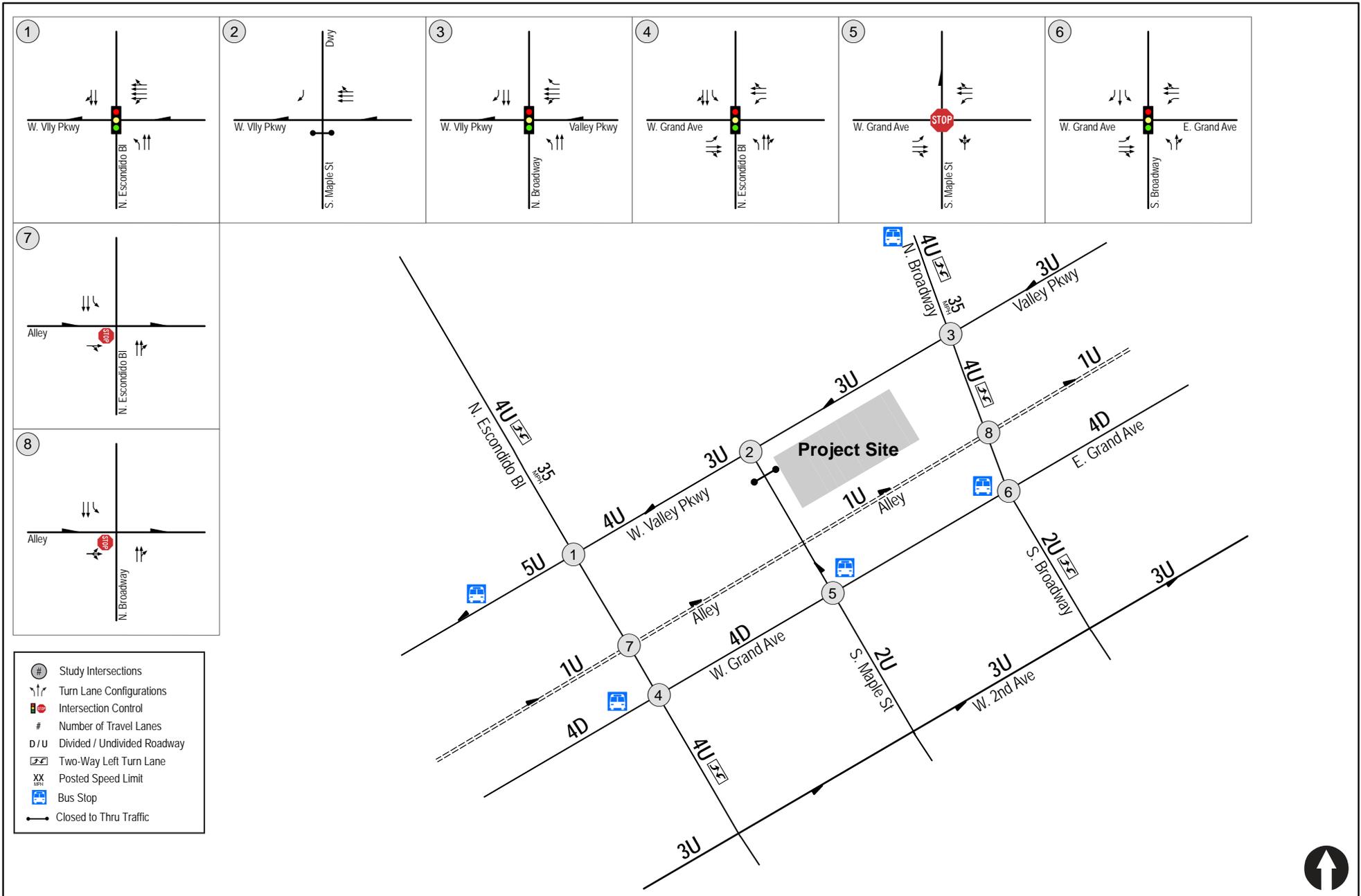
Figure 3-2 shows the Existing Traffic Volumes on both an ADT and peak hour basis. Peak hour counts were also conducted in May 2018. **Appendix A** contains the manual count sheets.

**TABLE 3-1
EXISTING TRAFFIC VOLUMES**

Street Segment	ADT^a	Date^b
W. Valley Parkway		
1. N. Orange Street to N. Escondido Boulevard	16,996	Nov. 2017 ^c
2. N. Escondido Boulevard to N. Broadway	18,026	May 2018
W. Grand Avenue		
3. N. Escondido Boulevard to N. Broadway	8,843	May 2018
S. Broadway		
4. Valley Parkway to Grand Avenue	7,319	May 2019
5. Grand Avenue to 2 nd Avenue	5,590	May 2019 ^d
W. 2nd Avenue		
6. N. Escondido Boulevard to N. Broadway	15,206	Nov. 2017 ^c

Footnotes:

- a. Average Daily Traffic
- b. Data collection date
- c. Year 2017 counts adjusted to Year 2019 baseline using annual growth rate of 2% based on comparison of counts at nearby locations..
- d. ADT estimated based on count at adjacent segment to the north and peak hour traffic patterns observed at Broadway / Grand Avenue intersection. Raw estimate increased by 10% as a conservative safety factor.



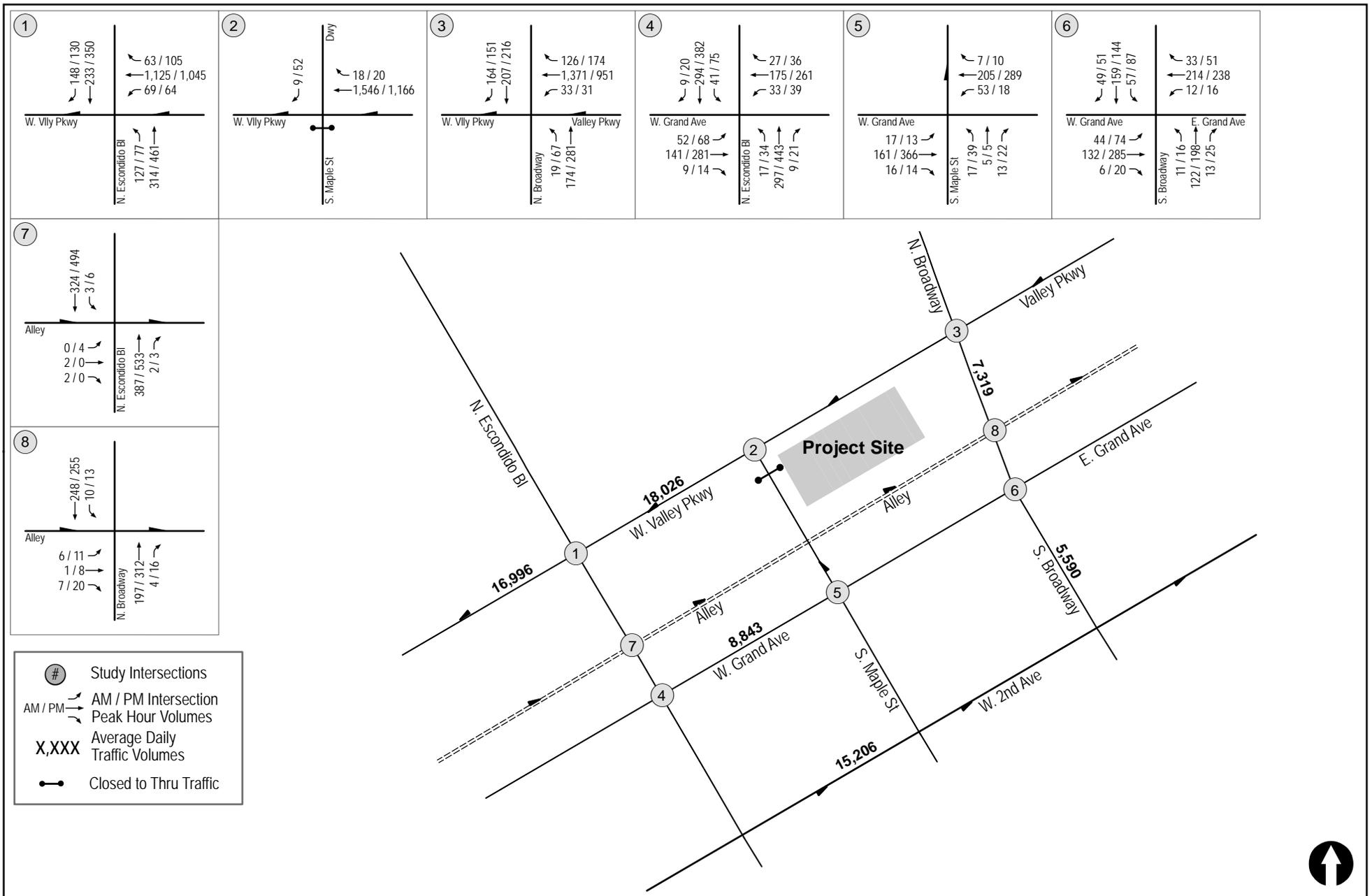


Figure 3-2

Existing Traffic Volumes

4.0 ANALYSIS APPROACH AND METHODOLOGY

4.1 Analysis Approach

Table 4-1 shows the analyses performed in each of the scenarios to determine the potential impacts to the road network.

TABLE 4-1
ANALYSIS SCENARIOS

Scenario	Analysis Performed
<i>Existing & Near-Term Conditions</i>	
Existing	Peak Hour Intersection Analysis
Existing + Project	
Existing + Cumulative Projects (Scenario 1)	
Existing + Cumulative Projects + Project (Scenario 1)	
Existing + Cumulative Projects (Scenario 2)	Daily Street Segment Analysis
Existing + Cumulative Projects + Project (Scenario 2)	
<i>Long-Term Conditions</i>	
Year 2035 without Project	Peak Hour Intersection Analysis
Year 2035 with Project	Daily Street Segment Analysis

4.2 Methodology

Level of service (LOS) is the term used to denote the different operating conditions which occur on a given roadway segment under various traffic volume loads. It is a qualitative measure used to describe a quantitative analysis taking into account factors such as roadway geometries, signal phasing, speed, travel delay, freedom to maneuver, and safety. Level of service provides an index to the operational qualities of a roadway segment or an intersection. Level of service designations range from A to F, with LOS A representing the best operating conditions and LOS F representing the worst operating conditions. Level of service designation is reported differently for signalized intersections, unsignalized intersections and roadway segments.

4.2.1 Intersections

Signalized intersections were analyzed under AM and PM peak hour conditions. Average vehicle delay was determined utilizing the methodology found in Chapter 19 of the *Highway Capacity Manual 6th Edition (HCM 6)*, with the assistance of the *Synchro 10* computer software. The delay values (represented in seconds) were qualified with a corresponding intersection Level of Service (LOS). Signalized intersection calculation worksheets and a more detailed explanation of the methodology are attached in **Appendix B**.

Unsignalized intersections were analyzed under AM and PM peak hour conditions. Average vehicle delay and Levels of Service (LOS) was determined based upon the procedures found in Chapter 20 and Chapter 21 of the *HCM 6* with the assistance of the *Synchro 10* computer software. A more detailed explanation of the methodology are attached in *Appendix B*.

4.2.2 *Street Segments*

Street segment analysis is based upon the comparison of daily traffic volumes (ADTs) to the City of Escondido Roadway Classification, Level of Service, and ADT Table. This table provides segment capacities for different street classifications, based on traffic volumes and roadway characteristics. The City of Escondido capacity table is attached in *Appendix C*.

5.0 SIGNIFICANCE CRITERIA

The following is a summary of the City of Escondido’s published significance criteria.

In accordance with the SANTEC/ITE Guidelines for Traffic Impact Studies in the San Diego Region, the following thresholds shall be used to identify if a project is of significant traffic impact under any scenario. Based on SANTEC/ITE guidelines, if now or in the future, the Project’s traffic impact causes the values in *Table 5-1* to be exceeded in a roadway segment or intersection that is operating at LOS D or worse, it is determined to be a significant impact and the Project shall identify mitigation measures.

TABLE 5-1
PROPOSED THRESHOLDS TO IDENTIFY A PROJECT’S SIGNIFICANT TRAFFIC IMPACT

Level of Service with Project	Allowable Change due to Project Impact		
	Roadway Segments		Intersections Delay (sec.)
	V/C	Speed (mph)	
D, E, or F	0.02	1	2

Source: City of Escondido

*No Significant Impact occurs at areas in GP Downtown Specific Area that operates at LOS “D” or better.

*Mitigation measures should also be considered for any segment or intersection operating at LOS “F” subject to less than significant impact.

*V: Volume *C: Capacity (use LOS “E”)

According to the City’s General Plan, Mobility Element, Street Network Policy 7.3 the City strives to maintain LOS C or better throughout the city except for within the urban core. LOS D is established as the threshold for determining significant impacts and appropriate mitigation. Due to physical design characteristics, implementation of pedestrian-oriented ‘smart growth’ and Complete Streets design improvements, high density infill areas, environmental resource considerations, existing development, freeway interchange impacts, and incomplete system improvements, alternative levels of service may be appropriate for isolated areas as determined by the City.

Furthermore, the City’s Downtown Specific Plan states that when considering traffic impacts in areas of downtown, LOS E shall be the threshold for determining significance and requiring mitigation. This downtown area is depicted in Specific Plan Figure III-2, which is included in *Appendix D*. The downtown LOS E threshold area is broadly, Quince Street to Ivy Street, and Valley Parkway to 2nd Avenue.

6.0 ANALYSIS OF EXISTING CONDITIONS

The criteria used for determining unacceptable operations are subject to each jurisdiction's standards, as discussed in *Section 5.0* of this report. The City of Escondido considers LOS D the threshold for unacceptable operations. However, the study area lies within the Downtown Specific Plan area under which LOS E is established as the threshold for determining significance and requiring mitigation. The following section summarizes the existing analysis of study area locations.

6.1 Peak Hour Intersection Levels of Service

Table 6-1 summarizes the existing peak hour intersection operations. As shown, all study area intersections are calculated to currently operate at LOS C or better.

Appendix E contains the Existing peak hour intersection analysis worksheets.

6.2 Daily Street Segment Levels of Service

Table 6-2 summarizes the existing segment operations along the key study area roadways. As shown, all roadway segments are calculated to currently operate at acceptable LOS C or better.

**TABLE 6-1
EXISTING INTERSECTION OPERATIONS**

Intersection	Control Type	Peak Hour	Delay ^a	LOS ^b
1. W. Valley Pkwy/ N. Escondido Blvd	Signal	AM	26.1	C
		PM	28.8	C
2. W. Valley Pkwy/ Maple St.	Signal	AM	2.6	A
		PM	3.9	A
3. Valley Pkwy/ N. Broadway	Signal	AM	12.7	B
		PM	17.1	B
4. W. Grand Ave/ S. Escondido Blvd	Signal	AM	14.3	B
		PM	15.0	B
5. W. Grand Ave / S. Maple St	AWSC ^c	AM	8.4	A
		PM	9.4	A
6. W. Grand Ave / S. Broadway	Signal	AM	14.8	B
		PM	19.3	B
7. N. Escondido Blvd / Alley	MSSC ^d	AM	9.3	A
		PM	17.1	C
8. N. Broadway / Alley	MSSC	AM	10.2	B
		PM	10.5	B

Footnotes:

- a. Average delay expressed in seconds per vehicle.
- b. Level of Service.
- c. AWSC – All-way STOP controlled intersection. Overall intersection delay is reported.
- d. MSSC - Minor-Street Stop Controlled intersection. Minor street left-turn delay is reported.

SIGNALIZED		UNSIGNALIZED	
Delay	LOS	Delay	LOS
0.0 ≤ 10.0	A	0.0 ≤ 10.0	A
10.1 to 20.0	B	10.1 to 15.0	B
20.1 to 35.0	C	15.1 to 25.0	C
35.1 to 45.0	D	25.1 to 35.0	D
45.1 to 80.0	E	35.1 to 50.0	E
≥ 80.1	F	≥ 50.1	F

**TABLE 6-2
EXISTING STREET SEGMENT OPERATIONS**

Street Segment	Functional Classification	LOS E ^a Capacity	ADT ^b	LOS ^c	V/C ^d
W. Valley Parkway					
1. N. Orange St to N. Escondido Blvd	5-Ln Collector ^e	43,500	16,996	B	0.391
2. N. Escondido Blvd to N. Broadway	3-Ln Collector ^f	30,000	18,026	C	0.601
W. Grand Avenue					
3. N. Escondido Blvd to N. Broadway	4-Ln Collector	20,000	8,843	B	0.442
Broadway					
4. Valley Parkway to Grand Ave	4-Ln Collector	20,000	7,319	B	0.366
5. Grand Ave to 2 nd Ave	2-Ln Collector	10,000	5,590	C	0.559
W. 2nd Avenue					
6. N. Escondido Blvd to N. Broadway	3-Ln Collector ^f	30,000	15,206	B	0.507

Footnotes:

- a. Capacities based on *City of Escondido Roadway Classification Table (See Appendix C)*.
- b. Average Daily Traffic Volumes.
- c. Level of Service.
- d. Volume to capacity ratio.
- e. Roadway currently built as five lanes traveling in one direction. Capacity of 43,500 ADT used in analysis.
- f. Roadway currently built as three lanes traveling in one direction. Capacity of 30,000 ADT used in analysis.

7.0 TRIP GENERATION/DISTRIBUTION/ASSIGNMENT

The following is a discussion of the Project trip generation calculations and the Project traffic distribution and assignment through the local network.

7.1 Trip Generation

The Project traffic generation calculations were conducted based on the trip generation rates published in SANDAG's *"Not so Brief Guide of Vehicular Traffic Generation Rates for San Diego Region"* (April 2002). Based on the type and density of homes proposed by the Project, SANDAG specifies a residential trip rate of 6 ADT/ dwelling unit (DU). This SANDAG "Apartment" rate applies to any multi-family housing in excess of 20 DU/acre, which corresponds to the Project's proposed 131 DU on the 1.4-acre site.

The ground-floor commercial comprises two suites, one at 2,304 sf and the other at 1,985 sf, totaling 4,289 sf. The commercial space may ultimately include a mix of retail and food service. To be conservative, the SANDAG "restaurant (sit-down, high turnover) rate, which is higher than most retail rates, was applied to both commercial suites. Pass-by trips (trips drawn from traffic already on the adjacent roadway) are accounted for in the tabulation of the commercial trip generation.

It should be noted that these regional rates are generic, and do not reflect downtown/urban/mixed-use rates, as would befit the Project based on its design and location. Per SANDAG guidance, a 5% reduction for transit accessibility and up to 10% reduction for mixed-use development may be applied. Based on City staff guidance, the 5% transit reduction along with a 2% mixed-reduction were applied to the Project's gross trip generation.

The public parking lot will be equipped with a modern parking detection and management system with display showing parking availability both on the street and at the public parking entrance gate. The Project will also contribute a fair share toward a Citywide parking management system with real time parking availability signage for public parking lots. These measures are expected to reduce the number of vehicles circulating to find parking. Per City staff guidance, a trip generation reduction of 8% was applied to reflect these features.

Table 7-1 shows a summary of the Project traffic generation. As tabulated the Project is calculated to generate 1,181 daily trips with 95 total AM peak hour trips (32 inbound/ 63 outbound) and 97 total PM peak hour trips (64 inbound/ 33 outbound).

7.2 Trip Distribution/Assignment

Trip distribution is the process of determining traffic percentage splits on the regional and local roadway network. Trip distribution is determined based on the characteristics of the Project and upon the general location of other land uses to which Project trips would originate or terminate, such as employment, housing, schools, recreation and shopping. Generally, the regional traffic was assigned to/from the site as follows:

- 40% oriented to/from the north
- 34% oriented to/from the west
- 15% oriented to/from the south
- 11% oriented to/from the east

LLG used local traffic patterns as well as commercial GIS software to determine the local traffic distribution. The majority of Project traffic is anticipated to access the Project site via the proposed driveway on W. Valley Parkway, which serves the majority of the parking. Secondary and minor access would be via the existing one-way eastbound alley, which serves 17 parking spaces. Most alley-related traffic is anticipated to enter the alley via Maple Street and Grand Avenue.

The prominent one-way circulation of W. Valley Parkway and the alley were carefully considered, and differential inbound and outbound traffic distributions were developed to reflect the one-way circulation's effects.

Figures 7-1 depicts the Project inbound trip distribution. *Figures 7-2* depicts the Project outbound trip distribution. *Figure 7-3* depicts the assigned Project traffic volumes. *Figure 7-4* depicts Existing + Project traffic volumes.

**TABLE 7-1
PROJECT TRIP GENERATION**

Land Use	Size	Daily Trip Ends (ADTs)		AM Peak Hour				PM Peak Hour					
		Rate ^a	Volume	% of ADT	In:Out		Volume		% of ADT	In:Out		Volume	
					Split	In	Out	Split		In	Out		
Apartments	131 DU	6/DU	786	8%	2:8	13	50	9%	7:3	50	21		
Restaurant (Sit-Down/ High Turnover)	4.289 KSF	160/KSF	686	8%	5:5	28	27	8%	6:4	33	22		
Pass-By ^b			(82)			(3)	(3)			(7)	(4)		
<i>Primary Trips Subtotal</i>	–	–	1,390	–	–	38	74	–	–	76	39		
Transit Reduction (5%) ^c	–	–	(70)	–	–	(2)	(4)	–	–	(4)	(2)		
Mixed Use (2%) ^d	–	–	(26)			(1)	(1)			(2)	(1)		
Parking Management (8%)	—	—	(111)			(3)	(6)			(6)	(3)		
<i>Net Trip Generation</i>	–	–	1,181	–	–	32	63	–	–	64	33		

Footnotes:

- a. Rate is based on SANDAG's (*Not So*) *Brief Guide of Vehicular Traffic Generation Rates for the San Diego Region*, April 2002. ("Brief Guide")
- b. Daily, AM reductions based on note P in the Brief Guide. PM reduction based on note S in the Brief Guide.
- c. Reduction is based on note T[1] in the Brief Guide
- d. Reduction is based on note T[2] in the Brief Guide

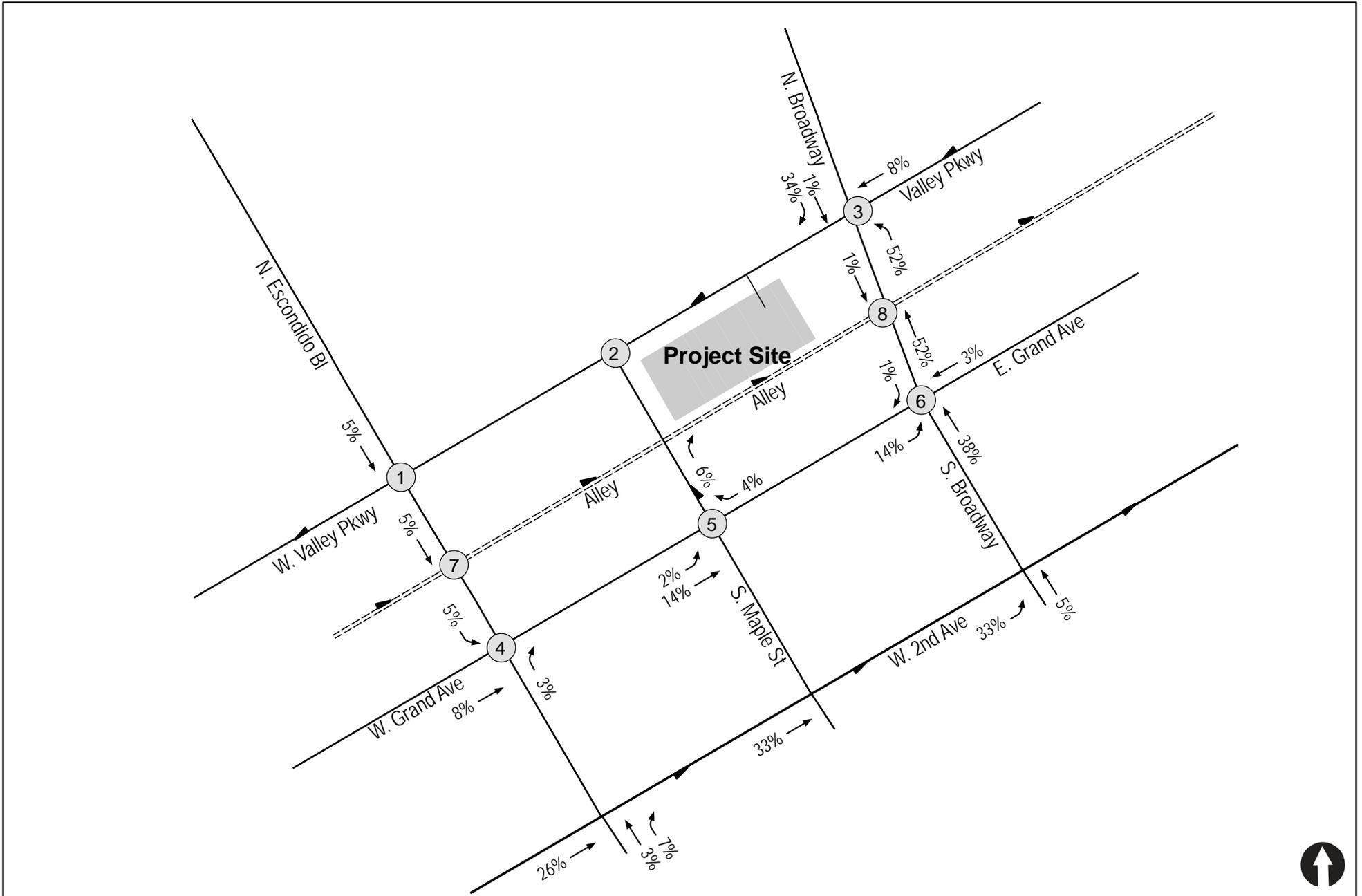
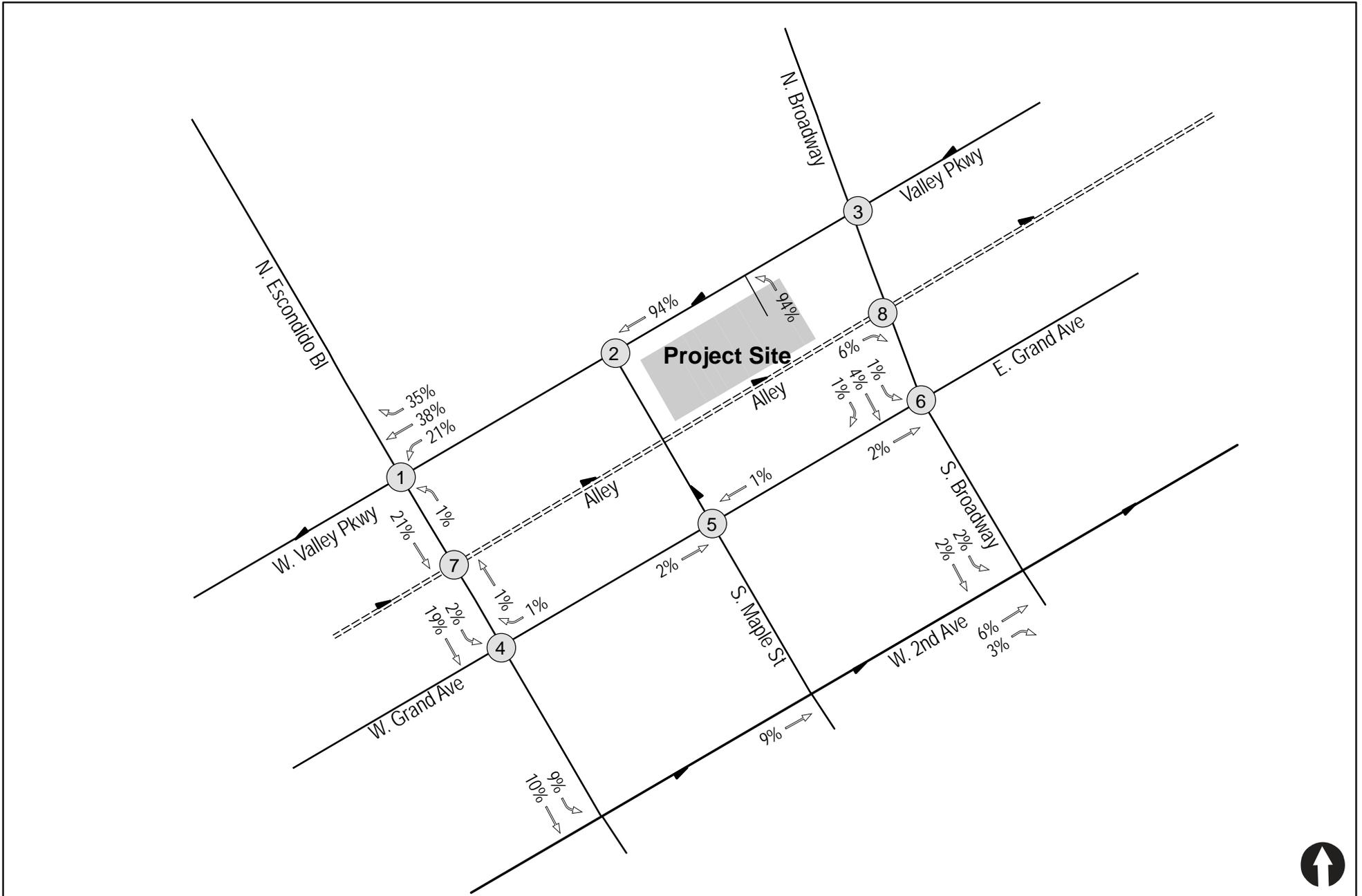


Figure 7-1

Project Inbound Trip Distribution



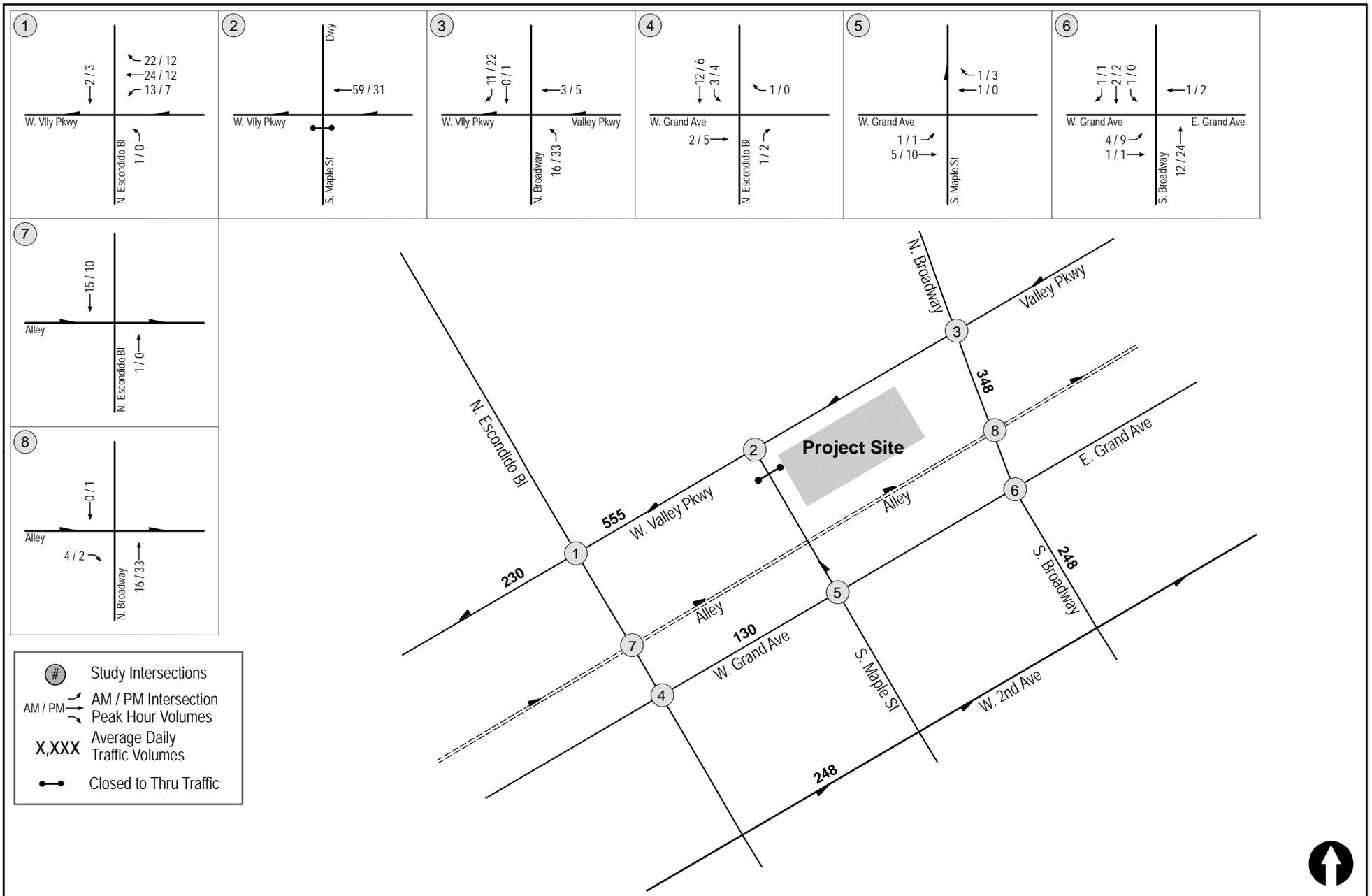
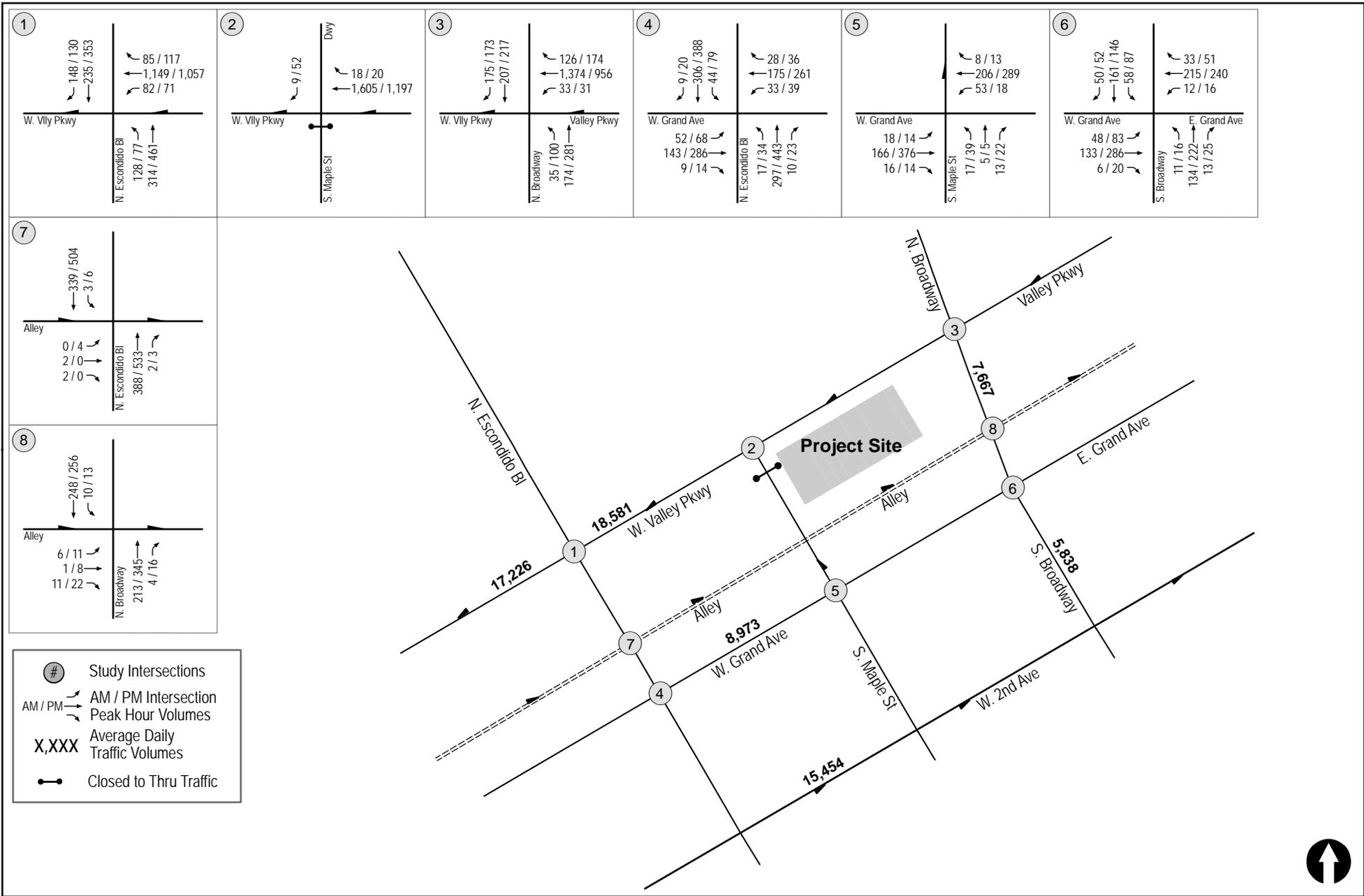


Figure 7-3

Project Traffic Volumes



8.0 CUMULATIVE PROJECTS

Cumulative projects are other projects in the study area that will add traffic to the local circulation system in the near future. The Proposed Project is consistent with the density evaluated in the Escondido General Plan Update traffic analysis, as well as with the zoning identified in the Downtown Specific Plan. As such, all cumulative impacts have been analyzed and addressed programmatically by these two documents. At the City's request, LLG reviewed near-term cumulative projects that could be built and operating within the timeframe that the Project would be developed and occupied (approximately 3 years, or 2021).

8.1 Description of Cumulative Projects

Table 8-1 lists and describes the cumulative projects assessed for potential traffic added to the study area.

Figure 8-1 depicts the total Cumulative traffic volumes. **Figure 8-2** depicts the Existing + Cumulative traffic volumes. **Figure 8-3** depicts the Existing + Cumulative + Project traffic volumes.

**TABLE 8-1
CUMULATIVE PROJECTS LIST**

Project Name	Location	Land Use	Size	Unit
Centerpoint 78 Commercial Project	990 N Broadway	Supermarket	43.5	TSF
		Fast-Food Restaurant	3.2	TSF
Latitude II	Northeast quad. Of Washington/CCP	Condominiums	112	DU
Escondido Gateway Mixed-Use	700 W. Grand Ave	Apartments	55	DU
		Convenience Market	1	TSF
City Plaza	328 S. Escondido Blvd	Apartments	55	DU
		Specialty Retail	5.198	TSF
Hotel La Terraza	300 La Terraza Blvd	Office	4.158	TSF
La Terraza Office	300 La Terraza Blvd	Hotel	105	rooms
		Office	36.614	TSF
Centre City Shopping Center	Southeast quad. Of Centre City Pkwy/Mission Ave	Fast-Food With Drive-Thru	4.878	TSF
		Fast-Food Without Drive-Thru	2.4	TSF
		Specialty Retail	4.5	TSF
		Automatic Car Wash	4.308	TSF
Touchstone - Aspire	137 West Valley Pkwy	Residential	131	DU
		Retail	4.289	TSF
Touch Stone – The Ivy	343 East 2 nd Ave	Residential	127	DU
		Retail	1.175	TSF
Starbucks Drive-through	Signature Pavilion 350 W. Valley Pkwy	Fast-Food With Drive-Thru	1.9	TSF
Quince Street Senior Housing	220 N. Quince Street	Affordable Senior Apartments	147	DU
Toyota Used Car Dealership	990 N. Broadway, 125 – 165 E. Lincoln Ave	Used Car Dealership	1.8	Acres
Grand Ave. Apartments	1316 E. Grand Ave.	Residential	15	DU
W. Grand Mixed Use	555 W. Grand Ave.	Residential	32	DU
		Office	0.6	TSF
2 nd Ave Mixed-Use	510 W. 2 nd Ave.	Residential	5	DU
		Commercial/Retail	2	TSF
California Bank and Trust	150 N. Quince Street	Bank	5	TSF
Palomar Heights	555 E. Valley Pkwy and surrounding properties	Residential	510	DU
		Commercial/Retail	12	TSF

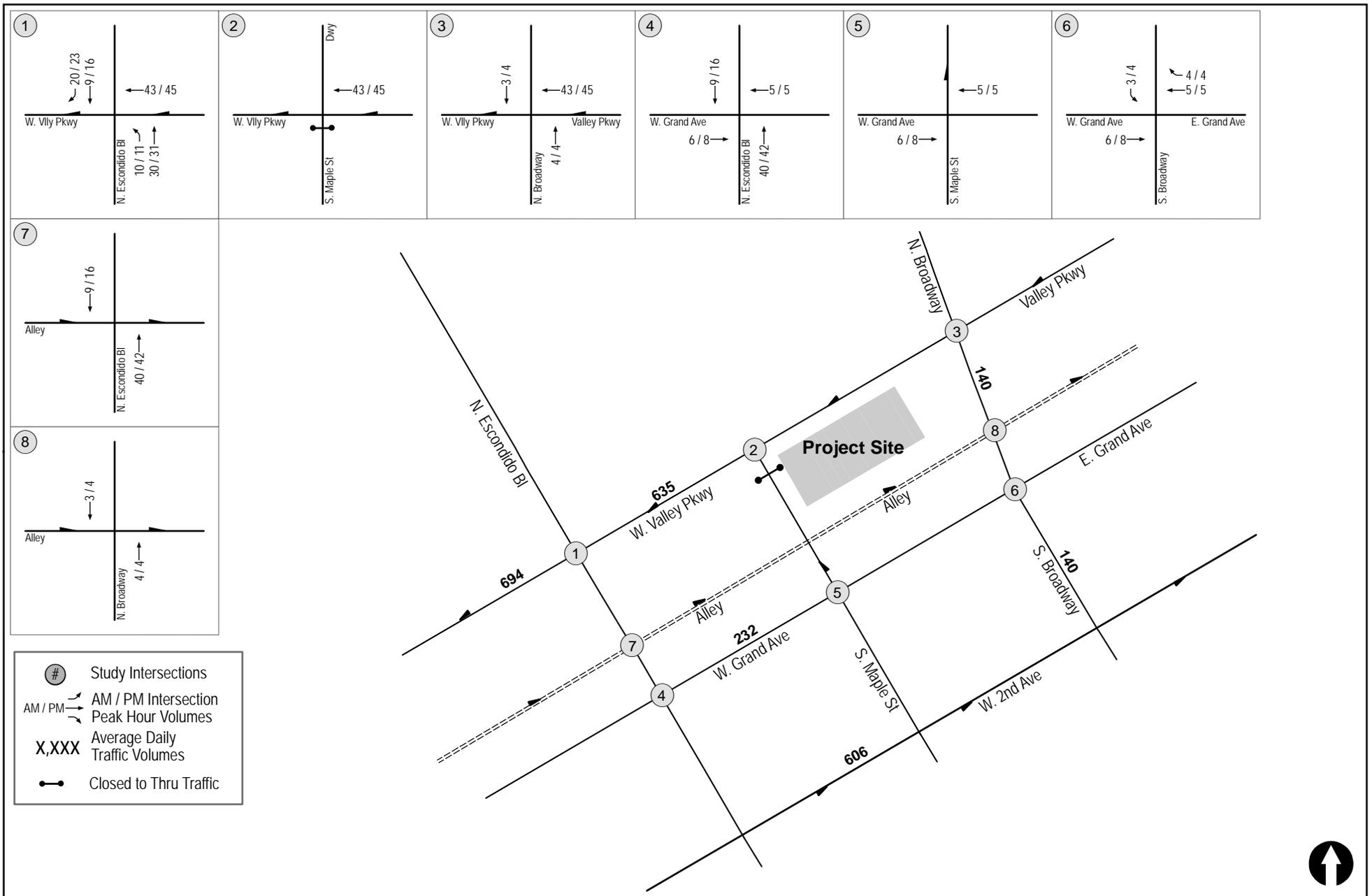
Source: City of Escondido

8.2 Network Conditions

The first phase of the *Grand Avenue Streetscape Improvement Project* calls for elimination of one lane of traffic along Grand Avenue in each direction between Juniper Street and Escondido Boulevard. Diagonal on-street parking will be provided on at least one side of the street and potentially both sides between Broadway and Kalmia Street, creating approximately 100 new parking spaces. This first phase is fully funded and currently in the design stage. Construction may begin as early as 2020. Near-term Scenario 1 evaluates the study area assuming completion of Phase 1 of the *Grand Avenue* project. **Figure 8-4** depicts the Near-term cumulative Scenario 1 conditions.

The second phase of the project includes the construction of roundabouts at the intersections of Maple Street, Broadway, and Kalmia Street. While Phase 2 is not fully funded it is currently under environmental review and is assumed to be in place for Near-term Scenario 2. **Figure 8-5** depicts the Near-term cumulative Scenario 2 conditions.

While the implementation of the Grand Avenue project is likely to result in some shifting of traffic patterns and diversion of traffic from Grand Avenue to the adjacent one-way couplet of Valley Parkway and 2nd Avenue, no diversion is assumed for the near-term scenarios, which provides the most conservative assessment of traffic operations on Grand Avenue in the near-term.



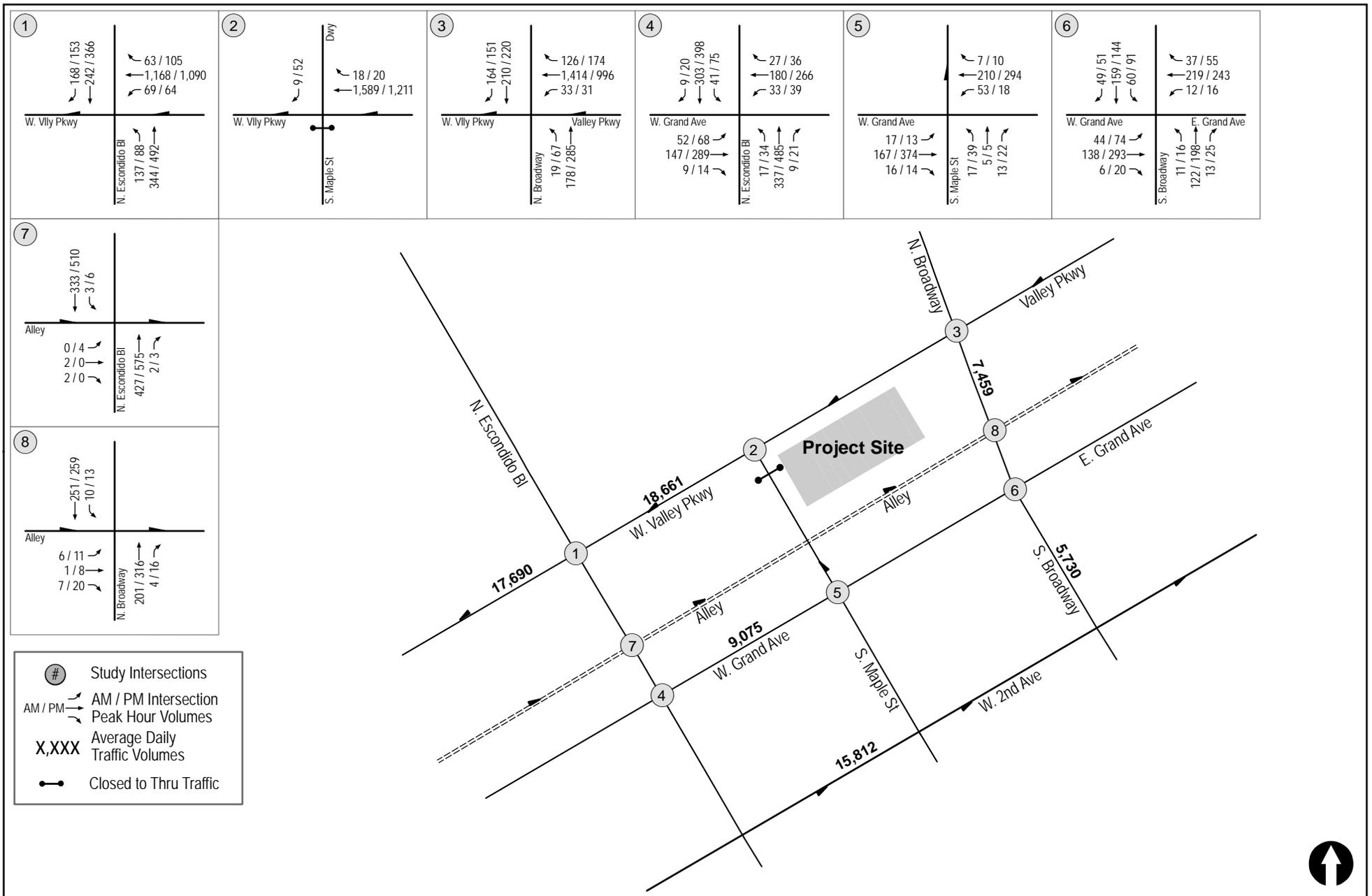


Figure 8-2

Existing + Cumulative Traffic Volumes

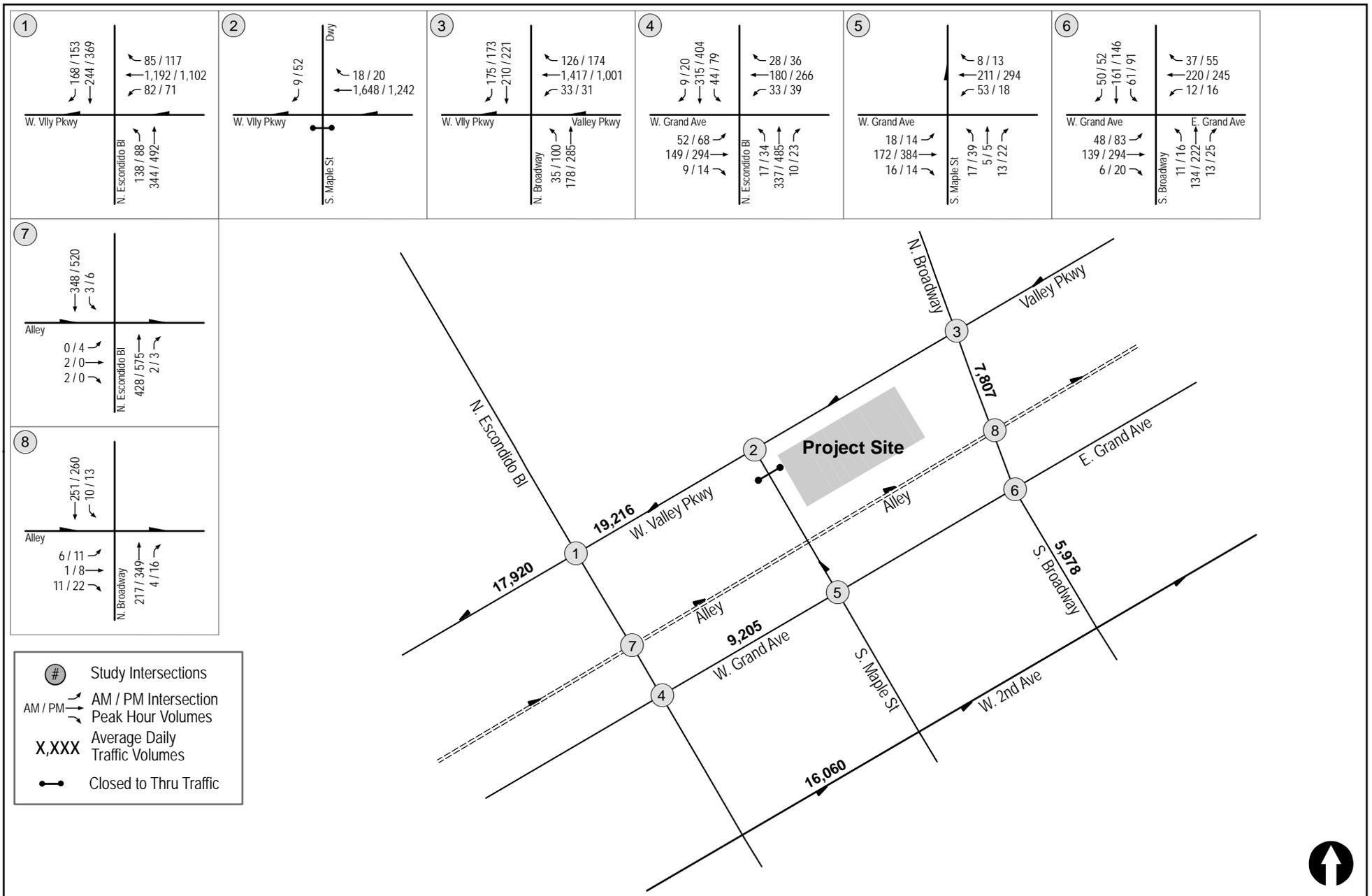


Figure 8-3

Existing + Cumulative + Project Traffic Volumes

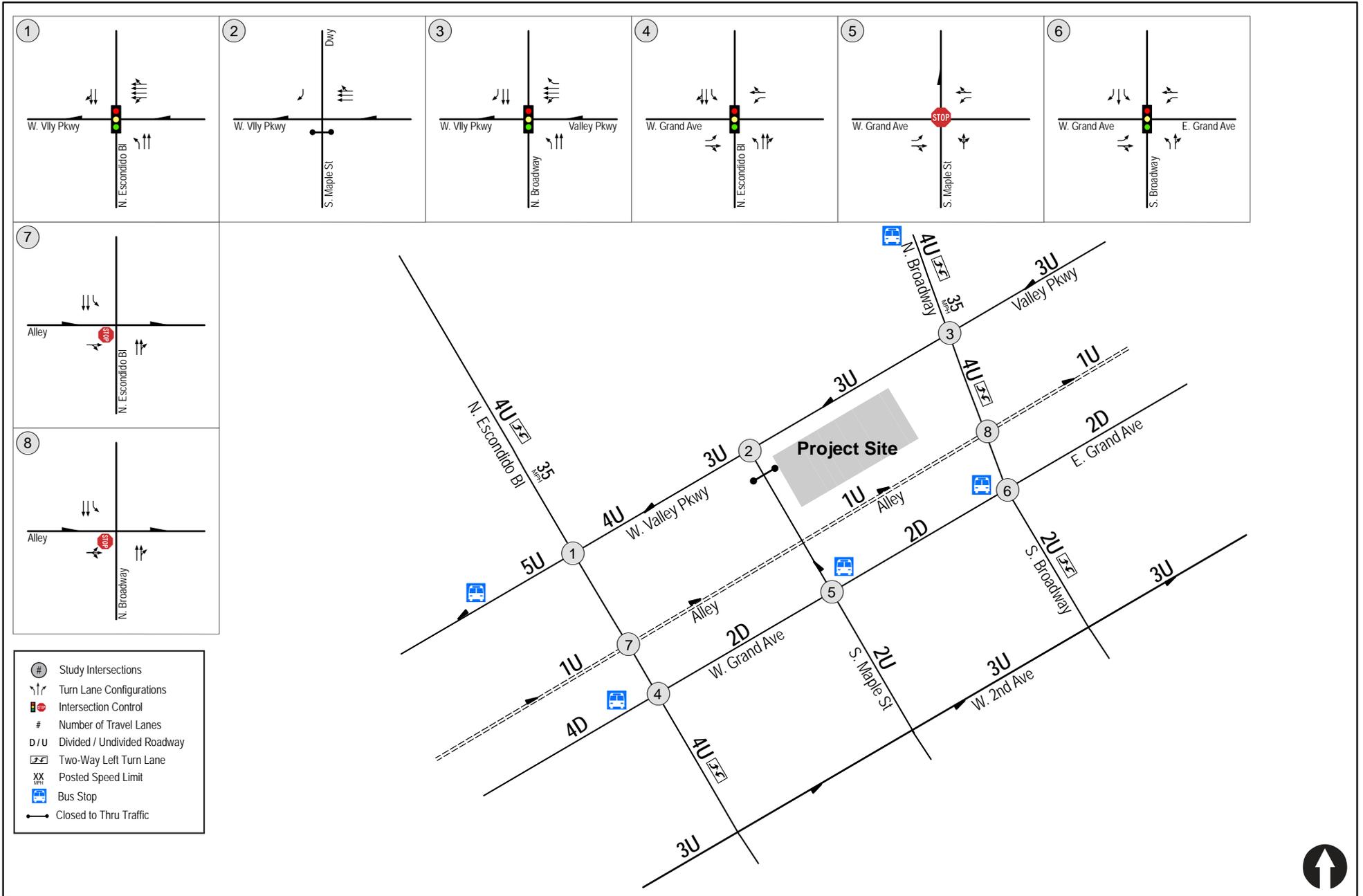


Figure 8-4

Near-Term Phase I Conditions Diagram

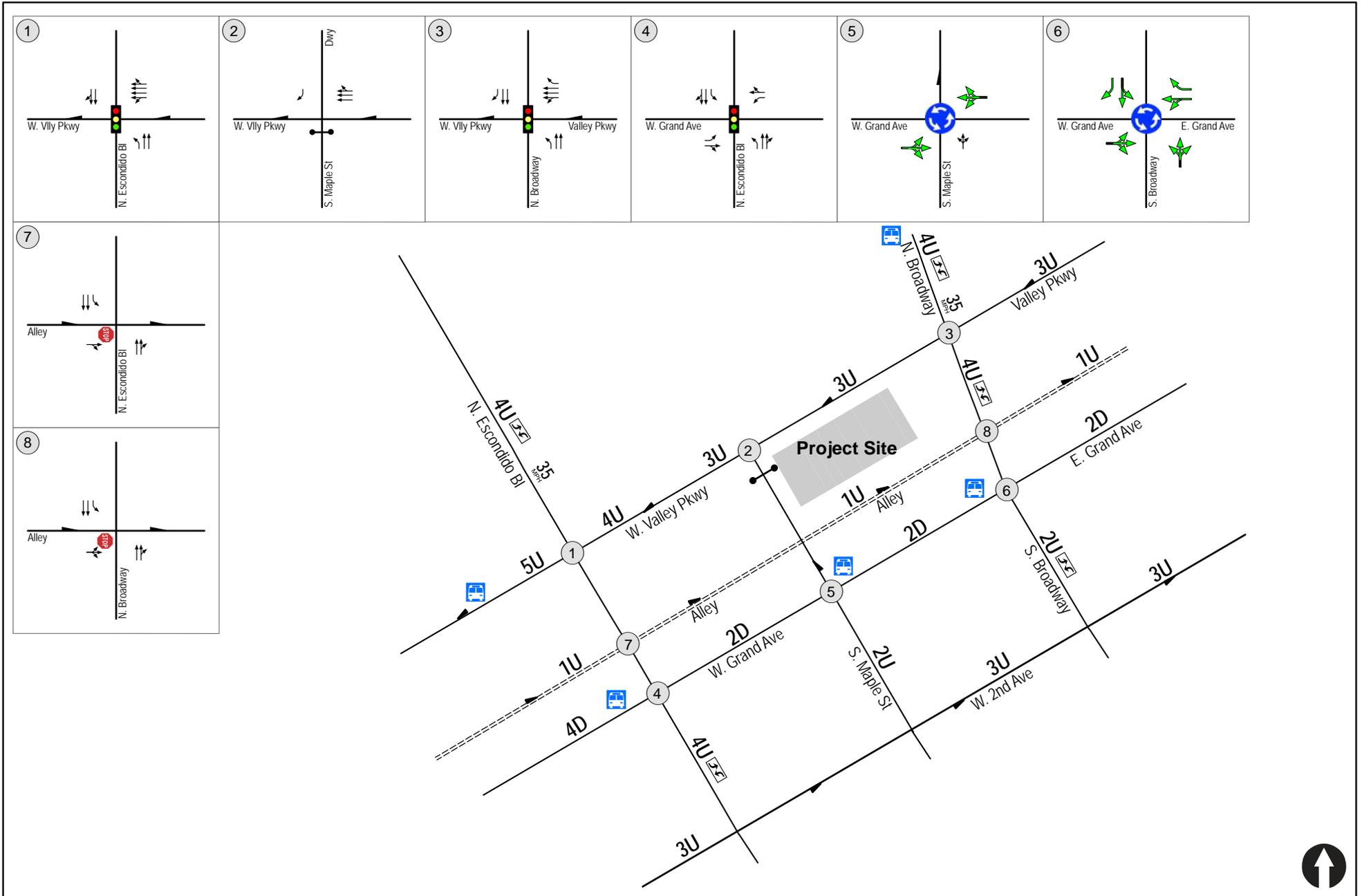


Figure 8-5

Near-Term Phase 2 Conditions Diagram

9.0 ANALYSIS OF NEAR-TERM SCENARIOS

The following is a summary of the operational analyses for the various street-system components for the near-term traffic scenarios.

9.1 Existing + Project

9.1.1 Intersection Analysis

Table 9-1 summarizes the AM and PM peak hour intersection operations for Existing + Project conditions. With the addition of Project traffic, all study area intersections are calculated to continue to operate at acceptable LOS C or better.

Appendix F contains the Existing + Project peak hour intersection analysis worksheets.

9.1.2 Segment Operations

Table 9-4 summarizes the street segment operations. With the addition of Project traffic, all the street segments are calculated to continue to operate at acceptable LOS C or better.

Based on the City of Escondido's significance criteria, no significant direct impacts were identified.

9.2 Existing + Cumulative Projects (Scenario 1)

9.2.1 Intersection Analysis

Table 9-2 summarizes the peak hour intersection operations for Existing + Cumulative Project (Scenario 1) conditions. With the addition of cumulative project traffic, all the study area intersections are calculated to continue to operate at acceptable LOS C or better.

Appendix G contains the Existing + Cumulative Projects (Scenario 1) peak hour intersection analysis worksheets

9.2.2 Segment Operations

Table 9-5 summarizes the street segment operations for Existing + Cumulative Projects (Scenario 1) conditions. With the addition of cumulative project traffic, all the street segments are calculated to continue to operate at acceptable LOS C or better, except for:

- Segment #3. W. Grand Avenue: N. Escondido Blvd to S. Broadway – LOS E

9.3 Existing + Cumulative Projects + Project

9.3.1 Intersection Analysis

Table 9-2 summarizes the peak hour intersection operations for Existing + Cumulative Project + Project (Scenario 1) conditions. With the addition of the Project and cumulative project traffic, all study area intersections are calculated to continue to operate at acceptable LOS C or better

Appendix H contains the Existing + Cumulative Project + Project (Scenario 1) peak hour intersection analysis worksheets.

9.3.2 Segment Operations

Table 9–5 summarizes the street segment operations for Existing + Project + Cumulative Project (Scenario 1) conditions. With the addition of Project traffic, and cumulative project traffic all the street segments are calculated to continue to operate at acceptable LOS C or better, except for:

- Segment #3. W. Grand Avenue: N. Escondido Blvd to S. Broadway – LOS E

Based on the City of Escondido’s significance criteria, no significant cumulative impacts were identified in Near-Term Scenario 1. The Project-related increase in V/C ratio on the segment listed above is less than the significance threshold of 0.02.

9.4 Existing + Cumulative Projects (Scenario 2)

9.4.1 Intersection Analysis

Table 9–3 summarizes the peak hour intersection operations for Existing + Cumulative Project (Scenario 2) conditions. With the addition of cumulative project traffic, all the study area intersections are calculated to continue to operate at acceptable LOS C or better.

Appendix I contains the Existing + Cumulative Projects (Scenario 2) peak hour intersection analysis worksheets

9.4.2 Segment Operations

Phase 2 of the *Grand Avenue* project will install alternative intersection controls but will not modify street segment characteristics that determine daily capacity per the City of Escondido’s roadway classifications. Thus, the segment operations shown in Table 9–5 are representative of both Scenario 1 and Scenario 2 conditions.

9.5 Existing + Cumulative Projects + Project

9.5.1 Intersection Analysis

Table 9–3 summarizes the peak hour intersection operations for Existing + Cumulative Project + Project (Scenario 2) conditions. With the addition of the Project and cumulative project traffic, all study area intersections are calculated to continue to operate at acceptable LOS C or better.

Appendix J contains the Existing + Cumulative Project + Project (Scenario 2) peak hour intersection analysis worksheets.

9.5.2 Segment Operations

Phase 2 of the *Grand Avenue* project will install alternative intersection controls but will not modify street segment characteristics that determine daily capacity per the City of Escondido’s roadway classifications. Thus, the segment operations shown in Table 9–5 are representative of both Scenario 1 and Scenario 2 conditions.

Based on the City of Escondido’s significance criteria, no significant cumulative impacts were identified in Near-Term Scenario 2.

