
Traffic Impact Study Explore Academy Albuquerque, NM January 2021

Prepared for:

Dekker/Perich/Sabatini
7601 Jefferson NE, Suite 100
Albuquerque, NM 87109

Prepared by:



Civil Transformations Inc.
2929 Coors Blvd. NW, Suite 309
Albuquerque, NM 87120

HT#E17D012
Recieved 1/25/2021

Traffic Impact Study

Explore Academy

Albuquerque, NM

January 2021

Prepared for:

Dekker/Perich/Sabatini
7601 Jefferson NE, Suite 100
Albuquerque, NM 87109

Prepared by:

Civil Transformations Inc.
2929 Coors Blvd. NW, Suite 309
Albuquerque, NM 87120



The technical material and data contained in this document were prepared by the undersigned, whose seal as a Professional Engineer, licensed to practice in the State of New Mexico, is affixed below.

A handwritten signature in blue ink that reads "Timothy D. Simmons".

Timothy D. Simmons, PE, PTOE
01/22/2021

TABLE OF CONTENTS

SECTION	PAGE
Table of Contents	i
List of Figures	ii
1.0 EXECUTIVE SUMMARY	1
1.1 Purpose of Study	1
1.2 Principal Findings	1
1.3 Conclusions & Recommendations	1
2.0 INTRODUCTION	2
2.1 Description of Proposed Project	2
2.2 Project Location	2
2.3 Study Area	2
2.4 Scope of Analysis	2
2.5 Planned Developments or Projects in the Vicinity	3
3.0 EXISTING CONDITIONS	3
3.1 Current Land Use & Zoning	3
3.3 Existing Roadway System	3
3.4 Existing Traffic Data	4
3.5 Existing Roadway/Intersection Capacity	7
3.5 Existing Transit Service	7
3.6 Bicycle & Pedestrian Facilities	7
3.7 Crash Analysis	8
4.0 PROPOSED SITE TRAFFIC CHARACTERISTICS	8
4.1 Proposed Project	8
4.2 Development Phasing and Timing	8
4.3 Site Access and Circulation	8
4.3 Trip Generation	10
4.4 Site Traffic Distribution and Assignment	11
5.0 FUTURE TRAFFIC CONDITIONS	11
5.1 Background Traffic Projection	11
6.0 TRANSPORTATION ANALYSIS	12
6.1 Site Traffic Operations Analysis	12
6.2 Assessment of Impacts	15
6.3 Queueing Summary	15
6.4 Traffic Signal Warrant Study (TSWS)	16
6.5 Neighborhood Impact Assessment (NIA) Considerations	17
7.0 SITE ACCESS REQUIREMENTS	18
8.0 SUMMARY OF FINDINGS	19
9.0 RECOMMENDATIONS & MITIGATION MEASURES	19

APPENDICES

APPENDIX A – Traffic Scoping Requirements
 APPENDIX B – Existing & Projected Traffic Data
 APPENDIX C – Bus Route Information
 APPENDIX D – Crash Records
 APPENDIX E – Trip Generation Data
 APPENDIX F – LOS Worksheets
 APPENDIX G – Traffic Signal Warrant Study

LIST OF TABLES

<u>Table</u>	<u>Page</u>
<i>Table 1: Trip Distribution Summary</i>	7
<i>Table 2: Estimated Site Trip Generation</i>	11
<i>Table 3: Historic Traffic Volumes (AWDT)</i>	12
<i>Table 4: Intersection Level of Service (LOS) Criteria (HCM 6th Ed.)</i>	13
<i>Table 5: LOS Summary for Alternative Concepts*</i>	13
<i>Table 6: Calculated 95th Percentile Queue Lengths</i>	15
<i>Table 7: Summary of Traffic Signal Warrants</i>	16

LIST OF FIGURES

<u>Figure</u>	<u>Page</u>
<i>Figure 1: Vicinity Map</i>	2
<i>Figure 2: AM Peak Hour Volumes (Baseline)</i>	5
<i>Figure 3: PM Peak Hour Volumes (Baseline)</i>	6
<i>Figure 4: Proposed Site Plan</i>	9
<i>Figure 5: Pedestrian/Bike Access Route</i>	17
<i>Figure 6: Site Access LOS A</i>	18

1.0 EXECUTIVE SUMMARY

1.1 Purpose of Study

This report documents the results of a Traffic Impact Study (TIS) and Neighborhood Impact Assessment (NIA) for a proposed charter school located at 6600 Gulton Ct. N.E. in Albuquerque, New Mexico. The purpose of this TIS is to assess traffic operations associated with traffic generated by this proposed project on the adjacent transportation network, specifically Osuna Road.

This study evaluated both the existing and proposed conditions of the corridor adjacent to the proposed site entrance, and was conducted in accordance with the City of Albuquerque Development Process Manual (COA DPM) Article 7-5 Traffic Studies. Study requirements were established through a traffic scoping meeting held with the City Traffic Engineer and utilizing information summarized in the Traffic Scoping Form (TSF, see Appendix A).

1.2 Principal Findings

Key findings of this analysis are summarized as follows:

1. Site-generated traffic is not expected to cause significant, adverse impacts to the adjacent roadway network including the traffic signalized intersections along Osuna Rd.
2. Adverse neighborhood impacts relative to idling and queuing traffic at the school site would not be expected to occur. Furthermore, the site is consistent with existing pedestrian, bicycle, and transit facilities.
3. Some traffic queuing may occur for westbound left turns on Osuna Rd. approaching Gulton Ct. as well as northbound traffic on Gulton Ct.

A traffic signal warrant study (TSWS) of the Osuna/Gulton intersection met certain warranting criteria but would not meet the 1000' minimum spacing criteria for signalization.

1.3 Conclusions & Recommendations

This analysis has demonstrated that significant detrimental traffic impacts associated with the proposed charter middle/high school are not expected to occur on the adjacent transportation system and the location is consistent with adjacent land uses as well as transportation services. The following recommendations are offered concerning on- and off-site access modifications.

1. Site Access Driveway
 - a. Widen the existing driveway to provide two ingress and one egress lane.
 - b. Install a channelization island, pavement markings, and signs to delineate lane assignments and direct traffic to appropriate drop-off or parking areas.
2. Off-Site Roadway Improvements
 - a. Provide pavement marking revisions on Gulton Ct. at Osuna Rd. to delineate left- and right-turn lanes.
 - b. Extend westbound left turn lane (WBL) on Osuna at Gulton Ct.
 - c. Traffic Management Considerations were also offered to encourage multi-modal uses and reduce traffic peaking issues during peak traffic periods.

See Section 9 of this report for details of these recommendations.

2.0 INTRODUCTION

2.1 Description of Proposed Project

The project consists of the remodeling of an existing 80,323 square foot (s.f.) building and repurposing it to serve as a charter school for middle and high school students grades 6 through 12. Existing parking will be utilized, and access is proposed via an existing paved driveway at the south end of Gulton Ct. Operations are projected to commence in year 2021.

2.2 Project Location

The project is located at 6600 Gulton Ct. in northeast Albuquerque south of Osuna Rd. and west of Jefferson St. as depicted in Figure 1.

Figure 1: Vicinity Map



Source: Google Earth

2.3 Study Area

The study area encompasses the site and adjacent roadways, namely Gulton Ct. and Osuna Rd. from Chappell Rd. to Jefferson St. Included in the analysis are the traffic signalized intersections of Osuna Rd. at Chappell Rd., Academy Parkway, and Jefferson St. as well as the unsignalized intersections of Osuna at Gulton Ct. and two adjacent commercial access roads.

2.4 Scope of Analysis

Primary tasks incorporated into this analysis include:

- A. **Data Collection** – including traffic volume counts, other roadway network parameters, and regional data for the traffic analysis.
- B. **Traffic Operations Analysis** – utilizing the collected data, computerized models were developed in *Synchro 10* software for analysis utilizing *Highway Capacity Manual (HCM)* procedures.
- C. **Crash Analysis** – review of records to evaluate whether recurring patterns requiring correction are exhibited.
- D. **Traffic Signal Warrant Evaluation** – analysis of whether a traffic signal at Osuna Rd./Gulton Ct. may be warranted based on traffic conditions.

- E. **Geometric Evaluation** – consideration of safe access measures such as auxiliary lanes and/or access geometry to mitigate traffic impacts, if necessary.

2.5 Planned Developments or Projects in the Vicinity

No imminent developments have been identified in this area.

3.0 EXISTING CONDITIONS

3.1 Current Land Use & Zoning

The environs are generally urban and built up with mixed developments in the area consisting of industrial, commercial office and retail land uses. Nearby institutional uses include a church on Osuna Rd. and a charter school on Academy Parkway. The nearest residential neighborhood is approximately 2/3-mile west and outside of the study limits.

The existing building previously housed an electronics manufacturing operation and is currently vacant. Following are the designations by the COA Integrated Development Ordinance (IDO).

1. Land use designation: Office;
2. Property zone: Non-Residential Business Park (NR-BP) for industrial, wholesale, and manufacturing uses;
3. Nearest designated employment Activity Center: Journal Center (employment);
4. Community Planning Area: North I-25;
5. Corridor: Major Transit (Route 141 – San Mateo).

3.3 Existing Roadway System

The existing study street network is shown in Figure 1 and described below. These routes are under the jurisdiction of the City of Albuquerque (COA) with designations as shown on the Functional Classification in the Albuquerque Metropolitan Planning Area by the Mid-Region Council of Governments (MRCOG).

3.3.1 Osuna Rd.

Designated as a Principal Arterial, the route has a posted speed of 45 mph and consists of six travel lanes, a 36' raised median, 7' buffered bike lanes, curb & gutter, and 6' sidewalks. Average Weekday Traffic (AWDT) east of Chappell for year 2019 was 28,000. Intersection approach or spot lighting exists at the signalized intersections.

3.3.2 Chappell Rd.

A Major Collector roadway that parallels the North Diversion Channel drainage facility, the roadway width is 25' and consists of 2 travel lanes, curb & gutter on the west side, and 6' shoulders. The posted speed is 35 mph and AWDT₂₀₁₈ south of Osuna was 9,800.

3.3.3 Jefferson St.

Jefferson is a Minor Arterial roadway with an urban typical section consisting of 4 travel lanes, a 28' raised median, curb & gutter, bike lanes, and 6' sidewalks. The posted speed is 35 mph and AWDT₂₀₁₈ south of Osuna was 15,000.

3.3.3 Gulton Ct.

Gulton is a 40' wide local road terminating in a cul-de-sac at the site and serving commercial offices with curb & gutter, 6' sidewalk along the west side and partially along the east side. An existing bus stop south of

Osuna provides access for Route 141 – San Mateo. A mid-block street light exists on the east side. A short left turn bay is designated at Osuna with pavement markings.

3.3.4 Academy Parkway

This is a local route which serves industrial and commercial uses and has a traffic signalized intersection with Osuna.

3.4 Existing Traffic Data

3.4.1 Traffic Counts

Manual turning movement counts (TMCs) were collected on Wednesday, November 18, 2020 during the AM (7-9 a.m.) and PM (4-6 p.m.) peak periods for use in analyzing traffic operations at the study intersections. Because traffic intersections on Osuna constitute a coordinated network, combined peak hour periods for the corridor were established as beginning at 7:30 a.m. and 4:30 p.m., respectively.

Consideration was given to traffic impacts associated with the COVID-19 pandemic and government-mandated closures. MRCOG has been periodically monitoring traffic patterns and reported that, in the spring of 2020, traffic volumes had dropped by 32.5% overall throughout the metro area. A 48-hour traffic volume count collected by MRCOG in December 2019 on Osuna west of Washington was used to compare the AM and PM peak hours, indicating that the manual TMC data was approximately 33% lower than the volume count. Therefore, certain adjustments to these TMCs accounting for reduced travel demand were considered as follows.

1. An adjustment factor of 1.49 was applied to the “baseline” TMC data to inflate the counts and thereby represent current “normal” traffic.
2. Because the traffic volume count was conducted in December, typically the highest volume month due to economic activity during the holidays, a monthly factor was used to derive a seasonal adjustment using historic MRCOG data. Thus, the November monthly factor (when the TMCs were collected) was divided by the December monthly factor (when the MRCOG traffic volume count was collected) to yield a monthly adjustment factor of $1.022/1.056 = 0.97$.
3. These two adjustment factors yielded a net adjustment of $(1.49 * 0.97) = 1.45$, which was applied to the TMCs to derive “existing” traffic data adjusted to represent current traffic conditions.
4. It should be noted that the directional distributions of the volume count were 56% eastbound (EB) during the AM and 57% westbound (WB) during the PM peak periods, respectively, but the TMC data reflected lower directional splits of about 51% to 52%. This may represent a temporary paradigm shift in commuter traffic, and should be monitored to evaluate whether it reflects a more permanent change in future travel patterns.

Detailed reports of the TMC data are contained in Appendix B. Adjusted peak hour traffic volumes derived for this analysis are presented in Figures 2 and 3. Utilizing these adjusted traffic count volumes, directional distribution of traffic at the site is tabulated in Table 1. Because site access is constrained to Osuna Rd., it was not necessary to employ regional gravity distribution models and therefore these distribution values were applied to new trips generated by the proposed project (see Appendix E).

Figure 2: AM Peak Hour Volumes (Baseline)

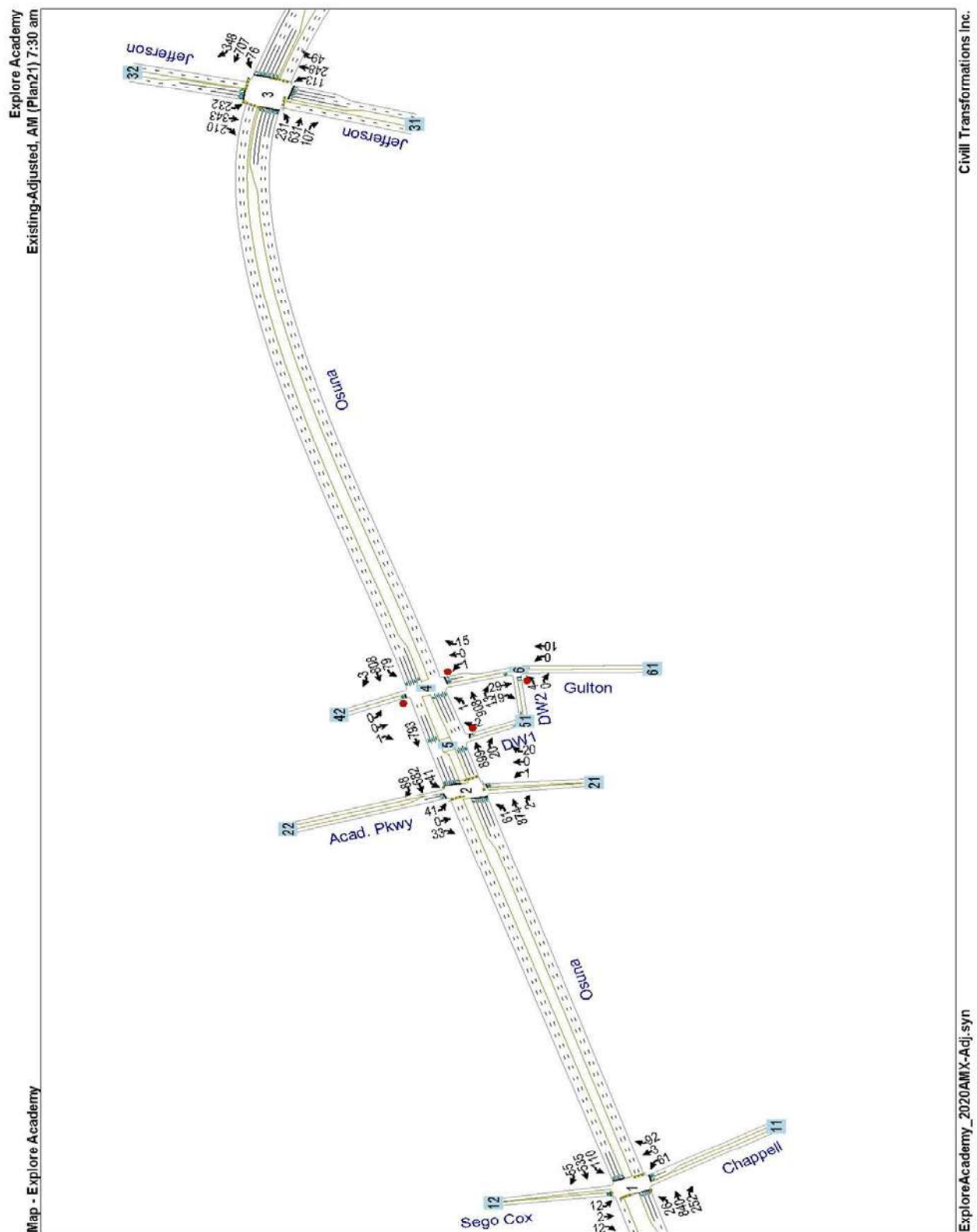


Figure 3: PM Peak Hour Volumes (Baseline)

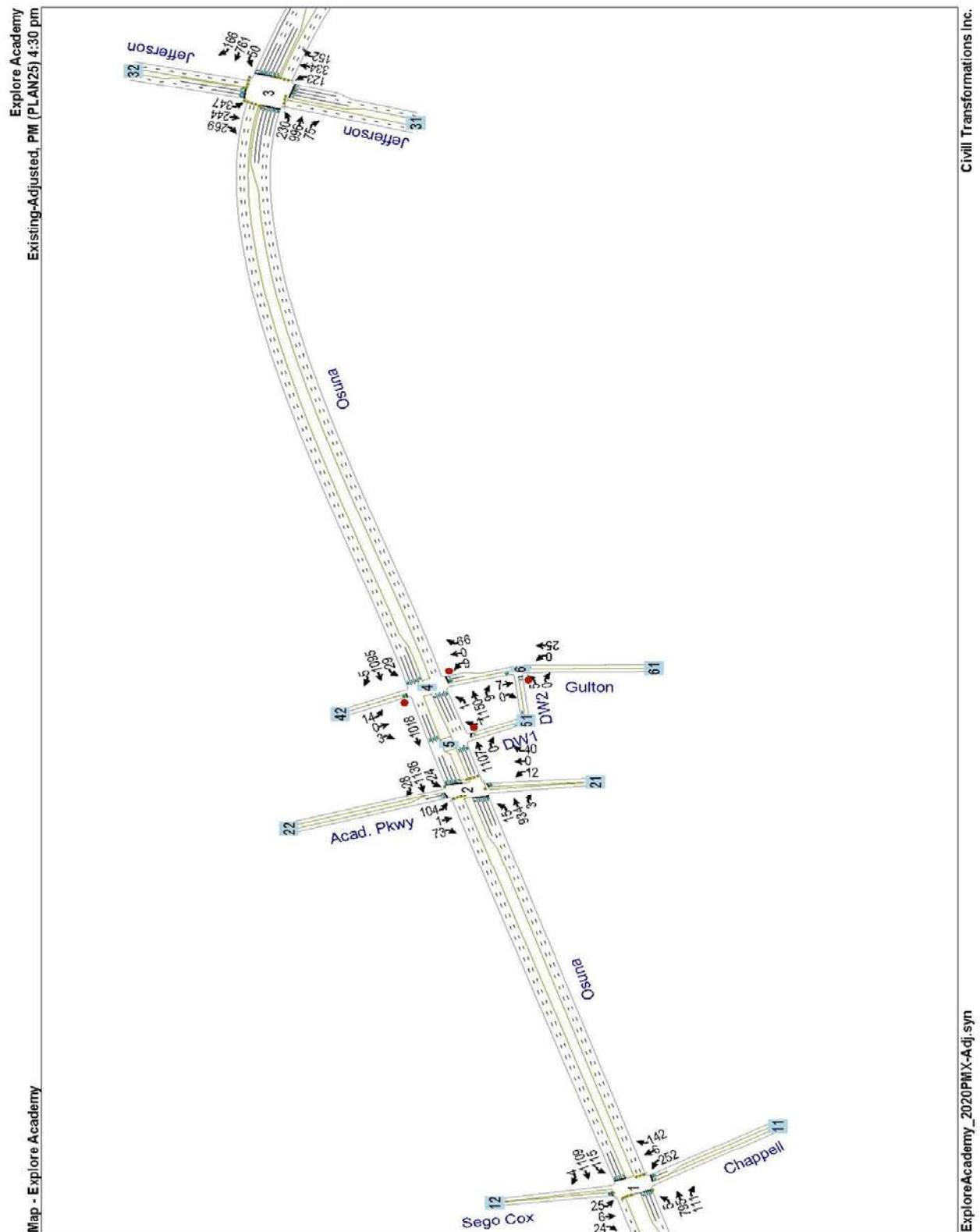


Table 1: Trip Distribution Summary

Intersection and Traffic Movement	Inbound		Outbound	
	AM	PM	AM	PM
% from/to Osuna West	43%	38%	33%	44%
% from/to Chappell Southwest	5%	7%	7%	5%
% from/to Jefferson North	11%	13%	14%	9%
% from/to Osuna West	36%	36%	39%	39%
% from/to Jefferson South	6%	6%	7%	3%
Total	100%	100%	100%	100%

3.4.2 Adjacent Site Driveways

A commercial office complex in the southwest quadrant of the Osuna/Gulton intersection has a right-in/right-out (RIRO) driveway at Osuna and a full-access driveway on Gulton. Due to concerns of potential cut-through traffic, these driveways were included in the traffic analysis. However, traffic activity was light due to the COVID-19-related closures, and thus trip generation estimates were made to replicate existing traffic conditions. Directional splits collected with the driveway TMCs were applied to the baseline traffic counts to derive the existing traffic patterns at these driveways (see Appendix B).

3.5 Existing Roadway/Intersection Capacity

An analysis of the study intersections was conducted for the baseline and existing (adjusted) conditions as described in Section 6.1 of this report. These intersections operated at satisfactory levels of service (LOS) as summarized in Table 4, though certain lane groups experienced lower LOS as shown in the worksheets contained in Appendix F.

3.5 Existing Transit Service

Ridership data through 2018 for Route 141 – San Mateo was obtained from the COA Transit website (see Appendix C). This route runs from the bus stop on Gulton Ct. and service times extend from about 6:00 a.m. until 10:00 p.m. with approximately 20-minute headways. Thus, three stops occur during the AM and PM peak hours, respectively, out of 85 runs for a frequency of about 3.5%. Applying this rate to the route boarding data yields an estimate of about 1-2 boardings during the peak hours. Information regarding public transit usage by the school was not available. Thus, while this route provides an opportunity for staff and students to utilize the service to the site, trip reductions attributed to transit ridership was not included in the analysis as it was expected to be low.

3.6 Bicycle & Pedestrian Facilities

Existing bike and pedestrian infrastructure includes the following:

1. Continuous sidewalks along the west side of Gulton Ct. and on both sides of Osuna Rd.;
2. Buffered bike lanes on Osuna Rd. and bike lanes on Jefferson St.
3. Bear Canyon Arroyo multi-use trail south of the property provides connectivity to Osuna, the North Diversion Channel Trail, and Jefferson.

3.7 Crash Analysis

Crash records at the Osuna/Gulton intersection were obtained from the NMDOT Traffic Safety Division's database for a 3-year period extending from 2016 through 2018, the most recent data available at the time of this evaluation, for evaluation of potential safety issues. The focus for this study was on a review of recurring crash patterns that could pose safety concerns relative to the proposed project and that could be addressed in the design stage of project development. The raw crash data spreadsheets are contained in Appendix D with the most relevant columns displayed for clarity.

Several observations are offered regarding the tabulated crash data:

1. One collision was recorded in each of the 3 years, 1 on Osuna and 2 on Gulton Ct.
2. Times of day varied from 09:30, 12:30, and 14:31.
3. One collision was categorized as an injury crash and as being from the same direction, possibly sideswipe; the other 2 crashes were not classified.
4. Contributing factors included
 - a. Excessive speed (on Osuna)
 - b. Improper backing
 - c. Unknown
5. These collisions appear to have occurred during clear, daylight conditions.

This summary and suggested contributing factors do not appear to present a discernable pattern of collisions that would represent a safety concern subject to correction through engineering countermeasures.

4.0 PROPOSED SITE TRAFFIC CHARACTERISTICS

4.1 Proposed Project

A former electronics manufacturing building is proposed for renovation and repurposing to serve as a charter school for middle and high school students, grades 6 through 12. The existing building measures 83,323 square feet, as illustrated in Figure 4, with existing parking. Future expansion may include a gymnasium and athletic facilities.

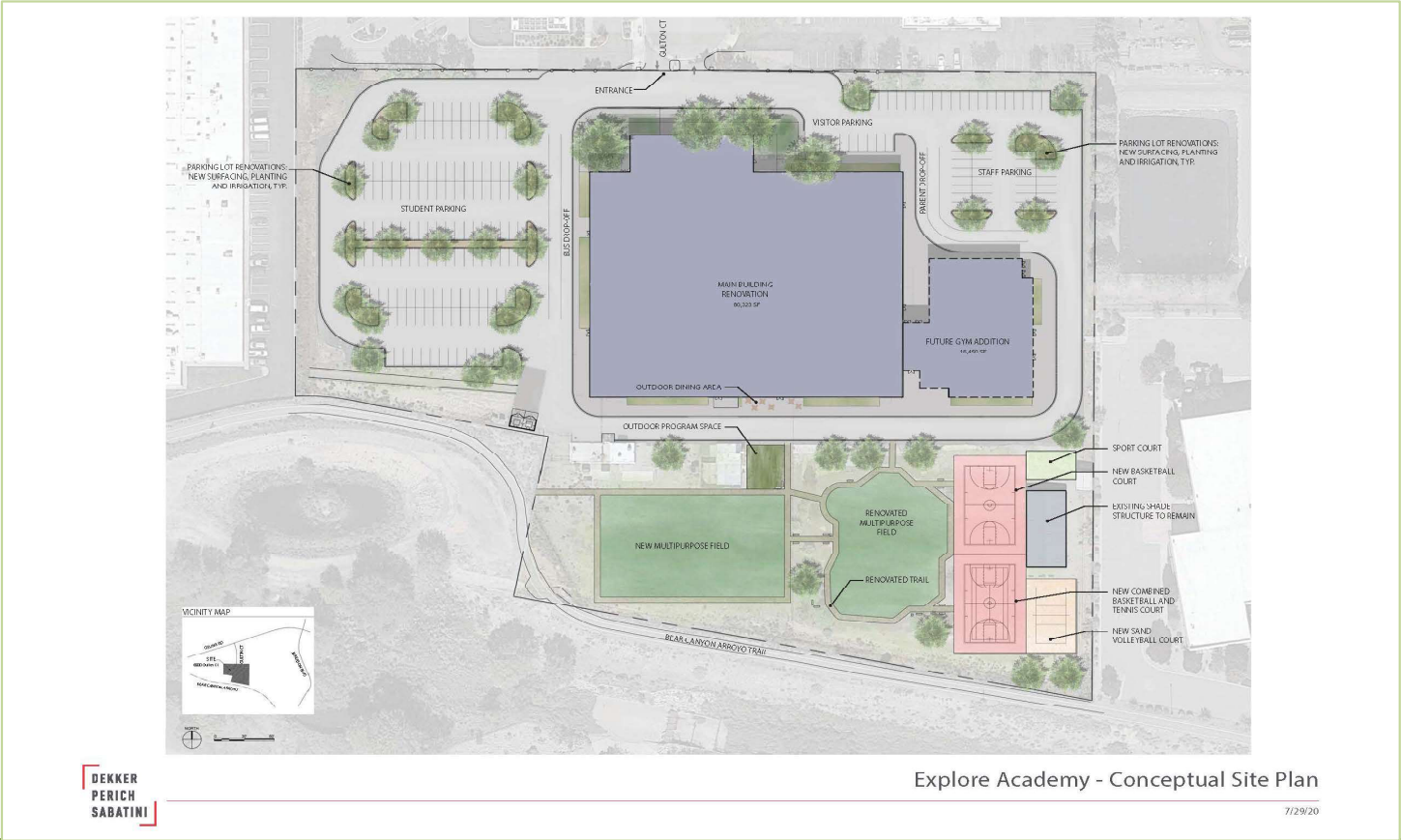
4.2 Development Phasing and Timing

Renovations were underway during preparation of this study and school operations are projected to be relocated from the existing school at 5100 Masthead N.E. in order to commence on site by the fall of 2021.

4.3 Site Access and Circulation

As shown on Figure 4, existing access occurs via an existing 30' wide paved driveway at the south end of the cul-de-sac. Student parking and bus drop-off are designated to the west, making right turns into the site and buses will circulate counter-clockwise around the circulatory road to access the drop-off lanes in order to discharge students on the right side. Staff, visitors, and parents will be directed toward the east making left turns into the site. Parents will utilize a designated student drop-off lane adjacent to the building, circulate in a clockwise direction around the staff parking lot, and exit the site via the main, 40' wide east-west access route. A pedestrian route exists at the west side of the existing driveway to the existing sidewalk on Gulton Ct.

Figure 4: Proposed Site Plan



4.3 Trip Generation

Institute of Transportation Engineers Trip Generation, 10th Edition (ITE, 2017) was used to estimate traffic generated by the proposed development. The peak of the adjacent street was selected for the calculations indicative of urban/suburban traffic patterns for typical AM and PM peak periods (i.e., 7-9 a.m., 4-6 p.m., respectively). The proposed land use consisted of a middle/high school with a capacity of up to 1,200 students, presumably split half and half between middle and high school grades. ITE land use (LU) codes include:

1. LU 522 Middle School/Junior High School
2. LU 530 High School

The following steps and assumptions were applied to the data:

1. The “peak hour of the adjacent street traffic” was the criterion selected for the calculations as this would most likely be impacted by site traffic during typical AM and PM peak periods given the characteristics of the proposed land uses. In the vicinity of the site, Osuna Rd. is urban/suburban in nature and thus “general urban/suburban” data were selected;
2. Students were used for the independent variables as the floor ratios vary widely in the database;
3. Fitted equations were not available for all land uses and thus average rates were used for consistency;
4. Pass-by or internal trips are not inherent to the proposed use and thus did not apply;
5. Transit trip reductions were not accounted for as the proposed use was not considered highly conducive to transit or pedestrian access given the distance to residential areas;
6. Eight (8) existing school bus routes will be transferred to the new school site (see Appendix C). The routes average up to 45 students each for a total of $8 * 45 = 360$ student trips that were deducted from the total estimated trips as follows:
 - a. Deducting 360 trips from the PM peak would result in a negative value as the PM peak of school occurs earlier than the that of the adjacent street network;
 - b. It was assumed that bused students would be comprised of 75% middle school and 25% high school as more of the older students would likely drive to campus;
 - c. These percentages resulted in deductions of
 - i. $75\% * 360 = -270$ middle school students
 - ii. $25\% * 360 = -90$ high school students
 - d. The net number of students was then used as the independent variable for calculation of estimated trips (note: using these reduced numbers for the independent variables yielded similar reductions as compared with calculating trips and then subtracting bused students).

The calculated site traffic volume estimates are contained in Appendix E and summarized in Table 2 below.

Table 2: Estimated Site Trip Generation

ITE			Daily	AM			PM		
Code	Quantity	Units	Total	Enter	Exit	Total	Enter	Exit	Total
Unadjusted Trips									
522	600	Students	1278	188	160	348	50	52	102
530	600	Students	1218	209	103	312	40	44	84
Totals	1200		2496	397	263	660	90	96	186
ADJUSTED TRIPS (Used for Analysis)									
522	330	Students	703	103	88	191	27	29	56
530	510	Students	1035	178	87	265	34	37	71
New Trips Added to Adjacent Street			1738	281	175	456	61	66	127

4.4 Site Traffic Distribution and Assignment

Distribution of proposed site trips was made in proportion to the directional distribution percentages inherent to the corridor at the external nodes (trip distribution percentages derived from the traffic counts contained in Appendix B are presented in Table 1). Those distribution percentages were applied to the estimated site trips in Table 2, and proposed trips were then assigned to Osuna Rd. The distributed trips and resulting intersection peak hour volumes are shown in the map views as well as on the “Future Volume” rows in the level of service worksheets contained in Appendix F.

Designated school bus routes were reviewed with respect to access after they transfer from the existing school site on Masthead N.E. to this new site on Gulton Ct. It was determined that half (4) of the eight buses will arrive from the west and half (4) from the east along Osuna Rd. Thus, distributed bus trips were included in the overall distributed trips tabulated above.

5.0 FUTURE TRAFFIC CONDITIONS

5.1 Background Traffic Projection

The project was initiated in 2020, which constituted the baseline condition to which the adjustments for COVID-19 closures were applied. Construction and opening is projected to be completed in year 2021, which was established as the Implementation Year. A Horizon Year analysis was included incorporating the Implementation Year plus 10 years, and thus traffic was projected to year 2031 for the horizon analysis.

Average Week Day Traffic (AWDT) data was obtained from the MRCOG Transportation Analysis & Querying Application (TAQA) that included the historic traffic volumes summarized in Table 3 below and observed traffic counts recorded by MRCOG. Trend line analysis was used to calculate growth rates as follows:

1. Annualized compound growth rate between 2008 and 2019 was 1.23%;
2. An annual rate calculated by Trend line analysis yielded a rate of 0.58%;
3. Because the trend line had a high degree of correlation, it was considered a reliable measure; nevertheless, these two rates were averaged in order to account for future variability;
4. The average rate calculated to 0.91% and was rounded to +1.0% per year for analysis;
5. It should be noted that the area is mostly developed but some vacant parcels remain and that Osuna Rd. is a principal arterial serving more regional traffic, and thus further growth could be expected.

This rate of 1.0% per year was used to calculate background growth factors for the implementation (1-year) and horizon (11-year) analysis periods. The calculated growth factors of 1.01 and 1.12, respectively, were input into the traffic models and applied to through traffic movements to expand background traffic volumes for analysis of the forecast traffic scenarios (see Appendix B for historic traffic data and projections). It should also be noted that the calculated growth rate was not indicative of statewide economic and related traffic growth but reflected local and regional activity in recent years. The recession associated with COVID-19 pandemic closures could be expected to negatively impact economic growth and therefore this growth rate may not be expected to continue unaltered but likely result in a conservative traffic forecast estimate.

Table 3: Historic Traffic Volumes (AWDT)

Year	Osuna: Chappell- Washington
2008	24073
2009	23784
2010	26173
2011	25414
2012	24982
2013	28177
2014	27388
2015	27717
2016	24181
2017	24945
2018	25124
2019	27550

6.0 TRANSPORTATION ANALYSIS

6.1 Site Traffic Operations Analysis

Intersection “nodes” constrain the capacity of a roadway segment, and therefore the baseline capacity of the study intersections were analyzed using the *Highway Capacity Manual 6th Edition (HCM)* methodology. The Level of Service (LOS) for an intersection is determined by the computed or measured delay and is defined for each minor movement at signalized, unsignalized, and roundabout intersections. LOS is assigned a letter grade from A (best) through F (worst), as summarized in Table 4 for signalized and unsignalized intersections. Signalized intersection have higher levels of delays due to higher volumes and driver expectation of greater delays. LOS D is generally considered acceptable in urban areas with right-of-way constraints; however, COA DPM Table 7.5.88 provides additional LOS criteria by location and corridor type.

Table 4: Intersection Level of Service (LOS) Criteria (HCM 6th Ed.)

LOS ¹	Signalized Control Delay (sec/veh)	Unsignalized Control Delay (sec/veh)
A	0 – 10	0 – 10
B	10 – 20	10 – 15
C	20 – 35	15 – 25
D	35 – 55	25 – 35
E	55 – 80	35 – 50
F	> 80	> 50

¹For Volume-to-Capacity Ratio (V/C) ≤ 1.0; LOS = F for V/C > 1.

Synchro 10 software package by Trafficware Ltd. was utilized to compute the results in HCM format. Traffic signal timing settings for the signalized intersections on Osuna Rd. were provided by COA Traffic Engineering section and input into the traffic models for analysis. These intersections are currently coordinated and therefore the appropriate time-of-day plans were used for the peak analyses. Capacity analyses were computed using the same, systematic method so results could be compared for the following alternative scenarios:

1. **Scenario 1: Baseline (2020)** – represents baseline conditions with the traffic collected in November 2020 and prior to development of the site.
2. **Scenario 2: Existing Traffic (2020)** – baseline traffic adjusted to represent existing conditions prior to COVID-19 closures.
3. **Scenario 3: Opening Year NO-Build (2021)** – baseline conditions plus background traffic growth without development, representing the implementation year operating conditions.
4. **Scenario 4: Opening Year BUILD (2021)** – existing traffic plus background traffic growth and completion of development.
5. **Scenario 5: Horizon NO-Build (2031)** – existing traffic conditions plus background traffic growth without development, representing the horizon year operating conditions.
6. **Scenario 6: Horizon BUILD (2031)** – forecast conditions including background traffic growth and site traffic, to assess forecast traffic operations with developed conditions.

Computed results are contained in Appendix F and summarized in Table 5 below.