**TABLE 9-1
EXISTING + PROJECT INTERSECTION OPERATIONS**

Intersection	Control Type	Peak Hour	Existing		Existing + Project			Impact?
			Delay ^a	LOS ^b	Delay	LOS	Δ ^c	
1. W. Valley Pkwy/ N. Escondido Blvd	Signal	AM	26.1	C	26.4	C	0.3	No
		PM	28.8	C	28.9	C	0.1	
2. W. Valley Pkwy/ Maple St	Signal	AM	2.6	A	2.6	A	0.0	No
		PM	3.9	A	3.9	A	0.0	
3. Valley Pkwy/ N. Broadway	Signal	AM	12.7	B	13.0	B	0.3	No
		PM	17.1	B	17.7	B	0.6	
4. W. Grand Ave/ S. Escondido Blvd	Signal	AM	14.3	B	14.3	B	0.0	No
		PM	15.0	B	15.0	B	0.0	
5. W. Grand Ave / S. Maple Street	AWSC ^d	AM	8.4	A	8.4	A	0.0	No
		PM	9.9	A	10.0	A	0.1	
6. W. Grand Ave / S. Broadway	Signal	AM	14.8	B	14.8	B	0.0	No
		PM	19.3	B	19.3	B	0.0	
7. N. Escondido Blvd / Alley	MSSC ^e	AM	9.3	A	9.4	A	0.1	No
		PM	17.1	C	17.3	C	0.2	
8. N. Broadway / Alley	MSSC	AM	10.2	B	10.2	B	0.0	No
		PM	10.5	B	10.5	B	0.0	

Footnotes:

- a. Average delay expressed in seconds per vehicle.
- b. Level of Service.
- c. Δ denotes an increase in delay due to Project.
- d. AWSC- All-Way Stop Controlled intersection. Average delay is reported.
- e. MSSC – Minor street Stop Controlled intersection. Minor street left turn delay is reported.

SIGNALIZED		UNSIGNALIZED	
Delay	LOS	Delay	LOS
0.0 ≤ 10.0	A	0.0 ≤ 10.0	A
10.1 to 20.0	B	10.1 to 15.0	B
20.1 to 35.0	C	15.1 to 25.0	C
35.1 to 45.0	D	25.1 to 35.0	D
45.1 to 80.0	E	35.1 to 50.0	E
≥ 80.1	F	≥ 50.1	F

**TABLE 9-2
NEAR-TERM SCENARIO 1 INTERSECTION OPERATIONS**

Intersection	Control Type	Peak Hour	Scenario 1					Impact?
			Existing + Cumulative Projects		Existing + Cumulative Projects + Project			
			Delay ^a	LOS ^b	Delay	LOS	Δ ^c	
1. W. Valley Pkwy/ N. Escondido Blvd	Signal	AM	24.5	C	24.8	C	0.3	No
		PM	27.2	C	27.2	C	0.0	
2. W. Valley Pkwy/ Maple St.	Signal	AM	2.6	A	2.6	A	0.0	No
		PM	3.9	A	3.9	A	0.0	
3. Valley Pkwy/ N. Broadway	Signal	AM	12.6	B	13.0	B	0.4	No
		PM	17.0	B	17.5	B	0.5	
4. W. Grand Ave/ S. Escondido Blvd	Signal	AM	14.5	B	14.5	B	0.0	No
		PM	20.7	C	20.8	C	0.1	
5. W. Grand Ave / S. Maple St	AWSC ^d	AM	9.2	A	9.3	A	0.1	No
		PM	13.0	B	13.3	B	0.3	
6. W. Grand Ave / S. Broadway	Signal	AM	15.2	B	15.2	B	0.0	No
		PM	23.3	C	23.3	C	0.0	
7. N. Escondido Blvd / Alley	MSSC ^e	AM	9.4	A	9.4	A	0.0	No
		PM	17.9	C	18.1	C	0.2	
8. N. Broadway / Alley	MSSC	AM	10.2	B	10.2	B	0.0	No
		PM	10.5	B	10.6	B	0.1	

Footnotes:

- a. Average delay expressed in seconds per vehicle.
- b. Level of Service.
- c. Δ denotes an increase in delay due to Project.
- d. AWSC- All-Way Stop Controlled intersection. Average delay is reported.
- e. MSSC – Minor street Stop Controlled intersection. Minor street left turn delay is reported.

SIGNALIZED		UNSIGNALIZED	
Delay	LOS	Delay	LOS
0.0 ≤ 10.0	A	0.0 ≤ 10.0	A
10.1 to 20.0	B	10.1 to 15.0	B
20.1 to 35.0	C	15.1 to 25.0	C
35.1 to 45.0	D	25.1 to 35.0	D
45.1 to 80.0	E	35.1 to 50.0	E
≥ 80.1	F	≥ 50.1	F

**TABLE 9-3
NEAR-TERM SCENARIO 2 INTERSECTION OPERATIONS**

Intersection	Control Type	Peak Hour	Scenario 2					Impact?
			Existing + Cumulative Projects		Existing + Cumulative Projects + Project			
			Delay ^a	LOS ^b	Delay	LOS	Δ ^c	
1. W. Valley Pkwy/ N. Escondido Blvd	Signal	AM	24.5	C	24.8	C	0.3	No
		PM	27.2	C	27.2	C	0.0	
2. W. Valley Pkwy/ Maple St	Signal	AM	2.6	A	2.6	A	0.0	No
		PM	3.9	A	3.9	A	0.0	
3. Valley Pkwy/ N. Broadway	Signal	AM	12.3	B	12.6	B	0.3	No
		PM	16.0	B	16.4	B	0.4	
4. W. Grand Ave/ S. Escondido Blvd	Signal	AM	14.5	B	14.5	B	0.0	No
		PM	20.7	C	20.8	C	0.1	
5. W. Grand Ave / S. Maple St	Round-about	AM	4.5	A	4.5	A	0.0	No
		PM	5.5	A	5.6	A	0.1	
6. W. Grand Ave / S. Broadway	Round-about	AM	5.1	A	5.1	A	0.0	No
		PM	7.0	A	7.3	A	0.3	
7. N. Escondido Blvd / Alley	MSSC	AM	9.4	A	9.4	A	0.0	No
		PM	17.9	C	18.1	C	0.2	
8. N. Broadway / Alley	MSSC	AM	10.2	B	10.2	B	0.0	No
		PM	10.5	B	10.6	B	0.1	

Footnotes:

- a. Average delay expressed in seconds per vehicle.
- b. Level of Service.
- c. Δ denotes an increase in delay due to Project.
- d. MSSC – Minor street Stop Controlled intersection. Minor street left turn delay is reported.

SIGNALIZED		UNSIGNALIZED	
Delay	LOS	Delay	LOS
0.0 ≤ 10.0	A	0.0 ≤ 10.0	A
10.1 to 20.0	B	10.1 to 15.0	B
20.1 to 35.0	C	15.1 to 25.0	C
35.1 to 45.0	D	25.1 to 35.0	D
45.1 to 80.0	E	35.1 to 50.0	E
≥ 80.1	F	≥ 50.1	F

TABLE 9-4
EXISTING + PROJECT STREET SEGMENT OPERATIONS

Street Segment	Capacity ^a	Existing			Existing + Project				Impact?
		ADT ^b	LOS ^c	V/C ^d	ADT	LOS	V/C	Δ ^e	
W. Valley Parkway									
1. N. Orange St to N. Escondido Blvd	43,500 ^f	16,996	B	0.391	17,226	B	0.396	0.005	No
2. N. Escondido Blvd to N. Broadway	30,000 ^g	18,026	C	0.601	18,581	C	0.619	0.018	No
W. Grand Avenue									
3. N. Escondido Blvd to N. Broadway	20,000	8,843	B	0.442	8,973	B	0.449	0.007	No
Broadway									
4. Valley Pkwy to Grand Ave	20,000	7,319	B	0.366	7,667	B	0.383	0.017	No
5. Grand Ave to 2 nd Ave	10,000	5,590	C	0.559	5,838	C	0.584	0.025	No
W. 2nd Avenue									
6. N. Escondido Blvd to N. Broadway	30,000 ^g	15,206	B	0.507	15,454	B	0.515	0.008	No

Footnotes:

- a. Capacities based on the *City of Escondido Roadway Classification Table* (See Appendix C).
- b. Average Daily Traffic
- c. Level of Service
- d. Volume to Capacity ratio
- e. Project Attributable increase in V/C.
- f. Roadway currently built as five lanes traveling in one direction. Capacity of 43,500 ADT used in analysis.
- g. Roadway currently built as three lanes traveling in one direction. Capacity of 30,000 ADT used in analysis.

**TABLE 9-5
NEAR-TERM STREET SEGMENT OPERATIONS**

Street Segment	Capacity ^a	Existing + Cumulative Projects			Existing + Cumulative Projects + Project				Impact?
		ADT	LOS	V/C	ADT	LOS	V/C	Δ	
W. Valley Parkway									
1. N. Orange St to N. Escondido Blvd	43,500 ^f	17,690	B	0.407	17,920	B	0.412	0.005	No
2. N. Escondido Blvd to N. Broadway	30,000 ^g	18,661	C	0.622	19,216	C	0.641	0.019	No
W. Grand Avenue									
3. N. Escondido Blvd to N. Broadway	10,000	9,075	E	0.908	9,205	E	0.921	0.013	No
Broadway									
4. Valley Pkwy to Grand Ave	20,000	7,459	B	0.373	7,807	B	0.390	0.017	No
5. Grand Ave to 2 nd Ave	10,000	5,730	C	0.573	5,978	C	0.598	0.025	No
W. 2nd Avenue									
6. N. Escondido Blvd to N. Broadway	30,000 ^g	15,812	B	0.527	16,060	B	0.535	0.008	No

Footnotes:

- a. Capacities based on the *City of Escondido Roadway Classification Table* (See Appendix C).
- b. Average Daily Traffic
- c. Level of Service
- d. Volume to Capacity ratio
- e. Project Attributable increase in V/C.
- f. Roadway currently built as five lanes traveling in one direction. Capacity of 43,500 ADT used in analysis.
- g. Roadway currently built as three lanes traveling in one direction. Capacity of 30,000 ADT used in analysis.

General Note:

- Segment analysis shown applies to both Near-Term Scenarios 1 and 2.

10.0 GENERAL PLAN (YEAR 2035) CUMULATIVE ANALYSIS

10.1 Land Use and Traffic Volumes

Year 2035 traffic volumes were sourced from the Escondido General Plan Mobility Element Year 2035 traffic model. This model was utilized because it includes the approved land uses associated with the City of Escondido's approved General Plan (adopted in 2011). The Project is located in the Downtown Specific Planning Area.

Traffic volumes on Grand Avenue were adjusted due to the *Grand Avenue Streetscape Improvement Project* (see *Section 8.2* and *Section 10.2*), which is anticipated to be fully implemented prior to Year 2035 but was not accounted for in the General Plan Mobility Element traffic model. Approximately 50% of through traffic forecast on Grand Avenue was removed and reassigned to the one-way couplet of Valley Parkway and 2nd Avenue (outside of study area). This proportion of traffic corresponds to the reduction in daily capacity which will occur on Grand Avenue with the narrowing of the street from four travel lanes to two. *Figure 10-1* depicts Year 2035 without Project traffic volumes.

Project traffic volumes were added to the adjusted General Plan (Year 2035) volumes to assess Year 2035 with Project conditions. *Figure 10-2* depicts Year 2035 with Project traffic volumes.

10.2 Network Conditions

The model also accounts for the Mobility Element network proposed at buildout of the City's General Plan. For Year 2035 conditions, the City of Escondido assumes that transportation facilities will be improved to their Mobility Element classification, if not currently built as such. The City collects impact fees to fund future improvements and it is the City's standard of practice to assume buildout of the Mobility Element in buildout traffic analyses.

Figure 10-3 depicts Year 2035 baseline conditions and shows where improvements over existing conditions were assumed with buildout of the Mobility Element. Full implementation of the *Grand Avenue Streetscape Improvement Project* is assumed in Year 2035 baseline conditions (see *Section 8.2*). Other street system improvements outside of this corridor were assumed according to the Mobility Element.

10.3 Year 2035 without Project Analysis

10.3.1 Intersection Analysis

Table 10-1 summarizes the Year 2035 without Project intersection operations. As shown in *Table 10-1*, the following study area intersections are calculated to operate at LOS E or F under Year 2035 without Project conditions:

- Intersection #7. Escondido Blvd / Alley – LOS E in the PM peak hour
- Intersection #8. Broadway / Alley – LOS E in the PM peak hour

Appendix K contains the Year 2035 without Project peak hour intersection analysis worksheets.

10.3.2 Segment Operations

Table 10–2 summarizes the Year 2035 without Project street segment operations. As seen in **Table 10–2**, street segments on Broadway are calculated to operate at LOS C, while the following segments are calculated to operate at LOS E or worse:

- Segment #2. W. Valley Parkway from N. Escondido Blvd to N. Broadway – LOS F
- Segment #3. W. Grand Avenue from N. Escondido Blvd to N. Broadway – LOS E
- Segment #6. W. 2nd Avenue from N. Escondido Blvd to N. Broadway – LOS F

10.4 Year 2035 With Project Analysis

10.4.1 Intersection Analysis

Table 10–1 summarizes the Year 2035 with Project intersection operations. As seen in **Table 10–1**, the following study area intersections are calculated to operate at LOS E or F conditions with the addition of Project traffic:

- Intersection #7. Escondido Blvd / Alley – LOS E in the PM peak hour
- Intersection #8. Broadway / Alley – LOS E in the PM peak hour

Based on the established significance criteria, no significant long-term cumulative impacts are calculated with the addition of Project traffic as the Project-related increase in delay at the intersections above is less than 2.0 seconds.

Appendix L contains the Year 2035 with Project peak hour intersection analysis worksheets.

10.4.2 Segment Operations

Table 10–2 summarizes the Year 2035 with Project street segment operations. With the addition of Project traffic, street segments on Broadway are calculated to continue to operate at LOS C, while the following segments are calculated to continue to operate at LOS E or worse:

- Segment #2. W. Valley Parkway from N. Escondido Blvd to N. Broadway – LOS F
- Segment #3. W. Grand Avenue from N. Escondido Blvd to N. Broadway – LOS E
- Segment #6. W. 2nd Avenue from N. Escondido Blvd to N. Broadway – LOS F

The Project-related increase in V/C ratio on the segments listed above is less than the City's allowable threshold of 0.02. No significant impacts are calculated.

**TABLE 10-1
YEAR 2035 INTERSECTION ANALYSIS**

Intersection	Control Type	Peak Hour	Year 2035		Year 2035 + Project			Impact?
			Delay ^a	LOS ^b	Delay	LOS	Δ^c	
1. W. Valley Pkwy/ N. Escondido Blvd	Signal	AM	29.8	C	30.6	C	0.8	No
		PM	39.5	D	40.4	D	0.9	
2. W. Valley Pkwy/ Maple St	Signal	AM	3.3	A	3.4	A	0.1	No
		PM	8.2	A	8.6	A	0.4	
3. Valley Pkwy/ N. Broadway	Signal	AM	26.0	C	26.2	C	0.2	No
		PM	43.8	D	46.9	D	3.1	
4. W. Grand Ave/ S. Escondido Blvd	Signal	AM	13.2	B	13.3	B	0.1	No
		PM	21.3	C	21.5	C	0.2	
5. W. Grand Ave / S. Maple St	Round-about	AM	5.2	A	5.3	A	0.1	No
		PM	9.3	A	9.4	A	0.1	
6. W. Grand Ave / S. Broadway	Round-about	AM	10.8	B	11.1	B	0.3	No
		PM	23.0	C	24.5	C	1.5	
7. N. Escondido Blvd / Alley	MSSC ^d	AM	12.1	B	12.2	B	0.1	No
		PM	45.2	E	46.1	E	0.9	
8. N. Broadway / Alley	MSSC	AM	26.4	D	26.4	D	0.0	No
		PM	36.9	E	37.2	E	0.3	

Footnotes:

- a. Average delay expressed in seconds per vehicle.
- b. Level of Service.
- c. Δ denotes an increase in delay due to Project.
- d. MSSC – Minor street Stop Controlled intersection. Minor street left turn delay is reported.

SIGNALIZED		UNSIGNALIZED	
Delay	LOS	Delay	LOS
0.0 ≤ 10.0	A	0.0 ≤ 10.0	A
10.1 to 20.0	B	10.1 to 15.0	B
20.1 to 35.0	C	15.1 to 25.0	C
35.1 to 45.0	D	25.1 to 35.0	D
45.1 to 80.0	E	35.1 to 50.0	E
≥ 80.1	F	≥ 50.1	F

**TABLE 10-2
YEAR 2035 STREET SEGMENT OPERATIONS**

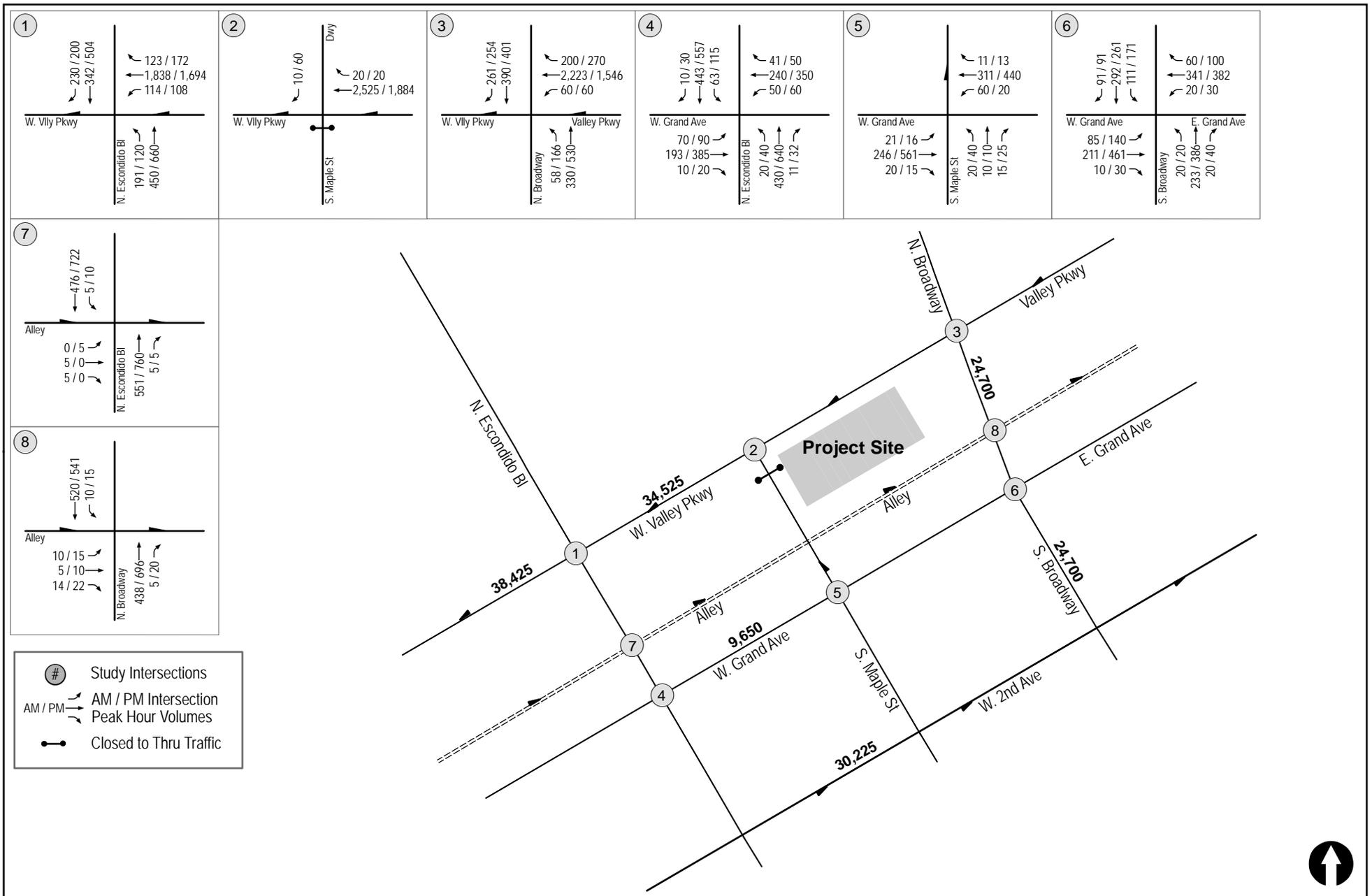
Street Segment	Proposed Classification	Capacity ^a	Year 2035			Year 2035 + Project				Impact?
			ADT ^b	LOS ^c	V/C ^d	ADT	LOS	V/C	Δ ^e	
W. Valley Parkway										
1. N. Orange St to N. Escondido Blvd	5-Ln Collector	43,500 ^f	38,425	D	0.883	38,655	D	0.889	0.005	No
2. N. Escondido Blvd to N. Broadway	3-Ln Collector	30,000 ^g	34,525	F	1.151	35,080	F	1.169	0.019	No
W. Grand Avenue										
3. N. Escondido Blvd to N. Broadway	2-Ln Collector	10,000	9,650	E	0.965	9,780	E	0.978	0.013	No
Broadway										
4. Valley Pkwy to Grand Ave	<i>4-Ln Major</i>	<i>37,000</i>	24,700	C	0.668	25,048	C	0.677	0.009	No
5. Grand Ave to 2 nd Ave	<i>4-Ln Major</i>	<i>37,000</i>	24,700	C	0.668	24,948	C	0.674	0.006	No
W. 2nd Avenue										
6. N. Escondido Blvd to N. Broadway	3-Ln Collector	30,000 ^g	30,225	F	1.008	30,473	F	1.016	0.008	No

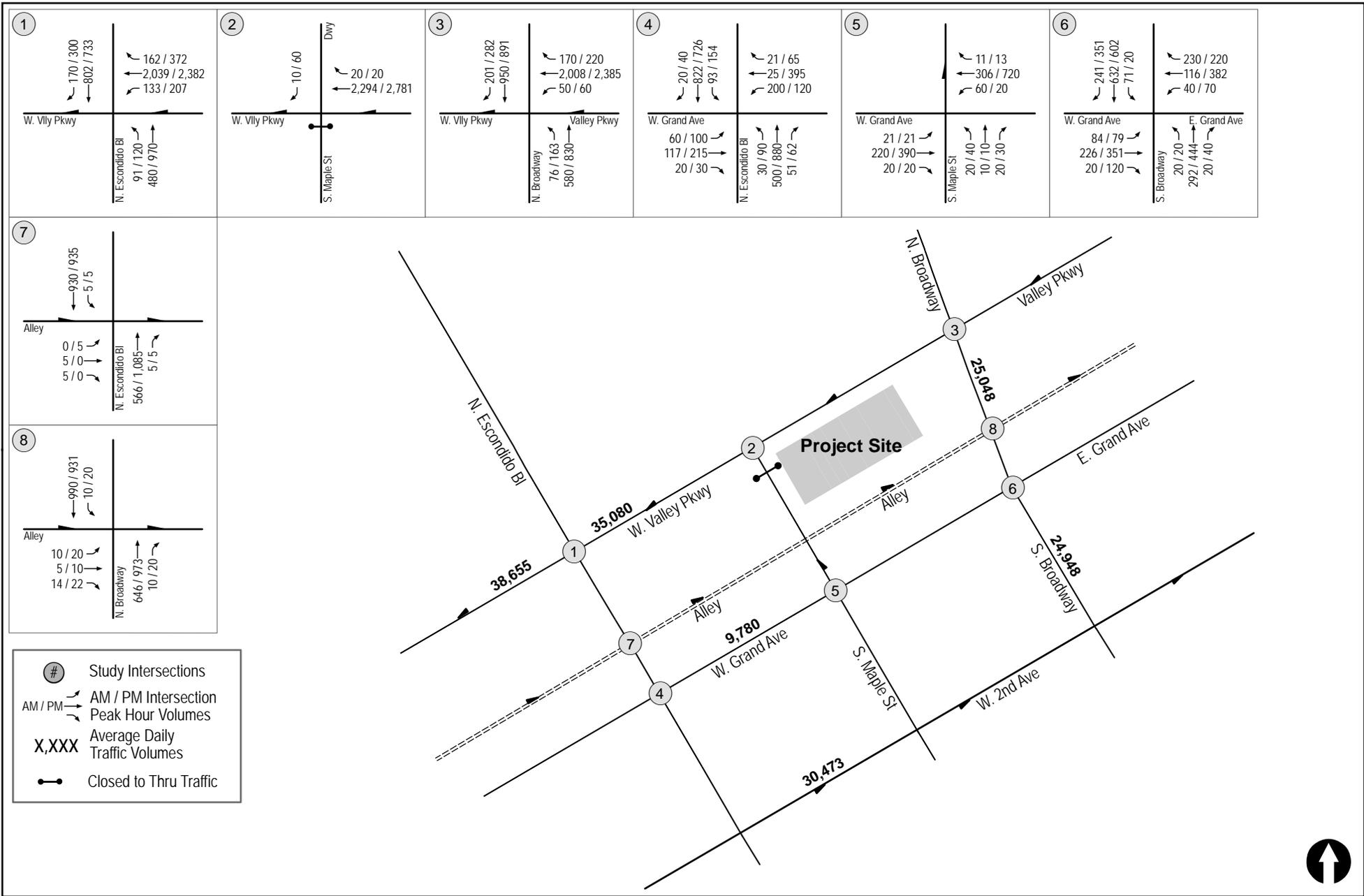
Footnotes:

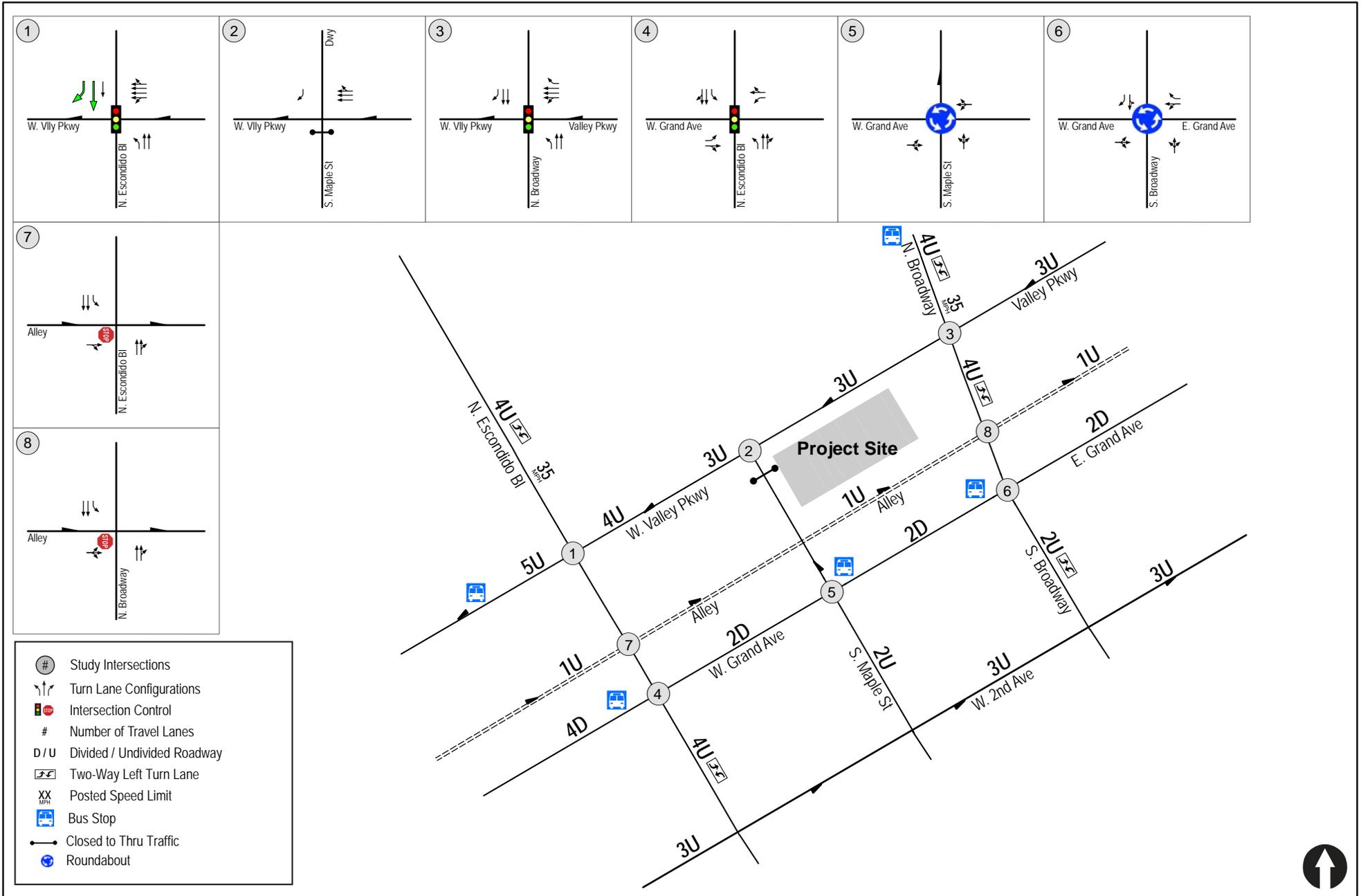
- a. Capacities based on the *City of Escondido Roadway Classification Table* (See Appendix C).
- b. Average Daily Traffic
- c. Level of Service
- d. Volume to Capacity ratio
- e. Project Attributable increase in V/C.
- f. Roadway currently built as five lanes traveling in one direction. Capacity of 43,500 ADT used in analysis.
- g. Roadway currently built as three lanes traveling in one direction. Capacity of 30,000 ADT used in analysis.

General Notes:

1. Italics in “Proposed Classification” column indicates capacity increase over existing to buildout conditions per the City’s Mobility Element. Mobility Element classifications assumed in Year 2035 conditions, except on Grand Avenue, where the Mobility Element is superseded by the *Grand Avenue Streetscape Improvement Project*.







- # Study Intersections
- ↔ Turn Lane Configurations
- 🚦 Intersection Control
- # Number of Travel Lanes
- D / U Divided / Undivided Roadway
- ↔ Two-Way Left Turn Lane
- XX MPH Posted Speed Limit
- 🚌 Bus Stop
- Closed to Thru Traffic
- 🌀 Roundabout

11.0 PARKING

The Project proposes will replace the existing 1.04 acre public parking lot (approximately 118 spaces) with a mixed-use development with 229 total parking spaces. These spaces will primarily be located in a two-level garage with access off of a driveway on W. Valley Parkway.

A small amount of surface parking (17 spaces) will be provided along the Project's south frontage, adjacent to the alley.

Within the garage, 85 total spaces are located on the street level. Of these 85 spaces, 76 will be allocated to the general public to offset the removal of the 118 spaces in the existing public lot. The remaining spaces are dedicated to residents.

The basement level of the garage will provide 144 spaces allocated exclusively to the residents. Of these, 19 spaces will be tandems.

As noted previously in this report, the public parking lot will be equipped with a modern parking detection and management system with display showing parking availability both on the street and at the public parking entrance gate. The project will also contribute a fair share toward a citywide parking management system with real time parking availability signage for public parking lots.

12.0 SIGNIFICANCE OF IMPACTS AND MITIGATION MEASURES

Per the City of Escondido significance thresholds and the analysis methodology presented in this report, no significant impacts were identified and no mitigation measures are required. The majority of study area intersections and street segments are calculated to operate at acceptable LOS D or better, which exceeds the relevant LOS E threshold given the Project's location within the downtown area. Two study area street segments, on Valley Parkway and 2nd Avenue, are calculated to operate at LOS F without and with the Project under Year 2035 conditions. The amount of Project traffic added to these segments is below the City's threshold of significance.

The Project will equip its public parking lot with a modern parking detection and management system and additionally contribute a fair share toward a citywide parking management system, both of which are expected to reduce the number of vehicles circulating searching for parking. This satisfies the City's guidelines, which recommend that projects contribute to improvements for LOS F-operating locations even when the project's impact is less than significant.

TECHNICAL APPENDICES

ASPIRE

Escondido, California
August 21, 2019

LLG Ref. 3-18-2719

**Linscott, Law &
Greenspan, Engineers**

4542 Ruffner Street
Suite 100

San Diego, CA 92111

858.300.8800 T

858.300.8810 F

www.llgengineers.com

APPENDIX A
INTERSECTION AND SEGMENT COUNT SHEETS

Intersection Turning Movement - Peak Hour Vehicle Count



Location:	#01	File Name:	ITM-18-058-01
Intersection:	North Escondido Boulevard & West Valley Parkway	Project:	LLG Ref. 3-17-2719
Date of Count:	Wednesday, May 23, 2018		Aspire - Escondido

AM	North Escondido Blvd Southbound			West Valley Parkway Westbound			North Escondido Blvd Northbound			West Valley Parkway Eastbound			Total
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
7:00	0	73	29	19	391	18	90	99	0	0	0	0	719
7:15	0	57	59	17	271	15	14	92	0	0	0	0	525
7:30	0	58	38	17	225	19	11	66	0	0	0	0	434
7:45	0	45	22	16	238	11	12	57	0	0	0	0	401
8:00	0	53	17	11	194	25	11	40	0	0	0	0	351
8:15	0	56	16	20	186	25	14	39	0	0	0	0	356
8:30	0	43	26	17	224	20	14	59	0	0	0	0	403
8:45	0	52	28	24	212	18	10	50	0	0	0	0	394
Total	0	437	235	141	1941	151	176	502	0	0	0	0	3583
Approach%	-	65.0	35.0	6.3	86.9	6.8	26.0	74.0	-	-	-	-	
Total%	-	12.2	6.6	3.9	54.2	4.2	4.9	14.0	-	-	-	-	

AM Intersection Peak Hour: 07:00 to 08:00

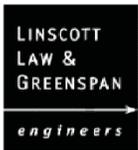
Volume	-	233	148	69	1,125	63	127	314	-	-	-	-	2,079
Approach%	-	61.2	38.8	5.5	89.5	5.0	28.8	71.2	-	-	-	-	
Total%	-	11.2	7.1	3.3	54.1	3.0	6.1	15.1	-	-	-	-	
PHF			0.82			0.73			0.58			#DIV/0!	0.72

PM	North Escondido Blvd Southbound			West Valley Parkway Westbound			North Escondido Blvd Northbound			West Valley Parkway Eastbound			Total
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
16:00	0	85	43	15	281	23	19	113	0	0	0	0	579
16:15	0	99	37	19	272	31	23	123	0	0	0	0	604
16:30	0	81	34	16	283	23	13	114	0	0	0	0	564
16:45	0	85	16	14	209	28	22	111	0	0	0	0	485
17:00	0	88	30	15	194	28	14	122	0	0	0	0	491
17:15	0	85	25	22	191	26	12	106	0	0	0	0	467
17:30	0	71	30	13	200	13	17	70	0	0	0	0	414
17:45	0	60	20	22	182	12	14	92	0	0	0	0	402
Total	0	654	235	136	1812	184	134	851	0	0	0	0	4006
Approach%	-	73.6	26.4	6.4	85.0	8.6	13.6	86.4	-	-	-	-	
Total%	-	18.3	6.6	3.8	50.6	5.1	3.7	23.8	-	-	-	-	

PM Intersection Peak Hour: 16:00 to 17:00

Volume	-	350	130	64	1,045	105	77	461	-	-	-	-	2,232
Approach%	-	72.9	27.1	5.3	86.1	8.6	14.3	85.7	-	-	-	-	
Total%	-	16.8	6.3	3.1	50.3	5.1	3.7	22.2	-	-	-	-	
PHF			0.88			0.94			0.92			#DIV/0!	0.95

Intersection Turning Movement - Bicycle & Pedestrian Count



Location:	#01	File Name:	ITM-18-058-01
Intersection:	North Escondido Boulevard & West Valley Parkway	Project:	LLG Ref. 3-17-2719
Date of Count:	Wednesday, May 23, 2018		Aspire - Escondido

AM	North Escondido Blvd Southbound				West Valley Parkway Westbound				North Escondido Blvd Northbound				West Valley Parkway Eastbound				Totals	
	Ped	B-Left	B-Thru	B-Right	Ped	B-Left	B-Thru	B-Right	Ped	B-Left	B-Thru	B-Right	Ped	B-Left	B-Thru	B-Right	Ped	Bicycle
	7:00	6	2	2	0	5	0	1	0	2	0	0	0	2	0	0	0	15
7:15	9	0	0	0	1	0	1	0	0	0	0	0	5	0	0	0	15	1
7:30	8	0	0	0	3	0	1	0	0	0	0	0	2	0	0	0	13	1
7:45	10	0	0	0	3	0	2	0	2	0	0	0	10	0	0	0	25	2
8:00	10	0	0	0	2	0	1	0	3	0	0	0	5	0	1	0	20	2
8:15	4	0	0	0	5	0	0	0	1	0	0	0	2	0	0	0	12	0
8:30	9	0	0	0	2	0	0	0	1	0	0	0	6	0	0	0	18	0
8:45	3	0	0	0	0	0	0	0	0	0	0	0	3	0	0	0	6	0
Ped Total	59				21				9				35				124	
Bike Total		2	2	0		0	6	0		0	0	0		0	1	0		11

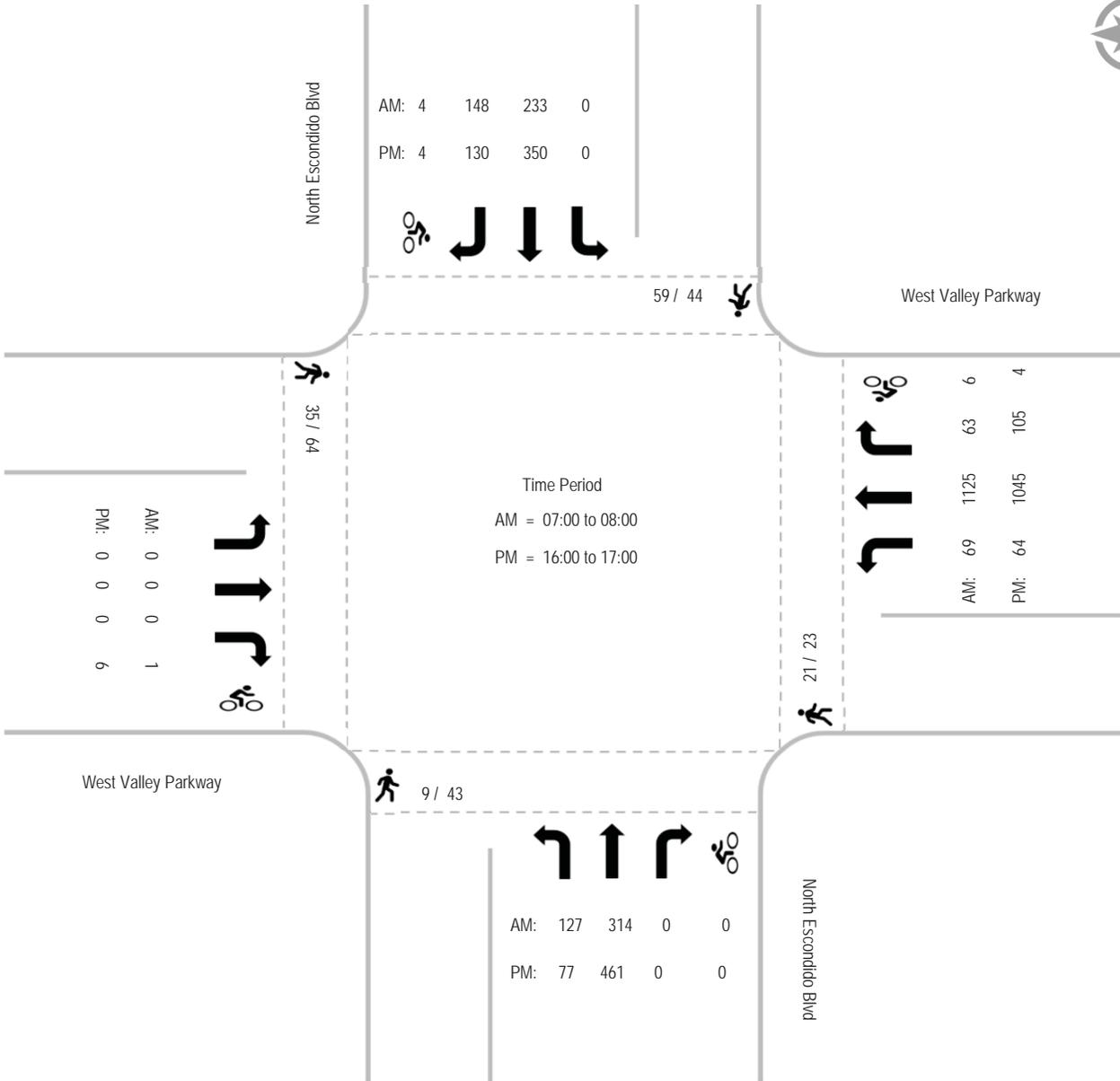
PM	North Escondido Blvd Southbound				West Valley Parkway Westbound				North Escondido Blvd Northbound				West Valley Parkway Eastbound				Totals	
	Ped	B-Left	B-Thru	B-Right	Ped	B-Left	B-Thru	B-Right	Ped	B-Left	B-Thru	B-Right	Ped	B-Left	B-Thru	B-Right	Ped	Bicycle
	16:00	10	0	1	0	0	0	1	1	4	0	0	0	9	0	0	0	23
16:15	5	0	2	0	3	0	0	0	3	0	0	0	4	0	1	0	15	3
16:30	5	0	0	0	4	0	1	0	4	0	0	0	3	0	0	0	16	1
16:45	6	0	0	0	7	0	0	0	16	0	0	0	13	0	0	0	42	0
17:00	3	0	0	0	0	0	0	0	6	0	0	0	10	0	3	0	19	3
17:15	9	0	0	0	2	0	0	0	2	0	0	0	7	0	1	0	20	1
17:30	4	0	0	0	5	0	1	0	5	0	0	0	13	0	1	0	27	2
17:45	2	0	1	0	2	0	0	0	3	0	0	0	5	0	0	0	12	1
Ped Total	44				23				43				64				174	
Bike Total		0	4	0		0	3	1		0	0	0		0	6	0		14

Intersection Turning Movement - Peak Hour Summary



Location: #01
 Intersection: North Escondido Boulevard & West Valley Parkway
 Date of Count: Wednesday, May 23, 2018

File Name: ITM-18-058-01
 Project: LLG Ref. 3-17-2719
 Aspire - Escondido



Intersection Turning Movement - Peak Hour Vehicle Count



Location:	#02	File Name:	ITM-18-058-02
Intersection:	Maple Street Driveway & West Valley Parkway	Project:	LLG Ref. 3-17-2719
Date of Count:	Wednesday, May 23, 2018		Aspire - Escondido

AM	Maple Street Driveway Southbound			West Valley Parkway Westbound			-			West Valley Parkway Eastbound			Total
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
7:00	0	0	3	0	334	4	0	0	0	0	0	0	341
7:15	0	0	1	0	371	4	0	0	0	0	0	0	376
7:30	0	0	3	0	376	5	0	0	0	0	0	0	384
7:45	0	0	4	0	426	5	0	0	0	0	0	0	435
8:00	0	0	1	0	373	4	0	0	0	0	0	0	378
8:15	0	0	2	0	282	6	0	0	0	0	0	0	290
8:30	0	0	15	0	241	6	0	0	0	0	0	0	262
8:45	0	0	7	0	245	3	0	0	0	0	0	0	255
Total	0	0	36	0	2648	37	0	0	0	0	0	0	2721
Approach%	-	-	100.0	-	98.6	1.4	-	-	-	-	-	-	
Total%	-	-	1.3	-	97.3	1.4	-	-	-	-	-	-	

AM Intersection Peak Hour: 07:15 to 08:15

Volume	-	-	9	-	1,546	18	-	-	-	-	-	-	1,573
Approach%	-	-	100.0	-	98.8	1.2	-	-	-	-	-	-	
Total%	-	-	0.6	-	98.3	1.1	-	-	-	-	-	-	
PHF			0.56			0.91			#DIV/0!			#DIV/0!	0.90

PM	Maple Street Driveway Southbound			West Valley Parkway Westbound			-			West Valley Parkway Eastbound			Total
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
16:00	0	0	6	0	276	16	0	0	0	0	0	0	298
16:15	0	0	10	0	262	5	0	0	0	0	0	0	277
16:30	0	0	9	0	276	12	0	0	0	0	0	0	297
16:45	0	0	9	0	280	3	0	0	0	0	0	0	292
17:00	0	0	9	0	324	10	0	0	0	0	0	0	343
17:15	0	0	14	0	267	6	0	0	0	0	0	0	287
17:30	0	0	20	0	295	1	0	0	0	0	0	0	316
17:45	0	0	5	0	219	7	0	0	0	0	0	0	231
Total	0	0	82	0	2199	60	0	0	0	0	0	0	2341
Approach%	-	-	100.0	-	97.3	2.7	-	-	-	-	-	-	
Total%	-	-	3.0	-	80.8	2.2	-	-	-	-	-	-	

PM Intersection Peak Hour: 16:45 to 17:45

Volume	-	-	52	-	1,166	20	-	-	-	-	-	-	1,238
Approach%	-	-	100.0	-	98.3	1.7	-	-	-	-	-	-	
Total%	-	-	3.3	-	74.1	1.3	-	-	-	-	-	-	
PHF			0.65			0.89			#DIV/0!			#DIV/0!	0.90

Intersection Turning Movement - Bicycle & Pedestrian Count



Location:	#02	File Name:	ITM-18-058-02
Intersection:	Maple Street Driveway & West Valley Parkway	Project:	LLG Ref. 3-17-2719
Date of Count:	Wednesday, May 23, 2018		Aspire - Escondido

AM	Maple Street Driveway Southbound				West Valley Parkway Westbound				- Northbound				West Valley Parkway Eastbound				Totals	
	Ped	B-Left	B-Thru	B-Right	Ped	B-Left	B-Thru	B-Right	Ped	B-Left	B-Thru	B-Right	Ped	B-Left	B-Thru	B-Right	Ped	Bicycle
	7:00	2	0	0	0	4	0	0	0	0	0	0	0	1	0	0	0	7
7:15	4	0	0	0	6	0	1	0	0	0	0	0	1	0	0	0	11	1
7:30	5	0	0	0	2	0	0	0	0	0	0	0	2	0	0	0	9	0
7:45	2	0	0	0	3	0	2	0	0	0	0	0	0	0	0	0	5	2
8:00	1	0	0	0	5	0	0	0	0	0	0	0	2	0	0	0	8	0
8:15	5	0	2	0	3	0	2	0	0	0	1	0	2	0	0	0	10	5
8:30	1	0	0	0	2	0	0	0	0	0	0	0	1	0	0	0	4	0
8:45	4	0	0	0	3	0	0	0	0	0	0	0	4	0	0	0	11	0
Ped Total	24				28				0				13				65	
Bike Total		0	2	0		0	5	0		0	1	0		0	0	0		8

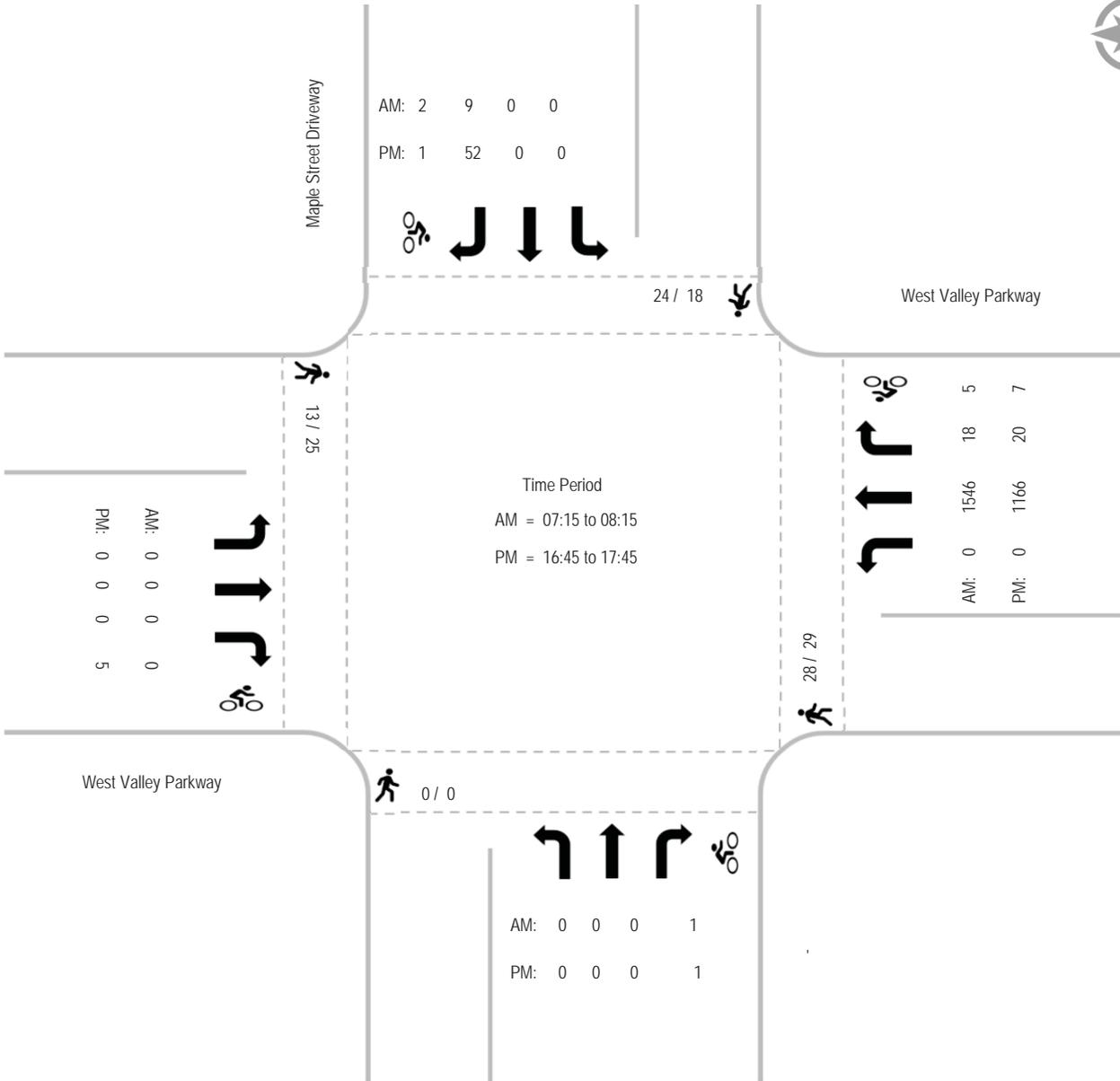
PM	Maple Street Driveway Southbound				West Valley Parkway Westbound				- Northbound				West Valley Parkway Eastbound				Totals	
	Ped	B-Left	B-Thru	B-Right	Ped	B-Left	B-Thru	B-Right	Ped	B-Left	B-Thru	B-Right	Ped	B-Left	B-Thru	B-Right	Ped	Bicycle
	16:00	2	0	0	0	0	0	0	0	0	0	0	0	3	0	0	0	5
16:15	6	0	0	0	6	0	3	0	0	0	0	0	9	0	1	0	21	4
16:30	1	0	0	1	2	0	0	1	0	0	0	0	1	0	0	0	4	2
16:45	1	0	0	0	3	0	1	0	0	0	0	0	1	0	0	0	5	1
17:00	5	0	0	0	7	0	0	0	0	0	0	0	4	0	2	0	16	2
17:15	1	0	0	0	4	0	2	0	0	0	0	0	3	0	0	0	8	2
17:30	2	0	0	0	2	0	0	0	0	0	1	0	3	0	1	0	7	2
17:45	0	0	0	0	5	0	0	0	0	0	0	0	1	0	0	1	6	1
Ped Total	18				29				0				25				72	
Bike Total		0	0	1		0	6	1		0	1	0		0	4	1		14

Intersection Turning Movement - Peak Hour Summary



Location: #02
 Intersection: Maple Street Driveway & West Valley Parkway
 Date of Count: Wednesday, May 23, 2018

File Name: ITM-18-058-02
 Project: LLG Ref. 3-17-2719
 Aspire - Escondido



Intersection Turning Movement - Peak Hour Vehicle Count



Location:	#03	File Name:	ITM-18-058-03
Intersection:	North Broadway & West Valley Parkway	Project:	LLG Ref. 3-17-2719
Date of Count:	Wednesday, May 23, 2018		Aspire - Escondido

AM	North Broadway Southbound			West Valley Parkway Westbound			North Broadway Northbound			West Valley Parkway Eastbound			Total
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
7:00	0	36	54	2	303	28	4	20	0	0	0	0	447
7:15	0	36	44	6	304	29	3	30	0	0	0	0	452
7:30	0	53	36	7	335	25	5	36	0	0	0	0	497
7:45	0	61	45	11	378	35	3	59	0	0	0	0	592
8:00	0	57	39	9	354	37	8	49	0	0	0	0	553
8:15	0	58	46	4	249	30	15	44	0	0	0	0	446
8:30	0	52	48	6	197	24	10	27	0	0	0	0	364
8:45	0	43	35	9	224	29	14	29	0	0	0	0	383
Total	0	396	347	54	2344	237	62	294	0	0	0	0	3734
Approach%	-	53.3	46.7	2.0	89.0	9.0	17.4	82.6	-	-	-	-	
Total%	-	10.6	9.3	1.4	62.8	6.3	1.7	7.9	-	-	-	-	

AM Intersection Peak Hour: 07:15 to 08:15

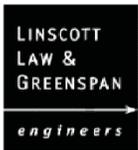
Volume	-	207	164	33	1,371	126	19	174	-	-	-	-	2,094
Approach%	-	55.8	44.2	2.2	89.6	8.2	9.8	90.2	-	-	-	-	
Total%	-	9.9	7.8	1.6	65.5	6.0	0.9	8.3	-	-	-	-	
PHF			0.88			0.90			0.78			#DIV/0!	0.88

PM	North Broadway Southbound			West Valley Parkway Westbound			North Broadway Northbound			West Valley Parkway Eastbound			Total
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
16:00	0	70	43	10	224	36	22	53	0	0	0	0	458
16:15	0	68	45	5	220	36	9	70	0	0	0	0	453
16:30	0	59	43	6	237	42	21	79	0	0	0	0	487
16:45	0	51	34	3	215	54	14	58	0	0	0	0	429
17:00	0	38	29	17	279	42	23	74	0	0	0	0	502
17:15	0	60	40	25	212	26	21	58	0	0	0	0	442
17:30	0	59	39	5	216	25	13	59	0	0	0	0	416
17:45	0	39	32	1	193	21	11	42	0	0	0	0	339
Total	0	444	305	72	1796	282	134	493	0	0	0	0	3526
Approach%	-	59.3	40.7	3.3	83.5	13.1	21.4	78.6	-	-	-	-	
Total%	-	11.9	8.2	1.9	48.1	7.6	3.6	13.2	-	-	-	-	

PM Intersection Peak Hour: 16:15 to 17:15

Volume	-	216	151	31	951	174	67	281	-	-	-	-	1,871
Approach%	-	58.9	41.1	2.7	82.3	15.1	19.3	80.7	-	-	-	-	
Total%	-	10.3	7.2	1.5	45.4	8.3	3.2	13.4	-	-	-	-	
PHF			0.81			0.86			0.87			#DIV/0!	0.93

Intersection Turning Movement - Bicycle & Pedestrian Count



Location:	#03	File Name:	ITM-18-058-03
Intersection:	North Broadway & West Valley Parkway	Project:	LLG Ref. 3-17-2719
Date of Count:	Wednesday, May 23, 2018		Aspire - Escondido

AM	North Broadway Southbound				West Valley Parkway Westbound				North Broadway Northbound				West Valley Parkway Eastbound				Totals	
	Ped	B-Left	B-Thru	B-Right	Ped	B-Left	B-Thru	B-Right	Ped	B-Left	B-Thru	B-Right	Ped	B-Left	B-Thru	B-Right	Ped	Bicycle
	7:00	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0
7:15	3	0	0	0	0	0	1	0	0	0	0	0	1	0	0	0	4	1
7:30	4	0	0	0	3	0	0	0	2	0	0	0	3	0	0	0	12	0
7:45	2	0	0	0	3	0	1	0	0	0	3	0	1	0	0	0	6	4
8:00	4	0	0	0	4	1	0	0	0	0	1	0	0	0	0	0	8	2
8:15	3	0	0	0	3	0	1	0	2	0	1	0	2	0	0	0	10	2
8:30	1	0	0	0	2	0	0	0	1	0	0	0	1	0	0	0	5	0
8:45	1	0	0	0	1	0	2	0	0	0	0	0	0	0	0	0	2	2
Ped Total	19				16				5				8				48	
Bike Total		0	0	0		1	5	0		0	5	0		0	0	0		11

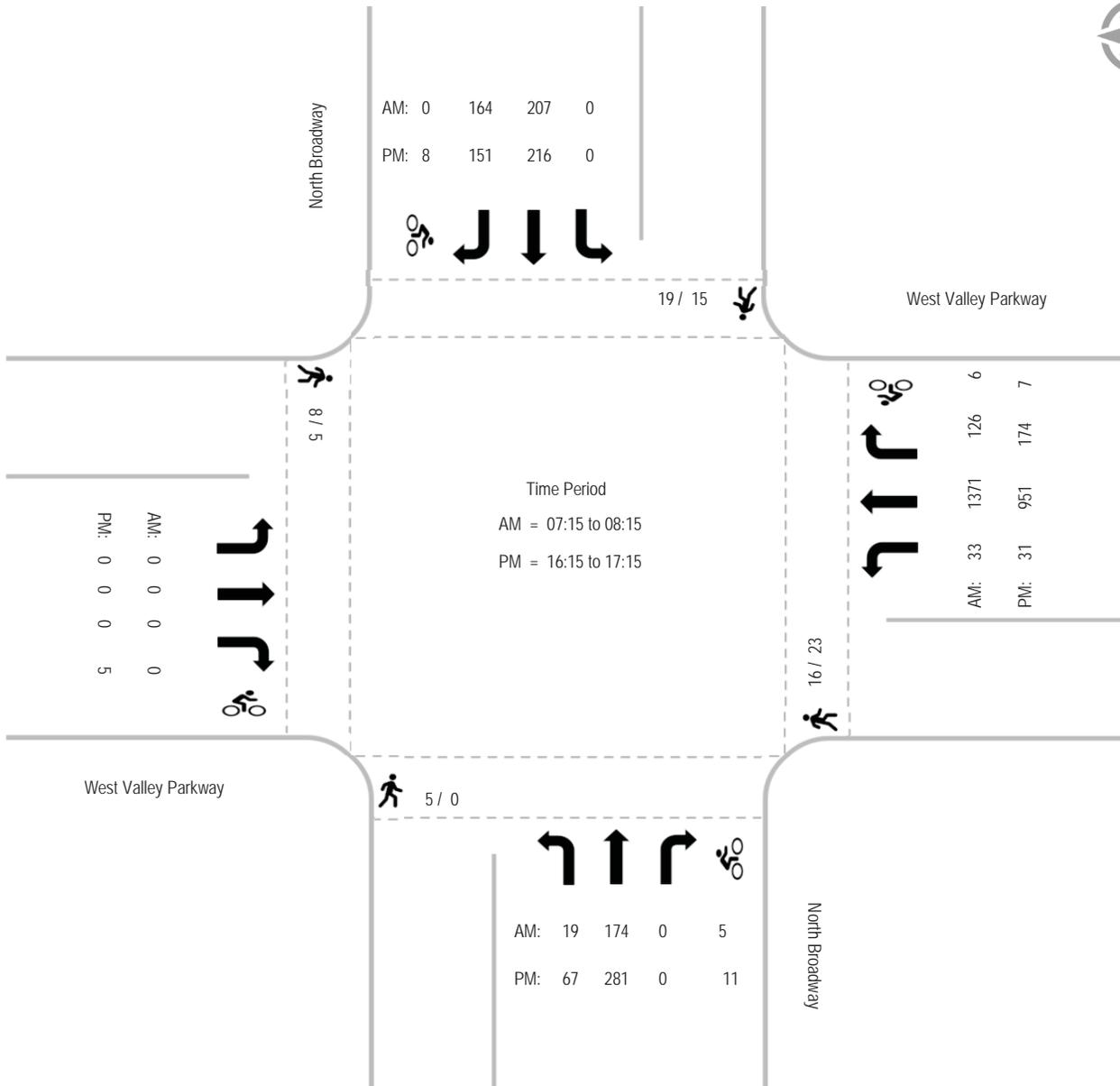
PM	North Broadway Southbound				West Valley Parkway Westbound				North Broadway Northbound				West Valley Parkway Eastbound				Totals	
	Ped	B-Left	B-Thru	B-Right	Ped	B-Left	B-Thru	B-Right	Ped	B-Left	B-Thru	B-Right	Ped	B-Left	B-Thru	B-Right	Ped	Bicycle
	16:00	2	0	1	0	0	0	1	0	0	4	0	0	0	0	0	0	2
16:15	2	0	2	0	6	0	3	0	0	1	0	0	5	0	0	1	13	7
16:30	1	0	0	1	9	0	1	1	0	2	0	0	0	0	0	1	10	6
16:45	3	0	0	0	5	0	1	0	0	2	0	0	0	0	0	0	8	3
17:00	3	0	1	0	2	0	0	0	0	0	0	0	0	0	2	0	5	3
17:15	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1	1
17:30	2	0	0	2	0	0	0	0	0	0	0	0	0	0	0	1	2	3
17:45	1	0	0	0	1	0	0	0	0	2	0	0	0	0	0	0	2	2
Ped Total	15				23				0				5				43	
Bike Total		0	4	4		0	6	1		11	0	0		0	2	3		31

Intersection Turning Movement - Peak Hour Summary



Location: #03
 Intersection: North Broadway & West Valley Parkway
 Date of Count: Wednesday, May 23, 2018

File Name: ITM-18-058-03
 Project: LLG Ref. 3-17-2719
 Aspire - Escondido



Intersection Turning Movement - Peak Hour Vehicle Count



Location:	#08	File Name:	ITM-18-058-04
Intersection:	North Escondido Boulevard & West Grand Avenue	Project:	LLG Ref. 3-17-2719
Date of Count:	Wednesday, May 23, 2018		Aspire - Escondido

AM	North Escondido Blvd Southbound			West Grand Avenue Westbound			North Escondido Blvd Northbound			West Grand Avenue Eastbound			Total
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
7:00	2	35	1	2	14	3	3	43	1	5	10	1	120
7:15	2	43	0	4	32	10	3	54	1	14	34	2	199
7:30	8	54	0	6	40	10	5	67	3	15	34	1	243
7:45	10	89	0	7	46	11	4	73	1	14	39	3	297
8:00	14	74	5	9	53	6	7	76	2	15	37	4	302
8:15	8	66	1	7	40	3	0	86	3	14	31	1	260
8:30	9	65	3	10	36	7	6	62	3	9	34	1	245
8:45	11	47	5	10	36	9	7	58	2	4	47	1	237
Total	64	473	15	55	297	59	35	519	16	90	266	14	1903
Approach%	11.6	85.7	2.7	13.4	72.3	14.4	6.1	91.1	2.8	24.3	71.9	3.8	
Total%	3.4	24.9	0.8	2.9	15.6	3.1	1.8	27.3	0.8	4.7	14.0	0.7	

AM Intersection Peak Hour: 07:45 to 08:45

Volume	41	294	9	33	175	27	17	297	9	52	141	9	1,104
Approach%	11.9	85.5	2.6	14.0	74.5	11.5	5.3	92.0	2.8	25.7	69.8	4.5	
Total%	3.7	26.6	0.8	3.0	15.9	2.4	1.5	26.9	0.8	4.7	12.8	0.8	
PHF			0.87			0.86			0.91			0.90	0.92

PM	North Escondido Blvd Southbound			West Grand Avenue Westbound			North Escondido Blvd Northbound			West Grand Avenue Eastbound			Total
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
16:00	19	85	3	13	60	17	8	101	5	14	70	4	399
16:15	19	72	4	9	50	18	16	96	10	20	77	2	393
16:30	18	94	5	13	58	11	14	113	7	16	71	5	425
16:45	19	88	7	9	70	9	4	94	5	13	74	1	393
17:00	19	104	4	8	78	9	10	120	4	17	72	4	449
17:15	19	96	4	9	55	7	6	116	5	22	64	4	407
17:30	13	96	4	19	56	10	7	106	5	13	55	5	389
17:45	13	79	5	7	48	20	5	104	3	12	53	3	352
Total	139	714	36	87	475	101	70	850	44	127	536	28	3207
Approach%	15.6	80.3	4.0	13.1	71.6	15.2	7.3	88.2	4.6	18.4	77.6	4.1	
Total%	7.3	37.5	1.9	4.6	25.0	5.3	3.7	44.7	2.3	6.7	28.2	1.5	

PM Intersection Peak Hour: 16:30 to 17:30

Volume	75	382	20	39	261	36	34	443	21	68	281	14	1,674
Approach%	15.7	80.1	4.2	11.6	77.7	10.7	6.8	89.0	4.2	18.7	77.4	3.9	
Total%	6.8	34.6	1.8	3.5	23.6	3.3	3.1	40.1	1.9	6.2	25.5	1.3	
PHF			0.94			0.88			0.93			0.98	0.93

Intersection Turning Movement - Bicycle & Pedestrian Count



Location:	#04	File Name:	ITM-18-058-04
Intersection:	North Escondido Boulevard & West Grand Avenue	Project:	LLG Ref. 3-17-2719
Date of Count:	Wednesday, May 23, 2018		Aspire - Escondido

AM	North Escondido Blvd Southbound				West Grand Avenue Westbound				North Escondido Blvd Northbound				West Grand Avenue Eastbound				Totals	
	Ped	B-Left	B-Thru	B-Right	Ped	B-Left	B-Thru	B-Right	Ped	B-Left	B-Thru	B-Right	Ped	B-Left	B-Thru	B-Right	Ped	Bicycle
	7:00	1	2	0	1	0	0	0	0	0	0	0	0	1	0	0	0	2
7:15	2	0	0	0	0	0	0	0	1	0	0	0	1	0	0	0	4	0
7:30	3	1	0	0	2	0	0	0	3	0	0	0	3	0	1	0	11	2
7:45	1	0	0	0	0	0	0	0	0	0	2	0	2	0	0	0	3	2
8:00	1	0	0	0	1	0	1	0	1	0	0	0	2	0	0	0	5	1
8:15	2	0	0	0	1	0	1	0	2	0	0	0	2	0	0	0	7	1
8:30	4	0	0	0	1	0	1	0	1	0	0	0	1	0	1	0	7	2
8:45	2	0	0	0	1	0	0	0	1	0	0	0	3	0	0	0	7	0
Ped Total	16				6				9				15				46	
Bike Total		3	0	1		0	3	0		0	2	0		0	2	0		11

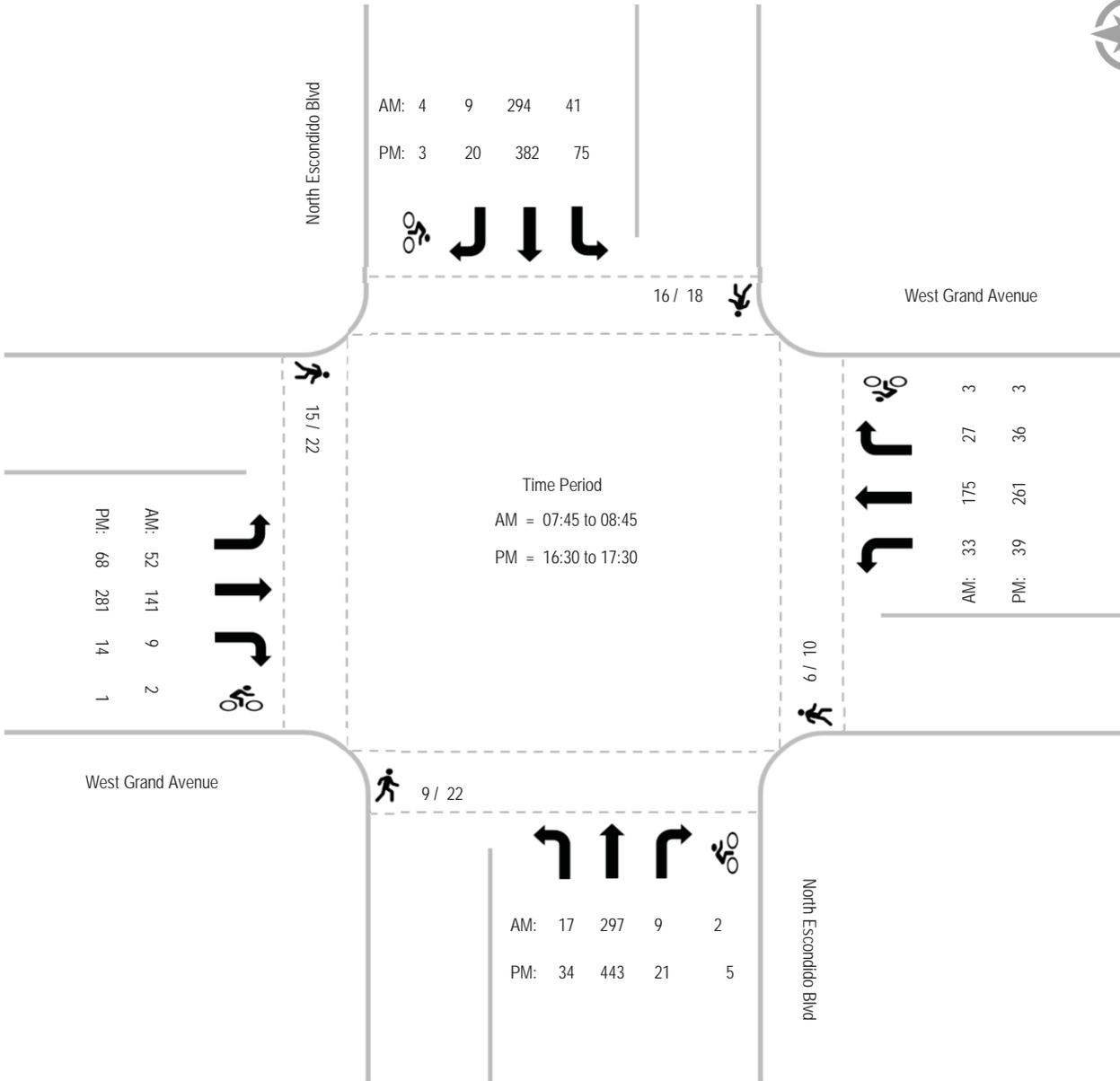
PM	North Escondido Blvd Southbound				West Grand Avenue Westbound				North Escondido Blvd Northbound				West Grand Avenue Eastbound				Totals	
	Ped	B-Left	B-Thru	B-Right	Ped	B-Left	B-Thru	B-Right	Ped	B-Left	B-Thru	B-Right	Ped	B-Left	B-Thru	B-Right	Ped	Bicycle
	16:00	3	0	0	0	0	0	1	0	5	0	0	0	8	0	1	0	16
16:15	4	0	0	0	2	1	0	0	2	0	0	0	0	0	0	0	8	1
16:30	3	0	0	0	1	0	0	0	1	0	2	0	1	0	0	0	6	2
16:45	0	0	0	0	1	0	0	0	4	0	0	0	1	0	0	0	6	0
17:00	3	0	0	1	2	0	0	0	1	0	0	0	1	0	0	0	7	1
17:15	2	0	1	0	1	0	0	0	3	0	1	0	8	0	0	0	14	2
17:30	1	0	1	0	1	0	1	0	3	0	2	0	2	0	0	0	7	4
17:45	2	0	0	0	2	0	0	0	3	0	0	0	1	0	0	0	8	0
Ped Total	18				10				22				22				72	
Bike Total		0	2	1		1	2	0		0	5	0		0	1	0		12

Intersection Turning Movement - Peak Hour Summary



Location: #04
 Intersection: North Escondido Boulevard & West Grand Avenue
 Date of Count: Wednesday, May 23, 2018

File Name: ITM-18-058-04
 Project: LLG Ref. 3-17-2719
 Aspire - Escondido



Intersection Turning Movement - Peak Hour Vehicle Count



Location:	#05	File Name:	ITM-18-058-05
Intersection:	Maple Street Plaza & West Grand Avenue	Project:	LLG Ref. 3-17-2719
Date of Count:	Wednesday, May 23, 2018		Aspire - Escondido

AM	Maple Street Plaza Southbound			West Grand Avenue Westbound			Maple Street Plaza Northbound			West Grand Avenue Eastbound			Total
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
7:00	0	0	0	10	27	1	4	1	0	1	17	0	61
7:15	0	0	0	6	46	0	3	2	1	7	34	3	102
7:30	0	0	0	3	59	1	1	4	1	4	38	0	111
7:45	0	0	0	16	56	2	3	4	4	4	44	9	142
8:00	0	0	0	15	54	1	6	1	3	3	37	2	122
8:15	0	0	0	11	49	1	6	0	3	3	41	4	118
8:30	0	0	0	11	46	3	2	0	3	7	39	1	112
8:45	0	0	0	3	62	4	2	3	3	10	35	2	124
Total	0	0	0	75	399	13	27	15	18	39	285	21	892
Approach%	-	-	-	15.4	81.9	2.7	45.0	25.0	30.0	11.3	82.6	6.1	
Total%	-	-	-	8.4	44.7	1.5	3.0	1.7	2.0	4.4	32.0	2.4	

AM Intersection Peak Hour: 07:45 to 08:45

Volume	-	-	-	53	205	7	17	5	13	17	161	16	494
Approach%	-	-	-	20.0	77.4	2.6	48.6	14.3	37.1	8.8	83.0	8.2	
Total%	-	-	-	10.7	41.5	1.4	3.4	1.0	2.6	3.4	32.6	3.2	
PHF			#DIV/0!			0.90			0.80			0.85	0.87

PM	Maple Street Plaza Southbound			West Grand Avenue Westbound			Maple Street Plaza Northbound			West Grand Avenue Eastbound			Total
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
16:00	0	0	0	5	71	3	10	0	2	5	92	5	193
16:15	1	0	0	2	62	1	9	2	3	4	96	2	182
16:30	0	0	0	5	79	1	10	2	13	3	92	4	209
16:45	0	0	0	6	77	5	10	1	4	1	86	3	193
17:00	0	0	0	3	71	0	18	0	7	5	81	1	186
17:15	0	0	0	6	56	1	10	0	5	4	83	6	171
17:30	0	0	0	7	64	1	11	1	6	1	71	1	163
17:45	0	0	0	43	61	0	11	1	3	3	64	4	190
Total	1	0	0	77	541	12	89	7	43	26	665	26	1487
Approach%	100.0	-	-	12.2	85.9	1.9	64.0	5.0	30.9	3.6	92.7	3.6	
Total%	0.1	-	-	8.6	60.7	1.3	10.0	0.8	4.8	2.9	74.6	2.9	

PM Intersection Peak Hour: 16:00 to 17:00

Volume	1	-	-	18	289	10	39	5	22	13	366	14	777
Approach%	100.0	-	-	5.7	91.2	3.2	59.1	7.6	33.3	3.3	93.1	3.6	
Total%	0.2	-	-	3.6	58.5	2.0	7.9	1.0	4.5	2.6	74.1	2.8	
PHF			0.25			0.90			0.66			0.96	0.93

Intersection Turning Movement - Bicycle & Pedestrian Count



Location:	#05	File Name:	ITM-18-058-05
Intersection:	Maple Street Plaza & West Grand Avenue	Project:	LLG Ref. 3-17-2719
Date of Count:	Wednesday, May 23, 2018		Aspire - Escondido

AM	Maple Street Plaza Southbound				West Grand Avenue Westbound				Maple Street Plaza Northbound				West Grand Avenue Eastbound				Totals	
	Ped	B-Left	B-Thru	B-Right	Ped	B-Left	B-Thru	B-Right	Ped	B-Left	B-Thru	B-Right	Ped	B-Left	B-Thru	B-Right	Ped	Bicycle
7:00	1	0	0	0	4	0	0	0	2	0	0	0	0	0	1	0	7	1
7:15	0	0	0	0	4	0	0	0	0	0	0	0	1	0	1	0	5	1
7:30	1	0	0	0	4	0	0	0	2	0	0	0	4	0	0	0	11	0
7:45	1	0	0	0	16	0	1	0	3	1	0	0	7	0	0	0	27	2
8:00	0	0	1	0	12	0	0	0	1	0	0	0	1	0	0	0	14	1
8:15	3	1	0	0	1	0	1	0	2	0	0	0	2	2	0	0	8	4
8:30	0	0	0	0	3	0	0	0	0	0	2	0	1	0	0	0	4	2
8:45	0	0	0	0	12	0	1	0	3	0	0	0	5	0	0	0	20	1
Ped Total	6				56				13				21				96	
Bike Total		1	1	0		0	3	0		1	2	0		2	2	0		12

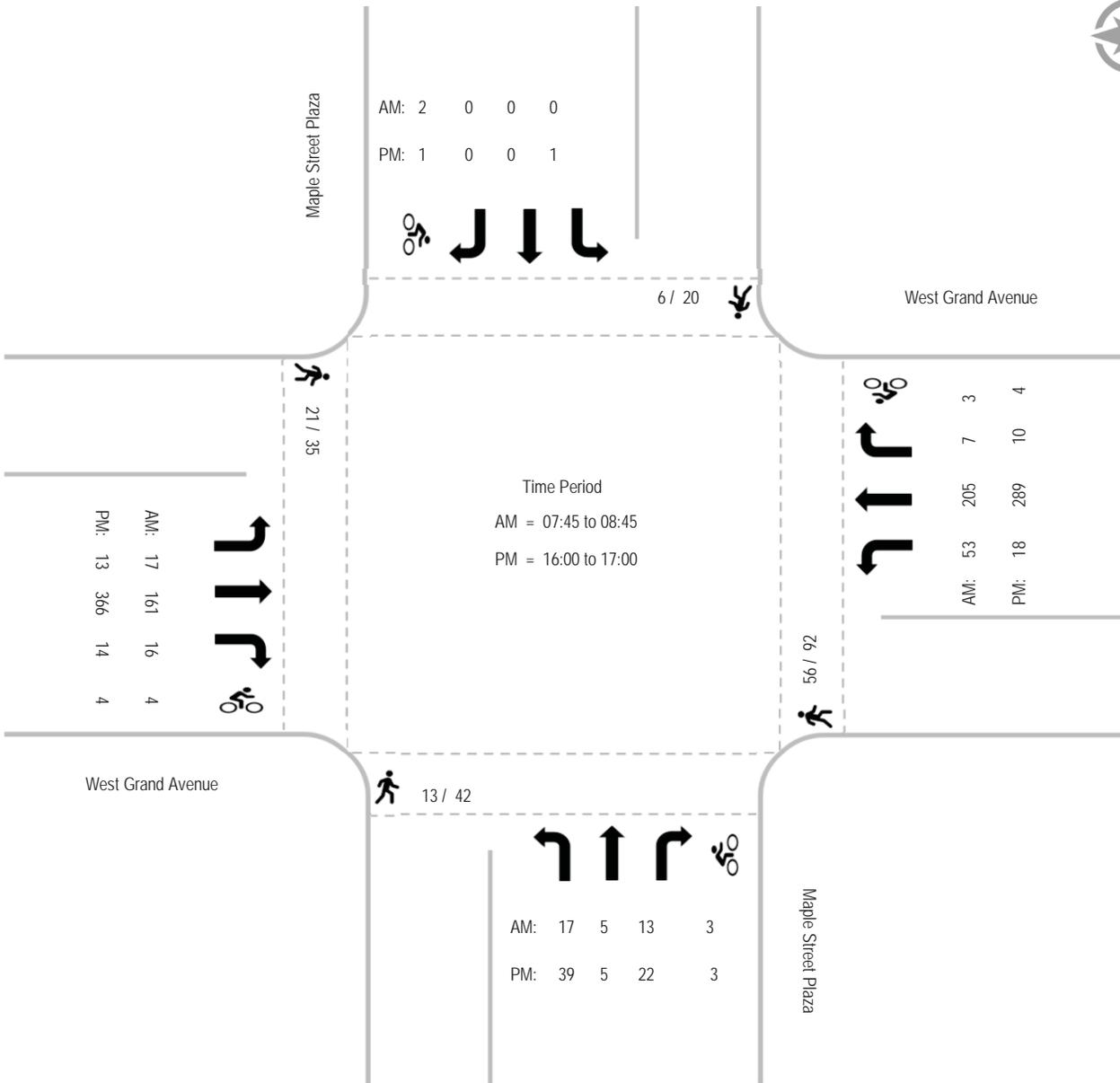
PM	Maple Street Plaza Southbound				West Grand Avenue Westbound				Maple Street Plaza Northbound				West Grand Avenue Eastbound				Totals	
	Ped	B-Left	B-Thru	B-Right	Ped	B-Left	B-Thru	B-Right	Ped	B-Left	B-Thru	B-Right	Ped	B-Left	B-Thru	B-Right	Ped	Bicycle
16:00	1	0	0	0	0	0	1	0	6	0	2	0	4	0	2	0	11	5
16:15	3	1	0	0	19	0	0	0	4	0	1	0	7	0	0	0	33	2
16:30	2	0	0	0	9	0	0	0	6	0	0	0	3	0	2	0	20	2
16:45	3	0	0	0	7	0	0	0	3	0	0	0	1	0	0	0	14	0
17:00	2	0	0	0	8	0	1	0	4	0	0	0	2	0	0	0	16	1
17:15	4	0	0	0	5	0	2	0	6	0	0	0	2	0	0	0	17	2
17:30	5	0	0	0	40	0	0	0	3	0	0	0	9	0	0	0	57	0
17:45	0	0	0	0	4	0	0	0	10	0	0	0	7	0	0	0	21	0
Ped Total	20				92				42				35				189	
Bike Total		1	0	0		0	4	0		0	3	0		0	4	0		12

Intersection Turning Movement - Peak Hour Summary



Location: #05
 Intersection: Maple Street Plaza & West Grand Avenue
 Date of Count: Wednesday, May 23, 2018

File Name: ITM-18-058-05
 Project: LLG Ref. 3-17-2719
 Aspire - Escondido



Intersection Turning Movement - Peak Hour Vehicle Count



Location:	#06-R	File Name:	ITM-18-058-06R
Intersection:	North Broadway & West Grand Avenue	Project:	LLG Ref. 3-17-2719
Date of Count:	Wednesday, May 23, 2018		Aspire - Escondido

AM	North Broadway Southbound			West Grand Avenue Westbound			North Broadway Northbound			West Grand Avenue Eastbound			Total
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
7:00	7	22	4	0	31	6	0	15	2	5	17	0	109
7:15	16	26	8	3	43	10	2	21	1	7	19	3	159
7:30	19	27	9	2	64	10	0	23	0	10	32	0	196
7:45	16	36	10	4	57	7	2	33	4	18	31	1	219
8:00	13	47	18	0	54	12	2	34	1	8	31	0	220
8:15	13	40	9	3	50	8	5	35	5	8	32	5	213
8:30	15	36	12	5	53	6	2	20	3	10	38	0	200
8:45	8	22	10	8	54	5	1	33	0	7	33	5	186
Total	107	256	80	25	406	64	14	214	16	73	233	14	1502
Approach%	24.2	57.8	18.1	5.1	82.0	12.9	5.7	87.7	6.6	22.8	72.8	4.4	
Total%	7.1	17.0	5.3	1.7	27.0	4.3	0.9	14.2	1.1	4.9	15.5	0.9	

AM Intersection Peak Hour: 07:45 to 08:45

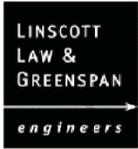
Volume	57	159	49	12	214	33	11	122	13	44	132	6	852
Approach%	21.5	60.0	18.5	4.6	82.6	12.7	7.5	83.6	8.9	24.2	72.5	3.3	
Total%	6.7	18.7	5.8	1.4	25.1	3.9	1.3	14.3	1.5	5.2	15.5	0.7	
PHF			0.85			0.95			0.81			0.91	0.97

PM	North Broadway Southbound			West Grand Avenue Westbound			North Broadway Northbound			West Grand Avenue Eastbound			Total
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
16:00	27	46	16	4	57	13	4	46	4	17	68	4	306
16:15	28	33	7	2	44	10	3	49	9	22	74	6	287
16:30	20	26	13	6	76	12	7	63	7	18	81	6	335
16:45	12	39	15	4	61	16	2	40	5	17	62	4	277
17:00	17	23	8	2	66	17	3	62	6	26	66	6	302
17:15	21	36	9	7	40	13	3	35	1	19	64	1	249
17:30	22	36	7	5	73	7	3	43	5	19	50	3	273
17:45	12	30	5	4	49	13	4	39	3	11	50	4	224
Total	159	269	80	34	466	101	29	377	40	149	515	34	2253
Approach%	31.3	53.0	15.7	5.7	77.5	16.8	6.5	84.5	9.0	21.3	73.8	4.9	
Total%	10.6	17.9	5.3	2.3	31.0	6.7	1.9	25.1	2.7	9.9	34.3	2.3	

PM Intersection Peak Hour: 16:00 to 17:00

Volume	87	144	51	16	238	51	16	198	25	74	285	20	1,205
Approach%	30.9	51.1	18.1	5.2	78.0	16.7	6.7	82.8	10.5	19.5	75.2	5.3	
Total%	10.2	16.9	6.0	1.9	27.9	6.0	1.9	23.2	2.9	8.7	33.5	2.3	
PHF			0.79			0.81			0.78			0.90	0.92

Intersection Turning Movement - Bicycle & Pedestrian Count

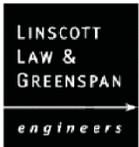


Location:	#06-R	File Name:	ITM-18-058-06R
Intersection:	North Broadway & West Grand Avenue	Project:	LLG Ref. 3-17-2719
Date of Count:	Wednesday, May 23, 2018		Aspire - Escondido

AM	North Broadway Southbound				West Grand Avenue Westbound				North Broadway Northbound				West Grand Avenue Eastbound				Totals	
	Ped	B-Left	B-Thru	B-Right	Ped	B-Left	B-Thru	B-Right	Ped	B-Left	B-Thru	B-Right	Ped	B-Left	B-Thru	B-Right	Ped	Bicycle
7:00	2	0	0	0	1	0	0	0	2	0	0	0	1	1	0	0	6	1
7:15	1	0	0	0	0	0	1	0	0	0	0	0	11	0	0	0	12	1
7:30	5	0	0	0	1	0	0	0	1	0	0	0	1	0	0	0	8	0
7:45	7	0	0	0	4	0	0	0	3	0	0	0	3	2	0	0	17	2
8:00	1	0	0	0	5	0	0	0	2	0	0	0	3	1	0	0	11	1
8:15	7	0	0	2	2	0	2	0	5	0	0	0	3	0	0	0	17	4
8:30	3	0	0	0	1	0	2	0	5	0	0	0	3	0	0	0	12	2
8:45	7	0	0	0	3	0	1	0	11	0	0	0	2	0	0	0	23	1
Ped Total	33				17				29				27				106	
Bike Total		0	0	2		0	6	0		0	0	0		4	0	0		12

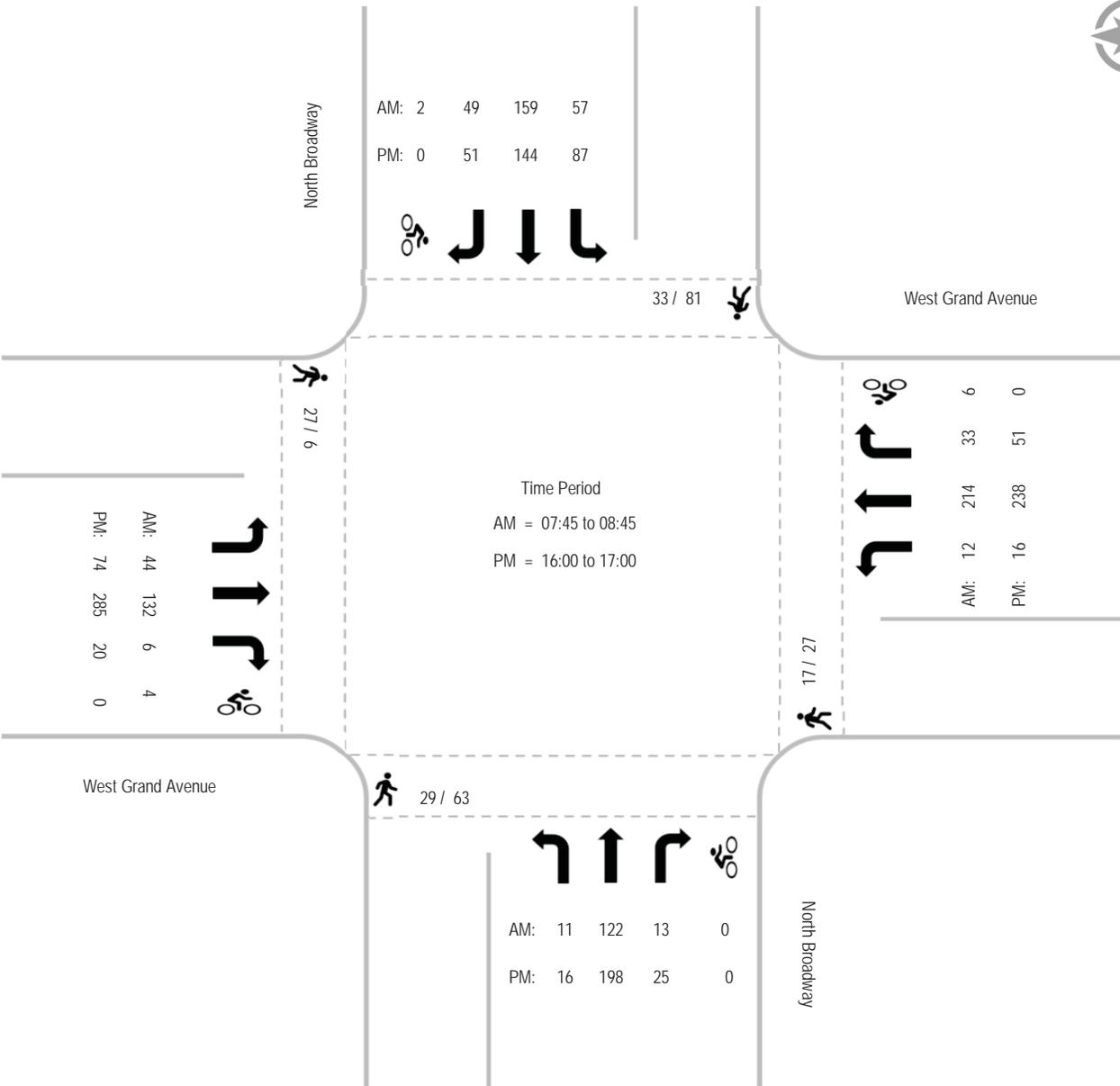
PM	North Broadway Southbound				West Grand Avenue Westbound				North Broadway Northbound				West Grand Avenue Eastbound				Totals	
	Ped	B-Left	B-Thru	B-Right	Ped	B-Left	B-Thru	B-Right	Ped	B-Left	B-Thru	B-Right	Ped	B-Left	B-Thru	B-Right	Ped	Bicycle
16:00	7	0	0	0	0	0	0	0	13	0	0	0	0	0	0	0	20	0
16:15	7	0	0	0	5	0	0	0	7	0	0	0	2	0	0	0	21	0
16:30	7	0	0	0	3	0	0	0	2	0	0	0	1	0	0	0	13	0
16:45	6	0	0	0	3	0	0	0	4	0	0	0	0	0	0	0	13	0
17:00	20	0	0	0	7	0	0	0	6	0	0	0	3	0	0	0	36	0
17:15	11	0	0	0	1	0	0	0	14	0	0	0	0	0	0	0	26	0
17:30	14	0	0	0	2	0	0	0	5	0	0	0	0	0	0	0	21	0
17:45	9	0	0	0	6	0	0	0	12	0	0	0	0	0	0	0	27	0
Ped Total	81				27				63				6				177	
Bike Total		0	0	0		0	0	0		0	0	0		0	0	0		0

Intersection Turning Movement - Peak Hour Summary



Location: #06-R
 Intersection: North Broadway & West Grand Avenue
 Date of Count: Wednesday, May 23, 2018

File Name: ITM-18-058-06R
 Project: LLG Ref. 3-17-2719
 Aspire - Escondido



Intersection Turning Movement - Peak Hour Vehicle Count



Location:	#07	File Name:	ITM-18-058-07
Intersection:	North Escondido Boulevard & Alley	Project:	LLG Ref. 3-17-2719
Date of Count:	Wednesday, May 23, 2018		Aspire - Escondido

AM	North Escondido Blvd Southbound			Alley Westbound			North Escondido Blvd Northbound			Alley Eastbound			Total
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
7:00	1	39	1	0	0	1	0	72	2	0	0	0	116
7:15	1	54	0	0	0	0	0	72	2	0	0	1	130
7:30	1	77	0	0	0	1	0	90	0	1	0	0	170
7:45	1	95	1	0	0	0	0	106	1	1	0	1	206
8:00	1	77	2	0	0	0	1	102	1	0	0	1	185
8:15	0	75	5	0	0	0	0	89	0	0	0	0	169
8:30	0	88	0	0	0	0	0	67	2	0	0	0	157
8:45	0	55	0	0	0	0	1	66	2	1	1	0	126
Total	5	560	9	0	0	2	2	664	10	3	1	3	1259
Approach%	0.9	97.6	1.6	-	-	100.0	0.3	98.2	1.5	42.9	14.3	42.9	
Total%	0.4	44.5	0.7	-	-	0.2	0.2	52.7	0.8	0.2	0.1	0.2	

AM Intersection Peak Hour: 07:30 to 08:30

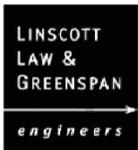
Volume	3	324	8	-	-	1	1	387	2	2	-	2	730
Approach%	0.9	96.7	2.4	-	-	100.0	0.3	99.2	0.5	50.0	-	50.0	
Total%	0.4	44.4	1.1	-	-	0.1	0.1	53.0	0.3	0.3	-	0.3	
PHF			0.86			0.25			0.91			0.50	0.98

PM	North Escondido Blvd Southbound			Alley Westbound			North Escondido Blvd Northbound			Alley Eastbound			Total
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
16:00	0	85	1	1	0	0	0	87	2	0	0	0	176
16:15	2	114	2	1	0	1	0	97	5	0	1	0	223
16:30	0	100	1	0	0	4	0	133	7	2	0	1	248
16:45	5	133	1	0	0	0	0	121	1	0	1	0	262
17:00	1	107	3	0	0	1	1	133	1	0	1	0	248
17:15	0	132	0	0	0	0	0	143	0	0	2	0	277
17:30	0	122	1	0	0	0	0	136	1	0	0	0	260
17:45	1	111	2	1	0	0	1	139	2	2	0	0	259
Total	9	904	11	3	0	6	2	989	19	4	5	1	1953
Approach%	1.0	97.8	1.2	33.3	-	66.7	0.2	97.9	1.9	40.0	50.0	10.0	
Total%	0.7	71.8	0.9	0.2	-	0.5	0.2	78.6	1.5	0.3	0.4	0.1	

PM Intersection Peak Hour: 16:45 to 17:45

Volume	6	494	5	-	-	1	1	533	3	-	4	-	1,047
Approach%	1.2	97.8	1.0	-	-	100.0	0.2	99.3	0.6	-	100.0	-	
Total%	0.8	67.7	0.7	-	-	0.1	0.1	73.0	0.4	-	0.5	-	
PHF			0.91			0.25			0.94			0.50	0.94

Intersection Turning Movement - Bicycle & Pedestrian Count



Location:	#07	File Name:	ITM-18-058-07
Intersection:	North Escondido Boulevard & Alley	Project:	LLG Ref. 3-17-2719
Date of Count:	Wednesday, May 23, 2018		Aspire - Escondido

AM	North Escondido Blvd Southbound				Alley Westbound				North Escondido Blvd Northbound				Alley Eastbound				Totals	
	Ped	B-Left	B-Thru	B-Right	Ped	B-Left	B-Thru	B-Right	Ped	B-Left	B-Thru	B-Right	Ped	B-Left	B-Thru	B-Right	Ped	Bicycle
	7:00	1	0	1	0	3	0	0	0	0	0	0	0	0	0	0	0	4
7:15	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1	0
7:30	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	2	0
7:45	0	0	0	0	4	0	0	0	0	0	1	0	0	0	0	0	4	1
8:00	0	0	0	0	1	0	0	0	0	0	0	0	5	0	0	0	6	0
8:15	0	0	0	0	3	1	0	0	0	0	0	0	1	0	2	0	4	3
8:30	1	0	0	0	1	0	0	0	1	0	0	0	4	0	0	0	7	0
8:45	1	0	0	0	3	0	0	0	0	0	0	0	4	0	0	0	8	0
Ped Total	3				18				1				14				36	
Bike Total		0	1	0		1	0	0		0	1	0		0	2	0		5

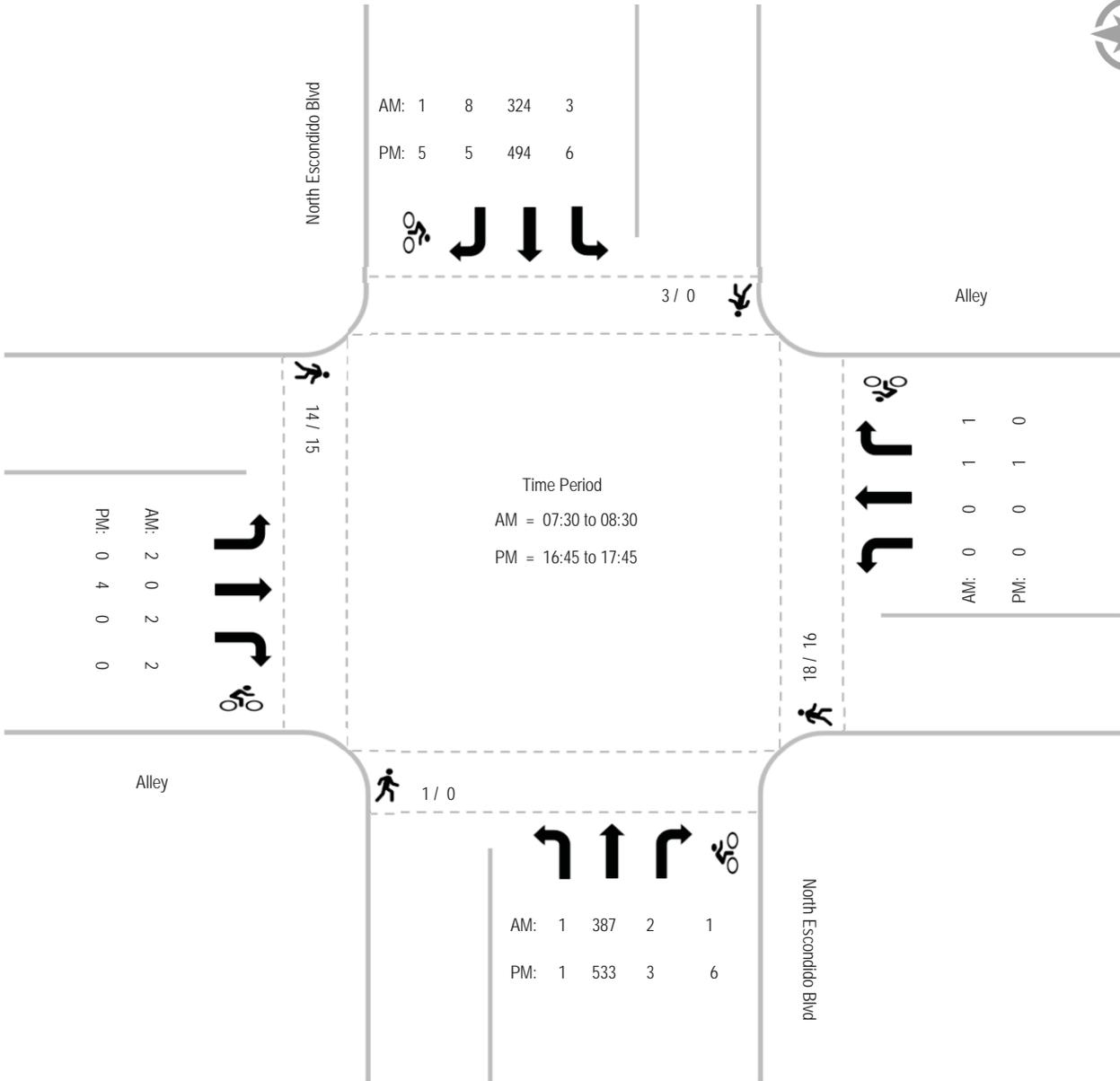
PM	North Escondido Blvd Southbound				Alley Westbound				North Escondido Blvd Northbound				Alley Eastbound				Totals	
	Ped	B-Left	B-Thru	B-Right	Ped	B-Left	B-Thru	B-Right	Ped	B-Left	B-Thru	B-Right	Ped	B-Left	B-Thru	B-Right	Ped	Bicycle
	16:00	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
16:15	0	0	0	0	3	0	0	0	0	0	0	0	4	0	0	0	7	0
16:30	0	0	0	0	5	0	0	0	0	0	1	0	1	0	0	0	6	1
16:45	0	0	0	0	4	0	0	0	0	0	1	0	1	0	0	0	5	1
17:00	0	0	1	0	3	0	0	0	0	0	1	0	2	0	0	0	5	2
17:15	0	0	4	0	1	0	0	0	0	0	2	0	3	0	0	0	4	6
17:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
17:45	0	0	0	0	0	0	0	0	0	0	0	0	4	0	0	0	4	0
Ped Total	0				16				0				15				31	
Bike Total		0	5	0		0	0	0		0	6	0		0	0	0		11

Intersection Turning Movement - Peak Hour Summary

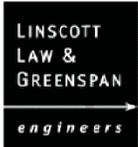


Location: #07
 Intersection: North Escondido Boulevard & Alley
 Date of Count: Wednesday, May 23, 2018

File Name: ITM-18-058-07
 Project: LLG Ref. 3-17-2719
 Aspire - Escondido



Intersection Turning Movement - Peak Hour Vehicle Count



Location:	#08	File Name:	ITM-18-058-08
Intersection:	South Broadway & Alley	Project:	LLG Ref. 3-17-2719
Date of Count:	Wednesday, May 23, 2018		Aspire - Escondido

AM	South Broadway Southbound			Alley Westbound			South Broadway Northbound			Alley Eastbound			Total
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
7:00	0	37	0	0	0	0	0	20	0	0	0	0	57
7:15	4	37	0	0	0	0	0	32	1	1	0	0	75
7:30	2	56	1	0	0	0	0	35	1	1	0	3	99
7:45	4	59	0	0	0	0	0	57	1	2	0	0	123
8:00	2	68	0	0	0	0	0	48	1	1	1	3	124
8:15	2	65	0	0	0	0	0	57	1	2	0	1	128
8:30	3	49	0	0	0	0	0	37	1	2	0	1	93
8:45	3	56	0	0	0	0	0	37	1	0	1	2	100
Total	20	427	1	0	0	0	0	323	7	9	2	10	799
Approach%	4.5	95.3	0.2	-	-	-	-	97.9	2.1	42.9	9.5	47.6	
Total%	2.5	53.4	0.1	-	-	-	-	40.4	0.9	1.1	0.3	1.3	

AM Intersection Peak Hour: 07:30 to 08:30

Volume	10	248	1	-	-	-	-	197	4	6	1	7	474
Approach%	3.9	95.8	0.4	-	-	-	-	98.0	2.0	42.9	7.1	50.0	
Total%	2.1	52.3	0.2	-	-	-	-	41.6	0.8	1.3	0.2	1.5	
PHF			0.93			#DIV/0!			0.87			0.70	0.93

PM	South Broadway Southbound			Alley Westbound			South Broadway Northbound			Alley Eastbound			Total
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
16:00	4	71	2	0	0	0	2	69	2	3	3	8	164
16:15	2	62	0	0	0	0	1	81	5	4	2	4	161
16:30	4	60	0	0	0	0	1	80	3	1	1	3	153
16:45	3	62	2	0	0	0	1	82	6	3	2	5	166
17:00	0	45	0	0	0	0	0	89	3	4	1	7	149
17:15	2	50	0	0	0	0	0	72	8	1	1	6	140
17:30	2	55	0	0	0	0	0	55	4	5	0	11	132
17:45	0	51	0	0	0	0	0	68	2	5	2	2	130
Total	17	456	4	0	0	0	5	596	33	26	12	46	1195
Approach%	3.6	95.6	0.8	-	-	-	0.8	94.0	5.2	31.0	14.3	54.8	
Total%	2.1	57.1	0.5	-	-	-	0.6	74.6	4.1	3.3	1.5	5.8	

PM Intersection Peak Hour: 16:00 to 17:00

Volume	13	255	4	-	-	-	5	312	16	11	8	20	644
Approach%	4.8	93.8	1.5	-	-	-	1.5	93.7	4.8	28.2	20.5	51.3	
Total%	2.7	53.8	0.8	-	-	-	1.1	65.8	3.4	2.3	1.7	4.2	
PHF			0.88			#DIV/0!			0.94			0.70	0.97

Intersection Turning Movement - Bicycle & Pedestrian Count



Location:	#08	File Name:	ITM-18-058-08
Intersection:	South Broadway & Alley	Project:	LLG Ref. 3-17-2719
Date of Count:	Wednesday, May 23, 2018		Aspire - Escondido

AM	South Broadway Southbound				Alley Westbound				South Broadway Northbound				Alley Eastbound				Totals	
	Ped	B-Left	B-Thru	B-Right	Ped	B-Left	B-Thru	B-Right	Ped	B-Left	B-Thru	B-Right	Ped	B-Left	B-Thru	B-Right	Ped	Bicycle
7:00	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	1	1
7:15	0	0	0	0	0	0	0	0	0	0	0	0	4	0	0	0	4	0
7:30	0	0	0	0	1	0	0	0	0	0	0	0	2	0	0	0	3	0
7:45	0	0	0	0	3	0	0	0	0	0	1	0	2	0	0	0	5	1
8:00	0	1	0	0	5	0	0	0	0	0	1	1	0	0	0	0	5	3
8:15	0	0	0	0	3	1	0	0	0	0	1	0	2	0	1	0	5	3
8:30	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1	0
8:45	0	0	0	0	1	0	0	0	0	0	0	0	1	0	0	0	2	0
Ped Total	0				14				1				11				26	
Bike Total		1	0	0		1	1	0		0	3	1		0	1	0		8

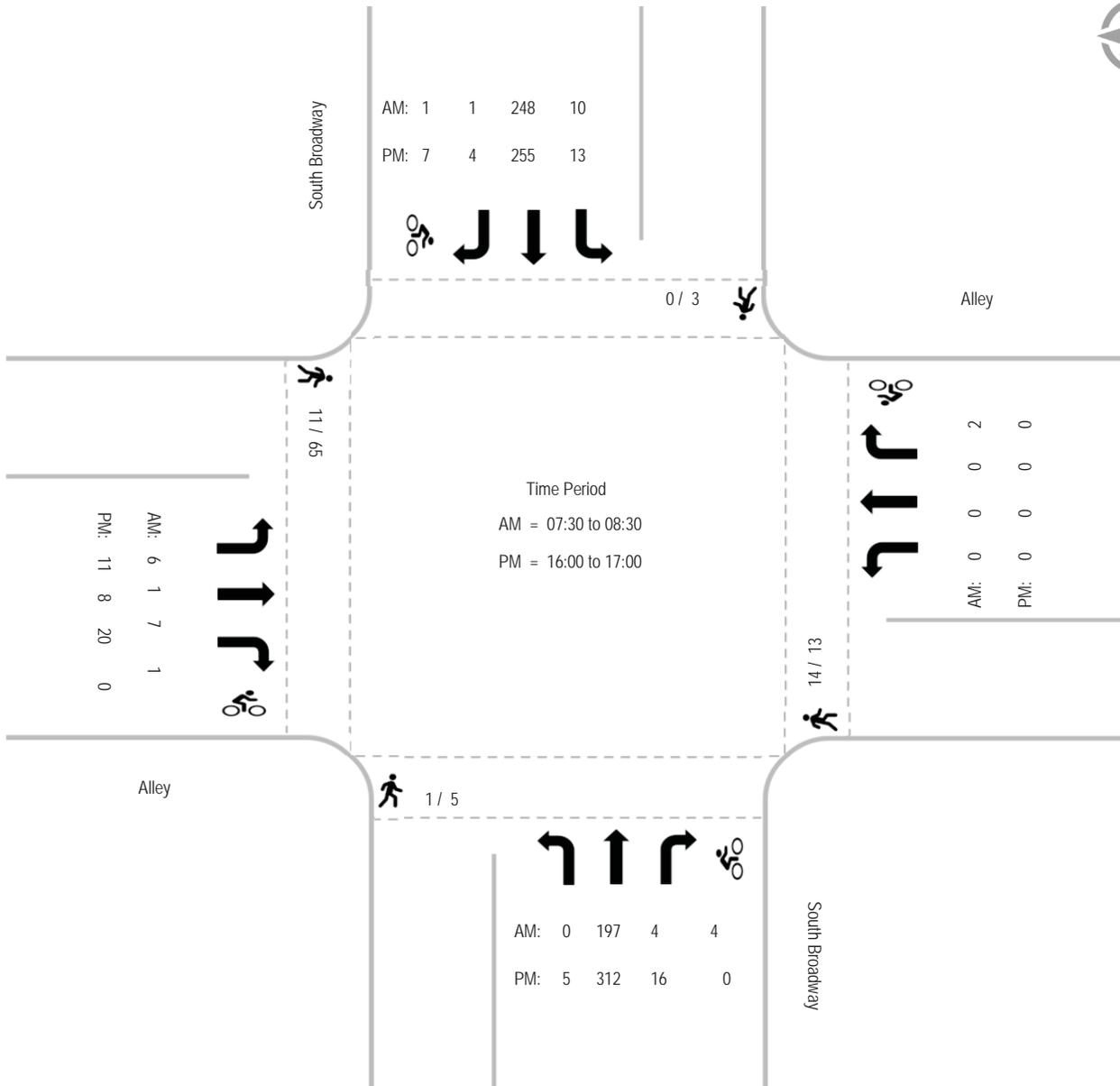
PM	South Broadway Southbound				Alley Westbound				South Broadway Northbound				Alley Eastbound				Totals	
	Ped	B-Left	B-Thru	B-Right	Ped	B-Left	B-Thru	B-Right	Ped	B-Left	B-Thru	B-Right	Ped	B-Left	B-Thru	B-Right	Ped	Bicycle
16:00	0	0	1	0	0	0	0	0	0	0	0	0	17	0	0	0	17	1
16:15	1	0	3	0	2	0	0	0	0	0	0	0	9	0	0	0	12	3
16:30	1	0	0	0	4	0	0	0	0	0	0	0	3	0	0	0	8	0
16:45	0	0	0	0	3	0	0	0	1	0	0	0	2	0	0	0	6	0
17:00	0	0	0	0	0	0	0	0	2	0	0	0	12	0	0	0	14	0
17:15	1	0	3	0	0	0	0	0	0	0	0	0	7	0	0	0	8	3
17:30	0	0	0	0	2	0	0	0	1	0	0	0	9	0	0	0	12	0
17:45	0	0	0	0	2	0	0	0	1	0	0	0	6	0	0	0	9	0
Ped Total	3				13				5				65				86	
Bike Total		0	7	0		0	0	0		0	0	0		0	0	0		7

Intersection Turning Movement - Peak Hour Summary



Location: #08
 Intersection: South Broadway & Alley
 Date of Count: Wednesday, May 23, 2018

File Name: ITM-18-058-08
 Project: LLG Ref. 3-17-2719
 Aspire - Escondido



Linscott, Law & Greenspan, Engineers

4542 Ruffner Street, Suite 100, San Diego, CA 92111

Average Daily Traffic

Location: **#01 W. Valley Parkway between Maple Street & North Broadway**

Date: **Wednesday, May 23, 2018**

Total Daily Volume: **18026**

Description: **Total Volume**

0:00	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00
57	47	37	55	147	451	1151	1578	1236	1005	1005	1175	1274	1173	1202	1314	1187	1188	898	702	492	360	195	97
13	11	6	7	20	53	212	337	385	238	231	283	348	334	309	313	305	342	230	184	137	109	62	36
11	18	14	13	31	78	284	398	298	235	248	292	341	284	268	329	286	309	220	185	137	104	53	23
17	7	7	13	38	117	327	393	267	258	267	294	292	274	323	335	322	279	241	175	119	76	40	18
16	11	10	22	58	203	328	450	286	274	259	306	293	281	302	337	274	258	207	158	99	71	40	20

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Linscott, Law & Greenspan, Engineers

4542 Ruffner Street, Suite 100, San Diego, CA 92111

Average Daily Traffic

Location: #02 W. Grand Avenue between Maple Street & North Broadway

Date: Wednesday, May 23, 2018		Total Daily Volume: 8843																				Description: Total Volume	
0:00	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00
69	37	17	12	28	66	183	364	466	429	538	690	743	654	666	736	731	611	563	406	314	290	135	95
31	13	6	0	4	13	35	54	123	94	123	170	196	158	172	183	181	170	124	86	70	95	39	24
15	6	4	4	10	11	45	81	110	106	118	145	200	187	148	164	159	154	167	108	92	71	32	23
14	5	5	3	7	18	52	111	111	110	147	184	190	156	162	188	203	147	143	101	85	67	34	22
9	13	2	5	7	24	51	118	122	119	150	191	157	153	184	201	188	140	129	111	67	57	30	26

Date: Wednesday, May 23, 2018		Total Daily Volume: 4451																				Description: Eastbound Volume	
0:00	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00
49	20	8	8	12	24	55	139	182	215	264	329	385	375	340	377	400	325	286	202	160	159	81	56
21	9	4	0	2	5	9	19	42	53	70	88	101	86	78	84	97	91	58	38	32	52	26	12
11	2	1	4	2	5	7	28	44	57	50	63	108	112	83	94	94	87	93	53	45	33	19	15
9	3	3	2	5	8	19	47	51	49	81	97	92	89	85	101	117	74	65	54	49	42	19	11
8	6	0	2	3	6	20	45	45	56	63	81	84	88	94	98	92	73	70	57	34	32	17	18

Date: Wednesday, May 23, 2018		Total Daily Volume: 4392																				Description: Westbound Volume	
0:00	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00
20	17	9	4	16	42	128	225	284	214	274	361	358	279	326	359	331	286	277	204	154	131	54	39
10	4	2	0	2	8	26	35	81	41	53	82	95	72	94	99	84	79	66	48	38	43	13	12
4	4	3	0	8	6	38	53	66	49	68	82	92	75	65	70	65	67	74	55	47	38	13	8
5	2	2	1	2	10	33	64	60	61	66	87	98	67	77	87	86	73	78	47	36	25	15	11
1	7	2	3	4	18	31	73	77	63	87	110	73	65	90	103	96	67	59	54	33	25	13	8

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VOLUME

Broadway Bet. Grand Ave & Valley Pkwy

Day: Thursday
Date: 5/30/2019

City: Escondido
Project #: CA19_4258_003

DAILY TOTALS	NB	SB	EB	WB	Total
	3,789	3,530	0	0	7,319

AM Period	NB	SB	EB	WB	TOTAL	PM Period	NB	SB	EB	WB	TOTAL
00:00	1	3			4	12:00	75	67			142
00:15	3	7			10	12:15	83	74			157
00:30	0	3			3	12:30	93	69			162
00:45	5	9	7	20	12	12:45	72	323	80	290	152
01:00	1	2			3	13:00	87	80			167
01:15	3	3			6	13:15	70	65			135
01:30	2	1			3	13:30	78	49			127
01:45	9	15	6	12	15	13:45	71	306	55	249	126
02:00	1	4			5	14:00	60	55			115
02:15	2	2			4	14:15	79	50			129
02:30	3	0			3	14:30	69	66			135
02:45	2	8	3	9	5	14:45	96	304	61	232	157
03:00	1	2			3	15:00	99	71			170
03:15	2	1			3	15:15	75	66			141
03:30	5	0			5	15:30	67	71			138
03:45	1	9	3	6	4	15:45	76	317	70	278	146
04:00	1	3			4	16:00	83	75			158
04:15	3	2			5	16:15	85	54			139
04:30	4	0			4	16:30	80	68			148
04:45	5	13	3	8	8	16:45	89	337	62	259	151
05:00	7	4			11	17:00	91	65			156
05:15	5	2			7	17:15	74	61			135
05:30	3	4			7	17:30	68	71			139
05:45	15	30	10	20	25	17:45	49	282	50	247	99
06:00	11	12			23	18:00	60	58			118
06:15	16	14			30	18:15	65	53			118
06:30	13	15			28	18:30	45	50			95
06:45	22	62	20	61	42	18:45	46	216	49	210	95
07:00	32	34			66	19:00	41	40			81
07:15	60	53			113	19:15	30	40			70
07:30	50	46			96	19:30	20	30			50
07:45	64	206	59	192	123	19:45	32	123	28	138	60
08:00	45	85			130	20:00	36	36			72
08:15	86	56			142	20:15	32	41			73
08:30	50	50			100	20:30	34	29			63
08:45	60	241	58	249	118	20:45	33	135	31	137	64
09:00	42	50			92	21:00	24	30			54
09:15	30	42			72	21:15	22	17			39
09:30	56	61			117	21:30	33	30			63
09:45	63	191	62	215	125	21:45	22	101	19	96	41
10:00	54	56			110	22:00	18	16			34
10:15	46	58			104	22:15	14	16			30
10:30	60	57			117	22:30	12	10			22
10:45	63	223	65	236	128	22:45	10	54	18	60	28
11:00	63	51			114	23:00	7	18			25
11:15	63	77			140	23:15	5	9			14
11:30	71	64			135	23:30	8	10			18
11:45	62	259	70	262	132	23:45	5	25	7	44	12
TOTALS	1266	1290			2556	TOTALS	2523	2240			4763
SPLIT %	49.5%	50.5%			34.9%	SPLIT %	53.0%	47.0%			65.1%

DAILY TOTALS	NB	SB	EB	WB	Total
	3,789	3,530	0	0	7,319

AM Peak Hour	11:45	11:45	11:45	PM Peak Hour	16:15	12:15	12:15				
AM Pk Volume	313	280	593	PM Pk Volume	345	303	638				
Pk Hr Factor	0.841	0.946	0.915	Pk Hr Factor	0.948	0.947	0.955				
7 - 9 Volume	447	441	0	0	888	4 - 6 Volume	619	506	0	0	1125
7 - 9 Peak Hour	07:30	07:45	07:45	4 - 6 Peak Hour	16:15	16:00	16:00				
7 - 9 Pk Volume	245	250	495	4 - 6 Pk Volume	345	259	0	0	596		
Pk Hr Factor	0.712	0.735	0.871	Pk Hr Factor	0.948	0.863	0.000	0.000	0.943		

WEDNESDAY - NOVEMBER 1, 2017

CITY: ESCONDIDO

PROJECT: PTD17-1103-01

2 ND - ESCONDIDO TO BROADWAY

AM Period	NB	SB	EB	WB	PM Period	NB	SB	EB	WB
00:00			33		12:00			233	
00:15			12		12:15			221	
00:30			23		12:30			247	
00:45			14	82	12:45			252	953
01:00			18		13:00			248	
01:15			16		13:15			272	
01:30			7		13:30			288	
01:45			9	50	13:45			275	1083
02:00			6		14:00			276	
02:15			8		14:15			270	
02:30			5		14:30			295	
02:45			12	31	14:45			340	1181
03:00			8		15:00			350	
03:15			4		15:15			304	
03:30			2		15:30			312	
03:45			7	21	15:45			331	1297
04:00			7		16:00			328	
04:15			8		16:15			351	
04:30			12		16:30			339	
04:45			18	45	16:45			347	1365
05:00			19		17:00			362	
05:15			28		17:15			327	
05:30			21		17:30			306	
05:45			48	116	17:45			314	1309
06:00			49		18:00			261	
06:15			79		18:15			235	
06:30			71		18:30			193	
06:45			102	301	18:45			209	898
07:00			116		19:00			180	
07:15			196		19:15			165	
07:30			217		19:30			125	
07:45			266	795	19:45			116	586
08:00			240		20:00			112	
08:15			213		20:15			99	
08:30			212		20:30			132	
08:45			231	896	20:45			127	470
09:00			188		21:00			104	
09:15			178		21:15			113	
09:30			195		21:30			86	
09:45			213	774	21:45			80	383
10:00			183		22:00			68	
10:15			205		22:15			52	
10:30			195		22:30			43	
10:45			197	780	22:45			45	208
11:00			213		23:00			51	
11:15			214		23:15			35	
11:30			186		23:30			35	
11:45			235	848	23:45			23	144

Total Vol. 4739 **4739** 9877 **9877**

Split %	AM		PM	
	NB	SB	EB	WB
	100.0%	32.4%	100.0%	67.6%
Peak Hour	07:30	07:30	16:15	16:15
Volume	936	936	1399	1399
P.H.F.	0.88	0.88	0.97	0.97

WEDNESDAY - NOVEMBER 1, 2017

CITY: ESCONDIDO

PROJECT: PTD17-1103-01

VALLEY PKWY - ORANGE TO ESCONDIDO

AM Period	NB	SB	EB	WB	PM Period	NB	SB	EB	WB		
00:00				22	12:00				299		
00:15				20	12:15				297		
00:30				11	12:30				283		
00:45				9	62	62			279	1158	1158
01:00				16	13:00				278		
01:15				15	13:15				267		
01:30				7	13:30				253		
01:45				14	52	52			282	1080	1080
02:00				8	14:00				270		
02:15				4	14:15				289		
02:30				7	14:30				308		
02:45				15	34	34			327	1194	1194
03:00				5	15:00				342		
03:15				6	15:15				331		
03:30				11	15:30				296		
03:45				14	36	36			253	1222	1222
04:00				10	16:00				264		
04:15				21	16:15				296		
04:30				34	16:30				272		
04:45				49	114	114			267	1099	1099
05:00				49	17:00				333		
05:15				64	17:15				254		
05:30				97	17:30				238		
05:45				147	357	357			225	1050	1050
06:00				173	18:00				219		
06:15				246	18:15				203		
06:30				264	18:30				194		
06:45				295	978	978			160	776	776
07:00				318	19:00				154		
07:15				395	19:15				135		
07:30				320	19:30				106		
07:45				407	1440	1440			131	526	526
08:00				337	20:00				111		
08:15				317	20:15				122		
08:30				241	20:30				129		
08:45				223	1118	1118			103	465	465
09:00				196	21:00				116		
09:15				189	21:15				94		
09:30				235	21:30				80		
09:45				229	849	849			62	352	352
10:00				223	22:00				42		
10:15				248	22:15				58		
10:30				250	22:30				45		
10:45				248	969	969			41	186	186
11:00				258	23:00				34		
11:15				266	23:15				19		
11:30				283	23:30				19		
11:45				318	1125	1125			22	94	94

Total Vol. 7134 **7134** 9202 **9202**

		Daily Totals				
		NB	SB	EB	WB	Combined
					16336	16336

	AM		PM	
Split %	100.0%	43.7%	100.0%	56.3%
Peak Hour	07:15	07:15	14:30	14:30
Volume	1459	1459	1308	1308
P.H.F.	0.90	0.90	0.96	0.96

APPENDIX B
HCM METHODOLOGY

HIGHWAY CAPACITY 6th EDITION MANUAL LEVEL OF SERVICE CRITERIA FOR SIGNALIZED INTERSECTIONS

In the Highway Capacity Manual 6th Edition (HCM 6), Level of Service for signalized intersections is defined in terms of delay. Delay is a measure of driver discomfort, frustration, fuel consumption, and lost travel time. Specifically, Level of Service criteria are stated in terms of the average control delay per vehicle for a 15-minute analysis period. Control delay includes initial deceleration delay, queue move-up time, stopped delay, and final acceleration delay.

Delay is a complex measure, and is dependent on a number of variables, including the quality of progression, the cycle length, the green ratio, and the v/c ratio for the lane group or approach in question.

LEVEL OF SERVICE	CONTROLLED DELAY PER VEHICLE (SEC)		
A		≤	10.0
B	10.1	to	20.0
C	20.1	to	35.0
D	35.1	to	55.0
E	55.1	to	80.0
F		>	80.0

Level of Service A describes operations with very low delay, (i.e. less than 10.0 seconds per vehicle). This occurs when progression is extremely favorable, and most vehicles arrive during the green phase. Most vehicles do not stop at all. Short cycle lengths may also contribute to low delay.

Level of Service B describes operations with delay in the range of 10.1 to 20.0 seconds per vehicle. This generally occurs with good progression and/or short cycle lengths. More vehicles stop than for LOS A, causing higher levels of average delay.

Level of Service C describes operations with delay in the range of 20.1 to 35.0 seconds per vehicle. These higher delays may result from fair progression and/or longer cycle lengths. Individual cycle failures may begin to appear in the level. The number of vehicles stopping is significant at this level, although many still pass through the intersections without stopping.

Level of Service D describes operations with delay in the range of 35.1 to 55.0 seconds per vehicle. At Level D, the influence of congestion becomes more noticeable. Longer delays may result from some combination of unfavorable progression, long cycle lengths, or high v/c ratios. Many vehicles stop, and the proportion of vehicles not stopping declines. Individual cycle failures are noticeable.

Level of Service E describes operations with delay in the range of 55.1 to 80.0 seconds per vehicle. This is considered to be the limit of acceptable delay. These high delay values generally indicate poor progression, long cycle lengths, and high v/c ratios. Individual cycle failures are frequent occurrences.

Level of Service F describes operations with delay in excess of 80.0 seconds per vehicle. This is considered to be unacceptable to most drivers. This condition often occurs with over-saturation (i.e. when arrival flow rates exceed the capacity of the intersection). It may also occur at high v/c ratios below 1.00 with many individual cycle failures. Poor progression and long cycle lengths may also be major contributing causes to such delay levels.

HIGHWAY CAPACITY 6th EDITION MANUAL

LEVEL OF SERVICE CRITERIA FOR UNSIGNALIZED INTERSECTIONS

In the Highway Capacity Manual 6th Edition (HCM 6), Level of Service for unsignalized intersections is determined by the computed or measured control delay and is defined for each minor movement. Level of Service is not defined for the intersection as a whole. Delay is a measure of driver discomfort, frustration, fuel consumption, and lost travel time. The criteria are given in the following table, and are based on the average control delay for any particular minor movement.

LEVEL OF SERVICE	AVERAGE CONTROL DELAY SEC/VEH			EXPECTED DELAY TO MINOR STREET TRAFFIC
A	0.0	≤	10.0	Little or no delay
B	10.1	to	15.0	Short traffic delays
C	15.1	to	25.0	Average traffic delays
D	25.1	to	35.0	Long traffic delays
E	35.1	to	50.0	Very long traffic delays
F		>	50.0	Severe congestion

Level of Service F exists when there are insufficient gaps of suitable size to allow a side street demand to safely cross through a major street traffic stream. This Level of Service is generally evident from extremely long control delays experienced by side-street traffic and by queuing on the minor-street approaches. The method, however, is based on a constant critical gap size; that is, the critical gap remains constant no matter how long the side-street motorist waits. LOS F may also appear in the form on side-street vehicles selecting smaller-than-usual gaps. In such cases, safety may be a problem, and some disruption to the major traffic stream may result. It is important to note that LOS F may not always result in long queues but may result in adjustments to normal gap acceptance behavior, which are more difficult to observe in the field than queuing.

In most cases at Two-Way Stop Controlled (TWSC) intersections, the critical movement is the minor-street left-turn movement. As such, the minor-street left-turn movement can generally be considered the primary factor affecting overall intersection performance. The lower threshold for LOS F is set at 50 seconds of delay per vehicle. There are many instances, particularly in urban areas, in which the delay equations will predict delays of 50 seconds (LOS F) or more for minor-street movements under very low volume conditions on the minor street (less than 25 vehicle/hour). Since the first term of the equation is a function only of the capacity, the LOS F threshold of 50 sec/vehicle is reached with a movement capacity of approximately 85 vehicle/hour or less.

This procedure assumes random arrivals on the major street. For a typical four-lane arterial with average daily traffic volumes in the range of 15,000 to 20,000 vehicles per day (peak hour, 1,500 to 2,000 vehicle/hour), the delay equation used in the TWSC capacity analysis procedure will predict 50 seconds of delay or more (LOS F) for many urban TWSC intersections that allow minor-street left-turn movements. **The LOS F threshold will be reached regardless of the volume of minor-street left-turn traffic.** Notwithstanding this fact, most low-volume minor-street approaches would not meet any of the volume or delay warrants for signalization of the *Manual on Uniform Traffic Control Devices* (MUTCD) since the warrants define an asymptote at 100 vehicle/hour on the minor approach. As a result, many public agencies that use the HCM 6 Level of Service thresholds to determine the design adequacy of TWSC intersections may be forced to eliminate the minor-street left-turn movement, even when the movement may not present any operational problem, such as the formation of long queues on the minor street or driveway approach.

APPENDIX C

CITY OF ESCONDIDO ROADWAY CAPACITY TABLE

Table

CITY OF ESCONDIDO PROPOSED LEVEL OF SERVICE STANDARDS

STREET SEGMENT AVERAGE DAILY VEHICLE TRIP THRESHOLDS

Street Classification	Lanes	Cross Sections	Level of Service				
			A	B	C	D	E
Prime Arterial	(8lanes)	116/136 (NP)	23,800	37,800	51,800	62,300	70,000
	(6lanes)	106/126 (NP)	20,400	32,400	44,400	53,400	60,000
Major Road	(6lanes)	90/110 (NP)	17,000	27,000	37,000	44,500	50,000
	(4lanes)	82/102 (NP)	12,600	20,000	27,400	32,900	37,000
Collector	(4lanes)	64/84 (NP)	11,600	18,500	25,300	30,400	34,200
	(4lanes)	(WP)	6,800	10,800	14,800	17,800	20,000
Local Collector	(2lanes)	42/66 (NP)	5,100	8,100	11,100	13,400	15,000
		(WP)	3,400	5,400	7,400	8,900	10,000
Rural collector	(2lanes)						

(NP) No Parking
(WP) With Parking

The following V/C Ratios were utilized for determining Existing and Future Level of Service.