Table 5: LOS Summary for Alternative Concepts*

Scenario	Intersection	AM Peak						PM Peak					
		Intersection		Max. (worst-case movement)				Intersection		Max. (worst-case movement)			
		Delay	LOS	V/C	Delay	LOS	Dir.	Delay	LOS	V/C	Delay	LOS	Dir.
Baseline (2020)	1 – Baseline (NO-Build)												
	Osuna/Chappell	12.7	B	0.49	54.4	D	NBR	21.3	C	0.65	52.4	D	NBL
	Osuna/AcadPkwy	4.5	A	0.17	50.8	D	SBL	7.1	A	0.36	51.7	D	SBL
	Osuna/Jefferson	33.9	C	0.76	59.4	E	EBL	35.6	D	0.73	59.3	E	EBL
	Osuna/Gulton	0.7	(3)	0.006	23.3	C	NBL	0.8	(3)	0.039	24.8	C	NBL
	Osuna/DW1	0	(3)	0	0	A	NBR	0	(3)	0.002	12.0	B	NBR
	Gulton/DW2	0	(3)	0	0	A	EBL	1.3	(3)	0.004	8.6	A	EBL

	2 – Existing Traffic (NO-Build)													
	Osuna/Chappell	14.8	B	0.69	59.4	E	NBR	27.4	C	0.73	49.1	D	NBL	
	Osuna/AcadPkwy	4.8	A	0.25	50.7	D	SBL	9.2	A	0.56	54.7	D	SBL	
	Osuna/Jefferson	38.1	D	0.82	64.7	E	EBL	39.8	D	0.99	83.9	F	SBL	
	Osuna/Gulton	0.9	(3)	0.013	46.0	E	NBL	1.3	(3)	0.109	51.9	F	NBL	
	Osuna/DW1	0	(3)	0.005	13.5	B	NBR	0	(0)	0.003	14.2	B	NBR	
	Gulton/DW2	0.6	(3)	0.005	8.8	A	EBL	1.2	(3)	0.005	8.7	A	EBL	
Opening Year (2021)	3 – Opening Year NO-Build													
	Osuna/Chappell	14.9	B	0.69	59.4	E	NBR	27.4	C	0.73	49.1	D	NBL	
	Osuna/AcadPkwy	4.8	A	0.23	50.7	D	SBL	9.1	A	0.56	54.7	D	SBL	
	Osuna/Jefferson	38.3	D	0.82	64.9	E	EBL	40.1	D	1.00	86.1	F	SBL	
	Osuna/Gulton	0.9	(3)	0.013	46.5	E	NBL	1.3	(3)	0.208	58.2	F	SBL	
	Osuna/DW1	0	(3)	0.005	13.6	B	NBR	0.1	(3)	0.024	14.4	B	NBR	
	Gulton/DW2	0.6	(3)	0.005	8.8	A	EBL	2.4	(3)	0.014	8.7	A	EBL	
	4 – Opening Year BUILD													
	Osuna/Chappell	15.8	B	0.75	61.6	E	NBR	27.8	C	0.73	49.1	D	NBL	
	Osuna/AcadPkwy	4.5	A	0.23	50.7	D	SBL	9.1	A	0.56	54.7	D	SBL	
	Osuna/Jefferson	39.5	D	0.84	67.5	E	EBL	39.7	D	0.98	80.0	F	SBL	
	Osuna/Gulton	73.5	(3)	4.801	2162	F	NBL	3.9	(3)	0.637	125.7	F	NBL	
	Osuna/DW1	0	(3)	0.006	14.7	B	NBR	0.1	(3)	0.024	14.6	B	NBR	
	Gulton/DW2	0.1	(3)	0.01	12.6	B	EBL	0.7	(3)	0.016	9.4	A	EBL	
Horizon Year (2031)	5 – Horizon NO-Build													
	Osuna/Chappell	15.2	B	0.69	59.4	E	NBR	28.4	C	0.73	49.1	D	NBL	
	Osuna/AcadPkwy	4.6	A	0.23	50.7	D	SBL	8.9	A	0.56	54.7	D	SBL	
	Osuna/Jefferson	39.3	D	0.83	66.0	E	EBL	41.4	D	1.03	94.3	F	SBL	
	Osuna/Gulton	1.0	(3)	0.017	58.9	F	NBL	1.5	(3)	0.277	81.5	F	SBL	
	Osuna/DW1	0	(3)	0.005	13.6	B	NBR	0.1	(3)	0.024	14.4	B	NBR	
	Gulton/DW2	0.6	(3)	0.005	8.8	A	EBL	2.4	(3)	0.014	8.7	A	EBL	
	6 – Horizon BUILD													
	Osuna/Chappell	16.3	B	0.75	61.6	E	NBR	28.8	C	0.73	49.1	D	NBL	
	Osuna/AcadPkwy	4.4	A	0.23	50.7	D	SBL	8.8	A	0.56	54.7	D	SBL	
	Osuna/Jefferson	40.8	D	0.84	68.8	E	EBL	41.1	D	1.02	88.8	F	SBL	
	Osuna/Gulton	246	(3)	16.32	8316	F	NBL	5.3	(3)	0.854	213.8	F	NBL	
	Osuna/DW1	0	(3)	0.007	15.7	C	NBR	0.1	(3)	0.027	15.7	C	NBL	
	Gulton/DW2	0.1	(3)	0.01	12.6	B	EBL	0.7	(3)	0.016	9.4	A	EBL	

*Notes:

1. Delay is measured in seconds/vehicle
2. V/C = volume-to-capacity ratio for traffic movement
3. Only critical movement LOS at unsignalized intersections is reported.

6.2 Assessment of Impacts

Conclusions drawn from the results of these capacity analyses include:

1. Overall, the study intersections operated with satisfactory LOS for all scenarios including developed conditions (LOS D-E for Major Transit access per DPM Table 7.5.88).
2. Slight increases in intersection delay resulted from background traffic growth and from the addition of site traffic, however, some delays actually decreased as a result of more balanced lane group flow rates.
3. Some side-street lane groups were at LOS E.
4. The SBL at Jefferson was LOS F during the PM peak for the NO-Build and Build scenarios.
5. NBL on Gulton at Osuna degraded with background and developed traffic leading to excessive delays and LOS F.
6. The Site driveway operated at satisfactory LOS as illustrated in Figure 6.
7. Driveways 1 and 2 at the commercial office complex in the SW quadrant of Osuna/Gulton Ct. were LOS A or B for critical movements and therefore not expected to be negatively impact by school traffic as eastbound school traffic would have unimpeded access to Gulton Ct.

Because traffic operations functioned at acceptable LOSs for all scenarios as summarized in Table 5, no mitigation measures were identified for analysis or implementation. It is anticipated that traffic signal timing adjustments at Jefferson may reduce delays for the SBL movement, though new TMCs should be collected once economic activity returns to pre-pandemic levels in order to more accurately assess this issue.

6.3 Queueing Summary

Queue length measurements are useful in evaluating traffic operations and for determination of turn lane storage requirements. As shown in the *HCM Guide*, “The 95th-percentile queue is defined to be the queue length (in vehicles) that has only a 5-percent probability of being exceeded during the analysis time period.” A procedure for calculating queues is provided in the HCM and computations are included in the LOS worksheets in Appendix F. A summary of queues is provided in Table 6 for key turning lane groups that would increase with site traffic.

Table 6: Calculated 95th Percentile Queue Lengths

Intersection	Movement	Available Storage ¹	Scenario 3 Queue ²		Scenario 4 Queue ²	
			AM	PM	AM	PM
Jefferson	EBL	200 (8)	8.0	6.7	8.9	6.9
Jefferson	NBL	175 (7)	5.4	5.7	6.2	5.9
Gulton	NBL	100' (4)	0	0.4	10.9	2.8
Gulton	NBR	--- ³	0.1	0.7	1.7	1.1
Gulton	WBL	125 (5)	1.0	0.3	7.4	0.8

¹Storage length in feet (number of vehicles in parenthesis) at an average of 25' per vehicle.

²Calculated 95th Percentile queue per HCM procedures, listed in number of vehicles.

³Unlimited storage is theoretically available; however, may be partially blocked by NBL.

Extensive queues that require mitigation were identified at two locations:

1. Gulton Ct. NBL – existing pavement markings provide for left-turn storage of 50' plus a transition area, amounting to a total of about 100' of storage. This will need to be extended to accommodate

additional storage for left turning traffic, but should not extend beyond limits that would impact access to adjacent driveways.

2. Osuna WBL at Gulton – this movement is projected to exceed the existing 125' storage length by 2 to 3 vehicles in the Implementation Year and should be extended.

The EBL movement at Jefferson may nominally extend beyond the holding lane but there is additional space available in the transition area, and signal retiming may sufficiently address this lane group.

6.4 Traffic Signal Warrant Study (TSWS)

An evaluation was made as to whether the Osuna/Gulton intersection might warrant traffic signalization as a result of increased traffic attributed to site development. A TSWS was conducted per Chapter 4C of the 2009 *Manual on Uniform Traffic Control Devices* (MUTCD). Of the nine defined in the MUTCD, all but Warrants 6, 8, and 9 were studied as these were not applicable to this intersection for the following reasons:

1. Warrant 6, Coordinated Signal System. Osuna Rd. already has a coordinated signal system and therefore this warrant did not apply.
2. Warrant 8, Roadway Network. Existing traffic flows are already organized by virtue of the existing coordinated traffic signal network and therefore this warrant did not apply.
3. Warrant 9, Intersection Near a Grade Crossing. A rail crossing does not exist in the vicinity and thus Warrant 9 did not apply.

A speed study was not conducted and it was therefore assumed that the 85th percentile speed was the same as the posted speed of 45 mph. The results of the TSWS are summarized in Table 7 below. Data and documentation are provided in Appendix G.

Table 7: Summary of Traffic Signal Warrants

Warrant	MET (✓) NOT Met (✗)
1 – Eight Hour Vehicular Volume	✓
2 – Four-Hour Vehicular Volume	✓
3 – Peak Hour Delay/Volumes	✓
4 – Pedestrian Volume	✗
5 – School Crossing	✗
7 – Crash Experience	✗

Several considerations relative to this evaluation follow:

1. For Warrants 1 – 3, Traffic volumes on Osuna partially met threshold requirements for some of the warranting criteria under existing conditions and the addition of site traffic contributes to meeting additional criteria.
2. Warrant 4 – pedestrians were observed crossing Gulton but there was insufficient pedestrian crossing activity of Osuna; marked crosswalks and pedestrian signals are available a short distance west at the Academy Parkway intersection and thus this warrant would not likely be justified.
3. Warrant 5 – there are no student crossings as a school doesn't exist; sufficient numbers of crossings would not be likely given the distance to residential areas.

4. Warrant 7 – there were insufficient numbers of crashes susceptible to correction with traffic signalization were recorded and therefore this warrant was not met.
5. Gaps from upstream traffic signals should provide opportunities for left-turns crossing into and out of the Osuna median, and the median is of sufficient width to provide temporary refuge.
6. Indirect turns may result during peak access periods. Multiple median breaks are available for this purpose. School access is typically most intense during opening and discharge times, though the discharge occurs earlier than the PM peak of the roadway and should have less impact as a result.
7. The distance between Gulton Ct. and Academy Parkway is approximately 370 feet. This would create traffic operational conflicts and is not conducive to progressive traffic flow. Furthermore, this short distance violates the MUTCD minimum traffic signal spacing requirement of 1,000 feet and therefore would not be recommended.

6.5 Neighborhood Impact Assessment (NIA) Considerations



As outlined in the Scope of Traffic Impact Study (TIS, Appendix A) and as referenced in the COA DPM Part 7-5(F), this report has addressed NIA issues with respect to school sites as follows.

6.5.1 Baseline Community Data

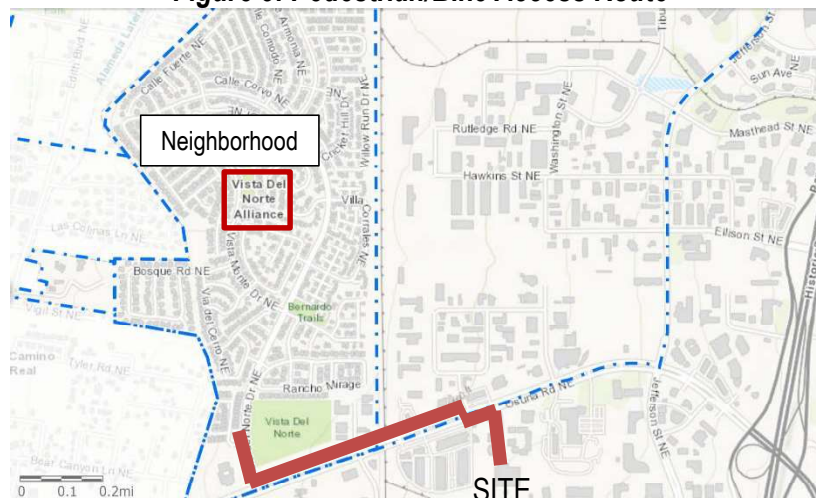
Section 3 of this report identified existing conditions with respect to adjacent land uses, traffic patterns and volumes, and multimodal options including transit, bike and pedestrian facilities.

6.5.2 Analysis of Neighborhood Impacts

Following is a summary of the key considerations addressed in this evaluation.

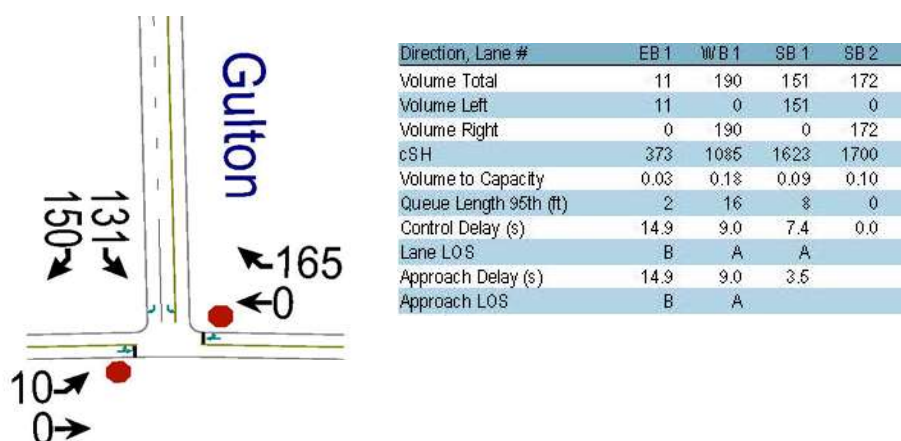
1. Existing bicycle and pedestrian routes and circulation will be maintained.
 - a. If, for example, students and staff walk to the new school from the Vista del Norte neighborhood located approximately a mile west of the school, pedestrians may cross Osuna at one of the 3 traffic signalized intersections along the route and access the site via existing sidewalks, see Figure 5.
 - b. Similarly, a buffered bike lane is available on Osuna to accommodate bike access.

Figure 5: Pedestrian/Bike Access Route



2. Conflict points between pedestrians and automobiles would be minimal due to the availability of these existing facilities.
3. Existing major transit service (Route 141) on Gulton Ct. is available for staff and student use.
4. Noise and air quality impacts due to idling vehicles would not be expected for the following reasons:
 - a. Student drop-off and pick-up activities will take place on site rather than on the adjacent roadways.
 - b. The provision of 2 ingress lanes will separate bus/student driver traffic from parent/staff/visitor traffic as described in Section 4.3 of this report and thus facilitate access.
 - c. Calculated delay and traffic queues were low for the AM peak period as shown in the driveway capacity analysis illustrated in Figure 6 and provided in Appendix F.

Figure 6: Site Access LOS A



In summary, the site is removed from residential areas and will have internal measures to ensure efficient access, therefore it is not expected to adversely affect any neighborhoods.

7.0 SITE ACCESS REQUIREMENTS

7.1 Site Access

1. A 2-lane ingress as described in Section 4.3 would facilitate traffic access and reduce conflicts and queues during peak entering traffic periods.
2. The driveway should be widened eastward to provide a separate egress lane, preferably with a raised median for separation and channelization.
3. Traffic directions should be provided through pavement arrows and signing designating the drop-off and parking areas.
4. A crosswalk would provide connectivity from the school facility to the sidewalk on Gulton Ct.

7.2 Off-Site Access

1. New striping should extend from the stop bar at Osuna Rd. to include:
 - a. Double yellow striping to designate the left-turn lane extending to the first driveway.
 - b. Pavement arrows on Gulton Ct. should be refreshed to designate left and right-turn lanes.
2. The WBL turn lane on Osuna to Gulton Ct. should be extended to a length of 250' plus transition.

8.0 SUMMARY OF FINDINGS

Key findings of this analysis are summarized as follows:

1. Site-generated traffic is not expected to cause significant, adverse impacts to the adjacent roadway network including the traffic signalized intersections along on Osuna Rd.
2. Adverse neighborhood impacts relative to idling and queuing traffic at the school site would not be expected to occur. Furthermore, the site is consistent with existing pedestrian, bicycle, and transit facilities.
3. Some traffic queuing may occur for westbound left turns on Osuna Rd. approaching Gulton Ct. as well as northbound traffic on Gulton Ct.
4. A traffic signal warrant study (TSWS) of the Osuna/Gulton intersection met certain warranting criteria but would not meet the 1000' minimum spacing criteria for signalization.

9.0 RECOMMENDATIONS & MITIGATION MEASURES

This analysis has demonstrated that significant detrimental traffic impacts associated with the proposed charter middle/high school are not expected to occur on the adjacent transportation system. The following recommendations are offered concerning on- and off-site access modifications.

9.1 On-Site Access Driveway

1. The existing concrete drivepad should be maintained and modified as follows:
 - a. Provide lane striping to designate a 2-lane approach in the southbound direction, consisting of a solid white stripe between lanes and a solid yellow line on the left.
 - b. Provide directional lane arrows to designate right- and left-turn lanes.
 - c. Install signs directing traffic to parking and drop-off areas.
2. Widen the driveway to include an egress lane for exiting traffic.
3. Provide a channelization island between ingress and egress to separate inbound and outbound traffic.
4. The design vehicle should be a school bus.
5. Provide pavement markings at the entrance to direct traffic with:
 - a. Stop bar for eastbound and westbound traffic in the main east-west drive aisle.
 - b. Center striping to delineate directional traffic.
 - c. Directional pavement arrows.
 - d. A crosswalk from the sidewalk at the front of the building to the existing sidewalk on Gulton Ct. and the addition of an accessible ramp in front of the building.
 - e. Signs to direct traffic to the respective areas including bus drop-off, student parking, parent drop-off, staff, and visitor parking.

9.2 Off-Site Roadway Improvements

1. Revise pavement markings on Gulton Ct. at Osuna Rd. to include:
 - a. Double yellow striping to designate the left-turn lane extending to the return of the first driveway.
 - b. Solid white lane to delineate left- and right-turn lanes.
 - c. Pavement arrows to designate left and right-turn lanes.
 - d. Restripe existing stop bar.

2. Extended the westbound left turn lane (WBL) on Osuna to Gulton Ct. to a length of 250' plus transition. Existing infrastructure that will require adjustments and/or relocation include:
 - a. Manhole to be lowered and curbing routed around it.
 - b. Landscaping and possibly irrigation lines.
 - c. Traffic signal interconnection, protect in place
 - d. Other utilities if present

9.3 Traffic Management Considerations

1. The use of parent and student carpools should be encouraged.
2. It may be beneficial to reducing traffic peaks if high and middle school start times could be staggered.
3. Apprise bus drivers of the AM peak conditions on Osuna Rd. at Gulton Ct. that may lead to long delays, and exiting to the east may be preferable.
4. Staff and students may be encouraged to utilize existing transit route 141 to the school site.

APPENDIX A

Traffic Scoping Requirements



City of Albuquerque

Planning Department
Development Review Services Division

Traffic Scoping Form (REV 07/2020)

Project Title: Explore Academy Site and Building Improvements

Building Permit #: _____ Hydrology File #: _____

Zone Atlas Page: E-17 DRB#: _____ EPC#: _____ Work Order#: _____

Legal Description: 3-C A REPLAT LOT 3 INTERSTATE INDUSTRIAL TRACT UNIT II

Development Street Address: 6600 Gulton Court NE, Albuquerque, NM 87109

Applicant: Explore Academy c/o Dekker/Perich/Sabatini Contact: Cindy Terry

Address: 7601 Jefferson NE, Suite 100

Phone#: 505-761-9700 Fax#: _____

E-mail: cindy@dpdesign.org

Development Information

Build out/Implementation Year: 2020 Current/Proposed Zoning: NR-BP

Project Type: New: () Change of Use: (x) Same Use/Unchanged: () Same Use/Increased Activity: ()

Proposed Use (mark all that apply): Residential: () Office: () Retail: () Mixed-Use: () Charter School

Describe development and Uses:

Existing industrial warehouse being transformed to charter school for grades 6-12. Interior renovation and site improvements
for new use, and accomodations for future addition of gymnasium.

Days and Hours of Operation (if known): M-F, 7:00 am - 5:00 pm with some after-hours usage.

Facility

Building Size (sq. ft.): Renovation: 80,323 sf; Future Gym Expansion: 16,450 sf

Number of Residential Units: _____

Number of Commercial Units: _____

Traffic Considerations

ITE Trip Generation Land Use Code LU522 (Mid. Sch.) & LU530 (High Sch.), up to 1,200 students

Expected Number of Daily Visitors/Patrons (if known): *2,500

Expected Number of Employees (if known): * _____

Expected Number of Delivery Trucks/Buses per Day (if known): * _____

Trip Generations during PM/AM Peak Hour (if known): *660 AM, 186 PM

Driveway(s) Located on: Gulton Ct.

Adjacent Roadway(s) Posted Speed: Street Name Osuna Rd Posted Speed 45
Street Name Posted Speed

** If these values are not known, assumptions will be made by City staff. Depending on the assumptions, a full TIS may be required*

Roadway Information (adjacent to site)

Comprehensive Plan Corridor Designation/Functional Classification: Principal Arterial
(arterial, collector, local, main street)

Comprehensive Plan Center Designation: N/A
(urban center, employment center, activity center)

Jurisdiction of roadway (NMDOT, City, County): City AM: 0.55EB, 0.43WB

Adjacent Roadway(s) Traffic Volume: 27,550 (2019) Volume-to-Capacity Ratio (v/c): PM: 0.54EB, 0.70WB
(if applicable)

Adjacent Transit Service(s): ABQ Ride Route 141 Nearest Transit Stop(s): Gulton Ct.

Is site within 660 feet of Premium Transit?: No

Current/Proposed Bicycle Infrastructure: Bike lanes on Osuna, trail along NDC at south boundary of site
(bike lanes, trails)

Current/Proposed Sidewalk Infrastructure: Existing 6' SW on Gulton Ct. west side to site

Relevant Web-sites for Filling out Roadway Information:

City GIS Information: <http://www.cabq.gov/gis/advanced-map-viewer>

Comprehensive Plan Corridor/Designation: <https://abc-zone.com/document/abc-comp-plan-chapter-5-land-use> (map after Page 5-5)

Road Corridor Classification: <https://www.mrcog-nm.gov/DocumentCenter/View/1920/Long-Range-Roadway-System-LRRS-PDF?bidId=>

Traffic Volume and V/C Ratio: <https://www.mrcog-nm.gov/285/Traffic-Counts> and <https://public.mrcog-nm.gov/taqa/>

Bikeways: http://documents.cabq.gov/planning/adopted-longrange-plans/BTFP/Final/BTFP%20FINAL_Jun25.pdf (Map Pages 75 to 81)

TIS Determination

Note: Changes made to development proposals / assumptions, from the information provided above, will result in a new TIS determination.

Traffic Impact Study (TIS) Required: Yes ☒ No ☐

Thresholds Met? Yes ☒ No ☐

Mitigating Reasons for Not Requiring TIS: Previously Studied: ☐

Notes:

9/2/2020

Submittal

The Scoping Form must be submitted as part of any building permit application, DRB application, or EPC application. See the Development Process Manual Chapter 7.4 for additional information.

Submit by email to plndrs@cabq.gov and to the City Traffic Engineer mgrush@cabq.gov. Call 924-3362 for information.

Site Plan/Traffic Scoping Checklist

Site plan, building size in sq. ft. (show new, existing, remodel), to include the following items as applicable:

1. Access -- location and width of driveways
2. Sidewalks (Check DPM and IDO for sidewalk requirements. Also, Centers have wider sidewalk requirements.)
3. Bike Lanes (check for designated bike routes, long range bikeway system) ([check MRCOG Bikeways and Trails in the 2040 MTP map](#))
4. Location of nearby multi-use trails, if applicable ([check MRCOG Bikeways and Trails in the 2040 MTP map](#))
5. Location of nearby transit stops, transit stop amenities (eg. bench, shelter). Note if site is within 660 feet of premium transit.
6. Adjacent roadway(s) configuration (number of lanes, lane widths, turn bays, medians, etc.)
7. Distance from access point(s) to nearest adjacent driveways/intersections.
8. Note if site is within a Center and more specifically if it is within an Urban Center.
9. Note if site is adjacent to a Main Street.
10. Identify traffic volumes on adjacent roadway per MRCOG information. If site generates more than 100 vehicles per hour, identify volume to capacity (v/c) ratio on this form.

Detailed Land Use Data
For 600 Students of SCHOOLMID 1
(522) Middle School/Junior High School

Open Date: 7/1/2021
Analysis Date: 8/28/2020

Project: Explore Academy

Day / Period	Total Trips	Pass-By Trips	Avg Rate	Min Rate	Max Rate	Std Dev	Avg Size	% Enter	% Exit	Use Eq.	Equation	R ²
Weekday Average Daily Trips Source : Trip Generation Manual 10th Edition	1278	0	2.13	1.48	2.81	0.46	1079	50	50	False	$\ln(T) = 0.79 \ln(X) + 2.21$	0.73
Weekday AM Peak Hour of Adjacent Street Traffic Source : Trip Generation Manual 10th Edition	348	0	0.58	0.06	1.29	0.32	937	54	46	False		
Weekday PM Peak Hour of Adjacent Street Traffic Source : Trip Generation Manual 10th Edition	102	0	0.17	0.06	0.51	0.12	1023	49	51	False		

Detailed Land Use Data
For 600 Students of SCHOOLHIGH 1
(530) High School

Open Date: 7/1/2021
Analysis Date: 8/28/2020

Project: Explore Academy

Day / Period	Total Trips	Pass-By Trips	Avg Rate	Min Rate	Max Rate	Std Dev	Avg Size	% Enter	% Exit	Use Eq.	Equation	R2
Weekday Average Daily Trips Source : Trip Generation Manual 10th Edition	1218	0	2.03	1.19	3.96	0.82	1498	50	50	False	$\ln(T) = 0.76 \ln(X) + 2.46$	0.6
Weekday AM Peak Hour of Adjacent Street Traffic Source : Trip Generation Manual 10th Edition	312	0	0.52	0.03	1.15	0.23	1202	67	33	False		
Weekday PM Peak Hour of Adjacent Street Traffic Source : Trip Generation Manual 10th Edition	84	0	0.14	0.03	0.31	0.08	1340	48	52	False		

Trip Generation Summary

Alternative: Alternative 1

Phase:

Open Date: 7/1/2021

Project: Explore Academy

Analysis Date: 8/28/2020

ITE	Land Use	Weekday Average Daily Trips				Weekday AM Peak Hour of Adjacent Street Traffic				Weekday PM Peak Hour of Adjacent Street Traffic			
		*	Enter	Exit	Total	*	Enter	Exit	Total	*	Enter	Exit	Total
522	SCHOOLMID 1 600 Students		639	639	1278		188	160	348		50	52	102
530	SCHOOLHIGH 1 600 Students		609	609	1218		209	103	312		40	44	84
Unadjusted Volume			1248	1248	2496		397	263	660		90	96	186
Internal Capture Trips			0	0	0		0	0	0		0	0	0
Pass-By Trips			0	0	0		0	0	0		0	0	0
Volume Added to Adjacent Streets			1248	1248	2496		397	263	660		90	96	186

Total Weekday Average Daily Trips Internal Capture = 0 Percent

Total Weekday AM Peak Hour of Adjacent Street Traffic Internal Capture = 0 Percent

Total Weekday PM Peak Hour of Adjacent Street Traffic Internal Capture = 0 Percent

Project : Explore Academy

Open Date : 7/1/2021
Analysis Date : 8/28/2020

Note Type : Land Use
Alternative : Alternative 1
Phase : Phase 1
Land Use : SCHOOLMID 1

Used Average Rates as Std. Dev. / Avg. was > 45%
--

SCOPE OF TRAFFIC IMPACT STUDY (TIS)

TO: Name
Organization
Address
City, State, Zip

MEETING DATE: September 3, 2020

ATTENDEES: Matthew Grush, P.E., PTOE, COA Transportation Development Review;
Timothy Simmons, P.E., PTOE, Civil Transformations Inc.

PROJECT: Explore Academy, Zone Atlas #E-17

REQUESTED CITY ACTION: ☒ ~~Zone~~ Change of Use ☐ Site Development Plan
☐ Subdivision ☐ Building Permit ☐ Sector Plan ☐ Sector Plan Amendment
☐ Curb Cut Permit ☐ Conditional Use ☐ Annexation ☐ Site Plan Amendment

ASSOCIATED APPLICATION: Charter school (see attached Traffic Scoping Form).

SCOPE OF REPORT:

The Traffic Impact Study should follow the standard report format, which is outlined in the DPM. The following supplemental information is provided for the preparation of this specific study.

1. Trip Generation - Use Trip Generation Manual, 10th Edition. Trips to be distributed based on E-W directional distribution of Osuna Rd. as it is the only access.

2. Appropriate study area:
Signalized Intersections;
 - a. Osuna/Chappell
 - b. Osuna/Academy Parkway
 - c. Osuna/Jefferson

Unsignalized Intersections;

- a. Osuna/Gulton Ct. – plus signal warrant analysis
- b. Osuna/Commercial Drive1
- c. Gulton/Commercial Drive 2

Driveway Intersections: all site drives (*n.a., site currently vacant*).

3. Intersection turning movement counts
Study Time – 7-9 a.m. peak hour, 4-6 p.m. peak hour
Consultant to provide for all intersections listed above.
4. Type of intersection progression and factors to be used.
Type III arrival type (see “Highway Capacity Manual, current edition” or equivalent as approved by staff). ~~Unless otherwise justified~~, peak hour factors and % heavy commercial

should be taken directly from the ~~MRCOG turning movement data provided~~ or as calculated from current count data by consultant.

5. Boundaries of area to be used for trip distribution – see Item 1.
6. Basis for trip distribution – see Item 1.
7. Traffic Assignment. Logical routing on the major street system – see Item 1.
8. Proposed developments which have been approved but not constructed that are to be Included in the analyses. Projects in the area include: *none identified*.
 - a. Project 1 – Location (DRB # or Hyd #)
 - b. Project 2 – Location (DRB # or Hyd #)
9. Method of intersection capacity analysis - operational using *Synchro10*, output reported in HCM 6th Ed. format.
Implementation Year: 2021
10. Traffic conditions for analysis:
 - a. Existing analysis X yes ___ no - year (2020);
 - b. Phase implementation year(s) without proposed development – 2021
 - c. Phase implementation year(s) with proposed development – 2021
 - d. Project completion year without proposed development – 2031
 - e. Project completion year with proposed development – 2031
 - f. Other – n.a.
11. Background traffic growth.
Method: use 10-year historical growth based on standard data from the MRCOG Traffic Flow Maps. Minimum growth rate to be used is 1/2%.
12. Planned (programmed) traffic improvements.
List planned CIP improvements in study area and projected project implementation year:
n.a., none identified.
13. Items to be included in the study:
 - a. Intersection analysis.
 - b. Signal warrant analysis of Osuna/Gulton Ct.
 - c. Arterial LOS analysis;
 - d. Recommended street, intersection and signal improvements.
 - e. Site design features such as turning lanes, median cuts, queuing requirements and site circulation, including driveway ~~signalization~~ channelization and visibility.
 - f. Transportation system impacts.
 - g. Other mitigating measures.
 - h. Accident analyses X yes ___ no; Location(s): Osuna Rd. @ Gulton Ct. (3 yr.)
 - i. Weaving analyses X yes ___ no; Location(s):
14. Other:

SUBMITTAL REQUIREMENTS:

1. Number of copies of report required
 - a. 1 paper copy
 - b. 1 digital copy
2. Submittal Fee – \$1300 for up to 3 reviews

The Traffic Impact Study for this development proposal, project name, shall be performed in accordance with the above criteria. If there are any questions regarding the above items, please contact me at 924-3991.



10/20/2020

Matt Grush, P.E., PTOE
Senior Engineer
City of Albuquerque, Planning
Transportation Development Section

Date

via: email

C: TIS Task Force Attendees, file

Additional Info for NIA:

Due to the request for access for a **new school**, and Bill No. O-13-61, a Neighborhood Impact Assessment (NIA) needs to be prepared. The required information for the NIA is shown below in the scope of report. Refer to Bill No. O-13-61 for additional criteria.

1. NIA Requirements – The following sections need to be included to satisfy the NIA ordinance requirements.
 - a. Baseline Community Data – identifying existing conditions with respect to adjacent land uses, traffic patterns, traffic turning movements and volumes, nearby multimodal transportation options, area pedestrian movements, and any other relevant information as determined
 - b. Analysis of the neighborhood impacts, including but not limited to:
 - 1) Impacts on pedestrian and bicycle circulation, and pedestrian and bicycle routes
 - 2) Automobile and pedestrian conflict points
 - 3) Noise and air quality impacts resulting from stacking of idling vehicles or vehicle circulation
 - 4) Consistency with existing or planned transit routes and stops
 - 5) Other potential impacts as determined

APPENDIX B

Existing & Projected Traffic Data

Civil Transformations Inc.