Level of Service	Volume/Capacity (V/C) Ratio
A-	Less than or Equal to 0.00 to 0.34
B-	Less than or Equal to 0.35 to 0.54
C-	Less than or Equal to 0.55 to 0.74
D-	Less than or Equal to 0.75 to 0.89
E-	Less than or Equal to 0.90 to 1.00

v/c 0.74

APPENDIX D

DOWNTOWN SPECIFIC PLAN EXCERPTS

Downtown Specific Plan

DESIGN POLICIES, STANDARDS & GUIDELINES

d. Level of Service Complete Streets Policy:

Design and operate certain streets for vehicles in the Downtown to function at Level of Service (LOS) E.

Downtown's urban atmosphere will need to address the increased intensity of pedestrian and vehicular activity. Emphasis will be focused on facilitating an enjoyable pedestrian experience.

1) Standards:

- a) When considering traffic impacts in areas of downtown depicted in Figure III-2, Level of Service (LOS) E shall be the threshold for determining significance and requiring mitigation.
- b) Traffic signals shall be synchronized where feasible as appropriate to facilitate the flow of through-traffic, thus enhancing the movement of vehicles and goods through the City while reducing fuel consumption and air pollution.

2) Guidelines:

- a) Intersections and mid-block areas should be considered as locations for possible sidewalk widening to reduce street crossing distances, promote pedestrian activity, manage traffic flow, and enhance safety.
- b) The safety and efficiency of accessing the public street network from private properties should be considered by controlling driveway access locations, installing medians and access controls, maintaining minimum distances from intersections, consolidating driveway access, and encouraging interconnected parking lots.



Downtown Specific Plan

DESIGN POLICIES, STANDARDS & GUIDELINES

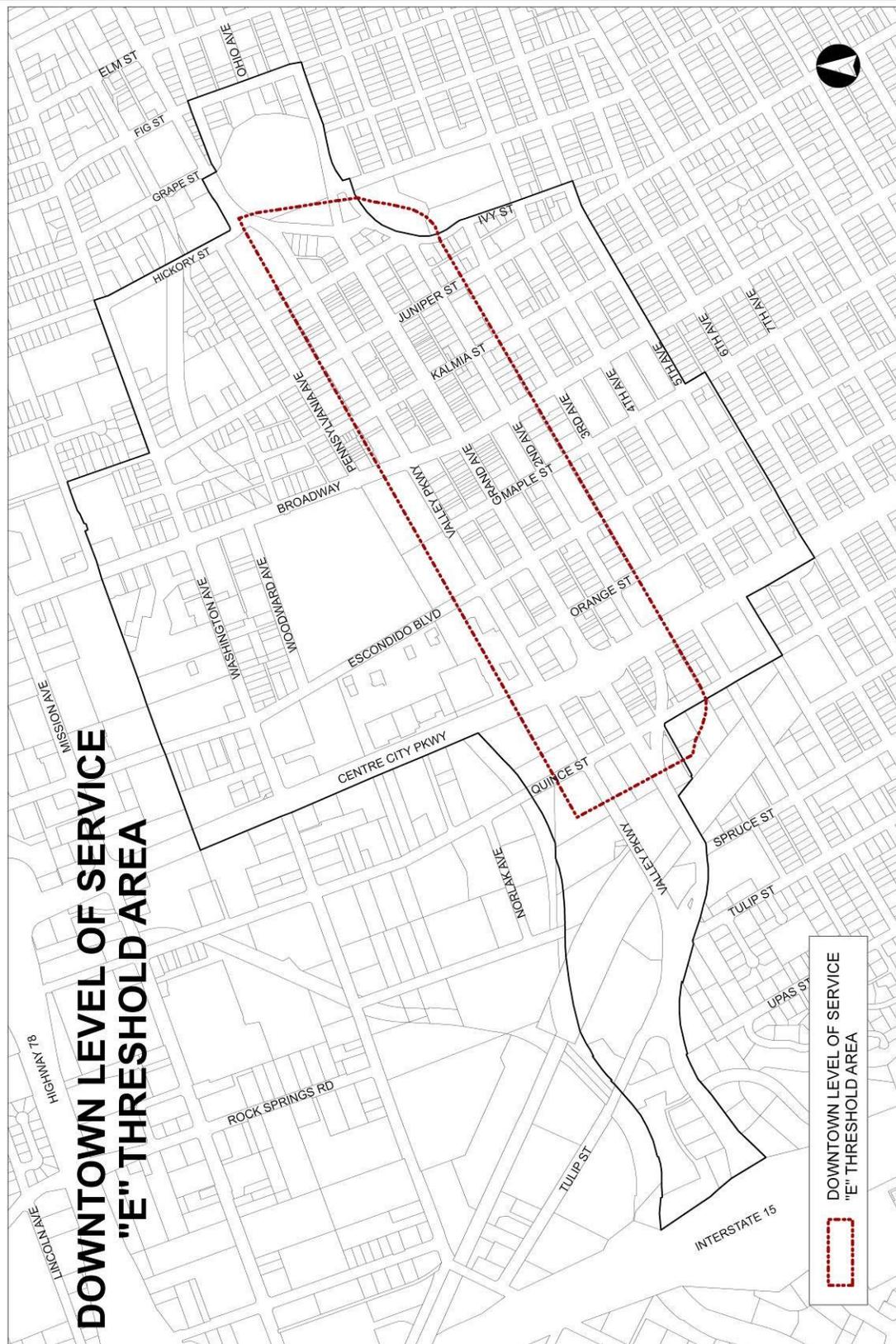
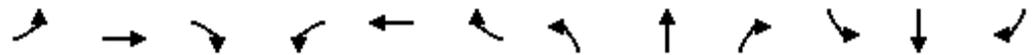


FIGURE III-2

APPENDIX E
INTERSECTION ANALYSIS WORKSHEETS – EXISTING

Existing AM
1: Escondido Blvd & Valley Pkwy

Aspire
07/17/2019



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					←←←←		←	↑↑			↑↑	
Traffic Volume (veh/h)	0	0	0	69	1125	63	127	314	0	0	233	148
Future Volume (veh/h)	0	0	0	69	1125	63	127	314	0	0	233	148
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		0.94	1.00		1.00	1.00		0.93
Parking Bus, Adj				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		
Adj Sat Flow, veh/h/ln				1900	1870	1900	1870	1870	0	0	1870	1870
Adj Flow Rate, veh/h				75	1223	68	138	341	0	0	253	161
Peak Hour Factor				0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %				0	2	0	2	2	0	0	2	2
Cap, veh/h				132	2306	131	156	1275	0	0	432	261
Arrive On Green				0.38	0.38	0.38	0.09	0.36	0.00	0.00	0.21	0.21
Sat Flow, veh/h				352	6150	349	1781	3647	0	0	2162	1251
Grp Volume(v), veh/h				395	624	347	138	341	0	0	215	199
Grp Sat Flow(s),veh/h/ln				1853	1609	1781	1781	1777	0	0	1777	1542
Q Serve(g_s), s				13.6	12.0	12.1	6.1	5.4	0.0	0.0	8.7	9.4
Cycle Q Clear(g_c), s				13.6	12.0	12.1	6.1	5.4	0.0	0.0	8.7	9.4
Prop In Lane				0.19		0.20	1.00		0.00	0.00		0.81
Lane Grp Cap(c), veh/h				695	1206	668	156	1275	0	0	371	322
V/C Ratio(X)				0.57	0.52	0.52	0.89	0.27	0.00	0.00	0.58	0.62
Avail Cap(c_a), veh/h				695	1206	668	156	1777	0	0	622	540
HCM Platoon Ratio				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	0.00	0.00	1.00	1.00
Uniform Delay (d), s/veh				19.9	19.4	19.4	36.1	18.2	0.0	0.0	28.5	28.7
Incr Delay (d2), s/veh				3.4	1.6	2.9	40.8	0.0	0.0	0.0	0.5	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
%ile BackOfQ(50%),veh/ln				6.2	4.5	5.3	4.4	2.1	0.0	0.0	3.7	3.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				23.2	21.0	22.3	76.9	18.2	0.0	0.0	29.0	29.5
LnGrp LOS				C	C	C	E	B	A	A	C	C
Approach Vol, veh/h					1366			479			414	
Approach Delay, s/veh					22.0			35.1			29.2	
Approach LOS					C			D			C	
Timer - Assigned Phs				3	4	6	8					
Phs Duration (G+Y+Rc), s				12.0	21.7	35.0	33.7					
Change Period (Y+Rc), s				5.0	5.0	5.0	5.0					
Max Green Setting (Gmax), s				7.0	28.0	30.0	40.0					
Max Q Clear Time (g_c+I1), s				8.1	11.4	15.6	7.4					
Green Ext Time (p_c), s				0.0	1.6	5.5	1.6					
Intersection Summary												
HCM 6th Ctrl Delay				26.1								
HCM 6th LOS				C								

Existing AM
2: Valley Pkwy & Maple St

Aspire
07/17/2019



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↑↑↑						↑	
Traffic Volume (veh/h)	0	0	0	0	1546	18	0	0	0	0	0	9
Future Volume (veh/h)	0	0	0	0	1546	18	0	0	0	0	0	9
Initial Q (Qb), veh				0	0	0				0	0	0
Ped-Bike Adj(A_pbT)				1.00		0.96				1.00		0.96
Parking Bus, Adj				1.00	1.00	1.00				1.00	1.00	1.00
Work Zone On Approach				No						No		
Adj Sat Flow, veh/h/ln				0	1870	1870				0	1870	1870
Adj Flow Rate, veh/h				0	1680	20				0	0	10
Peak Hour Factor				0.92	0.92	0.92				0.92	0.92	0.92
Percent Heavy Veh, %				0	2	2				0	2	2
Cap, veh/h				0	3451	41				0	0	16
Arrive On Green				0.00	0.66	0.66				0.00	0.00	0.01
Sat Flow, veh/h				0	5367	62				0	0	1522
Grp Volume(v), veh/h				0	1100	600				0	0	10
Grp Sat Flow(s),veh/h/ln				0	1702	1856				0	0	1522
Q Serve(g_s), s				0.0	4.2	4.2				0.0	0.0	0.2
Cycle Q Clear(g_c), s				0.0	4.2	4.2				0.0	0.0	0.2
Prop In Lane				0.00		0.03				0.00		1.00
Lane Grp Cap(c), veh/h				0	2260	1232				0	0	16
V/C Ratio(X)				0.00	0.49	0.49				0.00	0.00	0.61
Avail Cap(c_a), veh/h				0	3063	1670				0	0	233
HCM Platoon Ratio				1.00	1.00	1.00				1.00	1.00	1.00
Upstream Filter(I)				0.00	1.00	1.00				0.00	0.00	1.00
Uniform Delay (d), s/veh				0.0	2.2	2.2				0.0	0.0	12.9
Incr Delay (d2), s/veh				0.0	0.2	0.3				0.0	0.0	31.9
Initial Q Delay(d3),s/veh				0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				0.0	0.1	0.1				0.0	0.0	0.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				0.0	2.3	2.5				0.0	0.0	44.8
LnGrp LOS				A	A	A				A	A	D
Approach Vol, veh/h					1700						10	
Approach Delay, s/veh					2.4						44.8	
Approach LOS					A						D	
Timer - Assigned Phs						6		8				
Phs Duration (G+Y+Rc), s						4.3		21.8				
Change Period (Y+Rc), s						4.0		4.5				
Max Green Setting (Gmax), s						4.0		23.5				
Max Q Clear Time (g_c+I1), s						2.2		6.2				
Green Ext Time (p_c), s						0.0		11.1				
Intersection Summary												
HCM 6th Ctrl Delay						2.6						
HCM 6th LOS						A						

Existing AM
3: Broadway & Valley Pkwy



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↑↑↑	↑	↑	↑↑			↑↑	↑
Traffic Volume (veh/h)	0	0	0	33	1371	126	19	174	0	0	207	164
Future Volume (veh/h)	0	0	0	33	1371	126	19	174	0	0	207	164
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		0.98	0.99		1.00	1.00		0.99
Parking Bus, Adj				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		
Adj Sat Flow, veh/h/ln				1870	1870	1870	1870	1870	0	0	1870	1870
Adj Flow Rate, veh/h				36	1490	137	21	189	0	0	225	178
Peak Hour Factor				0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %				2	2	2	2	2	0	0	2	2
Cap, veh/h				83	3646	1097	198	594	0	0	594	261
Arrive On Green				0.71	0.71	0.71	0.06	0.06	0.00	0.00	0.17	0.17
Sat Flow, veh/h				117	5152	1551	975	3647	0	0	3647	1562
Grp Volume(v), veh/h				573	953	137	21	189	0	0	225	178
Grp Sat Flow(s),veh/h/ln				1865	1702	1551	975	1777	0	0	1777	1562
Q Serve(g_s), s				10.4	9.1	2.3	1.7	4.1	0.0	0.0	4.5	8.6
Cycle Q Clear(g_c), s				10.4	9.1	2.3	6.2	4.1	0.0	0.0	4.5	8.6
Prop In Lane				0.06		1.00	1.00		0.00	0.00		1.00
Lane Grp Cap(c), veh/h				1320	2409	1097	198	594	0	0	594	261
V/C Ratio(X)				0.43	0.40	0.12	0.11	0.32	0.00	0.00	0.38	0.68
Avail Cap(c_a), veh/h				1320	2409	1097	425	1421	0	0	1421	625
HCM Platoon Ratio				1.00	1.00	1.00	0.33	0.33	1.00	1.00	1.00	1.00
Upstream Filter(I)				1.00	1.00	1.00	1.00	1.00	0.00	0.00	1.00	1.00
Uniform Delay (d), s/veh				4.9	4.7	3.7	36.6	33.4	0.0	0.0	29.6	31.3
Incr Delay (d2), s/veh				1.0	0.5	0.2	0.2	0.2	0.0	0.0	0.3	2.3
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				3.4	2.5	0.6	0.4	1.8	0.0	0.0	1.9	3.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				6.0	5.2	4.0	36.7	33.6	0.0	0.0	29.9	33.6
LnGrp LOS				A	A	A	D	C	A	A	C	C
Approach Vol, veh/h				1663			210			403		
Approach Delay, s/veh				5.4			33.9			31.6		
Approach LOS				A			C			C		
Timer - Assigned Phs				4			6			8		
Phs Duration (G+Y+Rc), s				18.4			61.6			18.4		
Change Period (Y+Rc), s				5.0			5.0			5.0		
Max Green Setting (Gmax), s				32.0			38.0			32.0		
Max Q Clear Time (g_c+I1), s				10.6			12.4			8.2		
Green Ext Time (p_c), s				1.5			10.9			1.0		
Intersection Summary												
HCM 6th Ctrl Delay				12.7								
HCM 6th LOS				B								

Existing AM
4: Escondido Blvd & Grand Ave

Aspire
07/17/2019



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↖↗		↖	↖↗		↖	↖↗		↖	↖↗	
Traffic Volume (veh/h)	52	141	9	33	175	27	17	297	9	41	294	9
Future Volume (veh/h)	52	141	9	33	175	27	17	297	9	41	294	9
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	0.98		0.97	0.99		0.96	1.00		0.98	1.00		0.98
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										
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	57	153	10	36	190	29	18	323	10	45	320	10
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	228	595	39	255	542	81	790	2459	76	789	2458	77
Arrive On Green	0.18	0.18	0.18	0.18	0.18	0.18	0.70	0.70	0.70	0.70	0.70	0.70
Sat Flow, veh/h	1142	3381	219	1210	3080	461	1046	3517	109	1046	3515	110
Grp Volume(v), veh/h	57	80	83	36	108	111	18	163	170	45	161	169
Grp Sat Flow(s),veh/h/ln	1142	1777	1823	1210	1777	1763	1046	1777	1849	1046	1777	1848
Q Serve(g_s), s	3.7	3.1	3.2	2.1	4.3	4.4	0.5	2.4	2.4	1.2	2.4	2.4
Cycle Q Clear(g_c), s	8.1	3.1	3.2	5.3	4.3	4.4	2.9	2.4	2.4	3.6	2.4	2.4
Prop In Lane	1.00		0.12	1.00		0.26	1.00		0.06	1.00		0.06
Lane Grp Cap(c), veh/h	228	312	321	255	312	310	790	1242	1293	789	1242	1292
V/C Ratio(X)	0.25	0.26	0.26	0.14	0.35	0.36	0.02	0.13	0.13	0.06	0.13	0.13
Avail Cap(c_a), veh/h	569	844	866	617	844	838	790	1242	1293	789	1242	1292
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	32.6	28.4	28.5	30.7	28.9	29.0	4.5	4.0	4.0	4.6	4.0	4.0
Incr Delay (d2), s/veh	0.2	0.2	0.2	0.1	0.2	0.3	0.1	0.2	0.2	0.1	0.2	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0	1.3	1.4	0.6	1.8	1.9	0.1	0.8	0.8	0.2	0.7	0.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	32.8	28.6	28.6	30.8	29.2	29.3	4.5	4.2	4.2	4.7	4.2	4.2
LnGrp LOS	C	C	C	C	C	C	A	A	A	A	A	A
Approach Vol, veh/h		220		255		351		375				
Approach Delay, s/veh		29.7		29.4		4.2		4.3				
Approach LOS		C		C		A		A				
Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		60.9		19.1		60.9		19.1				
Change Period (Y+Rc), s		5.0		5.0		5.0		5.0				
Max Green Setting (Gmax), s		32.0		38.0		32.0		38.0				
Max Q Clear Time (g_c+I1), s		4.9		10.1		5.6		7.3				
Green Ext Time (p_c), s		1.3		0.7		1.3		0.9				
Intersection Summary												
HCM 6th Ctrl Delay				14.3								
HCM 6th LOS				B								

Intersection	
Intersection Delay, s/veh	8.4
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↶	↶↷		↶	↶↷			↷				
Traffic Vol, veh/h	17	161	16	53	205	7	17	5	13	0	0	0
Future Vol, veh/h	17	161	16	53	205	7	17	5	13	0	0	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	18	175	17	58	223	8	18	5	14	0	0	0
Number of Lanes	1	2	0	1	2	0	0	1	0	0	0	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	
Opposing Lanes	3	3	0
Conflicting Approach Left		NB	EB
Conflicting Lanes Left	0	1	3
Conflicting Approach Right	NB		WB
Conflicting Lanes Right	1	0	3
HCM Control Delay	8.3	8.5	8.7
HCM LOS	A	A	A

Lane	NBLn1	EBLn1	EBLn2	EBLn3	WBLn1	WBLn2	WBLn3
Vol Left, %	49%	100%	0%	0%	100%	0%	0%
Vol Thru, %	14%	0%	100%	77%	0%	100%	91%
Vol Right, %	37%	0%	0%	23%	0%	0%	9%
Sign Control	Stop						
Traffic Vol by Lane	35	17	107	70	53	137	75
LT Vol	17	17	0	0	53	0	0
Through Vol	5	0	107	54	0	137	68
RT Vol	13	0	0	16	0	0	7
Lane Flow Rate	38	18	117	76	58	149	82
Geometry Grp	7	7	7	7	7	7	7
Degree of Util (X)	0.059	0.028	0.158	0.099	0.085	0.198	0.108
Departure Headway (Hd)	5.582	5.378	4.877	4.716	5.309	4.808	4.743
Convergence, Y/N	Yes						
Cap	643	668	738	763	677	749	758
Service Time	3.305	3.09	2.589	2.428	3.021	2.52	2.455
HCM Lane V/C Ratio	0.059	0.027	0.159	0.1	0.086	0.199	0.108
HCM Control Delay	8.7	8.2	8.5	7.9	8.5	8.7	8
HCM Lane LOS	A	A	A	A	A	A	A
HCM 95th-tile Q	0.2	0.1	0.6	0.3	0.3	0.7	0.4

Existing AM
6: Broadway & Grand Ave



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	44	132	6	12	214	33	11	122	13	57	159	49
Future Volume (veh/h)	44	132	6	12	214	33	11	122	13	57	159	49
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	0.97		0.91	0.95		0.94	0.99		0.99	0.99		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	48	143	7	13	233	36	12	133	14	62	173	53
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	256	753	36	308	672	102	840	1090	115	862	1226	1013
Arrive On Green	0.22	0.22	0.22	0.22	0.22	0.22	0.66	0.66	0.66	1.00	1.00	1.00
Sat Flow, veh/h	1081	3431	166	1176	3063	464	1144	1662	175	1234	1870	1546
Grp Volume(v), veh/h	48	73	77	13	133	136	12	0	147	62	173	53
Grp Sat Flow(s),veh/h/ln	1081	1777	1821	1176	1777	1751	1144	0	1837	1234	1870	1546
Q Serve(g_s), s	3.1	2.7	2.7	0.7	5.1	5.3	0.3	0.0	2.4	0.2	0.0	0.0
Cycle Q Clear(g_c), s	8.4	2.7	2.7	3.5	5.1	5.3	0.3	0.0	2.4	2.6	0.0	0.0
Prop In Lane	1.00		0.09	1.00		0.27	1.00		0.10	1.00		1.00
Lane Grp Cap(c), veh/h	256	390	400	308	390	384	840	0	1204	862	1226	1013
V/C Ratio(X)	0.19	0.19	0.19	0.04	0.34	0.35	0.01	0.00	0.12	0.07	0.14	0.05
Avail Cap(c_a), veh/h	438	689	706	505	689	678	840	0	1204	862	1226	1013
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	30.0	25.4	25.4	26.9	26.3	26.4	4.8	0.0	5.2	0.1	0.0	0.0
Incr Delay (d2), s/veh	0.1	0.1	0.1	0.0	0.2	0.2	0.0	0.0	0.2	0.2	0.2	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.8	1.1	1.2	0.2	2.1	2.1	0.1	0.0	0.8	0.0	0.1	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	30.1	25.5	25.5	26.9	26.5	26.6	4.8	0.0	5.4	0.2	0.2	0.1
LnGrp LOS	C	C	C	C	C	C	A	A	A	A	A	A
Approach Vol, veh/h		198			282			159			288	
Approach Delay, s/veh		26.6			26.6			5.3			0.2	
Approach LOS		C			C			A			A	
Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		57.4		22.6		57.4		22.6				
Change Period (Y+Rc), s		5.0		5.0		5.0		5.0				
Max Green Setting (Gmax), s		39.0		31.0		39.0		31.0				
Max Q Clear Time (g_c+I1), s		4.4		10.4		4.6		7.3				
Green Ext Time (p_c), s		0.6		0.6		0.8		1.0				
Intersection Summary												
HCM 6th Ctrl Delay				14.8								
HCM 6th LOS				B								

Existing AM
7: Escondido Blvd & Alley

Aspire
07/17/2019

Intersection												
Int Delay, s/veh	0.1											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕						↕		↕	↕	
Traffic Vol, veh/h	0	2	2	0	0	0	0	387	2	3	324	0
Future Vol, veh/h	0	2	2	0	0	0	0	387	2	3	324	0
Conflicting Peds, #/hr	0	0	1	3	0	0	0	0	18	0	0	14
Sign Control	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	40	-	-
Veh in Median Storage, #	-	0	-	-	16979	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	2	2	0	0	0	0	421	2	3	352	0

Major/Minor	Minor2			Major1			Major2		
Conflicting Flow All	569	799	177	-	0	0	441	0	0
Stage 1	358	358	-	-	-	-	-	-	-
Stage 2	211	441	-	-	-	-	-	-	-
Critical Hdwy	6.84	6.54	6.94	-	-	-	4.14	-	-
Critical Hdwy Stg 1	5.84	5.54	-	-	-	-	-	-	-
Critical Hdwy Stg 2	5.84	5.54	-	-	-	-	-	-	-
Follow-up Hdwy	3.52	4.02	3.32	-	-	-	2.22	-	-
Pot Cap-1 Maneuver	452	317	835	0	-	-	1115	-	0
Stage 1	678	626	-	0	-	-	-	-	0
Stage 2	804	575	-	0	-	-	-	-	0
Platoon blocked, %									
Mov Cap-1 Maneuver	451	0	834	-	-	-	1115	-	-
Mov Cap-2 Maneuver	451	0	-	-	-	-	-	-	-
Stage 1	676	0	-	-	-	-	-	-	-
Stage 2	804	0	-	-	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	9.3	0	0.1
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBR	EBLn1	SBL	SBT
Capacity (veh/h)	-	-	834	1115	-
HCM Lane V/C Ratio	-	-	0.005	0.003	-
HCM Control Delay (s)	-	-	9.3	8.2	-
HCM Lane LOS	-	-	A	A	-
HCM 95th %tile Q(veh)	-	-	0	0	-

Existing AM
8: Broadway & Alley

Aspire
07/17/2019

Intersection												
Int Delay, s/veh	0.5											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕						↕		↕	↕	
Traffic Vol, veh/h	6	1	7	0	0	0	0	197	4	10	248	0
Future Vol, veh/h	6	1	7	0	0	0	0	197	4	10	248	0
Conflicting Peds, #/hr	0	0	1	0	0	0	0	0	14	0	0	11
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	30	-	-
Veh in Median Storage, #	-	0	-	-	16979	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	7	1	8	0	0	0	0	214	4	11	270	0

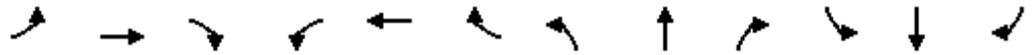
Major/Minor	Minor2			Major1			Major2		
Conflicting Flow All	399	524	136	-	0	0	232	0	0
Stage 1	292	292	-	-	-	-	-	-	-
Stage 2	107	232	-	-	-	-	-	-	-
Critical Hdwy	6.84	6.54	6.94	-	-	-	4.14	-	-
Critical Hdwy Stg 1	5.84	5.54	-	-	-	-	-	-	-
Critical Hdwy Stg 2	5.84	5.54	-	-	-	-	-	-	-
Follow-up Hdwy	3.52	4.02	3.32	-	-	-	2.22	-	-
Pot Cap-1 Maneuver	579	457	888	0	-	-	1333	-	0
Stage 1	732	670	-	0	-	-	-	-	0
Stage 2	906	711	-	0	-	-	-	-	0
Platoon blocked, %									
Mov Cap-1 Maneuver	574	0	887	-	-	-	1333	-	-
Mov Cap-2 Maneuver	574	0	-	-	-	-	-	-	-
Stage 1	726	0	-	-	-	-	-	-	-
Stage 2	906	0	-	-	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	10.2	0	0.3
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	EBLn1	SBL	SBT
Capacity (veh/h)	-	-	709	1333	-
HCM Lane V/C Ratio	-	-	0.021	0.008	-
HCM Control Delay (s)	-	-	10.2	7.7	-
HCM Lane LOS	-	-	B	A	-
HCM 95th %tile Q(veh)	-	-	0.1	0	-

Existing PM
1: Escondido Blvd & Valley Pkwy

Aspire
07/17/2019



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					←←←←		↖	↑↑			↑↑	
Traffic Volume (veh/h)	0	0	0	64	1045	105	77	461	0	0	350	130
Future Volume (veh/h)	0	0	0	64	1045	105	77	461	0	0	350	130
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		0.95	1.00		1.00	1.00		0.90
Parking Bus, Adj				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		
Adj Sat Flow, veh/h/ln				1900	1870	1900	1870	1870	0	0	1870	1870
Adj Flow Rate, veh/h				70	1136	114	84	501	0	0	380	141
Peak Hour Factor				0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %				0	2	0	2	2	0	0	2	2
Cap, veh/h				124	2149	220	110	1247	0	0	578	210
Arrive On Green				0.37	0.37	0.37	0.02	0.12	0.00	0.00	0.23	0.23
Sat Flow, veh/h				337	5860	599	1781	3647	0	0	2569	898
Grp Volume(v), veh/h				385	607	328	84	501	0	0	270	251
Grp Sat Flow(s),veh/h/ln				1853	1609	1726	1781	1777	0	0	1777	1596
Q Serve(g_s), s				14.9	13.3	13.4	4.2	11.8	0.0	0.0	12.4	12.9
Cycle Q Clear(g_c), s				14.9	13.3	13.4	4.2	11.8	0.0	0.0	12.4	12.9
Prop In Lane				0.18		0.35	1.00		0.00	0.00		0.56
Lane Grp Cap(c), veh/h				680	1180	633	110	1247	0	0	415	373
V/C Ratio(X)				0.57	0.51	0.52	0.76	0.40	0.00	0.00	0.65	0.67
Avail Cap(c_a), veh/h				680	1180	633	297	1856	0	0	533	479
HCM Platoon Ratio				1.00	1.00	1.00	0.33	0.33	1.00	1.00	1.00	1.00
Upstream Filter(I)				1.00	1.00	1.00	1.00	1.00	0.00	0.00	1.00	1.00
Uniform Delay (d), s/veh				22.8	22.2	22.3	43.4	31.0	0.0	0.0	31.2	31.4
Incr Delay (d2), s/veh				3.4	1.6	3.0	10.5	0.1	0.0	0.0	0.8	1.2
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				6.9	5.1	5.8	2.2	5.6	0.0	0.0	5.3	5.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				26.2	23.9	25.3	53.9	31.1	0.0	0.0	31.9	32.6
LnGrp LOS				C	C	C	D	C	A	A	C	C
Approach Vol, veh/h					1320			585			521	
Approach Delay, s/veh					24.9			34.4			32.2	
Approach LOS					C			C			C	
Timer - Assigned Phs				3	4	6	8					
Phs Duration (G+Y+Rc), s				10.6	26.0	38.0	36.6					
Change Period (Y+Rc), s				5.0	5.0	5.0	5.0					
Max Green Setting (Gmax), s				15.0	27.0	33.0	47.0					
Max Q Clear Time (g_c+I1), s				6.2	14.9	16.9	13.8					
Green Ext Time (p_c), s				0.1	1.8	5.6	2.4					
Intersection Summary												
HCM 6th Ctrl Delay				28.8								
HCM 6th LOS				C								

Existing PM
2: Valley Pkwy & Maple St

Aspire
07/17/2019



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↑↑↑						↑	
Traffic Volume (veh/h)	0	0	0	0	1166	20	0	0	0	0	0	52
Future Volume (veh/h)	0	0	0	0	1166	20	0	0	0	0	0	52
Initial Q (Qb), veh				0	0	0				0	0	0
Ped-Bike Adj(A_pbT)				1.00		0.96				1.00		0.94
Parking Bus, Adj				1.00	1.00	1.00				1.00	1.00	1.00
Work Zone On Approach				No						No		
Adj Sat Flow, veh/h/ln				0	1870	1870				0	1870	1870
Adj Flow Rate, veh/h				0	1267	22				0	0	57
Peak Hour Factor				0.92	0.92	0.92				0.92	0.92	0.92
Percent Heavy Veh, %				0	2	2				0	2	2
Cap, veh/h				0	2993	52				0	0	78
Arrive On Green				0.00	0.58	0.58				0.00	0.00	0.05
Sat Flow, veh/h				0	5333	90				0	0	1493
Grp Volume(v), veh/h				0	835	454				0	0	57
Grp Sat Flow(s),veh/h/ln				0	1702	1850				0	0	1493
Q Serve(g_s), s				0.0	3.3	3.3				0.0	0.0	0.9
Cycle Q Clear(g_c), s				0.0	3.3	3.3				0.0	0.0	0.9
Prop In Lane				0.00		0.05				0.00		1.00
Lane Grp Cap(c), veh/h				0	1973	1072				0	0	78
V/C Ratio(X)				0.00	0.42	0.42				0.00	0.00	0.73
Avail Cap(c_a), veh/h				0	3271	1778				0	0	458
HCM Platoon Ratio				1.00	1.00	1.00				1.00	1.00	1.00
Upstream Filter(I)				0.00	1.00	1.00				0.00	0.00	1.00
Uniform Delay (d), s/veh				0.0	2.9	2.9				0.0	0.0	11.4
Incr Delay (d2), s/veh				0.0	0.1	0.3				0.0	0.0	12.0
Initial Q Delay(d3),s/veh				0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				0.0	0.0	0.1				0.0	0.0	0.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				0.0	3.0	3.1				0.0	0.0	23.5
LnGrp LOS				A	A	A				A	A	C
Approach Vol, veh/h					1289							57
Approach Delay, s/veh					3.1							23.5
Approach LOS					A							C
Timer - Assigned Phs						6		8				
Phs Duration (G+Y+Rc), s						5.8		18.7				
Change Period (Y+Rc), s						4.5		4.5				
Max Green Setting (Gmax), s						7.5		23.5				
Max Q Clear Time (g_c+11), s						2.9		5.3				
Green Ext Time (p_c), s						0.1		8.6				
Intersection Summary												
HCM 6th Ctrl Delay												3.9
HCM 6th LOS												A

Existing PM
3: Broadway & Valley Pkwy

Aspire
07/17/2019



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↑↑↑	↑	↑	↑↑			↑↑	↑
Traffic Volume (veh/h)	0	0	0	31	951	174	67	281	0	0	216	151
Future Volume (veh/h)	0	0	0	31	951	174	67	281	0	0	216	151
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		0.98	1.00		1.00	1.00		0.97
Parking Bus, Adj				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		
Adj Sat Flow, veh/h/ln				1870	1870	1870	1870	1870	0	0	1870	1870
Adj Flow Rate, veh/h				34	1034	189	73	305	0	0	235	164
Peak Hour Factor				0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %				2	2	2	2	2	0	0	2	2
Cap, veh/h				112	3614	1098	201	645	0	0	645	279
Arrive On Green				0.71	0.71	0.71	0.06	0.06	0.00	0.00	0.18	0.18
Sat Flow, veh/h				158	5109	1553	982	3647	0	0	3647	1538
Grp Volume(v), veh/h				401	667	189	73	305	0	0	235	164
Grp Sat Flow(s),veh/h/ln				1862	1702	1553	982	1777	0	0	1777	1538
Q Serve(g_s), s				7.2	6.4	3.7	6.6	7.5	0.0	0.0	5.2	8.8
Cycle Q Clear(g_c), s				7.2	6.4	3.7	11.8	7.5	0.0	0.0	5.2	8.8
Prop In Lane				0.08		1.00	1.00		0.00	0.00		1.00
Lane Grp Cap(c), veh/h				1317	2408	1098	201	645	0	0	645	279
V/C Ratio(X)				0.30	0.28	0.17	0.36	0.47	0.00	0.00	0.36	0.59
Avail Cap(c_a), veh/h				1317	2408	1098	372	1264	0	0	1264	547
HCM Platoon Ratio				1.00	1.00	1.00	0.33	0.33	1.00	1.00	1.00	1.00
Upstream Filter(I)				1.00	1.00	1.00	1.00	1.00	0.00	0.00	1.00	1.00
Uniform Delay (d), s/veh				4.9	4.8	4.4	42.7	38.1	0.0	0.0	32.3	33.7
Incr Delay (d2), s/veh				0.6	0.3	0.3	0.8	0.4	0.0	0.0	0.3	1.5
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				2.5	1.9	1.1	1.8	3.4	0.0	0.0	2.2	3.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				5.5	5.1	4.7	43.5	38.5	0.0	0.0	32.5	35.2
LnGrp LOS				A	A	A	D	D	A	A	C	D
Approach Vol, veh/h				1257			378			399		
Approach Delay, s/veh				5.2			39.5			33.6		
Approach LOS				A			D			C		
Timer - Assigned Phs				4			6			8		
Phs Duration (G+Y+Rc), s				21.3			68.7			21.3		
Change Period (Y+Rc), s				5.0			5.0			5.0		
Max Green Setting (Gmax), s				32.0			48.0			32.0		
Max Q Clear Time (g_c+11), s				10.8			9.2			13.8		
Green Ext Time (p_c), s				1.5			7.8			1.7		
Intersection Summary												
HCM 6th Ctrl Delay				17.1								
HCM 6th LOS				B								

Existing PM
4: Escondido Blvd & Grand Ave

Aspire
07/17/2019



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	68	281	14	39	261	36	34	443	21	75	382	20
Future Volume (veh/h)	68	281	14	39	261	36	34	443	21	75	382	20
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	0.99		0.96	0.98		0.96	0.99		0.98	1.00		0.98
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										
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	74	305	15	42	284	39	37	482	23	82	415	22
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	223	744	36	225	676	92	717	2321	111	633	2306	122
Arrive On Green	0.22	0.22	0.22	0.22	0.22	0.22	0.67	0.67	0.67	1.00	1.00	1.00
Sat Flow, veh/h	1043	3440	168	1043	3127	424	947	3450	164	892	3428	181
Grp Volume(v), veh/h	74	157	163	42	160	163	37	248	257	82	214	223
Grp Sat Flow(s),veh/h/ln	1043	1777	1831	1043	1777	1774	947	1777	1837	892	1777	1833
Q Serve(g_s), s	5.9	6.8	6.9	3.3	7.0	7.2	1.2	4.8	4.8	0.8	0.0	0.0
Cycle Q Clear(g_c), s	13.1	6.8	6.9	10.2	7.0	7.2	1.2	4.8	4.8	5.6	0.0	0.0
Prop In Lane	1.00		0.09	1.00		0.24	1.00		0.09	1.00		0.10
Lane Grp Cap(c), veh/h	223	384	396	225	384	383	717	1195	1236	633	1195	1233
V/C Ratio(X)	0.33	0.41	0.41	0.19	0.42	0.43	0.05	0.21	0.21	0.13	0.18	0.18
Avail Cap(c_a), veh/h	426	730	753	429	730	729	717	1195	1236	633	1195	1233
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00
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	36.1	30.3	30.3	34.7	30.4	30.4	5.0	5.6	5.6	0.2	0.0	0.0
Incr Delay (d2), s/veh	0.3	0.3	0.3	0.1	0.3	0.3	0.1	0.4	0.4	0.4	0.3	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.5	2.9	3.0	0.8	3.0	3.0	0.2	1.7	1.7	0.1	0.1	0.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	36.4	30.6	30.6	34.9	30.6	30.7	5.2	6.0	6.0	0.6	0.3	0.3
LnGrp LOS	D	C	C	C	C	C	A	A	A	A	A	A
Approach Vol, veh/h		394		365		542		519				
Approach Delay, s/veh		31.7		31.2		5.9		0.4				
Approach LOS		C		C		A		A				
Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		65.5		24.5		65.5		24.5				
Change Period (Y+Rc), s		5.0		5.0		5.0		5.0				
Max Green Setting (Gmax), s		43.0		37.0		43.0		37.0				
Max Q Clear Time (g_c+1), s		6.8		15.1		7.6		12.2				
Green Ext Time (p_c), s		2.2		1.4		2.1		1.3				
Intersection Summary												
HCM 6th Ctrl Delay				15.0								
HCM 6th LOS				B								

Intersection	
Intersection Delay, s/veh	9.9
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↵	↕		↵	↕			↕				
Traffic Vol, veh/h	13	366	14	18	289	10	39	5	22	0	0	0
Future Vol, veh/h	13	366	14	18	289	10	39	5	22	0	0	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	14	398	15	20	314	11	42	5	24	0	0	0
Number of Lanes	1	2	0	1	2	0	0	1	0	0	0	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	
Opposing Lanes	3	3	0
Conflicting Approach Left		NB	EB
Conflicting Lanes Left	0	1	3
Conflicting Approach Right	NB		WB
Conflicting Lanes Right	1	0	3
HCM Control Delay	10.1	9.6	9.9
HCM LOS	B	A	A

Lane	NBLn1	EBLn1	EBLn2	EBLn3	WBLn1	WBLn2	WBLn3
Vol Left, %	59%	100%	0%	0%	100%	0%	0%
Vol Thru, %	8%	0%	100%	90%	0%	100%	91%
Vol Right, %	33%	0%	0%	10%	0%	0%	9%
Sign Control	Stop						
Traffic Vol by Lane	66	13	244	136	18	193	106
LT Vol	39	13	0	0	18	0	0
Through Vol	5	0	244	122	0	193	96
RT Vol	22	0	0	14	0	0	10
Lane Flow Rate	72	14	265	148	20	209	116
Geometry Grp	7	7	7	7	7	7	7
Degree of Util (X)	0.124	0.022	0.373	0.205	0.031	0.299	0.163
Departure Headway (Hd)	6.202	5.566	5.064	4.992	5.64	5.138	5.072
Convergence, Y/N	Yes						
Cap	575	642	708	717	634	697	706
Service Time	3.968	3.307	2.805	2.733	3.383	2.88	2.814
HCM Lane V/C Ratio	0.125	0.022	0.374	0.206	0.032	0.3	0.164
HCM Control Delay	9.9	8.4	10.8	9	8.6	10.1	8.8
HCM Lane LOS	A	A	B	A	A	B	A
HCM 95th-tile Q	0.4	0.1	1.7	0.8	0.1	1.3	0.6

Existing PM
6: Broadway & Grand Ave

Aspire
07/17/2019



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	74	285	20	16	238	51	16	198	25	87	144	51
Future Volume (veh/h)	74	285	20	16	238	51	16	198	25	87	144	51
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	0.95		0.88	0.93		0.90	1.00		0.99	0.99		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	80	310	22	17	259	55	17	215	27	95	157	55
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	259	845	59	253	729	151	783	1033	130	735	1188	1004
Arrive On Green	0.25	0.25	0.25	0.25	0.25	0.25	0.64	0.64	0.64	0.64	0.64	0.64
Sat Flow, veh/h	1009	3332	234	979	2873	593	1167	1626	204	1130	1870	1581
Grp Volume(v), veh/h	80	164	168	17	157	157	17	0	242	95	157	55
Grp Sat Flow(s),veh/h/ln	1009	1777	1789	979	1777	1689	1167	0	1830	1130	1870	1581
Q Serve(g_s), s	6.4	6.8	7.0	1.3	6.5	6.9	0.5	0.0	5.0	3.5	3.0	1.2
Cycle Q Clear(g_c), s	13.2	6.8	7.0	8.3	6.5	6.9	3.5	0.0	5.0	8.5	3.0	1.2
Prop In Lane	1.00		0.13	1.00		0.35	1.00		0.11	1.00		1.00
Lane Grp Cap(c), veh/h	259	451	454	253	451	429	783	0	1163	735	1188	1004
V/C Ratio(X)	0.31	0.36	0.37	0.07	0.35	0.37	0.02	0.00	0.21	0.13	0.13	0.05
Avail Cap(c_a), veh/h	418	730	736	407	730	695	783	0	1163	735	1188	1004
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	33.1	27.6	27.7	31.1	27.5	27.6	7.2	0.0	6.9	8.7	6.5	6.2
Incr Delay (d2), s/veh	0.2	0.2	0.2	0.0	0.2	0.2	0.1	0.0	0.4	0.4	0.2	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.6	2.9	2.9	0.3	2.7	2.7	0.1	0.0	1.9	0.9	1.1	0.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	33.3	27.8	27.9	31.1	27.7	27.8	7.3	0.0	7.3	9.0	6.8	6.3
LnGrp LOS	C	C	C	C	C	C	A	A	A	A	A	A
Approach Vol, veh/h		412			331			259			307	
Approach Delay, s/veh		28.9			27.9			7.3			7.4	
Approach LOS		C			C			A			A	
Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		62.2		27.8		62.2		27.8				
Change Period (Y+Rc), s		5.0		5.0		5.0		5.0				
Max Green Setting (Gmax), s		43.0		37.0		43.0		37.0				
Max Q Clear Time (g_c+1), s		7.0		15.2		10.5		10.3				
Green Ext Time (p_c), s		1.0		1.4		0.9		1.3				
Intersection Summary												
HCM 6th Ctrl Delay											19.3	
HCM 6th LOS											B	

Intersection												
Int Delay, s/veh	0.1											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕						↕		↕	↕	
Traffic Vol, veh/h	4	0	0	0	0	0	0	533	3	6	494	0
Future Vol, veh/h	4	0	0	0	0	0	0	533	3	6	494	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	16	0	0	15
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	40	-	-
Veh in Median Storage, #	-	0	-	-	16979	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	4	0	0	0	0	0	0	579	3	7	537	0

Major/Minor	Minor2			Major1			Major2		
Conflicting Flow All	841	1149	269	-	0	0	598	0	0
Stage 1	551	551	-	-	-	-	-	-	-
Stage 2	290	598	-	-	-	-	-	-	-
Critical Hdwy	6.84	6.54	6.94	-	-	-	4.14	-	-
Critical Hdwy Stg 1	5.84	5.54	-	-	-	-	-	-	-
Critical Hdwy Stg 2	5.84	5.54	-	-	-	-	-	-	-
Follow-up Hdwy	3.52	4.02	3.32	-	-	-	2.22	-	-
Pot Cap-1 Maneuver	304	197	729	0	-	-	975	-	0
Stage 1	541	514	-	0	-	-	-	-	0
Stage 2	734	489	-	0	-	-	-	-	0
Platoon blocked, %									
Mov Cap-1 Maneuver	302	0	729	-	-	-	975	-	-
Mov Cap-2 Maneuver	302	0	-	-	-	-	-	-	-
Stage 1	541	0	-	-	-	-	-	-	-
Stage 2	729	0	-	-	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	17.1	0	0.1
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	NBR	EBLn1	SBL	SBT
Capacity (veh/h)	-	-	302	975	-
HCM Lane V/C Ratio	-	-	0.014	0.007	-
HCM Control Delay (s)	-	-	17.1	8.7	-
HCM Lane LOS	-	-	C	A	-
HCM 95th %tile Q(veh)	-	-	0	0	-

Intersection												
Int Delay, s/veh	0.8											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕↔						↕↔		↕	↕↕	
Traffic Vol, veh/h	11	8	20	0	0	0	0	312	16	13	255	0
Future Vol, veh/h	11	8	20	0	0	0	0	312	16	13	255	0
Conflicting Peds, #/hr	0	0	5	3	0	0	0	0	13	0	0	65
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	30	-	-
Veh in Median Storage, #	-	0	-	-	16979	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	12	9	22	0	0	0	0	339	17	14	277	0

Major/Minor	Minor2			Major1			Major2		
Conflicting Flow All	475	674	144	-	0	0	369	0	0
Stage 1	305	305	-	-	-	-	-	-	-
Stage 2	170	369	-	-	-	-	-	-	-
Critical Hdwy	6.84	6.54	6.94	-	-	-	4.14	-	-
Critical Hdwy Stg 1	5.84	5.54	-	-	-	-	-	-	-
Critical Hdwy Stg 2	5.84	5.54	-	-	-	-	-	-	-
Follow-up Hdwy	3.52	4.02	3.32	-	-	-	2.22	-	-
Pot Cap-1 Maneuver	519	375	877	0	-	-	1186	-	0
Stage 1	721	661	-	0	-	-	-	-	0
Stage 2	843	619	-	0	-	-	-	-	0
Platoon blocked, %									
Mov Cap-1 Maneuver	513	0	873	-	-	-	1186	-	-
Mov Cap-2 Maneuver	513	0	-	-	-	-	-	-	-
Stage 1	721	0	-	-	-	-	-	-	-
Stage 2	833	0	-	-	-	-	-	-	-

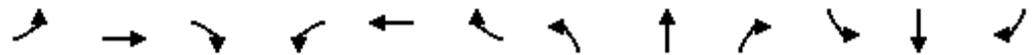
Approach	EB	NB	SB
HCM Control Delay, s	10.5	0	0.4
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	EBLn1	SBL	SBT
Capacity (veh/h)	-	-	699	1186	-
HCM Lane V/C Ratio	-	-	0.061	0.012	-
HCM Control Delay (s)	-	-	10.5	8.1	-
HCM Lane LOS	-	-	B	A	-
HCM 95th %tile Q(veh)	-	-	0.2	0	-

APPENDIX F
INTERSECTION ANALYSIS WORKSHEETS –
EXISTING + PROJECT

Existing + Proj AM
1: Escondido Blvd & Valley Pkwy

Aspire
08/20/2019



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					← ↑ ↑ →		←	↑↑			↑↑	
Traffic Volume (veh/h)	0	0	0	82	1149	85	128	314	0	0	235	148
Future Volume (veh/h)	0	0	0	82	1149	85	128	314	0	0	235	148
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		0.94	1.00		1.00	1.00		0.93
Parking Bus, Adj				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		
Adj Sat Flow, veh/h/ln				1900	1870	1900	1870	1870	0	0	1870	1870
Adj Flow Rate, veh/h				89	1249	92	139	341	0	0	255	161
Peak Hour Factor				0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %				0	2	0	2	2	0	0	2	2
Cap, veh/h				149	2241	168	156	1276	0	0	434	261
Arrive On Green				0.38	0.38	0.38	0.09	0.36	0.00	0.00	0.21	0.21
Sat Flow, veh/h				397	5976	449	1781	3647	0	0	2168	1246
Grp Volume(v), veh/h				415	656	359	139	341	0	0	216	200
Grp Sat Flow(s),veh/h/ln				1851	1609	1755	1781	1777	0	0	1777	1544
Q Serve(g_s), s				14.4	12.8	12.9	6.2	5.4	0.0	0.0	8.8	9.4
Cycle Q Clear(g_c), s				14.4	12.8	12.9	6.2	5.4	0.0	0.0	8.8	9.4
Prop In Lane				0.21		0.26	1.00		0.00	0.00		0.81
Lane Grp Cap(c), veh/h				694	1206	658	156	1276	0	0	372	323
V/C Ratio(X)				0.60	0.54	0.55	0.89	0.27	0.00	0.00	0.58	0.62
Avail Cap(c_a), veh/h				694	1206	658	156	1777	0	0	622	540
HCM Platoon Ratio				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	0.00	0.00	1.00	1.00
Uniform Delay (d), s/veh				20.1	19.6	19.6	36.1	18.2	0.0	0.0	28.5	28.7
Incr Delay (d2), s/veh				3.8	1.8	3.2	42.3	0.0	0.0	0.0	0.5	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
%ile BackOfQ(50%),veh/ln				6.6	4.8	5.6	4.4	2.1	0.0	0.0	3.7	3.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				23.9	21.4	22.9	78.4	18.2	0.0	0.0	29.0	29.4
LnGrp LOS				C	C	C	E	B	A	A	C	C
Approach Vol, veh/h					1430			480			416	
Approach Delay, s/veh					22.5			35.6			29.2	
Approach LOS					C			D			C	
Timer - Assigned Phs				3	4		6	8				
Phs Duration (G+Y+Rc), s				12.0	21.7		35.0	33.7				
Change Period (Y+Rc), s				5.0	5.0		5.0	5.0				
Max Green Setting (Gmax), s				7.0	28.0		30.0	40.0				
Max Q Clear Time (g_c+I1), s				8.2	11.4		16.4	7.4				
Green Ext Time (p_c), s				0.0	1.6		5.6	1.6				
Intersection Summary												
HCM 6th Ctrl Delay				26.4								
HCM 6th LOS				C								

Existing + Proj AM
2: Valley Pkwy & Maple St

Aspire
08/20/2019



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↑↑↑						↑	
Traffic Volume (veh/h)	0	0	0	0	1605	18	0	0	0	0	0	9
Future Volume (veh/h)	0	0	0	0	1605	18	0	0	0	0	0	9
Initial Q (Qb), veh				0	0	0				0	0	0
Ped-Bike Adj(A_pbT)				1.00		0.96				1.00		0.96
Parking Bus, Adj				1.00	1.00	1.00				1.00	1.00	1.00
Work Zone On Approach				No						No		
Adj Sat Flow, veh/h/ln				0	1870	1870				0	1870	1870
Adj Flow Rate, veh/h				0	1745	20				0	0	10
Peak Hour Factor				0.92	0.92	0.92				0.92	0.92	0.92
Percent Heavy Veh, %				0	2	2				0	2	2
Cap, veh/h				0	3484	40				0	0	16
Arrive On Green				0.00	0.67	0.67				0.00	0.00	0.01
Sat Flow, veh/h				0	5369	60				0	0	1521
Grp Volume(v), veh/h				0	1142	623				0	0	10
Grp Sat Flow(s),veh/h/ln				0	1702	1857				0	0	1521
Q Serve(g_s), s				0.0	4.4	4.4				0.0	0.0	0.2
Cycle Q Clear(g_c), s				0.0	4.4	4.4				0.0	0.0	0.2
Prop In Lane				0.00		0.03				0.00		1.00
Lane Grp Cap(c), veh/h				0	2280	1244				0	0	16
V/C Ratio(X)				0.00	0.50	0.50				0.00	0.00	0.61
Avail Cap(c_a), veh/h				0	3007	1640				0	0	229
HCM Platoon Ratio				1.00	1.00	1.00				1.00	1.00	1.00
Upstream Filter(I)				0.00	1.00	1.00				0.00	0.00	1.00
Uniform Delay (d), s/veh				0.0	2.2	2.2				0.0	0.0	13.1
Incr Delay (d2), s/veh				0.0	0.2	0.3				0.0	0.0	32.0
Initial Q Delay(d3),s/veh				0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				0.0	0.1	0.1				0.0	0.0	0.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				0.0	2.4	2.5				0.0	0.0	45.1
LnGrp LOS				A	A	A				A	A	D
Approach Vol, veh/h					1765						10	
Approach Delay, s/veh					2.4						45.1	
Approach LOS					A						D	
Timer - Assigned Phs						6		8				
Phs Duration (G+Y+Rc), s						4.3		22.3				
Change Period (Y+Rc), s						4.0		4.5				
Max Green Setting (Gmax), s						4.0		23.5				
Max Q Clear Time (g_c+I1), s						2.2		6.4				
Green Ext Time (p_c), s						0.0		11.4				
Intersection Summary												
HCM 6th Ctrl Delay											2.6	
HCM 6th LOS											A	

Existing + Proj AM
3: Broadway & Valley Pkwy

Aspire
08/20/2019



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↑↑↑	↑	↑	↑↑			↑↑	↑
Traffic Volume (veh/h)	0	0	0	33	1374	126	35	174	0	0	207	175
Future Volume (veh/h)	0	0	0	33	1374	126	35	174	0	0	207	175
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		0.98	0.99		1.00	1.00		0.99
Parking Bus, Adj				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		
Adj Sat Flow, veh/h/ln				1870	1870	1870	1870	1870	0	0	1870	1870
Adj Flow Rate, veh/h				36	1493	137	38	189	0	0	225	190
Peak Hour Factor				0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %				2	2	2	2	2	0	0	2	2
Cap, veh/h				82	3611	1087	204	619	0	0	619	272
Arrive On Green				0.70	0.70	0.70	0.06	0.06	0.00	0.00	0.17	0.17
Sat Flow, veh/h				117	5152	1550	965	3647	0	0	3647	1563
Grp Volume(v), veh/h				575	954	137	38	189	0	0	225	190
Grp Sat Flow(s),veh/h/ln				1865	1702	1550	965	1777	0	0	1777	1563
Q Serve(g_s), s				10.7	9.3	2.3	3.1	4.1	0.0	0.0	4.5	9.1
Cycle Q Clear(g_c), s				10.7	9.3	2.3	7.5	4.1	0.0	0.0	4.5	9.1
Prop In Lane				0.06		1.00	1.00		0.00	0.00		1.00
Lane Grp Cap(c), veh/h				1307	2386	1087	204	619	0	0	619	272
V/C Ratio(X)				0.44	0.40	0.13	0.19	0.31	0.00	0.00	0.36	0.70
Avail Cap(c_a), veh/h				1307	2386	1087	422	1421	0	0	1421	625
HCM Platoon Ratio				1.00	1.00	1.00	0.33	0.33	1.00	1.00	1.00	1.00
Upstream Filter(I)				1.00	1.00	1.00	1.00	1.00	0.00	0.00	1.00	1.00
Uniform Delay (d), s/veh				5.2	5.0	3.9	36.9	33.1	0.0	0.0	29.1	31.1
Incr Delay (d2), s/veh				1.1	0.5	0.2	0.3	0.2	0.0	0.0	0.3	2.4
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				3.5	2.7	0.6	0.8	1.8	0.0	0.0	1.9	3.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				6.2	5.5	4.2	37.2	33.3	0.0	0.0	29.4	33.5
LnGrp LOS				A	A	A	D	C	A	A	C	C
Approach Vol, veh/h				1666			227			415		
Approach Delay, s/veh				5.6			33.9			31.3		
Approach LOS				A			C			C		
Timer - Assigned Phs				4			6			8		
Phs Duration (G+Y+Rc), s				18.9			61.1			18.9		
Change Period (Y+Rc), s				5.0			5.0			5.0		
Max Green Setting (Gmax), s				32.0			38.0			32.0		
Max Q Clear Time (g_c+I1), s				11.1			12.7			9.5		
Green Ext Time (p_c), s				1.5			10.9			1.0		
Intersection Summary												
HCM 6th Ctrl Delay				13.0								
HCM 6th LOS				B								

Existing + Proj AM
4: Escondido Blvd & Grand Ave

Aspire
08/20/2019



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	52	143	9	33	175	28	17	297	10	44	306	9
Future Volume (veh/h)	52	143	9	33	175	28	17	297	10	44	306	9
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	0.98		0.97	0.99		0.96	1.00		0.98	1.00		0.98
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										
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	57	155	10	36	190	30	18	323	11	48	333	10
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	228	596	38	255	540	83	780	2449	83	788	2460	74
Arrive On Green	0.18	0.18	0.18	0.18	0.18	0.18	0.70	0.70	0.70	0.70	0.70	0.70
Sat Flow, veh/h	1141	3384	216	1207	3063	474	1034	3505	119	1045	3520	105
Grp Volume(v), veh/h	57	81	84	36	109	111	18	163	171	48	168	175
Grp Sat Flow(s),veh/h/ln	1141	1777	1824	1207	1777	1760	1034	1777	1847	1045	1777	1849
Q Serve(g_s), s	3.7	3.1	3.2	2.1	4.3	4.5	0.5	2.4	2.5	1.3	2.5	2.5
Cycle Q Clear(g_c), s	8.2	3.1	3.2	5.3	4.3	4.5	3.0	2.4	2.5	3.7	2.5	2.5
Prop In Lane	1.00		0.12	1.00		0.27	1.00		0.06	1.00		0.06
Lane Grp Cap(c), veh/h	228	313	321	255	313	310	780	1242	1290	788	1242	1292
V/C Ratio(X)	0.25	0.26	0.26	0.14	0.35	0.36	0.02	0.13	0.13	0.06	0.14	0.14
Avail Cap(c_a), veh/h	569	844	866	615	844	836	780	1242	1290	788	1242	1292
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	32.6	28.4	28.5	30.8	28.9	29.0	4.5	4.0	4.0	4.6	4.0	4.0
Incr Delay (d2), s/veh	0.2	0.2	0.2	0.1	0.2	0.3	0.1	0.2	0.2	0.1	0.2	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0	1.3	1.4	0.6	1.8	1.9	0.1	0.8	0.8	0.3	0.8	0.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	32.8	28.6	28.6	30.8	29.2	29.2	4.6	4.2	4.2	4.8	4.2	4.2
LnGrp LOS	C	C	C	C	C	C	A	A	A	A	A	A
Approach Vol, veh/h		222		256		352		391				
Approach Delay, s/veh		29.7		29.4		4.2		4.3				
Approach LOS		C		C		A		A				
Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		60.9		19.1		60.9		19.1				
Change Period (Y+Rc), s		5.0		5.0		5.0		5.0				
Max Green Setting (Gmax), s		32.0		38.0		32.0		38.0				
Max Q Clear Time (g_c+I1), s		5.0		10.2		5.7		7.3				
Green Ext Time (p_c), s		1.3		0.7		1.4		0.9				
Intersection Summary												
HCM 6th Ctrl Delay				14.2								
HCM 6th LOS				B								

Intersection	
Intersection Delay, s/veh	8.4
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↘	↕		↘	↕			↕				
Traffic Vol, veh/h	18	166	16	53	206	8	17	5	13	0	0	0
Future Vol, veh/h	18	166	16	53	206	8	17	5	13	0	0	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	20	180	17	58	224	9	18	5	14	0	0	0
Number of Lanes	1	2	0	1	2	0	0	1	0	0	0	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	
Opposing Lanes	3	3	0
Conflicting Approach Left		NB	EB
Conflicting Lanes Left	0	1	3
Conflicting Approach Right	NB		WB
Conflicting Lanes Right	1	0	3
HCM Control Delay	8.3	8.5	8.7
HCM LOS	A	A	A

Lane	NBLn1	EBLn1	EBLn2	EBLn3	WBLn1	WBLn2	WBLn3
Vol Left, %	49%	100%	0%	0%	100%	0%	0%
Vol Thru, %	14%	0%	100%	78%	0%	100%	90%
Vol Right, %	37%	0%	0%	22%	0%	0%	10%
Sign Control	Stop						
Traffic Vol by Lane	35	18	111	71	53	137	77
LT Vol	17	18	0	0	53	0	0
Through Vol	5	0	111	55	0	137	69
RT Vol	13	0	0	16	0	0	8
Lane Flow Rate	38	20	120	78	58	149	83
Geometry Grp	7	7	7	7	7	7	7
Degree of Util (X)	0.059	0.029	0.163	0.102	0.085	0.2	0.11
Departure Headway (Hd)	5.6	5.379	4.878	4.721	5.315	4.814	4.741
Convergence, Y/N	Yes						
Cap	641	668	737	761	677	748	759
Service Time	3.324	3.093	2.592	2.434	3.026	2.525	2.452
HCM Lane V/C Ratio	0.059	0.03	0.163	0.102	0.086	0.199	0.109
HCM Control Delay	8.7	8.3	8.5	8	8.5	8.7	8
HCM Lane LOS	A	A	A	A	A	A	A
HCM 95th-tile Q	0.2	0.1	0.6	0.3	0.3	0.7	0.4

Existing + Proj AM
6: Broadway & Grand Ave



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	48	133	6	12	215	33	11	134	13	58	161	50
Future Volume (veh/h)	48	133	6	12	215	33	11	134	13	58	161	50
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	0.97		0.91	0.95		0.94	0.99		0.99	0.99		0.98
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										
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	52	145	7	13	234	36	12	146	14	63	175	54
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	258	760	36	309	678	102	836	1098	105	847	1223	1011
Arrive On Green	0.22	0.22	0.22	0.22	0.22	0.22	0.65	0.65	0.65	1.00	1.00	1.00
Sat Flow, veh/h	1080	3434	164	1175	3066	463	1141	1679	161	1220	1870	1546
Grp Volume(v), veh/h	52	74	78	13	134	136	12	0	160	63	175	54
Grp Sat Flow(s),veh/h/ln1080	1777	1822	1175	1777	1751	1141	0	1840	1220	1870	1546	
Q Serve(g_s), s	3.4	2.7	2.8	0.7	5.1	5.3	0.3	0.0	2.6	0.2	0.0	0.0
Cycle Q Clear(g_c), s	8.7	2.7	2.8	3.5	5.1	5.3	0.3	0.0	2.6	2.9	0.0	0.0
Prop In Lane	1.00		0.09	1.00		0.26	1.00		0.09	1.00		1.00
Lane Grp Cap(c), veh/h	258	393	403	309	393	387	836	0	1203	847	1223	1011
V/C Ratio(X)	0.20	0.19	0.19	0.04	0.34	0.35	0.01	0.00	0.13	0.07	0.14	0.05
Avail Cap(c_a), veh/h	438	689	706	504	689	679	836	0	1203	847	1223	1011
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	30.0	25.3	25.3	26.8	26.2	26.3	4.8	0.0	5.3	0.1	0.0	0.0
Incr Delay (d2), s/veh	0.1	0.1	0.1	0.0	0.2	0.2	0.0	0.0	0.2	0.2	0.2	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln0.9	1.1	1.2	0.2	2.1	2.2	0.1	0.0	0.9	0.0	0.1	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	30.1	25.4	25.4	26.8	26.4	26.5	4.9	0.0	5.5	0.2	0.2	0.1
LnGrp LOS	C	C	C	C	C	C	A	A	A	A	A	A
Approach Vol, veh/h		204		283		172		292				
Approach Delay, s/veh		26.6		26.5		5.4		0.2				
Approach LOS		C		C		A		A				
Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		57.3		22.7		57.3		22.7				
Change Period (Y+Rc), s		5.0		5.0		5.0		5.0				
Max Green Setting (Gmax), s		39.0		31.0		39.0		31.0				
Max Q Clear Time (g_c+I1), s		4.6		10.7		4.9		7.3				
Green Ext Time (p_c), s		0.6		0.6		0.9		1.0				
Intersection Summary												
HCM 6th Ctrl Delay				14.6								
HCM 6th LOS				B								

Intersection												
Int Delay, s/veh	0.1											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕						↕		↕	↕	
Traffic Vol, veh/h	0	2	2	0	0	0	0	388	2	3	339	0
Future Vol, veh/h	0	2	2	0	0	0	0	388	2	3	339	0
Conflicting Peds, #/hr	0	0	1	3	0	0	0	0	18	0	0	14
Sign Control	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	40	-	-
Veh in Median Storage, #	-	0	-	-	16979	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	2	2	0	0	0	0	422	2	3	368	0