2929 Coors Blvd. NW, Ste. 309
Albuquerque, NM 87120 (505) 508-3374
Transforming Infrastructure Needs into Sustainable Solutions

Explore Academy
Turning Movement Count for
Traffic Impact Analysis

File Name : Osuna @ Chapelle
Site Code : 00000000
Start Date : 11/18/2020
Page No : 1

Groups Printed- Cars - Trucks

Start Time	CHAPELLE From North					OSUNA From East					CHAPELLE From South					OSUNA From West					Int. Total
	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	
07:00 AM	0	0	0	0	0	10	65	3	1	79	4	0	11	0	15	2	112	32	0	146	240
07:15 AM	0	0	0	1	1	13	88	4	0	105	8	0	10	0	18	1	123	24	1	149	273
07:30 AM	1	0	1	0	2	10	81	8	1	100	9	0	21	0	30	5	143	47	0	195	327
07:45 AM	2	0	0	0	2	22	94	14	0	130	8	1	18	0	27	10	177	47	0	234	393
Total	3	0	1	1	5	55	328	29	2	414	29	1	60	0	90	18	555	150	1	724	1233
08:00 AM	3	1	5	0	9	24	97	12	2	135	12	1	11	0	24	3	142	33	1	179	347
08:15 AM	3	1	3	0	7	20	98	4	0	122	13	1	14	0	28	1	119	47	0	167	324
08:30 AM	5	2	3	0	10	24	89	4	0	117	11	0	25	0	36	3	130	30	0	163	326
08:45 AM	2	1	2	0	5	14	99	3	2	118	6	2	21	0	29	2	135	26	0	163	315
Total	13	5	13	0	31	82	383	23	4	492	42	4	71	0	117	9	526	136	1	672	1312
*** BREAK ***																					
04:00 PM	3	0	3	0	6	33	171	5	1	210	41	0	23	0	64	0	166	26	1	193	473
04:15 PM	4	1	2	0	7	14	160	3	0	177	40	0	22	0	62	0	137	19	0	156	402
04:30 PM	0	1	1	0	2	23	192	0	0	215	44	2	23	1	70	1	143	22	0	166	453
04:45 PM	1	1	4	0	6	18	162	0	4	184	50	2	24	0	76	1	144	21	1	167	433
Total	8	3	10	0	21	88	685	8	5	786	175	4	92	1	272	2	590	88	2	682	1761
05:00 PM	14	1	10	0	25	18	201	3	3	225	45	0	29	0	74	2	149	21	0	172	496
05:15 PM	3	2	2	0	7	21	213	0	3	237	35	0	22	0	57	0	114	13	3	130	431
05:30 PM	3	0	1	0	4	10	154	2	4	170	38	0	17	0	55	0	92	16	0	108	337
05:45 PM	1	0	0	0	1	5	127	0	0	132	32	0	8	0	40	0	86	18	0	104	277
Total	21	3	13	0	37	54	695	5	10	764	150	0	76	0	226	2	441	68	3	514	1541
Grand Total	45	11	37	1	94	279	2091	65	21	2456	396	9	299	1	705	31	2112	442	7	2592	5847
Apprch %	47.9	11.7	39.4	1.1		11.4	85.1	2.6	0.9		56.2	1.3	42.4	0.1		1.2	81.5	17.1	0.3		
Total %	0.8	0.2	0.6	0	1.6	4.8	35.8	1.1	0.4	42	6.8	0.2	5.1	0	12.1	0.5	36.1	7.6	0.1	44.3	
Cars	45	11	36	1	93	267	2067									2089					
% Cars	100	100	97.3	100	98.9	95.7	98.9	100	100	98.5	99	88.9	98.7	100	98.7	100	98.9	96.8	100	98.6	98.6
Trucks	0	0	1	0	1	12	24	0	0	36	4	1	4	0	9	0	23	14	0	37	83
% Trucks	0	0	2.7	0	1.1	4.3	1.1	0	0	1.5	1	11.1	1.3	0	1.3	0	1.1	3.2	0	1.4	1.4

Civil Transformations Inc.
 2929 Coors Blvd. NW, Ste. 309
 Albuquerque, NM 87120 (505) 508-3374
Transforming Infrastructure Needs into Sustainable Solutions

Explore Academy
 Turning Movement Count for
 Traffic Impact Analysis

File Name : Osuna @ Chapelle
 Site Code : 00000000
 Start Date : 11/18/2020
 Page No : 2

	CHAPELLE From North					OSUNA From East					CHAPELLE From South					OSUNA From West					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 11:45 AM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 07:30 AM																					
07:30 AM	1	0	1	0	2	10	81	8	1	100	9	0	21	0	30	5	143	47	0	195	327
07:45 AM	2	0	0	0	2	22	94	14	0	130	8	1	18	0	27	10	177	47	0	234	393
08:00 AM	3	1	5	0	9	24	97	12	2	135	12	1	11	0	24	3	142	33	1	179	347
08:15 AM	3	1	3	0	7	20	98	4	0	122	13	1	14	0	28	1	119	47	0	167	324
Total Volume	9	2	9	0	20	76	370	38	3	487	42	3	64	0	109	19	581	174	1	775	1391
% App. Total	45	10	45	0		15.6	76	7.8	0.6		38.5	2.8	58.7	0		2.5	75	22.5	0.1		
PHF	.750	.500	.450	.000	.556	.792	.944	.679	.375	.902	.808	.750	.762	.000	.908	.475	.821	.926	.250	.828	.885
Cars	9	2	8	0	19	72	361	38	3	474	41	2	64	0	107	19	571	168	1	759	1359
% Cars	100	100	88.9	0	95.0	94.7	97.6	100	100	97.3	97.6	66.7	100	0	98.2	100	98.3	96.6	100	97.9	97.7
Trucks	0	0	1	0	1	4	9	0	0	13	1	1	0	0	2	0	10	6	0	16	32
% Trucks	0	0	11.1	0	5.0	5.3	2.4	0	0	2.7	2.4	33.3	0	0	1.8	0	1.7	3.4	0	2.1	2.3
Peak Hour Analysis From 12:00 PM to 05:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 04:30 PM																					
04:30 PM	0	1	1	0	2	23					2		1					22			
04:45 PM	1	1	4	0	6	18	162	0	4	184	50	2	24	0	76	1	144	21	1	167	433
05:00 PM	14	1	10	0	25	18	201	3	3	225	45	0	29	0	74	2	149	21	0	172	496
05:15 PM	3	2	2	0	7	21	213	0	3	237	35	0	22	0	57	0	114	13	3	130	431
Total Volume	18	5	17	0	40	80	768	3	10	861	174	4	98	1	277	4	550	77	4	635	1813
% App. Total	45	12.5	42.5	0		9.3	89.2	0.3	1.2		62.8	1.4	35.4	0.4		0.6	86.6	12.1	0.6		
PHF	.321	.625	.425	.000	.400	.870	.901	.250	.625	.908	.870	.500	.845	.250	.911	.500	.923	.875	.333	.923	.914
Cars	18	5	17	0	40	78	764	3	10	855	174	4	98	1	277	4	547	75	4	630	1802
% Cars	100	100	100	0	100	97.5	99.5	100	100	99.3	100	100	100	100	100	100	99.5	97.4	100	99.2	99.4
Trucks	0	0	0	0	0	2	4	0	0	6	0	0	0	0	0	0	3	2	0	5	11
% Trucks	0	0	0	0	0	2.5	0.5	0	0	0.7	0	0	0	0	0	0	0.5	2.6	0	0.8	0.6

Civil Transformations Inc.
 2929 Coors Blvd. NW, Ste. 309
 Albuquerque, NM 87120 (505) 508-3374
Transforming Infrastructure Needs into Sustainable Solutions

Explore Academy
 Turning Movement Count for
 Traffic Impact Analysis

File Name : Osuna @ Academy Parkway
 Site Code : 00000000
 Start Date : 11/18/2020
 Page No : 1

Groups Printed- Cars - Trucks

	ACADEMY PKWY From North					OSUNA From East					ACADEMY PKWY From South					OSUNA From West					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
07:00 AM	3	0	3	0	6	4	71	18	0	93	0	0	3	0	3	8	113	2	0	123	225
07:15 AM	8	0	3	0	11	3	109	37	0	149	0	0	1	0	1	7	125	0	0	132	293
07:30 AM	5	0	2	0	7	6	98	18	1	123	0	0	4	0	4	12	151	0	2	165	299
07:45 AM	5	0	9	0	14	7	127	18	0	152	1	0	1	0	2	14	179	0	3	196	364
Total	21	0	17	0	38	20	405	91	1	517	1	0	9	0	10	41	568	2	5	616	1181
08:00 AM	12	0	7	0	19	7	132	12	0	151	0	0	6	0	6	10	146	1	0	157	333
08:15 AM	7	0	5	0	12	8	114	13	0	135	0	0	3	0	3	7	129	1	0	137	287
08:30 AM	10	0	6	0	16	2	106	19	0	127	0	1	3	0	4	9	149	1	0	159	306
08:45 AM	4	0	9	0	13	8	126	16	1	151	0	0	5	0	5	9	148	1	0	158	327
Total	33	0	27	0	60	25	478	60	1	564	0	1	17	0	18	35	572	4	0	611	1253
*** BREAK ***																					
04:00 PM	57	0	25	0	82	7	183	4	1	195	4	0	7	0	11	2	192	0	0	194	482
04:15 PM	9	0	10	0	19	3	174	12	0	189	4	0	6	0	10	2	161	0	0	163	381
04:30 PM	30	0	17	0	47	2	198	6	2	208	2	0	5	0	7	5	155	0	0	160	422
04:45 PM	9	1	10	0	20	6	174	3	1	184	1	0	7	0	8	3	166	2	0	171	383
Total	105	1	62	0	168	18	729	25	4	776	11	0	25	0	36	12	674	2	0	688	1668
05:00 PM	24	0	14	0	38	2	196	6	3	207	3	0	11	0	14	3	182	0	0	185	444
05:15 PM	9	0	10	0	19	6	219	4	0	229	3	0	5	1	9	0	143	0	0	143	400
05:30 PM	7	0	3	0	10	3	160	5	0	168	2	0	7	0	9	2	108	2	0	112	299
05:45 PM	9	0	0	0	9	5	127	4	1	137	1	0	6	0	7	1	91	1	0	93	246
Total	49	0	27	0	76	16	702	19	4	741	9	0	29	1	39	6	524	3	0	533	1389
*** BREAK ***																					
Grand Total	208	1	133	0	342	79	2314	195	10	2598	21	1	80	1	103	94	2338	11	5	2448	5491
Apprch %	60.8	0.3	38.9	0		3	89.1	7.5	0.4		20.4	1	77.7	1		3.8	95.5	0.4	0.2		
Total %	3.8	0	2.4	0	6.2	1.4	42.1	3.6	0.2	47.3	0.4	0	1.5	0	1.9	1.7	42.6	0.2	0.1	44.6	
Cars	206	1	133	0	340	78	2279									2311					
% Cars	99	100	100	0	99.4	98.7	98.5	99	100	98.5	100	100	100	100	100	100	98.8	100	100	98.9	98.8
Trucks	2	0	0	0	2	1	35	2	0	38	0	0	0	0	0	0	27	0	0	27	67
% Trucks	1	0	0	0	0.6	1.3	1.5	1	0	1.5	0	0	0	0	0	0	1.2	0	0	1.1	1.2

Civil Transformations Inc.
 2929 Coors Blvd. NW, Ste. 309
 Albuquerque, NM 87120 (505) 508-3374
Transforming Infrastructure Needs into Sustainable Solutions

Explore Academy
 Turning Movement Count for
 Traffic Impact Analysis

File Name : Osuna @ Academy Parkway
 Site Code : 00000000
 Start Date : 11/18/2020
 Page No : 2

	ACADEMY PKWY From North					OSUNA From East					ACADEMY PKWY From South					OSUNA From West					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 11:45 AM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 07:45 AM																					
07:45 AM	5	0	9	0	14	7	127	18	0	152	1	0	1	0	2	14	179	0	3	196	364
08:00 AM	12	0	7	0	19	7	132	12	0	151	0	0	6	0	6	10	146	1	0	157	333
08:15 AM	7	0	5	0	12	8	114	13	0	135	0	0	3	0	3	7	129	1	0	137	287
08:30 AM	10	0	6	0	16	2	106	19	0	127	0	1	3	0	4	9	149	1	0	159	306
Total Volume	34	0	27	0	61	24	479	62	0	565	1	1	13	0	15	40	603	3	3	649	1290
% App. Total	55.7	0	44.3	0		4.2	84.8	11	0		6.7	6.7	86.7	0		6.2	92.9	0.5	0.5		
PHF	.708	.000	.750	.000	.803	.750	.907	.816	.000	.929	.250	.250	.542	.000	.625	.714	.842	.750	.250	.828	.886
Cars	33	0	27	0	60	23	466	61	0	550	1	1	13	0	15	40	595	3	3	641	1266
% Cars	97.1	0	100	0	98.4	95.8	97.3	98.4	0	97.3	100	100	100	0	100	100	98.7	100	100	98.8	98.1
Trucks	1	0	0	0	1	1	13	1	0	15	0	0	0	0	0	0	8	0	0	8	24
% Trucks	2.9	0	0	0	1.6	4.2	2.7	1.6	0	2.7	0	0	0	0	0	0	1.3	0	0	1.2	1.9
Peak Hour Analysis From 12:00 PM to 06:00 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 04:00 PM																					
04:00 PM	57		25		82	7					4		7		11		192			194	482
04:15 PM	9	0	10	0	19	3	174	12	0	189	4	0	6	0	10	2	161	0	0	163	381
04:30 PM	30	0	17	0	47	2	198	6	2	208	2	0	5	0	7	5	155	0	0	160	422
04:45 PM	9	1	10	0	20	6	174	3	1	184	1	0	7	0	8	3	166	2	0	171	383
Total Volume	105	1	62	0	168	18	729	25	4	776	11	0	25	0	36	12	674	2	0	688	1668
% App. Total	62.5	0.6	36.9	0		2.3	93.9	3.2	0.5		30.6	0	69.4	0		1.7	98	0.3	0		
PHF	.46	.25	.62	.00	.512	.64	.92	.52	.50	.933	.68	.00	.89	.00	.818	.60	.87	.25	.00	.887	.865
	1	0	0	0		3	0	1	0		8	0	3	0		0	8	0	0		
Cars	105	1	62	0	168	18	721	24	4	767	11	0	25	0	36	12	671	2	0	685	1656
% Cars	100	100	100	0	100	100	98.9	96.0	100	98.8	100	0	100	0	100	100	99.6	100	0	99.6	99.3
							9	0									6				
Trucks	0	0	0	0	0	0	8	1	0	9	0	0	0	0	0	0	3	0	0	3	12
% Trucks	0	0	0	0	0	0	1.1	4.0	0	1.2	0	0	0	0	0	0	0.4	0	0	0.4	0.7

Civil Transformations Inc.
 2929 Coors Blvd. NW, Ste. 309
 Albuquerque, NM 87120 (505) 508-3374
Transforming Infrastructure Needs into Sustainable Solutions

Explore Academy
 Turning Movement Count for
 Traffic Impact Analysis

File Name : Osuna @ Jefferson
 Site Code : 00000000
 Start Date : 11/18/2020
 Page No : 1

Groups Printed- Cars - Trucks

Start Time	JEFFERSON From North					OSUNA From East					JEFFERSON From South					OSUNA From West					Int. Total
	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	
07:00 AM	40	38	20	0	98	5	97	35	1	138	14	30	6	0	50	29	76	9	0	114	400
07:15 AM	35	32	27	1	95	7	123	58	3	191	26	40	6	0	72	33	102	7	0	142	500
07:30 AM	42	66	37	1	146	10	95	75	1	181	19	47	11	1	78	37	89	18	0	144	549
07:45 AM	44	87	36	0	167	15	156	83	1	255	24	48	7	0	79	52	117	22	1	192	693
Total	161	223	120	2	506	37	471	251	6	765	83	165	30	1	279	151	384	56	1	592	2142
08:00 AM	35	48	37	2	122	12	124	43	1	180	13	38	4	1	56	38	120	21	0	179	537
08:15 AM	39	37	36	1	113	16	115	40	1	172	22	39	12	0	73	33	111	13	0	157	515
08:30 AM	30	42	43	0	115	5	105	57	1	168	16	36	11	1	64	49	106	9	0	164	511
08:45 AM	35	35	33	0	103	13	118	55	0	186	21	42	7	2	72	44	105	20	0	169	530
Total	139	162	149	3	453	46	462	195	3	706	72	155	34	4	265	164	442	63	0	669	2093
*** BREAK ***																					
04:00 PM	59	42	48	1	150	6	120	30	0	156	21	60	12	0	93	64	234	11	0	309	708
04:15 PM	52	49	39	0	140	5	118	31	0	154	24	49	18	0	91	49	140	10	0	199	584
04:30 PM	55	48	52	0	155	6	127	30	0	163	26	62	32	0	120	52	195	11	0	258	696
04:45 PM	62	32	53	0	147	6	118	34	1	159	11	48	22	0	81	32	146	15	0	193	580
Total	228	171	192	1	592	23	483	125	1	632	82	219	84	0	385	197	715	47	0	959	2568
05:00 PM	78	51	34	0	163	14	137	17	2	170	27	80	36	1	144	48	193	16	0	257	734
05:15 PM	45	38	47	1	131	8	144	34	0	186	21	41	15	0	77	28	155	10	1	194	588
05:30 PM	39	21	31	1	92	11	125	18	0	154	18	32	19	0	69	27	114	21	0	162	477
05:45 PM	34	17	25	0	76	6	98	12	2	118	16	32	8	0	56	20	94	7	0	121	371
Total	196	127	137	2	462	39	504	81	4	628	82	185	78	1	346	123	556	54	1	734	2170
Grand Total	724	683	598	8	2013	145	1920	652	14	2731	319	724	226	6	1275	635	2097	220	2	2954	8973
Apprch %	36	33.9	29.7	0.4		5.3	70.3	23.9	0.5		25	56.8	17.7	0.5		21.5	71	7.4	0.1		
Total %	8.1	7.6	6.7	0.1	22.4	1.6	21.4	7.3	0.2	30.4	3.6	8.1	2.5	0.1	14.2	7.1	23.4	2.5	0	32.9	
Cars	711	671	586	8	1976	145	1894									2076					
% Cars	98.2	98.2	98	100	98.2	100	98.6	95.7	100	98	98.7	98.9	99.1	100	98.9	98.4	99	98.2	100	98.8	98.4
Trucks	13	12	12	0	37	0	26	28	0	54	4	8	2	0	14	10	21	4	0	35	140
% Trucks	1.8	1.8	2	0	1.8	0	1.4	4.3	0	2	1.3	1.1	0.9	0	1.1	1.6	1	1.8	0	1.2	1.6

Civil Transformations Inc.

2929 Coors Blvd. NW, Ste. 309
Albuquerque, NM 87120 (505) 508-3374
Transforming Infrastructure Needs into Sustainable Solutions

Explore Academy
Turning Movement Count for
Traffic Impact Analysis

File Name : Osuna @ Jefferson
Site Code : 00000000
Start Date : 11/18/2020
Page No : 2

	JEFFERSON From North					OSUNA From East					JEFFERSON From South					OSUNA From West					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 11:45 AM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 07:30 AM																					
07:30 AM	42	66	37	1	146	10	95	75	1	181	19	47	11	1	78	37	89	18	0	144	549
07:45 AM	44	87	36	0	167	15	156	83	1	255	24	48	7	0	79	52	117	22	1	192	693
08:00 AM	35	48	37	2	122	12	124	43	1	180	13	38	4	1	56	38	120	21	0	179	537
08:15 AM	39	37	36	1	113	16	115	40	1	172	22	39	12	0	73	33	111	13	0	157	515
Total Volume	160	238	146	4	548	53	490	241	4	788	78	172	34	2	286	160	437	74	1	672	2294
% App. Total	29.2	43.4	26.6	0.7		6.7	62.2	30.6	0.5		27.3	60.1	11.9	0.7		23.8	65	11	0.1		
PHF	.909	.684	.986	.500	.820	.828	.785	.726	1.00	.773	.813	.896	.708	.500	.905	.769	.910	.841	.250	.875	.828
Cars	158	232	142	4	536	53	485	235	4	777	76	170	34	2	282	159	429	73	1	662	2257
% Cars	98.8	97.5	97.3	100	97.8	100	99.0	97.5	100	98.6	97.4	98.8	100	100	98.6	99.4	98.2	98.6	100	98.5	98.4
Trucks	2	6	4	0	12	0	5	6	0	11	2	2	0	0	4	1	8	1	0	10	37
% Trucks	1.3	2.5	2.7	0	2.2	0	1.0	2.5	0	1.4	2.6	1.2	0	0	1.4	0.6	1.8	1.4	0	1.5	1.6
Peak Hour Analysis From 12:00 PM to 05:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 04:30 PM																					
04:30 PM	55	48	52	0	155	6	127	30	0	163	26	62	32	0	120	52	195			258	
04:45 PM	62	32	53	0	147	6	118	34	1	159	11	48	22	0	81	32	146	15	0	193	580
05:00 PM	78	51	34	0	163	14	137	17	2	170	27	80	36	1	144	48	193	16	0	257	734
05:15 PM	45	38	47	1	131	8	144	34	0	186	21	41	15	0	77	28	155	10	1	194	588
Total Volume	240	169	186	1	596	34	526	115	3	678	85	231	105	1	422	160	689	52	1	902	2598
% App. Total	40.	28.	31.	0.2		5	77.	17	0.4		20.	54.	24.	0.2		17.	76.	5.8	0.1		
	3	4	2			6					1	7	9			7	4				
PHF	.76	.82	.87	.25	.914	.60	.91	.84	.37	.911	.78	.72	.72	.25	.733	.76	.88	.81	.25	.874	.885
	9	8	7	0		7	3	6	5		7	2	9	0		9	3	3	0		
Cars	237	165	182	1	585	34	523	109	3	669	85	229	105	1	420	159	687	52	1	899	2573
% Cars	98.	97.	97.	100	98.2	100	99.	94.	100	98.7	100	99.	100	100	99.5	99.	99.	100	100	99.7	99.0
	8	6	8			4	8				1					4	7				
Trucks	3	4	4	0	11	0	3	6	0	9	0	2	0	0	2	1	2	0	0	3	25
% Trucks	1.3	2.4	2.2	0	1.8	0	0.6	5.2	0	1.3	0	0.9	0	0	0.5	0.6	0.3	0	0	0.3	1.0

Civil Transformations Inc.
 2929 Coors Blvd. NW, Ste. 309
 Albuquerque, NM 87120 (505) 508-3374
Transforming Infrastructure Needs into Sustainable Solutions

Explore Academy
 Turning Movement Count for
 Traffic Impact Analysis

File Name : Osuna @ Gulton
 Site Code : 00000000
 Start Date : 11/18/2020
 Page No : 1

Groups Printed- Cars - Trucks

Start Time	GULTON From North					OSUNA From East					GULTON From South					OSUNA From West					Int. Total
	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	
07:00 AM	0	1	0	0	1	14	89	1	0	104	0	0	0	0	0	0	120	1	0	121	226
07:15 AM	0	0	0	0	0	4	149	2	0	155	1	0	1	0	2	1	140	3	2	146	303
07:30 AM	0	0	0	0	0	7	130	0	1	138	0	0	3	0	3	0	155	4	2	161	302
07:45 AM	0	0	0	0	0	21	139	2	1	163	0	0	2	0	2	0	160	4	3	167	332
Total	0	1	0	0	1	46	507	5	2	560	1	0	6	0	7	1	575	12	7	595	1163
08:00 AM	0	0	0	0	0	7	149	0	1	157	1	0	5	0	6	1	167	1	0	169	332
08:15 AM	0	0	1	0	1	20	141	0	0	161	0	0	1	0	1	0	147	0	0	147	310
08:30 AM	1	0	0	0	1	12	120	1	0	133	1	0	3	0	4	2	147	2	0	151	289
08:45 AM	0	0	1	0	1	10	133	0	1	144	0	0	4	0	4	0	141	6	0	147	296
Total	1	0	2	0	3	49	543	1	2	595	2	0	13	0	15	3	602	9	0	614	1227
09:00 AM	1	0	0	0	1	15	103	0	1	119	0	1	3	0	4	0	135	1	0	136	260
09:15 AM	2	0	0	0	2	16	123	0	0	139	0	0	4	0	4	1	130	0	0	131	276
09:30 AM	0	0	2	0	2	11	134	0	0	145	0	0	4	0	4	1	140	3	0	144	295
09:45 AM	0	0	0	0	0	16	124	1	0	141	2	0	4	0	6	2	133	2	1	138	285
Total	3	0	2	0	5	58	484	1	1	544	2	1	15	0	18	4	538	6	1	549	1116
10:00 AM	0	0	1	0	1	13	159	0	0	172	1	0	5	0	6	0	160	0	1	161	340
10:15 AM	2	0	0	0	2	9	153	0	0	162	3	0	7	0	10	1	153	2	1	157	331
10:30 AM	1	0	0	0	1	11	131	0	0	142	0	0	7	0	7	1	165	2	0	168	318
10:45 AM	3	0	0	0	3	12	136	0	0	148	1	0	6	0	7	1	167	1	0	169	327
Total	6	0	1	0	7	45	579	0	0	624	5	0	25	0	30	3	645	5	2	655	1316
11:00 AM	1	0	0	0	1	14	121	0	0	135	0	0	5	0	5	0	162	1	0	163	304
11:15 AM	3	0	1	0	4	12	142	0	0	154	1	0	6	0	7	1	166	1	0	168	333
11:30 AM	3	0	0	0	3	15	180	0	0	195	3	0	9	0	12	2	173	1	0	176	386
11:45 AM	3	0	1	0	4	11	191	0	0	202	1	0	5	0	6	2	186	2	0	190	402
Total	10	0	2	0	12	52	634	0	0	686	5	0	25	0	30	5	687	5	0	697	1425
12:00 PM	2	0	1	0	3	17	204	0	0	221	2	0	14	0	16	0	178	1	1	180	420
12:15 PM	1	0	1	0	2	14	189	0	1	204	2	0	13	0	15	0	197	1	0	198	419
12:30 PM	2	0	0	0	2	12	177	0	0	189	6	0	15	0	21	0	176	1	0	177	389
12:45 PM	1	0	2	0	3	10	166	1	1	178	1	0	9	0	10	0	182	3	1	186	377
Total	6	0	4	0	10	53	736	1	2	792	11	0	51	0	62	0	733	6	2	741	1605
01:00 PM	0	0	0	0	0	10	176	0	0	186	0	0	7	0	7	0	188	1	1	190	383
01:15 PM	2	0	1	0	3	12	178	0	0	190	3	0	7	0	10	2	165	3	1	171	374
*** BREAK ***																					
01:45 PM	1	0	0	0	1	10	188	0	1	199	1	0	12	0	13	0	190	1	1	192	405
Total	3	0	1	0	4	32	542	0	1	575	4	0	26	0	30	2	543	5	3	553	1162
02:00 PM	0	0	2	0	2	9	186	1	0	196	1	0	7	0	8	0	175	2	2	179	385
02:15 PM	1	0	0	0	1	13	155	1	0	169	1	0	10	0	11	0	197	3	0	200	381
02:30 PM	0	0	1	0	1	8	165	2	2	177	1	0	5	0	6	1	170	2	0	173	357
02:45 PM	0	0	2	0	2	12	196	0	0	208	1	0	4	0	5	0	159	1	1	161	376
Total	1	0	5	0	6	42	702	4	2	750	4	0	26	0	30	1	701	8	3	713	1499
03:00 PM	0	0	0	0	0	3	150	1	1	155	2	0	6	0	8	1	175	1	0	177	340
03:15 PM	2	0	2	0	4	11	173	0	0	184	1	0	6	0	7	0	177	2	1	180	375
03:30 PM	0	0	0	0	0	9	170	0	0	179	2	0	3	0	5	2	168	0	2	172	356
03:45 PM	1	0	1	0	2	3	186	0	0	189	2	0	14	0	16	1	162	1	0	164	371
Total	3	0	3	0	6	26	679	1	1	707	7	0	29	0	36	4	682	4	3	693	1442

Civil Transformations Inc.

2929 Coors Blvd. NW, Ste. 309
Albuquerque, NM 87120 (505) 508-3374
Transforming Infrastructure Needs into Sustainable Solutions

Explore Academy
Turning Movement Count for
Traffic Impact Analysis

File Name : Osuna @ Gulton
Site Code : 00000000
Start Date : 11/18/2020
Page No : 2

Groups Printed- Cars - Trucks

Start Time	GULTON From North					OSUNA From East					GULTON From South					OSUNA From West					Int. Total
	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	
04:00 PM	1	0	0	0	1	9	165	2	0	176	1	0	13	0	14	0	179	1	0	180	371
04:15 PM	1	0	1	0	2	7	213	1	0	221	3	0	12	0	15	1	186	4	0	191	429
04:30 PM	2	0	0	0	2	4	183	1	0	188	3	0	12	0	15	0	184	3	0	187	392
04:45 PM	3	0	1	0	4	5	185	3	0	193	2	0	12	0	14	0	224	2	0	226	437
Total	7	0	2	0	9	25	746	7	0	778	9	0	49	0	58	1	773	10	0	784	1629
05:00 PM	4	0	1	0	5	7	184	0	0	191	1	0	11	0	12	1	187	1	0	189	397
05:15 PM	1	0	1	0	2	4	206	0	1	211	1	0	11	0	12	0	201	1	0	202	427
05:30 PM	1	0	0	0	1	5	179	0	2	186	3	0	13	0	16	1	201	2	0	204	407
05:45 PM	0	0	2	0	2	8	200	0	1	209	5	0	6	0	11	2	211	2	0	215	437
Total	6	0	4	0	10	24	769	0	4	797	10	0	41	0	51	4	800	6	0	810	1668
Grand Total	46	1	26	0	73	452	6921	20	15	7408	60	1	306	0	367	28	7279	76	21	7404	15252
Apprch %	63	1.4	35.6	0		6.1	93.4	0.3	0.2		16.3	0.3	83.4	0		0.4	98.3	1	0.3		
Total %	0.3	0	0.2	0	0.5	3	45.4	0.1	0.1	48.6	0.4	0	2	0	2.4	0.2	47.7	0.5	0.1	48.5	
Cars	43	1	25	0	69	446	6778									7131					14938
% Cars	93.5	100	96.2	0	94.5	98.7	97.9	85	100	97.9	96.7	100	97.7	0	97.5	96.4	98	100	100	98	97.9
Trucks	3	0	1	0	4	6	143	3	0	152	2	0	7	0	9	1	148	0	0	149	314
% Trucks	6.5	0	3.8	0	5.5	1.3	2.1	15	0	2.1	3.3	0	2.3	0	2.5	3.6	2	0	0	2	2.1

Civil Transformations Inc.
 2929 Coors Blvd. NW, Ste. 309
 Albuquerque, NM 87120 (505) 508-3374
Transforming Infrastructure Needs into Sustainable Solutions

Explore Academy
 Turning Movement Count for
 Traffic Impact Analysis

File Name : Osuna @ Gulton
 Site Code : 00000000
 Start Date : 11/18/2020
 Page No : 3

	GULTON From North					OSUNA From East					GULTON From South					OSUNA From West					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 09:45 AM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 07:30 AM																					
07:30 AM	0	0	0	0	0	7	130	0	1	138	0	0	3	0	3	0	155	4	2	161	302
07:45 AM	0	0	0	0	0	21	139	2	1	163	0	0	2	0	2	0	160	4	3	167	332
08:00 AM	0	0	0	0	0	7	149	0	1	157	1	0	5	0	6	1	167	1	0	169	332
08:15 AM	0	0	1	0	1	20	141	0	0	161	0	0	1	0	1	0	147	0	0	147	310
Total Volume	0	0	1	0	1	55	559	2	3	619	1	0	11	0	12	1	629	9	5	644	1276
% App. Total	0	0	100	0		8.9	90.3	0.3	0.5		8.3	0	91.7	0		0.2	97.7	1.4	0.8		
PHF	.000	.000	.250	.000	.250	.655	.938	.250	.750	.949	.250	.000	.550	.000	.500	.250	.942	.563	.417	.953	.961
Cars	0	0	1	0	1	55	545	2	3	605	1	0	10	0	11	1	616	9	5	631	1248
% Cars	0	0	100	0	100	100	97.5	100	100	97.7	100	0	90.9	0	91.7	100	97.9	100	100	98.0	97.8
Trucks	0	0	0	0	0	0	14	0	0	14	0	0	1	0	1	0	13	0	0	13	28
% Trucks	0	0	0	0	0	0	2.5	0	0	2.3	0	0	9.1	0	8.3	0	2.1	0	0	2.0	2.2
Peak Hour Analysis From 10:00 AM to 01:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 11:45 AM																					
11:45 AM	3		1		4											2		2			
12:00 PM	2	0	1	0	3	17	204	0	0	221	2	0	14	0	16	0	178	1	1	180	420
12:15 PM	1	0	1	0	2	14	189	0	1	204	2	0	13	0	15	0	197	1	0	198	419
12:30 PM	2	0	0	0	2	12	177	0	0	189	6	0	15	0	21	0	176	1	0	177	389
Total Volume	8	0	3	0	11	54	761	0	1	816	11	0	47	0	58	2	737	5	1	745	1630
% App. Total	72. 7	0	27. 3	0		6.6	93. 3	0	0.1		19	0	81	0		0.3	98. 9	0.7	0.1		
PHF	.66 7	.00 0	.75 0	.00 0	.688	.79 4	.93 3	.00 0	.25 0	.923	.45 8	.00 0	.78 3	.00 0	.690	.25 0	.93 5	.62 5	.25 0	.941	.970
Cars	7	0	3	0	10	54	743	0	1	798	10	0	47	0	57	1	715	5	1	722	1587
% Cars	87. 5	0	100	0	90.9	100	97. 6	0	100	97.8	90. 9	0	100	0	98.3	50. 0	97. 0	100	100	96.9	97.4
Trucks	1	0	0	0	1	0	18	0	0	18	1	0	0	0	1	1	22	0	0	23	43
% Trucks	12. 5	0	0	0	9.1	0	2.4	0	0	2.2	9.1	0	0	0	1.7	50. 0	3.0	0	0	3.1	2.6
Peak Hour Analysis From 02:00 PM to 05:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 04:45 PM																					
04:45 PM	3	0	1	0	4	5	185	3	0	193	2	0	12	0	14	0	224	2	0	226	437
05:00 PM	4	0	1	0	5	7	184	0	0	191	1	0	11	0	12	1	187	1	0	189	397
05:15 PM	1	0	1	0	2	4	206	0	1	211	1	0	11	0	12	0	201	1	0	202	427
05:30 PM	1	0	0	0	1	5	179	0	2	186	3	0	13	0	16	1	201	2	0	204	407
Total Volume	9	0	3	0	12	21	754	3	3	781	7	0	47	0	54	2	813	6	0	821	1668
% App. Total	75	0	25	0		2.7	96.5	0.4	0.4		13	0	87	0		0.2	99	0.7	0		
PHF	.563	.000	.750	.000	.600	.750	.915	.250	.375	.925	.583	.000	.904	.000	.844	.500	.907	.750	.000	.908	.954
Cars	8	0	3	0	11	21	745	2	3	771	7	0	47	0	54	2	811	6	0	819	1655
% Cars	88.9	0	100	0	91.7	100	98.8	66.7	100	98.7	100	0	100	0	100	100	99.8	100	0	99.8	99.2
Trucks	1	0	0	0	1	0	9	1	0	10	0	0	0	0	0	0	2	0	0	2	13
% Trucks	11.1	0	0	0	8.3	0	1.2	33.3	0	1.3	0	0	0	0	0	0	0.2	0	0	0.2	0.8

Civil Transformations Inc.

2929 Coors Blvd. NW, Ste. 309
Albuquerque, NM 87120 (505) 508-3374
Transforming Infrastructure Needs into Sustainable Solutions

Explore Academy
Turning Movement Count for
Traffic Impact Analysis

File Name : Osuna @ Driveway 1
Site Code : 00000000
Start Date : 11/18/2020
Page No : 1

Groups Printed- Cars - Trucks

Start Time	DRIVEWAY 1 From North					OSUNA From East					DRIVEWAY 1 From South					OSUNA From West					Int. Total
	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	
07:00 AM	0	0	0	0	0	0	126	2	0	128	0	0	0	0	0	0	155	1	2	158	286
07:15 AM	0	0	0	0	0	0	152	3	0	155	0	0	0	1	1	0	188	2	3	193	349
07:30 AM	2	0	0	0	2	0	143	4	1	148	0	0	0	0	0	0	163	0	0	163	313
07:45 AM	2	0	0	0	2	0	141	2	0	143	0	0	0	0	0	0	147	0	0	147	292
Total	4	0	0	0	4	0	562	11	1	574	0	0	0	1	1	0	653	3	5	661	1240
08:00 AM	1	0	0	0	1	0	128	0	0	128	0	0	0	0	0	2	153	1	0	156	285
08:15 AM	0	0	0	0	0	1	136	1	0	138	0	0	0	0	0	0	159	0	0	159	297
08:30 AM	1	0	1	0	2	0	114	2	1	117	0	0	0	0	0	1	142	0	0	143	262
08:45 AM	1	0	1	0	2	0	99	4	0	103	0	0	1	0	1	1	116	0	0	117	223
Total	3	0	2	0	5	1	477	7	1	486	0	0	1	0	1	4	570	1	0	575	1067
*** BREAK ***																					
04:00 PM	1	0	0	0	1	0	192	1	1	194	0	0	1	0	1	0	180	0	1	181	377
04:15 PM	7	0	4	0	11	0	185	5	0	190	0	0	0	0	0	0	240	0	0	240	441
04:30 PM	6	0	1	0	7	0	181	1	0	182	0	0	0	0	0	1	181	0	0	182	371
04:45 PM	2	0	1	0	3	0	147	1	0	148	0	0	0	0	0	0	165	0	0	165	316
Total	16	0	6	0	22	0	705	8	1	714	0	0	1	0	1	1	766	0	1	768	1505
*** BREAK ***																					
Grand Total	23	0	8	0	31	1	1744	26	3	1774	0	0	2	1	3	5	1989	4	6	2004	3812
Apprch %	74.2	0	25.8	0		0.1	98.3	1.5	0.2		0	0	66.7	33.3		0.2	99.3	0.2	0.3		
Total %	0.6	0	0.2	0	0.8	0	45.8	0.7	0.1	46.5	0	0	0.1	0	0.1	0.1	52.2	0.1	0.2	52.6	
Cars	21	0	8	0	29	1	1711										1959				
% Cars	91.3	0	100	0	93.5	100	98.1	96.2	100	98.1	0	0	100	100	100	100	98.5	100	100	98.5	98.3
Trucks	2	0	0	0	2	0	33	1	0	34	0	0	0	0	0	0	30	0	0	30	66
% Trucks	8.7	0	0	0	6.5	0	1.9	3.8	0	1.9	0	0	0	0	0	0	1.5	0	0	1.5	1.7

Civil Transformations Inc.
 2929 Coors Blvd. NW, Ste. 309
 Albuquerque, NM 87120 (505) 508-3374
Transforming Infrastructure Needs into Sustainable Solutions

Explore Academy
 Turning Movement Count for
 Traffic Impact Analysis

File Name : Osuna @ Driveway 1
 Site Code : 00000000
 Start Date : 11/18/2020
 Page No : 2

	DRIVEWAY 1 From North					OSUNA From East					DRIVEWAY 1 From South					OSUNA From West					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 11:45 AM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 07:00 AM																					
07:00 AM	0	0	0	0	0	0	126	2	0	128	0	0	0	0	0	0	155	1	2	158	286
07:15 AM	0	0	0	0	0	0	152	3	0	155	0	0	0	1	1	0	188	2	3	193	349
07:30 AM	2	0	0	0	2	0	143	4	1	148	0	0	0	0	0	0	163	0	0	163	313
07:45 AM	2	0	0	0	2	0	141	2	0	143	0	0	0	0	0	0	147	0	0	147	292
Total Volume	4	0	0	0	4	0	562	11	1	574	0	0	0	1	1	0	653	3	5	661	1240
% App. Total	100	0	0	0		0	97.9	1.9	0.2		0	0	0	100		0	98.8	0.5	0.8		
PHF	.500	.000	.000	.000	.500	.000	.924	.688	.250	.926	.000	.000	.000	.250	.250	.000	.868	.375	.417	.856	.888
Cars	4	0	0	0	4	0	550	11	1	562	0	0	0	1	1	0	642	3	5	650	1217
% Cars	100	0	0	0	100	0	97.9	100	100	97.9	0	0	0	100	100	0	98.3	100	100	98.3	98.1
Trucks	0	0	0	0	0	0	12	0	0	12	0	0	0	0	0	0	11	0	0	11	23
% Trucks	0	0	0	0	0	0	2.1	0	0	2.1	0	0	0	0	0	0	1.7	0	0	1.7	1.9
Peak Hour Analysis From 12:00 PM to 05:00 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 04:00 PM																					
04:00 PM	1	0	0	0	1	0	192		1	194			1		1				1		
04:15 PM	7	0	4	0	11	0	185	5	0	190	0	0	0	0	0	0	240	0	0	240	441
04:30 PM	6	0	1	0	7	0	181	1	0	182	0	0	0	0	0	1	181	0	0	182	371
04:45 PM	2	0	1	0	3	0	147	1	0	148	0	0	0	0	0	0	165	0	0	165	316
Total Volume	16	0	6	0	22	0	705	8	1	714	0	0	1	0	1	1	766	0	1	768	1505
% App. Total	72.	0	27.	0		0	98.	1.1	0.1		0	0	100	0		0.1	99.	0	0.1		
	7		3				7										7				
PHF	.57	.00	.37	.00	.500	.00	.91	.40	.25	.920	.00	.00	.25	.00	.250	.25	.79	.00	.25	.800	.853
	1	0	5	0		0	8	0	0		0	0	0	0		0	8	0	0		
Cars	14	0	6	0	20	0	695	7	1	703	0	0	1	0	1	1	760	0	1	762	1486
% Cars	87.	0	100	0	90.9	0	98.	87.	100	98.5	0	0	100	0	100	100	99.	0	100	99.2	98.7
	5						6	5									2				
Trucks	2	0	0	0	2	0	10	1	0	11	0	0	0	0	0	0	6	0	0	6	19
% Trucks	12.	0	0	0	9.1	0	1.4	12.	0	1.5	0	0	0	0	0	0	0.8	0	0	0.8	1.3
	5						5														

Civil Transformations Inc.