Major/Minor	Minor2			Major1			Major2		
Conflicting Flow All	585	816	185	-	0	0	442	0	0
Stage 1	374	374	-	-	-	-	-	-	-
Stage 2	211	442	-	-	-	-	-	-	-
Critical Hdwy	6.84	6.54	6.94	-	-	-	4.14	-	-
Critical Hdwy Stg 1	5.84	5.54	-	-	-	-	-	-	-
Critical Hdwy Stg 2	5.84	5.54	-	-	-	-	-	-	-
Follow-up Hdwy	3.52	4.02	3.32	-	-	-	2.22	-	-
Pot Cap-1 Maneuver	442	310	826	0	-	-	1114	-	0
Stage 1	666	616	-	0	-	-	-	-	0
Stage 2	804	575	-	0	-	-	-	-	0
Platoon blocked, %									
Mov Cap-1 Maneuver	441	0	825	-	-	-	1114	-	-
Mov Cap-2 Maneuver	441	0	-	-	-	-	-	-	-
Stage 1	664	0	-	-	-	-	-	-	-
Stage 2	804	0	-	-	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	9.4	0	0.1
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBR	EBLn1	SBL	SBT
Capacity (veh/h)	-	-	825	1114	-
HCM Lane V/C Ratio	-	-	0.005	0.003	-
HCM Control Delay (s)	-	-	9.4	8.2	-
HCM Lane LOS	-	-	A	A	-
HCM 95th %tile Q(veh)	-	-	0	0	-

Intersection												
Int Delay, s/veh	0.5											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕						↕		↕	↕	
Traffic Vol, veh/h	6	1	11	0	0	0	0	213	4	10	248	0
Future Vol, veh/h	6	1	11	0	0	0	0	213	4	10	248	0
Conflicting Peds, #/hr	0	0	1	0	0	0	0	0	14	0	0	11
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	30	-	-
Veh in Median Storage, #	-	0	-	-	16979	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	7	1	12	0	0	0	0	232	4	11	270	0

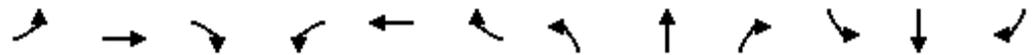
Major/Minor	Minor2			Major1			Major2		
Conflicting Flow All	408	542	136	-	0	0	250	0	0
Stage 1	292	292	-	-	-	-	-	-	-
Stage 2	116	250	-	-	-	-	-	-	-
Critical Hdwy	6.84	6.54	6.94	-	-	-	4.14	-	-
Critical Hdwy Stg 1	5.84	5.54	-	-	-	-	-	-	-
Critical Hdwy Stg 2	5.84	5.54	-	-	-	-	-	-	-
Follow-up Hdwy	3.52	4.02	3.32	-	-	-	2.22	-	-
Pot Cap-1 Maneuver	571	446	888	0	-	-	1313	-	0
Stage 1	732	670	-	0	-	-	-	-	0
Stage 2	896	699	-	0	-	-	-	-	0
Platoon blocked, %									
Mov Cap-1 Maneuver	566	0	887	-	-	-	1313	-	-
Mov Cap-2 Maneuver	566	0	-	-	-	-	-	-	-
Stage 1	726	0	-	-	-	-	-	-	-
Stage 2	896	0	-	-	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	10	0	0.3
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	EBLn1	SBL	SBT
Capacity (veh/h)	-	-	739	1313	-
HCM Lane V/C Ratio	-	-	0.026	0.008	-
HCM Control Delay (s)	-	-	10	7.8	-
HCM Lane LOS	-	-	B	A	-
HCM 95th %tile Q(veh)	-	-	0.1	0	-

Existing + Proj PM
1: Escondido Blvd & Valley Pkwy

Aspire
08/20/2019



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					←←←←		↖	↑↑			↑↑	
Traffic Volume (veh/h)	0	0	0	71	1057	117	77	461	0	0	353	130
Future Volume (veh/h)	0	0	0	71	1057	117	77	461	0	0	353	130
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		0.95	1.00		1.00	1.00		0.90
Parking Bus, Adj				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		
Adj Sat Flow, veh/h/ln				1900	1870	1900	1870	1870	0	0	1870	1870
Adj Flow Rate, veh/h				77	1149	127	84	501	0	0	384	141
Peak Hour Factor				0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %				0	2	0	2	2	0	0	2	2
Cap, veh/h				132	2116	238	110	1248	0	0	581	209
Arrive On Green				0.37	0.37	0.37	0.02	0.12	0.00	0.00	0.23	0.23
Sat Flow, veh/h				361	5771	650	1781	3647	0	0	2577	892
Grp Volume(v), veh/h				395	623	335	84	501	0	0	272	253
Grp Sat Flow(s),veh/h/ln				1852	1609	1713	1781	1777	0	0	1777	1599
Q Serve(g_s), s				15.4	13.7	13.8	4.2	11.8	0.0	0.0	12.5	12.9
Cycle Q Clear(g_c), s				15.4	13.7	13.8	4.2	11.8	0.0	0.0	12.5	12.9
Prop In Lane				0.20		0.38	1.00		0.00	0.00		0.56
Lane Grp Cap(c), veh/h				679	1180	628	110	1248	0	0	416	374
V/C Ratio(X)				0.58	0.53	0.53	0.76	0.40	0.00	0.00	0.65	0.68
Avail Cap(c_a), veh/h				679	1180	628	297	1856	0	0	533	480
HCM Platoon Ratio				1.00	1.00	1.00	0.33	0.33	1.00	1.00	1.00	1.00
Upstream Filter(I)				1.00	1.00	1.00	1.00	1.00	0.00	0.00	1.00	1.00
Uniform Delay (d), s/veh				22.9	22.4	22.4	43.4	31.0	0.0	0.0	31.2	31.4
Incr Delay (d2), s/veh				3.6	1.7	3.2	10.5	0.1	0.0	0.0	0.8	1.3
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				7.2	5.3	5.9	2.2	5.6	0.0	0.0	5.3	5.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				26.6	24.1	25.6	53.9	31.1	0.0	0.0	32.0	32.6
LnGrp LOS				C	C	C	D	C	A	A	C	C
Approach Vol, veh/h					1353			585			525	
Approach Delay, s/veh					25.2			34.4			32.3	
Approach LOS					C			C			C	
Timer - Assigned Phs				3	4	6	8					
Phs Duration (G+Y+Rc), s				10.6	26.1	38.0	36.6					
Change Period (Y+Rc), s				5.0	5.0	5.0	5.0					
Max Green Setting (Gmax), s				15.0	27.0	33.0	47.0					
Max Q Clear Time (g_c+I1), s				6.2	14.9	17.4	13.8					
Green Ext Time (p_c), s				0.1	1.8	5.7	2.4					
Intersection Summary												
HCM 6th Ctrl Delay				28.9								
HCM 6th LOS				C								

Existing + Proj PM
2: Valley Pkwy & Maple St

Aspire
08/20/2019



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↑↑↑						↑	
Traffic Volume (veh/h)	0	0	0	0	1197	20	0	0	0	0	0	52
Future Volume (veh/h)	0	0	0	0	1197	20	0	0	0	0	0	52
Initial Q (Qb), veh				0	0	0				0	0	0
Ped-Bike Adj(A_pbT)				1.00		0.96				1.00		0.94
Parking Bus, Adj				1.00	1.00	1.00				1.00	1.00	1.00
Work Zone On Approach				No						No		
Adj Sat Flow, veh/h/ln				0	1870	1870				0	1870	1870
Adj Flow Rate, veh/h				0	1301	22				0	0	57
Peak Hour Factor				0.92	0.92	0.92				0.92	0.92	0.92
Percent Heavy Veh, %				0	2	2				0	2	2
Cap, veh/h				0	3020	51				0	0	78
Arrive On Green				0.00	0.58	0.58				0.00	0.00	0.05
Sat Flow, veh/h				0	5335	87				0	0	1492
Grp Volume(v), veh/h				0	857	466				0	0	57
Grp Sat Flow(s),veh/h/ln				0	1702	1850				0	0	1492
Q Serve(g_s), s				0.0	3.5	3.5				0.0	0.0	0.9
Cycle Q Clear(g_c), s				0.0	3.5	3.5				0.0	0.0	0.9
Prop In Lane				0.00		0.05				0.00		1.00
Lane Grp Cap(c), veh/h				0	1990	1082				0	0	78
V/C Ratio(X)				0.00	0.43	0.43				0.00	0.00	0.73
Avail Cap(c_a), veh/h				0	3227	1754				0	0	451
HCM Platoon Ratio				1.00	1.00	1.00				1.00	1.00	1.00
Upstream Filter(I)				0.00	1.00	1.00				0.00	0.00	1.00
Uniform Delay (d), s/veh				0.0	2.9	2.9				0.0	0.0	11.6
Incr Delay (d2), s/veh				0.0	0.1	0.3				0.0	0.0	12.2
Initial Q Delay(d3),s/veh				0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				0.0	0.0	0.1				0.0	0.0	0.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				0.0	3.0	3.1				0.0	0.0	23.8
LnGrp LOS				A	A	A				A	A	C
Approach Vol, veh/h					1323							57
Approach Delay, s/veh					3.1							23.8
Approach LOS					A							C
Timer - Assigned Phs						6		8				
Phs Duration (G+Y+Rc), s						5.8		19.0				
Change Period (Y+Rc), s						4.5		4.5				
Max Green Setting (Gmax), s						7.5		23.5				
Max Q Clear Time (g_c+I1), s						2.9		5.5				
Green Ext Time (p_c), s						0.1		8.8				
Intersection Summary												
HCM 6th Ctrl Delay												3.9
HCM 6th LOS												A

Existing + Proj PM
3: Broadway & Valley Pkwy



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations				↑↑↑	↑	↑	↑↑	↑↑			↑↑	↑
Traffic Volume (veh/h)	0	0	0	31	956	174	100	281	0	0	217	173
Future Volume (veh/h)	0	0	0	31	956	174	100	281	0	0	217	173
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		0.98	1.00		1.00	1.00		0.97
Parking Bus, Adj				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		
Adj Sat Flow, veh/h/ln				1870	1870	1870	1870	1870	0	0	1870	1870
Adj Flow Rate, veh/h				34	1039	189	109	305	0	0	236	188
Peak Hour Factor				0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %				2	2	2	2	2	0	0	2	2
Cap, veh/h				106	3438	1044	234	768	0	0	768	333
Arrive On Green				0.67	0.67	0.67	0.07	0.07	0.00	0.00	0.22	0.22
Sat Flow, veh/h				157	5109	1552	960	3647	0	0	3647	1542
Grp Volume(v), veh/h				403	670	189	109	305	0	0	236	188
Grp Sat Flow(s),veh/h/ln				1863	1702	1552	960	1777	0	0	1777	1542
Q Serve(g_s), s				8.1	7.2	4.1	10.1	7.4	0.0	0.0	5.0	9.8
Cycle Q Clear(g_c), s				8.1	7.2	4.1	15.1	7.4	0.0	0.0	5.0	9.8
Prop In Lane				0.08		1.00	1.00		0.00	0.00		1.00
Lane Grp Cap(c), veh/h				1253	2290	1044	234	768	0	0	768	333
V/C Ratio(X)				0.32	0.29	0.18	0.47	0.40	0.00	0.00	0.31	0.56
Avail Cap(c_a), veh/h				1253	2290	1044	368	1264	0	0	1264	548
HCM Platoon Ratio				1.00	1.00	1.00	0.33	0.33	1.00	1.00	1.00	1.00
Upstream Filter(I)				1.00	1.00	1.00	1.00	1.00	0.00	0.00	1.00	1.00
Uniform Delay (d), s/veh				6.1	6.0	5.5	42.2	36.2	0.0	0.0	29.6	31.5
Incr Delay (d2), s/veh				0.7	0.3	0.4	1.1	0.2	0.0	0.0	0.2	1.1
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				3.0	2.3	1.2	2.6	3.3	0.0	0.0	2.1	3.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				6.8	6.3	5.9	43.3	36.4	0.0	0.0	29.8	32.6
LnGrp LOS				A	A	A	D	D	A	A	C	C
Approach Vol, veh/h				1262			414			424		
Approach Delay, s/veh				6.4			38.2			31.0		
Approach LOS				A			D			C		
Timer - Assigned Phs				4			6			8		
Phs Duration (G+Y+Rc), s				24.4			65.6			24.4		
Change Period (Y+Rc), s				5.0			5.0			5.0		
Max Green Setting (Gmax), s				32.0			48.0			32.0		
Max Q Clear Time (g_c+I1), s				11.8			10.1			17.1		
Green Ext Time (p_c), s				1.6			7.8			1.7		
Intersection Summary												
HCM 6th Ctrl Delay				17.7								
HCM 6th LOS				B								

Existing + Proj PM
4: Escondido Blvd & Grand Ave

Aspire
08/20/2019



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	68	286	14	39	261	36	34	443	23	79	388	20
Future Volume (veh/h)	68	286	14	39	261	36	34	443	23	79	388	20
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	0.99		0.96	0.98		0.96	0.99		0.98	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	74	311	15	42	284	39	37	482	25	86	422	22
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	223	745	36	223	676	92	713	2309	120	631	2308	120
Arrive On Green	0.22	0.22	0.22	0.22	0.22	0.22	0.67	0.67	0.67	1.00	1.00	1.00
Sat Flow, veh/h	1043	3443	165	1037	3127	424	941	3434	178	891	3432	178
Grp Volume(v), veh/h	74	160	166	42	160	163	37	249	258	86	218	226
Grp Sat Flow(s),veh/h/ln1043	1777	1832	1037	1777	1774	941	1777	1835	891	1777	1833	
Q Serve(g_s), s	5.9	7.0	7.0	3.3	7.0	7.1	1.2	4.8	4.8	0.8	0.0	0.0
Cycle Q Clear(g_c), s	13.1	7.0	7.0	10.3	7.0	7.1	1.2	4.8	4.8	5.6	0.0	0.0
Prop In Lane	1.00		0.09	1.00		0.24	1.00		0.10	1.00		0.10
Lane Grp Cap(c), veh/h	223	384	396	223	384	384	713	1195	1234	631	1195	1233
V/C Ratio(X)	0.33	0.42	0.42	0.19	0.42	0.43	0.05	0.21	0.21	0.14	0.18	0.18
Avail Cap(c_a), veh/h	426	730	753	425	730	729	713	1195	1234	631	1195	1233
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00
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	36.1	30.4	30.4	34.8	30.4	30.4	5.0	5.6	5.6	0.2	0.0	0.0
Incr Delay (d2), s/veh	0.3	0.3	0.3	0.1	0.3	0.3	0.1	0.4	0.4	0.4	0.3	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln1.5	3.0	3.1	0.8	3.0	3.0	0.2	1.7	1.7	0.1	0.1	0.1	0.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	36.4	30.6	30.7	35.0	30.6	30.7	5.2	6.0	6.0	0.7	0.3	0.3
LnGrp LOS	D	C	C	C	C	C	A	A	A	A	A	A
Approach Vol, veh/h		400			365			544			530	
Approach Delay, s/veh		31.7			31.2			5.9			0.4	
Approach LOS		C			C			A			A	
Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		65.5		24.5		65.5		24.5				
Change Period (Y+Rc), s		5.0		5.0		5.0		5.0				
Max Green Setting (Gmax), s		43.0		37.0		43.0		37.0				
Max Q Clear Time (g_c+I1), s		6.8		15.1		7.6		12.3				
Green Ext Time (p_c), s		2.2		1.4		2.1		1.3				
Intersection Summary												
HCM 6th Ctrl Delay				15.0								
HCM 6th LOS				B								

Intersection	
Intersection Delay, s/veh	10
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↶	↶↷		↶	↶↷			↷				
Traffic Vol, veh/h	14	376	14	18	289	13	39	5	22	0	0	0
Future Vol, veh/h	14	376	14	18	289	13	39	5	22	0	0	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	15	409	15	20	314	14	42	5	24	0	0	0
Number of Lanes	1	2	0	1	2	0	0	1	0	0	0	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	
Opposing Lanes	3	3	0
Conflicting Approach Left		NB	EB
Conflicting Lanes Left	0	1	3
Conflicting Approach Right	NB		WB
Conflicting Lanes Right	1	0	3
HCM Control Delay	10.3	9.6	9.9
HCM LOS	B	A	A

Lane	NBLn1	EBLn1	EBLn2	EBLn3	WBLn1	WBLn2	WBLn3
Vol Left, %	59%	100%	0%	0%	100%	0%	0%
Vol Thru, %	8%	0%	100%	90%	0%	100%	88%
Vol Right, %	33%	0%	0%	10%	0%	0%	12%
Sign Control	Stop						
Traffic Vol by Lane	66	14	251	139	18	193	109
LT Vol	39	14	0	0	18	0	0
Through Vol	5	0	251	125	0	193	96
RT Vol	22	0	0	14	0	0	13
Lane Flow Rate	72	15	272	151	20	209	119
Geometry Grp	7	7	7	7	7	7	7
Degree of Util (X)	0.124	0.024	0.384	0.21	0.031	0.3	0.167
Departure Headway (Hd)	6.23	5.57	5.068	4.997	5.653	5.15	5.067
Convergence, Y/N	Yes						
Cap	572	642	708	716	632	697	706
Service Time	3.997	3.311	2.809	2.738	3.396	2.893	2.81
HCM Lane V/C Ratio	0.126	0.023	0.384	0.211	0.032	0.3	0.169
HCM Control Delay	9.9	8.4	11	9.1	8.6	10.1	8.8
HCM Lane LOS	A	A	B	A	A	B	A
HCM 95th-tile Q	0.4	0.1	1.8	0.8	0.1	1.3	0.6

Existing + Proj PM
6: Broadway & Grand Ave



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	83	286	20	16	240	51	16	222	25	87	146	52
Future Volume (veh/h)	83	286	20	16	240	51	16	222	25	87	146	52
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	0.95		0.88	0.93		0.90	1.00		0.99	0.99		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	90	311	22	17	261	55	17	241	27	95	159	57
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	260	851	60	254	735	151	777	1045	117	710	1185	1001
Arrive On Green	0.26	0.26	0.26	0.26	0.26	0.26	0.63	0.63	0.63	0.63	0.63	0.63
Sat Flow, veh/h	1008	3333	233	978	2878	590	1163	1649	185	1104	1870	1581
Grp Volume(v), veh/h	90	164	169	17	158	158	17	0	268	95	159	57
Grp Sat Flow(s),veh/h/ln1008	1777	1790	978	1777	1691	1163	0	1834	1104	1870	1581	
Q Serve(g_s), s	7.2	6.8	7.0	1.3	6.6	6.9	0.5	0.0	5.6	3.6	3.1	1.2
Cycle Q Clear(g_c), s	14.1	6.8	7.0	8.3	6.6	6.9	3.6	0.0	5.6	9.3	3.1	1.2
Prop In Lane	1.00		0.13	1.00		0.35	1.00		0.10	1.00		1.00
Lane Grp Cap(c), veh/h	260	454	457	254	454	432	777	0	1162	710	1185	1001
V/C Ratio(X)	0.35	0.36	0.37	0.07	0.35	0.37	0.02	0.00	0.23	0.13	0.13	0.06
Avail Cap(c_a), veh/h	417	730	736	406	730	695	777	0	1162	710	1185	1001
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	33.3	27.5	27.6	31.0	27.4	27.5	7.3	0.0	7.1	9.1	6.6	6.3
Incr Delay (d2), s/veh	0.3	0.2	0.2	0.0	0.2	0.2	0.1	0.0	0.5	0.4	0.2	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.8	2.9	3.0	0.3	2.8	2.8	0.1	0.0	2.1	0.9	1.2	0.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	33.6	27.7	27.7	31.0	27.6	27.7	7.4	0.0	7.5	9.5	6.8	6.4
LnGrp LOS	C	C	C	C	C	C	A	A	A	A	A	A
Approach Vol, veh/h		423			333			285			311	
Approach Delay, s/veh		29.0			27.8			7.5			7.6	
Approach LOS		C			C			A			A	
Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		62.0		28.0		62.0		28.0				
Change Period (Y+Rc), s		5.0		5.0		5.0		5.0				
Max Green Setting (Gmax), s		43.0		37.0		43.0		37.0				
Max Q Clear Time (g_c+I1), s		7.6		16.1		11.3		10.3				
Green Ext Time (p_c), s		1.1		1.5		0.9		1.3				
Intersection Summary												
HCM 6th Ctrl Delay											19.2	
HCM 6th LOS											B	

Intersection												
Int Delay, s/veh	0.1											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕↔						↕↔		↕	↕↕	
Traffic Vol, veh/h	4	0	0	0	0	0	0	533	3	6	504	0
Future Vol, veh/h	4	0	0	0	0	0	0	533	3	6	504	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	16	0	0	15
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	40	-	-
Veh in Median Storage, #	-	0	-	-	16979	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	4	0	0	0	0	0	0	579	3	7	548	0

Major/Minor	Minor2			Major1			Major2		
Conflicting Flow All	852	1160	274	-	0	0	598	0	0
Stage 1	562	562	-	-	-	-	-	-	-
Stage 2	290	598	-	-	-	-	-	-	-
Critical Hdwy	6.84	6.54	6.94	-	-	-	4.14	-	-
Critical Hdwy Stg 1	5.84	5.54	-	-	-	-	-	-	-
Critical Hdwy Stg 2	5.84	5.54	-	-	-	-	-	-	-
Follow-up Hdwy	3.52	4.02	3.32	-	-	-	2.22	-	-
Pot Cap-1 Maneuver	299	194	724	0	-	-	975	-	0
Stage 1	534	508	-	0	-	-	-	-	0
Stage 2	734	489	-	0	-	-	-	-	0
Platoon blocked, %									
Mov Cap-1 Maneuver	297	0	724	-	-	-	975	-	-
Mov Cap-2 Maneuver	297	0	-	-	-	-	-	-	-
Stage 1	530	0	-	-	-	-	-	-	-
Stage 2	734	0	-	-	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	17.3	0	0.1
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	NBR	EBLn1	SBL	SBT
Capacity (veh/h)	-	-	297	975	-
HCM Lane V/C Ratio	-	-	0.015	0.007	-
HCM Control Delay (s)	-	-	17.3	8.7	-
HCM Lane LOS	-	-	C	A	-
HCM 95th %tile Q(veh)	-	-	0	0	-

Intersection												
Int Delay, s/veh	0.8											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕						↕		↕	↕	
Traffic Vol, veh/h	11	8	22	0	0	0	0	345	16	13	256	0
Future Vol, veh/h	11	8	22	0	0	0	0	345	16	13	256	0
Conflicting Peds, #/hr	0	0	5	3	0	0	0	0	13	0	0	65
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	30	-	-
Veh in Median Storage, #	-	0	-	-	16979	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	12	9	24	0	0	0	0	375	17	14	278	0

Major/Minor	Minor2			Major1			Major2		
Conflicting Flow All	494	711	144	-	0	0	405	0	0
Stage 1	306	306	-	-	-	-	-	-	-
Stage 2	188	405	-	-	-	-	-	-	-
Critical Hdwy	6.84	6.54	6.94	-	-	-	4.14	-	-
Critical Hdwy Stg 1	5.84	5.54	-	-	-	-	-	-	-
Critical Hdwy Stg 2	5.84	5.54	-	-	-	-	-	-	-
Follow-up Hdwy	3.52	4.02	3.32	-	-	-	2.22	-	-
Pot Cap-1 Maneuver	504	357	877	0	-	-	1150	-	0
Stage 1	720	660	-	0	-	-	-	-	0
Stage 2	825	597	-	0	-	-	-	-	0
Platoon blocked, %									
Mov Cap-1 Maneuver	498	0	873	-	-	-	1150	-	-
Mov Cap-2 Maneuver	498	0	-	-	-	-	-	-	-
Stage 1	711	0	-	-	-	-	-	-	-
Stage 2	825	0	-	-	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	10.5	0	0.4
HCM LOS	B		

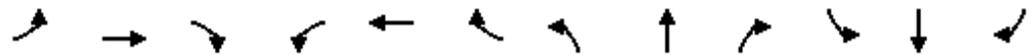
Minor Lane/Major Mvmt	NBT	NBR	EBLn1	SBL	SBT
Capacity (veh/h)	-	-	698	1150	-
HCM Lane V/C Ratio	-	-	0.064	0.012	-
HCM Control Delay (s)	-	-	10.5	8.2	-
HCM Lane LOS	-	-	B	A	-
HCM 95th %tile Q(veh)	-	-	0.2	0	-

APPENDIX G

INTERSECTION ANALYSIS WORKSHEETS – EXISTING + CUMULATIVE PROJECTS (SCENARIO 1)

Existing + Cuml AM (Sce. 1)
1: Escondido Blvd & Valley Pkwy

Aspire
08/16/2019



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					← ← ← ←		←	↑↑			↑↑	
Traffic Volume (veh/h)	0	0	0	69	1168	63	137	344	0	0	242	168
Future Volume (veh/h)	0	0	0	69	1168	63	137	344	0	0	242	168
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		0.94	1.00		1.00	1.00		0.94
Parking Bus, Adj				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		
Adj Sat Flow, veh/h/ln				1900	1870	1900	1870	1870	0	0	1870	1870
Adj Flow Rate, veh/h				75	1270	68	149	374	0	0	263	183
Peak Hour Factor				0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %				0	2	0	2	2	0	0	2	2
Cap, veh/h				128	2316	127	185	1355	0	0	428	283
Arrive On Green				0.38	0.38	0.38	0.10	0.38	0.00	0.00	0.22	0.22
Sat Flow, veh/h				340	6176	338	1781	3647	0	0	2081	1317
Grp Volume(v), veh/h				409	645	359	149	374	0	0	234	212
Grp Sat Flow(s),veh/h/ln				1853	1609	1783	1781	1777	0	0	1777	1528
Q Serve(g_s), s				14.1	12.5	12.6	6.5	5.8	0.0	0.0	9.5	10.1
Cycle Q Clear(g_c), s				14.1	12.5	12.6	6.5	5.8	0.0	0.0	9.5	10.1
Prop In Lane				0.18		0.19	1.00		0.00	0.00		0.86
Lane Grp Cap(c), veh/h				695	1206	669	185	1355	0	0	382	329
V/C Ratio(X)				0.59	0.53	0.54	0.81	0.28	0.00	0.00	0.61	0.65
Avail Cap(c_a), veh/h				695	1206	669	234	1777	0	0	544	468
HCM Platoon Ratio				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	0.00	0.00	1.00	1.00
Uniform Delay (d), s/veh				20.0	19.5	19.6	35.1	17.1	0.0	0.0	28.4	28.6
Incr Delay (d2), s/veh				3.6	1.7	3.1	14.9	0.0	0.0	0.0	0.6	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
%ile BackOfQ(50%),veh/ln				6.5	4.7	5.5	3.5	2.3	0.0	0.0	4.0	3.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				23.7	21.2	22.6	50.0	17.2	0.0	0.0	29.0	29.4
LnGrp LOS				C	C	C	D	B	A	A	C	C
Approach Vol, veh/h					1413			523			446	
Approach Delay, s/veh					22.3			26.5			29.2	
Approach LOS					C			C			C	
Timer - Assigned Phs				3	4		6	8				
Phs Duration (G+Y+Rc), s				13.3	22.2		35.0	35.5				
Change Period (Y+Rc), s				5.0	5.0		5.0	5.0				
Max Green Setting (Gmax), s				10.5	24.5		30.0	40.0				
Max Q Clear Time (g_c+I1), s				8.5	12.1		16.1	7.8				
Green Ext Time (p_c), s				0.1	1.5		5.6	1.7				
Intersection Summary												
HCM 6th Ctrl Delay				24.5								
HCM 6th LOS				C								

Existing + Cuml AM (Sce. 1)
2: Valley Pkwy & Maple St

Aspire
08/16/2019



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↑↑↑						↑	
Traffic Volume (veh/h)	0	0	0	0	1589	18	0	0	0	0	0	9
Future Volume (veh/h)	0	0	0	0	1589	18	0	0	0	0	0	9
Initial Q (Qb), veh				0	0	0				0	0	0
Ped-Bike Adj(A_pbT)				1.00		0.96				1.00		0.96
Parking Bus, Adj				1.00	1.00	1.00				1.00	1.00	1.00
Work Zone On Approach				No						No		
Adj Sat Flow, veh/h/ln				0	1870	1870				0	1870	1870
Adj Flow Rate, veh/h				0	1727	20				0	0	10
Peak Hour Factor				0.92	0.92	0.92				0.92	0.92	0.92
Percent Heavy Veh, %				0	2	2				0	2	2
Cap, veh/h				0	3475	40				0	0	16
Arrive On Green				0.00	0.67	0.67				0.00	0.00	0.01
Sat Flow, veh/h				0	5369	60				0	0	1521
Grp Volume(v), veh/h				0	1130	617				0	0	10
Grp Sat Flow(s),veh/h/ln				0	1702	1857				0	0	1521
Q Serve(g_s), s				0.0	4.4	4.4				0.0	0.0	0.2
Cycle Q Clear(g_c), s				0.0	4.4	4.4				0.0	0.0	0.2
Prop In Lane				0.00		0.03				0.00		1.00
Lane Grp Cap(c), veh/h				0	2275	1241				0	0	16
V/C Ratio(X)				0.00	0.50	0.50				0.00	0.00	0.61
Avail Cap(c_a), veh/h				0	3022	1648				0	0	230
HCM Platoon Ratio				1.00	1.00	1.00				1.00	1.00	1.00
Upstream Filter(I)				0.00	1.00	1.00				0.00	0.00	1.00
Uniform Delay (d), s/veh				0.0	2.2	2.2				0.0	0.0	13.0
Incr Delay (d2), s/veh				0.0	0.2	0.3				0.0	0.0	32.0
Initial Q Delay(d3),s/veh				0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				0.0	0.1	0.1				0.0	0.0	0.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				0.0	2.4	2.5				0.0	0.0	45.0
LnGrp LOS				A	A	A				A	A	D
Approach Vol, veh/h					1747							10
Approach Delay, s/veh					2.4							45.0
Approach LOS					A							D
Timer - Assigned Phs						6		8				
Phs Duration (G+Y+Rc), s						4.3		22.2				
Change Period (Y+Rc), s						4.0		4.5				
Max Green Setting (Gmax), s						4.0		23.5				
Max Q Clear Time (g_c+I1), s						2.2		6.4				
Green Ext Time (p_c), s						0.0		11.3				
Intersection Summary												
HCM 6th Ctrl Delay												2.6
HCM 6th LOS												A

Existing + Cuml AM (Sce. 1)
3: Broadway & Valley Pkwy

Aspire
08/16/2019



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↑↑↑	↑	↑	↑↑			↑↑	↑
Traffic Volume (veh/h)	0	0	0	33	1414	126	19	178	0	0	210	164
Future Volume (veh/h)	0	0	0	33	1414	126	19	178	0	0	210	164
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		0.98	0.99		1.00	1.00		0.99
Parking Bus, Adj				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		
Adj Sat Flow, veh/h/ln				1870	1870	1870	1870	1870	0	0	1870	1870
Adj Flow Rate, veh/h				36	1537	137	21	193	0	0	228	178
Peak Hour Factor				0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %				2	2	2	2	2	0	0	2	2
Cap, veh/h				80	3651	1098	197	593	0	0	593	261
Arrive On Green				0.71	0.71	0.71	0.06	0.06	0.00	0.00	0.17	0.17
Sat Flow, veh/h				114	5155	1551	973	3647	0	0	3647	1562
Grp Volume(v), veh/h				591	982	137	21	193	0	0	228	178
Grp Sat Flow(s),veh/h/ln				1865	1702	1551	973	1777	0	0	1777	1562
Q Serve(g_s), s				10.8	9.5	2.3	1.7	4.2	0.0	0.0	4.6	8.6
Cycle Q Clear(g_c), s				10.8	9.5	2.3	6.2	4.2	0.0	0.0	4.6	8.6
Prop In Lane				0.06		1.00	1.00		0.00	0.00		1.00
Lane Grp Cap(c), veh/h				1321	2411	1098	197	593	0	0	593	261
V/C Ratio(X)				0.45	0.41	0.12	0.11	0.33	0.00	0.00	0.38	0.68
Avail Cap(c_a), veh/h				1321	2411	1098	387	1288	0	0	1288	566
HCM Platoon Ratio				1.00	1.00	1.00	0.33	0.33	1.00	1.00	1.00	1.00
Upstream Filter(I)				1.00	1.00	1.00	1.00	1.00	0.00	0.00	1.00	1.00
Uniform Delay (d), s/veh				5.0	4.8	3.7	36.7	33.5	0.0	0.0	29.7	31.3
Incr Delay (d2), s/veh				1.1	0.5	0.2	0.2	0.2	0.0	0.0	0.3	2.3
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				3.5	2.7	0.6	0.4	1.8	0.0	0.0	1.9	3.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				6.1	5.3	4.0	36.8	33.7	0.0	0.0	30.0	33.7
LnGrp LOS				A	A	A	D	C	A	A	C	C
Approach Vol, veh/h					1710			214			406	
Approach Delay, s/veh					5.5			34.0			31.6	
Approach LOS					A			C			C	
Timer - Assigned Phs				4		6		8				
Phs Duration (G+Y+Rc), s				18.3		61.7		18.3				
Change Period (Y+Rc), s				5.0		5.0		5.0				
Max Green Setting (Gmax), s				29.0		41.0		29.0				
Max Q Clear Time (g_c+I1), s				10.6		12.8		8.2				
Green Ext Time (p_c), s				1.5		11.8		1.0				
Intersection Summary												
HCM 6th Ctrl Delay				12.6								
HCM 6th LOS				B								

Existing + Cuml AM (Sce. 1)
4: Escondido Blvd & Grand Ave

Aspire
08/16/2019



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↗		↖	↗		↖	↕		↖	↗	
Traffic Volume (veh/h)	52	147	9	33	180	27	17	337	9	41	303	9
Future Volume (veh/h)	52	147	9	33	180	27	17	337	9	41	303	9
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	0.99		0.97	0.99		0.96	0.99		0.97	1.00		0.97
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	57	160	10	36	196	29	18	366	10	45	329	10
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	213	379	24	257	345	51	733	2320	63	710	2311	70
Arrive On Green	0.22	0.22	0.22	0.22	0.22	0.22	0.66	0.66	0.66	0.66	0.66	0.66
Sat Flow, veh/h	1142	1739	109	1205	1583	234	1035	3531	96	1004	3517	107
Grp Volume(v), veh/h	57	0	170	36	0	225	18	184	192	45	166	173
Grp Sat Flow(s),veh/h/ln	1142	0	1847	1205	0	1818	1035	1777	1850	1004	1777	1847
Q Serve(g_s), s	3.8	0.0	6.3	2.1	0.0	8.8	0.5	3.2	3.2	1.4	2.8	2.8
Cycle Q Clear(g_c), s	12.6	0.0	6.3	8.5	0.0	8.8	3.4	3.2	3.2	4.6	2.8	2.8
Prop In Lane	1.00		0.06	1.00		0.13	1.00		0.05	1.00		0.06
Lane Grp Cap(c), veh/h	213	0	402	257	0	396	733	1168	1216	710	1168	1214
V/C Ratio(X)	0.27	0.00	0.42	0.14	0.00	0.57	0.02	0.16	0.16	0.06	0.14	0.14
Avail Cap(c_a), veh/h	463	0	808	522	0	795	733	1168	1216	710	1168	1214
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	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	33.5	0.0	27.0	30.6	0.0	27.9	5.8	5.2	5.2	6.1	5.2	5.2
Incr Delay (d2), s/veh	0.2	0.0	0.3	0.1	0.0	0.5	0.1	0.3	0.3	0.2	0.3	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	0.0	2.7	0.6	0.0	3.8	0.1	1.1	1.1	0.3	0.9	1.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	33.8	0.0	27.2	30.7	0.0	28.4	5.9	5.5	5.5	6.3	5.4	5.4
LnGrp LOS	C	A	C	C	A	C	A	A	A	A	A	A
Approach Vol, veh/h		227			261			394			384	
Approach Delay, s/veh		28.9			28.7			5.5			5.5	
Approach LOS		C			C			A			A	
Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		57.6		22.4		57.6		22.4				
Change Period (Y+Rc), s		5.0		5.0		5.0		5.0				
Max Green Setting (Gmax), s		35.0		35.0		35.0		35.0				
Max Q Clear Time (g_c+I1), s		5.4		14.6		6.6		10.8				
Green Ext Time (p_c), s		1.5		0.7		1.4		0.9				
Intersection Summary												
HCM 6th Ctrl Delay											14.5	
HCM 6th LOS											B	

Intersection

Intersection Delay, s/veh	9.2
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↶	↷		↶	↷			↷				
Traffic Vol, veh/h	17	167	16	53	210	7	17	5	13	0	0	0
Future Vol, veh/h	17	167	16	53	210	7	17	5	13	0	0	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	18	182	17	58	228	8	18	5	14	0	0	0
Number of Lanes	1	1	0	1	1	0	0	1	0	0	0	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	
Opposing Lanes	2	2	0
Conflicting Approach Left		NB	EB
Conflicting Lanes Left	0	1	2
Conflicting Approach Right	NB		WB
Conflicting Lanes Right	1	0	2
HCM Control Delay	9.1	9.4	8.3
HCM LOS	A	A	A

Lane	NBLn1	EBLn1	EBLn2	WBLn1	WBLn2
Vol Left, %	49%	100%	0%	100%	0%
Vol Thru, %	14%	0%	91%	0%	97%
Vol Right, %	37%	0%	9%	0%	3%
Sign Control	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	35	17	183	53	217
LT Vol	17	17	0	53	0
Through Vol	5	0	167	0	210
RT Vol	13	0	16	0	7
Lane Flow Rate	38	18	199	58	236
Geometry Grp	2	7	7	7	7
Degree of Util (X)	0.053	0.028	0.265	0.085	0.307
Departure Headway (Hd)	4.973	5.367	4.804	5.311	4.687
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes
Cap	722	670	750	679	755
Service Time	2.986	3.077	2.514	3.011	2.486
HCM Lane V/C Ratio	0.053	0.027	0.265	0.085	0.313
HCM Control Delay	8.3	8.2	9.2	8.5	9.6
HCM Lane LOS	A	A	A	A	A
HCM 95th-tile Q	0.2	0.1	1.1	0.3	1.3

Existing + Cuml AM (Sce. 1)
6: Broadway & Grand Ave

Aspire
08/16/2019



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↗		↖	↗		↖	↗		↖	↗	↖
Traffic Volume (veh/h)	44	138	6	12	219	37	11	122	13	60	159	49
Future Volume (veh/h)	44	138	6	12	219	37	11	122	13	60	159	49
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	0.98		0.92	0.96		0.95	0.98		0.99	0.99		0.96
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	48	150	7	13	238	40	12	133	14	65	173	53
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	219	451	21	310	386	65	794	1029	108	810	1158	940
Arrive On Green	0.26	0.26	0.26	0.26	0.25	0.26	0.62	0.62	0.62	1.00	1.00	1.00
Sat Flow, veh/h	1080	1765	82	1181	1546	260	1136	1661	175	1229	1870	1518
Grp Volume(v), veh/h	48	0	157	13	0	278	12	0	147	65	173	53
Grp Sat Flow(s),veh/h/ln1080	0	1847	1181	0	1806	1136	0	1836	1229	1870	1518	
Q Serve(g_s), s	3.3	0.0	5.5	0.7	0.0	10.9	0.3	0.0	2.7	0.2	0.0	0.0
Cycle Q Clear(g_c), s	14.2	0.0	5.5	6.3	0.0	10.9	0.3	0.0	2.7	2.9	0.0	0.0
Prop In Lane	1.00		0.04	1.00		0.14	1.00		0.10	1.00		1.00
Lane Grp Cap(c), veh/h	219	0	472	310	0	450	794	0	1137	810	1158	940
V/C Ratio(X)	0.22	0.00	0.33	0.04	0.00	0.62	0.02	0.00	0.13	0.08	0.15	0.06
Avail Cap(c_a), veh/h	469	0	900	584	0	869	794	0	1137	810	1158	940
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	32.5	0.0	24.2	26.8	0.0	26.6	5.9	0.0	6.3	0.1	0.0	0.0
Incr Delay (d2), s/veh	0.2	0.0	0.2	0.0	0.0	0.5	0.0	0.0	0.2	0.2	0.3	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln0.8	0.0	2.4	0.2	0.0	4.6	0.1	0.0	1.0	0.0	0.1	0.0	
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	32.7	0.0	24.4	26.8	0.0	27.1	5.9	0.0	6.5	0.3	0.3	0.1
LnGrp LOS	C	A	C	C	A	C	A	A	A	A	A	A
Approach Vol, veh/h		205			291			159			291	
Approach Delay, s/veh		26.3			27.1			6.5			0.2	
Approach LOS		C			C			A			A	
Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		54.5		25.5		54.5		25.5				
Change Period (Y+Rc), s		5.0		5.0		5.0		5.0				
Max Green Setting (Gmax), s		31.0		39.0		31.0		39.0				
Max Q Clear Time (g_c+11), s		4.7		16.2		4.9		12.9				
Green Ext Time (p_c), s		0.5		0.6		0.8		1.1				
Intersection Summary												
HCM 6th Ctrl Delay				15.2								
HCM 6th LOS				B								

Intersection												
Int Delay, s/veh	0.1											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕↔						↕↔		↕	↕↕	
Traffic Vol, veh/h	0	2	2	0	0	0	0	427	2	3	333	0
Future Vol, veh/h	0	2	2	0	0	0	0	427	2	3	333	0
Conflicting Peds, #/hr	0	0	1	3	0	0	0	0	18	0	0	14
Sign Control	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	40	-	-
Veh in Median Storage, #	-	0	-	-	16979	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	2	2	0	0	0	0	464	2	3	362	0

Major/Minor	Minor2			Major1			Major2		
Conflicting Flow All	600	852	182	-	0	0	484	0	0
Stage 1	368	368	-	-	-	-	-	-	-
Stage 2	232	484	-	-	-	-	-	-	-
Critical Hdwy	6.84	6.54	6.94	-	-	-	4.14	-	-
Critical Hdwy Stg 1	5.84	5.54	-	-	-	-	-	-	-
Critical Hdwy Stg 2	5.84	5.54	-	-	-	-	-	-	-
Follow-up Hdwy	3.52	4.02	3.32	-	-	-	2.22	-	-
Pot Cap-1 Maneuver	432	295	829	0	-	-	1075	-	0
Stage 1	670	620	-	0	-	-	-	-	0
Stage 2	785	550	-	0	-	-	-	-	0
Platoon blocked, %									
Mov Cap-1 Maneuver	431	0	828	-	-	-	1075	-	-
Mov Cap-2 Maneuver	431	0	-	-	-	-	-	-	-
Stage 1	668	0	-	-	-	-	-	-	-
Stage 2	785	0	-	-	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	9.4	0	0.1
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBR	EBLn1	SBL	SBT
Capacity (veh/h)	-	-	828	1075	-
HCM Lane V/C Ratio	-	-	0.005	0.003	-
HCM Control Delay (s)	-	-	9.4	8.4	-
HCM Lane LOS	-	-	A	A	-
HCM 95th %tile Q(veh)	-	-	0	0	-

Existing + Cuml AM (Sce. 1)
8: Broadway & Alley

Aspire
08/16/2019

Intersection												
Int Delay, s/veh	0.5											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕						↕		↕	↕	
Traffic Vol, veh/h	6	1	7	0	0	0	0	201	4	10	251	0
Future Vol, veh/h	6	1	7	0	0	0	0	201	4	10	251	0
Conflicting Peds, #/hr	0	0	1	0	0	0	0	0	14	0	0	11
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	30	-	-
Veh in Median Storage, #	-	0	-	-	16979	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	7	1	8	0	0	0	0	218	4	11	273	0

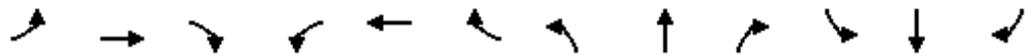
Major/Minor	Minor2			Major1			Major2		
Conflicting Flow All	404	531	138	-	0	0	236	0	0
Stage 1	295	295	-	-	-	-	-	-	-
Stage 2	109	236	-	-	-	-	-	-	-
Critical Hdwy	6.84	6.54	6.94	-	-	-	4.14	-	-
Critical Hdwy Stg 1	5.84	5.54	-	-	-	-	-	-	-
Critical Hdwy Stg 2	5.84	5.54	-	-	-	-	-	-	-
Follow-up Hdwy	3.52	4.02	3.32	-	-	-	2.22	-	-
Pot Cap-1 Maneuver	575	452	885	0	-	-	1328	-	0
Stage 1	730	668	-	0	-	-	-	-	0
Stage 2	903	708	-	0	-	-	-	-	0
Platoon blocked, %									
Mov Cap-1 Maneuver	570	0	884	-	-	-	1328	-	-
Mov Cap-2 Maneuver	570	0	-	-	-	-	-	-	-
Stage 1	724	0	-	-	-	-	-	-	-
Stage 2	903	0	-	-	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	10.2	0	0.3
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	EBLn1	SBL	SBT
Capacity (veh/h)	-	-	705	1328	-
HCM Lane V/C Ratio	-	-	0.022	0.008	-
HCM Control Delay (s)	-	-	10.2	7.7	-
HCM Lane LOS	-	-	B	A	-
HCM 95th %tile Q(veh)	-	-	0.1	0	-

Existing + Cuml PM (Sce. 1)
1: Escondido Blvd & Valley Pkwy

Aspire
08/16/2019



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					←←←←		↖	↑↑			↑↑	
Traffic Volume (veh/h)	0	0	0	64	1090	105	88	492	0	0	366	153
Future Volume (veh/h)	0	0	0	64	1090	105	88	492	0	0	366	153
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		0.95	1.00		1.00	1.00		0.91
Parking Bus, Adj				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		
Adj Sat Flow, veh/h/ln				1900	1870	1900	1870	1870	0	0	1870	1870
Adj Flow Rate, veh/h				70	1185	114	96	535	0	0	398	166
Peak Hour Factor				0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %				0	2	0	2	2	0	0	2	2
Cap, veh/h				134	2426	238	124	1298	0	0	571	233
Arrive On Green				0.41	0.41	0.41	0.02	0.12	0.00	0.00	0.24	0.24
Sat Flow, veh/h				325	5900	579	1781	3647	0	0	2475	973
Grp Volume(v), veh/h				399	629	341	96	535	0	0	295	269
Grp Sat Flow(s),veh/h/ln				1854	1609	1734	1781	1777	0	0	1777	1577
Q Serve(g_s), s				14.5	12.9	13.0	4.8	12.5	0.0	0.0	13.6	14.1
Cycle Q Clear(g_c), s				14.5	12.9	13.0	4.8	12.5	0.0	0.0	13.6	14.1
Prop In Lane				0.18		0.33	1.00		0.00	0.00		0.62
Lane Grp Cap(c), veh/h				762	1323	713	124	1298	0	0	426	378
V/C Ratio(X)				0.52	0.48	0.48	0.77	0.41	0.00	0.00	0.69	0.71
Avail Cap(c_a), veh/h				762	1323	713	218	1698	0	0	533	473
HCM Platoon Ratio				1.00	1.00	1.00	0.33	0.33	1.00	1.00	1.00	1.00
Upstream Filter(I)				1.00	1.00	1.00	1.00	1.00	0.00	0.00	1.00	1.00
Uniform Delay (d), s/veh				19.9	19.4	19.4	43.3	30.6	0.0	0.0	31.2	31.3
Incr Delay (d2), s/veh				2.6	1.2	2.3	9.8	0.1	0.0	0.0	1.7	2.4
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				6.5	4.8	5.5	2.5	5.9	0.0	0.0	5.9	5.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				22.4	20.6	21.7	53.0	30.7	0.0	0.0	32.8	33.7
LnGrp LOS				C	C	C	D	C	A	A	C	C
Approach Vol, veh/h					1369			631			564	
Approach Delay, s/veh					21.4			34.1			33.3	
Approach LOS					C			C			C	
Timer - Assigned Phs				3	4	6	8					
Phs Duration (G+Y+Rc), s				11.3	26.6	42.0	37.9					
Change Period (Y+Rc), s				5.0	5.0	5.0	5.0					
Max Green Setting (Gmax), s				11.0	27.0	37.0	43.0					
Max Q Clear Time (g_c+I1), s				6.8	16.1	16.5	14.5					
Green Ext Time (p_c), s				0.1	1.9	6.4	2.5					
Intersection Summary												
HCM 6th Ctrl Delay				27.2								
HCM 6th LOS				C								

Existing + Cuml PM (Sce. 1)
2: Valley Pkwy & Maple St

Aspire
08/16/2019



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↑↑↑						↑	
Traffic Volume (veh/h)	0	0	0	0	1211	20	0	0	0	0	0	52
Future Volume (veh/h)	0	0	0	0	1211	20	0	0	0	0	0	52
Initial Q (Qb), veh				0	0	0				0	0	0
Ped-Bike Adj(A_pbT)				1.00		0.96				1.00		0.94
Parking Bus, Adj				1.00	1.00	1.00				1.00	1.00	1.00
Work Zone On Approach				No						No		
Adj Sat Flow, veh/h/ln				0	1870	1870				0	1870	1870
Adj Flow Rate, veh/h				0	1316	22				0	0	57
Peak Hour Factor				0.92	0.92	0.92				0.92	0.92	0.92
Percent Heavy Veh, %				0	2	2				0	2	2
Cap, veh/h				0	3032	51				0	0	78
Arrive On Green				0.00	0.59	0.59				0.00	0.00	0.05
Sat Flow, veh/h				0	5337	86				0	0	1491
Grp Volume(v), veh/h				0	867	471				0	0	57
Grp Sat Flow(s),veh/h/ln				0	1702	1851				0	0	1491
Q Serve(g_s), s				0.0	3.5	3.5				0.0	0.0	0.9
Cycle Q Clear(g_c), s				0.0	3.5	3.5				0.0	0.0	0.9
Prop In Lane				0.00		0.05				0.00		1.00
Lane Grp Cap(c), veh/h				0	1997	1086				0	0	78
V/C Ratio(X)				0.00	0.43	0.43				0.00	0.00	0.73
Avail Cap(c_a), veh/h				0	3208	1744				0	0	449
HCM Platoon Ratio				1.00	1.00	1.00				1.00	1.00	1.00
Upstream Filter(I)				0.00	1.00	1.00				0.00	0.00	1.00
Uniform Delay (d), s/veh				0.0	2.9	2.9				0.0	0.0	11.6
Incr Delay (d2), s/veh				0.0	0.1	0.3				0.0	0.0	12.3
Initial Q Delay(d3),s/veh				0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				0.0	0.0	0.1				0.0	0.0	0.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				0.0	3.0	3.1				0.0	0.0	23.9
LnGrp LOS				A	A	A				A	A	C
Approach Vol, veh/h					1338							57
Approach Delay, s/veh					3.1							23.9
Approach LOS					A							C
Timer - Assigned Phs						6		8				
Phs Duration (G+Y+Rc), s						5.8		19.1				
Change Period (Y+Rc), s						4.5		4.5				
Max Green Setting (Gmax), s						7.5		23.5				
Max Q Clear Time (g_c+I1), s						2.9		5.5				
Green Ext Time (p_c), s						0.1		8.9				
Intersection Summary												
HCM 6th Ctrl Delay												3.9
HCM 6th LOS												A

Existing + Cuml PM (Sce. 1)
3: Broadway & Valley Pkwy

Aspire
08/16/2019



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↑↑↑	↑	↑	↑↑			↑↑	↑
Traffic Volume (veh/h)	0	0	0	31	996	174	67	285	0	0	220	151
Future Volume (veh/h)	0	0	0	31	996	174	67	285	0	0	220	151
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		0.98	1.00		1.00	1.00		0.97
Parking Bus, Adj				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		
Adj Sat Flow, veh/h/ln				1870	1870	1870	1870	1870	0	0	1870	1870
Adj Flow Rate, veh/h				34	1083	189	73	310	0	0	239	164
Peak Hour Factor				0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %				2	2	2	2	2	0	0	2	2
Cap, veh/h				107	3609	1095	202	652	0	0	652	282
Arrive On Green				0.71	0.71	0.71	0.06	0.06	0.00	0.00	0.18	0.18
Sat Flow, veh/h				151	5116	1553	978	3647	0	0	3647	1538
Grp Volume(v), veh/h				419	698	189	73	310	0	0	239	164
Grp Sat Flow(s),veh/h/ln				1863	1702	1553	978	1777	0	0	1777	1538
Q Serve(g_s), s				7.7	6.8	3.7	6.6	7.6	0.0	0.0	5.3	8.8
Cycle Q Clear(g_c), s				7.7	6.8	3.7	11.9	7.6	0.0	0.0	5.3	8.8
Prop In Lane				0.08		1.00	1.00		0.00	0.00		1.00
Lane Grp Cap(c), veh/h				1314	2401	1095	202	652	0	0	652	282
V/C Ratio(X)				0.32	0.29	0.17	0.36	0.48	0.00	0.00	0.37	0.58
Avail Cap(c_a), veh/h				1314	2401	1095	392	1343	0	0	1343	581
HCM Platoon Ratio				1.00	1.00	1.00	0.33	0.33	1.00	1.00	1.00	1.00
Upstream Filter(I)				1.00	1.00	1.00	1.00	1.00	0.00	0.00	1.00	1.00
Uniform Delay (d), s/veh				5.0	4.9	4.4	42.7	38.1	0.0	0.0	32.2	33.6
Incr Delay (d2), s/veh				0.6	0.3	0.3	0.8	0.4	0.0	0.0	0.3	1.4
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				2.7	2.1	1.1	1.8	3.5	0.0	0.0	2.2	3.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				5.7	5.2	4.8	43.5	38.5	0.0	0.0	32.4	35.0
LnGrp LOS				A	A	A	D	D	A	A	C	C
Approach Vol, veh/h				1306				383			403	
Approach Delay, s/veh				5.3				39.4			33.5	
Approach LOS				A				D			C	
Timer - Assigned Phs				4				6			8	
Phs Duration (G+Y+Rc), s				21.5				68.5			21.5	
Change Period (Y+Rc), s				5.0				5.0			5.0	
Max Green Setting (Gmax), s				34.0				46.0			34.0	
Max Q Clear Time (g_c+I1), s				10.8				9.7			13.9	
Green Ext Time (p_c), s				1.6				8.2			1.8	
Intersection Summary												
HCM 6th Ctrl Delay				17.0								
HCM 6th LOS				B								

Existing + Cuml PM (Sce. 1)
4: Escondido Blvd & Grand Ave



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	68	289	14	39	266	36	34	485	21	75	398	20
Future Volume (veh/h)	68	289	14	39	266	36	34	485	21	75	398	20
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	0.99		0.96	0.99		0.97	0.99		0.97	1.00		0.96
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	74	314	15	42	289	39	37	527	23	82	433	22
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	189	471	23	192	419	57	562	2136	93	553	2117	107
Arrive On Green	0.27	0.27	0.27	0.27	0.26	0.27	0.62	0.62	0.62	0.21	0.20	0.21
Sat Flow, veh/h	1043	1767	84	1039	1606	217	931	3463	151	855	3434	174
Grp Volume(v), veh/h	74	0	329	42	0	328	37	270	280	82	223	232
Grp Sat Flow(s),veh/h/ln1043	0	1851	1039	0	1822	931	1777	1838	855	1777	1831	
Q Serve(g_s), s	6.2	0.0	14.3	3.4	0.0	14.6	1.8	6.2	6.2	7.3	9.4	9.5
Cycle Q Clear(g_c), s	20.8	0.0	14.3	17.6	0.0	14.6	11.3	6.2	6.2	13.5	9.4	9.5
Prop In Lane	1.00		0.05	1.00		0.12	1.00		0.08	1.00		0.09
Lane Grp Cap(c), veh/h	189	0	494	192	0	476	562	1096	1133	553	1096	1129
V/C Ratio(X)	0.39	0.00	0.67	0.22	0.00	0.69	0.07	0.25	0.25	0.15	0.20	0.21
Avail Cap(c_a), veh/h	328	0	741	331	0	719	562	1096	1133	553	1096	1129
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.33	0.33	0.33
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	38.8	0.0	29.4	37.3	0.0	29.9	10.9	7.8	7.8	21.5	17.5	17.5
Incr Delay (d2), s/veh	0.5	0.0	0.6	0.2	0.0	0.7	0.2	0.5	0.5	0.6	0.4	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln1.6	0.0	0.0	6.3	0.9	0.0	6.3	0.4	2.3	2.4	1.7	4.3	4.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	39.3	0.0	30.0	37.5	0.0	30.6	11.2	8.3	8.3	22.0	17.9	17.9
LnGrp LOS	D	A	C	D	A	C	B	A	A	C	B	B
Approach Vol, veh/h		403			370			587			537	
Approach Delay, s/veh		31.7			31.4			8.5			18.5	
Approach LOS		C			C			A			B	
Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		61.0		29.0		61.0		29.0				
Change Period (Y+Rc), s		5.0		5.0		5.0		5.0				
Max Green Setting (Gmax), s		44.0		36.0		44.0		36.0				
Max Q Clear Time (g_c+I1), s		13.3		22.8		15.5		19.6				
Green Ext Time (p_c), s		2.4		1.2		2.1		1.3				
Intersection Summary												
HCM 6th Ctrl Delay				20.7								
HCM 6th LOS				C								

Intersection	
Intersection Delay, s/veh	13
Intersection LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↶	↷		↶	↷			↷				
Traffic Vol, veh/h	13	374	14	18	294	10	39	5	22	0	0	0
Future Vol, veh/h	13	374	14	18	294	10	39	5	22	0	0	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	14	407	15	20	320	11	42	5	24	0	0	0
Number of Lanes	1	1	0	1	1	0	0	1	0	0	0	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	
Opposing Lanes	2	2	0
Conflicting Approach Left		NB	EB
Conflicting Lanes Left	0	1	2
Conflicting Approach Right	NB		WB
Conflicting Lanes Right	1	0	2
HCM Control Delay	14.4	12	9.5
HCM LOS	B	B	A

Lane	NBLn1	EBLn1	EBLn2	WBLn1	WBLn2
Vol Left, %	59%	100%	0%	100%	0%
Vol Thru, %	8%	0%	96%	0%	97%
Vol Right, %	33%	0%	4%	0%	3%
Sign Control	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	66	13	388	18	304
LT Vol	39	13	0	18	0
Through Vol	5	0	374	0	294
RT Vol	22	0	14	0	10
Lane Flow Rate	72	14	422	20	330
Geometry Grp	2	7	7	7	7
Degree of Util (X)	0.113	0.022	0.586	0.03	0.465
Departure Headway (Hd)	5.666	5.532	5.004	5.597	5.071
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes
Cap	629	646	721	639	710
Service Time	3.731	3.27	2.742	3.339	2.812
HCM Lane V/C Ratio	0.114	0.022	0.585	0.031	0.465
HCM Control Delay	9.5	8.4	14.6	8.5	12.2
HCM Lane LOS	A	A	B	A	B
HCM 95th-tile Q	0.4	0.1	3.8	0.1	2.5

Existing + Cuml PM (Sce. 1)
6: Broadway & Grand Ave

Aspire
08/16/2019



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↗		↖	↗		↖	↗		↖	↗	↖
Traffic Volume (veh/h)	74	293	20	16	243	55	16	198	25	91	144	51
Future Volume (veh/h)	74	293	20	16	243	55	16	198	25	91	144	51
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	0.96		0.89	0.95		0.91	1.00		0.98	0.99		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	80	318	22	17	264	60	17	215	27	99	157	55
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	196	472	33	190	399	91	715	996	125	703	1147	967
Arrive On Green	0.28	0.28	0.28	0.28	0.28	0.28	0.61	0.61	0.61	0.20	0.20	0.20
Sat Flow, veh/h	1016	1713	118	992	1445	328	1167	1624	204	1125	1870	1577
Grp Volume(v), veh/h	80	0	340	17	0	324	17	0	242	99	157	55
Grp Sat Flow(s),veh/h/ln1016	0	1831	992	0	1774	1167	0	1828	1125	1870	1577	
Q Serve(g_s), s	6.8	0.0	14.9	1.4	0.0	14.6	0.6	0.0	5.3	6.7	6.2	2.5
Cycle Q Clear(g_c), s	21.4	0.0	14.9	16.3	0.0	14.6	6.8	0.0	5.3	12.0	6.2	2.5
Prop In Lane	1.00		0.06	1.00		0.19	1.00		0.11	1.00		1.00
Lane Grp Cap(c), veh/h	196	0	505	190	0	489	715	0	1121	703	1147	967
V/C Ratio(X)	0.41	0.00	0.67	0.09	0.00	0.66	0.02	0.00	0.22	0.14	0.14	0.06
Avail Cap(c_a), veh/h	367	0	814	357	0	788	715	0	1121	703	1147	967
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.33	0.33	0.33
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	38.3	0.0	29.0	36.2	0.0	28.9	9.5	0.0	7.8	20.9	16.4	14.9
Incr Delay (d2), s/veh	0.5	0.0	0.6	0.1	0.0	0.6	0.1	0.0	0.4	0.4	0.2	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln1.7	0.0	6.4	0.3	0.0	6.1	0.2	0.0	2.0	2.1	2.7	0.9	
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	38.9	0.0	29.6	36.3	0.0	29.5	9.5	0.0	8.2	21.3	16.6	15.0
LnGrp LOS	D	A	C	D	A	C	A	A	A	C	B	B
Approach Vol, veh/h		420			341			259			311	
Approach Delay, s/veh		31.3			29.8			8.3			17.8	
Approach LOS		C			C			A			B	
Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		60.2		29.8		60.2		29.8				
Change Period (Y+Rc), s		5.0		5.0		5.0		5.0				
Max Green Setting (Gmax), s		40.0		40.0		40.0		40.0				
Max Q Clear Time (g_c+11), s		8.8		23.4		14.0		18.3				
Green Ext Time (p_c), s		1.0		1.4		0.9		1.3				
Intersection Summary												
HCM 6th Ctrl Delay											23.3	
HCM 6th LOS											C	

Existing + Cuml PM (Sce. 1)
7: Escondido Blvd & Alley

Aspire
08/16/2019

Intersection												
Int Delay, s/veh	0.1											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕↔						↕↔		↕	↕↕	
Traffic Vol, veh/h	4	0	0	0	0	0	0	575	3	6	510	0
Future Vol, veh/h	4	0	0	0	0	0	0	575	3	6	510	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	16	0	0	15
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	40	-	-
Veh in Median Storage, #	-	0	-	-	16979	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	4	0	0	0	0	0	0	625	3	7	554	0

Major/Minor	Minor2			Major1			Major2		
Conflicting Flow All	881	1212	277	-	0	0	644	0	0
Stage 1	568	568	-	-	-	-	-	-	-
Stage 2	313	644	-	-	-	-	-	-	-
Critical Hdwy	6.84	6.54	6.94	-	-	-	4.14	-	-
Critical Hdwy Stg 1	5.84	5.54	-	-	-	-	-	-	-
Critical Hdwy Stg 2	5.84	5.54	-	-	-	-	-	-	-
Follow-up Hdwy	3.52	4.02	3.32	-	-	-	2.22	-	-
Pot Cap-1 Maneuver	286	181	720	0	-	-	937	-	0
Stage 1	530	505	-	0	-	-	-	-	0
Stage 2	715	466	-	0	-	-	-	-	0
Platoon blocked, %									
Mov Cap-1 Maneuver	284	0	720	-	-	-	937	-	-
Mov Cap-2 Maneuver	284	0	-	-	-	-	-	-	-
Stage 1	526	0	-	-	-	-	-	-	-
Stage 2	715	0	-	-	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	17.9	0	0.1
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	NBR	EBLn1	SBL	SBT
Capacity (veh/h)	-	-	284	937	-
HCM Lane V/C Ratio	-	-	0.015	0.007	-
HCM Control Delay (s)	-	-	17.9	8.9	-
HCM Lane LOS	-	-	C	A	-
HCM 95th %tile Q(veh)	-	-	0	0	-

Existing + Cuml PM (Sce. 1)
8: Broadway & Alley

Aspire
08/16/2019

Intersection												
Int Delay, s/veh	0.8											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕↔						↕↔		↕	↕↕	
Traffic Vol, veh/h	11	8	20	0	0	0	0	316	16	13	259	0
Future Vol, veh/h	11	8	20	0	0	0	0	316	16	13	259	0
Conflicting Peds, #/hr	0	0	5	3	0	0	0	0	13	0	0	65
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	30	-	-
Veh in Median Storage, #	-	0	-	-	16979	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	12	9	22	0	0	0	0	343	17	14	282	0

Major/Minor	Minor2			Major1			Major2		
Conflicting Flow All	482	683	146	-	0	0	373	0	0
Stage 1	310	310	-	-	-	-	-	-	-
Stage 2	172	373	-	-	-	-	-	-	-
Critical Hdwy	6.84	6.54	6.94	-	-	-	4.14	-	-
Critical Hdwy Stg 1	5.84	5.54	-	-	-	-	-	-	-
Critical Hdwy Stg 2	5.84	5.54	-	-	-	-	-	-	-
Follow-up Hdwy	3.52	4.02	3.32	-	-	-	2.22	-	-
Pot Cap-1 Maneuver	513	370	875	0	-	-	1182	-	0
Stage 1	717	658	-	0	-	-	-	-	0
Stage 2	841	617	-	0	-	-	-	-	0
Platoon blocked, %									
Mov Cap-1 Maneuver	507	0	871	-	-	-	1182	-	-
Mov Cap-2 Maneuver	507	0	-	-	-	-	-	-	-
Stage 1	708	0	-	-	-	-	-	-	-
Stage 2	841	0	-	-	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	10.5	0	0.4
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	EBLn1	SBL	SBT
Capacity (veh/h)	-	-	694	1182	-
HCM Lane V/C Ratio	-	-	0.061	0.012	-
HCM Control Delay (s)	-	-	10.5	8.1	-
HCM Lane LOS	-	-	B	A	-
HCM 95th %tile Q(veh)	-	-	0.2	0	-

APPENDIX H

INTERSECTION ANALYSIS WORKSHEETS – EXISTING + CUMULATIVE PROJECTS + PROJECT (SCENARIO 1)

Existing + Cuml + Proj AM (Sce. 1)
 1: Escondido Blvd & Valley Pkwy

Aspire
 08/20/2019



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					← ← ← ←		←	↑↑			↑↑	
Traffic Volume (veh/h)	0	0	0	82	1192	85	138	344	0	0	244	168
Future Volume (veh/h)	0	0	0	82	1192	85	138	344	0	0	244	168
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		0.94	1.00		1.00	1.00		0.94
Parking Bus, Adj				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		
Adj Sat Flow, veh/h/ln				1900	1870	1900	1870	1870	0	0	1870	1870
Adj Flow Rate, veh/h				89	1296	92	150	374	0	0	265	183
Peak Hour Factor				0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %				0	2	0	2	2	0	0	2	2
Cap, veh/h				144	2252	163	186	1359	0	0	430	283
Arrive On Green				0.38	0.38	0.38	0.10	0.38	0.00	0.00	0.22	0.22
Sat Flow, veh/h				385	6006	436	1781	3647	0	0	2088	1312
Grp Volume(v), veh/h				428	677	371	150	374	0	0	235	213
Grp Sat Flow(s),veh/h/ln				1851	1609	1758	1781	1777	0	0	1777	1529
Q Serve(g_s), s				15.1	13.3	13.4	6.6	5.8	0.0	0.0	9.6	10.2
Cycle Q Clear(g_c), s				15.1	13.3	13.4	6.6	5.8	0.0	0.0	9.6	10.2
Prop In Lane				0.21		0.25	1.00		0.00	0.00		0.86
Lane Grp Cap(c), veh/h				694	1206	659	186	1359	0	0	383	329
V/C Ratio(X)				0.62	0.56	0.56	0.81	0.28	0.00	0.00	0.61	0.65
Avail Cap(c_a), veh/h				694	1206	659	234	1777	0	0	544	468
HCM Platoon Ratio				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	0.00	0.00	1.00	1.00
Uniform Delay (d), s/veh				20.3	19.8	19.8	35.0	17.1	0.0	0.0	28.4	28.6
Incr Delay (d2), s/veh				4.1	1.9	3.5	15.1	0.0	0.0	0.0	0.6	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
%ile BackOfQ(50%),veh/ln				6.9	5.0	5.8	3.6	2.3	0.0	0.0	4.0	3.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				24.4	21.7	23.3	50.2	17.1	0.0	0.0	29.0	29.4
LnGrp LOS				C	C	C	D	B	A	A	C	C
Approach Vol, veh/h					1477			524			448	
Approach Delay, s/veh					22.9			26.6			29.2	
Approach LOS					C			C			C	
Timer - Assigned Phs				3	4		6	8				
Phs Duration (G+Y+Rc), s				13.3	22.2		35.0	35.6				
Change Period (Y+Rc), s				5.0	5.0		5.0	5.0				
Max Green Setting (Gmax), s				10.5	24.5		30.0	40.0				
Max Q Clear Time (g_c+I1), s				8.6	12.2		17.1	7.8				
Green Ext Time (p_c), s				0.1	1.5		5.7	1.7				
Intersection Summary												
HCM 6th Ctrl Delay				24.8								
HCM 6th LOS				C								

Existing + Cuml + Proj AM (Sce. 1)
2: Valley Pkwy & Maple St

Aspire
08/20/2019



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↑↑↑						↑	
Traffic Volume (veh/h)	0	0	0	0	1648	18	0	0	0	0	0	9
Future Volume (veh/h)	0	0	0	0	1648	18	0	0	0	0	0	9
Initial Q (Qb), veh				0	0	0				0	0	0
Ped-Bike Adj(A_pbT)				1.00		0.96				1.00		0.96
Parking Bus, Adj				1.00	1.00	1.00				1.00	1.00	1.00
Work Zone On Approach				No						No		
Adj Sat Flow, veh/h/ln				0	1870	1870				0	1870	1870
Adj Flow Rate, veh/h				0	1791	20				0	0	10
Peak Hour Factor				0.92	0.92	0.92				0.92	0.92	0.92
Percent Heavy Veh, %				0	2	2				0	2	2
Cap, veh/h				0	3506	39				0	0	16
Arrive On Green				0.00	0.67	0.67				0.00	0.00	0.01
Sat Flow, veh/h				0	5371	58				0	0	1521
Grp Volume(v), veh/h				0	1172	639				0	0	10
Grp Sat Flow(s),veh/h/ln				0	1702	1857				0	0	1521
Q Serve(g_s), s				0.0	4.6	4.6				0.0	0.0	0.2
Cycle Q Clear(g_c), s				0.0	4.6	4.6				0.0	0.0	0.2
Prop In Lane				0.00		0.03				0.00		1.00
Lane Grp Cap(c), veh/h				0	2294	1251				0	0	16
V/C Ratio(X)				0.00	0.51	0.51				0.00	0.00	0.61
Avail Cap(c_a), veh/h				0	2968	1619				0	0	226
HCM Platoon Ratio				1.00	1.00	1.00				1.00	1.00	1.00
Upstream Filter(I)				0.00	1.00	1.00				0.00	0.00	1.00
Uniform Delay (d), s/veh				0.0	2.2	2.2				0.0	0.0	13.3
Incr Delay (d2), s/veh				0.0	0.2	0.3				0.0	0.0	32.1
Initial Q Delay(d3),s/veh				0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				0.0	0.1	0.1				0.0	0.0	0.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				0.0	2.4	2.5				0.0	0.0	45.4
LnGrp LOS				A	A	A				A	A	D
Approach Vol, veh/h					1811						10	
Approach Delay, s/veh					2.4						45.4	
Approach LOS					A						D	
Timer - Assigned Phs						6		8				
Phs Duration (G+Y+Rc), s						4.3		22.7				
Change Period (Y+Rc), s						4.0		4.5				
Max Green Setting (Gmax), s						4.0		23.5				
Max Q Clear Time (g_c+I1), s						2.2		6.6				
Green Ext Time (p_c), s						0.0		11.5				
Intersection Summary												
HCM 6th Ctrl Delay						2.6						
HCM 6th LOS						A						

Existing + Cuml + Proj AM (Sce. 1)
3: Broadway & Valley Pkwy

Aspire
08/20/2019



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↑↑↑	↑	↑	↑↑			↑↑	↑
Traffic Volume (veh/h)	0	0	0	33	1417	126	35	178	0	0	210	175
Future Volume (veh/h)	0	0	0	33	1417	126	35	178	0	0	210	175
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		0.98	0.99		1.00	1.00		0.99
Parking Bus, Adj				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		
Adj Sat Flow, veh/h/ln				1870	1870	1870	1870	1870	0	0	1870	1870
Adj Flow Rate, veh/h				36	1540	137	38	193	0	0	228	190
Peak Hour Factor				0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %				2	2	2	2	2	0	0	2	2
Cap, veh/h				80	3616	1087	203	617	0	0	617	271
Arrive On Green				0.70	0.70	0.70	0.06	0.06	0.00	0.00	0.17	0.17
Sat Flow, veh/h				113	5155	1550	962	3647	0	0	3647	1563
Grp Volume(v), veh/h				592	984	137	38	193	0	0	228	190
Grp Sat Flow(s),veh/h/ln				1865	1702	1550	962	1777	0	0	1777	1563
Q Serve(g_s), s				11.1	9.7	2.3	3.1	4.2	0.0	0.0	4.5	9.1
Cycle Q Clear(g_c), s				11.1	9.7	2.3	7.6	4.2	0.0	0.0	4.5	9.1
Prop In Lane				0.06		1.00	1.00		0.00	0.00		1.00
Lane Grp Cap(c), veh/h				1308	2388	1087	203	617	0	0	617	271
V/C Ratio(X)				0.45	0.41	0.13	0.19	0.31	0.00	0.00	0.37	0.70
Avail Cap(c_a), veh/h				1308	2388	1087	384	1288	0	0	1288	567
HCM Platoon Ratio				1.00	1.00	1.00	0.33	0.33	1.00	1.00	1.00	1.00
Upstream Filter(I)				1.00	1.00	1.00	1.00	1.00	0.00	0.00	1.00	1.00
Uniform Delay (d), s/veh				5.2	5.0	3.9	37.0	33.1	0.0	0.0	29.2	31.1
Incr Delay (d2), s/veh				1.1	0.5	0.2	0.3	0.2	0.0	0.0	0.3	2.4
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				3.7	2.8	0.6	0.8	1.8	0.0	0.0	1.9	3.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				6.4	5.5	4.2	37.3	33.3	0.0	0.0	29.5	33.5
LnGrp LOS				A	A	A	D	C	A	A	C	C
Approach Vol, veh/h					1713			231			418	
Approach Delay, s/veh					5.7			34.0			31.3	
Approach LOS					A			C			C	
Timer - Assigned Phs				4		6		8				
Phs Duration (G+Y+Rc), s				18.9		61.1		18.9				
Change Period (Y+Rc), s				5.0		5.0		5.0				
Max Green Setting (Gmax), s				29.0		41.0		29.0				
Max Q Clear Time (g_c+I1), s				11.1		13.1		9.6				
Green Ext Time (p_c), s				1.5		11.8		1.0				
Intersection Summary												
HCM 6th Ctrl Delay											13.0	
HCM 6th LOS											B	

Existing + Cuml + Proj AM (Sce. 1)
4: Escondido Blvd & Grand Ave

Aspire
08/20/2019



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↗		↖	↗		↖	↗		↖	↗	
Traffic Volume (veh/h)	52	149	9	33	180	28	17	337	10	44	315	9
Future Volume (veh/h)	52	149	9	33	180	28	17	337	10	44	315	9
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	0.99		0.97	0.99		0.96	0.99		0.97	1.00		0.97
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	57	162	10	36	196	30	18	366	11	48	342	10
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	212	380	23	256	344	53	724	2311	69	709	2312	67
Arrive On Green	0.22	0.22	0.22	0.22	0.22	0.22	0.66	0.66	0.66	0.66	0.66	0.66
Sat Flow, veh/h	1141	1740	107	1203	1575	241	1023	3519	106	1003	3522	103
Grp Volume(v), veh/h	57	0	172	36	0	226	18	184	193	48	172	180
Grp Sat Flow(s),veh/h/ln	1141	0	1848	1203	0	1816	1023	1777	1848	1003	1777	1848
Q Serve(g_s), s	3.8	0.0	6.4	2.1	0.0	8.9	0.5	3.2	3.2	1.5	2.9	3.0
Cycle Q Clear(g_c), s	12.6	0.0	6.4	8.5	0.0	8.9	3.5	3.2	3.2	4.7	2.9	3.0
Prop In Lane	1.00		0.06	1.00		0.13	1.00		0.06	1.00		0.06
Lane Grp Cap(c), veh/h	212	0	403	256	0	397	724	1167	1213	709	1167	1213
V/C Ratio(X)	0.27	0.00	0.43	0.14	0.00	0.57	0.02	0.16	0.16	0.07	0.15	0.15
Avail Cap(c_a), veh/h	462	0	808	520	0	795	724	1167	1213	709	1167	1213
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	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	33.6	0.0	26.9	30.6	0.0	27.9	5.9	5.3	5.3	6.2	5.2	5.2
Incr Delay (d2), s/veh	0.2	0.0	0.3	0.1	0.0	0.5	0.1	0.3	0.3	0.2	0.3	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	0.0	2.8	0.6	0.0	3.8	0.1	1.1	1.1	0.3	1.0	1.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	33.8	0.0	27.2	30.7	0.0	28.4	6.0	5.6	5.5	6.4	5.5	5.5
LnGrp LOS	C	A	C	C	A	C	A	A	A	A	A	A
Approach Vol, veh/h		229			262			395			400	
Approach Delay, s/veh		28.9			28.7			5.6			5.6	
Approach LOS		C			C			A			A	
Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		57.5		22.5		57.5		22.5				
Change Period (Y+Rc), s		5.0		5.0		5.0		5.0				
Max Green Setting (Gmax), s		35.0		35.0		35.0		35.0				
Max Q Clear Time (g_c+I1), s		5.5		14.6		6.7		10.9				
Green Ext Time (p_c), s		1.5		0.7		1.5		0.9				
Intersection Summary												
HCM 6th Ctrl Delay				14.4								
HCM 6th LOS				B								

Intersection												
Intersection Delay, s/veh	9.3											
Intersection LOS	A											

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↶	↷		↶	↷			↷				
Traffic Vol, veh/h	18	172	16	53	211	8	17	5	13	0	0	0
Future Vol, veh/h	18	172	16	53	211	8	17	5	13	0	0	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	20	187	17	58	229	9	18	5	14	0	0	0
Number of Lanes	1	1	0	1	1	0	0	1	0	0	0	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	
Opposing Lanes	2	2	0
Conflicting Approach Left		NB	EB
Conflicting Lanes Left	0	1	2
Conflicting Approach Right	NB		WB
Conflicting Lanes Right	1	0	2
HCM Control Delay	9.2	9.5	8.3
HCM LOS	A	A	A

Lane	NBLn1	EBLn1	EBLn2	WBLn1	WBLn2
Vol Left, %	49%	100%	0%	100%	0%
Vol Thru, %	14%	0%	91%	0%	96%
Vol Right, %	37%	0%	9%	0%	4%
Sign Control	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	35	18	188	53	219
LT Vol	17	18	0	53	0
Through Vol	5	0	172	0	211
RT Vol	13	0	16	0	8
Lane Flow Rate	38	20	204	58	238
Geometry Grp	2	7	7	7	7
Degree of Util (X)	0.053	0.029	0.273	0.085	0.317
Departure Headway (Hd)	4.991	5.369	4.807	5.316	4.789
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes
Cap	718	669	750	678	755
Service Time	3.016	3.083	2.522	3.016	2.489
HCM Lane V/C Ratio	0.053	0.03	0.272	0.086	0.315
HCM Control Delay	8.3	8.2	9.3	8.5	9.7
HCM Lane LOS	A	A	A	A	A
HCM 95th-tile Q	0.2	0.1	1.1	0.3	1.4

Existing + Cuml + Proj AM (Sce. 1)
6: Broadway & Grand Ave

Aspire
08/20/2019



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↗		↖	↗		↖	↗		↖	↗	↖
Traffic Volume (veh/h)	48	139	6	12	220	37	11	134	13	61	161	50
Future Volume (veh/h)	48	139	6	12	220	37	11	134	13	61	161	50
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	0.98		0.92	0.96		0.95	0.98		0.99	0.99		0.96
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	52	151	7	13	239	40	12	146	14	66	175	54
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	220	455	21	312	389	65	790	1036	99	796	1155	937
Arrive On Green	0.26	0.26	0.26	0.26	0.25	0.26	0.62	0.62	0.62	1.00	1.00	1.00
Sat Flow, veh/h	1079	1765	82	1180	1547	259	1133	1678	161	1215	1870	1518
Grp Volume(v), veh/h	52	0	158	13	0	279	12	0	160	66	175	54
Grp Sat Flow(s),veh/h/ln1079	0	1847	1180	0	1806	1133	0	1839	1215	1870	1518	
Q Serve(g_s), s	3.6	0.0	5.6	0.7	0.0	10.9	0.3	0.0	2.9	0.3	0.0	0.0
Cycle Q Clear(g_c), s	14.5	0.0	5.6	6.3	0.0	10.9	0.3	0.0	2.9	3.2	0.0	0.0
Prop In Lane	1.00		0.04	1.00		0.14	1.00		0.09	1.00		1.00
Lane Grp Cap(c), veh/h	220	0	476	312	0	454	790	0	1135	796	1155	937
V/C Ratio(X)	0.24	0.00	0.33	0.04	0.00	0.61	0.02	0.00	0.14	0.08	0.15	0.06
Avail Cap(c_a), veh/h	469	0	900	583	0	869	790	0	1135	796	1155	937
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	32.5	0.0	24.1	26.7	0.0	26.5	5.9	0.0	6.4	0.1	0.0	0.0
Incr Delay (d2), s/veh	0.2	0.0	0.2	0.0	0.0	0.5	0.0	0.0	0.3	0.2	0.3	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.9	0.0	2.4	0.2	0.0	4.6	0.1	0.0	1.1	0.0	0.1	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	32.7	0.0	24.3	26.7	0.0	27.0	6.0	0.0	6.7	0.3	0.3	0.1
LnGrp LOS	C	A	C	C	A	C	A	A	A	A	A	A
Approach Vol, veh/h		210			292			172			295	
Approach Delay, s/veh		26.3			27.0			6.6			0.3	
Approach LOS		C			C			A			A	
Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		54.4		25.6		54.4		25.6				
Change Period (Y+Rc), s		5.0		5.0		5.0		5.0				
Max Green Setting (Gmax), s		31.0		39.0		31.0		39.0				
Max Q Clear Time (g_c+I1), s		4.9		16.5		5.2		12.9				
Green Ext Time (p_c), s		0.6		0.7		0.8		1.1				
Intersection Summary												
HCM 6th Ctrl Delay				15.1								
HCM 6th LOS				B								

Existing + Cuml + Proj AM (Sce. 1)
7: Escondido Blvd & Alley

Aspire
08/20/2019

Intersection												
Int Delay, s/veh	0.1											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕						↕		↕	↕	
Traffic Vol, veh/h	0	2	2	0	0	0	0	428	2	3	348	0
Future Vol, veh/h	0	2	2	0	0	0	0	428	2	3	348	0
Conflicting Peds, #/hr	0	0	1	3	0	0	0	0	18	0	0	14
Sign Control	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	40	-	-
Veh in Median Storage, #	-	0	-	-	16979	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	2	2	0	0	0	0	465	2	3	378	0

Major/Minor	Minor2			Major1			Major2		
Conflicting Flow All	617	869	190	-	0	0	485	0	0
Stage 1	384	384	-	-	-	-	-	-	-
Stage 2	233	485	-	-	-	-	-	-	-
Critical Hdwy	6.84	6.54	6.94	-	-	-	4.14	-	-
Critical Hdwy Stg 1	5.84	5.54	-	-	-	-	-	-	-
Critical Hdwy Stg 2	5.84	5.54	-	-	-	-	-	-	-
Follow-up Hdwy	3.52	4.02	3.32	-	-	-	2.22	-	-
Pot Cap-1 Maneuver	422	289	820	0	-	-	1074	-	0
Stage 1	658	610	-	0	-	-	-	-	0
Stage 2	784	550	-	0	-	-	-	-	0
Platoon blocked, %									
Mov Cap-1 Maneuver	421	0	819	-	-	-	1074	-	-
Mov Cap-2 Maneuver	421	0	-	-	-	-	-	-	-
Stage 1	656	0	-	-	-	-	-	-	-
Stage 2	784	0	-	-	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	9.4	0	0.1
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBR	EBLn1	SBL	SBT
Capacity (veh/h)	-	-	819	1074	-
HCM Lane V/C Ratio	-	-	0.005	0.003	-
HCM Control Delay (s)	-	-	9.4	8.4	-
HCM Lane LOS	-	-	A	A	-
HCM 95th %tile Q(veh)	-	-	0	0	-

Existing + Cuml + Proj AM (Sce. 1)
8: Broadway & Alley

Aspire
08/20/2019

Intersection												
Int Delay, s/veh	0.5											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕						↕		↕	↕	
Traffic Vol, veh/h	6	1	11	0	0	0	0	217	4	10	251	0
Future Vol, veh/h	6	1	11	0	0	0	0	217	4	10	251	0
Conflicting Peds, #/hr	0	0	1	0	0	0	0	0	14	0	0	11
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	30	-	-
Veh in Median Storage, #	-	0	-	-	16979	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	7	1	12	0	0	0	0	236	4	11	273	0

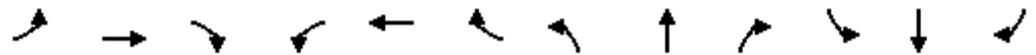
Major/Minor	Minor2			Major1			Major2		
Conflicting Flow All	413	549	138	-	0	0	254	0	0
Stage 1	295	295	-	-	-	-	-	-	-
Stage 2	118	254	-	-	-	-	-	-	-
Critical Hdwy	6.84	6.54	6.94	-	-	-	4.14	-	-
Critical Hdwy Stg 1	5.84	5.54	-	-	-	-	-	-	-
Critical Hdwy Stg 2	5.84	5.54	-	-	-	-	-	-	-
Follow-up Hdwy	3.52	4.02	3.32	-	-	-	2.22	-	-
Pot Cap-1 Maneuver	567	442	885	0	-	-	1308	-	0
Stage 1	730	668	-	0	-	-	-	-	0
Stage 2	894	696	-	0	-	-	-	-	0
Platoon blocked, %									
Mov Cap-1 Maneuver	562	0	884	-	-	-	1308	-	-
Mov Cap-2 Maneuver	562	0	-	-	-	-	-	-	-
Stage 1	724	0	-	-	-	-	-	-	-
Stage 2	894	0	-	-	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	10	0	0.3
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	EBLn1	SBL	SBT
Capacity (veh/h)	-	-	735	1308	-
HCM Lane V/C Ratio	-	-	0.027	0.008	-
HCM Control Delay (s)	-	-	10	7.8	-
HCM Lane LOS	-	-	B	A	-
HCM 95th %tile Q(veh)	-	-	0.1	0	-

Existing + Cuml + Proj PM (Sce. 1)
 1: Escondido Blvd & Valley Pkwy

Aspire
 08/20/2019



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					←←←←		↖	↑↑			↑↑	
Traffic Volume (veh/h)	0	0	0	71	1102	117	88	492	0	0	369	153
Future Volume (veh/h)	0	0	0	71	1102	117	88	492	0	0	369	153
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		0.95	1.00		1.00	1.00		0.91
Parking Bus, Adj				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		
Adj Sat Flow, veh/h/ln				1900	1870	1900	1870	1870	0	0	1870	1870
Adj Flow Rate, veh/h				77	1198	127	96	535	0	0	401	166
Peak Hour Factor				0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %				0	2	0	2	2	0	0	2	2
Cap, veh/h				143	2390	259	124	1299	0	0	574	233
Arrive On Green				0.41	0.41	0.41	0.02	0.12	0.00	0.00	0.24	0.24
Sat Flow, veh/h				349	5814	629	1781	3647	0	0	2481	968
Grp Volume(v), veh/h				409	646	348	96	535	0	0	296	271
Grp Sat Flow(s),veh/h/ln				1853	1609	1722	1781	1777	0	0	1777	1578
Q Serve(g_s), s				15.0	13.3	13.4	4.8	12.5	0.0	0.0	13.7	14.1
Cycle Q Clear(g_c), s				15.0	13.3	13.4	4.8	12.5	0.0	0.0	13.7	14.1
Prop In Lane				0.19		0.37	1.00		0.00	0.00		0.61
Lane Grp Cap(c), veh/h				762	1323	708	124	1299	0	0	427	379
V/C Ratio(X)				0.54	0.49	0.49	0.77	0.41	0.00	0.00	0.69	0.71
Avail Cap(c_a), veh/h				762	1323	708	218	1698	0	0	533	473
HCM Platoon Ratio				1.00	1.00	1.00	0.33	0.33	1.00	1.00	1.00	1.00
Upstream Filter(I)				1.00	1.00	1.00	1.00	1.00	0.00	0.00	1.00	1.00
Uniform Delay (d), s/veh				20.0	19.5	19.6	43.3	30.6	0.0	0.0	31.2	31.3
Incr Delay (d2), s/veh				2.7	1.3	2.4	9.8	0.1	0.0	0.0	1.7	2.5
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				6.8	5.0	5.6	2.5	5.9	0.0	0.0	5.9	5.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				22.7	20.8	22.0	53.0	30.7	0.0	0.0	32.9	33.8
LnGrp LOS				C	C	C	D	C	A	A	C	C
Approach Vol, veh/h					1402			631			567	
Approach Delay, s/veh					21.7			34.1			33.3	
Approach LOS					C			C			C	
Timer - Assigned Phs				3	4	6	8					
Phs Duration (G+Y+Rc), s				11.3	26.6	42.0	37.9					
Change Period (Y+Rc), s				5.0	5.0	5.0	5.0					
Max Green Setting (Gmax), s				11.0	27.0	37.0	43.0					
Max Q Clear Time (g_c+I1), s				6.8	16.1	17.0	14.5					
Green Ext Time (p_c), s				0.1	1.9	6.6	2.5					
Intersection Summary												
HCM 6th Ctrl Delay				27.2								
HCM 6th LOS				C								

Existing + Cuml + Proj PM (Sce. 1)
 2: Valley Pkwy & Maple St

Aspire
 08/20/2019



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↑↑↑						↑	
Traffic Volume (veh/h)	0	0	0	0	1242	20	0	0	0	0	0	52
Future Volume (veh/h)	0	0	0	0	1242	20	0	0	0	0	0	52
Initial Q (Qb), veh				0	0	0				0	0	0
Ped-Bike Adj(A_pbT)				1.00		0.96				1.00		0.94
Parking Bus, Adj				1.00	1.00	1.00				1.00	1.00	1.00
Work Zone On Approach				No						No		
Adj Sat Flow, veh/h/ln				0	1870	1870				0	1870	1870
Adj Flow Rate, veh/h				0	1350	22				0	0	57
Peak Hour Factor				0.92	0.92	0.92				0.92	0.92	0.92
Percent Heavy Veh, %				0	2	2				0	2	2
Cap, veh/h				0	3059	50				0	0	78
Arrive On Green				0.00	0.59	0.59				0.00	0.00	0.05
Sat Flow, veh/h				0	5339	84				0	0	1490
Grp Volume(v), veh/h				0	889	483				0	0	57
Grp Sat Flow(s),veh/h/ln				0	1702	1851				0	0	1490
Q Serve(g_s), s				0.0	3.6	3.6				0.0	0.0	1.0
Cycle Q Clear(g_c), s				0.0	3.6	3.6				0.0	0.0	1.0
Prop In Lane				0.00		0.05				0.00		1.00
Lane Grp Cap(c), veh/h				0	2014	1095				0	0	78
V/C Ratio(X)				0.00	0.44	0.44				0.00	0.00	0.73
Avail Cap(c_a), veh/h				0	3167	1722				0	0	443
HCM Platoon Ratio				1.00	1.00	1.00				1.00	1.00	1.00
Upstream Filter(I)				0.00	1.00	1.00				0.00	0.00	1.00
Uniform Delay (d), s/veh				0.0	2.9	2.9				0.0	0.0	11.8
Incr Delay (d2), s/veh				0.0	0.2	0.3				0.0	0.0	12.4
Initial Q Delay(d3),s/veh				0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				0.0	0.0	0.1				0.0	0.0	0.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				0.0	3.0	3.1				0.0	0.0	24.2
LnGrp LOS				A	A	A				A	A	C
Approach Vol, veh/h					1372							57
Approach Delay, s/veh					3.0							24.2
Approach LOS					A							C
Timer - Assigned Phs						6		8				
Phs Duration (G+Y+Rc), s						5.8		19.4				
Change Period (Y+Rc), s						4.5		4.5				
Max Green Setting (Gmax), s						7.5		23.5				
Max Q Clear Time (g_c+I1), s						3.0		5.6				
Green Ext Time (p_c), s						0.1		9.1				
Intersection Summary												
HCM 6th Ctrl Delay												3.9
HCM 6th LOS												A

Existing + Cuml + Proj PM (Sce. 1)
 3: Broadway & Valley Pkwy

Aspire
 08/20/2019



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↑↑↑	↑	↑	↑↑			↑↑	↑
Traffic Volume (veh/h)	0	0	0	31	1001	174	100	285	0	0	221	173
Future Volume (veh/h)	0	0	0	31	1001	174	100	285	0	0	221	173
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		0.98	1.00		1.00	1.00		0.97
Parking Bus, Adj				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		
Adj Sat Flow, veh/h/ln				1870	1870	1870	1870	1870	0	0	1870	1870
Adj Flow Rate, veh/h				34	1088	189	109	310	0	0	240	188
Peak Hour Factor				0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %				2	2	2	2	2	0	0	2	2
Cap, veh/h				101	3431	1041	235	776	0	0	776	337
Arrive On Green				0.67	0.67	0.67	0.07	0.07	0.00	0.00	0.22	0.22
Sat Flow, veh/h				150	5117	1552	957	3647	0	0	3647	1543
Grp Volume(v), veh/h				421	701	189	109	310	0	0	240	188
Grp Sat Flow(s),veh/h/ln				1863	1702	1552	957	1777	0	0	1777	1543
Q Serve(g_s), s				8.7	7.7	4.1	10.1	7.5	0.0	0.0	5.1	9.8
Cycle Q Clear(g_c), s				8.7	7.7	4.1	15.2	7.5	0.0	0.0	5.1	9.8
Prop In Lane				0.08		1.00	1.00		0.00	0.00		1.00
Lane Grp Cap(c), veh/h				1249	2283	1041	235	776	0	0	776	337
V/C Ratio(X)				0.34	0.31	0.18	0.46	0.40	0.00	0.00	0.31	0.56
Avail Cap(c_a), veh/h				1249	2283	1041	387	1343	0	0	1343	583
HCM Platoon Ratio				1.00	1.00	1.00	0.33	0.33	1.00	1.00	1.00	1.00
Upstream Filter(I)				1.00	1.00	1.00	1.00	1.00	0.00	0.00	1.00	1.00
Uniform Delay (d), s/veh				6.3	6.1	5.6	42.2	36.1	0.0	0.0	29.5	31.3
Incr Delay (d2), s/veh				0.7	0.3	0.4	1.1	0.2	0.0	0.0	0.2	1.1
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				3.2	2.5	1.3	2.6	3.4	0.0	0.0	2.1	3.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				7.0	6.5	5.9	43.3	36.4	0.0	0.0	29.7	32.4
LnGrp LOS				A	A	A	D	D	A	A	C	C
Approach Vol, veh/h				1311			419			428		
Approach Delay, s/veh				6.6			38.2			30.9		
Approach LOS				A			D			C		
Timer - Assigned Phs				4			6			8		
Phs Duration (G+Y+Rc), s				24.7			65.3			24.7		
Change Period (Y+Rc), s				5.0			5.0			5.0		
Max Green Setting (Gmax), s				34.0			46.0			34.0		
Max Q Clear Time (g_c+I1), s				11.8			10.7			17.2		
Green Ext Time (p_c), s				1.6			8.2			1.9		
Intersection Summary												
HCM 6th Ctrl Delay				17.5								
HCM 6th LOS				B								

Existing + Cuml + Proj PM (Sce. 1)
4: Escondido Blvd & Grand Ave

Aspire
08/20/2019



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	68	294	14	39	266	36	34	485	23	79	404	20
Future Volume (veh/h)	68	294	14	39	266	36	34	485	23	79	404	20
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	0.99		0.96	0.99		0.97	0.99		0.97	1.00		0.96
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	74	320	15	42	289	39	37	527	25	86	439	22
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	189	472	22	188	420	57	557	2126	101	552	2119	106
Arrive On Green	0.27	0.27	0.27	0.27	0.26	0.27	0.62	0.62	0.62	0.21	0.20	0.21
Sat Flow, veh/h	1043	1769	83	1034	1606	217	926	3448	163	854	3436	172
Grp Volume(v), veh/h	74	0	335	42	0	328	37	271	281	86	226	235
Grp Sat Flow(s),veh/h/ln1043	0	1852	1034	0	1822	926	1777	1835	854	1777	1831	
Q Serve(g_s), s	6.2	0.0	14.6	3.4	0.0	14.6	1.8	6.2	6.2	7.7	9.5	9.6
Cycle Q Clear(g_c), s	20.7	0.0	14.6	18.0	0.0	14.6	11.4	6.2	6.2	13.9	9.5	9.6
Prop In Lane	1.00		0.04	1.00		0.12	1.00		0.09	1.00		0.09
Lane Grp Cap(c), veh/h	189	0	494	188	0	476	557	1095	1131	552	1095	1129
V/C Ratio(X)	0.39	0.00	0.68	0.22	0.00	0.69	0.07	0.25	0.25	0.16	0.21	0.21
Avail Cap(c_a), veh/h	328	0	741	326	0	719	557	1095	1131	552	1095	1129
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.33	0.33	0.33
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	38.8	0.0	29.5	37.6	0.0	29.9	11.0	7.8	7.8	21.7	17.5	17.6
Incr Delay (d2), s/veh	0.5	0.0	0.6	0.2	0.0	0.7	0.2	0.5	0.5	0.6	0.4	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln1.6	0.0	0.0	6.4	0.9	0.0	6.3	0.4	2.3	2.4	1.8	4.4	4.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	39.3	0.0	30.1	37.8	0.0	30.6	11.2	8.3	8.3	22.3	18.0	18.0
LnGrp LOS	D	A	C	D	A	C	B	A	A	C	B	B
Approach Vol, veh/h		409			370			589			547	
Approach Delay, s/veh		31.8			31.4			8.5			18.7	
Approach LOS		C			C			A			B	
Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		61.0		29.0		61.0		29.0				
Change Period (Y+Rc), s		5.0		5.0		5.0		5.0				
Max Green Setting (Gmax), s		44.0		36.0		44.0		36.0				
Max Q Clear Time (g_c+11), s		13.4		22.7		15.9		20.0				
Green Ext Time (p_c), s		2.4		1.3		2.2		1.3				
Intersection Summary												
HCM 6th Ctrl Delay				20.8								
HCM 6th LOS				C								

Intersection												
Intersection Delay, s/veh	13.3											
Intersection LOS	B											

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	14	384	14	18	294	13	39	5	22	0	0	0
Future Vol, veh/h	14	384	14	18	294	13	39	5	22	0	0	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	15	417	15	20	320	14	42	5	24	0	0	0
Number of Lanes	1	1	0	1	1	0	0	1	0	0	0	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	
Opposing Lanes	2	2	0
Conflicting Approach Left		NB	EB
Conflicting Lanes Left	0	1	2
Conflicting Approach Right	NB		WB
Conflicting Lanes Right	1	0	2
HCM Control Delay	14.9	12.1	9.5
HCM LOS	B	B	A

Lane	NBLn1	EBLn1	EBLn2	WBLn1	WBLn2
Vol Left, %	59%	100%	0%	100%	0%
Vol Thru, %	8%	0%	96%	0%	96%
Vol Right, %	33%	0%	4%	0%	4%
Sign Control	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	66	14	398	18	307
LT Vol	39	14	0	18	0
Through Vol	5	0	384	0	294
RT Vol	22	0	14	0	13
Lane Flow Rate	72	15	433	20	334
Geometry Grp	2	7	7	7	7
Degree of Util (X)	0.114	0.023	0.602	0.03	0.471
Departure Headway (Hd)	5.699	5.535	5.007	5.608	5.076
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes
Cap	626	646	718	637	707
Service Time	3.766	3.276	2.749	3.352	2.819
HCM Lane V/C Ratio	0.115	0.023	0.603	0.031	0.472
HCM Control Delay	9.5	8.4	15.1	8.5	12.3
HCM Lane LOS	A	A	C	A	B
HCM 95th-tile Q	0.4	0.1	4.1	0.1	2.5

Existing + Cuml + Proj PM (Sce. 1)
6: Broadway & Grand Ave

Aspire
08/20/2019



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	83	294	20	16	245	55	16	222	25	91	146	52
Future Volume (veh/h)	83	294	20	16	245	55	16	222	25	91	146	52
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	0.97		0.89	0.96		0.91	1.00		0.98	0.99		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	90	320	22	17	266	60	17	241	27	99	159	57
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	206	487	34	199	412	93	701	996	112	670	1131	953
Arrive On Green	0.28	0.28	0.28	0.28	0.28	0.28	0.60	0.60	0.60	0.20	0.20	0.20
Sat Flow, veh/h	1017	1714	118	994	1449	327	1162	1648	185	1099	1870	1577
Grp Volume(v), veh/h	90	0	342	17	0	326	17	0	268	99	159	57
Grp Sat Flow(s),veh/h/ln1017	0	1832	994	0	1776	1162	0	1832	1099	1870	1577	
Q Serve(g_s), s	7.7	0.0	14.8	1.4	0.0	14.5	0.6	0.0	6.1	6.9	6.3	2.6
Cycle Q Clear(g_c), s	22.1	0.0	14.8	16.2	0.0	14.5	6.9	0.0	6.1	13.0	6.3	2.6
Prop In Lane	1.00		0.06	1.00		0.18	1.00		0.10	1.00		1.00
Lane Grp Cap(c), veh/h	206	0	521	199	0	505	701	0	1108	670	1131	953
V/C Ratio(X)	0.44	0.00	0.66	0.09	0.00	0.65	0.02	0.00	0.24	0.15	0.14	0.06
Avail Cap(c_a), veh/h	368	0	814	358	0	789	701	0	1108	670	1131	953
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.33	0.33	0.33
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	37.9	0.0	28.3	35.4	0.0	28.2	9.9	0.0	8.2	22.0	16.8	15.3
Incr Delay (d2), s/veh	0.5	0.0	0.5	0.1	0.0	0.5	0.1	0.0	0.5	0.5	0.3	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	9	0.0	6.4	0.3	0.0	6.1	0.2	0.0	2.4	2.1	2.8	0.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	38.5	0.0	28.9	35.5	0.0	28.7	10.0	0.0	8.8	22.5	17.0	15.4
LnGrp LOS	D	A	C	D	A	C	A	A	A	C	B	B
Approach Vol, veh/h		432			343			285			315	
Approach Delay, s/veh		30.9			29.1			8.8			18.5	
Approach LOS		C			C			A			B	
Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		59.4		30.6		59.4		30.6				
Change Period (Y+Rc), s		5.0		5.0		5.0		5.0				
Max Green Setting (Gmax), s		40.0		40.0		40.0		40.0				
Max Q Clear Time (g_c+I1), s		8.9		24.1		15.0		18.2				
Green Ext Time (p_c), s		1.1		1.5		0.9		1.3				
Intersection Summary												
HCM 6th Ctrl Delay											23.0	
HCM 6th LOS											C	

Intersection												
Int Delay, s/veh	0.1											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕↔						↕↔		↕	↕↔	
Traffic Vol, veh/h	4	0	0	0	0	0	0	575	3	6	520	0
Future Vol, veh/h	4	0	0	0	0	0	0	575	3	6	520	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	16	0	0	15
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	40	-	-
Veh in Median Storage, #	-	0	-	-	16979	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	4	0	0	0	0	0	0	625	3	7	565	0

Major/Minor	Minor2			Major1			Major2		
Conflicting Flow All	892	1223	283	-	0	0	644	0	0
Stage 1	579	579	-	-	-	-	-	-	-
Stage 2	313	644	-	-	-	-	-	-	-
Critical Hdwy	6.84	6.54	6.94	-	-	-	4.14	-	-
Critical Hdwy Stg 1	5.84	5.54	-	-	-	-	-	-	-
Critical Hdwy Stg 2	5.84	5.54	-	-	-	-	-	-	-
Follow-up Hdwy	3.52	4.02	3.32	-	-	-	2.22	-	-
Pot Cap-1 Maneuver	281	178	714	0	-	-	937	-	0
Stage 1	524	499	-	0	-	-	-	-	0
Stage 2	715	466	-	0	-	-	-	-	0
Platoon blocked, %									
Mov Cap-1 Maneuver	279	0	714	-	-	-	937	-	-
Mov Cap-2 Maneuver	279	0	-	-	-	-	-	-	-
Stage 1	520	0	-	-	-	-	-	-	-
Stage 2	715	0	-	-	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	18.1	0	0.1
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	NBR	EBLn1	SBL	SBT
Capacity (veh/h)	-	-	279	937	-
HCM Lane V/C Ratio	-	-	0.016	0.007	-
HCM Control Delay (s)	-	-	18.1	8.9	-
HCM Lane LOS	-	-	C	A	-
HCM 95th %tile Q(veh)	-	-	0	0	-

Existing + Cuml + Proj PM (Sce. 1)
 8: Broadway & Alley

Aspire
 08/20/2019

Intersection												
Int Delay, s/veh	0.8											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕						↕		↕	↕	
Traffic Vol, veh/h	11	8	22	0	0	0	0	349	16	13	260	0
Future Vol, veh/h	11	8	22	0	0	0	0	349	16	13	260	0
Conflicting Peds, #/hr	0	0	5	3	0	0	0	0	13	0	0	65
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	30	-	-
Veh in Median Storage, #	-	0	-	-	16979	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	12	9	24	0	0	0	0	379	17	14	283	0

Major/Minor	Minor2			Major1			Major2		
Conflicting Flow All	501	720	147	-	0	0	409	0	0
Stage 1	311	311	-	-	-	-	-	-	-
Stage 2	190	409	-	-	-	-	-	-	-
Critical Hdwy	6.84	6.54	6.94	-	-	-	4.14	-	-
Critical Hdwy Stg 1	5.84	5.54	-	-	-	-	-	-	-
Critical Hdwy Stg 2	5.84	5.54	-	-	-	-	-	-	-
Follow-up Hdwy	3.52	4.02	3.32	-	-	-	2.22	-	-
Pot Cap-1 Maneuver	499	352	873	0	-	-	1146	-	0
Stage 1	716	657	-	0	-	-	-	-	0
Stage 2	823	594	-	0	-	-	-	-	0
Platoon blocked, %									
Mov Cap-1 Maneuver	493	0	869	-	-	-	1146	-	-
Mov Cap-2 Maneuver	493	0	-	-	-	-	-	-	-
Stage 1	707	0	-	-	-	-	-	-	-
Stage 2	823	0	-	-	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	10.6	0	0.4
HCM LOS	B		

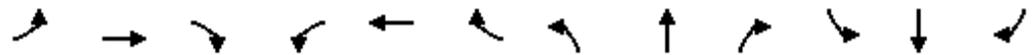
Minor Lane/Major Mvmt	NBT	NBR	EBLn1	SBL	SBT
Capacity (veh/h)	-	-	693	1146	-
HCM Lane V/C Ratio	-	-	0.064	0.012	-
HCM Control Delay (s)	-	-	10.6	8.2	-
HCM Lane LOS	-	-	B	A	-
HCM 95th %tile Q(veh)	-	-	0.2	0	-

APPENDIX I

INTERSECTION ANALYSIS WORKSHEETS – EXISTING + CUMULATIVE PROJECTS (SCENARIO 2)

Existing + Cuml AM (Sce. 2)
1: Escondido Blvd & Valley Pkwy

Aspire
08/16/2019



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					← ← ←		←	↑↑			↑↑	
Traffic Volume (veh/h)	0	0	0	69	1168	63	137	344	0	0	242	168
Future Volume (veh/h)	0	0	0	69	1168	63	137	344	0	0	242	168
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		0.94	1.00		1.00	1.00		0.94
Parking Bus, Adj				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		
Adj Sat Flow, veh/h/ln				1900	1870	1900	1870	1870	0	0	1870	1870
Adj Flow Rate, veh/h				75	1270	68	149	374	0	0	263	183
Peak Hour Factor				0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %				0	2	0	2	2	0	0	2	2
Cap, veh/h				128	2316	127	185	1355	0	0	428	283
Arrive On Green				0.38	0.38	0.38	0.10	0.38	0.00	0.00	0.22	0.22
Sat Flow, veh/h				340	6176	338	1781	3647	0	0	2081	1317
Grp Volume(v), veh/h				409	645	359	149	374	0	0	234	212
Grp Sat Flow(s),veh/h/ln				1853	1609	1783	1781	1777	0	0	1777	1528
Q Serve(g_s), s				14.1	12.5	12.6	6.5	5.8	0.0	0.0	9.5	10.1
Cycle Q Clear(g_c), s				14.1	12.5	12.6	6.5	5.8	0.0	0.0	9.5	10.1
Prop In Lane				0.18		0.19	1.00		0.00	0.00		0.86
Lane Grp Cap(c), veh/h				695	1206	669	185	1355	0	0	382	329
V/C Ratio(X)				0.59	0.53	0.54	0.81	0.28	0.00	0.00	0.61	0.65
Avail Cap(c_a), veh/h				695	1206	669	234	1777	0	0	544	468
HCM Platoon Ratio				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	0.00	0.00	1.00	1.00
Uniform Delay (d), s/veh				20.0	19.5	19.6	35.1	17.1	0.0	0.0	28.4	28.6
Incr Delay (d2), s/veh				3.6	1.7	3.1	14.9	0.0	0.0	0.0	0.6	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
%ile BackOfQ(50%),veh/ln				6.5	4.7	5.5	3.5	2.3	0.0	0.0	4.0	3.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				23.7	21.2	22.6	50.0	17.2	0.0	0.0	29.0	29.4
LnGrp LOS				C	C	C	D	B	A	A	C	C
Approach Vol, veh/h					1413			523			446	
Approach Delay, s/veh					22.3			26.5			29.2	
Approach LOS					C			C			C	
Timer - Assigned Phs				3	4		6	8				
Phs Duration (G+Y+Rc), s				13.3	22.2		35.0	35.5				
Change Period (Y+Rc), s				5.0	5.0		5.0	5.0				
Max Green Setting (Gmax), s				10.5	24.5		30.0	40.0				
Max Q Clear Time (g_c+I1), s				8.5	12.1		16.1	7.8				
Green Ext Time (p_c), s				0.1	1.5		5.6	1.7				
Intersection Summary												
HCM 6th Ctrl Delay				24.5								
HCM 6th LOS				C								

Existing + Cuml AM (Sce. 2)
2: Valley Pkwy & Maple St

Aspire
08/16/2019



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↑↑↑						↑	
Traffic Volume (veh/h)	0	0	0	0	1589	18	0	0	0	0	0	9
Future Volume (veh/h)	0	0	0	0	1589	18	0	0	0	0	0	9
Initial Q (Qb), veh				0	0	0				0	0	0
Ped-Bike Adj(A_pbT)				1.00		0.96				1.00		0.96
Parking Bus, Adj				1.00	1.00	1.00				1.00	1.00	1.00
Work Zone On Approach				No						No		
Adj Sat Flow, veh/h/ln				0	1870	1870				0	1870	1870
Adj Flow Rate, veh/h				0	1727	20				0	0	10
Peak Hour Factor				0.92	0.92	0.92				0.92	0.92	0.92
Percent Heavy Veh, %				0	2	2				0	2	2
Cap, veh/h				0	3475	40				0	0	16
Arrive On Green				0.00	0.67	0.67				0.00	0.00	0.01
Sat Flow, veh/h				0	5369	60				0	0	1521
Grp Volume(v), veh/h				0	1130	617				0	0	10
Grp Sat Flow(s),veh/h/ln				0	1702	1857				0	0	1521
Q Serve(g_s), s				0.0	4.4	4.4				0.0	0.0	0.2
Cycle Q Clear(g_c), s				0.0	4.4	4.4				0.0	0.0	0.2
Prop In Lane				0.00		0.03				0.00		1.00
Lane Grp Cap(c), veh/h				0	2275	1241				0	0	16
V/C Ratio(X)				0.00	0.50	0.50				0.00	0.00	0.61
Avail Cap(c_a), veh/h				0	3022	1648				0	0	230
HCM Platoon Ratio				1.00	1.00	1.00				1.00	1.00	1.00
Upstream Filter(I)				0.00	1.00	1.00				0.00	0.00	1.00
Uniform Delay (d), s/veh				0.0	2.2	2.2				0.0	0.0	13.0
Incr Delay (d2), s/veh				0.0	0.2	0.3				0.0	0.0	32.0
Initial Q Delay(d3),s/veh				0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				0.0	0.1	0.1				0.0	0.0	0.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				0.0	2.4	2.5				0.0	0.0	45.0
LnGrp LOS				A	A	A				A	A	D
Approach Vol, veh/h					1747							10
Approach Delay, s/veh					2.4							45.0
Approach LOS					A							D
Timer - Assigned Phs						6		8				
Phs Duration (G+Y+Rc), s						4.3		22.2				
Change Period (Y+Rc), s						4.0		4.5				
Max Green Setting (Gmax), s						4.0		23.5				
Max Q Clear Time (g_c+I1), s						2.2		6.4				
Green Ext Time (p_c), s						0.0		11.3				
Intersection Summary												
HCM 6th Ctrl Delay						2.6						
HCM 6th LOS						A						

Existing + Cuml AM (Sce. 2)
3: Broadway & Valley Pkwy

Aspire
08/16/2019



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↑↑↑	↑	↑	↑↑			↑↑	↑
Traffic Volume (veh/h)	0	0	0	33	1414	126	19	178	0	0	210	164
Future Volume (veh/h)	0	0	0	33	1414	126	19	178	0	0	210	164
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		0.98	0.99		1.00	1.00		0.99
Parking Bus, Adj				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		
Adj Sat Flow, veh/h/ln				1870	1870	1870	1870	1870	0	0	1870	1870
Adj Flow Rate, veh/h				36	1537	137	21	193	0	0	228	178
Peak Hour Factor				0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %				2	2	2	2	2	0	0	2	2
Cap, veh/h				80	3651	1098	197	593	0	0	593	261
Arrive On Green				0.71	0.71	0.71	0.17	0.17	0.00	0.00	0.17	0.17
Sat Flow, veh/h				114	5155	1551	973	3647	0	0	3647	1562
Grp Volume(v), veh/h				591	982	137	21	193	0	0	228	178
Grp Sat Flow(s),veh/h/ln				1865	1702	1551	973	1777	0	0	1777	1562
Q Serve(g_s), s				10.8	9.5	2.3	1.6	3.8	0.0	0.0	4.6	8.6
Cycle Q Clear(g_c), s				10.8	9.5	2.3	6.1	3.8	0.0	0.0	4.6	8.6
Prop In Lane				0.06		1.00	1.00		0.00	0.00		1.00
Lane Grp Cap(c), veh/h				1321	2411	1098	197	593	0	0	593	261
V/C Ratio(X)				0.45	0.41	0.12	0.11	0.33	0.00	0.00	0.38	0.68
Avail Cap(c_a), veh/h				1321	2411	1098	387	1288	0	0	1288	566
HCM Platoon Ratio				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	0.00	0.00	1.00	1.00
Uniform Delay (d), s/veh				5.0	4.8	3.7	32.4	29.4	0.0	0.0	29.7	31.3
Incr Delay (d2), s/veh				1.1	0.5	0.2	0.2	0.2	0.0	0.0	0.3	2.3
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				3.5	2.7	0.6	0.4	1.6	0.0	0.0	1.9	3.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				6.1	5.3	4.0	32.6	29.6	0.0	0.0	30.0	33.7
LnGrp LOS				A	A	A	C	C	A	A	C	C
Approach Vol, veh/h					1710			214			406	
Approach Delay, s/veh					5.5			29.9			31.6	
Approach LOS					A			C			C	
Timer - Assigned Phs				4		6		8				
Phs Duration (G+Y+Rc), s				18.3		61.7		18.3				
Change Period (Y+Rc), s				5.0		5.0		5.0				
Max Green Setting (Gmax), s				29.0		41.0		29.0				
Max Q Clear Time (g_c+I1), s				10.6		12.8		8.1				
Green Ext Time (p_c), s				1.5		11.8		1.0				
Intersection Summary												
HCM 6th Ctrl Delay				12.3								
HCM 6th LOS				B								

Existing + Cuml AM (Sce. 2)
4: Escondido Blvd & Grand Ave

Aspire
08/16/2019



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↗		↖	↗		↖	↕		↖	↗	
Traffic Volume (veh/h)	52	147	9	33	180	27	17	337	9	41	303	9
Future Volume (veh/h)	52	147	9	33	180	27	17	337	9	41	303	9
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	0.99		0.97	0.99		0.96	0.99		0.97	1.00		0.97
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	57	160	10	36	196	29	18	366	10	45	329	10
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	213	379	24	257	345	51	733	2320	63	710	2311	70
Arrive On Green	0.22	0.22	0.22	0.22	0.22	0.22	0.66	0.66	0.66	0.66	0.66	0.66
Sat Flow, veh/h	1142	1739	109	1205	1583	234	1035	3531	96	1004	3517	107
Grp Volume(v), veh/h	57	0	170	36	0	225	18	184	192	45	166	173
Grp Sat Flow(s),veh/h/ln	1142	0	1847	1205	0	1818	1035	1777	1850	1004	1777	1847
Q Serve(g_s), s	3.8	0.0	6.3	2.1	0.0	8.8	0.5	3.2	3.2	1.4	2.8	2.8
Cycle Q Clear(g_c), s	12.6	0.0	6.3	8.5	0.0	8.8	3.4	3.2	3.2	4.6	2.8	2.8
Prop In Lane	1.00		0.06	1.00		0.13	1.00		0.05	1.00		0.06
Lane Grp Cap(c), veh/h	213	0	402	257	0	396	733	1168	1216	710	1168	1214
V/C Ratio(X)	0.27	0.00	0.42	0.14	0.00	0.57	0.02	0.16	0.16	0.06	0.14	0.14
Avail Cap(c_a), veh/h	463	0	808	522	0	795	733	1168	1216	710	1168	1214
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	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	33.5	0.0	27.0	30.6	0.0	27.9	5.8	5.2	5.2	6.1	5.2	5.2
Incr Delay (d2), s/veh	0.2	0.0	0.3	0.1	0.0	0.5	0.1	0.3	0.3	0.2	0.3	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	0.0	2.7	0.6	0.0	3.8	0.1	1.1	1.1	0.3	0.9	1.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	33.8	0.0	27.2	30.7	0.0	28.4	5.9	5.5	5.5	6.3	5.4	5.4
LnGrp LOS	C	A	C	C	A	C	A	A	A	A	A	A
Approach Vol, veh/h		227			261			394			384	
Approach Delay, s/veh		28.9			28.7			5.5			5.5	
Approach LOS		C			C			A			A	
Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		57.6		22.4		57.6		22.4				
Change Period (Y+Rc), s		5.0		5.0		5.0		5.0				
Max Green Setting (Gmax), s		35.0		35.0		35.0		35.0				
Max Q Clear Time (g_c+I1), s		5.4		14.6		6.6		10.8				
Green Ext Time (p_c), s		1.5		0.7		1.4		0.9				
Intersection Summary												
HCM 6th Ctrl Delay				14.5								
HCM 6th LOS				B								

Intersection				
Intersection Delay, s/veh	4.5			
Intersection LOS	A			
Approach	EB	WB	NB	SB
Entry Lanes	1	1	1	0
Conflicting Circle Lanes	1	1	1	1
Adj Approach Flow, veh/h	217	294	37	0
Demand Flow Rate, veh/h	221	300	37	0
Vehicles Circulating, veh/h	59	41	204	310
Vehicles Exiting, veh/h	251	200	76	31
Ped Vol Crossing Leg, #/h	21	56	13	0
Ped Cap Adj	0.997	0.992	0.998	1.000
Approach Delay, s/veh	4.3	4.8	3.5	0.0
Approach LOS	A	A	A	-
Lane	Left	Left	Left	
Designated Moves	LTR	LTR	LTR	
Assumed Moves	LTR	LTR	LTR	
RT Channelized				
Lane Util	1.000	1.000	1.000	
Follow-Up Headway, s	2.609	2.609	2.609	
Critical Headway, s	4.976	4.976	4.976	
Entry Flow, veh/h	221	300	37	
Cap Entry Lane, veh/h	1299	1323	1121	
Entry HV Adj Factor	0.983	0.981	0.997	
Flow Entry, veh/h	217	294	37	
Cap Entry, veh/h	1274	1289	1116	
V/C Ratio	0.171	0.228	0.033	
Control Delay, s/veh	4.3	4.8	3.5	
LOS	A	A	A	
95th %tile Queue, veh	1	1	0	

Intersection						
Intersection Delay, s/veh	5.1					
Intersection LOS	A					
Approach	EB	WB		NB	SB	
Entry Lanes	1	2		1	2	
Conflicting Circle Lanes	1	1		1	1	
Adj Approach Flow, veh/h	205	291		159	291	
Demand Flow Rate, veh/h	209	297		162	296	
Vehicles Circulating, veh/h	255	197		268	268	
Vehicles Exiting, veh/h	309	233		196	226	
Ped Vol Crossing Leg, #/h	27	17		29	33	
Ped Cap Adj	0.996	0.984		0.996	0.970	
Approach Delay, s/veh	5.3	4.9		4.9	5.2	
Approach LOS	A	A		A	A	
Lane	Left	Left	Right	Left	Left	Right
Designated Moves	LTR	LT	R	LTR	LT	R
Assumed Moves	LTR	LT	R	LTR	LT	R
RT Channelized						
Lane Util	1.000	0.862	0.138	1.000	0.818	0.182
Follow-Up Headway, s	2.609	2.535	2.535	2.609	2.535	2.535
Critical Headway, s	4.976	4.544	4.544	4.976	4.544	4.544
Entry Flow, veh/h	209	256	41	162	242	54
Cap Entry Lane, veh/h	1064	1187	1187	1050	1113	1113
Entry HV Adj Factor	0.981	0.981	0.976	0.984	0.982	0.981
Flow Entry, veh/h	205	251	40	159	238	53
Cap Entry, veh/h	1040	1146	1139	1028	1060	1060
V/C Ratio	0.197	0.219	0.035	0.155	0.224	0.050
Control Delay, s/veh	5.3	5.1	3.5	4.9	5.5	3.8
LOS	A	A	A	A	A	A
95th %tile Queue, veh	1	1	0	1	1	0

Intersection												
Int Delay, s/veh	0.1											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕						↕		↕	↕	
Traffic Vol, veh/h	0	2	2	0	0	0	0	427	2	3	333	0
Future Vol, veh/h	0	2	2	0	0	0	0	427	2	3	333	0
Conflicting Peds, #/hr	0	0	1	3	0	0	0	0	18	0	0	14
Sign Control	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	40	-	-
Veh in Median Storage, #	-	0	-	-	16979	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	2	2	0	0	0	0	464	2	3	362	0

Major/Minor	Minor2			Major1			Major2		
Conflicting Flow All	600	852	182	-	0	0	484	0	0
Stage 1	368	368	-	-	-	-	-	-	-
Stage 2	232	484	-	-	-	-	-	-	-
Critical Hdwy	6.84	6.54	6.94	-	-	-	4.14	-	-
Critical Hdwy Stg 1	5.84	5.54	-	-	-	-	-	-	-
Critical Hdwy Stg 2	5.84	5.54	-	-	-	-	-	-	-
Follow-up Hdwy	3.52	4.02	3.32	-	-	-	2.22	-	-
Pot Cap-1 Maneuver	432	295	829	0	-	-	1075	-	0
Stage 1	670	620	-	0	-	-	-	-	0
Stage 2	785	550	-	0	-	-	-	-	0
Platoon blocked, %									
Mov Cap-1 Maneuver	431	0	828	-	-	-	1075	-	-
Mov Cap-2 Maneuver	431	0	-	-	-	-	-	-	-
Stage 1	668	0	-	-	-	-	-	-	-
Stage 2	785	0	-	-	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	9.4	0	0.1
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBR	EBLn1	SBL	SBT
Capacity (veh/h)	-	-	828	1075	-
HCM Lane V/C Ratio	-	-	0.005	0.003	-
HCM Control Delay (s)	-	-	9.4	8.4	-
HCM Lane LOS	-	-	A	A	-
HCM 95th %tile Q(veh)	-	-	0	0	-

Existing + Cuml AM (Sce. 2)
8: Broadway & Alley

Aspire
08/16/2019

Intersection												
Int Delay, s/veh	0.5											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕						↕		↕	↕	
Traffic Vol, veh/h	6	1	7	0	0	0	0	201	4	10	251	0
Future Vol, veh/h	6	1	7	0	0	0	0	201	4	10	251	0
Conflicting Peds, #/hr	0	0	1	0	0	0	0	0	14	0	0	11
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	30	-	-
Veh in Median Storage, #	-	0	-	-	16979	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	7	1	8	0	0	0	0	218	4	11	273	0

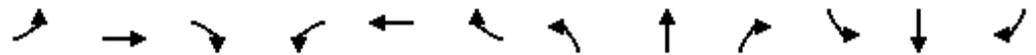
Major/Minor	Minor2			Major1			Major2		
Conflicting Flow All	404	531	138	-	0	0	236	0	0
Stage 1	295	295	-	-	-	-	-	-	-
Stage 2	109	236	-	-	-	-	-	-	-
Critical Hdwy	6.84	6.54	6.94	-	-	-	4.14	-	-
Critical Hdwy Stg 1	5.84	5.54	-	-	-	-	-	-	-
Critical Hdwy Stg 2	5.84	5.54	-	-	-	-	-	-	-
Follow-up Hdwy	3.52	4.02	3.32	-	-	-	2.22	-	-
Pot Cap-1 Maneuver	575	452	885	0	-	-	1328	-	0
Stage 1	730	668	-	0	-	-	-	-	0
Stage 2	903	708	-	0	-	-	-	-	0
Platoon blocked, %									
Mov Cap-1 Maneuver	570	0	884	-	-	-	1328	-	-
Mov Cap-2 Maneuver	570	0	-	-	-	-	-	-	-
Stage 1	724	0	-	-	-	-	-	-	-
Stage 2	903	0	-	-	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	10.2	0	0.3
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	EBLn1	SBL	SBT
Capacity (veh/h)	-	-	705	1328	-
HCM Lane V/C Ratio	-	-	0.022	0.008	-
HCM Control Delay (s)	-	-	10.2	7.7	-
HCM Lane LOS	-	-	B	A	-
HCM 95th %tile Q(veh)	-	-	0.1	0	-

Existing + Cuml PM (Sce. 2)
1: Escondido Blvd & Valley Pkwy

Aspire
08/16/2019



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations				←←←←			↖	↑↑			↑↑	
Traffic Volume (veh/h)	0	0	0	64	1090	105	88	492	0	0	366	153
Future Volume (veh/h)	0	0	0	64	1090	105	88	492	0	0	366	153
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		0.95	1.00		1.00	1.00		0.91
Parking Bus, Adj				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		
Adj Sat Flow, veh/h/ln				1900	1870	1900	1870	1870	0	0	1870	1870
Adj Flow Rate, veh/h				70	1185	114	96	535	0	0	398	166
Peak Hour Factor				0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %				0	2	0	2	2	0	0	2	2
Cap, veh/h				134	2426	238	124	1298	0	0	571	233
Arrive On Green				0.41	0.41	0.41	0.02	0.12	0.00	0.00	0.24	0.24
Sat Flow, veh/h				325	5900	579	1781	3647	0	0	2475	973
Grp Volume(v), veh/h				399	629	341	96	535	0	0	295	269
Grp Sat Flow(s),veh/h/ln				1854	1609	1734	1781	1777	0	0	1777	1577
Q Serve(g_s), s				14.5	12.9	13.0	4.8	12.5	0.0	0.0	13.6	14.1
Cycle Q Clear(g_c), s				14.5	12.9	13.0	4.8	12.5	0.0	0.0	13.6	14.1
Prop In Lane				0.18		0.33	1.00		0.00	0.00		0.62
Lane Grp Cap(c), veh/h				762	1323	713	124	1298	0	0	426	378
V/C Ratio(X)				0.52	0.48	0.48	0.77	0.41	0.00	0.00	0.69	0.71
Avail Cap(c_a), veh/h				762	1323	713	218	1698	0	0	533	473
HCM Platoon Ratio				1.00	1.00	1.00	0.33	0.33	1.00	1.00	1.00	1.00
Upstream Filter(I)				1.00	1.00	1.00	1.00	1.00	0.00	0.00	1.00	1.00
Uniform Delay (d), s/veh				19.9	19.4	19.4	43.3	30.6	0.0	0.0	31.2	31.3
Incr Delay (d2), s/veh				2.6	1.2	2.3	9.8	0.1	0.0	0.0	1.7	2.4
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				6.5	4.8	5.5	2.5	5.9	0.0	0.0	5.9	5.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				22.4	20.6	21.7	53.0	30.7	0.0	0.0	32.8	33.7
LnGrp LOS				C	C	C	D	C	A	A	C	C
Approach Vol, veh/h				1369			631		564			
Approach Delay, s/veh				21.4			34.1		33.3			
Approach LOS				C			C		C			
Timer - Assigned Phs				3	4	6	8					
Phs Duration (G+Y+Rc), s				11.3	26.6	42.0	37.9					
Change Period (Y+Rc), s				5.0	5.0	5.0	5.0					
Max Green Setting (Gmax), s				11.0	27.0	37.0	43.0					
Max Q Clear Time (g_c+I1), s				6.8	16.1	16.5	14.5					
Green Ext Time (p_c), s				0.1	1.9	6.4	2.5					
Intersection Summary												
HCM 6th Ctrl Delay				27.2								
HCM 6th LOS				C								