2929 Coors Blvd. NW, Ste. 309
Albuquerque, NM 87120 (505) 508-3374
Transforming Infrastructure Needs into Sustainable Solutions

Explore Academy
Turning Movement Count for
Traffic Impact Analysis

File Name : Gulton @ Driveway 2
Site Code : 00000000
Start Date : 11/18/2020
Page No : 1

Groups Printed- Cars - Trucks

Start Time	GULTON From North					DRIVEWAY 2 From East					GULTON From South					DRIVEWAY 2 From West					Int. Total
	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	
07:00 AM	7	6	0	0	13	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	13
07:15 AM	1	5	1	0	7	0	2	1	2	5	0	2	0	0	2	0	0	0	0	0	14
07:30 AM	2	6	0	1	9	0	0	1	1	2	0	1	0	0	1	0	0	0	0	0	12
07:45 AM	15	3	5	0	23	0	0	2	2	4	0	1	0	0	1	0	0	0	0	0	28
Total	25	20	6	1	52	0	2	4	5	11	0	4	0	0	4	0	0	0	0	0	67
08:00 AM	3	3	1	0	7	0	0	1	0	1	0	5	0	0	5	0	0	0	0	0	13
08:15 AM	5	8	1	0	14	0	0	1	0	1	0	1	0	0	1	0	0	0	0	0	16
08:30 AM	7	6	1	0	14	0	0	1	0	1	0	3	0	0	3	0	0	0	0	0	18
08:45 AM	6	7	0	0	13	0	0	4	0	4	0	2	0	0	2	0	0	0	0	0	19
Total	21	24	3	0	48	0	0	7	0	7	0	11	0	0	11	0	0	0	0	0	66
*** BREAK ***																					
04:00 PM	3	3	0	0	6	0	0	8	0	8	0	7	0	0	7	0	0	0	0	0	21
04:15 PM	3	2	0	0	5	0	0	6	0	6	0	5	0	0	5	1	0	0	0	1	17
04:30 PM	3	0	0	0	3	0	0	10	0	10	0	2	0	0	2	0	0	0	0	0	15
04:45 PM	1	1	0	0	2	0	0	6	0	6	0	6	0	0	6	3	0	0	0	3	17
Total	10	6	0	0	16	0	0	30	0	30	0	20	0	0	20	4	0	0	0	4	70
05:00 PM	3	4	0	0	7	0	0	7	0	7	0	4	0	0	4	0	0	0	0	0	18
05:15 PM	5	0	0	0	5	0	0	9	0	9	0	5	0	0	5	1	0	0	0	1	20
05:30 PM	1	1	0	0	2	0	0	8	0	8	0	3	0	0	3	2	0	0	0	2	15
05:45 PM	3	0	0	0	3	0	0	6	0	6	0	7	0	0	7	5	0	0	0	5	21
Total	12	5	0	0	17	0	0	30	0	30	0	19	0	0	19	8	0	0	0	8	74
Grand Total	68	55	9	1	133	0	2	71	5	78	0	54	0	0	54	12	0	0	0	12	277
Apprch %	51.1	41.4	6.8	0.8		0	2.6	91	6.4		0	100	0	0		100	0	0	0		
Total %	24.5	19.9	3.2	0.4	48	0	0.7	25.6	1.8	28.2	0	19.5	0	0	19.5	4.3	0	0	0	4.3	
Cars	68	54	9	1	132	0	2	71	5	78	0	53	0	0	53	12	0	0	0	12	275
% Cars	100	98.2	100	100	99.2	0	100	100	100	100	0	98.1	0	0	98.1	100	0	0	0	100	99.3
Trucks	0	1	0	0	1	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	2
% Trucks	0	1.8	0	0	0.8	0	0	0	0	0	0	1.9	0	0	1.9	0	0	0	0	0	0.7

Civil Transformations Inc.
 2929 Coors Blvd. NW, Ste. 309
 Albuquerque, NM 87120 (505) 508-3374
Transforming Infrastructure Needs into Sustainable Solutions

Explore Academy
 Turning Movement Count for
 Traffic Impact Analysis

File Name : Gulton @ Driveway 2
 Site Code : 00000000
 Start Date : 11/18/2020
 Page No : 2

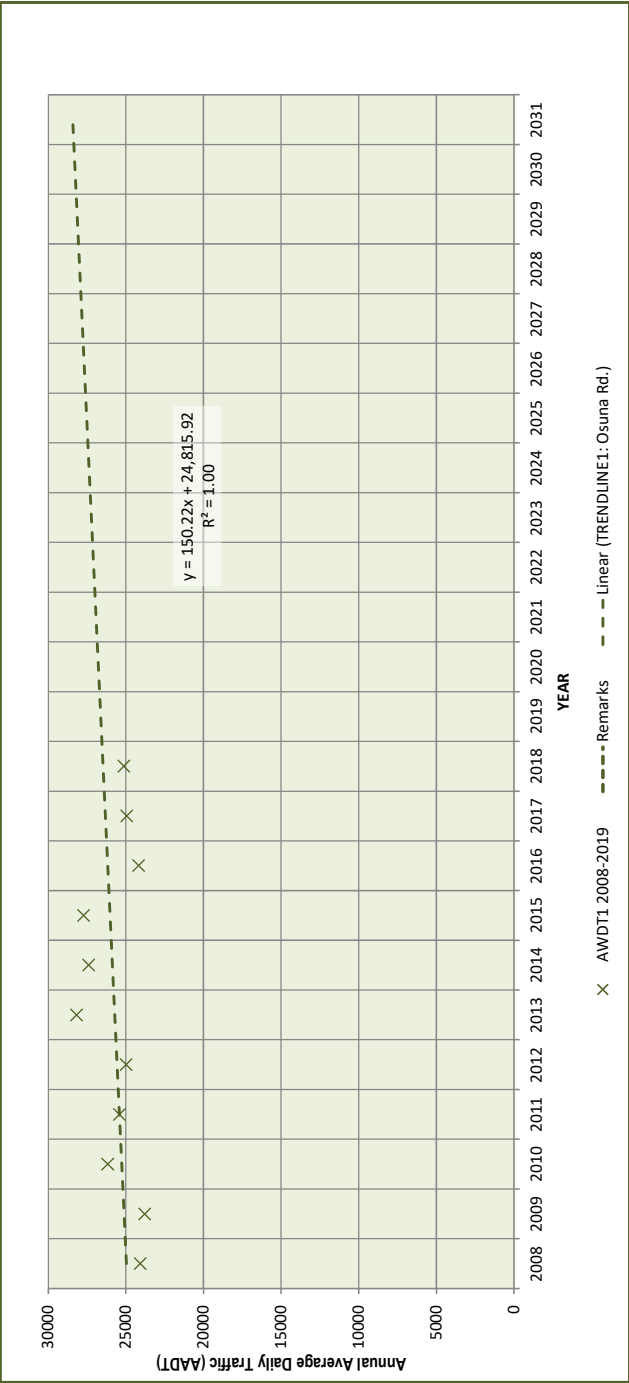
	GULTON From North					DRIVEWAY 2 From East					GULTON From South					DRIVEWAY 2 From West					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 11:45 AM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 07:45 AM																					
07:45 AM	15	3	5	0	23	0	0	2	2	4	0	1	0	0	1	0	0	0	0	0	28
08:00 AM	3	3	1	0	7	0	0	1	0	1	0	5	0	0	5	0	0	0	0	0	13
08:15 AM	5	8	1	0	14	0	0	1	0	1	0	1	0	0	1	0	0	0	0	0	16
08:30 AM	7	6	1	0	14	0	0	1	0	1	0	3	0	0	3	0	0	0	0	0	18
Total Volume	30	20	8	0	58	0	0	5	2	7	0	10	0	0	10	0	0	0	0	0	75
% App. Total	51.7	34.5	13.8	0		0	0	71.4	28.6		0	100	0	0		0	0	0	0		
PHF	.500	.625	.400	.000	.630	.000	.000	.625	.250	.438	.000	.500	.000	.000	.500	.000	.000	.000	.000	.000	.670
Cars	30	20	8	0	58	0	0	5	2	7	0	10	0	0	10	0	0	0	0	0	75
% Cars	100	100	100	0	100	0	0	100	100	100	0	100	0	0	100	0	0	0	0	0	100
Trucks	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% Trucks	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Peak Hour Analysis From 12:00 PM to 05:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 05:00 PM																					
05:00 PM	3	4			7																
05:15 PM	5	0	0	0	5	0	0	9	0	9	0	5	0	0	5	1	0	0	0	1	20
05:30 PM	1	1	0	0	2	0	0	8	0	8	0	3	0	0	3	2	0	0	0	2	15
05:45 PM	3	0	0	0	3	0	0	6	0	6	0	7	0	0	7	5	0	0	0	5	21
Total Volume	12	5	0	0	17	0	0	30	0	30	0	19	0	0	19	8	0	0	0	8	74
% App. Total	70.6	29.4	0	0		0	0	100	0		0	100	0	0		100	0	0	0		
PHF	.60	.31	.00	.00	.607	.00	.00	.83	.00	.833	.00	.67	.00	.00	.679	.40	.00	.00	.00	.400	.881
	0	3	0	0		0	0	3	0		0	9	0	0		0	0	0	0		
Cars	12	5	0	0	17	0	0	30	0	30	0	19	0	0	19	8	0	0	0	8	74
% Cars	100	100	0	0	100	0	0	100	0	100	0	100	0	0	100	100	0	0	0	100	100
Trucks	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% Trucks	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Route	FromLocation	ToLocation	AWDT18	AWDT17	AWDT16	AWDT15	AWDT14	AWDT13	AWDT12	AWDT11	AWDT10	AWDT09	AWDT08	AWDT07	AWDT06	AWDT05	AWDT04	AWDT03	AWDT02	AWDT01	AWDT00
OSUNA	EAST OF CHAPPEL ROAD	WEST OF WASHINGTON	25124	24945	24181	27717	27388	28177	24982	25414	26173	23784	24073	36880	35326	33805	32349	29726	29287	28657	27156

Route	FuncClass	FromLocation	StartDate	Capac_ EB	Capac_ WB	DailyVol	DayVol _EB	DayVol _WB	DDS	AMTime	AMHrV ol	AMDir Split	AM_Vol _EB	AM_Vol _WB	PMTIME	PMHr Vol	PMDirS plit	PM_Vol _EB	PM_Vol _WB	VC_AM_ EB	VC_AM_ WB	VC_PM_ EB	VC_PM_ WB
OSUNA	Urban Principal Arterial	WEST OF WASHINGTON	2019-12-16T00:00:00	2000	2000	27550	14121	13429	0.51	715	1968	0.56	1101	867	1630	2473	0.57	1071	1402	0.55	0.43	0.54	0.7

PROJECT: Explore Academy TIS Background Traffic Projection*

YEAR	AWDT1 2008-2019	TRENDLINE1: Osuna Rd.	Remarks
2008	24073	24966	
2009	23784	25116	
2010	26173	25267	
2011	25414	25417	
2012	24982	25567	
2013	28177	25717	
2014	27388	25867	
2015	27717	26018	
2016	24181	26168	
2017	24945	26318	
2018	25124	26468	
2019	27550	26619	Observed**
2020		26769	
2021		26919	
2022		27069	
2023		27219	
2024		27370	
2025		27520	
2026		27670	
2027		27820	
2028		27970	
2029		28121	
2030		28271	
2031		28421	
	3477	3455	
	316.09	150.22	
	G ₁ = 1.23%		
	G ₂ = 0.58%		
	G = 0.91%		
	GF ₁ = 1.01		
	GF ₁₁ = 1.12		
			traffic growth
			rate
			2008-2019 AWDT compounded annual rate
			2008-2019 Trendline compounded annual rate
			Average Rate of Rates 1 and 2; use 1% / year for forecast estimation.
			1-year Growth Factor for the corridor using 1%/year for Osuna, Chappell, Jefferson.
			11-year Growth Factor for the corridor using 1%/year for Osuna, Chappell, Jefferson.



*Source: Mid-Region Council of Governments (MRCOG)
 2019 Traffic Counts File**, accessed at: <https://mrmpo.maps.arcgis.com/apps/View/index.html?appid=9e2c96712b394795a8820ac017a7e803>
 and "Transportation Analysis & Querying Application (TAQA)" accessed at: <https://public.mrcog-nm.gov/taqa/>
 **"Daily Volume" as listed on Observed Count for segment (2019-12-16)

Segment 1: Osuna, East of Chappell Road West of Washington, Segment I.D. #21222

Detailed Land Use Data

For 22.2 1000 Sq. Ft. GFA of OFFICEGENERAL 1

(710) General Office Building

Open Date: 7/2/2021
Analysis Date: 11/18/2020

Project: Explore Academy

Day / Period	Total Trips	Pass-By Trips	Avg Rate	Min Rate	Max Rate	Std Dev	Avg Size	% Enter	% Exit	Use Eq.	Equation	R ²
Weekday Average Daily Trips Source : Trip Generation Manual 10th Edition	246	0	9.74	2.71	27.56	5.15	171	50	50	True	$\ln(T) = 0.97 \ln(X) + 2.5$	0.83
Weekday AM Peak Hour of Adjacent Street Traffic Source : Trip Generation Manual 10th Edition	47	0	1.16	0.37	4.23	0.47	117	86	14	True	$T = 0.94(X) + 26.49$	0.85
Weekday PM Peak Hour of Adjacent Street Traffic Source : Trip Generation Manual 10th Edition	27	0	1.15	0.47	3.23	0.42	114	16	84	True	$\ln(T) = 0.95 \ln(X) + 0.36$	0.88

Trip Generation Summary

Alternative: Alternative 1

Phase: DW1-XOffice

Project: Explore Academy

Open Date: 7/2/2021

Analysis Date: 11/18/2020

ITE	Land Use	Weekday Average Daily Trips				Weekday AM Peak Hour of Adjacent Street Traffic				Weekday PM Peak Hour of Adjacent Street Traffic			
		*	Enter	Exit	Total	*	Enter	Exit	Total	*	Enter	Exit	Total
710	OFFICEGENERAL 1 22.2 1000 Sq. Ft. GFA		123	123	246		40	7	47		4	23	27
	Unadjusted Volume		123	123	246		40	7	47		4	23	27
	Internal Capture Trips		0	0	0		0	0	0		0	0	0
	Pass-By Trips		0	0	0		0	0	0		0	0	0
	Volume Added to Adjacent Streets		123	123	246		40	7	47		4	23	27

Total Weekday Average Daily Trips Internal Capture = 0 Percent

Total Weekday AM Peak Hour of Adjacent Street Traffic Internal Capture = 0 Percent

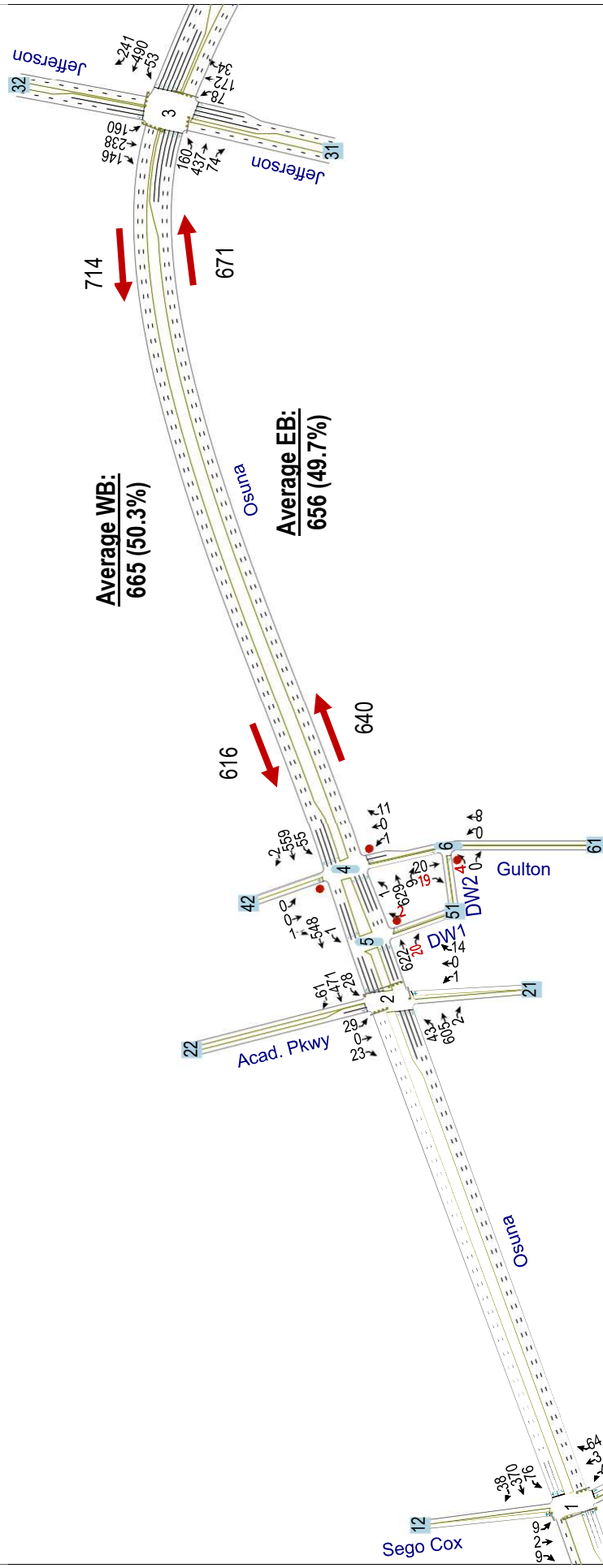
Total Weekday PM Peak Hour of Adjacent Street Traffic Internal Capture = 0 Percent

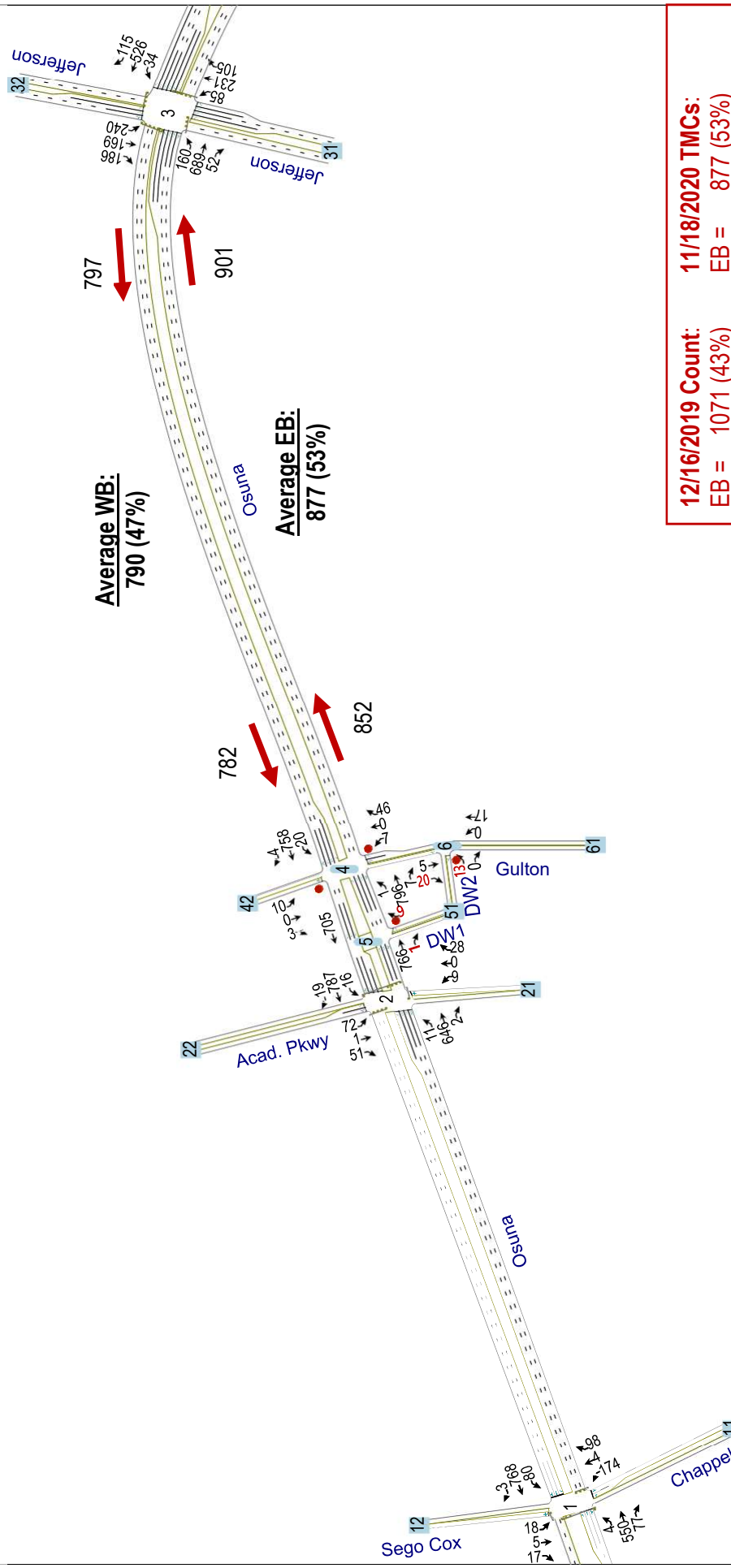
Driveway Report : Alternative 1

Project : Explore Academy
Alternative : Alternative 1

Open Date : 2021-07-02
Analysis Date : 2020-11-18

	<u>% In</u>	<u>% Out</u>	<u>Trips In</u>	<u>Trips Out</u>
Name : DW1				
Description : RIRO on Osuna				
Weekday Average Daily Trips	0	0	0	0
Weekday AM Peak Hour of Adjacent Street Traffic	51	40	20	2
Weekday PM Peak Hour of Adjacent Street Traffic	49	40	1	9
Name : DW2				
Description : Full access on Gulton Ct.				
Weekday Average Daily Trips	0	0	0	0
Weekday AM Peak Hour of Adjacent Street Traffic	49	60	19	4
Weekday PM Peak Hour of Adjacent Street Traffic	51	60	2	13





12/16/2019 Count:	11/18/2020 TMCs:
EB = 1071 (43%)	EB = 877 (53%)
WB = 1402 (57%)	WB = 790 (47%)
Total = 2473	Total = 1667

Adjustment Factor:
2473 / 1667 = 1.48

Intersection No.: 97

System: CENTRAC

Address: 1

Intersection Name: OSUNA & CHAPPELL

Revision Date 12/31/2013

Timing Data

Phase I.D.:	1	2	3	4	5	6	7	8
Phase Dir.:	W-S	EB		N/S	E-N	WB		
Min Grn	3	20		12	3	20		
Walk:	0	7		7	0	7		
Ped Clr:	0	18		38	0	10		
Veh Ext:	2.0	4.0		4.0	2.0	4.0		
Veh Ext2:								
Max 1:	18	46		24	12	46		
Max 2:								
Max 3:								
Yellow:	3.5	4.5		3.5	3.0	4.5		
Red Clr	0.5	1.0		2.0	0.5	1.0		

5" delay

5 sec delay

Recall Data

Locking Memory:		X				X		
Vehicle Recall:								
Ped Recall:								
Recall To Max:		X				X		

Flash Mode: ALL RED

Start Up Mode: ALL RED

Time: 8 SEC.

First Phases: 2 & 6

Start In: GREEN

Overlap Phases: NONE

Overlap	Par Ph	Grn	Yel	Red
A				
B				
C				
D				

NOTES:	1. New intersection designed & built by NMSHD.
	2. Given to City of Albuquerque to operate & maintain by NMSHD.
	3. In flash mode.
	4. In operational mode at 9:25 am, 1/23/90.
	5. Logic gate installed to eliminate left turn trap. 5 sec. delay added to left turn arrow detection, 1/21/92.
	6. Timing sheet updated, 5/19/03.
	7. Timing sheet updated to reflect I2 changed address and controller type, 10/16/08.
	8. Clearance intervals updated to NMDOT standard by BB, 12/31/13.

Intersection No.: 242

System: Centrac

Address: 1

Intersection Name: OSUNA & ACADEMY PARKWAY

Revision Date 2/1/2017

Timing Data

Phase I.D.:	1	2	3	4	5	6	7	8
Phase Dir.:	W-S	EB		NB	E-N	WB		SB
Min Grn	3	16		12	3	16		12
Walk:	0	7		7	0	7		7
Ped Clr:	0	15		37	0	13		38
Veh Ext:	1.5	3.0		2.5	1.5	3.0		2.5
Veh Ext2:	1.5	3.0		2.5	1.5	3.0		2.5
Max 1:	16	42		24	16	42		24
Max 2:								
Max 3:								
Yellow:	3.0	4.5		3.5	3.0	4.5		3.5
Red Clr	0.5	1.0		2.0	0.5	1.0		2.0

5" delay

5" delay

Recall Data

Locking Memory:				X				X
Vehicle Recall:								
Ped Recall:								
Recall To Max:		X				X		

Flash Mode: ALL RED

Start Up Mode: ALL RED

Time: 8 SEC.

First Phases: 2 & 6

Start In: GREEN

Overlap Phases: NONE

Overlap	Par Ph	Grn	Yel	Red
A				
B				
C				
D				

NOTES:	1. Intersection turned on, 6/30/05.
	2. MAX II Mon. thru Fri. Morning - 700 to 8:30 am and 1630 to 1815, 7/19/05.
	3. Clearance intervals updated to NMDOT standard by BB, 12/31/13.
	4. E-N and W-S arrows added due to project, 9/15/16.
	5. Placed NB and SB on locking detection, 2/1/17.

Intersection No.: 99

System: Centrac

Address: 3

Intersection Name: OSUNA & JEFFERSON

Revision Date 9/22/2016

Timing Data

Phase I.D.:	1	2	3	4	5	6	7	8
Phase Dir.:	W-S	EB	S-E	NB	E-N	WB	N-W	SB
Min Grn	8	16	8	12	8	16	8	12
Walk:	0	7	0	7	0	7	0	7
Ped Clr:	0	26	0	36	0	22	0	36
Veh Ext:	1.5	4.0	1.5	4.0	1.5	4.0	1.5	4.0
Veh Ext2:								
Max 1:	12	40	16	28	16	40	16	28
Max 2:								
Max 3:								
Yellow:	3.0	4.5	3.0	4.0	3.0	4.5	3.0	4.0
Red Clr	0.5	1.5	0.5	2.0	0.5	1.5	0.5	2.0

Recall Data

Locking Memory:							
Vehicle Recall:							
Ped Recall:							
Recall To Max:		X			X		

Flash Mode: ALL RED

Start Up Mode: ALL RED

Time: 8 SEC.

First Phases: 2 & 6

Start In: GREEN

Overlap Phases: NONE

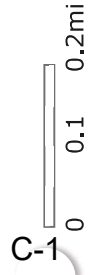
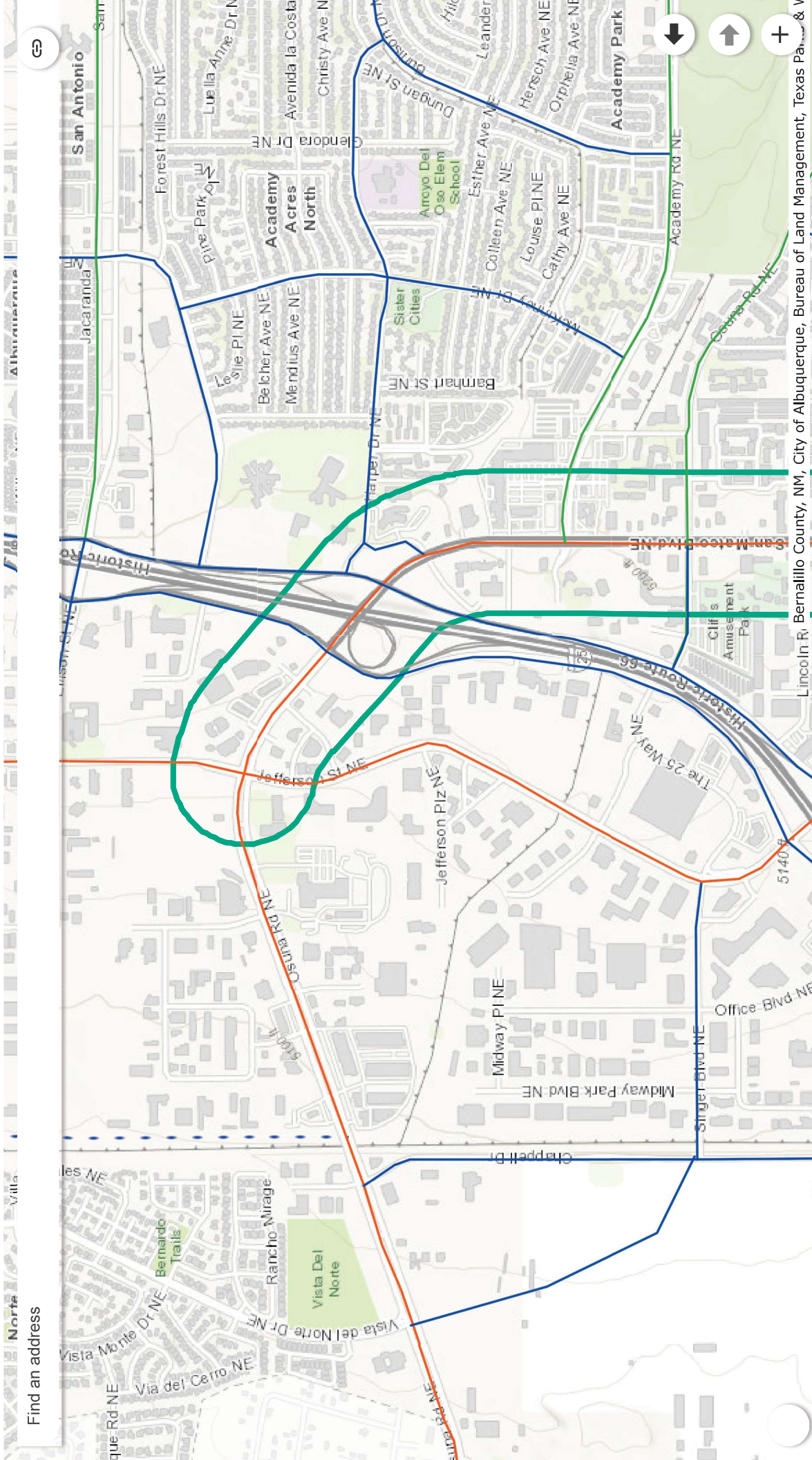
Overlap	Par Ph	Grn	Yel	Red
A				
B				
C				
D				

NOTES:	1. Intersection being upgraded from 2 phase operation.
	2. Phase 5 & 7 detection placed on locking, 1/31/89.
	3. Phase 2 & 6 detection max recall same date as intersection upgraded to 8 phase.
	4. Red clearance time change in database, 7/5/95.
	5. Updated file, 8/15/00.
	6. Timing sheet updated to reflect I2 changed address and controller type, 10/16/08.
	7. Timing sheet updated, 12/28/11.
	8. Timing sheet updated to reflect phase 5 min gree time update, 1/17/13.
	9. Clearance intervals updated to NMDOT standard by BB, 12/31/13.

10. Ped clearance times updated by RS, 2/11/14.
11. Initial left turn times increased due to peds short cycling left turns, 5/7/14.
12. Times were adjusted temporarily due to construction, 7-7-16.
13. Times set back to normal operation with phases 2 and 6 on max recall, 9/22/16.

APPENDIX C

Bus Route Information



1

2

3

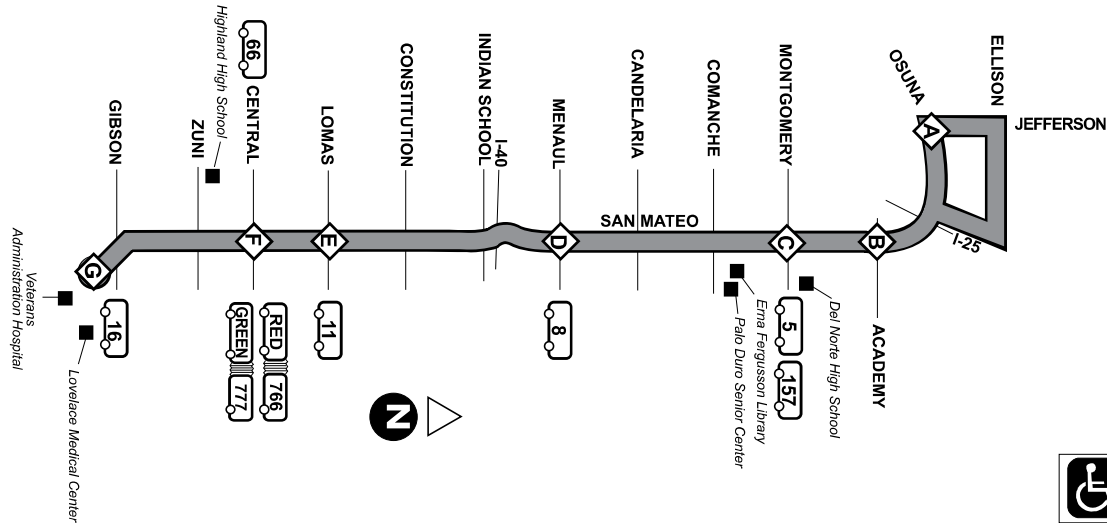
4

5

6

Route / Ruta 141 San Mateo Blvd.

Effective: November 21, 2020

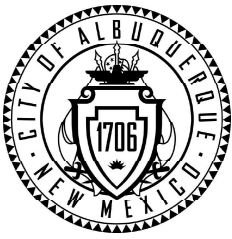


Route 141 - Weekday Southbound

JEFFERSON & OSUNA	SAN MATEO & ACADEMY	SAN MATEO & MONTGOMERY	SAN MATEO & MENAUL	SAN MATEO & LOMAS	SAN MATEO & CENTRAL	VA HOSPITAL
A	B	C	D	E	F	G
.....	5:57a	6:02a	6:08a	6:14a	6:17a	6:25a
6:14a	6:20a	6:25a	6:31a	6:37a	6:40a	6:48a
6:34a	6:40a	6:45a	6:51a	6:57a	7:00a	7:08a
6:54a	7:00a	7:05a	7:11a	7:17a	7:20a	7:28a
7:14a	7:19a	7:24a	7:31a	7:36a	7:40a	7:49a
7:34a	7:39a	7:44a	7:51a	7:56a	8:00a	8:09a
7:52a	7:57a	8:02a	8:09a	8:14a	8:18a	8:27a
8:11a	8:15a	8:20a	8:26a	8:33a	8:36a	8:45a
8:31a	8:35a	8:40a	8:46a	8:53a	8:56a	9:05a
8:51a	8:55a	9:00a	9:06a	9:13a	9:16a	9:25a
9:11a	9:15a	9:20a	9:26a	9:33a	9:36a	9:45a
9:28a	9:33a	9:38a	9:45a	9:52a	9:56a	10:05a
9:48a	9:53a	9:58a	10:05a	10:12a	10:16a	10:25a
10:08a	10:13a	10:18a	10:25a	10:32a	10:36a	10:45a
10:26a	10:32a	10:38a	10:45a	10:52a	10:56a	11:05a
10:46a	10:52a	10:58a	11:05a	11:12a	11:16a	11:25a
11:06a	11:12a	11:18a	11:25a	11:32a	11:36a	11:45a
11:26a	11:32a	11:38a	11:45a	11:52a	11:56a	12:05p
11:44a	11:49a	11:56a	12:04p	12:11p	12:16p	12:24p
12:04p	12:09p	12:16p	12:24p	12:31p	12:36p	12:44p
12:24p	12:29p	12:36p	12:44p	12:51p	12:56p	1:04p
12:47p	12:51p	12:58p	1:05p	1:12p	1:16p	1:24p
1:07p	1:11p	1:18p	1:25p	1:32p	1:36p	1:44p
1:26p	1:30p	1:37p	1:44p	1:51p	1:56p	2:05p
1:46p	1:50p	1:57p	2:04p	2:11p	2:16p	2:25p
2:03p	2:10p	2:16p	2:24p	2:31p	2:36p	2:45p
2:23p	2:30p	2:36p	2:44p	2:51p	2:56p	3:05p
2:41p	2:50p	2:56p	3:04p	3:11p	3:16p	3:25p
3:01p	3:10p	3:16p	3:24p	3:31p	3:36p	3:45p
3:20p	3:28p	3:35p	3:43p	3:50p	3:56p	4:05p
3:40p	3:48p	3:55p	4:03p	4:10p	4:16p	4:25p
4:00p	4:08p	4:15p	4:23p	4:30p	4:36p	4:45p
4:23p	4:30p	4:37p	4:45p	4:52p	4:56p	5:05p
4:47p	4:54p	5:01p	5:09p	5:16p	5:21p	5:30p
5:20p	5:24p	5:31p	5:38p	5:45p	5:49p	5:58p
5:47p	5:51p	5:58p	6:05p	6:12p	6:16p	6:25p
6:16p	6:21p	6:27p	6:34p	6:39p	6:43p	6:51p
6:44p	6:49p	6:55p	7:02p	7:07p	7:11p	7:19p
7:13p	7:18p	7:23p	7:29p	7:34p	7:38p	7:46p
7:48p	7:53p	7:58p	8:04p	8:09p	8:13p	8:21p
8:24p	8:29p	8:34p	8:40p	8:45p	8:48p	8:55p
8:59p	9:04p	9:09p	9:15p	9:20p	9:23p	9:30p
9:47p	9:51p	9:56p	10:02p	10:07p	10:10p	10:17p

Route 141- Weekday Northbound

VA HOSPITAL	SAN MATEO & CENTRAL	SAN MATEO & LOMAS	SAN MATEO & MENAUL	SAN MATEO & MONTGOMERY	SAN MATEO & ACADEMY	JEFFERSON & OSUNA
G	F	E	D	C	B	A
5:41a	5:50a	5:53a	5:57a	6:02a	6:08a	6:11a
6:01a	6:10a	6:13a	6:17a	6:22a	6:28a	6:31a
6:21a	6:30a	6:33a	6:37a	6:42a	6:48a	6:51a
6:41a	6:50a	6:53a	6:57a	7:02a	7:08a	7:11a
7:01a	7:10a	7:13a	7:17a	7:22a	7:28a	7:31a
7:20a	7:30a	7:33a	7:38a	7:45a	7:51a	7:54a
7:40a	7:50a	7:53a	7:58a	8:05a	8:11a	8:14a
7:59a	8:10a	8:14a	8:19a	8:24a	8:30a	8:33a
8:19a	8:30a	8:34a	8:39a	8:44a	8:50a	8:53a
8:39a	8:50a	8:54a	8:59a	9:04a	9:10a	9:13a
8:59a	9:10a	9:14a	9:19a	9:24a	9:30a	9:33a
9:19a	9:30a	9:34a	9:39a	9:44a	9:50a	9:54a
9:39a	9:50a	9:54a	9:59a	10:04a	10:10a	10:14a
9:59a	10:10a	10:14a	10:19a	10:25a	10:31a	10:35a
10:19a	10:30a	10:34a	10:39a	10:45a	10:51a	10:55a
10:39a	10:50a	10:54a	10:59a	11:05a	11:11a	11:15a
10:59a	11:10a	11:14a	11:19a	11:26a	11:32a	11:36a
11:19a	11:30a	11:34a	11:40a	11:47a	11:53a	11:57a
11:39a	11:50a	11:54a	12:00p	12:07p	12:13p	12:17p
11:59a	12:10p	12:14p	12:20p	12:27p	12:33p	12:37p
12:19p	12:30p	12:34p	12:40p	12:47p	12:53p	12:57p
12:39p	12:50p	12:54p	1:00p	1:07p	1:13p	1:17p
12:59p	1:10p	1:14p	1:20p	1:27p	1:33p	1:37p
1:19p	1:30p	1:34p	1:40p	1:48p	1:54p	1:58p
1:39p	1:50p	1:54p	2:00p	2:08p	2:14p	2:18p
1:59p	2:10p	2:14p	2:20p	2:28p	2:34p	2:38p
2:19p	2:30p	2:34p	2:40p	2:48p	2:54p	2:58p
2:38p	2:49p	2:53p	2:59p	3:07p	3:13p	3:17p
2:59p	3:10p	3:14p	3:20p	3:27p	3:33p	3:37p
3:18p	3:30p	3:34p	3:40p	3:47p	3:53p	3:57p
3:38p	3:50p	3:54p	4:00p	4:07p	4:13p	4:17p
3:58p	4:10p	4:14p	4:20p	4:27p	4:33p	4:37p
4:18p	4:30p	4:34p	4:40p	4:47p	4:53p	4:57p
4:38p	4:50p	4:54p	5:00p	5:07p	5:13p	5:17p
4:58p	5:10p	5:14p	5:20p	5:27p	5:33p	5:37p
5:29p	5:40p	5:43p	5:49p	5:55p	6:01p	6:03p
6:05p	6:16p	6:19p	6:24p	6:30p	6:36p	6:38p
6:41p	6:51p	6:54p	6:59p	7:05p	7:10p	7:12p
7:16p	7:26p	7:29p	7:34p	7:40p	7:45p	7:47p
7:52p	8:00p	8:03p	8:08p	8:13p	8:18p	8:20p
8:28p	8:36p	8:39p	8:44p	8:49p	8:54p	8:56p
9:05p	9:13p	9:16p	9:21p	9:26p	9:31p	9:33p
9:38p	9:46p	9:49p	9:54p	9:59p	10:04p	10:06p



Timothy M. Keller
Mayor



Bernie Toon
Director

ABQ RIDE Ridership Statistics by Route

Fiscal Year 2018 (July 2017 through June 2018)

What You Should Know:

ABQ RIDE tracks route ridership through the use of a “farebox”; each time someone boards a bus an appropriate farebox key is activated by the bus driver or automatically by the farebox. In the accompanying tables, one table shows total ridership by route by transit service type. In a second set of tables, ridership information is combined with schedule information to show the number of boardings per in-service hour, by route, by time of day, and by service type.

The routes are categorized by route type in each table: Rapid Ride routes, Local all-day routes, and Commuter routes (routes that operate only during peak morning and evening commute hours and in the peak commuting direction).

- Routes are shown in order by overall ridership, from highest to lowest.
- Boardings are the number of times people get on a bus – commonly called “ridership.” Five people boarding a bus = five boardings.
- An “in-service hour” is one hour that an individual bus is operating in service for people to ride. If two buses are used on a route for an hour each, whether at the same time or at different times, that is two in-service hours.
- Boardings per in-service hour are the total boardings divided by the total in-service hours over the course of a specified time period.

Why these numbers matter:

Total ridership by route tells us how heavily each route is used and is useful as an overall gauge of how much benefit the route provides to the community. But it does not take into account the number of in-service hours operated on each route. If a route does not operate many in-service hours, its ridership will naturally be lower than a route that operates a lot of in-service hours.

Boardings per bus per hour (in service) measures both ridership and how much service is provided on a route – basically how “busy” the route is per day.

Why measure by time of day?

Transit ridership varies according to the time of day, just as roads are less used late at night. By doing this, we are able to identify routes that may need more service at specific times of day or see which routes are used at peak commute times and used less at other times. Occasionally, certain times of day will be less productive but are considered important because they allow bus riders to use the bus at other times of the day. For example, someone who works in the evening may go to work in the afternoon peak time and return at night; if less productive evening service were eliminated, that person wouldn't be able to ride the bus at all resulting in a loss of both evening and afternoon ridership.

What are other important things to consider?

A route with low productivity might be important to maintain if it's the only transportation in an area for people without a vehicle. Something else to consider is boardings per hour compared with the length of passengers' trips. For example a route that has many passengers who ride all the way from one end of the route to the other might not have very high boardings per hour, but it might be considered crowded compared to other routes because there are infrequent de-boardings from the buses until arrival at the primary destinations – everyone's on the bus at the same time.

Why concentrate on these statistics if other factors are important, too?

ABQ RIDE considers other factors in making any decisions about service changes on a case-by-case basis and may develop other system-wide statistics in the future if needed. However, total ridership and ridership per in-service hour are two measures that are essential statistics to consider in all cases. The underlying data is readily available, and they provide basic indications of the value of the service to the community and the value generated per unit of service provided.

ABQ Ride - Ridership Productivity by Route by Time of Day
Fiscal Year 2018 Ridership

Weekday Boardings Per Bus Per Hour (In-Service)*

*Also known as Fixed-Route Unlinked Passenger Trips Per Vehicle Revenue Hour.

<u>Rapid Ride Routes</u>	<u>AM</u>	<u>Mid-Day</u>	<u>PM</u>	<u>Evening</u>	<u>Overall</u>
777 - Green Line Rapid Ride	33.2	40.1	45.0	24.8	37.9
766 - Red Line Rapid Ride	25.7	31.9	35.5	21.1	30.1
790 - Coors Blue Line Rapid Ride	15.1	14.0	15.7	7.8	14.3
Rapid Ride Total	23.9	29.0	31.7	18.5	27.2

<u>Local Routes</u>	<u>AM</u>	<u>Mid-Day</u>	<u>PM</u>	<u>Evening</u>	<u>Overall</u>
66 - Central Avenue	36.0	48.2	53.0	34.3	43.9
141 - San Mateo	37.0	50.8	51.2	28.7	43.8
5 - Montgomery/Carlisle	33.6	43.4	45.4	23.0	39.1
140 - San Mateo/ CNM Work Force	30.8	35.2	47.2		37.8
11 - Lomas	34.3	39.2	41.1	23.2	37.3
8 - Menaul	29.0	45.3	39.6	18.1	35.6
10 - North Fourth Street	31.4	37.4	35.2	22.1	34.2
97 - Zuni Express	29.2	35.2	30.1		31.4
1 - Juan Tabo-Four Hills	19.7	31.2	25.4		24.5
53 - Isleta	20.9	24.8	27.7	8.8	23.3
50 - Airport/Downtown	23.6	26.3	22.0	13.1	23.3
31 - Wyoming	16.5	26.8	23.1	14.4	21.2
157 - Cottonwood/Montano/UTC	15.3	20.9	27.1	19.1	21.0
40 - D-RIDE	20.0	23.4	19.1		21.0
16 - University/ Gibson/ Broadway	17.8	19.4	21.5		19.5
54 - Bridge/Westgate	18.2	24.7	18.0	9.9	18.4
2 - Eubank-Ventura	16.1	28.4	16.4		18.2
198 - 98th / Dennis Chavez	17.1	17.9	20.4	10.9	17.0
155 - Coors	12.0	16.5	17.3	11.5	14.9
36 - 12th Street/ Rio Grande	16.0	15.2	13.7		14.8
51 - Atrisco/Rio Bravo	12.6	14.3	15.5		14.1
37 - Rio Grande/ 12th Street	5.7	10.7	10.0		8.8
Local Total	25.6	34.0	34.4	23.5	30.7

TRANSPORTATION ROUTES



EXPLORE ACADEMY 2019-2020

Updated 3.2.20

If you notice issues with unsafe driving, incorrect stop locations, or any other bus issue, you can call Herrera Buses directly at (505) 242-1108. You can also email transportation@exploreacademy.org with questions.

The times below indicate the *departure time* for the bus at each given location. Students should arrive a few minutes earlier. Times and locations are subject to change based on approval and oversight from the chartered bus company.

Remember that in order to ride the bus, you MUST submit a **bus permission form** . The link is available to parents of enrolled students.

For a route map, see [here](#).

MONDAY THROUGH THURSDAY

Route One (Bus #1) : Rio Rancho - Make sure you watch for Explore Academy on the bus to avoid APS buses that have stops in similar places/times

1. **[6:38am] [4:08pm] Havasu Park** – Near King and Unser
2. **[6:48am] [3:58pm] French Funerals** – Pine/Unser
3. **[6:57am] [3:49pm] Rio Rancho Premiere Cinemas** – Southern/Unser (1000 Premiere Pkwy)
4. **[7:02am] [3:44pm] Cabezon Park** – Cabezon Blvd
5. **[7:08am] [3:38pm] Walgreens** – McMahon and Unser
6. **[7:22am] [3:31pm] Methodist Church** – 4700 Paradise Blvd
7. **[7:40am] [3:11pm] Explore Academy** – 5100 Masthead

Route Two (Bus #2) : Rio Rancho / North Valley

1. **[6:39am] [4:19pm] Lowe's** – Northern and Loma Colorado
2. **[6:48am] [4:10pm] Eagle Ridge Gymnastics** – Quantum off Northern (581 Quantum)
3. **[6:54am] [4:04pm] Bank of Albuquerque** – Southern / NM 528 (3901 Southern)
4. **[7:02am] [3:56pm] Haynes Park** - NM 528 and 19th
5. **[7:08am] [3:50pm] Salida del Sol Park** - 7 Bar Loop Rd and Driftwood Dr
6. **[7:12am] [3:46pm] Church (LDS)** - Seven Bar and Ellison
7. **[7:23am] [3:35pm] Northwest Animal Clinic** - 1000 Alameda
8. **[7:29am] [3:29pm] Nativity Church AM/ Ice Machine Parking Lot PM** - Alameda/4th St

9. **[7:40am] [3:11pm] Explore Academy** - 5100 Masthead

Route Three (Bus #3) : Ventana Ranch

1. **[6:41am] [4:13pm] Paradise Hills Park** – Paradise/Chaparral
2. **[6:47am] [4:07pm] CNM Westside** – Universe S of McMahon
3. **[6:53am] [4:01pm] Ventana Ranch Community Center** – Rainbow/Ventana Village
4. **[6:58am] [3:56pm] Church -LDS** – Woodmont/Rainbow
5. **[7:02am] [3:52pm] Park** – Groundsel and Vista Terraza
6. **[7:12am] [3:42pm] Shopping Center** - Taylor Ranch Rd and Homestead Circle
7. **[7:25am] [3:29pm] Rudolfo Anaya NV Public Library** - 2nd St S of Los Ranchos
8. **[7:40am] [3:11pm] Explore Academy** - 5100 Masthead

Route Four (Bus #4) : Northwest Albuquerque

1. **[6:36am] [4:22pm] Sundoro South Park** - Endee Rd and Ekarma Dr
2. **[6:44am] [4:16pm] Walgreens** - 2200 Unser - Unser and Vista Oriente
3. **[6:51am] [4:09pm] Ladera Golf Course** - Ladera and Sequoia
4. **[6:55am] [4:05pm] Our Savior Lutheran Church** - Atrisco and Milne (4301 Atrisco)
5. **[7:03am] [3:57pm] Mesa View Methodist Church** - Taylor Ranch and Montano
6. **[7:15am] [3:43pm] Lowe's Market** - 4th and Griegos (4701 4th St NW)
7. **[7:20am] [3:37pm] Smith's** - 4th St and Solar (6125 4th St NW)
8. **[--am] [3:32pm] Montano Transit Center (PM ONLY)** – Montano E of 2nd St
9. **[7:23am] [3:27pm] Sun Valley Commercial Center** - (starting 3/9) 320 Osuna
10. **[7:26am] [3:25pm] Vista Del Norte Park** - 1005 Osuna
11. **[7:40am] [3:11pm] Explore Academy** - 5100 Masthead

Route Five (Bus #5) : South Valley

1. **[6:25am] [4:21pm] Library** - Central and Unser (8081 Central Ave)
2. **[6:30am] [4:15pm] Southwest Self Storage** – 700 98th St
3. **[6:37am] [4:08pm] Vista Del Sol (Parking Lot)** – Blake and Unser
4. **[6:43am] [4:02pm] Iglesia de Cristo Elim** – Arenal west of Coors
5. **[6:49am] [3:56pm] Smith's** – Arenal and Goff (1601 Arenal)
6. **[6:54am] [3:51pm] Near the Westside Community Center** – 1250 Isleta
7. **[7:00am] [3:45pm] Shopping Center** – Bridge and Goff (SW Corner)
8. **[7:06am] [3:39pm] Atrisco Valley Little League Park** – Atrisco and Osage

9. **[7:11am] [3:34pm] Little Park St – Atrisco and Little Park St**
10. **[7:40am] [3:11pm] Explore Academy – 5100 Masthead**

Route Six (Bus #6) : Southeast Albuquerque

1. **[6:30am] [4:28pm] Lowe's Neighborhood Market – 701 11th St NW**
2. **[6:37am] [4:21pm] Lowe's – 12th St and I-40 (2001 12th St)**
3. **[6:48am] [4:12pm] Altura Shopping Center – Carlisle and Constitution**
4. **[7:00am] [4:00pm] Marriott – Yale and Ross**
5. **[7:06am] [3:54pm] Ridge crest Church – Eastern and San Mateo**
6. **[7:11am] [3:49pm] Wells Fargo – Zuni and San Mateo**
7. **[7:16am] [3:44pm] ACE (am) / T-Mobile (pm) – Lomas and San Mateo**
8. **[7:22am] [3:38pm] Shopping Center – Cutler and San Mateo**
9. **[7:29am] [3:31pm] Shopping Center – San Mateo and Aztec**
10. **[7:40am] [3:11pm] Explore Academy – 5100 Masthead**

Route Seven (Bus #7) : Northeast Albuquerque

1. **[6:40am] [4:30pm] Arby's – Juan Tabo and Indian School (1751 Juan Tabo)**
2. **[6:47am] [4:23pm] Smith's – Montgomery and Tramway (4700 Tramway)**
3. **[6:55am] [4:15pm] Hinkle Family Fun Center – Tramway and Indian School**
4. **[6:59am] [4:10pm] Lomas Tramway Library – Lomas and Tramway**
5. **[7:07am] [4:00pm] IHOP – Central E of Eubank (10605 Eubank)**
6. **[7:16am] [3:48pm] Silva Lanes – Candelaria and Eubank**
7. **[7:25am] [3:37pm] Arroyo del Oso Park – Spain and Wyoming**
8. **[7:35am] [3:28pm] Trombino's Bistro – Academy and Seagull**
9. **[7:40am] [3:11pm] Explore Academy – 5100 Masthead**

Route Eight (Bus #8) : Heights

1. **[6:55am] [4:03pm] Church (Prince of Peace) – 12500 Carmel Ave**
2. **[7:02am] [3:56pm] High Desert Park – Academy E of Cortaderia**
3. **[7:07am] [3:51pm] Church LDS – Lowell and San Victorio (11750 San Victorio Ave NE)**
4. **[7:16am] [3:44pm] Hoffmantown Church – Harper and Ventura (8888 Harper)**
5. **[7:25am] [3:35pm] North Domingo Baca Park – Corona Ave Parking Lot**

6. **[7:33am] [3:27pm] Grace Church** – San Antonio/Louisiana (6901 San Antonio)
7. **[7:40am] [3:11pm] Explore Academy** – 5100 Masthead

APPENDIX D

Crash Records

CRASH DATE	TIME OF CRASH	PRIMARY STREET	SECONDARY STREET	CRASH DIRECTION	CRASH SEVERITY	CRASH ANALYSIS	HIGHEST FACTOR CONTRIBUTING TO CRASH	WEATHER	LIGHTING	ALCOHOL INVOLVEMENT	DRUG INVOLVEMENT
1/27/2014	Invalid Code	OSUNA BLVD NE	GULTEN RD NE	W	Property Damage Only Crash	Other Vehicle - From Same Direction/Rear End Collision	Following Too Closely	Clear	Daylight	Not Involved	Not Involved
2/4/2015	16:58	OSUNA RD NE	GULTON CT NE	W	Injury Crash	Other Vehicle - From Same Direction/All Others	Following Too Closely	Clear	Dusk	Not Involved	Not Involved
7/23/2015	8:23	OSUNA RD NE	GULTON CT NE	E	Property Damage Only Crash	Other Vehicle - From Opposite Direction/Both Going Straight	Driver Inattention	Clear	Daylight	Not Involved	Not Involved
12/17/2016	14:31	GULTON CT NE	OSUNA RD NE	S	Injury Crash	Other Vehicle - From Same Direction/Both Going Straight	Excessive Speed	Clear	Daylight	Not Involved	Not Involved
8/18/2017	9:30	OSUNA NE	GULTON CT NE	E	Property Damage Only Crash	Left Blank	Improper Backing	Clear	Daylight	Not Involved	Not Involved
8/17/2018	12:30	OSUNA RD NE	GULTON CT NE	W	Property Damage Only Crash	Left Blank	Missing Data	Left Blank	Left Blank	Not Involved	Not Involved

APPENDIX E

Trip Generation Data

UNADJUSTED TRIPS

Detailed Land Use Data

For 600 Students of SCHOOLMID 1
(522) Middle School/Junior High School

Open Date: 7/1/2021
Analysis Date: 8/28/2020

Project: Explore Academy

Day / Period	Total Trips	Pass-By Trips	Avg Rate	Min Rate	Max Rate	Std Dev	Avg Size	% Enter	% Exit	Use Eq.	Equation	R2
Weekday Average Daily Trips Source : Trip Generation Manual 10th Edition	1278	0	2.13	1.48	2.81	0.46	1079	50	50	False	$\ln(T) = 0.79 \ln(X) + 2.21$	0.73
Weekday AM Peak Hour of Adjacent Street Traffic Source : Trip Generation Manual 10th Edition	348	0	0.58	0.06	1.29	0.32	937	54	46	False		
Weekday PM Peak Hour of Adjacent Street Traffic Source : Trip Generation Manual 10th Edition	102	0	0.17	0.06	0.51	0.12	1023	49	51	False		

UNADJUSTED TRIPS

Detailed Land Use Data

For 600 Students of SCHOOLHIGH 1

(530) High School

Open Date: 7/1/2021
Analysis Date: 8/28/2020

Project: Explore Academy

Day / Period	Total Trips	Pass-By Trips	Avg Rate	Min Rate	Max Rate	Std Dev	Avg Size	% Enter	% Exit	Use Eq.	Equation	R2
Weekday Average Daily Trips Source : Trip Generation Manual 10th Edition	1218	0	2.03	1.19	3.96	0.82	1498	50	50	False	$\ln(T) = 0.76 \ln(X) + 2.46$	0.6
Weekday AM Peak Hour of Adjacent Street Traffic Source : Trip Generation Manual 10th Edition	312	0	0.52	0.03	1.15	0.23	1202	67	33	False		
Weekday PM Peak Hour of Adjacent Street Traffic Source : Trip Generation Manual 10th Edition	84	0	0.14	0.03	0.31	0.08	1340	48	52	False		

UNADJUSTED TRIPS

Trip Generation Summary

Alternative: Alternative 1

Phase:

Open Date: 7/1/2021

Project: Explore Academy

Analysis Date: 8/28/2020

ITE	Land Use	Weekday Average Daily Trips				Weekday AM Peak Hour of Adjacent Street Traffic				Weekday PM Peak Hour of Adjacent Street Traffic			
		*	Enter	Exit	Total	*	Enter	Exit	Total	*	Enter	Exit	Total
522	SCHOOLMID 1 600 Students		639	639	1278		188	160	348		50	52	102
530	SCHOOLHIGH 1 600 Students		609	609	1218		209	103	312		40	44	84
Unadjusted Volume			1248	1248	2496		397	263	660		90	96	186
Internal Capture Trips			0	0	0		0	0	0		0	0	0
Pass-By Trips			0	0	0		0	0	0		0	0	0
Volume Added to Adjacent Streets			1248	1248	2496		397	263	660		90	96	186

Total Weekday Average Daily Trips Internal Capture = 0 Percent

Total Weekday AM Peak Hour of Adjacent Street Traffic Internal Capture = 0 Percent

Total Weekday PM Peak Hour of Adjacent Street Traffic Internal Capture = 0 Percent

Project : Explore Academy

Open Date : 7/1/2021
Analysis Date : 8/28/2020

Note Type : Land Use
Alternative : Alternative 1
Phase : Phase 1
Land Use : SCHOOLMID 1

Used Average Rates as Std. Dev. / Avg. was > 45%
--

ADJUSTED FOR SCHOOL BUS

Detailed Land Use Data

For 330 Students of SCHOOLMID 1
(522) Middle School/Junior High School

Open Date: 7/1/2021
Analysis Date: 11/18/2020

Project: Explore Academy

Day / Period	Total Trips	Pass-By Trips	Avg Rate	Min Rate	Max Rate	Std Dev	Avg Size	% Enter	% Exit	Use Eq.	Equation	R2
Weekday Average Daily Trips Source : Trip Generation Manual 10th Edition	703	0	2.13	1.48	2.81	0.46	1079	50	50	False	$\ln(T) = 0.79 \ln(X) + 2.21$	0.73
Weekday AM Peak Hour of Adjacent Street Traffic Source : Trip Generation Manual 10th Edition	191	0	0.58	0.06	1.29	0.32	937	54	46	False		
Weekday PM Peak Hour of Adjacent Street Traffic Source : Trip Generation Manual 10th Edition	56	0	0.17	0.06	0.51	0.12	1023	49	51	False		

ADJUSTED FOR SCHOOL BUS

Detailed Land Use Data

For 510 Students of SCHOOLHIGH 1

(530) High School

Open Date: 7/1/2021
Analysis Date: 11/18/2020

Project: Explore Academy

Day / Period	Total Trips	Pass-By Trips	Avg Rate	Min Rate	Max Rate	Std Dev	Avg Size	% Enter	% Exit	Use Eq.	Equation	R2
Weekday Average Daily Trips Source : Trip Generation Manual 10th Edition	1035	0	2.03	1.19	3.96	0.82	1498	50	50	False	$\ln(T) = 0.76 \ln(X) + 2.46$	0.6
Weekday AM Peak Hour of Adjacent Street Traffic Source : Trip Generation Manual 10th Edition	265	0	0.52	0.03	1.15	0.23	1202	67	33	False		
Weekday PM Peak Hour of Adjacent Street Traffic Source : Trip Generation Manual 10th Edition	71	0	0.14	0.03	0.31	0.08	1340	48	52	False		

ADJUSTED FOR SCHOOL BUS
Trip Generation Summary

Alternative: Alternative 1
Phase: Opening Year
Project: Explore Academy

Open Date: 7/1/2021
Analysis Date: 11/18/2020

ITE	Land Use	Weekday Average Daily Trips				Weekday AM Peak Hour of Adjacent Street Traffic				Weekday PM Peak Hour of Adjacent Street Traffic			
		*	Enter	Exit	Total	*	Enter	Exit	Total	*	Enter	Exit	Total
522	SCHOOLMID 1 330 Students		352	351	703		103	88	191		27	29	56
530	SCHOOLHIGH 1 510 Students		518	517	1035		178	87	265		34	37	71
Unadjusted Volume			870	868	1738		281	175	456		61	66	127
Internal Capture Trips			0	0	0		0	0	0		0	0	0
Pass-By Trips			0	0	0		0	0	0		0	0	0
Volume Added to Adjacent Streets			870	868	1738		281	175	456		61	66	127

Total Weekday Average Daily Trips Internal Capture = 0 Percent
Total Weekday AM Peak Hour of Adjacent Street Traffic Internal Capture = 0 Percent
Total Weekday PM Peak Hour of Adjacent Street Traffic Internal Capture = 0 Percent

7 - 7
* - Custom rate used for selected time period.

Project : Explore Academy

Open Date : 7/1/2021
Analysis Date : 11/18/2020

Note Type : Land Use
Alternative : Alternative 1
Phase : Opening Year
Land Use : SCHOOLMID 1

Used Average Rates as Std. Dev. / Avg. was > 45% and no equations for peak of adj. street.

Note Type : Land Use
Alternative : Alternative 1
Phase : Opening Year
Land Use : SCHOOLMID 1

Accounted for bused students by deducting bused students from total:
-approx. 360 total bused
-assumed 75% will be middle school students
-75% (360) = 330 middle school students

Note Type : Land Use
Alternative : Alternative 1
Phase : Opening Year
Land Use : SCHOOLHIGH 1

Used Average Rates as Std. Dev. / Avg. was > 45% and no equations for peak of adj. street.

Note Type : Land Use
Alternative : Alternative 1
Phase : Opening Year
Land Use : SCHOOLHIGH 1

Accounted for bused students by deducting bused students from total:
-approx. 360 total bused
-assumed 25% will be high school students
-25% (360) = 90 high school students bused & deducted from total

Development: Explore Academy**Driveway: 1 Driveway 1 (Node 61)**

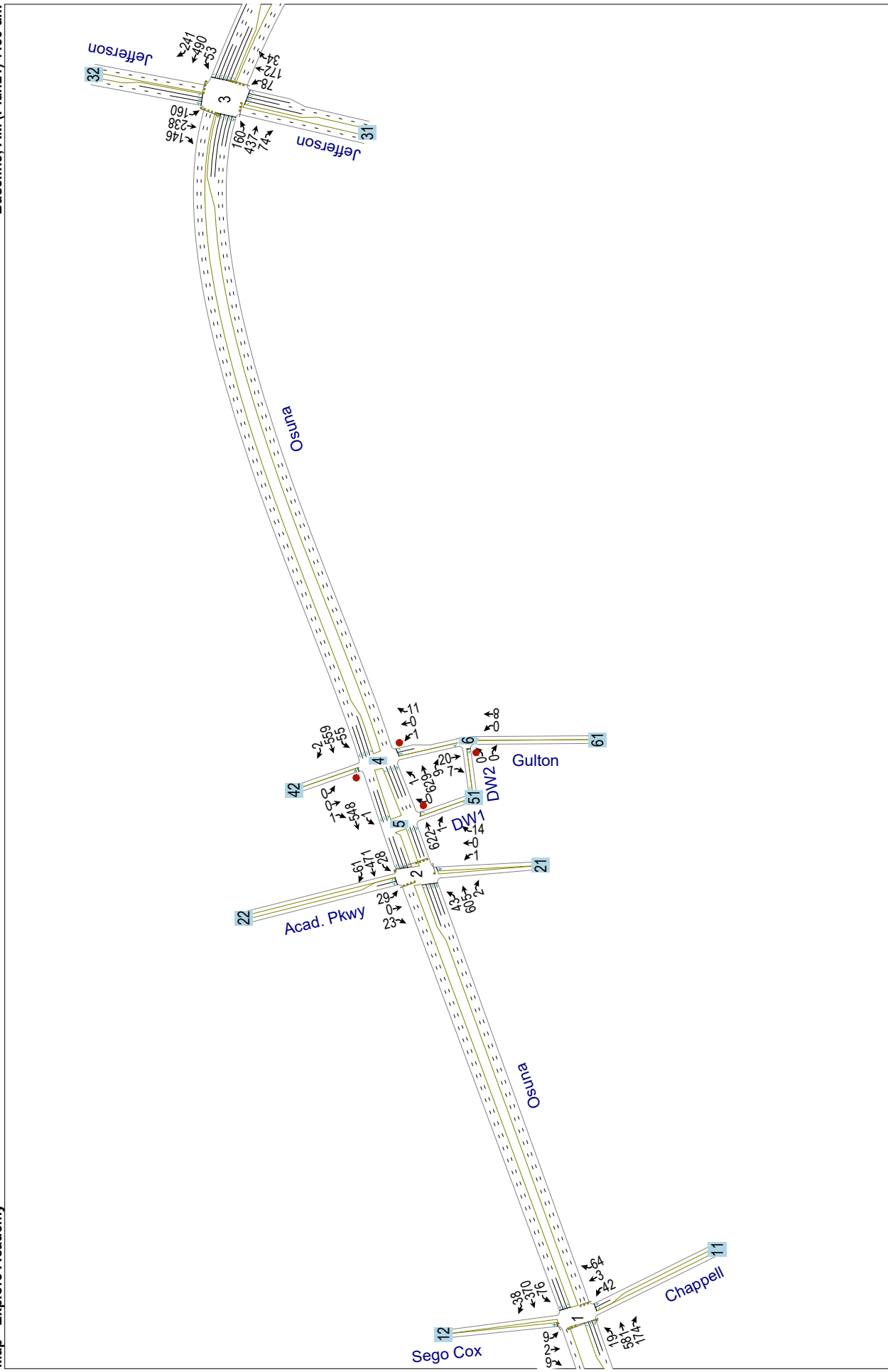
Origin #	Route	To		From	
		Distribution %	Trips	Distribution %	Trips
1	Driveway 1 (Node 61) to Origin 1 (Node 7)	42.81	120	33.15	58
2	Driveway 1 (Node 61) to Origin 2 (Node 11)	4.69	13	6.82	12
3	Driveway 1 (Node 61) to Origin 3 (Node 32)	10.70	30	14.31	25
4	Driveway 1 (Node 61) to Origin 4 (Node 8)	36.03	101	39.10	68
5	Driveway 1 (Node 61) to Origin 5 (Node 31)	5.76	16	6.63	12

Development: Explore Academy**Driveway: 1 Driveway 1 (Node 61)**

Origin #	Route	To		From	
		Distribution %	Trips	Distribution %	Trips
1	Driveway 1 (Node 61) to Origin 1 (Node 7)	38.04	23	43.92	29
2	Driveway 1 (Node 61) to Origin 2 (Node 11)	6.79	4	4.55	3
3	Driveway 1 (Node 61) to Origin 3 (Node 32)	12.87	8	9.11	6
4	Driveway 1 (Node 61) to Origin 4 (Node 8)	36.41	22	39.45	26
5	Driveway 1 (Node 61) to Origin 5 (Node 31)	5.89	4	2.97	2

APPENDIX F

LOS Worksheets



HCM 6th Signalized Intersection Summary

1: Chappell/Sego Cox & Osuna

Explore Academy
Baseline, AM (Plan21) 7:30 am

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	19	581	174	76	370	38	42	3	64	9	2	9
Future Volume (veh/h)	19	581	174	76	370	38	42	3	64	9	2	9
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	22	668	200	87	425	44	48	3	74	10	2	10
Peak Hour Factor	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	697	2019	604	533	2494	257	199	6	152	79	26	51
Arrive On Green	0.01	0.75	0.75	0.01	0.25	0.25	0.10	0.10	0.10	0.10	0.10	0.10
Sat Flow, veh/h	1781	2695	807	1781	3252	335	1402	62	1532	361	257	515
Grp Volume(v), veh/h	22	440	428	87	231	238	48	0	77	22	0	0
Grp Sat Flow(s),veh/h/ln	1781	1777	1725	1781	1777	1810	1402	0	1595	1133	0	0
Q Serve(g_s), s	0.4	9.9	9.9	1.4	12.2	12.3	0.0	0.0	5.5	0.0	0.0	0.0
Cycle Q Clear(g_c), s	0.4	9.9	9.9	1.4	12.2	12.3	3.8	0.0	5.5	5.5	0.0	0.0
Prop In Lane	1.00		0.47	1.00		0.19	1.00		0.96	0.45		0.45
Lane Grp Cap(c), veh/h	697	1331	1292	533	1363	1388	199	0	158	156	0	0
V/C Ratio(X)	0.03	0.33	0.33	0.16	0.17	0.17	0.24	0.00	0.49	0.14	0.00	0.00
Avail Cap(c_a), veh/h	854	1331	1292	657	1363	1388	543	0	549	517	0	0
HCM Platoon Ratio	1.00	1.00	1.00	0.33	0.33	0.33	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.99	0.99	0.99	1.00	0.00	1.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	3.9	5.0	5.0	3.7	15.0	15.0	50.4	0.0	51.2	49.4	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.7	0.7	0.1	0.3	0.3	0.9	0.0	3.3	0.6	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	0.2	5.5	5.4	0.7	9.3	9.5	2.5	0.0	4.2	1.1	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	3.9	5.7	5.7	3.7	15.3	15.3	51.3	0.0	54.4	49.9	0.0	0.0
LnGrp LOS	A	A	A	A	B	B	D	A	D	D	A	A
Approach Vol, veh/h		890			556			125			22	
Approach Delay, s/veh		5.7			13.5			53.2			49.9	
Approach LOS		A			B			D			D	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	7.2	95.4		17.4	5.1	97.5		17.4				
Change Period (Y+Rc), s	4.0	5.5		5.5	3.5	5.5		5.5				
Max Green Setting (Gmax), s	11.6	52.1		41.3	12.1	52.1		41.3				
Max Q Clear Time (g_c+I1), s	3.4	11.9		7.5	2.4	14.3		7.5				
Green Ext Time (p_c), s	0.0	8.9		0.1	0.0	4.0		0.8				
Intersection Summary												
HCM 6th Ctrl Delay				12.7								
HCM 6th LOS				B								

HCM 6th Signalized Intersection Summary 2: Acad. Pkwy & Osuna

Explore Academy
Baseline, AM (Plan21) 7:30 am



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰ ↱ ↲ ↳	↰ ↱ ↲ ↳		↰ ↱ ↲ ↳	↰ ↱ ↲ ↳			↰ ↱ ↲ ↳		↰ ↱ ↲ ↳	↰ ↱ ↲ ↳	
Traffic Volume (veh/h)	43	605	2	28	471	61	1	0	14	29	0	23
Future Volume (veh/h)	43	605	2	28	471	61	1	0	14	29	0	23
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	49	695	2	32	541	70	1	0	16	33	0	26
Peak Hour Factor	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	692	4051	12	663	3516	449	34	6	138	192	0	146
Arrive On Green	0.04	1.00	1.00	0.02	0.77	0.77	0.09	0.00	0.09	0.09	0.00	0.09
Sat Flow, veh/h	1781	5257	15	1781	4584	585	26	68	1498	1397	0	1585
Grp Volume(v), veh/h	49	450	247	32	400	211	17	0	0	33	0	26
Grp Sat Flow(s),veh/h/ln	1781	1702	1868	1781	1702	1765	1592	0	0	1397	0	1585
Q Serve(g_s), s	0.7	0.0	0.0	0.5	3.7	3.8	0.0	0.0	0.0	1.1	0.0	1.8
Cycle Q Clear(g_c), s	0.7	0.0	0.0	0.5	3.7	3.8	1.2	0.0	0.0	2.3	0.0	1.8
Prop In Lane	1.00		0.01	1.00		0.33	0.06		0.94	1.00		1.00
Lane Grp Cap(c), veh/h	692	2624	1439	663	2611	1354	178	0	0	192	0	146
V/C Ratio(X)	0.07	0.17	0.17	0.05	0.15	0.16	0.10	0.00	0.00	0.17	0.00	0.18
Avail Cap(c_a), veh/h	818	2624	1439	796	2611	1354	370	0	0	363	0	339
HCM Platoon Ratio	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.95	0.95	0.95	1.00	1.00	1.00	1.00	0.00	0.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	2.8	0.0	0.0	2.9	3.7	3.7	50.0	0.0	0.0	50.4	0.0	50.3
Incr Delay (d2), s/veh	0.0	0.1	0.2	0.0	0.1	0.2	0.2	0.0	0.0	0.3	0.0	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	0.3	0.1	0.2	0.2	1.8	2.0	0.9	0.0	0.0	1.7	0.0	1.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	2.8	0.1	0.2	2.9	3.8	3.9	50.2	0.0	0.0	50.8	0.0	50.7
LnGrp LOS	A	A	A	A	A	A	D	A	A	D	A	D
Approach Vol, veh/h	746			643			17			59		
Approach Delay, s/veh	0.3			3.8			50.2			50.7		
Approach LOS	A			A			D			D		
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	5.5	98.0		16.5	5.9	97.5		16.5				
Change Period (Y+Rc), s	3.5	5.5		5.5	3.5	5.5		5.5				
Max Green Setting (Gmax), s	10.9	68.9		25.7	10.9	68.9		25.7				
Max Q Clear Time (g_c+I), s	12.5	2.0		4.3	2.7	5.8		3.2				
Green Ext Time (p_c), s	0.0	4.5		0.1	0.0	4.0		0.0				
Intersection Summary												
HCM 6th Ctrl Delay	4.5											
HCM 6th LOS	A											