Existing + Cuml PM (Sce. 2)
2: Valley Pkwy & Maple St

Aspire
08/16/2019



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↑↑↑						↑	
Traffic Volume (veh/h)	0	0	0	0	1211	20	0	0	0	0	0	52
Future Volume (veh/h)	0	0	0	0	1211	20	0	0	0	0	0	52
Initial Q (Qb), veh				0	0	0				0	0	0
Ped-Bike Adj(A_pbT)				1.00		0.96				1.00		0.94
Parking Bus, Adj				1.00	1.00	1.00				1.00	1.00	1.00
Work Zone On Approach				No						No		
Adj Sat Flow, veh/h/ln				0	1870	1870				0	1870	1870
Adj Flow Rate, veh/h				0	1316	22				0	0	57
Peak Hour Factor				0.92	0.92	0.92				0.92	0.92	0.92
Percent Heavy Veh, %				0	2	2				0	2	2
Cap, veh/h				0	3032	51				0	0	78
Arrive On Green				0.00	0.59	0.59				0.00	0.00	0.05
Sat Flow, veh/h				0	5337	86				0	0	1491
Grp Volume(v), veh/h				0	867	471				0	0	57
Grp Sat Flow(s),veh/h/ln				0	1702	1851				0	0	1491
Q Serve(g_s), s				0.0	3.5	3.5				0.0	0.0	0.9
Cycle Q Clear(g_c), s				0.0	3.5	3.5				0.0	0.0	0.9
Prop In Lane				0.00		0.05				0.00		1.00
Lane Grp Cap(c), veh/h				0	1997	1086				0	0	78
V/C Ratio(X)				0.00	0.43	0.43				0.00	0.00	0.73
Avail Cap(c_a), veh/h				0	3208	1744				0	0	449
HCM Platoon Ratio				1.00	1.00	1.00				1.00	1.00	1.00
Upstream Filter(I)				0.00	1.00	1.00				0.00	0.00	1.00
Uniform Delay (d), s/veh				0.0	2.9	2.9				0.0	0.0	11.6
Incr Delay (d2), s/veh				0.0	0.1	0.3				0.0	0.0	12.3
Initial Q Delay(d3),s/veh				0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				0.0	0.0	0.1				0.0	0.0	0.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				0.0	3.0	3.1				0.0	0.0	23.9
LnGrp LOS				A	A	A				A	A	C
Approach Vol, veh/h					1338							57
Approach Delay, s/veh					3.1							23.9
Approach LOS					A							C
Timer - Assigned Phs						6		8				
Phs Duration (G+Y+Rc), s						5.8		19.1				
Change Period (Y+Rc), s						4.5		4.5				
Max Green Setting (Gmax), s						7.5		23.5				
Max Q Clear Time (g_c+I1), s						2.9		5.5				
Green Ext Time (p_c), s						0.1		8.9				
Intersection Summary												
HCM 6th Ctrl Delay												3.9
HCM 6th LOS												A

Existing + Cuml PM (Sce. 2)
3: Broadway & Valley Pkwy

Aspire
08/16/2019



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↑↑↑	↑	↑	↑↑			↑↑	↑
Traffic Volume (veh/h)	0	0	0	31	996	174	67	285	0	0	220	151
Future Volume (veh/h)	0	0	0	31	996	174	67	285	0	0	220	151
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		0.98	1.00		1.00	1.00		0.97
Parking Bus, Adj				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		
Adj Sat Flow, veh/h/ln				1870	1870	1870	1870	1870	0	0	1870	1870
Adj Flow Rate, veh/h				34	1083	189	73	310	0	0	239	164
Peak Hour Factor				0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %				2	2	2	2	2	0	0	2	2
Cap, veh/h				107	3620	1099	200	644	0	0	644	279
Arrive On Green				0.71	0.71	0.71	0.18	0.18	0.00	0.00	0.18	0.18
Sat Flow, veh/h				151	5116	1553	978	3647	0	0	3647	1538
Grp Volume(v), veh/h				419	698	189	73	310	0	0	239	164
Grp Sat Flow(s),veh/h/ln				1863	1702	1553	978	1777	0	0	1777	1538
Q Serve(g_s), s				7.6	6.8	3.6	6.4	7.0	0.0	0.0	5.3	8.8
Cycle Q Clear(g_c), s				7.6	6.8	3.6	11.7	7.0	0.0	0.0	5.3	8.8
Prop In Lane				0.08		1.00	1.00		0.00	0.00		1.00
Lane Grp Cap(c), veh/h				1318	2409	1099	200	644	0	0	644	279
V/C Ratio(X)				0.32	0.29	0.17	0.37	0.48	0.00	0.00	0.37	0.59
Avail Cap(c_a), veh/h				1318	2409	1099	392	1343	0	0	1343	581
HCM Platoon Ratio				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	0.00	0.00	1.00	1.00
Uniform Delay (d), s/veh				5.0	4.8	4.4	37.5	33.0	0.0	0.0	32.3	33.8
Incr Delay (d2), s/veh				0.6	0.3	0.3	0.8	0.4	0.0	0.0	0.3	1.5
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				2.6	2.0	1.1	1.5	3.0	0.0	0.0	2.2	3.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				5.6	5.1	4.7	38.3	33.5	0.0	0.0	32.6	35.2
LnGrp LOS				A	A	A	D	C	A	A	C	D
Approach Vol, veh/h				1306			383			403		
Approach Delay, s/veh				5.2			34.4			33.7		
Approach LOS				A			C			C		
Timer - Assigned Phs				4			6			8		
Phs Duration (G+Y+Rc), s				21.3			68.7			21.3		
Change Period (Y+Rc), s				5.0			5.0			5.0		
Max Green Setting (Gmax), s				34.0			46.0			34.0		
Max Q Clear Time (g_c+I1), s				10.8			9.6			13.7		
Green Ext Time (p_c), s				1.6			8.2			1.8		
Intersection Summary												
HCM 6th Ctrl Delay				16.0								
HCM 6th LOS				B								

Existing + Cuml PM (Sce. 2)
4: Escondido Blvd & Grand Ave



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	68	289	14	39	266	36	34	485	21	75	398	20
Future Volume (veh/h)	68	289	14	39	266	36	34	485	21	75	398	20
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	0.99		0.96	0.99		0.97	0.99		0.97	1.00		0.96
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	74	314	15	42	289	39	37	527	23	82	433	22
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	189	471	23	192	419	57	562	2136	93	553	2117	107
Arrive On Green	0.27	0.27	0.27	0.27	0.26	0.27	0.62	0.62	0.62	0.21	0.20	0.21
Sat Flow, veh/h	1043	1767	84	1039	1606	217	931	3463	151	855	3434	174
Grp Volume(v), veh/h	74	0	329	42	0	328	37	270	280	82	223	232
Grp Sat Flow(s),veh/h/ln1043	0	1851	1039	0	1822	931	1777	1838	855	1777	1831	
Q Serve(g_s), s	6.2	0.0	14.3	3.4	0.0	14.6	1.8	6.2	6.2	7.3	9.4	9.5
Cycle Q Clear(g_c), s	20.8	0.0	14.3	17.6	0.0	14.6	11.3	6.2	6.2	13.5	9.4	9.5
Prop In Lane	1.00		0.05	1.00		0.12	1.00		0.08	1.00		0.09
Lane Grp Cap(c), veh/h	189	0	494	192	0	476	562	1096	1133	553	1096	1129
V/C Ratio(X)	0.39	0.00	0.67	0.22	0.00	0.69	0.07	0.25	0.25	0.15	0.20	0.21
Avail Cap(c_a), veh/h	328	0	741	331	0	719	562	1096	1133	553	1096	1129
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.33	0.33	0.33
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	38.8	0.0	29.4	37.3	0.0	29.9	10.9	7.8	7.8	21.5	17.5	17.5
Incr Delay (d2), s/veh	0.5	0.0	0.6	0.2	0.0	0.7	0.2	0.5	0.5	0.6	0.4	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln1.6	0.0	0.0	6.3	0.9	0.0	6.3	0.4	2.3	2.4	1.7	4.3	4.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	39.3	0.0	30.0	37.5	0.0	30.6	11.2	8.3	8.3	22.0	17.9	17.9
LnGrp LOS	D	A	C	D	A	C	B	A	A	C	B	B
Approach Vol, veh/h		403			370			587			537	
Approach Delay, s/veh		31.7			31.4			8.5			18.5	
Approach LOS		C			C			A			B	
Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		61.0		29.0		61.0		29.0				
Change Period (Y+Rc), s		5.0		5.0		5.0		5.0				
Max Green Setting (Gmax), s		44.0		36.0		44.0		36.0				
Max Q Clear Time (g_c+I1), s		13.3		22.8		15.5		19.6				
Green Ext Time (p_c), s		2.4		1.2		2.1		1.3				
Intersection Summary												
HCM 6th Ctrl Delay				20.7								
HCM 6th LOS				C								

Intersection				
Intersection Delay, s/veh	5.5			
Intersection LOS	A			
Approach	EB	WB	NB	SB
Entry Lanes	1	1	1	0
Conflicting Circle Lanes	1	1	1	1
Adj Approach Flow, veh/h	436	351	71	0
Demand Flow Rate, veh/h	444	357	72	0
Vehicles Circulating, veh/h	20	62	429	389
Vehicles Exiting, veh/h	369	439	35	30
Ped Vol Crossing Leg, #/h	35	92	42	20
Ped Cap Adj	0.995	0.987	0.994	1.000
Approach Delay, s/veh	5.7	5.4	4.9	0.0
Approach LOS	A	A	A	-
Lane	Left	Left	Left	
Designated Moves	LTR	LTR	LTR	
Assumed Moves	LTR	LTR	LTR	
RT Channelized				
Lane Util	1.000	1.000	1.000	
Follow-Up Headway, s	2.609	2.609	2.609	
Critical Headway, s	4.976	4.976	4.976	
Entry Flow, veh/h	444	357	72	
Cap Entry Lane, veh/h	1352	1295	891	
Entry HV Adj Factor	0.982	0.982	0.985	
Flow Entry, veh/h	436	351	71	
Cap Entry, veh/h	1321	1256	872	
V/C Ratio	0.330	0.279	0.081	
Control Delay, s/veh	5.7	5.4	4.9	
LOS	A	A	A	
95th %tile Queue, veh	1	1	0	

Intersection						
Intersection Delay, s/veh	7.0					
Intersection LOS	A					
Approach	EB	WB		NB	SB	
Entry Lanes	1	2		1	2	
Conflicting Circle Lanes	1	1		1	1	
Adj Approach Flow, veh/h	420	341		259	311	
Demand Flow Rate, veh/h	428	347		264	317	
Vehicles Circulating, veh/h	278	318		507	303	
Vehicles Exiting, veh/h	342	453		199	362	
Ped Vol Crossing Leg, #/h	6	27		63	81	
Ped Cap Adj	0.999	0.977		0.991	0.930	
Approach Delay, s/veh	8.1	5.9		8.3	5.9	
Approach LOS	A	A		A	A	
Lane	Left	Left	Right	Left	Left	Right
Designated Moves	LTR	LT	R	LTR	LT	R
Assumed Moves	LTR	LT	R	LTR	LT	R
RT Channelized						
Lane Util	1.000	0.824	0.176	1.000	0.823	0.177
Follow-Up Headway, s	2.609	2.535	2.535	2.609	2.535	2.535
Critical Headway, s	4.976	4.544	4.544	4.976	4.544	4.544
Entry Flow, veh/h	428	286	61	264	261	56
Cap Entry Lane, veh/h	1039	1063	1063	823	1078	1078
Entry HV Adj Factor	0.980	0.982	0.984	0.980	0.980	0.982
Flow Entry, veh/h	420	281	60	259	256	55
Cap Entry, veh/h	1018	1020	1022	799	983	985
V/C Ratio	0.412	0.275	0.059	0.324	0.260	0.056
Control Delay, s/veh	8.1	6.2	4.0	8.3	6.2	4.2
LOS	A	A	A	A	A	A
95th %tile Queue, veh	2	1	0	1	1	0

Intersection												
Int Delay, s/veh	0.1											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕						↕		↕	↕	
Traffic Vol, veh/h	4	0	0	0	0	0	0	575	3	6	510	0
Future Vol, veh/h	4	0	0	0	0	0	0	575	3	6	510	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	16	0	0	15
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	40	-	-
Veh in Median Storage, #	-	0	-	-	16979	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	4	0	0	0	0	0	0	625	3	7	554	0

Major/Minor	Minor2			Major1			Major2		
Conflicting Flow All	881	1212	277	-	0	0	644	0	0
Stage 1	568	568	-	-	-	-	-	-	-
Stage 2	313	644	-	-	-	-	-	-	-
Critical Hdwy	6.84	6.54	6.94	-	-	-	4.14	-	-
Critical Hdwy Stg 1	5.84	5.54	-	-	-	-	-	-	-
Critical Hdwy Stg 2	5.84	5.54	-	-	-	-	-	-	-
Follow-up Hdwy	3.52	4.02	3.32	-	-	-	2.22	-	-
Pot Cap-1 Maneuver	286	181	720	0	-	-	937	-	0
Stage 1	530	505	-	0	-	-	-	-	0
Stage 2	715	466	-	0	-	-	-	-	0
Platoon blocked, %									
Mov Cap-1 Maneuver	284	0	720	-	-	-	937	-	-
Mov Cap-2 Maneuver	284	0	-	-	-	-	-	-	-
Stage 1	526	0	-	-	-	-	-	-	-
Stage 2	715	0	-	-	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	17.9	0	0.1
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	NBR	EBLn1	SBL	SBT
Capacity (veh/h)	-	-	284	937	-
HCM Lane V/C Ratio	-	-	0.015	0.007	-
HCM Control Delay (s)	-	-	17.9	8.9	-
HCM Lane LOS	-	-	C	A	-
HCM 95th %tile Q(veh)	-	-	0	0	-

Existing + Cuml PM (Sce. 2)
8: Broadway & Alley

Aspire
08/16/2019

Intersection												
Int Delay, s/veh	0.8											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕↔						↕↔		↕	↕↕	
Traffic Vol, veh/h	11	8	20	0	0	0	0	316	16	13	259	0
Future Vol, veh/h	11	8	20	0	0	0	0	316	16	13	259	0
Conflicting Peds, #/hr	0	0	5	3	0	0	0	0	13	0	0	65
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	30	-	-
Veh in Median Storage, #	-	0	-	-	16979	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	12	9	22	0	0	0	0	343	17	14	282	0

Major/Minor	Minor2			Major1			Major2		
Conflicting Flow All	482	683	146	-	0	0	373	0	0
Stage 1	310	310	-	-	-	-	-	-	-
Stage 2	172	373	-	-	-	-	-	-	-
Critical Hdwy	6.84	6.54	6.94	-	-	-	4.14	-	-
Critical Hdwy Stg 1	5.84	5.54	-	-	-	-	-	-	-
Critical Hdwy Stg 2	5.84	5.54	-	-	-	-	-	-	-
Follow-up Hdwy	3.52	4.02	3.32	-	-	-	2.22	-	-
Pot Cap-1 Maneuver	513	370	875	0	-	-	1182	-	0
Stage 1	717	658	-	0	-	-	-	-	0
Stage 2	841	617	-	0	-	-	-	-	0
Platoon blocked, %									
Mov Cap-1 Maneuver	507	0	871	-	-	-	1182	-	-
Mov Cap-2 Maneuver	507	0	-	-	-	-	-	-	-
Stage 1	708	0	-	-	-	-	-	-	-
Stage 2	841	0	-	-	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	10.5	0	0.4
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	EBLn1	SBL	SBT
Capacity (veh/h)	-	-	694	1182	-
HCM Lane V/C Ratio	-	-	0.061	0.012	-
HCM Control Delay (s)	-	-	10.5	8.1	-
HCM Lane LOS	-	-	B	A	-
HCM 95th %tile Q(veh)	-	-	0.2	0	-

APPENDIX J

INTERSECTION ANALYSIS WORKSHEETS – EXISTING + CUMULATIVE PROJECTS + PROJECT (SCENARIO 2)

Existing + Cuml + Proj AM (Sce. 2)
 1: Escondido Blvd & Valley Pkwy

Aspire
 08/20/2019



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					←←←←		↖	↑↑			↑↑	
Traffic Volume (veh/h)	0	0	0	82	1192	85	138	344	0	0	244	168
Future Volume (veh/h)	0	0	0	82	1192	85	138	344	0	0	244	168
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		0.94	1.00		1.00	1.00		0.94
Parking Bus, Adj				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		
Adj Sat Flow, veh/h/ln				1900	1870	1900	1870	1870	0	0	1870	1870
Adj Flow Rate, veh/h				89	1296	92	150	374	0	0	265	183
Peak Hour Factor				0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %				0	2	0	2	2	0	0	2	2
Cap, veh/h				144	2252	163	186	1359	0	0	430	283
Arrive On Green				0.38	0.38	0.38	0.10	0.38	0.00	0.00	0.22	0.22
Sat Flow, veh/h				385	6006	436	1781	3647	0	0	2088	1312
Grp Volume(v), veh/h				428	677	371	150	374	0	0	235	213
Grp Sat Flow(s),veh/h/ln				1851	1609	1758	1781	1777	0	0	1777	1529
Q Serve(g_s), s				15.1	13.3	13.4	6.6	5.8	0.0	0.0	9.6	10.2
Cycle Q Clear(g_c), s				15.1	13.3	13.4	6.6	5.8	0.0	0.0	9.6	10.2
Prop In Lane				0.21		0.25	1.00		0.00	0.00		0.86
Lane Grp Cap(c), veh/h				694	1206	659	186	1359	0	0	383	329
V/C Ratio(X)				0.62	0.56	0.56	0.81	0.28	0.00	0.00	0.61	0.65
Avail Cap(c_a), veh/h				694	1206	659	234	1777	0	0	544	468
HCM Platoon Ratio				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	0.00	0.00	1.00	1.00
Uniform Delay (d), s/veh				20.3	19.8	19.8	35.0	17.1	0.0	0.0	28.4	28.6
Incr Delay (d2), s/veh				4.1	1.9	3.5	15.1	0.0	0.0	0.0	0.6	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
%ile BackOfQ(50%),veh/ln				6.9	5.0	5.8	3.6	2.3	0.0	0.0	4.0	3.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				24.4	21.7	23.3	50.2	17.1	0.0	0.0	29.0	29.4
LnGrp LOS				C	C	C	D	B	A	A	C	C
Approach Vol, veh/h					1477			524			448	
Approach Delay, s/veh					22.9			26.6			29.2	
Approach LOS					C			C			C	
Timer - Assigned Phs				3	4		6	8				
Phs Duration (G+Y+Rc), s				13.3	22.2		35.0	35.6				
Change Period (Y+Rc), s				5.0	5.0		5.0	5.0				
Max Green Setting (Gmax), s				10.5	24.5		30.0	40.0				
Max Q Clear Time (g_c+I1), s				8.6	12.2		17.1	7.8				
Green Ext Time (p_c), s				0.1	1.5		5.7	1.7				
Intersection Summary												
HCM 6th Ctrl Delay				24.8								
HCM 6th LOS				C								

Existing + Cuml + Proj AM (Sce. 2)
 2: Valley Pkwy & Maple St

Aspire
 08/20/2019



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↑↑↑						↑	
Traffic Volume (veh/h)	0	0	0	0	1648	18	0	0	0	0	0	9
Future Volume (veh/h)	0	0	0	0	1648	18	0	0	0	0	0	9
Initial Q (Qb), veh				0	0	0				0	0	0
Ped-Bike Adj(A_pbT)				1.00		0.96				1.00		0.96
Parking Bus, Adj				1.00	1.00	1.00				1.00	1.00	1.00
Work Zone On Approach				No						No		
Adj Sat Flow, veh/h/ln				0	1870	1870				0	1870	1870
Adj Flow Rate, veh/h				0	1791	20				0	0	10
Peak Hour Factor				0.92	0.92	0.92				0.92	0.92	0.92
Percent Heavy Veh, %				0	2	2				0	2	2
Cap, veh/h				0	3506	39				0	0	16
Arrive On Green				0.00	0.67	0.67				0.00	0.00	0.01
Sat Flow, veh/h				0	5371	58				0	0	1521
Grp Volume(v), veh/h				0	1172	639				0	0	10
Grp Sat Flow(s),veh/h/ln				0	1702	1857				0	0	1521
Q Serve(g_s), s				0.0	4.6	4.6				0.0	0.0	0.2
Cycle Q Clear(g_c), s				0.0	4.6	4.6				0.0	0.0	0.2
Prop In Lane				0.00		0.03				0.00		1.00
Lane Grp Cap(c), veh/h				0	2294	1251				0	0	16
V/C Ratio(X)				0.00	0.51	0.51				0.00	0.00	0.61
Avail Cap(c_a), veh/h				0	2968	1619				0	0	226
HCM Platoon Ratio				1.00	1.00	1.00				1.00	1.00	1.00
Upstream Filter(I)				0.00	1.00	1.00				0.00	0.00	1.00
Uniform Delay (d), s/veh				0.0	2.2	2.2				0.0	0.0	13.3
Incr Delay (d2), s/veh				0.0	0.2	0.3				0.0	0.0	32.1
Initial Q Delay(d3),s/veh				0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				0.0	0.1	0.1				0.0	0.0	0.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				0.0	2.4	2.5				0.0	0.0	45.4
LnGrp LOS				A	A	A				A	A	D
Approach Vol, veh/h					1811						10	
Approach Delay, s/veh					2.4						45.4	
Approach LOS					A						D	
Timer - Assigned Phs						6		8				
Phs Duration (G+Y+Rc), s						4.3		22.7				
Change Period (Y+Rc), s						4.0		4.5				
Max Green Setting (Gmax), s						4.0		23.5				
Max Q Clear Time (g_c+I1), s						2.2		6.6				
Green Ext Time (p_c), s						0.0		11.5				
Intersection Summary												
HCM 6th Ctrl Delay											2.6	
HCM 6th LOS											A	

Existing + Cuml + Proj AM (Sce. 2)
 3: Broadway & Valley Pkwy

Aspire
 08/20/2019



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↑↑↑	↑	↑	↑↑			↑↑	↑
Traffic Volume (veh/h)	0	0	0	33	1417	126	35	178	0	0	210	175
Future Volume (veh/h)	0	0	0	33	1417	126	35	178	0	0	210	175
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		0.98	0.99		1.00	1.00		0.99
Parking Bus, Adj				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		
Adj Sat Flow, veh/h/ln				1870	1870	1870	1870	1870	0	0	1870	1870
Adj Flow Rate, veh/h				36	1540	137	38	193	0	0	228	190
Peak Hour Factor				0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %				2	2	2	2	2	0	0	2	2
Cap, veh/h				80	3616	1087	203	617	0	0	617	271
Arrive On Green				0.70	0.70	0.70	0.17	0.17	0.00	0.00	0.17	0.17
Sat Flow, veh/h				113	5155	1550	962	3647	0	0	3647	1563
Grp Volume(v), veh/h				592	984	137	38	193	0	0	228	190
Grp Sat Flow(s),veh/h/ln				1865	1702	1550	962	1777	0	0	1777	1563
Q Serve(g_s), s				11.1	9.7	2.3	2.9	3.8	0.0	0.0	4.5	9.1
Cycle Q Clear(g_c), s				11.1	9.7	2.3	7.4	3.8	0.0	0.0	4.5	9.1
Prop In Lane				0.06		1.00	1.00		0.00	0.00		1.00
Lane Grp Cap(c), veh/h				1308	2388	1087	203	617	0	0	617	271
V/C Ratio(X)				0.45	0.41	0.13	0.19	0.31	0.00	0.00	0.37	0.70
Avail Cap(c_a), veh/h				1308	2388	1087	384	1288	0	0	1288	567
HCM Platoon Ratio				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	0.00	0.00	1.00	1.00
Uniform Delay (d), s/veh				5.2	5.0	3.9	32.5	28.9	0.0	0.0	29.2	31.1
Incr Delay (d2), s/veh				1.1	0.5	0.2	0.3	0.2	0.0	0.0	0.3	2.4
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				3.7	2.8	0.6	0.7	1.6	0.0	0.0	1.9	3.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				6.4	5.5	4.2	32.8	29.1	0.0	0.0	29.5	33.5
LnGrp LOS				A	A	A	C	C	A	A	C	C
Approach Vol, veh/h					1713			231			418	
Approach Delay, s/veh					5.7			29.7			31.3	
Approach LOS					A			C			C	
Timer - Assigned Phs				4		6		8				
Phs Duration (G+Y+Rc), s				18.9		61.1		18.9				
Change Period (Y+Rc), s				5.0		5.0		5.0				
Max Green Setting (Gmax), s				29.0		41.0		29.0				
Max Q Clear Time (g_c+I1), s				11.1		13.1		9.4				
Green Ext Time (p_c), s				1.5		11.8		1.0				
Intersection Summary												
HCM 6th Ctrl Delay				12.6								
HCM 6th LOS				B								

Existing + Cuml + Proj AM (Sce. 2)
4: Escondido Blvd & Grand Ave

Aspire
08/20/2019



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↶	↷		↶	↷		↶	↷		↶	↷	
Traffic Volume (veh/h)	52	149	9	33	180	28	17	337	10	44	315	9
Future Volume (veh/h)	52	149	9	33	180	28	17	337	10	44	315	9
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	0.99		0.97	0.99		0.96	0.99		0.97	1.00		0.97
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	57	162	10	36	196	30	18	366	11	48	342	10
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	212	380	23	256	344	53	724	2311	69	709	2312	67
Arrive On Green	0.22	0.22	0.22	0.22	0.22	0.22	0.66	0.66	0.66	0.66	0.66	0.66
Sat Flow, veh/h	1141	1740	107	1203	1575	241	1023	3519	106	1003	3522	103
Grp Volume(v), veh/h	57	0	172	36	0	226	18	184	193	48	172	180
Grp Sat Flow(s),veh/h/ln	1141	0	1848	1203	0	1816	1023	1777	1848	1003	1777	1848
Q Serve(g_s), s	3.8	0.0	6.4	2.1	0.0	8.9	0.5	3.2	3.2	1.5	2.9	3.0
Cycle Q Clear(g_c), s	12.6	0.0	6.4	8.5	0.0	8.9	3.5	3.2	3.2	4.7	2.9	3.0
Prop In Lane	1.00		0.06	1.00		0.13	1.00		0.06	1.00		0.06
Lane Grp Cap(c), veh/h	212	0	403	256	0	397	724	1167	1213	709	1167	1213
V/C Ratio(X)	0.27	0.00	0.43	0.14	0.00	0.57	0.02	0.16	0.16	0.07	0.15	0.15
Avail Cap(c_a), veh/h	462	0	808	520	0	795	724	1167	1213	709	1167	1213
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	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	33.6	0.0	26.9	30.6	0.0	27.9	5.9	5.3	5.3	6.2	5.2	5.2
Incr Delay (d2), s/veh	0.2	0.0	0.3	0.1	0.0	0.5	0.1	0.3	0.3	0.2	0.3	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	0.0	2.8	0.6	0.0	3.8	0.1	1.1	1.1	0.3	1.0	1.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	33.8	0.0	27.2	30.7	0.0	28.4	6.0	5.6	5.5	6.4	5.5	5.5
LnGrp LOS	C	A	C	C	A	C	A	A	A	A	A	A
Approach Vol, veh/h		229			262			395			400	
Approach Delay, s/veh		28.9			28.7			5.6			5.6	
Approach LOS		C			C			A			A	
Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		57.5		22.5		57.5		22.5				
Change Period (Y+Rc), s		5.0		5.0		5.0		5.0				
Max Green Setting (Gmax), s		35.0		35.0		35.0		35.0				
Max Q Clear Time (g_c+I1), s		5.5		14.6		6.7		10.9				
Green Ext Time (p_c), s		1.5		0.7		1.5		0.9				
Intersection Summary												
HCM 6th Ctrl Delay				14.4								
HCM 6th LOS				B								

Intersection				
Intersection Delay, s/veh	4.5			
Intersection LOS	A			
Approach	EB	WB	NB	SB
Entry Lanes	1	1	1	0
Conflicting Circle Lanes	1	1	1	1
Adj Approach Flow, veh/h	224	296	37	0
Demand Flow Rate, veh/h	228	302	37	0
Vehicles Circulating, veh/h	59	43	211	311
Vehicles Exiting, veh/h	252	205	76	34
Ped Vol Crossing Leg, #/h	21	56	13	0
Ped Cap Adj	0.997	0.992	0.998	1.000
Approach Delay, s/veh	4.3	4.8	3.5	0.0
Approach LOS	A	A	A	-
Lane	Left	Left	Left	
Designated Moves	LTR	LTR	LTR	
Assumed Moves	LTR	LTR	LTR	
RT Channelized				
Lane Util	1.000	1.000	1.000	
Follow-Up Headway, s	2.609	2.609	2.609	
Critical Headway, s	4.976	4.976	4.976	
Entry Flow, veh/h	228	302	37	
Cap Entry Lane, veh/h	1299	1321	1113	
Entry HV Adj Factor	0.984	0.981	0.997	
Flow Entry, veh/h	224	296	37	
Cap Entry, veh/h	1274	1286	1108	
V/C Ratio	0.176	0.230	0.033	
Control Delay, s/veh	4.3	4.8	3.5	
LOS	A	A	A	
95th %tile Queue, veh	1	1	0	

Intersection						
Intersection Delay, s/veh	5.2					
Intersection LOS	A					
Approach	EB	WB		NB	SB	
Entry Lanes	1	2		1	2	
Conflicting Circle Lanes	1	1		1	1	
Adj Approach Flow, veh/h	210	292		172	295	
Demand Flow Rate, veh/h	214	298		175	300	
Vehicles Circulating, veh/h	258	214		274	269	
Vehicles Exiting, veh/h	311	235		198	243	
Ped Vol Crossing Leg, #/h	27	17		29	33	
Ped Cap Adj	0.996	0.984		0.996	0.970	
Approach Delay, s/veh	5.4	5.0		5.1	5.2	
Approach LOS	A	A		A	A	
Lane	Left	Left	Right	Left	Left	Right
Designated Moves	LTR	LT	R	LTR	LT	R
Assumed Moves	LTR	LT	R	LTR	LT	R
RT Channelized						
Lane Util	1.000	0.862	0.138	1.000	0.817	0.183
Follow-Up Headway, s	2.609	2.535	2.535	2.609	2.535	2.535
Critical Headway, s	4.976	4.544	4.544	4.976	4.544	4.544
Entry Flow, veh/h	214	257	41	175	245	55
Cap Entry Lane, veh/h	1061	1169	1169	1043	1112	1112
Entry HV Adj Factor	0.981	0.981	0.976	0.983	0.982	0.982
Flow Entry, veh/h	210	252	40	172	241	54
Cap Entry, veh/h	1037	1129	1122	1022	1059	1059
V/C Ratio	0.203	0.223	0.036	0.168	0.227	0.051
Control Delay, s/veh	5.4	5.2	3.5	5.1	5.5	3.8
LOS	A	A	A	A	A	A
95th %tile Queue, veh	1	1	0	1	1	0

Existing + Cuml + Proj AM (Sce. 2)
7: Escondido Blvd & Alley

Aspire
08/20/2019

Intersection												
Int Delay, s/veh	0.1											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕						↕		↕	↕	
Traffic Vol, veh/h	0	2	2	0	0	0	0	428	2	3	348	0
Future Vol, veh/h	0	2	2	0	0	0	0	428	2	3	348	0
Conflicting Peds, #/hr	0	0	1	3	0	0	0	0	18	0	0	14
Sign Control	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	40	-	-
Veh in Median Storage, #	-	0	-	-	16979	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	2	2	0	0	0	0	465	2	3	378	0

Major/Minor	Minor2			Major1			Major2		
Conflicting Flow All	617	869	190	-	0	0	485	0	0
Stage 1	384	384	-	-	-	-	-	-	-
Stage 2	233	485	-	-	-	-	-	-	-
Critical Hdwy	6.84	6.54	6.94	-	-	-	4.14	-	-
Critical Hdwy Stg 1	5.84	5.54	-	-	-	-	-	-	-
Critical Hdwy Stg 2	5.84	5.54	-	-	-	-	-	-	-
Follow-up Hdwy	3.52	4.02	3.32	-	-	-	2.22	-	-
Pot Cap-1 Maneuver	422	289	820	0	-	-	1074	-	0
Stage 1	658	610	-	0	-	-	-	-	0
Stage 2	784	550	-	0	-	-	-	-	0
Platoon blocked, %									
Mov Cap-1 Maneuver	421	0	819	-	-	-	1074	-	-
Mov Cap-2 Maneuver	421	0	-	-	-	-	-	-	-
Stage 1	656	0	-	-	-	-	-	-	-
Stage 2	784	0	-	-	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	9.4	0	0.1
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBR	EBLn1	SBL	SBT
Capacity (veh/h)	-	-	819	1074	-
HCM Lane V/C Ratio	-	-	0.005	0.003	-
HCM Control Delay (s)	-	-	9.4	8.4	-
HCM Lane LOS	-	-	A	A	-
HCM 95th %tile Q(veh)	-	-	0	0	-

Existing + Cuml + Proj AM (Sce. 2)
8: Broadway & Alley

Aspire
08/20/2019

Intersection												
Int Delay, s/veh	0.5											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕						↕		↕	↕	
Traffic Vol, veh/h	6	1	11	0	0	0	0	217	4	10	251	0
Future Vol, veh/h	6	1	11	0	0	0	0	217	4	10	251	0
Conflicting Peds, #/hr	0	0	1	0	0	0	0	0	14	0	0	11
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	30	-	-
Veh in Median Storage, #	-	0	-	-	16979	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	7	1	12	0	0	0	0	236	4	11	273	0

Major/Minor	Minor2			Major1			Major2		
Conflicting Flow All	413	549	138	-	0	0	254	0	0
Stage 1	295	295	-	-	-	-	-	-	-
Stage 2	118	254	-	-	-	-	-	-	-
Critical Hdwy	6.84	6.54	6.94	-	-	-	4.14	-	-
Critical Hdwy Stg 1	5.84	5.54	-	-	-	-	-	-	-
Critical Hdwy Stg 2	5.84	5.54	-	-	-	-	-	-	-
Follow-up Hdwy	3.52	4.02	3.32	-	-	-	2.22	-	-
Pot Cap-1 Maneuver	567	442	885	0	-	-	1308	-	0
Stage 1	730	668	-	0	-	-	-	-	0
Stage 2	894	696	-	0	-	-	-	-	0
Platoon blocked, %									
Mov Cap-1 Maneuver	562	0	884	-	-	-	1308	-	-
Mov Cap-2 Maneuver	562	0	-	-	-	-	-	-	-
Stage 1	724	0	-	-	-	-	-	-	-
Stage 2	894	0	-	-	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	10	0	0.3
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	EBLn1	SBL	SBT
Capacity (veh/h)	-	-	735	1308	-
HCM Lane V/C Ratio	-	-	0.027	0.008	-
HCM Control Delay (s)	-	-	10	7.8	-
HCM Lane LOS	-	-	B	A	-
HCM 95th %tile Q(veh)	-	-	0.1	0	-

Existing + Cuml + Proj PM (Sce. 2)
 1: Escondido Blvd & Valley Pkwy

Aspire
 08/20/2019



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					←←←←		↖	↑↑			↑↑	
Traffic Volume (veh/h)	0	0	0	71	1102	117	88	492	0	0	369	153
Future Volume (veh/h)	0	0	0	71	1102	117	88	492	0	0	369	153
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		0.95	1.00		1.00	1.00		0.91
Parking Bus, Adj				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		
Adj Sat Flow, veh/h/ln				1900	1870	1900	1870	1870	0	0	1870	1870
Adj Flow Rate, veh/h				77	1198	127	96	535	0	0	401	166
Peak Hour Factor				0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %				0	2	0	2	2	0	0	2	2
Cap, veh/h				143	2390	259	124	1299	0	0	574	233
Arrive On Green				0.41	0.41	0.41	0.02	0.12	0.00	0.00	0.24	0.24
Sat Flow, veh/h				349	5814	629	1781	3647	0	0	2481	968
Grp Volume(v), veh/h				409	646	348	96	535	0	0	296	271
Grp Sat Flow(s),veh/h/ln				1853	1609	1722	1781	1777	0	0	1777	1578
Q Serve(g_s), s				15.0	13.3	13.4	4.8	12.5	0.0	0.0	13.7	14.1
Cycle Q Clear(g_c), s				15.0	13.3	13.4	4.8	12.5	0.0	0.0	13.7	14.1
Prop In Lane				0.19		0.37	1.00		0.00	0.00		0.61
Lane Grp Cap(c), veh/h				762	1323	708	124	1299	0	0	427	379
V/C Ratio(X)				0.54	0.49	0.49	0.77	0.41	0.00	0.00	0.69	0.71
Avail Cap(c_a), veh/h				762	1323	708	218	1698	0	0	533	473
HCM Platoon Ratio				1.00	1.00	1.00	0.33	0.33	1.00	1.00	1.00	1.00
Upstream Filter(I)				1.00	1.00	1.00	1.00	1.00	0.00	0.00	1.00	1.00
Uniform Delay (d), s/veh				20.0	19.5	19.6	43.3	30.6	0.0	0.0	31.2	31.3
Incr Delay (d2), s/veh				2.7	1.3	2.4	9.8	0.1	0.0	0.0	1.7	2.5
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				6.8	5.0	5.6	2.5	5.9	0.0	0.0	5.9	5.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				22.7	20.8	22.0	53.0	30.7	0.0	0.0	32.9	33.8
LnGrp LOS				C	C	C	D	C	A	A	C	C
Approach Vol, veh/h					1402			631			567	
Approach Delay, s/veh					21.7			34.1			33.3	
Approach LOS					C			C			C	
Timer - Assigned Phs				3	4	6	8					
Phs Duration (G+Y+Rc), s				11.3	26.6	42.0	37.9					
Change Period (Y+Rc), s				5.0	5.0	5.0	5.0					
Max Green Setting (Gmax), s				11.0	27.0	37.0	43.0					
Max Q Clear Time (g_c+I1), s				6.8	16.1	17.0	14.5					
Green Ext Time (p_c), s				0.1	1.9	6.6	2.5					
Intersection Summary												
HCM 6th Ctrl Delay				27.2								
HCM 6th LOS				C								

Existing + Cuml + Proj PM (Sce. 2)
 2: Valley Pkwy & Maple St

Aspire
 08/20/2019



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↑↑↑						↑	
Traffic Volume (veh/h)	0	0	0	0	1242	20	0	0	0	0	0	52
Future Volume (veh/h)	0	0	0	0	1242	20	0	0	0	0	0	52
Initial Q (Qb), veh				0	0	0				0	0	0
Ped-Bike Adj(A_pbT)				1.00		0.96				1.00		0.94
Parking Bus, Adj				1.00	1.00	1.00				1.00	1.00	1.00
Work Zone On Approach				No						No		
Adj Sat Flow, veh/h/ln				0	1870	1870				0	1870	1870
Adj Flow Rate, veh/h				0	1350	22				0	0	57
Peak Hour Factor				0.92	0.92	0.92				0.92	0.92	0.92
Percent Heavy Veh, %				0	2	2				0	2	2
Cap, veh/h				0	3059	50				0	0	78
Arrive On Green				0.00	0.59	0.59				0.00	0.00	0.05
Sat Flow, veh/h				0	5339	84				0	0	1490
Grp Volume(v), veh/h				0	889	483				0	0	57
Grp Sat Flow(s),veh/h/ln				0	1702	1851				0	0	1490
Q Serve(g_s), s				0.0	3.6	3.6				0.0	0.0	1.0
Cycle Q Clear(g_c), s				0.0	3.6	3.6				0.0	0.0	1.0
Prop In Lane				0.00		0.05				0.00		1.00
Lane Grp Cap(c), veh/h				0	2014	1095				0	0	78
V/C Ratio(X)				0.00	0.44	0.44				0.00	0.00	0.73
Avail Cap(c_a), veh/h				0	3167	1722				0	0	443
HCM Platoon Ratio				1.00	1.00	1.00				1.00	1.00	1.00
Upstream Filter(I)				0.00	1.00	1.00				0.00	0.00	1.00
Uniform Delay (d), s/veh				0.0	2.9	2.9				0.0	0.0	11.8
Incr Delay (d2), s/veh				0.0	0.2	0.3				0.0	0.0	12.4
Initial Q Delay(d3),s/veh				0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				0.0	0.0	0.1				0.0	0.0	0.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				0.0	3.0	3.1				0.0	0.0	24.2
LnGrp LOS				A	A	A				A	A	C
Approach Vol, veh/h					1372							57
Approach Delay, s/veh					3.0							24.2
Approach LOS					A							C
Timer - Assigned Phs						6		8				
Phs Duration (G+Y+Rc), s						5.8		19.4				
Change Period (Y+Rc), s						4.5		4.5				
Max Green Setting (Gmax), s						7.5		23.5				
Max Q Clear Time (g_c+I1), s						3.0		5.6				
Green Ext Time (p_c), s						0.1		9.1				
Intersection Summary												
HCM 6th Ctrl Delay												3.9
HCM 6th LOS												A

Existing + Cuml + Proj PM (Sce. 2)
 3: Broadway & Valley Pkwy

Aspire
 08/20/2019



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↑↑↑	↑	↑	↑↑			↑↑	↑
Traffic Volume (veh/h)	0	0	0	31	1001	174	100	285	0	0	221	173
Future Volume (veh/h)	0	0	0	31	1001	174	100	285	0	0	221	173
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		0.98	1.00		1.00	1.00		0.97
Parking Bus, Adj				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		
Adj Sat Flow, veh/h/ln				1870	1870	1870	1870	1870	0	0	1870	1870
Adj Flow Rate, veh/h				34	1088	189	109	310	0	0	240	188
Peak Hour Factor				0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %				2	2	2	2	2	0	0	2	2
Cap, veh/h				101	3448	1046	231	764	0	0	764	332
Arrive On Green				0.67	0.67	0.67	0.22	0.22	0.00	0.00	0.22	0.22
Sat Flow, veh/h				150	5117	1552	956	3647	0	0	3647	1542
Grp Volume(v), veh/h				421	701	189	109	310	0	0	240	188
Grp Sat Flow(s),veh/h/ln				1863	1702	1552	956	1777	0	0	1777	1542
Q Serve(g_s), s				8.6	7.6	4.1	9.7	6.8	0.0	0.0	5.1	9.8
Cycle Q Clear(g_c), s				8.6	7.6	4.1	14.9	6.8	0.0	0.0	5.1	9.8
Prop In Lane				0.08		1.00	1.00		0.00	0.00		1.00
Lane Grp Cap(c), veh/h				1255	2294	1046	231	764	0	0	764	332
V/C Ratio(X)				0.34	0.31	0.18	0.47	0.41	0.00	0.00	0.31	0.57
Avail Cap(c_a), veh/h				1255	2294	1046	387	1343	0	0	1343	583
HCM Platoon Ratio				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	0.00	0.00	1.00	1.00
Uniform Delay (d), s/veh				6.2	6.0	5.5	36.0	30.4	0.0	0.0	29.7	31.6
Incr Delay (d2), s/veh				0.7	0.3	0.4	1.1	0.3	0.0	0.0	0.2	1.1
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				3.1	2.4	1.2	2.3	2.8	0.0	0.0	2.1	3.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				6.9	6.4	5.8	37.1	30.6	0.0	0.0	29.9	32.7
LnGrp LOS				A	A	A	D	C	A	A	C	C
Approach Vol, veh/h				1311			419			428		
Approach Delay, s/veh				6.5			32.3			31.1		
Approach LOS				A			C			C		
Timer - Assigned Phs				4			6			8		
Phs Duration (G+Y+Rc), s				24.4			65.6			24.4		
Change Period (Y+Rc), s				5.0			5.0			5.0		
Max Green Setting (Gmax), s				34.0			46.0			34.0		
Max Q Clear Time (g_c+I1), s				11.8			10.6			16.9		
Green Ext Time (p_c), s				1.6			8.2			1.9		
Intersection Summary												
HCM 6th Ctrl Delay				16.4								
HCM 6th LOS				B								

Existing + Cuml + Proj PM (Sce. 2)
 4: Escondido Blvd & Grand Ave



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	68	294	14	39	266	36	34	485	23	79	404	20
Future Volume (veh/h)	68	294	14	39	266	36	34	485	23	79	404	20
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	0.99		0.96	0.99		0.97	0.99		0.97	1.00		0.96
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	74	320	15	42	289	39	37	527	25	86	439	22
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	189	472	22	188	420	57	557	2126	101	552	2119	106
Arrive On Green	0.27	0.27	0.27	0.27	0.26	0.27	0.62	0.62	0.62	0.21	0.20	0.21
Sat Flow, veh/h	1043	1769	83	1034	1606	217	926	3448	163	854	3436	172
Grp Volume(v), veh/h	74	0	335	42	0	328	37	271	281	86	226	235
Grp Sat Flow(s),veh/h/ln1043	0	1852	1034	0	1822	926	1777	1835	854	1777	1831	
Q Serve(g_s), s	6.2	0.0	14.6	3.4	0.0	14.6	1.8	6.2	6.2	7.7	9.5	9.6
Cycle Q Clear(g_c), s	20.7	0.0	14.6	18.0	0.0	14.6	11.4	6.2	6.2	13.9	9.5	9.6
Prop In Lane	1.00		0.04	1.00		0.12	1.00		0.09	1.00		0.09
Lane Grp Cap(c), veh/h	189	0	494	188	0	476	557	1095	1131	552	1095	1129
V/C Ratio(X)	0.39	0.00	0.68	0.22	0.00	0.69	0.07	0.25	0.25	0.16	0.21	0.21
Avail Cap(c_a), veh/h	328	0	741	326	0	719	557	1095	1131	552	1095	1129
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.33	0.33	0.33
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	38.8	0.0	29.5	37.6	0.0	29.9	11.0	7.8	7.8	21.7	17.5	17.6
Incr Delay (d2), s/veh	0.5	0.0	0.6	0.2	0.0	0.7	0.2	0.5	0.5	0.6	0.4	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln1.6	0.0	0.0	6.4	0.9	0.0	6.3	0.4	2.3	2.4	1.8	4.4	4.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	39.3	0.0	30.1	37.8	0.0	30.6	11.2	8.3	8.3	22.3	18.0	18.0
LnGrp LOS	D	A	C	D	A	C	B	A	A	C	B	B
Approach Vol, veh/h		409			370			589			547	
Approach Delay, s/veh		31.8			31.4			8.5			18.7	
Approach LOS		C			C			A			B	
Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		61.0		29.0		61.0		29.0				
Change Period (Y+Rc), s		5.0		5.0		5.0		5.0				
Max Green Setting (Gmax), s		44.0		36.0		44.0		36.0				
Max Q Clear Time (g_c+I1), s		13.4		22.7		15.9		20.0				
Green Ext Time (p_c), s		2.4		1.3		2.2		1.3				
Intersection Summary												
HCM 6th Ctrl Delay				20.8								
HCM 6th LOS				C								

Intersection				
Intersection Delay, s/veh	5.6			
Intersection LOS	A			
Approach	EB	WB	NB	SB
Entry Lanes	1	1	1	0
Conflicting Circle Lanes	1	1	1	1
Adj Approach Flow, veh/h	447	354	71	0
Demand Flow Rate, veh/h	455	360	72	0
Vehicles Circulating, veh/h	20	63	440	389
Vehicles Exiting, veh/h	369	449	35	34
Ped Vol Crossing Leg, #/h	35	92	42	20
Ped Cap Adj	0.995	0.987	0.994	1.000
Approach Delay, s/veh	5.8	5.4	5.0	0.0
Approach LOS	A	A	A	-
Lane	Left	Left	Left	
Designated Moves	LTR	LTR	LTR	
Assumed Moves	LTR	LTR	LTR	
RT Channelized				
Lane Util	1.000	1.000	1.000	
Follow-Up Headway, s	2.609	2.609	2.609	
Critical Headway, s	4.976	4.976	4.976	
Entry Flow, veh/h	455	360	72	
Cap Entry Lane, veh/h	1352	1294	881	
Entry HV Adj Factor	0.982	0.982	0.985	
Flow Entry, veh/h	447	354	71	
Cap Entry, veh/h	1321	1255	863	
V/C Ratio	0.338	0.282	0.082	
Control Delay, s/veh	5.8	5.4	5.0	
LOS	A	A	A	
95th %tile Queue, veh	2	1	0	

Intersection						
Intersection Delay, s/veh	7.3					
Intersection LOS	A					
Approach	EB	WB		NB	SB	
Entry Lanes	1	2		1	2	
Conflicting Circle Lanes	1	1		1	1	
Adj Approach Flow, veh/h	432	343		285	315	
Demand Flow Rate, veh/h	440	349		291	321	
Vehicles Circulating, veh/h	280	355		519	305	
Vehicles Exiting, veh/h	346	455		201	399	
Ped Vol Crossing Leg, #/h	6	27		63	81	
Ped Cap Adj	0.999	0.978		0.991	0.930	
Approach Delay, s/veh	8.3	6.1		8.9	5.9	
Approach LOS	A	A		A	A	
Lane	Left	Left	Right	Left	Left	Right
Designated Moves	LTR	LT	R	LTR	LT	R
Assumed Moves	LTR	LT	R	LTR	LT	R
RT Channelized						
Lane Util	1.000	0.825	0.175	1.000	0.819	0.181
Follow-Up Headway, s	2.609	2.535	2.535	2.609	2.535	2.535
Critical Headway, s	4.976	4.544	4.544	4.976	4.544	4.544
Entry Flow, veh/h	440	288	61	291	263	58
Cap Entry Lane, veh/h	1037	1028	1028	813	1076	1076
Entry HV Adj Factor	0.981	0.982	0.984	0.980	0.980	0.983
Flow Entry, veh/h	432	283	60	285	258	57
Cap Entry, veh/h	1016	987	989	790	981	984
V/C Ratio	0.425	0.286	0.061	0.361	0.263	0.058
Control Delay, s/veh	8.3	6.5	4.2	8.9	6.3	4.2
LOS	A	A	A	A	A	A
95th %tile Queue, veh	2	1	0	2	1	0

Intersection												
Int Delay, s/veh	0.1											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕↔						↕↔		↕	↕↔	
Traffic Vol, veh/h	4	0	0	0	0	0	0	575	3	6	520	0
Future Vol, veh/h	4	0	0	0	0	0	0	575	3	6	520	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	16	0	0	15
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	40	-	-
Veh in Median Storage, #	-	0	-	-	16979	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	4	0	0	0	0	0	0	625	3	7	565	0

Major/Minor	Minor2			Major1			Major2		
Conflicting Flow All	892	1223	283	-	0	0	644	0	0
Stage 1	579	579	-	-	-	-	-	-	-
Stage 2	313	644	-	-	-	-	-	-	-
Critical Hdwy	6.84	6.54	6.94	-	-	-	4.14	-	-
Critical Hdwy Stg 1	5.84	5.54	-	-	-	-	-	-	-
Critical Hdwy Stg 2	5.84	5.54	-	-	-	-	-	-	-
Follow-up Hdwy	3.52	4.02	3.32	-	-	-	2.22	-	-
Pot Cap-1 Maneuver	281	178	714	0	-	-	937	-	0
Stage 1	524	499	-	0	-	-	-	-	0
Stage 2	715	466	-	0	-	-	-	-	0
Platoon blocked, %									
Mov Cap-1 Maneuver	279	0	714	-	-	-	937	-	-
Mov Cap-2 Maneuver	279	0	-	-	-	-	-	-	-
Stage 1	520	0	-	-	-	-	-	-	-
Stage 2	715	0	-	-	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	18.1	0	0.1
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	NBR	EBLn1	SBL	SBT
Capacity (veh/h)	-	-	279	937	-
HCM Lane V/C Ratio	-	-	0.016	0.007	-
HCM Control Delay (s)	-	-	18.1	8.9	-
HCM Lane LOS	-	-	C	A	-
HCM 95th %tile Q(veh)	-	-	0	0	-

Existing + Cuml + Proj PM (Sce. 2)
 8: Broadway & Alley

Aspire
 08/20/2019

Intersection												
Int Delay, s/veh	0.8											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕↔						↕↔		↕	↕↔	
Traffic Vol, veh/h	11	8	22	0	0	0	0	349	16	13	260	0
Future Vol, veh/h	11	8	22	0	0	0	0	349	16	13	260	0
Conflicting Peds, #/hr	0	0	5	3	0	0	0	0	13	0	0	65
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	30	-	-
Veh in Median Storage, #	-	0	-	-	16979	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	12	9	24	0	0	0	0	379	17	14	283	0

Major/Minor	Minor2			Major1			Major2		
Conflicting Flow All	501	720	147	-	0	0	409	0	0
Stage 1	311	311	-	-	-	-	-	-	-
Stage 2	190	409	-	-	-	-	-	-	-
Critical Hdwy	6.84	6.54	6.94	-	-	-	4.14	-	-
Critical Hdwy Stg 1	5.84	5.54	-	-	-	-	-	-	-
Critical Hdwy Stg 2	5.84	5.54	-	-	-	-	-	-	-
Follow-up Hdwy	3.52	4.02	3.32	-	-	-	2.22	-	-
Pot Cap-1 Maneuver	499	352	873	0	-	-	1146	-	0
Stage 1	716	657	-	0	-	-	-	-	0
Stage 2	823	594	-	0	-	-	-	-	0
Platoon blocked, %									
Mov Cap-1 Maneuver	493	0	869	-	-	-	1146	-	-
Mov Cap-2 Maneuver	493	0	-	-	-	-	-	-	-
Stage 1	707	0	-	-	-	-	-	-	-
Stage 2	823	0	-	-	-	-	-	-	-

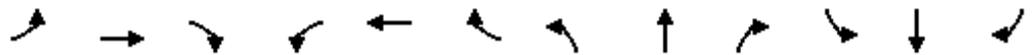
Approach	EB	NB	SB
HCM Control Delay, s	10.6	0	0.4
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	EBLn1	SBL	SBT
Capacity (veh/h)	-	-	693	1146	-
HCM Lane V/C Ratio	-	-	0.064	0.012	-
HCM Control Delay (s)	-	-	10.6	8.2	-
HCM Lane LOS	-	-	B	A	-
HCM 95th %tile Q(veh)	-	-	0.2	0	-

APPENDIX K
INTERSECTION ANALYSIS WORKSHEETS – YEAR 2035 WITHOUT PROJECT

Year 2035 AM
1: Escondido Blvd & Valley Pkwy

Aspire
07/18/2019



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					4111		1	22			22	1
Traffic Volume (veh/h)	0	0	0	120	2015	140	90	480	0	0	800	170
Future Volume (veh/h)	0	0	0	120	2015	140	90	480	0	0	800	170
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		0.95	1.00		1.00	1.00		0.95
Parking Bus, Adj				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		
Adj Sat Flow, veh/h/ln				1900	1870	1900	1870	1870	0	0	1870	1870
Adj Flow Rate, veh/h				130	2190	152	98	522	0	0	870	185
Peak Hour Factor				0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %				0	2	0	2	2	0	0	2	2
Cap, veh/h				153	2765	196	124	1429	0	0	983	416
Arrive On Green				0.46	0.46	0.46	0.07	0.40	0.00	0.00	0.28	0.28
Sat Flow, veh/h				336	6069	430	1781	3647	0	0	3647	1502
Grp Volume(v), veh/h				717	1132	623	98	522	0	0	870	185
Grp Sat Flow(s),veh/h/ln				1854	1609	1765	1781	1777	0	0	1777	1502
Q Serve(g_s), s				30.9	26.6	26.8	4.9	9.3	0.0	0.0	21.1	9.1
Cycle Q Clear(g_c), s				30.9	26.6	26.8	4.9	9.3	0.0	0.0	21.1	9.1
Prop In Lane				0.18		0.24	1.00		0.00	0.00		1.00
Lane Grp Cap(c), veh/h				844	1466	804	124	1429	0	0	983	416
V/C Ratio(X)				0.85	0.77	0.78	0.79	0.37	0.00	0.00	0.88	0.45
Avail Cap(c_a), veh/h				844	1466	804	139	1540	0	0	1066	451
HCM Platoon Ratio				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	0.00	0.00	1.00	1.00
Uniform Delay (d), s/veh				21.8	20.6	20.6	41.2	18.9	0.0	0.0	31.2	26.9
Incr Delay (d2), s/veh				10.4	4.0	7.2	23.4	0.1	0.0	0.0	8.1	0.3
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				15.0	10.2	11.9	2.9	3.7	0.0	0.0	9.8	3.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				32.2	24.6	27.8	64.6	18.9	0.0	0.0	39.2	27.1
LnGrp LOS				C	C	C	E	B	A	A	D	C
Approach Vol, veh/h					2472			620			1055	
Approach Delay, s/veh					27.6			26.1			37.1	
Approach LOS					C			C			D	
Timer - Assigned Phs				3	4	6	8					
Phs Duration (G+Y+Rc), s				11.3	29.9	46.0	41.2					
Change Period (Y+Rc), s				5.0	5.0	5.0	5.0					
Max Green Setting (Gmax), s				7.0	27.0	41.0	39.0					
Max Q Clear Time (g_c+I1), s				6.9	23.1	32.9	11.3					
Green Ext Time (p_c), s				0.0	1.8	6.4	2.5					
Intersection Summary												
HCM 6th Ctrl Delay				29.8								
HCM 6th LOS				C								

Year 2035 AM
2: Valley Pkwy & Maple St



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↑↑↑						↑	
Traffic Volume (veh/h)	0	0	0	0	2235	20	0	0	0	0	0	10
Future Volume (veh/h)	0	0	0	0	2235	20	0	0	0	0	0	10
Initial Q (Qb), veh				0	0	0				0	0	0
Ped-Bike Adj(A_pbT)				1.00		0.96				1.00		0.96
Parking Bus, Adj				1.00	1.00	1.00				1.00	1.00	1.00
Work Zone On Approach				No						No		
Adj Sat Flow, veh/h/ln				0	1870	1870				0	1870	1870
Adj Flow Rate, veh/h				0	2429	22				0	0	11
Peak Hour Factor				0.92	0.92	0.92				0.92	0.92	0.92
Percent Heavy Veh, %				0	2	2				0	2	2
Cap, veh/h				0	3711	34				0	0	18
Arrive On Green				0.00	0.71	0.71				0.00	0.00	0.01
Sat Flow, veh/h				0	5385	47				0	0	1514
Grp Volume(v), veh/h				0	1584	867				0	0	11
Grp Sat Flow(s),veh/h/ln				0	1702	1860				0	0	1514
Q Serve(g_s), s				0.0	7.7	7.7				0.0	0.0	0.2
Cycle Q Clear(g_c), s				0.0	7.7	7.7				0.0	0.0	0.2
Prop In Lane				0.00		0.03				0.00		1.00
Lane Grp Cap(c), veh/h				0	2421	1323				0	0	18
V/C Ratio(X)				0.00	0.65	0.66				0.00	0.00	0.62
Avail Cap(c_a), veh/h				0	2607	1424				0	0	197
HCM Platoon Ratio				1.00	1.00	1.00				1.00	1.00	1.00
Upstream Filter(I)				0.00	1.00	1.00				0.00	0.00	1.00
Uniform Delay (d), s/veh				0.0	2.4	2.4				0.0	0.0	15.1
Incr Delay (d2), s/veh				0.0	0.5	1.0				0.0	0.0	30.7
Initial Q Delay(d3),s/veh				0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				0.0	0.2	0.4				0.0	0.0	0.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				0.0	2.9	3.4				0.0	0.0	45.8
LnGrp LOS				A	A	A				A	A	D
Approach Vol, veh/h					2451						11	
Approach Delay, s/veh					3.1						45.8	
Approach LOS					A						D	
Timer - Assigned Phs						6		8				
Phs Duration (G+Y+Rc), s						4.4		26.3				
Change Period (Y+Rc), s						4.0		4.5				
Max Green Setting (Gmax), s						4.0		23.5				
Max Q Clear Time (g_c+I1), s						2.2		9.7				
Green Ext Time (p_c), s						0.0		12.1				
Intersection Summary												
HCM 6th Ctrl Delay											3.3	
HCM 6th LOS											A	

Year 2035 AM
3: Broadway & Valley Pkwy



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↑↑↑	↑	↑	↑↑			↑↑	↑
Traffic Volume (veh/h)	0	0	0	50	2005	170	60	580	0	0	950	190
Future Volume (veh/h)	0	0	0	50	2005	170	60	580	0	0	950	190
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		0.97	1.00		1.00	1.00		0.99
Parking Bus, Adj				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		
Adj Sat Flow, veh/h/ln				1870	1870	1870	1870	1870	0	0	1870	1870
Adj Flow Rate, veh/h				54	2179	185	65	630	0	0	1033	207
Peak Hour Factor				0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %				2	2	2	2	2	0	0	2	2
Cap, veh/h				59	2517	755	149	1421	0	0	1421	630
Arrive On Green				0.49	0.49	0.49	0.40	0.40	0.00	0.00	0.40	0.40
Sat Flow, veh/h				120	5149	1544	449	3647	0	0	3647	1576
Grp Volume(v), veh/h				840	1393	185	65	630	0	0	1033	207
Grp Sat Flow(s),veh/h/ln				1864	1702	1544	449	1777	0	0	1777	1576
Q Serve(g_s), s				37.7	31.9	6.3	12.9	11.6	0.0	0.0	22.1	8.2
Cycle Q Clear(g_c), s				37.7	31.9	6.3	35.0	11.6	0.0	0.0	22.1	8.2
Prop In Lane				0.06		1.00	1.00		0.00	0.00		1.00
Lane Grp Cap(c), veh/h				911	1664	755	149	1421	0	0	1421	630
V/C Ratio(X)				0.92	0.84	0.25	0.44	0.44	0.00	0.00	0.73	0.33
Avail Cap(c_a), veh/h				911	1664	755	149	1421	0	0	1421	630
HCM Platoon Ratio				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	0.00	0.00	1.00	1.00
Uniform Delay (d), s/veh				21.4	19.9	13.4	37.7	19.7	0.0	0.0	22.8	18.7
Incr Delay (d2), s/veh				15.9	5.2	0.8	1.5	0.2	0.0	0.0	1.8	0.2
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				19.1	12.8	2.2	1.4	4.6	0.0	0.0	9.0	2.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				37.3	25.1	14.1	39.1	19.9	0.0	0.0	24.6	18.9
LnGrp LOS				D	C	B	D	B	A	A	C	B
Approach Vol, veh/h					2418			695			1240	
Approach Delay, s/veh					28.5			21.7			23.7	
Approach LOS					C			C			C	
Timer - Assigned Phs				4		6		8				
Phs Duration (G+Y+Rc), s				41.0		49.0		41.0				
Change Period (Y+Rc), s				5.0		5.0		5.0				
Max Green Setting (Gmax), s				36.0		44.0		36.0				
Max Q Clear Time (g_c+I1), s				24.1		39.7		37.0				
Green Ext Time (p_c), s				5.2		3.8		0.0				
Intersection Summary												
HCM 6th Ctrl Delay				26.0								
HCM 6th LOS				C								

Year 2035 AM
4: Escondido Blvd & Grand Ave



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	60	115	20	200	25	20	30	500	50	90	810	20
Future Volume (veh/h)	60	115	20	200	25	20	30	500	50	90	810	20
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	0.98		0.98	0.99		0.97	1.00		0.97	1.00		0.97
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	65	125	22	217	27	22	33	543	54	98	880	22
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	426	422	74	348	257	209	380	1958	194	517	2129	53
Arrive On Green	0.27	0.27	0.27	0.27	0.27	0.27	0.60	0.60	0.60	0.60	0.60	0.60
Sat Flow, veh/h	1335	1542	271	1232	939	765	617	3256	323	820	3539	88
Grp Volume(v), veh/h	65	0	147	217	0	49	33	296	301	98	442	460
Grp Sat Flow(s),veh/h/ln	1335	0	1814	1232	0	1703	617	1777	1802	820	1777	1851
Q Serve(g_s), s	3.1	0.0	5.1	13.5	0.0	1.7	2.4	6.4	6.4	5.2	10.6	10.6
Cycle Q Clear(g_c), s	4.8	0.0	5.1	18.6	0.0	1.7	13.0	6.4	6.4	11.6	10.6	10.6
Prop In Lane	1.00		0.15	1.00		0.45	1.00		0.18	1.00		0.05
Lane Grp Cap(c), veh/h	426	0	496	348	0	466	380	1069	1084	517	1069	1113
V/C Ratio(X)	0.15	0.00	0.30	0.62	0.00	0.11	0.09	0.28	0.28	0.19	0.41	0.41
Avail Cap(c_a), veh/h	729	0	907	627	0	852	380	1069	1084	517	1069	1113
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	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	23.5	0.0	23.0	30.3	0.0	21.7	11.9	7.6	7.6	10.4	8.5	8.5
Incr Delay (d2), s/veh	0.1	0.0	0.1	0.7	0.0	0.0	0.5	0.6	0.6	0.8	1.2	1.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.9	0.0	2.1	3.9	0.0	0.7	0.4	2.3	2.4	1.0	3.9	4.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	23.6	0.0	23.1	31.0	0.0	21.8	12.3	8.3	8.3	11.2	9.6	9.6
LnGrp LOS	C	A	C	C	A	C	B	A	A	B	A	A
Approach Vol, veh/h		212			266			630			1000	
Approach Delay, s/veh		23.2			29.3			8.5			9.8	
Approach LOS		C			C			A			A	
Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		53.1		26.9		53.1		26.9				
Change Period (Y+Rc), s		5.0		5.0		5.0		5.0				
Max Green Setting (Gmax), s		30.0		40.0		30.0		40.0				
Max Q Clear Time (g_c+I1), s		15.0		7.1		13.6		20.6				
Green Ext Time (p_c), s		2.4		0.6		4.0		0.5				
Intersection Summary												
HCM 6th Ctrl Delay				13.2								
HCM 6th LOS				B								