HCM 6th Signalized Intersection Summary

3: Jefferson & Osuna

Explore Academy

Baseline, AM (Plan21) 7:30 am

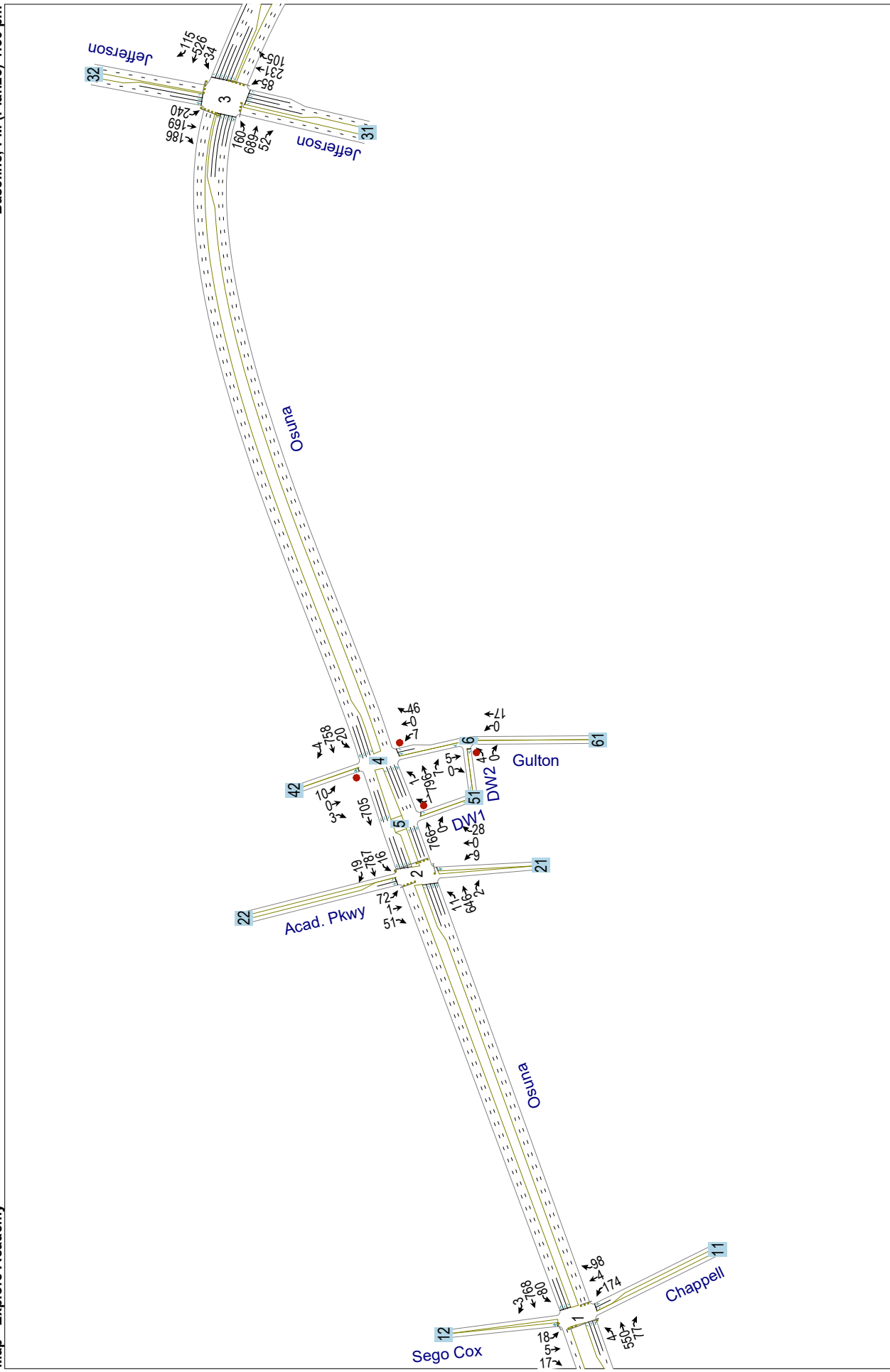


Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	160	437	74	53	490	241	78	172	34	160	238	146
Future Volume (veh/h)	160	437	74	53	490	241	78	172	34	160	238	146
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	184	502	85	61	563	277	90	198	39	184	274	168
Peak Hour Factor	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	243	2425	403	200	2744	852	215	473	211	333	366	217
Arrive On Green	0.02	0.18	0.18	0.06	0.54	0.54	0.06	0.13	0.13	0.10	0.17	0.17
Sat Flow, veh/h	3456	4410	732	3456	5106	1585	1781	3554	1585	1781	2143	1274
Grp Volume(v), veh/h	184	385	202	61	563	277	90	198	39	184	226	216
Grp Sat Flow(s),veh/h/ln	1728	1702	1739	1728	1702	1585	1781	1777	1585	1781	1777	1641
Q Serve(g_s), s	6.4	11.5	11.9	2.0	6.9	11.8	5.1	6.1	2.6	10.4	14.5	15.1
Cycle Q Clear(g_c), s	6.4	11.5	11.9	2.0	6.9	11.8	5.1	6.1	2.6	10.4	14.5	15.1
Prop In Lane	1.00		0.42	1.00		1.00	1.00		1.00	1.00		0.78
Lane Grp Cap(c), veh/h	243	1872	956	200	2744	852	215	473	211	333	303	280
V/C Ratio(X)	0.76	0.21	0.21	0.30	0.21	0.33	0.42	0.42	0.18	0.55	0.74	0.77
Avail Cap(c_a), veh/h	418	1872	956	418	2744	852	282	1031	460	333	515	476
HCM Platoon Ratio	0.33	0.33	0.33	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	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	57.6	26.8	27.0	54.2	14.4	15.6	41.3	47.8	46.2	37.9	47.3	47.5
Incr Delay (d2), s/veh	1.8	0.2	0.5	0.3	0.2	1.0	0.5	0.8	0.6	1.2	5.1	6.3
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(95%),veh/ln	5.2	8.8	9.3	1.6	4.7	7.8	4.1	5.0	1.9	8.1	11.0	10.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	59.4	27.1	27.5	54.5	14.6	16.6	41.8	48.6	46.8	39.1	52.4	53.9
LnGrp LOS	E	C	C	D	B	B	D	D	D	D	D	D
Approach Vol, veh/h	771		901			327			626			
Approach Delay, s/veh	34.9		17.9			46.5			49.0			
Approach LOS	C		B			D			D			
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	10.5	72.0	11.1	26.5	11.9	70.5	15.6	22.0				
Change Period (Y+Rc), s	3.5	6.0	3.5	6.0	3.5	6.0	3.5	6.0				
Max Green Setting (Gmax), s	14.5	39.6	12.1	34.8	14.5	39.6	12.1	34.8				
Max Q Clear Time (g_c+I4.0), s	14.0	13.9	7.1	17.1	8.4	13.8	12.4	8.1				
Green Ext Time (p_c), s	0.0	5.1	0.0	3.4	0.1	7.0	0.0	1.9				
Intersection Summary												
HCM 6th Ctrl Delay			33.9									
HCM 6th LOS			C									

Intersection												
Int Delay, s/veh	0.7											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↵ ↑↑↑			↵ ↑↑↑			↵ ↑			↵		
Traffic Vol, veh/h	1	629	9	55	559	2	1	0	11	0	0	1
Future Vol, veh/h	1	629	9	55	559	2	1	0	11	0	0	1
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	0	-	-	125	-	-	-	-	50	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	87	87	87	87	87	87	87	87	87	87	87	87
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	1	723	10	63	643	2	1	0	13	0	0	1
Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	645	0	0	733	0	0	1113	1501	367	1061	1505	323
Stage 1	-	-	-	-	-	-	730	730	-	770	770	-
Stage 2	-	-	-	-	-	-	383	771	-	291	735	-
Critical Hdwy	5.34	-	-	5.34	-	-	6.44	6.54	7.14	6.44	6.54	7.14
Critical Hdwy Stg 1	-	-	-	-	-	-	7.34	5.54	-	7.34	5.54	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.74	5.54	-	6.74	5.54	-
Follow-up Hdwy	3.12	-	-	3.12	-	-	3.82	4.02	3.92	3.82	4.02	3.92
Pot Cap-1 Maneuver	579	-	-	526	-	-	219	121	538	235	120	574
Stage 1	-	-	-	-	-	-	306	426	-	287	408	-
Stage 2	-	-	-	-	-	-	560	408	-	635	424	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	579	-	-	526	-	-	198	106	538	208	105	574
Mov Cap-2 Maneuver	-	-	-	-	-	-	198	106	-	208	105	-
Stage 1	-	-	-	-	-	-	305	425	-	286	359	-
Stage 2	-	-	-	-	-	-	492	359	-	619	423	-
Approach	EB			WB			NB			SB		
HCM Control Delay, s	0			1.1			12.9			11.3		
HCM LOS							B			B		
Minor Lane/Major Mvmt	NBLn1		NBLn2	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1		
Capacity (veh/h)	198		538	579	-	-	526	-	-	574		
HCM Lane V/C Ratio	0.006		0.024	0.002	-	-	0.12	-	-	0.002		
HCM Control Delay (s)	23.3		11.9	11.2	-	-	12.8	-	-	11.3		
HCM Lane LOS	C		B	B	-	-	B	-	-	B		
HCM 95th %tile Q(veh)	0		0.1	0	-	-	0.4	-	-	0		

Intersection						
Int Delay, s/veh	0					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑↑↓			↑↑↑↑		↗
Traffic Vol, veh/h	622	1	1	548	0	0
Future Vol, veh/h	622	1	1	548	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	87	87	87	87	87	87
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	715	1	1	630	0	0
Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	716	0	-	358
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	-	5.34	-	-	7.14
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	-	3.12	-	-	3.92
Pot Cap-1 Maneuver	-	-	535	-	0	545
Stage 1	-	-	-	-	0	-
Stage 2	-	-	-	-	0	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	535	-	-	545
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Approach	EB		WB		NB	
HCM Control Delay, s	0		0		0	
HCM LOS					A	
Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT	
Capacity (veh/h)	-	-	-	535	-	
HCM Lane V/C Ratio	-	-	-	0.002	-	
HCM Control Delay (s)	0	-	-	11.7	-	
HCM Lane LOS	A	-	-	B	-	
HCM 95th %tile Q(veh)	-	-	-	0	-	

Intersection						
Int Delay, s/veh	0					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	0	0	8	20	7
Future Vol, veh/h	0	0	0	8	20	7
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	87	87	87	87	87	87
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	0	0	9	23	8
Major/Minor	Minor2	Major1		Major2		
Conflicting Flow All	36	27	31	0	-	0
Stage 1	27	-	-	-	-	-
Stage 2	9	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	977	1048	1582	-	-	-
Stage 1	996	-	-	-	-	-
Stage 2	1014	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	977	1048	1582	-	-	-
Mov Cap-2 Maneuver	977	-	-	-	-	-
Stage 1	996	-	-	-	-	-
Stage 2	1014	-	-	-	-	-
Approach	EB	NB		SB		
HCM Control Delay, s	0	0		0		
HCM LOS	A					
Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR	
Capacity (veh/h)	1582	-	-	-	-	
HCM Lane V/C Ratio	-	-	-	-	-	
HCM Control Delay (s)	0	-	0	-	-	
HCM Lane LOS	A	-	A	-	-	
HCM 95th %tile Q(veh)	0	-	-	-	-	



HCM 6th Signalized Intersection Summary

1: Chappell/Sego Cox & Osuna

Explore Academy
Baseline, 11/18/2020 4:30 pm

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	4	550	77	80	768	3	174	4	98	18	5	17
Future Volume (veh/h)	4	550	77	80	768	3	174	4	98	18	5	17
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	4	573	80	83	800	3	181	4	102	19	5	18
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	424	2133	297	586	2580	10	278	10	254	114	38	81
Arrive On Green	0.00	0.68	0.68	0.01	0.23	0.23	0.17	0.17	0.17	0.17	0.17	0.17
Sat Flow, veh/h	1781	3132	436	1781	3631	14	1388	60	1534	423	232	491
Grp Volume(v), veh/h	4	324	329	83	391	412	181	0	106	42	0	0
Grp Sat Flow(s),veh/h/ln	1781	1777	1792	1781	1777	1868	1388	0	1594	1147	0	0
Q Serve(g_s), s	0.1	8.6	8.6	1.6	21.8	21.8	8.8	0.0	7.1	0.2	0.0	0.0
Cycle Q Clear(g_c), s	0.1	8.6	8.6	1.6	21.8	21.8	16.2	0.0	7.1	7.4	0.0	0.0
Prop In Lane	1.00		0.24	1.00		0.01	1.00		0.96	0.45		0.43
Lane Grp Cap(c), veh/h	424	1210	1220	586	1262	1327	278	0	264	233	0	0
V/C Ratio(X)	0.01	0.27	0.27	0.14	0.31	0.31	0.65	0.00	0.40	0.18	0.00	0.00
Avail Cap(c_a), veh/h	598	1210	1220	689	1262	1327	526	0	549	494	0	0
HCM Platoon Ratio	1.00	1.00	1.00	0.33	0.33	0.33	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.99	0.99	0.99	1.00	0.00	1.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	7.4	7.5	7.5	5.4	21.7	21.7	48.8	0.0	44.7	43.0	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.5	0.5	0.0	0.6	0.6	3.6	0.0	1.4	0.5	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	0.1	5.4	5.5	0.9	15.8	16.5	9.3	0.0	5.2	2.0	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	7.4	8.0	8.0	5.5	22.3	22.3	52.4	0.0	46.1	43.5	0.0	0.0
LnGrp LOS	A	A	A	A	C	C	D	A	D	D	A	A
Approach Vol, veh/h		657			886			287			42	
Approach Delay, s/veh		8.0			20.7			50.1			43.5	
Approach LOS		A			C			D			D	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	7.4	87.2		25.4	3.9	90.8		25.4				
Change Period (Y+Rc), s	4.0	5.5		5.5	3.5	5.5		5.5				
Max Green Setting (Gmax), s	10.4	52.1		41.3	12.1	52.1		41.3				
Max Q Clear Time (g_c+I1), s	3.6	10.6		9.4	2.1	23.8		18.2				
Green Ext Time (p_c), s	0.0	6.1		0.3	0.0	7.2		1.7				
Intersection Summary												
HCM 6th Ctrl Delay				21.3								
HCM 6th LOS				C								

HCM 6th Signalized Intersection Summary

2: Acad. Pkwy & Osuna

Explore Academy
Baseline, 11/18/2020 4:30 pm



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰ ↱ ↲ ↳	↰ ↱ ↲ ↳		↰ ↱ ↲ ↳	↰ ↱ ↲ ↳			↰ ↱ ↲ ↳		↰ ↱ ↲ ↳	↰ ↱ ↲ ↳	
Traffic Volume (veh/h)	11	646	2	16	787	19	9	0	28	72	1	51
Future Volume (veh/h)	11	646	2	16	787	19	9	0	28	72	1	51
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	11	673	2	17	820	20	9	0	29	75	1	53
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	551	4040	12	666	3957	96	58	17	120	206	3	155
Arrive On Green	0.02	1.00	1.00	0.01	0.77	0.77	0.10	0.00	0.10	0.10	0.10	0.10
Sat Flow, veh/h	1781	5256	16	1781	5127	125	205	168	1202	1381	29	1560
Grp Volume(v), veh/h	11	436	239	17	544	296	38	0	0	75	0	54
Grp Sat Flow(s), veh/h/ln	1781	1702	1868	1781	1702	1848	1575	0	0	1381	0	1590
Q Serve(g_s), s	0.2	0.0	0.0	0.3	5.2	5.2	0.0	0.0	0.0	2.9	0.0	3.8
Cycle Q Clear(g_c), s	0.2	0.0	0.0	0.3	5.2	5.2	2.6	0.0	0.0	5.4	0.0	3.8
Prop In Lane	1.00		0.01	1.00		0.07	0.24		0.76	1.00		0.98
Lane Grp Cap(c), veh/h	551	2617	1436	666	2628	1426	194	0	0	206	0	158
V/C Ratio(X)	0.02	0.17	0.17	0.03	0.21	0.21	0.20	0.00	0.00	0.36	0.00	0.34
Avail Cap(c_a), veh/h	699	2617	1436	809	2628	1426	399	0	0	392	0	372
HCM Platoon Ratio	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.97	0.97	0.97	1.00	1.00	1.00	1.00	0.00	0.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	3.1	0.0	0.0	2.9	3.7	3.7	49.8	0.0	0.0	50.9	0.0	50.4
Incr Delay (d2), s/veh	0.0	0.1	0.2	0.0	0.2	0.3	0.4	0.0	0.0	0.8	0.0	0.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	0.1	0.2	0.1	2.5	2.8	2.0	2.0	0.0	0.0	4.0	0.0	2.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	3.1	0.1	0.2	2.9	3.9	4.0	50.2	0.0	0.0	51.7	0.0	51.3
LnGrp LOS	A	A	A	A	A	A	D	A	A	D	A	D
Approach Vol, veh/h	686			857			38			129		
Approach Delay, s/veh	0.2			3.9			50.2			51.5		
Approach LOS	A			A			D			D		
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	4.8	97.7		17.5	4.4	98.1		17.5				
Change Period (Y+Rc), s	3.5	5.5		5.5	3.5	5.5		5.5				
Max Green Setting (Gmax), s	10.9	66.5		28.1	10.9	66.5		28.1				
Max Q Clear Time (g_c+I2,3), s	12.3	2.0		7.4	2.2	7.2		4.6				
Green Ext Time (p_c), s	0.0	4.4		0.4	0.0	5.7		0.1				
Intersection Summary												
HCM 6th Ctrl Delay	7.1											
HCM 6th LOS	A											

HCM 6th Signalized Intersection Summary

3: Jefferson & Osuna

Explore Academy
Baseline, 11/18/2020 4:30 pm

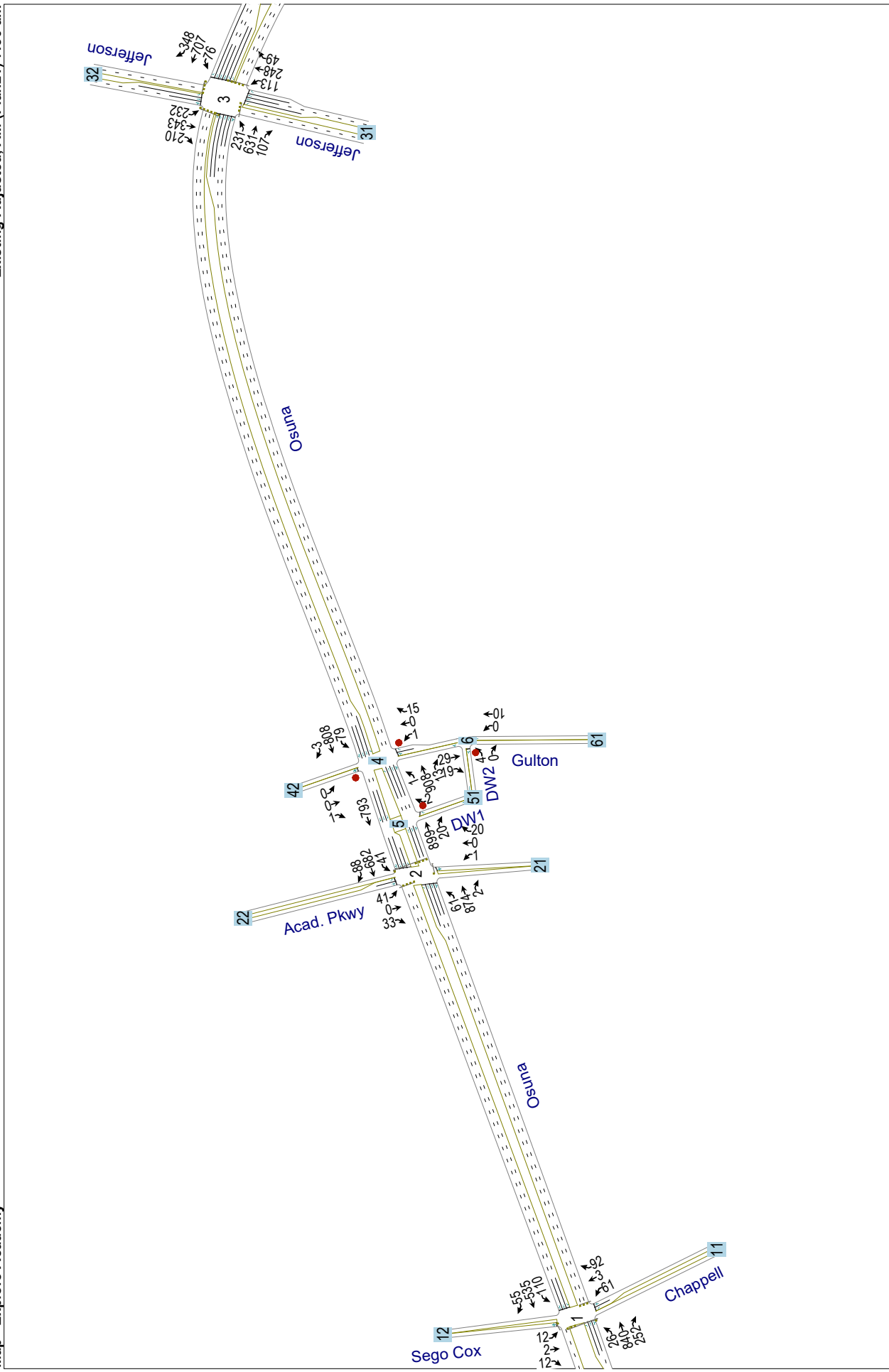


Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖↗	↑↑↑↓		↖↗	↑↑↑↑	↖	↖	↑↑	↖	↖	↑↑	
Traffic Volume (veh/h)	160	689	52	34	526	115	85	231	105	240	169	186
Future Volume (veh/h)	160	689	52	34	526	115	85	231	105	240	169	186
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No				No				No			
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	167	718	54	35	548	120	89	241	109	250	176	194
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	230	2680	200	159	2719	844	239	374	167	346	319	285
Arrive On Green	0.02	0.18	0.18	0.05	0.53	0.53	0.06	0.11	0.11	0.14	0.18	0.18
Sat Flow, veh/h	3456	4847	363	3456	5106	1585	1781	3554	1585	1781	1777	1585
Grp Volume(v), veh/h	167	503	269	35	548	120	89	241	109	250	176	194
Grp Sat Flow(s),veh/h/ln	1728	1702	1805	1728	1702	1585	1781	1777	1585	1781	1777	1585
Q Serve(g_s), s	5.8	15.2	15.4	1.2	6.7	4.6	5.2	7.8	7.9	14.5	10.8	13.7
Cycle Q Clear(g_c), s	5.8	15.2	15.4	1.2	6.7	4.6	5.2	7.8	7.9	14.5	10.8	13.7
Prop In Lane	1.00		0.20	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	230	1882	998	159	2719	844	239	374	167	346	319	285
V/C Ratio(X)	0.73	0.27	0.27	0.22	0.20	0.14	0.37	0.64	0.65	0.72	0.55	0.68
Avail Cap(c_a), veh/h	487	1882	998	314	2719	844	359	1066	476	352	551	491
HCM Platoon Ratio	0.33	0.33	0.33	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	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	57.6	28.2	28.2	55.2	14.7	14.2	43.8	51.5	51.6	38.8	44.8	46.0
Incr Delay (d2), s/veh	1.7	0.3	0.7	0.3	0.2	0.4	0.4	2.6	6.0	6.0	2.1	4.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	4.7	11.3	12.1	0.9	4.6	3.1	4.2	6.5	6.1	11.1	8.6	9.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	59.3	28.5	28.9	55.4	14.9	14.5	44.1	54.2	57.6	44.8	46.9	50.1
LnGrp LOS	E	C	C	E	B	B	D	D	E	D	D	D
Approach Vol, veh/h	939				703		439				620	
Approach Delay, s/veh	34.1				16.8		53.0				47.1	
Approach LOS	C				B		D				D	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	9.0	72.4	11.1	27.5	11.5	69.9	20.0	18.6				
Change Period (Y+Rc), s	3.5	6.0	3.5	6.0	3.5	6.0	3.5	6.0				
Max Green Setting (Gmax), s	10.9	37.2	15.7	37.2	16.9	31.2	16.9	36.0				
Max Q Clear Time (g_c+I1), s	13.2	17.4	7.2	15.7	7.8	8.7	16.5	9.9				
Green Ext Time (p_c), s	0.0	6.2	0.0	3.0	0.1	5.5	0.0	2.7				
Intersection Summary												
HCM 6th Ctrl Delay			35.6									
HCM 6th LOS			D									

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	1	796	7	20	758	4	7	0	46	10	0	3
Future Vol, veh/h	1	796	7	20	758	4	7	0	46	10	0	3
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	0	-	-	125	-	-	-	-	50	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	96	96	96	96	96	96	96	96	96	96	96	96
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	1	829	7	21	790	4	7	0	48	10	0	3
Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	794	0	0	836	0	0	1193	1671	418	1168	1672	397
Stage 1	-	-	-	-	-	-	835	835	-	834	834	-
Stage 2	-	-	-	-	-	-	358	836	-	334	838	-
Critical Hdwy	5.34	-	-	5.34	-	-	6.44	6.54	7.14	6.44	6.54	7.14
Critical Hdwy Stg 1	-	-	-	-	-	-	7.34	5.54	-	7.34	5.54	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.74	5.54	-	6.74	5.54	-
Follow-up Hdwy	3.12	-	-	3.12	-	-	3.82	4.02	3.92	3.82	4.02	3.92
Pot Cap-1 Maneuver	492	-	-	469	-	-	197	95	499	203	95	515
Stage 1	-	-	-	-	-	-	259	381	-	259	381	-
Stage 2	-	-	-	-	-	-	579	381	-	599	380	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	492	-	-	469	-	-	189	91	499	177	91	515
Mov Cap-2 Maneuver	-	-	-	-	-	-	189	91	-	177	91	-
Stage 1	-	-	-	-	-	-	258	380	-	258	364	-
Stage 2	-	-	-	-	-	-	550	364	-	540	379	-
Approach	EB			WB			NB			SB		
HCM Control Delay, s	0			0.3			14.6			23.4		
HCM LOS							B			C		
Minor Lane/Major Mvmt	NBLn1		NBLn2	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1		
Capacity (veh/h)	189		499	492	-	-	469	-	-	209		
HCM Lane V/C Ratio	0.039		0.096	0.002	-	-	0.044	-	-	0.065		
HCM Control Delay (s)	24.8		13	12.3	-	-	13	-	-	23.4		
HCM Lane LOS	C		B	B	-	-	B	-	-	C		
HCM 95th %tile Q(veh)	0.1		0.3	0	-	-	0.1	-	-	0.2		

Intersection						
Int Delay, s/veh	0					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑↑↓			↑↑↑		↗
Traffic Vol, veh/h	766	0	0	705	0	1
Future Vol, veh/h	766	0	0	705	0	1
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	96	96	96	96	96	96
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	798	0	0	734	0	1
Major/Minor	Major1	Major2		Minor1		
Conflicting Flow All	0	0	-	-	-	399
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	7.14
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	3.92
Pot Cap-1 Maneuver	-	-	0	-	0	513
Stage 1	-	-	0	-	0	-
Stage 2	-	-	0	-	0	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	-	-	-	513
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Approach	EB	WB		NB		
HCM Control Delay, s	0	0		12		
HCM LOS	B					
Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBT		
Capacity (veh/h)	513	-	-	-		
HCM Lane V/C Ratio	0.002	-	-	-		
HCM Control Delay (s)	12	-	-	-		
HCM Lane LOS	B	-	-	-		
HCM 95th %tile Q(veh)	0	-	-	-		

Intersection						
Int Delay, s/veh	1.3					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	4	0	0	17	5	0
Future Vol, veh/h	4	0	0	17	5	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	96	96	96	96	96	96
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	4	0	0	18	5	0
Major/Minor	Minor2	Major1		Major2		
Conflicting Flow All	23	5	5	0	-	0
Stage 1	5	-	-	-	-	-
Stage 2	18	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	993	1078	1616	-	-	-
Stage 1	1018	-	-	-	-	-
Stage 2	1005	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	993	1078	1616	-	-	-
Mov Cap-2 Maneuver	993	-	-	-	-	-
Stage 1	1018	-	-	-	-	-
Stage 2	1005	-	-	-	-	-
Approach	EB	NB		SB		
HCM Control Delay, s	8.6	0		0		
HCM LOS	A					
Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR	
Capacity (veh/h)	1616	-	993	-	-	
HCM Lane V/C Ratio	-	-	0.004	-	-	
HCM Control Delay (s)	0	-	8.6	-	-	
HCM Lane LOS	A	-	A	-	-	
HCM 95th %tile Q(veh)	0	-	0	-	-	



HCM 6th Signalized Intersection Summary

1: Chappell/Sego Cox & Osuna

Explore Academy

Existing-Adjusted, AM (Plan21) 7:30 am

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	26	840	252	110	535	55	61	3	92	12	2	12
Future Volume (veh/h)	26	840	252	110	535	55	61	3	92	12	2	12
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	30	966	290	126	615	63	70	3	106	14	2	14
Peak Hour Factor	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	555	2000	598	383	2485	254	183	4	155	67	20	38
Arrive On Green	0.02	0.74	0.74	0.01	0.25	0.25	0.10	0.10	0.10	0.10	0.10	0.10
Sat Flow, veh/h	1781	2696	806	1781	3254	333	1397	44	1548	227	204	377
Grp Volume(v), veh/h	30	635	621	126	335	343	70	0	109	30	0	0
Grp Sat Flow(s),veh/h/ln	1781	1777	1725	1781	1777	1810	1397	0	1592	808	0	0
Q Serve(g_s), s	0.5	17.2	17.4	2.0	18.1	18.1	0.0	0.0	7.9	0.1	0.0	0.0
Cycle Q Clear(g_c), s	0.5	17.2	17.4	2.0	18.1	18.1	7.0	0.0	7.9	8.1	0.0	0.0
Prop In Lane	1.00		0.47	1.00		0.18	1.00		0.97	0.47		0.47
Lane Grp Cap(c), veh/h	555	1318	1280	383	1357	1382	183	0	159	125	0	0
V/C Ratio(X)	0.05	0.48	0.48	0.33	0.25	0.25	0.38	0.00	0.69	0.24	0.00	0.00
Avail Cap(c_a), veh/h	706	1318	1280	496	1357	1382	525	0	548	477	0	0
HCM Platoon Ratio	1.00	1.00	1.00	0.33	0.33	0.33	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.98	0.98	0.98	1.00	0.00	1.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	4.6	6.2	6.2	5.1	17.4	17.4	51.7	0.0	52.2	49.6	0.0	0.0
Incr Delay (d2), s/veh	0.0	1.3	1.3	0.2	0.4	0.4	1.9	0.0	7.2	1.4	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	0.3	9.3	9.1	1.0	13.4	13.7	3.8	0.0	6.2	1.6	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	4.6	7.5	7.6	5.3	17.8	17.8	53.6	0.0	59.4	51.0	0.0	0.0
LnGrp LOS	A	A	A	A	B	B	D	A	E	D	A	A
Approach Vol, veh/h	1286				804			179			30	
Approach Delay, s/veh	7.5				15.9			57.1			51.0	
Approach LOS	A				B			E			D	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	8.0	94.5		17.5	5.4	97.1		17.5				
Change Period (Y+Rc), s	4.0	5.5		5.5	3.5	5.5		5.5				
Max Green Setting (Gmax), s	11.6	52.1		41.3	12.1	52.1		41.3				
Max Q Clear Time (g_c+I1), s	4.0	19.4		10.1	2.5	20.1		9.9				
Green Ext Time (p_c), s	0.1	14.2		0.2	0.0	6.1		1.2				
Intersection Summary												
HCM 6th Ctrl Delay	14.8											
HCM 6th LOS	B											

HCM 6th Signalized Intersection Summary

2: Acad. Pkwy & Osuna

Explore Academy
Existing-Adjusted, AM (Plan21) 7:30 am



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰ ↱ ↲ ↳	↰ ↱ ↲ ↳		↰ ↱ ↲ ↳	↰ ↱ ↲ ↳			↰ ↱ ↲ ↳		↰ ↱ ↲ ↳	↰ ↱ ↲ ↳	
Traffic Volume (veh/h)	61	874	2	41	682	88	1	0	20	41	0	33
Future Volume (veh/h)	61	874	2	41	682	88	1	0	20	41	0	33
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	70	1005	2	47	784	101	1	0	23	47	0	38
Peak Hour Factor	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	546	4010	8	520	3475	445	33	5	148	201	0	154
Arrive On Green	0.05	1.00	1.00	0.02	0.76	0.76	0.10	0.00	0.10	0.10	0.00	0.10
Sat Flow, veh/h	1781	5262	10	1781	4582	586	18	49	1523	1388	0	1585
Grp Volume(v), veh/h	70	650	357	47	581	304	24	0	0	47	0	38
Grp Sat Flow(s), veh/h/ln	1781	1702	1868	1781	1702	1765	1590	0	0	1388	0	1585
Q Serve(g_s), s	1.1	0.0	0.0	0.7	6.0	6.0	0.0	0.0	0.0	1.7	0.0	2.7
Cycle Q Clear(g_c), s	1.1	0.0	0.0	0.7	6.0	6.0	1.7	0.0	0.0	3.3	0.0	2.7
Prop In Lane	1.00		0.01	1.00		0.33	0.04		0.96	1.00		1.00
Lane Grp Cap(c), veh/h	546	2594	1424	520	2582	1338	186	0	0	201	0	154
V/C Ratio(X)	0.13	0.25	0.25	0.09	0.23	0.23	0.13	0.00	0.00	0.23	0.00	0.25
Avail Cap(c_a), veh/h	666	2594	1424	646	2582	1338	370	0	0	363	0	339
HCM Platoon Ratio	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.83	0.83	0.83	1.00	1.00	1.00	1.00	0.00	0.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	3.1	0.0	0.0	3.0	4.2	4.2	49.6	0.0	0.0	50.3	0.0	50.1
Incr Delay (d2), s/veh	0.0	0.2	0.4	0.0	0.2	0.4	0.2	0.0	0.0	0.4	0.0	0.6
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(95%),veh/ln	0.5	0.1	0.2	0.3	2.9	3.2	1.2	0.0	0.0	2.4	0.0	2.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	3.1	0.2	0.4	3.1	4.4	4.6	49.9	0.0	0.0	50.7	0.0	50.7
LnGrp LOS	A	A	A	A	A	A	D	A	A	D	A	D
Approach Vol, veh/h	1077				932				24		85	
Approach Delay, s/veh	0.4				4.4				49.9		50.7	
Approach LOS	A				A				D		D	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	5.9	96.9		17.2	6.3	96.5		17.2				
Change Period (Y+Rc), s	3.5	5.5		5.5	3.5	5.5		5.5				
Max Green Setting (Gmax), s	10.9	68.9		25.7	10.9	68.9		25.7				
Max Q Clear Time (g_c+I2), s	12.7	2.0		5.3	3.1	8.0		3.7				
Green Ext Time (p_c), s	0.0	7.3		0.2	0.0	6.3		0.1				
Intersection Summary												
HCM 6th Ctrl Delay	4.8											
HCM 6th LOS	A											

HCM 6th Signalized Intersection Summary

3: Jefferson & Osuna

Explore Academy

Existing-Adjusted, AM (Plan21) 7:30 am



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	231	631	107	76	707	348	113	248	49	232	343	210
Future Volume (veh/h)	231	631	107	76	707	348	113	248	49	232	343	210
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No				No				No			
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	266	725	123	87	813	400	130	285	56	267	394	241
Peak Hour Factor	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	325	2103	353	218	2280	708	230	711	317	375	485	293
Arrive On Green	0.03	0.16	0.16	0.06	0.45	0.45	0.07	0.20	0.20	0.10	0.23	0.23
Sat Flow, veh/h	3456	4402	740	3456	5106	1585	1781	3554	1585	1781	2129	1286
Grp Volume(v), veh/h	266	559	289	87	813	400	130	285	56	267	328	307
Grp Sat Flow(s),veh/h/ln	1728	1702	1737	1728	1702	1585	1781	1777	1585	1781	1777	1639
Q Serve(g_s), s	9.2	17.6	17.8	2.9	12.6	22.4	6.9	8.4	3.5	12.1	21.0	21.4
Cycle Q Clear(g_c), s	9.2	17.6	17.8	2.9	12.6	22.4	6.9	8.4	3.5	12.1	21.0	21.4
Prop In Lane	1.00		0.43	1.00		1.00	1.00		1.00	1.00		0.78
Lane Grp Cap(c), veh/h	325	1626	830	218	2280	708	230	711	317	375	405	373
V/C Ratio(X)	0.82	0.34	0.35	0.40	0.36	0.57	0.57	0.40	0.18	0.71	0.81	0.82
Avail Cap(c_a), veh/h	418	1626	830	418	2280	708	279	1031	460	375	515	475
HCM Platoon Ratio	0.33	0.33	0.33	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	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	57.1	33.8	33.9	54.0	21.9	24.6	35.8	41.7	39.8	35.3	43.9	44.0
Incr Delay (d2), s/veh	7.6	0.6	1.2	0.4	0.4	3.2	0.8	0.5	0.4	5.3	8.6	10.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	7.9	12.7	13.3	2.3	8.6	13.7	5.4	6.7	2.5	3.2	15.3	14.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	64.7	34.4	35.0	54.5	22.3	27.8	36.6	42.3	40.2	40.6	52.4	54.1
LnGrp LOS	E	C	D	D	C	C	D	D	D	D	D	D
Approach Vol, veh/h	1114				1300				471		902	
Approach Delay, s/veh	41.8				26.1				40.5		49.5	
Approach LOS	D				C				D		D	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	11.1	63.3	12.3	33.3	14.8	59.6	15.6	30.0				
Change Period (Y+Rc), s	3.5	6.0	3.5	6.0	3.5	6.0	3.5	6.0				
Max Green Setting (Gmax), s	14.5	39.6	12.1	34.8	14.5	39.6	12.1	34.8				
Max Q Clear Time (g_c+I4.5	14.5	19.8	8.9	23.4	11.2	24.4	14.1	10.4				
Green Ext Time (p_c), s	0.0	6.9	0.0	4.0	0.1	8.0	0.0	2.8				
Intersection Summary												
HCM 6th Ctrl Delay			38.1									
HCM 6th LOS			D									

Intersection												
Int Delay, s/veh	0.9											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↵ ↑↑↑			↵ ↑↑↑			↵ ↑			↵		
Traffic Vol, veh/h	1	908	13	79	808	3	1	0	15	0	0	1
Future Vol, veh/h	1	908	13	79	808	3	1	0	15	0	0	1
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	0	-	-	125	-	-	-	-	50	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	87	87	87	87	87	87	87	87	87	87	87	87
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	1	1044	15	91	929	3	1	0	17	0	0	1
Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	932	0	0	1059	0	0	1608	2168	530	1533	2174	466
Stage 1	-	-	-	-	-	-	1054	1054	-	1113	1113	-
Stage 2	-	-	-	-	-	-	554	1114	-	420	1061	-
Critical Hdwy	5.34	-	-	5.34	-	-	6.44	6.54	7.14	6.44	6.54	7.14
Critical Hdwy Stg 1	-	-	-	-	-	-	7.34	5.54	-	7.34	5.54	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.74	5.54	-	6.74	5.54	-
Follow-up Hdwy	3.12	-	-	3.12	-	-	3.82	4.02	3.92	3.82	4.02	3.92
Pot Cap-1 Maneuver	422	-	-	367	-	-	111	46	422	123	46	465
Stage 1	-	-	-	-	-	-	183	301	-	166	282	-
Stage 2	-	-	-	-	-	-	442	282	-	532	299	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	422	-	-	367	-	-	89	35	422	95	35	465
Mov Cap-2 Maneuver	-	-	-	-	-	-	89	35	-	95	35	-
Stage 1	-	-	-	-	-	-	183	300	-	166	212	-
Stage 2	-	-	-	-	-	-	332	212	-	509	298	-
Approach	EB			WB			NB			SB		
HCM Control Delay, s	0			1.6			15.9			12.8		
HCM LOS							C			B		
Minor Lane/Major Mvmt	NBLn1	NBLn2	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1			
Capacity (veh/h)	89	422	422	-	-	367	-	-	465			
HCM Lane V/C Ratio	0.013	0.041	0.003	-	-	0.247	-	-	0.002			
HCM Control Delay (s)	46	13.9	13.6	-	-	18	-	-	12.8			
HCM Lane LOS	E	B	B	-	-	C	-	-	B			
HCM 95th %tile Q(veh)	0	0.1	0	-	-	1	-	-	0			

Intersection						
Int Delay, s/veh	0					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑↑↓			↑↑↑↑		↗
Traffic Vol, veh/h	899	20	0	793	0	2
Future Vol, veh/h	899	20	0	793	0	2
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	87	87	87	87	87	87
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	1033	23	0	911	0	2
Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	-	-	-	528
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	7.14
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	3.92
Pot Cap-1 Maneuver	-	-	0	-	0	424
Stage 1	-	-	0	-	0	-
Stage 2	-	-	0	-	0	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	-	-	-	424
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Approach	EB		WB		NB	
HCM Control Delay, s	0		0		13.5	
HCM LOS					B	
Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBT		
Capacity (veh/h)	424	-	-	-		
HCM Lane V/C Ratio	0.005	-	-	-		
HCM Control Delay (s)	13.5	-	-	-		
HCM Lane LOS	B	-	-	-		
HCM 95th %tile Q(veh)	0	-	-	-		

Intersection						
Int Delay, s/veh	0.6					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	4	0	0	10	29	19
Future Vol, veh/h	4	0	0	10	29	19
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	87	87	87	87	87	87
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	5	0	0	11	33	22
Major/Minor	Minor2	Major1		Major2		
Conflicting Flow All	55	44	55	0	-	0
Stage 1	44	-	-	-	-	-
Stage 2	11	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	953	1026	1550	-	-	-
Stage 1	978	-	-	-	-	-
Stage 2	1012	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	953	1026	1550	-	-	-
Mov Cap-2 Maneuver	953	-	-	-	-	-
Stage 1	978	-	-	-	-	-
Stage 2	1012	-	-	-	-	-
Approach	EB	NB		SB		
HCM Control Delay, s	8.8	0		0		
HCM LOS	A					
Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR	
Capacity (veh/h)	1550	-	953	-	-	
HCM Lane V/C Ratio	-	-	0.005	-	-	
HCM Control Delay (s)	0	-	8.8	-	-	
HCM Lane LOS	A	-	A	-	-	
HCM 95th %tile Q(veh)	0	-	0	-	-	

HCM 6th Signalized Intersection Summary

1: Chappell/Sego Cox & Osuna

Explore Academy

Existing-Adjusted, 11/18/2020 4:30 pm

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	5	795	111	115	1109	4	252	6	142	25	6	24
Future Volume (veh/h)	5	795	111	115	1109	4	252	6	142	25	6	24
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	5	828	116	120	1155	4	262	6	148	26	6	25
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	237	1851	259	397	2299	8	361	15	371	148	43	116
Arrive On Green	0.00	0.59	0.59	0.01	0.21	0.21	0.24	0.24	0.24	0.24	0.24	0.24
Sat Flow, veh/h	1781	3130	438	1781	3632	13	1378	62	1532	432	179	478
Grp Volume(v), veh/h	5	470	474	120	565	594	262	0	154	57	0	0
Grp Sat Flow(s),veh/h/ln	1781	1777	1791	1781	1777	1868	1378	0	1595	1089	0	0
Q Serve(g_s), s	0.1	17.6	17.6	3.0	33.7	33.7	14.0	0.0	9.7	1.2	0.0	0.0
Cycle Q Clear(g_c), s	0.1	17.6	17.6	3.0	33.7	33.7	24.9	0.0	9.7	10.9	0.0	0.0
Prop In Lane	1.00		0.24	1.00		0.01	1.00		0.96	0.46		0.44
Lane Grp Cap(c), veh/h	237	1051	1060	397	1125	1182	361	0	386	308	0	0
V/C Ratio(X)	0.02	0.45	0.45	0.30	0.50	0.50	0.73	0.00	0.40	0.19	0.00	0.00
Avail Cap(c_a), veh/h	410	1051	1060	478	1125	1182	501	0	549	453	0	0
HCM Platoon Ratio	1.00	1.00	1.00	0.33	0.33	0.33	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.96	0.96	0.96	1.00	0.00	1.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	13.3	13.6	13.6	10.2	30.8	30.8	44.8	0.0	38.1	37.2	0.0	0.0
Incr Delay (d2), s/veh	0.0	1.4	1.4	0.2	1.5	1.5	4.3	0.0	0.9	0.4	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	0.1	11.1	11.2	2.0	22.9	23.9	12.5	0.0	7.0	2.7	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	13.3	15.0	15.0	10.4	32.3	32.2	49.1	0.0	39.1	37.6	0.0	0.0
LnGrp LOS	B	B	B	B	C	C	D	A	D	D	A	A
Approach Vol, veh/h	949				1279				416			
Approach Delay, s/veh	15.0				30.2				45.4			
Approach LOS	B				C				D			
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	8.9	76.5		34.6	4.0	81.5		34.6				
Change Period (Y+Rc), s	4.0	5.5		5.5	3.5	5.5		5.5				
Max Green Setting (Gmax), s	10.4	52.1		41.3	12.1	52.1		41.3				
Max Q Clear Time (g_c+I1), s	5.0	19.6		12.9	2.1	35.7		26.9				
Green Ext Time (p_c), s	0.1	9.4		0.4	0.0	8.7		2.2				
Intersection Summary												
HCM 6th Ctrl Delay	27.4											
HCM 6th LOS	C											

HCM 6th Signalized Intersection Summary 2: Acad. Pkwy & Osuna

Explore Academy
Existing-Adjusted, 11/18/2020 4:30 pm



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰ ↱ ↲ ↳	↰ ↱ ↲ ↳		↰ ↱ ↲ ↳	↰ ↱ ↲ ↳			↰ ↱ ↲ ↳		↰ ↱ ↲ ↳	↰ ↱ ↲ ↳	
Traffic Volume (veh/h)	15	934	3	24	1136	28	12	0	40	104	1	73
Future Volume (veh/h)	15	934	3	24	1136	28	12	0	40	104	1	73
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	16	973	3	25	1183	29	12	0	42	108	1	76
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	400	4018	12	495	3939	97	55	17	122	194	2	158
Arrive On Green	0.01	0.76	0.76	0.01	0.77	0.77	0.10	0.00	0.10	0.10	0.10	0.10
Sat Flow, veh/h	1781	5255	16	1781	5126	126	183	164	1218	1365	21	1568
Grp Volume(v), veh/h	16	630	346	25	785	427	54	0	0	108	0	77
Grp Sat Flow(s), veh/h/ln	1781	1702	1867	1781	1702	1848	1565	0	0	1365	0	1588
Q Serve(g_s), s	0.2	6.4	6.4	0.4	8.3	8.3	0.0	0.0	0.0	4.0	0.0	5.5
Cycle Q Clear(g_c), s	0.2	6.4	6.4	0.4	8.3	8.3	5.5	0.0	0.0	9.5	0.0	5.5
Prop In Lane	1.00		0.01	1.00		0.07	0.22		0.78	1.00		0.99
Lane Grp Cap(c), veh/h	400	2602	1428	495	2615	1420	194	0	0	194	0	160
V/C Ratio(X)	0.04	0.24	0.24	0.05	0.30	0.30	0.28	0.00	0.00	0.56	0.00	0.48
Avail Cap(c_a), veh/h	544	2602	1428	632	2615	1420	397	0	0	377	0	372
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)	0.87	0.87	0.87	1.00	1.00	1.00	1.00	0.00	0.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	3.3	4.1	4.1	3.2	4.2	4.2	50.2	0.0	0.0	52.9	0.0	51.0
Incr Delay (d2), s/veh	0.0	0.2	0.4	0.0	0.3	0.5	0.6	0.0	0.0	1.8	0.0	1.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	0.1	3.1	3.5	0.2	4.0	4.5	2.8	0.0	0.0	6.0	0.0	4.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	3.4	4.3	4.4	3.2	4.5	4.7	50.8	0.0	0.0	54.7	0.0	52.7
LnGrp LOS	A	A	A	A	A	A	D	A	A	D	A	D
Approach Vol, veh/h	992			1237			54			185		
Approach Delay, s/veh	4.3			4.5			50.8			53.9		
Approach LOS	A			A			D			D		
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	5.2	97.2		17.6	4.7	97.7		17.6				
Change Period (Y+Rc), s	3.5	5.5		5.5	3.5	5.5		5.5				
Max Green Setting (Gmax), s	10.9	66.5		28.1	10.9	66.5		28.1				
Max Q Clear Time (g_c+I), s	12.4	8.4		11.5	2.2	10.3		7.5				
Green Ext Time (p_c), s	0.0	7.0		0.5	0.0	9.6		0.2				
Intersection Summary												
HCM 6th Ctrl Delay	9.2											
HCM 6th LOS	A											

HCM 6th Signalized Intersection Summary

3: Jefferson & Osuna

Explore Academy

Existing-Adjusted, 11/18/2020 4:30 pm



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	230	996	75	50	761	166	123	334	152	347	244	269
Future Volume (veh/h)	230	996	75	50	761	166	123	334	152	347	244	269
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No				No				No			
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	240	1038	78	52	793	173	128	348	158	361	254	280
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	299	2393	180	190	2360	733	238	540	241	364	386	344
Arrive On Green	0.06	0.33	0.33	0.05	0.46	0.46	0.08	0.15	0.15	0.14	0.22	0.22
Sat Flow, veh/h	3456	4845	364	3456	5106	1585	1781	3554	1585	1781	1777	1585
Grp Volume(v), veh/h	240	729	387	52	793	173	128	348	158	361	254	280
Grp Sat Flow(s),veh/h/ln	1728	1702	1805	1728	1702	1585	1781	1777	1585	1781	1777	1585
Q Serve(g_s), s	8.2	20.1	20.1	1.7	11.9	7.9	7.2	11.0	11.3	16.9	15.7	20.2
Cycle Q Clear(g_c), s	8.2	20.1	20.1	1.7	11.9	7.9	7.2	11.0	11.3	16.9	15.7	20.2
Prop In Lane	1.00		0.20	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	299	1681	891	190	2360	733	238	540	241	364	386	344
V/C Ratio(X)	0.80	0.43	0.43	0.27	0.34	0.24	0.54	0.64	0.66	0.99	0.66	0.81
Avail Cap(c_a), veh/h	487	1681	891	314	2360	733	336	1066	476	364	551	491
HCM Platoon Ratio	0.67	0.67	0.67	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	55.5	27.0	27.0	54.4	20.5	19.5	39.3	47.8	47.9	39.5	42.9	44.7
Incr Delay (d2), s/veh	1.9	0.8	1.5	0.3	0.4	0.8	0.7	1.8	4.3	44.4	2.7	8.4
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(95%),veh/ln	6.6	13.5	14.4	1.4	8.2	5.5	5.7	8.7	8.3	11.4	11.5	13.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	57.4	27.8	28.6	54.7	20.9	20.2	40.0	49.7	52.2	83.9	45.6	53.1
LnGrp LOS	E	C	C	D	C	C	D	D	D	F	D	D
Approach Vol, veh/h	1356				1018				634		895	
Approach Delay, s/veh	33.3				22.5				48.3		63.4	
Approach LOS	C				C				D		E	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	10.1	65.3	12.6	32.1	13.9	61.5	20.4	24.2				
Change Period (Y+Rc), s	3.5	6.0	3.5	6.0	3.5	6.0	3.5	6.0				
Max Green Setting (Gmax), s	10.9	37.2	15.7	37.2	16.9	31.2	16.9	36.0				
Max Q Clear Time (g_c+1.3), s	13.7	22.1	9.2	22.2	10.2	13.9	18.9	13.3				
Green Ext Time (p_c), s	0.0	7.9	0.0	3.9	0.2	7.3	0.0	3.9				

Intersection Summary

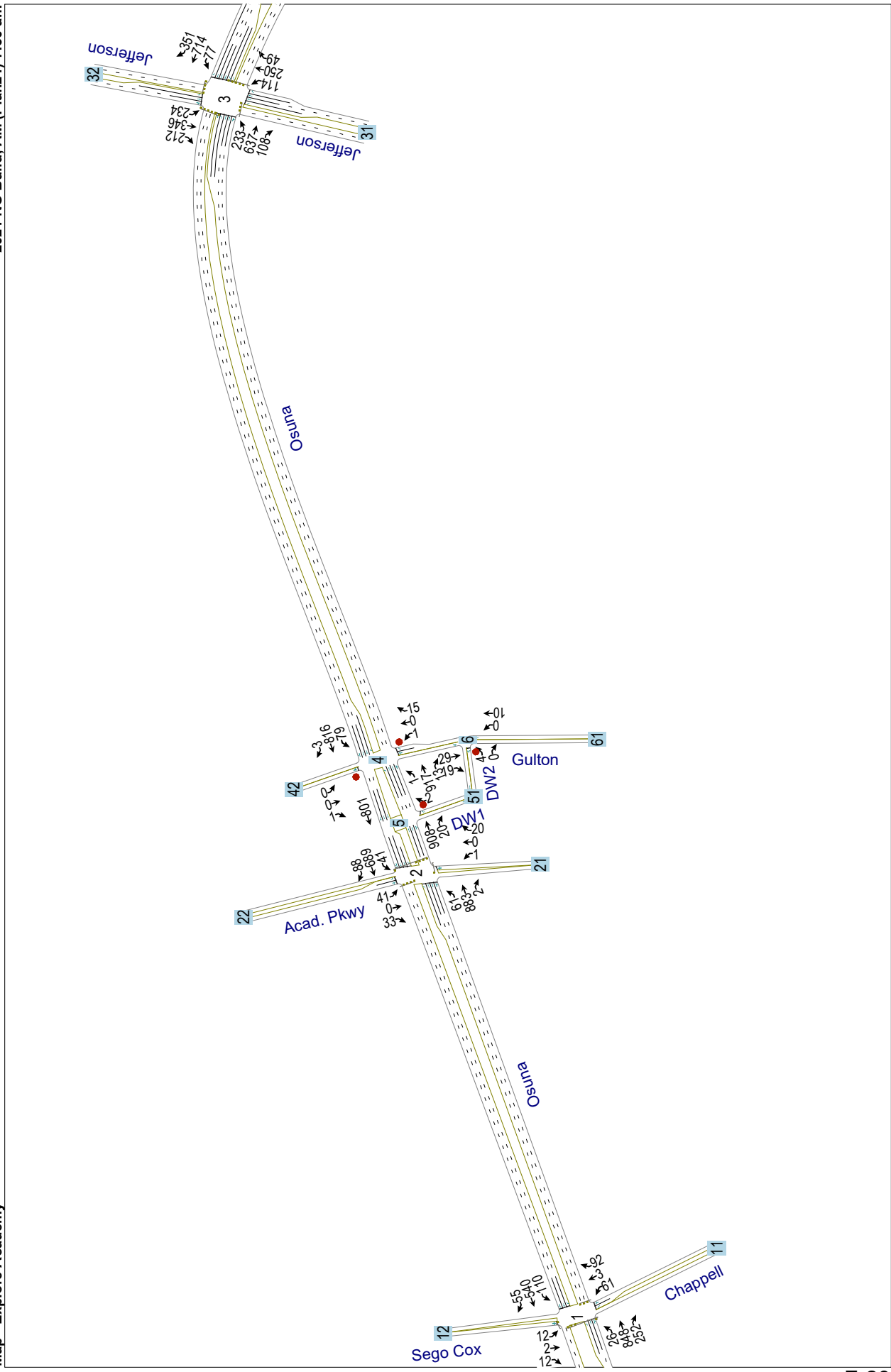
HCM 6th Ctrl Delay 39.8

HCM 6th LOS D

Intersection												
Int Delay, s/veh	1.3											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↵ ↑↑↑			↵ ↑↑↑			↵ ↑			↵		
Traffic Vol, veh/h	1	1150	9	29	1095	5	9	0	66	14	0	3
Future Vol, veh/h	1	1150	9	29	1095	5	9	0	66	14	0	3
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	0	-	-	125	-	-	-	-	50	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	96	96	96	96	96	96	96	96	96	96	96	96
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	1	1198	9	30	1141	5	9	0	69	15	0	3
Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	1146	0	0	1207	0	0	1721	2411	604	1685	2413	573
Stage 1	-	-	-	-	-	-	1205	1205	-	1204	1204	-
Stage 2	-	-	-	-	-	-	516	1206	-	481	1209	-
Critical Hdwy	5.34	-	-	5.34	-	-	6.44	6.54	7.14	6.44	6.54	7.14
Critical Hdwy Stg 1	-	-	-	-	-	-	7.34	5.54	-	7.34	5.54	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.74	5.54	-	6.74	5.54	-
Follow-up Hdwy	3.12	-	-	3.12	-	-	3.82	4.02	3.92	3.82	4.02	3.92
Pot Cap-1 Maneuver	333	-	-	311	-	-	94	32	378	99	32	396
Stage 1	-	-	-	-	-	-	143	255	-	143	255	-
Stage 2	-	-	-	-	-	-	466	255	-	489	254	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	333	-	-	311	-	-	86	29	378	75	29	396
Mov Cap-2 Maneuver	-	-	-	-	-	-	86	29	-	75	29	-
Stage 1	-	-	-	-	-	-	143	254	-	143	231	-
Stage 2	-	-	-	-	-	-	418	231	-	399	253	-
Approach	EB			WB			NB			SB		
HCM Control Delay, s	0			0.5			20.8			55.9		
HCM LOS							C			F		
Minor Lane/Major Mvmt	NBLn1		NBLn2	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1		
Capacity (veh/h)	86		378	333	-	-	311	-	-	88		
HCM Lane V/C Ratio	0.109		0.182	0.003	-	-	0.097	-	-	0.201		
HCM Control Delay (s)	51.9		16.6	15.8	-	-	17.8	-	-	55.9		
HCM Lane LOS	F		C	C	-	-	C	-	-	F		
HCM 95th %tile Q(veh)	0.4		0.7	0	-	-	0.3	-	-	0.7		

Intersection						
Int Delay, s/veh	0					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑↑↓			↑↑↑↑		↗
Traffic Vol, veh/h	1107	0	0	1018	0	1
Future Vol, veh/h	1107	0	0	1018	0	1
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	96	96	96	96	96	96
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	1153	0	0	1060	0	1
Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	-	-	-	577
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	7.14
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	3.92
Pot Cap-1 Maneuver	-	-	0	-	0	394
Stage 1	-	-	0	-	0	-
Stage 2	-	-	0	-	0	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	-	-	-	394
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Approach	EB		WB		NB	
HCM Control Delay, s	0		0		14.2	
HCM LOS					B	
Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBT		
Capacity (veh/h)	394	-	-	-		
HCM Lane V/C Ratio	0.003	-	-	-		
HCM Control Delay (s)	14.2	-	-	-		
HCM Lane LOS	B	-	-	-		
HCM 95th %tile Q(veh)	0	-	-	-		

Intersection						
Int Delay, s/veh	1.2					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	5	0	0	25	7	0
Future Vol, veh/h	5	0	0	25	7	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	96	96	96	96	96	96
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	5	0	0	26	7	0
Major/Minor	Minor2	Major1		Major2		
Conflicting Flow All	33	7	7	0	-	0
Stage 1	7	-	-	-	-	-
Stage 2	26	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	980	1075	1614	-	-	-
Stage 1	1016	-	-	-	-	-
Stage 2	997	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	980	1075	1614	-	-	-
Mov Cap-2 Maneuver	980	-	-	-	-	-
Stage 1	1016	-	-	-	-	-
Stage 2	997	-	-	-	-	-
Approach	EB	NB		SB		
HCM Control Delay, s	8.7	0		0		
HCM LOS	A					
Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR	
Capacity (veh/h)	1614	-	980	-	-	
HCM Lane V/C Ratio	-	-	0.005	-	-	
HCM Control Delay (s)	0	-	8.7	-	-	
HCM Lane LOS	A	-	A	-	-	
HCM 95th %tile Q(veh)	0	-	0	-	-	



HCM 6th Signalized Intersection Summary

1: Chappell/Sego Cox & Osuna

Explore Academy

2021 NO Build, AM (Plan21) 7:30 am

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	26	840	252	110	535	55	61	3	92	12	2	12
Future Volume (veh/h)	26	840	252	110	535	55	61	3	92	12	2	12
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	30	975	290	126	621	63	70	3	106	14	2	14
Peak Hour Factor	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	551	2005	594	380	2487	252	183	4	155	67	20	38
Arrive On Green	0.02	0.74	0.74	0.01	0.25	0.25	0.10	0.10	0.10	0.10	0.10	0.10
Sat Flow, veh/h	1781	2703	800	1781	3258	330	1397	44	1548	227	204	377
Grp Volume(v), veh/h	30	639	626	126	338	346	70	0	109	30	0	0
Grp Sat Flow(s),veh/h/ln	1781	1777	1726	1781	1777	1811	1397	0	1592	808	0	0
Q Serve(g_s), s	0.5	17.4	17.6	2.0	18.2	18.3	0.0	0.0	7.9	0.1	0.0	0.0
Cycle Q Clear(g_c), s	0.5	17.4	17.6	2.0	18.2	18.3	7.0	0.0	7.9	8.1	0.0	0.0
Prop In Lane	1.00		0.46	1.00		0.18	1.00		0.97	0.47		0.47
Lane Grp Cap(c), veh/h	551	1318	1281	380	1357	1383	183	0	159	125	0	0
V/C Ratio(X)	0.05	0.49	0.49	0.33	0.25	0.25	0.38	0.00	0.69	0.24	0.00	0.00
Avail Cap(c_a), veh/h	702	1318	1281	493	1357	1383	525	0	548	477	0	0
HCM Platoon Ratio	1.00	1.00	1.00	0.33	0.33	0.33	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.98	0.98	0.98	1.00	0.00	1.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	4.7	6.2	6.3	5.2	17.4	17.5	51.7	0.0	52.2	49.6	0.0	0.0
Incr Delay (d2), s/veh	0.0	1.3	1.3	0.2	0.4	0.4	1.9	0.0	7.2	1.4	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	0.3	9.4	9.2	1.0	13.5	13.8	3.8	0.0	6.2	1.6	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	4.7	7.5	7.6	5.4	17.9	17.9	53.6	0.0	59.4	51.0	0.0	0.0
LnGrp LOS	A	A	A	A	B	B	D	A	E	D	A	A
Approach Vol, veh/h	1295				810				179			
Approach Delay, s/veh	7.5				15.9				57.1			
Approach LOS	A				B				E			
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	8.0	94.5		17.5	5.4	97.1		17.5				
Change Period (Y+Rc), s	4.0	5.5		5.5	3.5	5.5		5.5				
Max Green Setting (Gmax), s	11.6	52.1		41.3	12.1	52.1		41.3				
Max Q Clear Time (g_c+I1), s	4.0	19.6		10.1	2.5	20.3		9.9				
Green Ext Time (p_c), s	0.1	14.3		0.2	0.0	6.1		1.2				
Intersection Summary												
HCM 6th Ctrl Delay	14.9											
HCM 6th LOS	B											

HCM 6th Signalized Intersection Summary 2: Acad. Pkwy & Osuna

Explore Academy
2021 NO Build, AM (Plan21) 7:30 am



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰ ↱ ↲ ↳	↰ ↱ ↲ ↳		↰ ↱ ↲ ↳	↰ ↱ ↲ ↳			↰ ↱ ↲ ↳		↰ ↱ ↲ ↳	↰ ↱ ↲ ↳	
Traffic Volume (veh/h)	61	874	2	41	682	88	1	0	20	41	0	33
Future Volume (veh/h)	61	874	2	41	682	88	1	0	20	41	0	33
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	70	1015	2	47	792	101	1	0	23	47	0	38
Peak Hour Factor	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	543	4010	8	516	3480	441	33	5	148	201	0	154
Arrive On Green	0.05	1.00	1.00	0.02	0.76	0.76	0.10	0.00	0.10	0.10	0.00	0.10
Sat Flow, veh/h	1781	5262	10	1781	4588	581	18	49	1523	1388	0	1585
Grp Volume(v), veh/h	70	657	360	47	586	307	24	0	0	47	0	38
Grp Sat Flow(s),veh/h/ln	1781	1702	1868	1781	1702	1766	1590	0	0	1388	0	1585
Q Serve(g_s), s	1.1	0.0	0.0	0.7	6.0	6.1	0.0	0.0	0.0	1.7	0.0	2.7
Cycle Q Clear(g_c), s	1.1	0.0	0.0	0.7	6.0	6.1	1.7	0.0	0.0	3.3	0.0	2.7
Prop In Lane	1.00		0.01	1.00		0.33	0.04		0.96	1.00		1.00
Lane Grp Cap(c), veh/h	543	2594	1424	516	2582	1339	186	0	0	201	0	154
V/C Ratio(X)	0.13	0.25	0.25	0.09	0.23	0.23	0.13	0.00	0.00	0.23	0.00	0.25
Avail Cap(c_a), veh/h	663	2594	1424	642	2582	1339	370	0	0	363	0	339
HCM Platoon Ratio	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.83	0.83	0.83	1.00	1.00	1.00	1.00	0.00	0.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	3.1	0.0	0.0	3.0	4.2	4.2	49.6	0.0	0.0	50.3	0.0	50.1
Incr Delay (d2), s/veh	0.0	0.2	0.4	0.0	0.2	0.4	0.2	0.0	0.0	0.4	0.0	0.6
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(95%),veh/ln	0.5	0.1	0.3	0.3	3.0	3.3	1.2	0.0	0.0	2.4	0.0	2.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	3.1	0.2	0.4	3.1	4.4	4.6	49.9	0.0	0.0	50.7	0.0	50.7
LnGrp LOS	A	A	A	A	A	A	D	A	A	D	A	D
Approach Vol, veh/h	1087			940			24			85		
Approach Delay, s/veh	0.4			4.4			49.9			50.7		
Approach LOS	A			A			D			D		
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	5.9	96.9		17.2	6.3	96.5		17.2				
Change Period (Y+Rc), s	3.5	5.5		5.5	3.5	5.5		5.5				
Max Green Setting (Gmax), s	10.9	68.9		25.7	10.9	68.9		25.7				
Max Q Clear Time (g_c+I2), s	12.7	2.0		5.3	3.1	8.1		3.7				
Green Ext Time (p_c), s	0.0	7.4		0.2	0.0	6.3		0.1				
Intersection Summary												
HCM 6th Ctrl Delay	4.8											
HCM 6th LOS	A											

HCM 6th Signalized Intersection Summary

3: Jefferson & Osuna

Explore Academy

2021 NO Build, AM (Plan21) 7:30 am

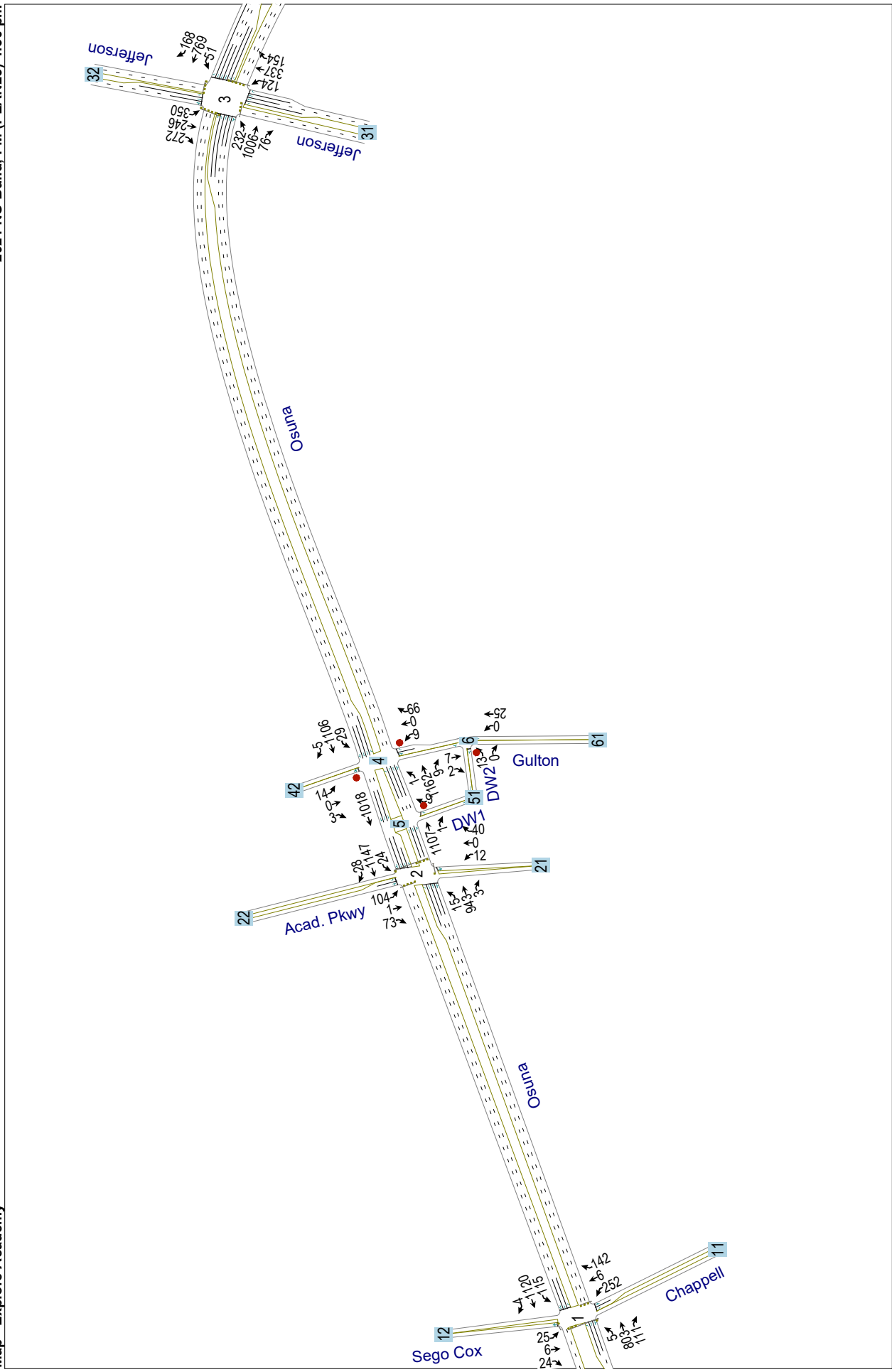


Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	231	631	107	76	707	348	113	248	49	232	343	210
Future Volume (veh/h)	231	631	107	76	707	348	113	248	49	232	343	210
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	268	733	124	88	821	404	131	288	57	269	398	244
Peak Hour Factor	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	327	2093	351	218	2266	703	230	719	321	376	489	296
Arrive On Green	0.03	0.16	0.16	0.06	0.44	0.44	0.07	0.20	0.20	0.10	0.23	0.23
Sat Flow, veh/h	3456	4404	738	3456	5106	1585	1781	3554	1585	1781	2127	1288
Grp Volume(v), veh/h	268	565	292	88	821	404	131	288	57	269	332	310
Grp Sat Flow(s),veh/h/ln	1728	1702	1738	1728	1702	1585	1781	1777	1585	1781	1777	1638
Q Serve(g_s), s	9.3	17.8	18.0	2.9	12.8	22.8	6.9	8.4	3.6	12.1	21.2	21.6
Cycle Q Clear(g_c), s	9.3	17.8	18.0	2.9	12.8	22.8	6.9	8.4	3.6	12.1	21.2	21.6
Prop In Lane	1.00		0.42	1.00		1.00	1.00		1.00	1.00		0.79
Lane Grp Cap(c), veh/h	327	1618	826	218	2266	703	230	719	321	376	408	376
V/C Ratio(X)	0.82	0.35	0.35	0.40	0.36	0.57	0.57	0.40	0.18	0.71	0.81	0.82
Avail Cap(c_a), veh/h	418	1618	826	418	2266	703	279	1031	460	376	515	475
HCM Platoon Ratio	0.33	0.33	0.33	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	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	57.1	34.0	34.1	54.0	22.1	24.9	35.6	41.5	39.6	35.2	43.8	43.9
Incr Delay (d2), s/veh	7.7	0.6	1.2	0.4	0.5	3.4	0.8	0.5	0.4	5.5	8.8	10.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	8.0	12.9	13.4	2.3	8.7	13.9	5.4	6.7	2.6	3.4	15.4	14.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	64.9	34.6	35.3	54.5	22.6	28.3	36.5	42.1	40.0	40.7	52.6	54.2
LnGrp LOS	E	C	D	D	C	C	D	D	D	D	D	D
Approach Vol, veh/h	1125					1313		476		911		
Approach Delay, s/veh	42.0					26.5		40.3		49.6		
Approach LOS	D					C		D		D		
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	11.1	63.0	12.3	33.6	14.9	59.3	15.6	30.3				
Change Period (Y+Rc), s	3.5	6.0	3.5	6.0	3.5	6.0	3.5	6.0				
Max Green Setting (Gmax), s	14.5	39.6	12.1	34.8	14.5	39.6	12.1	34.8				
Max Q Clear Time (g_c+I4.5	14.5	20.0	8.9	23.6	11.3	24.8	14.1	10.4				
Green Ext Time (p_c), s	0.0	7.0	0.0	4.0	0.1	8.0	0.0	2.8				
Intersection Summary												
HCM 6th Ctrl Delay			38.3									
HCM 6th LOS			D									

Intersection												
Int Delay, s/veh	0.9											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	T ↑↑↑			T ↑↑↑			T ↑			T ↑		
Traffic Vol, veh/h	1	908	13	79	808	3	1	0	15	0	0	1
Future Vol, veh/h	1	908	13	79	808	3	1	0	15	0	0	1
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	0	-	-	125	-	-	-	-	50	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	87	87	87	87	87	87	87	87	87	87	87	87
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	1	1054	15	91	938	3	1	0	17	0	0	1
Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	941	0	0	1069	0	0	1621	2187	535	1546	2193	471
Stage 1	-	-	-	-	-	-	1064	1064	-	1122	1122	-
Stage 2	-	-	-	-	-	-	557	1123	-	424	1071	-
Critical Hdwy	5.34	-	-	5.34	-	-	6.44	6.54	7.14	6.44	6.54	7.14
Critical Hdwy Stg 1	-	-	-	-	-	-	7.34	5.54	-	7.34	5.54	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.74	5.54	-	6.74	5.54	-
Follow-up Hdwy	3.12	-	-	3.12	-	-	3.82	4.02	3.92	3.82	4.02	3.92
Pot Cap-1 Maneuver	418	-	-	362	-	-	109	45	419	121	45	461
Stage 1	-	-	-	-	-	-	180	298	-	164	279	-
Stage 2	-	-	-	-	-	-	440	279	-	529	295	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	418	-	-	362	-	-	88	34	419	93	34	461
Mov Cap-2 Maneuver	-	-	-	-	-	-	88	34	-	93	34	-
Stage 1	-	-	-	-	-	-	180	297	-	164	209	-
Stage 2	-	-	-	-	-	-	329	209	-	506	294	-
Approach	EB			WB			NB			SB		
HCM Control Delay, s	0			1.6			16			12.8		
HCM LOS							C			B		
Minor Lane/Major Mvmt	NBLn1		NBLn2	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1		
Capacity (veh/h)	88		419	418	-	-	362	-	-	461		
HCM Lane V/C Ratio	0.013		0.041	0.003	-	-	0.251	-	-	0.002		
HCM Control Delay (s)	46.5		14	13.6	-	-	18.2	-	-	12.8		
HCM Lane LOS	E		B	B	-	-	C	-	-	B		
HCM 95th %tile Q(veh)	0		0.1	0	-	-	1	-	-	0		

Intersection						
Int Delay, s/veh	0					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑↑↓			↑↑↑↑		↗
Traffic Vol, veh/h	899	20	0	793	0	2
Future Vol, veh/h	899	20	0	793	0	2
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	87	87	87	87	87	87
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	1044	23	0	921	0	2
Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	-	-	-	534
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	7.14
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	3.92
Pot Cap-1 Maneuver	-	-	0	-	0	420
Stage 1	-	-	0	-	0	-
Stage 2	-	-	0	-	0	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	-	-	-	420
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Approach	EB		WB		NB	
HCM Control Delay, s	0		0		13.6	
HCM LOS					B	
Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBT		
Capacity (veh/h)	420	-	-	-		
HCM Lane V/C Ratio	0.005	-	-	-		
HCM Control Delay (s)	13.6	-	-	-		
HCM Lane LOS	B	-	-	-		
HCM 95th %tile Q(veh)	0	-	-	-		

Intersection						
Int Delay, s/veh	0.6					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	4	0	0	10	29	19
Future Vol, veh/h	4	0	0	10	29	19
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	87	87	87	87	87	87
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	5	0	0	11	33	22
Major/Minor	Minor2	Major1		Major2		
Conflicting Flow All	55	44	55	0	-	0
Stage 1	44	-	-	-	-	-
Stage 2	11	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	953	1026	1550	-	-	-
Stage 1	978	-	-	-	-	-
Stage 2	1012	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	953	1026	1550	-	-	-
Mov Cap-2 Maneuver	953	-	-	-	-	-
Stage 1	978	-	-	-	-	-
Stage 2	1012	-	-	-	-	-
Approach	EB	NB		SB		
HCM Control Delay, s	8.8	0		0		
HCM LOS	A					
Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR	
Capacity (veh/h)	1550	-	953	-	-	
HCM Lane V/C Ratio	-	-	0.005	-	-	
HCM Control Delay (s)	0	-	8.8	-	-	
HCM Lane LOS	A	-	A	-	-	
HCM 95th %tile Q(veh)	0	-	0	-	-	