Intersection				
Intersection Delay, s/veh	5.2			
Intersection LOS	A			
Approach	EB	WB	NB	SB
Entry Lanes	1	1	1	0
Conflicting Circle Lanes	1	1	1	1
Adj Approach Flow, veh/h	278	408	55	0
Demand Flow Rate, veh/h	283	416	55	0
Vehicles Circulating, veh/h	66	55	261	427
Vehicles Exiting, veh/h	361	261	88	44
Ped Vol Crossing Leg, #/h	21	56	13	0
Ped Cap Adj	0.997	0.992	0.998	1.000
Approach Delay, s/veh	4.7	5.8	3.9	0.0
Approach LOS	A	A	A	-
Lane	Left	Left	Left	
Designated Moves	LTR	LTR	LTR	
Assumed Moves	LTR	LTR	LTR	
RT Channelized				
Lane Util	1.000	1.000	1.000	
Follow-Up Headway, s	2.609	2.609	2.609	
Critical Headway, s	4.976	4.976	4.976	
Entry Flow, veh/h	283	416	55	
Cap Entry Lane, veh/h	1290	1305	1057	
Entry HV Adj Factor	0.983	0.982	0.996	
Flow Entry, veh/h	278	408	55	
Cap Entry, veh/h	1265	1271	1051	
V/C Ratio	0.220	0.321	0.052	
Control Delay, s/veh	4.7	5.8	3.9	
LOS	A	A	A	
95th %tile Queue, veh	1	1	0	

Intersection						
Intersection Delay, s/veh10.8						
Intersection LOS B						
Approach	EB	WB		NB	SB	
Entry Lanes	1	2		1	2	
Conflicting Circle Lanes	1	1		1	1	
Adj Approach Flow, veh/h	354	418		348	1022	
Demand Flow Rate, veh/h	361	427		354	1043	
Vehicles Circulating, veh/h	821	421		417	193	
Vehicles Exiting, veh/h	415	350		765	654	
Ped Vol Crossing Leg, #/h	27	17		29	33	
Ped Cap Adj	0.996	0.988		0.996	0.968	
Approach Delay, s/veh	18.2	6.2		8.7	10.9	
Approach LOS	C	A		A	B	
Lane	Left	Left	Right	Left	Left	Right
Designated Moves	LTR	LT	R	LTR	LT	R
Assumed Moves	LTR	LT	R	LTR	LT	R
RT Channelized						
Lane Util	1.000	0.403	0.597	1.000	0.745	0.255
Follow-Up Headway, s	2.609	2.535	2.535	2.609	2.535	2.535
Critical Headway, s	4.976	4.544	4.544	4.976	4.544	4.544
Entry Flow, veh/h	361	172	255	354	777	266
Cap Entry Lane, veh/h	597	968	968	902	1191	1191
Entry HV Adj Factor	0.981	0.980	0.980	0.983	0.980	0.981
Flow Entry, veh/h	354	168	250	348	761	261
Cap Entry, veh/h	584	937	937	883	1130	1132
V/C Ratio	0.607	0.180	0.267	0.394	0.674	0.231
Control Delay, s/veh	18.2	5.6	6.6	8.7	12.9	5.3
LOS	C	A	A	A	B	A
95th %tile Queue, veh	4	1	1	2	6	1

Intersection												
Int Delay, s/veh	0.1											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕						↕		↕	↕	
Traffic Vol, veh/h	0	5	5	0	0	0	0	565	5	5	915	0
Future Vol, veh/h	0	5	5	0	0	0	0	565	5	5	915	0
Conflicting Peds, #/hr	0	0	1	3	0	0	0	0	18	0	0	14
Sign Control	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	40	-	-
Veh in Median Storage, #	-	0	-	-	16979	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	5	5	0	0	0	0	614	5	5	995	0

Major/Minor	Minor2			Major1			Major2		
Conflicting Flow All	1312	1642	499	-	0	0	637	0	0
Stage 1	1005	1005	-	-	-	-	-	-	-
Stage 2	307	637	-	-	-	-	-	-	-
Critical Hdwy	6.84	6.54	6.94	-	-	-	4.14	-	-
Critical Hdwy Stg 1	5.84	5.54	-	-	-	-	-	-	-
Critical Hdwy Stg 2	5.84	5.54	-	-	-	-	-	-	-
Follow-up Hdwy	3.52	4.02	3.32	-	-	-	2.22	-	-
Pot Cap-1 Maneuver	150	99	517	0	-	-	943	-	0
Stage 1	315	317	-	0	-	-	-	-	0
Stage 2	719	470	-	0	-	-	-	-	0
Platoon blocked, %									
Mov Cap-1 Maneuver	149	0	517	-	-	-	943	-	-
Mov Cap-2 Maneuver	149	0	-	-	-	-	-	-	-
Stage 1	313	0	-	-	-	-	-	-	-
Stage 2	719	0	-	-	-	-	-	-	-

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

Minor Lane/Major Mvmt	NBT	NBR	EBLn1	SBL	SBT
Capacity (veh/h)	-	-	517	943	-
HCM Lane V/C Ratio	-	-	0.021	0.006	-
HCM Control Delay (s)	-	-	12.1	8.8	-
HCM Lane LOS	-	-	B	A	-
HCM 95th %tile Q(veh)	-	-	0.1	0	-

Intersection												
Int Delay, s/veh	0.5											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕						↕		↕	↕	
Traffic Vol, veh/h	10	5	10	0	0	0	0	630	10	10	990	0
Future Vol, veh/h	10	5	10	0	0	0	0	630	10	10	990	0
Conflicting Peds, #/hr	0	0	1	0	0	0	0	0	14	0	0	11
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	30	-	-
Veh in Median Storage, #	-	0	-	-	16979	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	11	5	11	0	0	0	0	685	11	11	1076	0

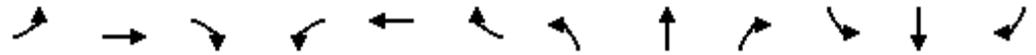
Major/Minor	Minor2			Major1			Major2		
Conflicting Flow All	1441	1808	539	-	0	0	710	0	0
Stage 1	1098	1098	-	-	-	-	-	-	-
Stage 2	343	710	-	-	-	-	-	-	-
Critical Hdwy	6.84	6.54	6.94	-	-	-	4.14	-	-
Critical Hdwy Stg 1	5.84	5.54	-	-	-	-	-	-	-
Critical Hdwy Stg 2	5.84	5.54	-	-	-	-	-	-	-
Follow-up Hdwy	3.52	4.02	3.32	-	-	-	2.22	-	-
Pot Cap-1 Maneuver	123	78	487	0	-	-	885	-	0
Stage 1	281	287	-	0	-	-	-	-	0
Stage 2	690	435	-	0	-	-	-	-	0
Platoon blocked, %									
Mov Cap-1 Maneuver	122	0	487	-	-	-	885	-	-
Mov Cap-2 Maneuver	122	0	-	-	-	-	-	-	-
Stage 1	278	0	-	-	-	-	-	-	-
Stage 2	690	0	-	-	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	26.4	0	0.1
HCM LOS	D		

Minor Lane/Major Mvmt	NBT	NBR	EBLn1	SBL	SBT
Capacity (veh/h)	-	-	195	885	-
HCM Lane V/C Ratio	-	-	0.139	0.012	-
HCM Control Delay (s)	-	-	26.4	9.1	-
HCM Lane LOS	-	-	D	A	-
HCM 95th %tile Q(veh)	-	-	0.5	0	-

Year 2035 PM
1: Escondido Blvd & Valley Pkwy

Aspire
07/18/2019



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					← ← ← ←		←	↑↑			↑↑	←
Traffic Volume (veh/h)	0	0	0	200	2370	360	120	970	0	0	730	300
Future Volume (veh/h)	0	0	0	200	2370	360	120	970	0	0	730	300
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		0.96	1.00		1.00	1.00		0.91
Parking Bus, Adj				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		
Adj Sat Flow, veh/h/ln				1900	1870	1900	1870	1870	0	0	1870	1870
Adj Flow Rate, veh/h				217	2576	391	130	1054	0	0	793	326
Peak Hour Factor				0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %				0	2	0	2	2	0	0	2	2
Cap, veh/h				224	2843	428	143	1339	0	0	877	355
Arrive On Green				0.52	0.52	0.52	0.08	0.38	0.00	0.00	0.25	0.25
Sat Flow, veh/h				433	5489	826	1781	3647	0	0	3647	1440
Grp Volume(v), veh/h				927	1461	796	130	1054	0	0	793	326
Grp Sat Flow(s),veh/h/ln				1849	1609	1683	1781	1777	0	0	1777	1440
Q Serve(g_s), s				48.5	40.1	43.3	7.2	26.3	0.0	0.0	21.6	22.0
Cycle Q Clear(g_c), s				48.5	40.1	43.3	7.2	26.3	0.0	0.0	21.6	22.0
Prop In Lane				0.23		0.49	1.00		0.00	0.00		1.00
Lane Grp Cap(c), veh/h				958	1666	872	143	1339	0	0	877	355
V/C Ratio(X)				0.97	0.88	0.91	0.91	0.79	0.00	0.00	0.90	0.92
Avail Cap(c_a), veh/h				958	1666	872	143	1358	0	0	896	363
HCM Platoon Ratio				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	0.00	0.00	1.00	1.00
Uniform Delay (d), s/veh				23.3	21.3	22.1	45.7	27.6	0.0	0.0	36.5	36.7
Incr Delay (d2), s/veh				22.3	6.8	15.6	50.0	2.8	0.0	0.0	12.0	26.7
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				25.4	15.6	19.6	5.2	11.3	0.0	0.0	10.7	10.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				45.6	28.1	37.7	95.6	30.5	0.0	0.0	48.5	63.4
LnGrp LOS				D	C	D	F	C	A	A	D	E
Approach Vol, veh/h					3184			1184			1119	
Approach Delay, s/veh					35.6			37.6			52.9	
Approach LOS					D			D			D	
Timer - Assigned Phs				3	4	6	8					
Phs Duration (G+Y+Rc), s				13.0	29.7	56.8	42.7					
Change Period (Y+Rc), s				5.0	5.0	5.0	5.0					
Max Green Setting (Gmax), s				8.0	25.2	51.8	38.2					
Max Q Clear Time (g_c+I1), s				9.2	24.0	50.5	28.3					
Green Ext Time (p_c), s				0.0	0.6	1.3	3.9					
Intersection Summary												
HCM 6th Ctrl Delay				39.5								
HCM 6th LOS				D								

Year 2035 PM
2: Valley Pkwy & Maple St



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↑↑↑						↑	
Traffic Volume (veh/h)	0	0	0	0	2750	20	0	0	0	0	0	60
Future Volume (veh/h)	0	0	0	0	2750	20	0	0	0	0	0	60
Initial Q (Qb), veh				0	0	0				0	0	0
Ped-Bike Adj(A_pbT)				1.00		0.96				1.00		0.92
Parking Bus, Adj				1.00	1.00	1.00				1.00	1.00	1.00
Work Zone On Approach				No						No		
Adj Sat Flow, veh/h/ln				0	1870	1870				0	1870	1870
Adj Flow Rate, veh/h				0	2989	22				0	0	65
Peak Hour Factor				0.92	0.92	0.92				0.92	0.92	0.92
Percent Heavy Veh, %				0	2	2				0	2	2
Cap, veh/h				0	3567	26				0	0	79
Arrive On Green				0.00	0.68	0.68				0.00	0.00	0.05
Sat Flow, veh/h				0	5396	38				0	0	1464
Grp Volume(v), veh/h				0	1943	1068				0	0	65
Grp Sat Flow(s),veh/h/ln				0	1702	1862				0	0	1464
Q Serve(g_s), s				0.0	14.4	14.6				0.0	0.0	1.5
Cycle Q Clear(g_c), s				0.0	14.4	14.6				0.0	0.0	1.5
Prop In Lane				0.00		0.02				0.00		1.00
Lane Grp Cap(c), veh/h				0	2323	1271				0	0	79
V/C Ratio(X)				0.00	0.84	0.84				0.00	0.00	0.82
Avail Cap(c_a), veh/h				0	2343	1282				0	0	322
HCM Platoon Ratio				1.00	1.00	1.00				1.00	1.00	1.00
Upstream Filter(I)				0.00	1.00	1.00				0.00	0.00	1.00
Uniform Delay (d), s/veh				0.0	4.0	4.0				0.0	0.0	16.0
Incr Delay (d2), s/veh				0.0	2.8	5.1				0.0	0.0	18.6
Initial Q Delay(d3),s/veh				0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				0.0	1.2	2.1				0.0	0.0	0.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				0.0	6.8	9.2				0.0	0.0	34.6
LnGrp LOS				A	A	A				A	A	C
Approach Vol, veh/h					3011						65	
Approach Delay, s/veh					7.6						34.6	
Approach LOS					A						C	
Timer - Assigned Phs						6		8				
Phs Duration (G+Y+Rc), s						6.3		27.8				
Change Period (Y+Rc), s						4.5		4.5				
Max Green Setting (Gmax), s						7.5		23.5				
Max Q Clear Time (g_c+I1), s						3.5		16.6				
Green Ext Time (p_c), s						0.1		6.7				
Intersection Summary												
HCM 6th Ctrl Delay											8.2	
HCM 6th LOS											A	

Year 2035 PM
3: Broadway & Valley Pkwy



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↑↑↑	↑	↑	↑↑			↑↑	↑
Traffic Volume (veh/h)	0	0	0	60	2380	220	130	830	0	0	890	260
Future Volume (veh/h)	0	0	0	60	2380	220	130	830	0	0	890	260
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		0.98	1.00		1.00	1.00		0.98
Parking Bus, Adj				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		
Adj Sat Flow, veh/h/ln				1870	1870	1870	1870	1870	0	0	1870	1870
Adj Flow Rate, veh/h				65	2587	239	141	902	0	0	967	283
Peak Hour Factor				0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %				2	2	2	2	2	0	0	2	2
Cap, veh/h				59	2522	758	156	1457	0	0	1457	637
Arrive On Green				0.49	0.49	0.49	0.41	0.41	0.00	0.00	0.41	0.41
Sat Flow, veh/h				121	5147	1547	444	3647	0	0	3647	1554
Grp Volume(v), veh/h				998	1654	239	141	902	0	0	967	283
Grp Sat Flow(s),veh/h/ln				1864	1702	1547	444	1777	0	0	1777	1554
Q Serve(g_s), s				49.0	48.2	9.3	18.9	20.1	0.0	0.0	22.1	13.1
Cycle Q Clear(g_c), s				49.0	48.2	9.3	41.0	20.1	0.0	0.0	22.1	13.1
Prop In Lane				0.07		1.00	1.00		0.00	0.00		1.00
Lane Grp Cap(c), veh/h				914	1668	758	156	1457	0	0	1457	637
V/C Ratio(X)				1.09	0.99	0.32	0.90	0.62	0.00	0.00	0.66	0.44
Avail Cap(c_a), veh/h				914	1668	758	156	1457	0	0	1457	637
HCM Platoon Ratio				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	0.00	0.00	1.00	1.00
Uniform Delay (d), s/veh				25.5	25.3	15.4	44.3	23.3	0.0	0.0	23.9	21.3
Incr Delay (d2), s/veh				58.4	20.1	1.1	44.4	0.7	0.0	0.0	1.1	0.4
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				35.0	22.8	3.4	5.4	8.2	0.0	0.0	9.0	4.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				83.9	45.4	16.5	88.8	24.0	0.0	0.0	25.0	21.6
LnGrp LOS				F	D	B	F	C	A	A	C	C
Approach Vol, veh/h					2891			1043			1250	
Approach Delay, s/veh					56.3			32.8			24.2	
Approach LOS					E			C			C	
Timer - Assigned Phs				4		6		8				
Phs Duration (G+Y+Rc), s				46.0		54.0		46.0				
Change Period (Y+Rc), s				5.0		5.0		5.0				
Max Green Setting (Gmax), s				41.0		49.0		41.0				
Max Q Clear Time (g_c+I1), s				24.1		51.0		43.0				
Green Ext Time (p_c), s				6.0		0.0		0.0				
Intersection Summary												
HCM 6th Ctrl Delay				43.8								
HCM 6th LOS				D								

Year 2035 PM
4: Escondido Blvd & Grand Ave



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	100	210	30	120	395	65	90	880	60	150	720	40
Future Volume (veh/h)	100	210	30	120	395	65	90	880	60	150	720	40
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.97	0.99		0.97	1.00		0.97	1.00		0.96
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										
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	109	228	33	130	429	71	98	957	65	163	783	43
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	214	610	88	391	598	99	317	1702	116	250	1726	95
Arrive On Green	0.38	0.38	0.38	0.38	0.38	0.38	0.51	0.51	0.51	0.51	0.51	0.51
Sat Flow, veh/h	897	1590	230	1109	1558	258	661	3368	229	551	3416	188
Grp Volume(v), veh/h	109	0	261	130	0	500	98	505	517	163	407	419
Grp Sat Flow(s),veh/h/ln	897	0	1821	1109	0	1815	661	1777	1820	551	1777	1827
Q Serve(g_s), s	10.6	0.0	9.3	8.6	0.0	21.1	10.1	17.7	17.7	26.1	13.2	13.2
Cycle Q Clear(g_c), s	31.7	0.0	9.3	17.9	0.0	21.1	23.3	17.7	17.7	43.8	13.2	13.2
Prop In Lane	1.00		0.13	1.00		0.14	1.00		0.13	1.00		0.10
Lane Grp Cap(c), veh/h	214	0	699	391	0	697	317	898	919	250	898	923
V/C Ratio(X)	0.51	0.00	0.37	0.33	0.00	0.72	0.31	0.56	0.56	0.65	0.45	0.45
Avail Cap(c_a), veh/h	278	0	829	471	0	827	317	898	919	250	898	923
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	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	37.1	0.0	20.0	26.4	0.0	23.6	21.8	15.4	15.4	30.5	14.3	14.3
Incr Delay (d2), s/veh	0.7	0.0	0.1	0.2	0.0	1.8	2.5	2.5	2.5	12.4	1.7	1.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.3	0.0	3.8	2.2	0.0	9.0	1.7	7.3	7.5	4.2	5.4	5.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	37.8	0.0	20.1	26.6	0.0	25.4	24.3	17.9	17.9	43.0	15.9	15.9
LnGrp LOS	D	A	C	C	A	C	C	B	B	D	B	B
Approach Vol, veh/h		370		630		1120		989				
Approach Delay, s/veh		25.3		25.6		18.5		20.4				
Approach LOS		C		C		B		C				
Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		50.5		39.5		50.5		39.5				
Change Period (Y+Rc), s		5.0		5.0		5.0		5.0				
Max Green Setting (Gmax), s		39.0		41.0		39.0		41.0				
Max Q Clear Time (g_c+1), s		25.3		33.7		45.8		23.1				
Green Ext Time (p_c), s		4.5		0.9		0.0		2.3				
Intersection Summary												
HCM 6th Ctrl Delay				21.3								
HCM 6th LOS				C								

Intersection				
Intersection Delay, s/veh	9.3			
Intersection LOS	A			
Approach	EB	WB	NB	SB
Entry Lanes	1	1	1	0
Conflicting Circle Lanes	1	1	1	1
Adj Approach Flow, veh/h	457	816	87	0
Demand Flow Rate, veh/h	465	832	89	0
Vehicles Circulating, veh/h	22	77	443	865
Vehicles Exiting, veh/h	843	455	44	44
Ped Vol Crossing Leg, #/h	35	92	42	20
Ped Cap Adj	0.995	0.987	0.994	1.000
Approach Delay, s/veh	5.9	11.7	5.2	0.0
Approach LOS	A	B	A	-
Lane	Left	Left	Left	
Designated Moves	LTR	LTR	LTR	
Assumed Moves	LTR	LTR	LTR	
RT Channelized				
Lane Util	1.000	1.000	1.000	
Follow-Up Headway, s	2.609	2.609	2.609	
Critical Headway, s	4.976	4.976	4.976	
Entry Flow, veh/h	465	832	89	
Cap Entry Lane, veh/h	1349	1276	878	
Entry HV Adj Factor	0.982	0.981	0.975	
Flow Entry, veh/h	457	816	87	
Cap Entry, veh/h	1319	1236	851	
V/C Ratio	0.346	0.661	0.102	
Control Delay, s/veh	5.9	11.7	5.2	
LOS	A	B	A	
95th %tile Queue, veh	2	5	0	

Intersection						
Intersection Delay, s/veh23.0						
Intersection LOS C						
Approach	EB	WB		NB	SB	
Entry Lanes	1	2		1	2	
Conflicting Circle Lanes	1	1		1	1	
Adj Approach Flow, veh/h	586	728		522	1054	
Demand Flow Rate, veh/h	599	743		532	1075	
Vehicles Circulating, veh/h	765	566		488	521	
Vehicles Exiting, veh/h	831	454		876	788	
Ped Vol Crossing Leg, #/h	6	27		63	81	
Ped Cap Adj	0.999	0.985		0.991	0.951	
Approach Delay, s/veh	50.0	11.7		15.1	19.6	
Approach LOS	F	B		C	C	
Lane	Left	Left	Right	Left	Left	Right
Designated Moves	LTR	LT	R	LTR	LT	R
Assumed Moves	LTR	LT	R	LTR	LT	R
RT Channelized						
Lane Util	1.000	0.672	0.328	1.000	0.639	0.361
Follow-Up Headway, s	2.609	2.535	2.535	2.609	2.535	2.535
Critical Headway, s	4.976	4.544	4.544	4.976	4.544	4.544
Entry Flow, veh/h	599	499	244	532	687	388
Cap Entry Lane, veh/h	632	848	848	839	884	884
Entry HV Adj Factor	0.979	0.979	0.980	0.981	0.981	0.979
Flow Entry, veh/h	586	489	239	522	674	380
Cap Entry, veh/h	619	819	819	816	824	823
V/C Ratio	0.948	0.597	0.292	0.640	0.818	0.462
Control Delay, s/veh	50.0	13.7	7.7	15.1	24.8	10.4
LOS	F	B	A	C	C	B
95th %tile Queue, veh	13	4	1	5	9	2

Intersection												
Int Delay, s/veh	0.2											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕						↕		↕	↕	
Traffic Vol, veh/h	5	0	0	0	0	0	0	1085	5	5	925	0
Future Vol, veh/h	5	0	0	0	0	0	0	1085	5	5	925	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	16	0	0	15
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	40	-	-
Veh in Median Storage, #	-	0	-	-	16979	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	5	0	0	0	0	0	0	1179	5	5	1005	0

Major/Minor	Minor2			Major1			Major2		
Conflicting Flow All	1605	2215	503	-	0	0	1200	0	0
Stage 1	1015	1015	-	-	-	-	-	-	-
Stage 2	590	1200	-	-	-	-	-	-	-
Critical Hdwy	6.84	6.54	6.94	-	-	-	4.14	-	-
Critical Hdwy Stg 1	5.84	5.54	-	-	-	-	-	-	-
Critical Hdwy Stg 2	5.84	5.54	-	-	-	-	-	-	-
Follow-up Hdwy	3.52	4.02	3.32	-	-	-	2.22	-	-
Pot Cap-1 Maneuver	96	43	514	0	-	-	577	-	0
Stage 1	311	314	-	0	-	-	-	-	0
Stage 2	517	256	-	0	-	-	-	-	0
Platoon blocked, %									
Mov Cap-1 Maneuver	95	0	514	-	-	-	577	-	-
Mov Cap-2 Maneuver	95	0	-	-	-	-	-	-	-
Stage 1	308	0	-	-	-	-	-	-	-
Stage 2	517	0	-	-	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	45.2	0	0.1
HCM LOS	E		

Minor Lane/Major Mvmt	NBT	NBR	EBLn1	SBL	SBT
Capacity (veh/h)	-	-	95	577	-
HCM Lane V/C Ratio	-	-	0.057	0.009	-
HCM Control Delay (s)	-	-	45.2	11.3	-
HCM Lane LOS	-	-	E	B	-
HCM 95th %tile Q(veh)	-	-	0.2	0	-

Intersection												
Int Delay, s/veh	1											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕↔						↕↔		↔	↕↔	
Traffic Vol, veh/h	20	10	20	0	0	0	0	940	20	20	930	0
Future Vol, veh/h	20	10	20	0	0	0	0	940	20	20	930	0
Conflicting Peds, #/hr	0	0	5	3	0	0	0	0	13	0	0	65
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	30	-	-
Veh in Median Storage, #	-	0	-	-	16979	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	22	11	22	0	0	0	0	1022	22	22	1011	0

Major/Minor	Minor2			Major1			Major2		
Conflicting Flow All	1566	2112	511	-	0	0	1057	0	0
Stage 1	1055	1055	-	-	-	-	-	-	-
Stage 2	511	1057	-	-	-	-	-	-	-
Critical Hdwy	6.84	6.54	6.94	-	-	-	4.14	-	-
Critical Hdwy Stg 1	5.84	5.54	-	-	-	-	-	-	-
Critical Hdwy Stg 2	5.84	5.54	-	-	-	-	-	-	-
Follow-up Hdwy	3.52	4.02	3.32	-	-	-	2.22	-	-
Pot Cap-1 Maneuver	102	50	508	0	-	-	655	-	0
Stage 1	296	301	-	0	-	-	-	-	0
Stage 2	567	300	-	0	-	-	-	-	0
Platoon blocked, %									
Mov Cap-1 Maneuver	99	0	506	-	-	-	655	-	-
Mov Cap-2 Maneuver	99	0	-	-	-	-	-	-	-
Stage 1	286	0	-	-	-	-	-	-	-
Stage 2	567	0	-	-	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	36.9	0	0.2
HCM LOS	E		

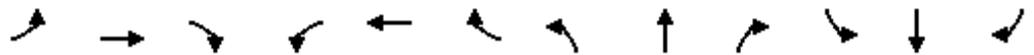
Minor Lane/Major Mvmt	NBT	NBR	EBLn1	SBL	SBT
Capacity (veh/h)	-	-	166	655	-
HCM Lane V/C Ratio	-	-	0.327	0.033	-
HCM Control Delay (s)	-	-	36.9	10.7	-
HCM Lane LOS	-	-	E	B	-
HCM 95th %tile Q(veh)	-	-	1.3	0.1	-

APPENDIX L

INTERSECTION ANALYSIS WORKSHEETS – YEAR 2035 WITH PROJECT

Year 2035 + Proj AM
1: Escondido Blvd & Valley Pkwy

Aspire
08/20/2019



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					← ↑ ↑ →		←	↑↑			↑↑	←
Traffic Volume (veh/h)	0	0	0	133	2039	162	91	480	0	0	802	170
Future Volume (veh/h)	0	0	0	133	2039	162	91	480	0	0	802	170
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		0.95	1.00		1.00	1.00		0.95
Parking Bus, Adj				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
Adj Sat Flow, veh/h/ln				1900	1870	1900	1870	1870	0	0	1870	1870
Adj Flow Rate, veh/h				145	2216	176	99	522	0	0	872	185
Peak Hour Factor				0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %				0	2	0	2	2	0	0	2	2
Cap, veh/h				166	2721	220	126	1433	0	0	985	416
Arrive On Green				0.46	0.46	0.46	0.07	0.40	0.00	0.00	0.28	0.28
Sat Flow, veh/h				365	5972	484	1781	3647	0	0	3647	1502
Grp Volume(v), veh/h				737	1163	637	99	522	0	0	872	185
Grp Sat Flow(s),veh/h/ln				1852	1609	1751	1781	1777	0	0	1777	1502
Q Serve(g_s), s				32.4	27.8	28.0	4.9	9.2	0.0	0.0	21.2	9.1
Cycle Q Clear(g_c), s				32.4	27.8	28.0	4.9	9.2	0.0	0.0	21.2	9.1
Prop In Lane				0.20		0.28	1.00		0.00	0.00		1.00
Lane Grp Cap(c), veh/h				844	1466	798	126	1433	0	0	985	416
V/C Ratio(X)				0.87	0.79	0.80	0.79	0.36	0.00	0.00	0.89	0.44
Avail Cap(c_a), veh/h				844	1466	798	139	1540	0	0	1066	451
HCM Platoon Ratio				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	0.00	0.00	1.00	1.00
Uniform Delay (d), s/veh				22.1	20.9	21.0	41.2	18.8	0.0	0.0	31.2	26.8
Incr Delay (d2), s/veh				12.1	4.5	8.2	23.7	0.1	0.0	0.0	8.1	0.3
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				15.9	10.7	12.5	3.0	3.7	0.0	0.0	9.9	3.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				34.3	25.4	29.2	64.8	18.9	0.0	0.0	39.3	27.1
LnGrp LOS				C	C	C	E	B	A	A	D	C
Approach Vol, veh/h					2537			621			1057	
Approach Delay, s/veh					28.9			26.2			37.2	
Approach LOS					C			C			D	
Timer - Assigned Phs				3	4	6	8					
Phs Duration (G+Y+Rc), s				11.3	29.9	46.0	41.3					
Change Period (Y+Rc), s				5.0	5.0	5.0	5.0					
Max Green Setting (Gmax), s				7.0	27.0	41.0	39.0					
Max Q Clear Time (g_c+I1), s				6.9	23.2	34.4	11.2					
Green Ext Time (p_c), s				0.0	1.8	5.5	2.5					
Intersection Summary												
HCM 6th Ctrl Delay				30.6								
HCM 6th LOS				C								

Year 2035 + Proj AM
2: Valley Pkwy & Maple St

Aspire
08/20/2019



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↑↑↑						↑	
Traffic Volume (veh/h)	0	0	0	0	2294	20	0	0	0	0	0	10
Future Volume (veh/h)	0	0	0	0	2294	20	0	0	0	0	0	10
Initial Q (Qb), veh				0	0	0				0	0	0
Ped-Bike Adj(A_pbT)				1.00		0.96				1.00		0.96
Parking Bus, Adj				1.00	1.00	1.00				1.00	1.00	1.00
Work Zone On Approach				No						No		
Adj Sat Flow, veh/h/ln				0	1870	1870				0	1870	1870
Adj Flow Rate, veh/h				0	2493	22				0	0	11
Peak Hour Factor				0.92	0.92	0.92				0.92	0.92	0.92
Percent Heavy Veh, %				0	2	2				0	2	2
Cap, veh/h				0	3722	33				0	0	18
Arrive On Green				0.00	0.71	0.71				0.00	0.00	0.01
Sat Flow, veh/h				0	5386	46				0	0	1514
Grp Volume(v), veh/h				0	1625	890				0	0	11
Grp Sat Flow(s),veh/h/ln				0	1702	1860				0	0	1514
Q Serve(g_s), s				0.0	8.1	8.1				0.0	0.0	0.2
Cycle Q Clear(g_c), s				0.0	8.1	8.1				0.0	0.0	0.2
Prop In Lane				0.00		0.02				0.00		1.00
Lane Grp Cap(c), veh/h				0	2428	1327				0	0	18
V/C Ratio(X)				0.00	0.67	0.67				0.00	0.00	0.62
Avail Cap(c_a), veh/h				0	2588	1414				0	0	196
HCM Platoon Ratio				1.00	1.00	1.00				1.00	1.00	1.00
Upstream Filter(I)				0.00	1.00	1.00				0.00	0.00	1.00
Uniform Delay (d), s/veh				0.0	2.4	2.4				0.0	0.0	15.2
Incr Delay (d2), s/veh				0.0	0.6	1.2				0.0	0.0	30.8
Initial Q Delay(d3),s/veh				0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				0.0	0.2	0.4				0.0	0.0	0.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				0.0	3.1	3.6				0.0	0.0	46.0
LnGrp LOS				A	A	A				A	A	D
Approach Vol, veh/h					2515						11	
Approach Delay, s/veh					3.2						46.0	
Approach LOS					A						D	
Timer - Assigned Phs						6		8				
Phs Duration (G+Y+Rc), s						4.4		26.6				
Change Period (Y+Rc), s						4.0		4.5				
Max Green Setting (Gmax), s						4.0		23.5				
Max Q Clear Time (g_c+I1), s						2.2		10.1				
Green Ext Time (p_c), s						0.0		11.9				
Intersection Summary												
HCM 6th Ctrl Delay											3.4	
HCM 6th LOS											A	

Year 2035 + Proj AM
3: Broadway & Valley Pkwy



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↑↑↑	↑	↑	↑↑			↑↑	↑
Traffic Volume (veh/h)	0	0	0	50	2008	170	76	580	0	0	950	201
Future Volume (veh/h)	0	0	0	50	2008	170	76	580	0	0	950	201
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		0.97	1.00		1.00	1.00		0.99
Parking Bus, Adj				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		
Adj Sat Flow, veh/h/ln				1870	1870	1870	1870	1870	0	0	1870	1870
Adj Flow Rate, veh/h				54	2183	185	83	630	0	0	1033	218
Peak Hour Factor				0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %				2	2	2	2	2	0	0	2	2
Cap, veh/h				59	2517	755	148	1421	0	0	1421	630
Arrive On Green				0.49	0.49	0.49	0.40	0.40	0.00	0.00	0.40	0.40
Sat Flow, veh/h				120	5149	1544	444	3647	0	0	3647	1576
Grp Volume(v), veh/h				841	1396	185	83	630	0	0	1033	218
Grp Sat Flow(s),veh/h/ln				1864	1702	1544	444	1777	0	0	1777	1576
Q Serve(g_s), s				37.8	32.0	6.3	13.9	11.6	0.0	0.0	22.1	8.7
Cycle Q Clear(g_c), s				37.8	32.0	6.3	36.0	11.6	0.0	0.0	22.1	8.7
Prop In Lane				0.06		1.00	1.00		0.00	0.00		1.00
Lane Grp Cap(c), veh/h				911	1664	755	148	1421	0	0	1421	630
V/C Ratio(X)				0.92	0.84	0.25	0.56	0.44	0.00	0.00	0.73	0.35
Avail Cap(c_a), veh/h				911	1664	755	148	1421	0	0	1421	630
HCM Platoon Ratio				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	0.00	0.00	1.00	1.00
Uniform Delay (d), s/veh				21.4	19.9	13.4	39.3	19.7	0.0	0.0	22.8	18.8
Incr Delay (d2), s/veh				16.1	5.2	0.8	3.9	0.2	0.0	0.0	1.8	0.2
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				19.2	12.9	2.2	2.0	4.6	0.0	0.0	9.0	3.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				37.6	25.2	14.1	43.2	19.9	0.0	0.0	24.6	19.0
LnGrp LOS				D	C	B	D	B	A	A	C	B
Approach Vol, veh/h					2422			713			1251	
Approach Delay, s/veh					28.6			22.6			23.7	
Approach LOS					C			C			C	
Timer - Assigned Phs				4		6		8				
Phs Duration (G+Y+Rc), s				41.0		49.0		41.0				
Change Period (Y+Rc), s				5.0		5.0		5.0				
Max Green Setting (Gmax), s				36.0		44.0		36.0				
Max Q Clear Time (g_c+I1), s				24.1		39.8		38.0				
Green Ext Time (p_c), s				5.2		3.7		0.0				
Intersection Summary												
HCM 6th Ctrl Delay				26.2								
HCM 6th LOS				C								

Year 2035 + Proj AM
4: Escondido Blvd & Grand Ave



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	60	117	20	200	25	21	30	500	51	93	822	20
Future Volume (veh/h)	60	117	20	200	25	21	30	500	51	93	822	20
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	0.98		0.98	0.99		0.97	1.00		0.97	1.00		0.97
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	65	127	22	217	27	23	33	543	55	101	893	22
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	427	424	74	348	252	215	374	1952	197	516	2126	52
Arrive On Green	0.27	0.27	0.27	0.27	0.27	0.27	0.60	0.60	0.60	0.60	0.60	0.60
Sat Flow, veh/h	1334	1547	268	1230	918	782	609	3250	328	819	3541	87
Grp Volume(v), veh/h	65	0	149	217	0	50	33	296	302	101	448	467
Grp Sat Flow(s),veh/h/ln	1334	0	1815	1230	0	1700	609	1777	1801	819	1777	1851
Q Serve(g_s), s	3.1	0.0	5.2	13.5	0.0	1.8	2.4	6.4	6.4	5.4	10.8	10.8
Cycle Q Clear(g_c), s	4.8	0.0	5.2	18.7	0.0	1.8	13.2	6.4	6.4	11.8	10.8	10.8
Prop In Lane	1.00		0.15	1.00		0.46	1.00		0.18	1.00		0.05
Lane Grp Cap(c), veh/h	427	0	498	348	0	466	374	1067	1082	516	1067	1112
V/C Ratio(X)	0.15	0.00	0.30	0.62	0.00	0.11	0.09	0.28	0.28	0.20	0.42	0.42
Avail Cap(c_a), veh/h	728	0	907	625	0	850	374	1067	1082	516	1067	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	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	23.5	0.0	22.9	30.3	0.0	21.7	12.1	7.7	7.7	10.5	8.5	8.5
Incr Delay (d2), s/veh	0.1	0.0	0.1	0.7	0.0	0.0	0.5	0.6	0.6	0.8	1.2	1.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.9	0.0	2.2	3.9	0.0	0.7	0.4	2.3	2.4	1.0	3.9	4.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	23.6	0.0	23.1	31.0	0.0	21.7	12.5	8.3	8.3	11.4	9.8	9.7
LnGrp LOS	C	A	C	C	A	C	B	A	A	B	A	A
Approach Vol, veh/h		214			267			631			1016	
Approach Delay, s/veh		23.2			29.3			8.5			9.9	
Approach LOS		C			C			A			A	
Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		53.0		27.0		53.0		27.0				
Change Period (Y+Rc), s		5.0		5.0		5.0		5.0				
Max Green Setting (Gmax), s		30.0		40.0		30.0		40.0				
Max Q Clear Time (g_c+I1), s		15.2		7.2		13.8		20.7				
Green Ext Time (p_c), s		2.4		0.6		4.1		0.5				
Intersection Summary												
HCM 6th Ctrl Delay				13.3								
HCM 6th LOS				B								

Intersection				
Intersection Delay, s/veh	5.3			
Intersection LOS	A			
Approach	EB	WB	NB	SB
Entry Lanes	1	1	1	0
Conflicting Circle Lanes	1	1	1	1
Adj Approach Flow, veh/h	284	410	55	0
Demand Flow Rate, veh/h	289	418	55	0
Vehicles Circulating, veh/h	66	56	267	428
Vehicles Exiting, veh/h	362	266	88	46
Ped Vol Crossing Leg, #/h	21	56	13	0
Ped Cap Adj	0.997	0.992	0.998	1.000
Approach Delay, s/veh	4.8	5.8	3.9	0.0
Approach LOS	A	A	A	-
Lane	Left	Left	Left	
Designated Moves	LTR	LTR	LTR	
Assumed Moves	LTR	LTR	LTR	
RT Channelized				
Lane Util	1.000	1.000	1.000	
Follow-Up Headway, s	2.609	2.609	2.609	
Critical Headway, s	4.976	4.976	4.976	
Entry Flow, veh/h	289	418	55	
Cap Entry Lane, veh/h	1290	1303	1051	
Entry HV Adj Factor	0.983	0.982	0.996	
Flow Entry, veh/h	284	410	55	
Cap Entry, veh/h	1265	1270	1045	
V/C Ratio	0.225	0.323	0.052	
Control Delay, s/veh	4.8	5.8	3.9	
LOS	A	A	A	
95th %tile Queue, veh	1	1	0	

Intersection						
Intersection Delay, s/veh11.1						
Intersection LOS B						
Approach	EB	WB		NB	SB	
Entry Lanes	1	2		1	2	
Conflicting Circle Lanes	1	1		1	1	
Adj Approach Flow, veh/h	359	419		361	1026	
Demand Flow Rate, veh/h	366	428		367	1047	
Vehicles Circulating, veh/h	824	438		423	195	
Vehicles Exiting, veh/h	418	352		767	671	
Ped Vol Crossing Leg, #/h	27	17		29	33	
Ped Cap Adj	0.996	0.988		0.996	0.968	
Approach Delay, s/veh	18.7	6.3		9.0	11.0	
Approach LOS	C	A		A	B	
Lane	Left	Left	Right	Left	Left	Right
Designated Moves	LTR	LT	R	LTR	LT	R
Assumed Moves	LTR	LT	R	LTR	LT	R
RT Channelized						
Lane Util	1.000	0.404	0.596	1.000	0.745	0.255
Follow-Up Headway, s	2.609	2.535	2.535	2.609	2.535	2.535
Critical Headway, s	4.976	4.544	4.544	4.976	4.544	4.544
Entry Flow, veh/h	366	173	255	367	780	267
Cap Entry Lane, veh/h	595	953	953	896	1189	1189
Entry HV Adj Factor	0.981	0.980	0.980	0.983	0.980	0.981
Flow Entry, veh/h	359	169	250	361	764	262
Cap Entry, veh/h	582	922	923	877	1128	1130
V/C Ratio	0.617	0.184	0.271	0.411	0.678	0.232
Control Delay, s/veh	18.7	5.7	6.7	9.0	13.0	5.3
LOS	C	A	A	A	B	A
95th %tile Queue, veh	4	1	1	2	6	1

Intersection												
Int Delay, s/veh	0.1											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕						↕		↕	↕	
Traffic Vol, veh/h	0	5	5	0	0	0	0	566	5	5	930	0
Future Vol, veh/h	0	5	5	0	0	0	0	566	5	5	930	0
Conflicting Peds, #/hr	0	0	1	3	0	0	0	0	18	0	0	14
Sign Control	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	40	-	-
Veh in Median Storage, #	-	0	-	-	16979	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	5	5	0	0	0	0	615	5	5	1011	0

Major/Minor	Minor2			Major1			Major2		
Conflicting Flow All	1329	1659	507	-	0	0	638	0	0
Stage 1	1021	1021	-	-	-	-	-	-	-
Stage 2	308	638	-	-	-	-	-	-	-
Critical Hdwy	6.84	6.54	6.94	-	-	-	4.14	-	-
Critical Hdwy Stg 1	5.84	5.54	-	-	-	-	-	-	-
Critical Hdwy Stg 2	5.84	5.54	-	-	-	-	-	-	-
Follow-up Hdwy	3.52	4.02	3.32	-	-	-	2.22	-	-
Pot Cap-1 Maneuver	146	97	511	0	-	-	942	-	0
Stage 1	309	312	-	0	-	-	-	-	0
Stage 2	719	469	-	0	-	-	-	-	0
Platoon blocked, %									
Mov Cap-1 Maneuver	145	0	511	-	-	-	942	-	-
Mov Cap-2 Maneuver	145	0	-	-	-	-	-	-	-
Stage 1	307	0	-	-	-	-	-	-	-
Stage 2	719	0	-	-	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	12.2	0	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	EBLn1	SBL	SBT
Capacity (veh/h)	-	-	511	942	-
HCM Lane V/C Ratio	-	-	0.021	0.006	-
HCM Control Delay (s)	-	-	12.2	8.8	-
HCM Lane LOS	-	-	B	A	-
HCM 95th %tile Q(veh)	-	-	0.1	0	-

Intersection												
Int Delay, s/veh	0.5											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕↔						↕↔		↕	↕↕	
Traffic Vol, veh/h	10	5	14	0	0	0	0	646	10	10	990	0
Future Vol, veh/h	10	5	14	0	0	0	0	646	10	10	990	0
Conflicting Peds, #/hr	0	0	1	0	0	0	0	0	14	0	0	11
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	30	-	-
Veh in Median Storage, #	-	0	-	-	16979	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	11	5	15	0	0	0	0	702	11	11	1076	0

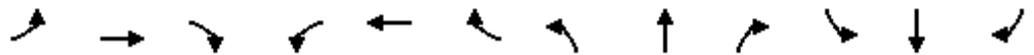
Major/Minor	Minor2			Major1			Major2		
Conflicting Flow All	1449	1825	539	-	0	0	727	0	0
Stage 1	1098	1098	-	-	-	-	-	-	-
Stage 2	351	727	-	-	-	-	-	-	-
Critical Hdwy	6.84	6.54	6.94	-	-	-	4.14	-	-
Critical Hdwy Stg 1	5.84	5.54	-	-	-	-	-	-	-
Critical Hdwy Stg 2	5.84	5.54	-	-	-	-	-	-	-
Follow-up Hdwy	3.52	4.02	3.32	-	-	-	2.22	-	-
Pot Cap-1 Maneuver	122	76	487	0	-	-	872	-	0
Stage 1	281	287	-	0	-	-	-	-	0
Stage 2	684	427	-	0	-	-	-	-	0
Platoon blocked, %									
Mov Cap-1 Maneuver	120	0	487	-	-	-	872	-	-
Mov Cap-2 Maneuver	120	0	-	-	-	-	-	-	-
Stage 1	277	0	-	-	-	-	-	-	-
Stage 2	684	0	-	-	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	24.7	0	0.1
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	NBR	EBLn1	SBL	SBT
Capacity (veh/h)	-	-	214	872	-
HCM Lane V/C Ratio	-	-	0.147	0.012	-
HCM Control Delay (s)	-	-	24.7	9.2	-
HCM Lane LOS	-	-	C	A	-
HCM 95th %tile Q(veh)	-	-	0.5	0	-

Year 2035 + Proj PM
1: Escondido Blvd & Valley Pkwy

Aspire
08/20/2019



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					←←←←		↖	↑↑			↑↑	↗
Traffic Volume (veh/h)	0	0	0	207	2382	372	120	970	0	0	733	300
Future Volume (veh/h)	0	0	0	207	2382	372	120	970	0	0	733	300
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		0.96	1.00		1.00	1.00		0.91
Parking Bus, Adj				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		
Adj Sat Flow, veh/h/ln				1900	1870	1900	1870	1870	0	0	1870	1870
Adj Flow Rate, veh/h				225	2589	404	130	1054	0	0	797	326
Peak Hour Factor				0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %				0	2	0	2	2	0	0	2	2
Cap, veh/h				230	2827	436	143	1339	0	0	877	355
Arrive On Green				0.52	0.52	0.52	0.08	0.38	0.00	0.00	0.25	0.25
Sat Flow, veh/h				444	5458	842	1781	3647	0	0	3647	1440
Grp Volume(v), veh/h				937	1476	806	130	1054	0	0	797	326
Grp Sat Flow(s),veh/h/ln				1848	1609	1679	1781	1777	0	0	1777	1440
Q Serve(g_s), s				49.5	40.9	44.5	7.2	26.3	0.0	0.0	21.8	22.0
Cycle Q Clear(g_c), s				49.5	40.9	44.5	7.2	26.3	0.0	0.0	21.8	22.0
Prop In Lane				0.24		0.50	1.00		0.00	0.00		1.00
Lane Grp Cap(c), veh/h				957	1666	870	143	1339	0	0	877	355
V/C Ratio(X)				0.98	0.89	0.93	0.91	0.79	0.00	0.00	0.91	0.92
Avail Cap(c_a), veh/h				957	1666	870	143	1358	0	0	896	363
HCM Platoon Ratio				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	0.00	0.00	1.00	1.00
Uniform Delay (d), s/veh				23.5	21.5	22.3	45.7	27.6	0.0	0.0	36.6	36.7
Incr Delay (d2), s/veh				24.3	7.3	17.1	50.0	2.8	0.0	0.0	12.5	26.7
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				26.4	16.0	20.4	5.2	11.3	0.0	0.0	10.8	10.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				47.8	28.8	39.5	95.6	30.5	0.0	0.0	49.1	63.4
LnGrp LOS				D	C	D	F	C	A	A	D	E
Approach Vol, veh/h					3218			1184			1123	
Approach Delay, s/veh					37.0			37.6			53.3	
Approach LOS					D			D			D	
Timer - Assigned Phs				3	4	6	8					
Phs Duration (G+Y+Rc), s				13.0	29.7	56.8	42.7					
Change Period (Y+Rc), s				5.0	5.0	5.0	5.0					
Max Green Setting (Gmax), s				8.0	25.2	51.8	38.2					
Max Q Clear Time (g_c+I1), s				9.2	24.0	51.5	28.3					
Green Ext Time (p_c), s				0.0	0.6	0.3	3.9					
Intersection Summary												
HCM 6th Ctrl Delay				40.4								
HCM 6th LOS				D								

Year 2035 + Proj PM
2: Valley Pkwy & Maple St

Aspire
08/20/2019



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↑↑↑						↑	
Traffic Volume (veh/h)	0	0	0	0	2781	20	0	0	0	0	0	60
Future Volume (veh/h)	0	0	0	0	2781	20	0	0	0	0	0	60
Initial Q (Qb), veh				0	0	0				0	0	0
Ped-Bike Adj(A_pbT)				1.00		0.96				1.00		0.92
Parking Bus, Adj				1.00	1.00	1.00				1.00	1.00	1.00
Work Zone On Approach				No						No		
Adj Sat Flow, veh/h/ln				0	1870	1870				0	1870	1870
Adj Flow Rate, veh/h				0	3023	22				0	0	65
Peak Hour Factor				0.92	0.92	0.92				0.92	0.92	0.92
Percent Heavy Veh, %				0	2	2				0	2	2
Cap, veh/h				0	3569	26				0	0	79
Arrive On Green				0.00	0.68	0.68				0.00	0.00	0.05
Sat Flow, veh/h				0	5396	38				0	0	1464
Grp Volume(v), veh/h				0	1965	1080				0	0	65
Grp Sat Flow(s),veh/h/ln				0	1702	1862				0	0	1464
Q Serve(g_s), s				0.0	14.8	15.0				0.0	0.0	1.5
Cycle Q Clear(g_c), s				0.0	14.8	15.0				0.0	0.0	1.5
Prop In Lane				0.00		0.02				0.00		1.00
Lane Grp Cap(c), veh/h				0	2324	1271				0	0	79
V/C Ratio(X)				0.00	0.85	0.85				0.00	0.00	0.82
Avail Cap(c_a), veh/h				0	2341	1280				0	0	321
HCM Platoon Ratio				1.00	1.00	1.00				1.00	1.00	1.00
Upstream Filter(I)				0.00	1.00	1.00				0.00	0.00	1.00
Uniform Delay (d), s/veh				0.0	4.1	4.1				0.0	0.0	16.0
Incr Delay (d2), s/veh				0.0	3.0	5.6				0.0	0.0	18.7
Initial Q Delay(d3),s/veh				0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				0.0	1.3	2.3				0.0	0.0	0.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				0.0	7.1	9.7				0.0	0.0	34.7
LnGrp LOS				A	A	A				A	A	C
Approach Vol, veh/h					3045							65
Approach Delay, s/veh					8.0							34.7
Approach LOS					A							C
Timer - Assigned Phs						6		8				
Phs Duration (G+Y+Rc), s						6.3		27.8				
Change Period (Y+Rc), s						4.5		4.5				
Max Green Setting (Gmax), s						7.5		23.5				
Max Q Clear Time (g_c+11), s						3.5		17.0				
Green Ext Time (p_c), s						0.1		6.4				
Intersection Summary												
HCM 6th Ctrl Delay												8.6
HCM 6th LOS												A

Year 2035 + Proj PM
3: Broadway & Valley Pkwy



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↑↑↑	↑	↑	↑↑			↑↑	↑
Traffic Volume (veh/h)	0	0	0	60	2385	220	163	830	0	0	891	282
Future Volume (veh/h)	0	0	0	60	2385	220	163	830	0	0	891	282
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		0.98	1.00		1.00	1.00		0.98
Parking Bus, Adj				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		
Adj Sat Flow, veh/h/ln				1870	1870	1870	1870	1870	0	0	1870	1870
Adj Flow Rate, veh/h				65	2592	239	177	902	0	0	968	307
Peak Hour Factor				0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %				2	2	2	2	2	0	0	2	2
Cap, veh/h				59	2522	758	154	1457	0	0	1457	637
Arrive On Green				0.49	0.49	0.49	0.41	0.41	0.00	0.00	0.41	0.41
Sat Flow, veh/h				121	5147	1547	434	3647	0	0	3647	1554
Grp Volume(v), veh/h				1000	1657	239	177	902	0	0	968	307
Grp Sat Flow(s),veh/h/ln				1864	1702	1547	434	1777	0	0	1777	1554
Q Serve(g_s), s				49.0	48.4	9.3	18.9	20.1	0.0	0.0	22.1	14.5
Cycle Q Clear(g_c), s				49.0	48.4	9.3	41.0	20.1	0.0	0.0	22.1	14.5
Prop In Lane				0.06		1.00	1.00		0.00	0.00		1.00
Lane Grp Cap(c), veh/h				914	1668	758	154	1457	0	0	1457	637
V/C Ratio(X)				1.09	0.99	0.32	1.15	0.62	0.00	0.00	0.66	0.48
Avail Cap(c_a), veh/h				914	1668	758	154	1457	0	0	1457	637
HCM Platoon Ratio				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	0.00	0.00	1.00	1.00
Uniform Delay (d), s/veh				25.5	25.3	15.4	45.0	23.3	0.0	0.0	23.9	21.7
Incr Delay (d2), s/veh				59.1	20.5	1.1	118.1	0.7	0.0	0.0	1.1	0.4
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				35.2	22.9	3.4	8.9	8.2	0.0	0.0	9.0	5.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				84.6	45.8	16.5	163.0	24.0	0.0	0.0	25.0	22.1
LnGrp LOS				F	D	B	F	C	A	A	C	C
Approach Vol, veh/h				2896			1079			1275		
Approach Delay, s/veh				56.8			46.8			24.3		
Approach LOS				E			D			C		
Timer - Assigned Phs				4			6			8		
Phs Duration (G+Y+Rc), s				46.0			54.0			46.0		
Change Period (Y+Rc), s				5.0			5.0			5.0		
Max Green Setting (Gmax), s				41.0			49.0			41.0		
Max Q Clear Time (g_c+I1), s				24.1			51.0			43.0		
Green Ext Time (p_c), s				6.1			0.0			0.0		
Intersection Summary												
HCM 6th Ctrl Delay				46.9								
HCM 6th LOS				D								

Year 2035 + Proj PM
4: Escondido Blvd & Grand Ave



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	100	215	30	120	395	65	90	880	62	154	726	40
Future Volume (veh/h)	100	215	30	120	395	65	90	880	62	154	726	40
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.97	0.99		0.97	1.00		0.97	1.00		0.96
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	109	234	33	130	429	71	98	957	67	167	789	43
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	214	613	86	387	598	99	314	1697	119	250	1726	94
Arrive On Green	0.38	0.38	0.38	0.38	0.38	0.38	0.51	0.51	0.51	0.51	0.51	0.51
Sat Flow, veh/h	897	1597	225	1104	1558	258	658	3360	235	550	3417	186
Grp Volume(v), veh/h	109	0	267	130	0	500	98	506	518	167	410	422
Grp Sat Flow(s),veh/h/ln	897	0	1822	1104	0	1815	658	1777	1818	550	1777	1827
Q Serve(g_s), s	10.6	0.0	9.5	8.7	0.0	21.1	10.1	17.7	17.7	27.1	13.4	13.4
Cycle Q Clear(g_c), s	31.7	0.0	9.5	18.2	0.0	21.1	23.5	17.7	17.7	44.9	13.4	13.4
Prop In Lane	1.00		0.12	1.00		0.14	1.00		0.13	1.00		0.10
Lane Grp Cap(c), veh/h	214	0	699	387	0	697	314	897	918	250	897	923
V/C Ratio(X)	0.51	0.00	0.38	0.34	0.00	0.72	0.31	0.56	0.56	0.67	0.46	0.46
Avail Cap(c_a), veh/h	279	0	830	466	0	827	314	897	918	250	897	923
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	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	37.0	0.0	20.0	26.6	0.0	23.6	21.9	15.4	15.4	30.9	14.3	14.3
Incr Delay (d2), s/veh	0.7	0.0	0.1	0.2	0.0	1.8	2.6	2.6	2.5	13.4	1.7	1.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.3	0.0	3.9	2.3	0.0	9.0	1.7	7.4	7.5	4.4	5.5	5.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	37.7	0.0	20.1	26.8	0.0	25.3	24.5	18.0	17.9	44.3	16.0	16.0
LnGrp LOS	D	A	C	C	A	C	C	B	B	D	B	B
Approach Vol, veh/h		376			630			1122			999	
Approach Delay, s/veh		25.2			25.6			18.5			20.7	
Approach LOS		C			C			B			C	
Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		50.5		39.5		50.5		39.5				
Change Period (Y+Rc), s		5.0		5.0		5.0		5.0				
Max Green Setting (Gmax), s		39.0		41.0		39.0		41.0				
Max Q Clear Time (g_c+I1), s		25.5		33.7		46.9		23.1				
Green Ext Time (p_c), s		4.5		0.9		0.0		2.3				
Intersection Summary												
HCM 6th Ctrl Delay				21.5								
HCM 6th LOS				C								

Intersection				
Intersection Delay, s/veh	9.4			
Intersection LOS	A			
Approach	EB	WB	NB	SB
Entry Lanes	1	1	1	0
Conflicting Circle Lanes	1	1	1	1
Adj Approach Flow, veh/h	469	819	87	0
Demand Flow Rate, veh/h	477	835	89	0
Vehicles Circulating, veh/h	22	78	455	865
Vehicles Exiting, veh/h	843	466	44	48
Ped Vol Crossing Leg, #/h	35	92	42	20
Ped Cap Adj	0.995	0.987	0.994	1.000
Approach Delay, s/veh	6.0	11.8	5.3	0.0
Approach LOS	A	B	A	-
Lane	Left	Left	Left	
Designated Moves	LTR	LTR	LTR	
Assumed Moves	LTR	LTR	LTR	
RT Channelized				
Lane Util	1.000	1.000	1.000	
Follow-Up Headway, s	2.609	2.609	2.609	
Critical Headway, s	4.976	4.976	4.976	
Entry Flow, veh/h	477	835	89	
Cap Entry Lane, veh/h	1349	1274	868	
Entry HV Adj Factor	0.982	0.981	0.975	
Flow Entry, veh/h	469	819	87	
Cap Entry, veh/h	1319	1235	841	
V/C Ratio	0.355	0.664	0.103	
Control Delay, s/veh	6.0	11.8	5.3	
LOS	A	B	A	
95th %tile Queue, veh	2	5	0	

Intersection						
Intersection Delay, s/veh24.5						
Intersection LOS C						
Approach	EB	WB		NB	SB	
Entry Lanes	1	2		1	2	
Conflicting Circle Lanes	1	1		1	1	
Adj Approach Flow, veh/h	598	730		548	1058	
Demand Flow Rate, veh/h	611	745		559	1079	
Vehicles Circulating, veh/h	767	603		500	523	
Vehicles Exiting, veh/h	835	456		878	825	
Ped Vol Crossing Leg, #/h	6	27		63	81	
Ped Cap Adj	0.999	0.986		0.991	0.951	
Approach Delay, s/veh	54.6	12.5		16.8	19.8	
Approach LOS	F	B		C	C	
Lane	Left	Left	Right	Left	Left	Right
Designated Moves	LTR	LT	R	LTR	LT	R
Assumed Moves	LTR	LT	R	LTR	LT	R
RT Channelized						
Lane Util	1.000	0.672	0.328	1.000	0.639	0.361
Follow-Up Headway, s	2.609	2.535	2.535	2.609	2.535	2.535
Critical Headway, s	4.976	4.544	4.544	4.976	4.544	4.544
Entry Flow, veh/h	611	501	244	559	689	390
Cap Entry Lane, veh/h	631	820	820	829	882	882
Entry HV Adj Factor	0.979	0.979	0.980	0.981	0.981	0.979
Flow Entry, veh/h	598	491	239	548	676	382
Cap Entry, veh/h	618	793	793	806	823	822
V/C Ratio	0.969	0.619	0.302	0.680	0.821	0.465
Control Delay, s/veh	54.6	14.7	8.0	16.8	25.2	10.5
LOS	F	B	A	C	D	B
95th %tile Queue, veh	14	4	1	5	9	2

Intersection												
Int Delay, s/veh	0.2											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕↔						↕↔		↕	↕↕	
Traffic Vol, veh/h	5	0	0	0	0	0	0	1085	5	5	935	0
Future Vol, veh/h	5	0	0	0	0	0	0	1085	5	5	935	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	16	0	0	15
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	40	-	-
Veh in Median Storage, #	-	0	-	-	16979	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	5	0	0	0	0	0	0	1179	5	5	1016	0

Major/Minor	Minor2			Major1			Major2		
Conflicting Flow All	1616	2226	508	-	0	0	1200	0	0
Stage 1	1026	1026	-	-	-	-	-	-	-
Stage 2	590	1200	-	-	-	-	-	-	-
Critical Hdwy	6.84	6.54	6.94	-	-	-	4.14	-	-
Critical Hdwy Stg 1	5.84	5.54	-	-	-	-	-	-	-
Critical Hdwy Stg 2	5.84	5.54	-	-	-	-	-	-	-
Follow-up Hdwy	3.52	4.02	3.32	-	-	-	2.22	-	-
Pot Cap-1 Maneuver	94	43	510	0	-	-	577	-	0
Stage 1	307	310	-	0	-	-	-	-	0
Stage 2	517	256	-	0	-	-	-	-	0
Platoon blocked, %									
Mov Cap-1 Maneuver	93	0	510	-	-	-	577	-	-
Mov Cap-2 Maneuver	93	0	-	-	-	-	-	-	-
Stage 1	304	0	-	-	-	-	-	-	-
Stage 2	517	0	-	-	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	46.1	0	0.1
HCM LOS	E		

Minor Lane/Major Mvmt	NBT	NBR	EBLn1	SBL	SBT
Capacity (veh/h)	-	-	93	577	-
HCM Lane V/C Ratio	-	-	0.058	0.009	-
HCM Control Delay (s)	-	-	46.1	11.3	-
HCM Lane LOS	-	-	E	B	-
HCM 95th %tile Q(veh)	-	-	0.2	0	-

Intersection												
Int Delay, s/veh	1.1											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕↔						↕↔		↕	↕↕	
Traffic Vol, veh/h	20	10	22	0	0	0	0	973	20	20	931	0
Future Vol, veh/h	20	10	22	0	0	0	0	973	20	20	931	0
Conflicting Peds, #/hr	0	0	5	3	0	0	0	0	13	0	0	65
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	30	-	-
Veh in Median Storage, #	-	0	-	-	16979	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	22	11	24	0	0	0	0	1058	22	22	1012	0

Major/Minor	Minor2			Major1			Major2		
Conflicting Flow All	1585	2149	511	-	0	0	1093	0	0
Stage 1	1056	1056	-	-	-	-	-	-	-
Stage 2	529	1093	-	-	-	-	-	-	-
Critical Hdwy	6.84	6.54	6.94	-	-	-	4.14	-	-
Critical Hdwy Stg 1	5.84	5.54	-	-	-	-	-	-	-
Critical Hdwy Stg 2	5.84	5.54	-	-	-	-	-	-	-
Follow-up Hdwy	3.52	4.02	3.32	-	-	-	2.22	-	-
Pot Cap-1 Maneuver	99	48	508	0	-	-	634	-	0
Stage 1	296	300	-	0	-	-	-	-	0
Stage 2	555	288	-	0	-	-	-	-	0
Platoon blocked, %									
Mov Cap-1 Maneuver	96	0	506	-	-	-	634	-	-
Mov Cap-2 Maneuver	96	0	-	-	-	-	-	-	-
Stage 1	286	0	-	-	-	-	-	-	-
Stage 2	555	0	-	-	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	37.2	0	0.2
HCM LOS	E		

Minor Lane/Major Mvmt	NBT	NBR	EBLn1	SBL	SBT
Capacity (veh/h)	-	-	167	634	-
HCM Lane V/C Ratio	-	-	0.338	0.034	-
HCM Control Delay (s)	-	-	37.2	10.9	-
HCM Lane LOS	-	-	E	B	-
HCM 95th %tile Q(veh)	-	-	1.4	0.1	-