HCM 6th Signalized Intersection Summary

1: Chappell/Sego Cox & Osuna

Explore Academy
2021 NO Build, 11/18/2020 4:30 pm

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	5	795	111	115	1109	4	252	6	142	25	6	24
Future Volume (veh/h)	5	795	111	115	1109	4	252	6	142	25	6	24
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	5	836	116	120	1167	4	262	6	148	26	6	25
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	234	1854	257	394	2299	8	361	15	371	148	43	116
Arrive On Green	0.00	0.59	0.59	0.01	0.21	0.21	0.24	0.24	0.24	0.24	0.24	0.24
Sat Flow, veh/h	1781	3134	435	1781	3633	12	1378	62	1532	432	179	478
Grp Volume(v), veh/h	5	474	478	120	571	600	262	0	154	57	0	0
Grp Sat Flow(s),veh/h/ln	1781	1777	1792	1781	1777	1868	1378	0	1595	1089	0	0
Q Serve(g_s), s	0.1	17.8	17.8	3.0	34.1	34.1	14.0	0.0	9.7	1.2	0.0	0.0
Cycle Q Clear(g_c), s	0.1	17.8	17.8	3.0	34.1	34.1	24.9	0.0	9.7	10.9	0.0	0.0
Prop In Lane	1.00		0.24	1.00		0.01	1.00		0.96	0.46		0.44
Lane Grp Cap(c), veh/h	234	1051	1060	394	1125	1183	361	0	386	308	0	0
V/C Ratio(X)	0.02	0.45	0.45	0.30	0.51	0.51	0.73	0.00	0.40	0.19	0.00	0.00
Avail Cap(c_a), veh/h	407	1051	1060	475	1125	1183	501	0	549	453	0	0
HCM Platoon Ratio	1.00	1.00	1.00	0.33	0.33	0.33	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.96	0.96	0.96	1.00	0.00	1.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	13.4	13.7	13.7	10.3	30.9	30.9	44.8	0.0	38.1	37.2	0.0	0.0
Incr Delay (d2), s/veh	0.0	1.4	1.4	0.2	1.6	1.5	4.3	0.0	0.9	0.4	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	0.1	11.2	11.3	2.0	23.1	24.1	12.5	0.0	7.0	2.7	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	13.4	15.1	15.0	10.4	32.5	32.4	49.1	0.0	39.1	37.6	0.0	0.0
LnGrp LOS	B	B	B	B	C	C	D	A	D	D	A	A
Approach Vol, veh/h	957				1291				416			
Approach Delay, s/veh	15.0				30.4				45.4			
Approach LOS	B				C				D			
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	8.9	76.5		34.6	4.0	81.5		34.6				
Change Period (Y+Rc), s	4.0	5.5		5.5	3.5	5.5		5.5				
Max Green Setting (Gmax), s	10.4	52.1		41.3	12.1	52.1		41.3				
Max Q Clear Time (g_c+I1), s	5.0	19.8		12.9	2.1	36.1		26.9				
Green Ext Time (p_c), s	0.1	9.5		0.4	0.0	8.6		2.2				
Intersection Summary												
HCM 6th Ctrl Delay	27.4											
HCM 6th LOS	C											

HCM 6th Signalized Intersection Summary 2: Acad. Pkwy & Osuna

Explore Academy
2021 NO Build, 11/18/2020 4:30 pm



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰ ↱ ↲ ↳	↰ ↱ ↲ ↳		↰ ↱ ↲ ↳	↰ ↱ ↲ ↳			↰ ↱ ↲ ↳		↰ ↱ ↲ ↳	↰ ↱ ↲ ↳	
Traffic Volume (veh/h)	15	934	3	24	1136	28	12	0	40	104	1	73
Future Volume (veh/h)	15	934	3	24	1136	28	12	0	40	104	1	73
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	16	983	3	25	1195	29	12	0	42	108	1	76
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	396	4018	12	491	3940	96	55	17	122	194	2	158
Arrive On Green	0.01	0.76	0.76	0.01	0.77	0.77	0.10	0.00	0.10	0.10	0.10	0.10
Sat Flow, veh/h	1781	5255	16	1781	5128	124	183	164	1218	1365	21	1568
Grp Volume(v), veh/h	16	637	349	25	793	431	54	0	0	108	0	77
Grp Sat Flow(s), veh/h/ln	1781	1702	1867	1781	1702	1848	1565	0	0	1365	0	1588
Q Serve(g_s), s	0.2	6.5	6.5	0.4	8.4	8.5	0.0	0.0	0.0	4.0	0.0	5.5
Cycle Q Clear(g_c), s	0.2	6.5	6.5	0.4	8.4	8.5	5.5	0.0	0.0	9.5	0.0	5.5
Prop In Lane	1.00		0.01	1.00		0.07	0.22		0.78	1.00		0.99
Lane Grp Cap(c), veh/h	396	2602	1428	491	2615	1420	194	0	0	194	0	160
V/C Ratio(X)	0.04	0.24	0.24	0.05	0.30	0.30	0.28	0.00	0.00	0.56	0.00	0.48
Avail Cap(c_a), veh/h	540	2602	1428	627	2615	1420	397	0	0	377	0	372
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)	0.87	0.87	0.87	1.00	1.00	1.00	1.00	0.00	0.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	3.3	4.1	4.1	3.2	4.2	4.2	50.2	0.0	0.0	52.9	0.0	51.0
Incr Delay (d2), s/veh	0.0	0.2	0.4	0.0	0.3	0.6	0.6	0.0	0.0	1.8	0.0	1.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	0.1	3.1	3.6	0.2	4.1	4.6	2.8	0.0	0.0	6.0	0.0	4.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	3.4	4.3	4.4	3.2	4.5	4.8	50.8	0.0	0.0	54.7	0.0	52.7
LnGrp LOS	A	A	A	A	A	A	D	A	A	D	A	D
Approach Vol, veh/h	1002			1249			54			185		
Approach Delay, s/veh	4.3			4.6			50.8			53.9		
Approach LOS	A			A			D			D		
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	5.2	97.2		17.6	4.7	97.7		17.6				
Change Period (Y+Rc), s	3.5	5.5		5.5	3.5	5.5		5.5				
Max Green Setting (Gmax), s	10.9	66.5		28.1	10.9	66.5		28.1				
Max Q Clear Time (g_c+I), s	12.4	8.5		11.5	2.2	10.5		7.5				
Green Ext Time (p_c), s	0.0	7.1		0.5	0.0	9.7		0.2				
Intersection Summary												
HCM 6th Ctrl Delay	9.1											
HCM 6th LOS	A											

HCM 6th Signalized Intersection Summary

3: Jefferson & Osuna

Explore Academy

2021 NO Build, 11/18/2020 4:30 pm



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	230	996	75	50	761	166	123	334	152	347	244	269
Future Volume (veh/h)	230	996	75	50	761	166	123	334	152	347	244	269
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No				No				No			
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	242	1048	79	53	801	175	129	351	160	365	257	283
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	301	2380	179	191	2346	728	238	548	245	366	389	347
Arrive On Green	0.06	0.33	0.33	0.06	0.46	0.46	0.08	0.15	0.15	0.14	0.22	0.22
Sat Flow, veh/h	3456	4844	365	3456	5106	1585	1781	3554	1585	1781	1777	1585
Grp Volume(v), veh/h	242	736	391	53	801	175	129	351	160	365	257	283
Grp Sat Flow(s),veh/h/ln	1728	1702	1805	1728	1702	1585	1781	1777	1585	1781	1777	1585
Q Serve(g_s), s	8.3	20.4	20.4	1.8	12.1	8.1	7.2	11.1	11.4	16.9	15.8	20.4
Cycle Q Clear(g_c), s	8.3	20.4	20.4	1.8	12.1	8.1	7.2	11.1	11.4	16.9	15.8	20.4
Prop In Lane	1.00		0.20	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	301	1672	887	191	2346	728	238	548	245	366	389	347
V/C Ratio(X)	0.80	0.44	0.44	0.28	0.34	0.24	0.54	0.64	0.65	1.00	0.66	0.82
Avail Cap(c_a), veh/h	487	1672	887	314	2346	728	336	1066	476	366	551	491
HCM Platoon Ratio	0.67	0.67	0.67	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	55.5	27.3	27.3	54.4	20.8	19.7	39.1	47.6	47.7	39.5	42.8	44.5
Incr Delay (d2), s/veh	1.9	0.8	1.6	0.3	0.4	0.8	0.7	1.8	4.2	46.5	2.7	8.6
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(95%),veh/ln	6.7	13.7	14.6	1.4	8.3	5.6	5.7	8.7	8.3	11.9	11.6	13.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	57.4	28.2	28.9	54.7	21.2	20.5	39.8	49.4	51.9	86.1	45.5	53.1
LnGrp LOS	E	C	C	D	C	C	D	D	D	F	D	D
Approach Vol, veh/h	1369				1029				640		905	
Approach Delay, s/veh	33.5				22.8				48.1		64.2	
Approach LOS	C				C				D		E	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	40.1	64.9	12.6	32.3	14.0	61.1	20.4	24.5				
Change Period (Y+Rc), s	3.5	6.0	3.5	6.0	3.5	6.0	3.5	6.0				
Max Green Setting (Gmax), s	10.9	37.2	15.7	37.2	16.9	31.2	16.9	36.0				
Max Q Clear Time (g_c+I), s	13.8	22.4	9.2	22.4	10.3	14.1	18.9	13.4				
Green Ext Time (p_c), s	0.0	7.9	0.0	3.9	0.2	7.3	0.0	3.9				

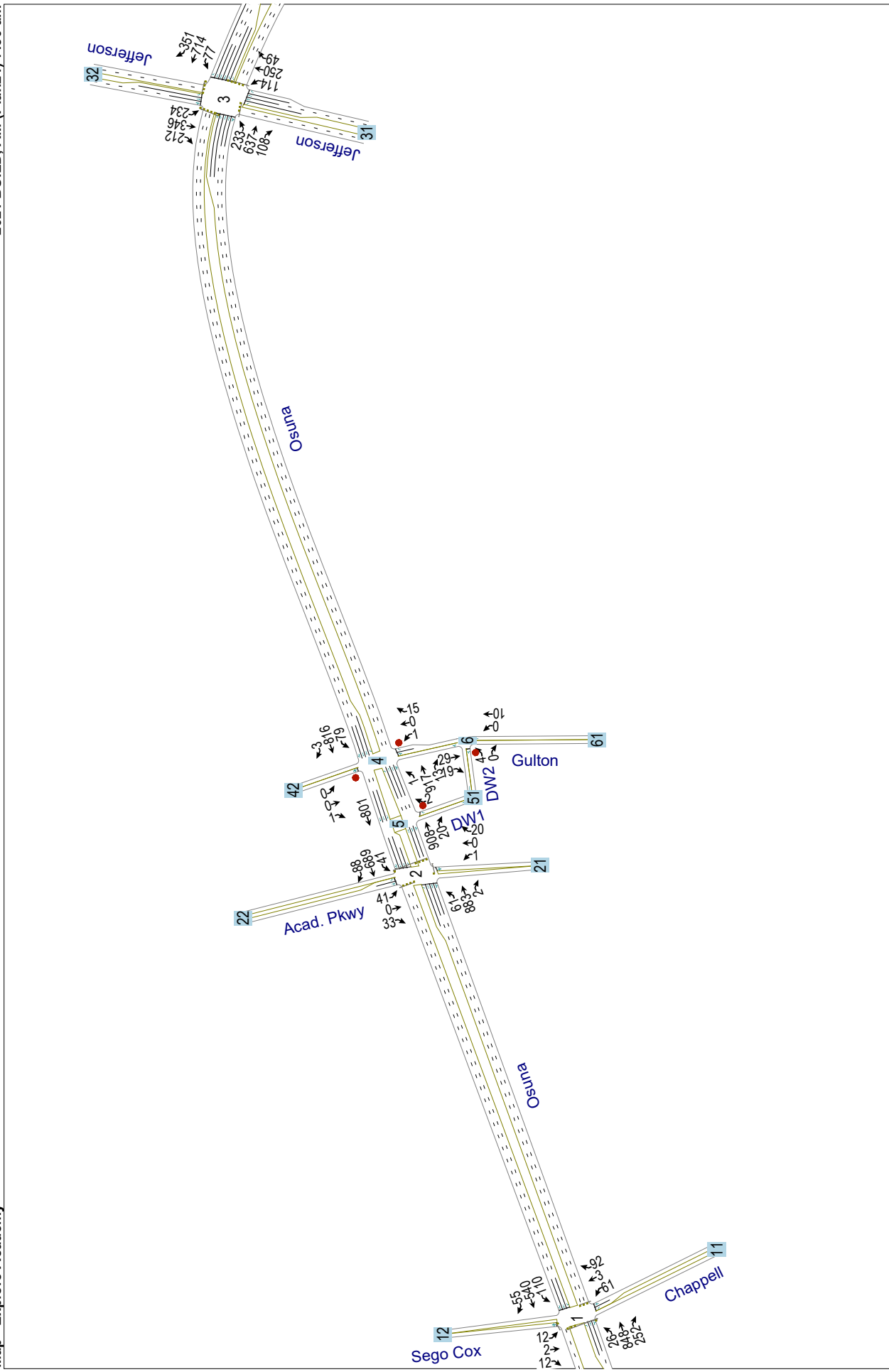
Intersection Summary

HCM 6th Ctrl Delay	40.1
HCM 6th LOS	D

Intersection												
Int Delay, s/veh	1.3											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↵ ↑↑↑			↵ ↑↑↑			↵ ↑			↵		
Traffic Vol, veh/h	1	1150	9	29	1095	5	9	0	66	14	0	3
Future Vol, veh/h	1	1150	9	29	1095	5	9	0	66	14	0	3
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	0	-	-	125	-	-	-	-	50	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	96	96	96	96	96	96	96	96	96	96	96	96
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	1	1210	9	30	1152	5	9	0	69	15	0	3
Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	1157	0	0	1219	0	0	1738	2434	610	1701	2436	579
Stage 1	-	-	-	-	-	-	1217	1217	-	1215	1215	-
Stage 2	-	-	-	-	-	-	521	1217	-	486	1221	-
Critical Hdwy	5.34	-	-	5.34	-	-	6.44	6.54	7.14	6.44	6.54	7.14
Critical Hdwy Stg 1	-	-	-	-	-	-	7.34	5.54	-	7.34	5.54	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.74	5.54	-	6.74	5.54	-
Follow-up Hdwy	3.12	-	-	3.12	-	-	3.82	4.02	3.92	3.82	4.02	3.92
Pot Cap-1 Maneuver	328	-	-	306	-	-	92	31	375	97	31	393
Stage 1	-	-	-	-	-	-	140	252	-	141	252	-
Stage 2	-	-	-	-	-	-	463	252	-	486	251	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	328	-	-	306	-	-	84	28	375	73	28	393
Mov Cap-2 Maneuver	-	-	-	-	-	-	84	28	-	73	28	-
Stage 1	-	-	-	-	-	-	140	251	-	141	227	-
Stage 2	-	-	-	-	-	-	414	227	-	396	250	-
Approach	EB			WB			NB			SB		
HCM Control Delay, s	0			0.5			21.1			58.2		
HCM LOS							C			F		
Minor Lane/Major Mvmt	NBLn1		NBLn2	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1		
Capacity (veh/h)	84		375	328	-	-	306	-	-	85		
HCM Lane V/C Ratio	0.112		0.183	0.003	-	-	0.099	-	-	0.208		
HCM Control Delay (s)	53.2		16.7	16	-	-	18	-	-	58.2		
HCM Lane LOS	F		C	C	-	-	C	-	-	F		
HCM 95th %tile Q(veh)	0.4		0.7	0	-	-	0.3	-	-	0.7		

Intersection						
Int Delay, s/veh	0.1					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑↑↓			↑↑↑↑		↗
Traffic Vol, veh/h	1107	1	0	1018	0	9
Future Vol, veh/h	1107	1	0	1018	0	9
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	96	96	96	96	96	96
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	1153	1	0	1060	0	9
Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	-	-	-	577
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	7.14
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	3.92
Pot Cap-1 Maneuver	-	-	0	-	0	394
Stage 1	-	-	0	-	0	-
Stage 2	-	-	0	-	0	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	-	-	-	394
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Approach	EB		WB		NB	
HCM Control Delay, s	0		0		14.4	
HCM LOS					B	
Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBT		
Capacity (veh/h)	394	-	-	-		
HCM Lane V/C Ratio	0.024	-	-	-		
HCM Control Delay (s)	14.4	-	-	-		
HCM Lane LOS	B	-	-	-		
HCM 95th %tile Q(veh)	0.1	-	-	-		

Intersection						
Int Delay, s/veh	2.4					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	13	0	0	25	7	2
Future Vol, veh/h	13	0	0	25	7	2
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	96	96	96	96	96	96
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	14	0	0	26	7	2
Major/Minor	Minor2	Major1		Major2		
Conflicting Flow All	34	8	9	0	-	0
Stage 1	8	-	-	-	-	-
Stage 2	26	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	979	1074	1611	-	-	-
Stage 1	1015	-	-	-	-	-
Stage 2	997	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	979	1074	1611	-	-	-
Mov Cap-2 Maneuver	979	-	-	-	-	-
Stage 1	1015	-	-	-	-	-
Stage 2	997	-	-	-	-	-
Approach	EB	NB		SB		
HCM Control Delay, s	8.7	0		0		
HCM LOS	A					
Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR	
Capacity (veh/h)	1611	-	979	-	-	
HCM Lane V/C Ratio	-	-	0.014	-	-	
HCM Control Delay (s)	0	-	8.7	-	-	
HCM Lane LOS	A	-	A	-	-	
HCM 95th %tile Q(veh)	0	-	0	-	-	



HCM 6th Signalized Intersection Summary

1: Chappell/Sego Cox & Osuna

Explore Academy
2021 BUILD, AM (Plan21) 7:30 am

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	26	840	252	110	535	55	61	3	92	12	2	12
Future Volume (veh/h)	26	960	252	122	593	55	61	3	105	12	2	12
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	30	1114	290	140	688	63	70	3	121	14	2	14
Peak Hour Factor	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	509	2057	531	337	2500	229	181	4	161	63	20	34
Arrive On Green	0.02	0.74	0.74	0.01	0.25	0.25	0.10	0.10	0.10	0.10	0.10	0.10
Sat Flow, veh/h	1781	2796	722	1781	3292	301	1397	38	1552	181	191	325
Grp Volume(v), veh/h	30	704	700	140	371	380	70	0	124	30	0	0
Grp Sat Flow(s),veh/h/ln	1781	1777	1740	1781	1777	1816	1397	0	1591	697	0	0
Q Serve(g_s), s	0.5	20.8	21.3	2.2	20.2	20.2	0.0	0.0	9.1	0.1	0.0	0.0
Cycle Q Clear(g_c), s	0.5	20.8	21.3	2.2	20.2	20.2	7.4	0.0	9.1	9.2	0.0	0.0
Prop In Lane	1.00		0.41	1.00		0.17	1.00		0.98	0.47		0.47
Lane Grp Cap(c), veh/h	509	1307	1281	337	1350	1379	181	0	165	116	0	0
V/C Ratio(X)	0.06	0.54	0.55	0.42	0.27	0.28	0.39	0.00	0.75	0.26	0.00	0.00
Avail Cap(c_a), veh/h	660	1307	1281	446	1350	1379	517	0	548	461	0	0
HCM Platoon Ratio	1.00	1.00	1.00	0.33	0.33	0.33	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.98	0.98	0.98	1.00	0.00	1.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	5.1	6.9	7.0	6.6	18.4	18.4	51.5	0.0	52.3	49.2	0.0	0.0
Incr Delay (d2), s/veh	0.0	1.6	1.7	0.3	0.5	0.5	1.9	0.0	9.3	1.6	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	0.3	11.0	11.0	1.1	14.7	15.0	3.8	0.0	7.2	1.6	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	5.1	8.5	8.7	6.9	18.9	18.9	53.4	0.0	61.6	50.9	0.0	0.0
LnGrp LOS	A	A	A	A	B	B	D	A	E	D	A	A
Approach Vol, veh/h		1434			891			194			30	
Approach Delay, s/veh		8.5			17.0			58.6			50.9	
Approach LOS		A			B			E			D	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	8.3	93.8		18.0	5.4	96.6		18.0				
Change Period (Y+Rc), s	4.0	5.5		5.5	3.5	5.5		5.5				
Max Green Setting (Gmax), s	11.6	52.1		41.3	12.1	52.1		41.3				
Max Q Clear Time (g_c+I1), s	4.2	23.3		11.2	2.5	22.2		11.1				
Green Ext Time (p_c), s	0.1	15.5		0.2	0.0	6.8		1.4				
Intersection Summary												
HCM 6th Ctrl Delay			15.8									
HCM 6th LOS			B									

HCM 6th Signalized Intersection Summary

2: Acad. Pkwy & Osuna

Explore Academy
2021 BUILD, AM (Plan21) 7:30 am



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰ ↱ ↲ ↳	↰ ↱ ↲ ↳		↰ ↱ ↲ ↳	↰ ↱ ↲ ↳			↰ ↱ ↲ ↳		↰ ↱ ↲ ↳	↰ ↱ ↲ ↳	
Traffic Volume (veh/h)	61	874	2	41	682	88	1	0	20	41	0	33
Future Volume (veh/h)	61	1007	2	41	752	88	1	0	20	41	0	33
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	70	1169	2	47	873	101	1	0	23	47	0	38
Peak Hour Factor	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	507	4011	7	459	3521	406	33	5	148	201	0	154
Arrive On Green	0.05	1.00	1.00	0.02	0.76	0.76	0.10	0.00	0.10	0.10	0.00	0.10
Sat Flow, veh/h	1781	5264	9	1781	4643	535	18	49	1523	1388	0	1585
Grp Volume(v), veh/h	70	756	415	47	639	335	24	0	0	47	0	38
Grp Sat Flow(s), veh/h/ln	1781	1702	1869	1781	1702	1774	1590	0	0	1388	0	1585
Q Serve(g_s), s	1.1	0.0	0.0	0.7	6.7	6.7	0.0	0.0	0.0	1.7	0.0	2.7
Cycle Q Clear(g_c), s	1.1	0.0	0.0	0.7	6.7	6.7	1.7	0.0	0.0	3.3	0.0	2.7
Prop In Lane	1.00		0.00	1.00		0.30	0.04		0.96	1.00		1.00
Lane Grp Cap(c), veh/h	507	2594	1424	459	2582	1345	186	0	0	201	0	154
V/C Ratio(X)	0.14	0.29	0.29	0.10	0.25	0.25	0.13	0.00	0.00	0.23	0.00	0.25
Avail Cap(c_a), veh/h	627	2594	1424	585	2582	1345	370	0	0	363	0	339
HCM Platoon Ratio	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.77	0.77	0.77	1.00	1.00	1.00	1.00	0.00	0.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	3.1	0.0	0.0	3.0	4.3	4.3	49.6	0.0	0.0	50.3	0.0	50.1
Incr Delay (d2), s/veh	0.0	0.2	0.4	0.0	0.2	0.4	0.2	0.0	0.0	0.4	0.0	0.6
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(95%),veh/ln	0.5	0.1	0.3	0.3	3.3	3.6	1.2	0.0	0.0	2.4	0.0	2.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	3.1	0.2	0.4	3.1	4.5	4.8	49.9	0.0	0.0	50.7	0.0	50.7
LnGrp LOS	A	A	A	A	A	A	D	A	A	D	A	D
Approach Vol, veh/h	1241			1021			24			85		
Approach Delay, s/veh	0.4			4.5			49.9			50.7		
Approach LOS	A			A			D			D		
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	5.9	96.9		17.2	6.3	96.5		17.2				
Change Period (Y+Rc), s	3.5	5.5		5.5	3.5	5.5		5.5				
Max Green Setting (Gmax), s	10.9	68.9		25.7	10.9	68.9		25.7				
Max Q Clear Time (g_c+I2), s	12.7	2.0		5.3	3.1	8.7		3.7				
Green Ext Time (p_c), s	0.0	9.1		0.2	0.0	7.1		0.1				
Intersection Summary												
HCM 6th Ctrl Delay	4.5											
HCM 6th LOS	A											

HCM 6th Signalized Intersection Summary

3: Jefferson & Osuna

Explore Academy
2021 BUILD, AM (Plan21) 7:30 am



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰↱	↑↑↓		↰↱	↑↑↑	↰	↰	↑↑	↰	↰	↑↑	
Traffic Volume (veh/h)	231	631	107	76	707	348	113	248	49	232	343	210
Future Volume (veh/h)	256	699	119	76	808	348	129	248	49	232	343	240
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No				No				No			
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	297	811	138	88	938	404	150	288	57	269	398	279
Peak Hour Factor	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	356	2014	340	218	2136	663	241	780	348	396	481	333
Arrive On Green	0.03	0.15	0.15	0.06	0.42	0.42	0.08	0.22	0.22	0.10	0.24	0.24
Sat Flow, veh/h	3456	4397	743	3456	5106	1585	1781	3554	1585	1781	2006	1391
Grp Volume(v), veh/h	297	627	322	88	938	404	150	288	57	269	352	325
Grp Sat Flow(s),veh/h/ln	1728	1702	1737	1728	1702	1585	1781	1777	1585	1781	1777	1620
Q Serve(g_s), s	10.3	20.0	20.1	2.9	15.7	23.9	7.7	8.3	3.5	12.1	22.5	22.9
Cycle Q Clear(g_c), s	10.3	20.0	20.1	2.9	15.7	23.9	7.7	8.3	3.5	12.1	22.5	22.9
Prop In Lane	1.00		0.43	1.00		1.00	1.00		1.00	1.00		0.86
Lane Grp Cap(c), veh/h	356	1559	796	218	2136	663	241	780	348	396	426	388
V/C Ratio(X)	0.84	0.40	0.41	0.40	0.44	0.61	0.62	0.37	0.16	0.68	0.83	0.84
Avail Cap(c_a), veh/h	418	1559	796	418	2136	663	277	1031	460	396	515	470
HCM Platoon Ratio	0.33	0.33	0.33	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	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	56.9	36.1	36.2	54.0	24.9	27.2	34.2	39.8	37.9	33.8	43.2	43.4
Incr Delay (d2), s/veh	10.5	0.8	1.5	0.4	0.7	4.1	1.9	0.4	0.3	3.9	10.0	11.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	8.9	14.2	14.8	2.3	10.4	14.7	6.2	6.5	2.5	2.7	16.4	15.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	67.5	36.8	37.7	54.5	25.5	31.4	36.2	40.2	38.2	37.7	53.2	55.1
LnGrp LOS	E	D	D	D	C	C	D	D	D	D	D	E
Approach Vol, veh/h	1246				1430		495				946	
Approach Delay, s/veh	44.4				29.0		38.7				49.5	
Approach LOS	D				C		D				D	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	11.1	61.0	13.2	34.8	15.8	56.2	15.6	32.4				
Change Period (Y+Rc), s	3.5	6.0	3.5	6.0	3.5	6.0	3.5	6.0				
Max Green Setting (Gmax), s	14.5	39.6	12.1	34.8	14.5	39.6	12.1	34.8				
Max Q Clear Time (g_c+I), s	14.9	22.1	9.7	24.9	12.3	25.9	14.1	10.3				
Green Ext Time (p_c), s	0.0	7.4	0.0	3.9	0.1	8.3	0.0	2.8				

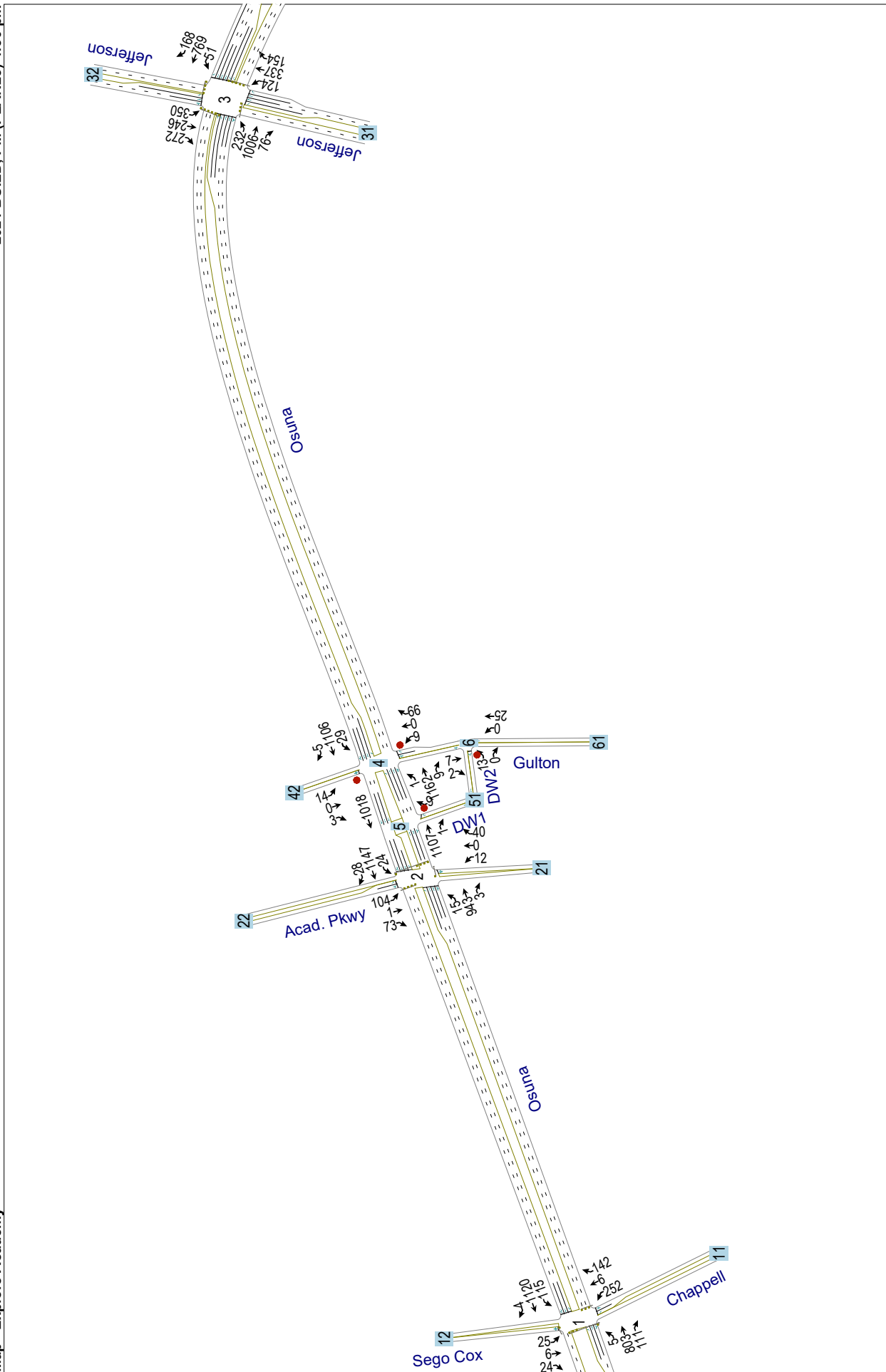
Intersection Summary

HCM 6th Ctrl Delay	39.5
HCM 6th LOS	D

Intersection												
Int Delay, s/veh	73.5											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↵ ↑↑↑			↵ ↑↑↑			↵ ↑ ↵			↵		
Traffic Vol, veh/h	1	908	13	79	808	3	1	0	15	0	0	1
Future Vol, veh/h	1	908	146	226	808	3	71	0	120	0	0	1
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	0	-	-	125	-	-	-	-	50	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	87	87	87	87	87	87	87	87	87	87	87	87
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	1	1054	168	260	938	3	82	0	138	0	0	1
Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	941	0	0	1222	0	0	2035	2601	611	1884	2684	471
Stage 1	-	-	-	-	-	-	1140	1140	-	1460	1460	-
Stage 2	-	-	-	-	-	-	895	1461	-	424	1224	-
Critical Hdwy	5.34	-	-	5.34	-	-	6.44	6.54	7.14	6.44	6.54	7.14
Critical Hdwy Stg 1	-	-	-	-	-	-	7.34	5.54	-	7.34	5.54	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.74	5.54	-	6.74	5.54	-
Follow-up Hdwy	3.12	-	-	3.12	-	-	3.82	4.02	3.92	3.82	4.02	3.92
Pot Cap-1 Maneuver	418	-	-	305	-	-	~ 60	24	374	75	22	461
Stage 1	-	-	-	-	-	-	159	274	-	94	192	-
Stage 2	-	-	-	-	-	-	273	192	-	529	250	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	418	-	-	305	-	-	~ 17	4	374	13	3	461
Mov Cap-2 Maneuver	-	-	-	-	-	-	~ 17	4	-	13	3	-
Stage 1	-	-	-	-	-	-	159	273	-	94	28	-
Stage 2	-	-	-	-	-	-	~ 40	28	-	333	250	-
Approach	EB			WB			NB			SB		
HCM Control Delay, s	0			12.7			\$ 816.4			12.8		
HCM LOS							F			B		
Minor Lane/Major Mvmt	NBLn1 NBLn2		EBL	EBT	EBR	WBL	WBT	WBR	SBLn1			
Capacity (veh/h)	17 374		418	-	-	305	-	-	461			
HCM Lane V/C Ratio	4.801 0.369		0.003	-	-	0.852	-	-	0.002			
HCM Control Delay (s)	\$ 2162.2 20.1		13.6	-	-	58.5	-	-	12.8			
HCM Lane LOS	F C		B	-	-	F	-	-	B			
HCM 95th %tile Q(veh)	10.9 1.7		0	-	-	7.4	-	-	0			
Notes												
~: Volume exceeds capacity		\$: Delay exceeds 300s		+: Computation Not Defined		*: All major volume in platoon						

Intersection						
Int Delay, s/veh	0					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑↑↓			↑↑↑↑		↗
Traffic Vol, veh/h	899	20	0	793	0	2
Future Vol, veh/h	1032	20	0	863	0	2
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	87	87	87	87	87	87
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	1198	23	0	1002	0	2
Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	-	-	-	611
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	7.14
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	3.92
Pot Cap-1 Maneuver	-	-	0	-	0	374
Stage 1	-	-	0	-	0	-
Stage 2	-	-	0	-	0	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	-	-	-	374
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Approach	EB		WB		NB	
HCM Control Delay, s	0		0		14.7	
HCM LOS					B	
Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBT		
Capacity (veh/h)	374	-	-	-		
HCM Lane V/C Ratio	0.006	-	-	-		
HCM Control Delay (s)	14.7	-	-	-		
HCM Lane LOS	B	-	-	-		
HCM 95th %tile Q(veh)	0	-	-	-		

Intersection						
Int Delay, s/veh	0.1					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	4	0	0	10	29	19
Future Vol, veh/h	4	0	0	185	309	19
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	87	87	87	87	87	87
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	5	0	0	213	355	22
Major/Minor	Minor2	Major1		Major2		
Conflicting Flow All	579	366	377	0	-	0
Stage 1	366	-	-	-	-	-
Stage 2	213	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	477	679	1181	-	-	-
Stage 1	702	-	-	-	-	-
Stage 2	823	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	477	679	1181	-	-	-
Mov Cap-2 Maneuver	477	-	-	-	-	-
Stage 1	702	-	-	-	-	-
Stage 2	823	-	-	-	-	-
Approach	EB	NB		SB		
HCM Control Delay, s	12.6	0		0		
HCM LOS	B					
Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR	
Capacity (veh/h)	1181	-	477	-	-	
HCM Lane V/C Ratio	-	-	0.01	-	-	
HCM Control Delay (s)	0	-	12.6	-	-	
HCM Lane LOS	A	-	B	-	-	
HCM 95th %tile Q(veh)	0	-	0	-	-	



HCM 6th Signalized Intersection Summary

1: Chappell/Sego Cox & Osuna

Explore Academy
2021 BUILD, 11/18/2020 4:30 pm

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	5	795	111	115	1109	4	252	6	142	25	6	24
Future Volume (veh/h)	5	818	111	118	1138	4	252	6	146	25	6	24
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	5	861	116	123	1197	4	262	6	152	26	6	25
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	225	1854	250	385	2295	8	361	15	374	148	43	115
Arrive On Green	0.00	0.59	0.59	0.01	0.21	0.21	0.24	0.24	0.24	0.24	0.24	0.24
Sat Flow, veh/h	1781	3147	424	1781	3633	12	1378	61	1534	427	178	472
Grp Volume(v), veh/h	5	486	491	123	585	616	262	0	158	57	0	0
Grp Sat Flow(s),veh/h/ln	1781	1777	1794	1781	1777	1868	1378	0	1594	1076	0	0
Q Serve(g_s), s	0.1	18.6	18.6	3.1	35.1	35.1	13.9	0.0	10.0	1.2	0.0	0.0
Cycle Q Clear(g_c), s	0.1	18.6	18.6	3.1	35.1	35.1	25.0	0.0	10.0	11.2	0.0	0.0
Prop In Lane	1.00		0.24	1.00		0.01	1.00		0.96	0.46		0.44
Lane Grp Cap(c), veh/h	225	1047	1057	385	1122	1180	361	0	388	306	0	0
V/C Ratio(X)	0.02	0.46	0.46	0.32	0.52	0.52	0.73	0.00	0.41	0.19	0.00	0.00
Avail Cap(c_a), veh/h	398	1047	1057	465	1122	1180	500	0	549	449	0	0
HCM Platoon Ratio	1.00	1.00	1.00	0.33	0.33	0.33	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.95	0.95	0.95	1.00	0.00	1.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	13.8	13.9	13.9	10.5	31.4	31.4	44.7	0.0	38.1	37.1	0.0	0.0
Incr Delay (d2), s/veh	0.0	1.5	1.5	0.2	1.6	1.6	4.3	0.0	1.0	0.4	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	0.1	11.6	11.7	2.0	23.7	24.6	12.5	0.0	7.2	2.7	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	13.8	15.4	15.4	10.7	33.0	33.0	49.1	0.0	39.1	37.5	0.0	0.0
LnGrp LOS	B	B	B	B	C	C	D	A	D	D	A	A
Approach Vol, veh/h	982				1324				420			
Approach Delay, s/veh	15.4				30.9				45.3			
Approach LOS	B				C				D			
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	9.0	76.2		34.7	4.0	81.3		34.7				
Change Period (Y+Rc), s	4.0	5.5		5.5	3.5	5.5		5.5				
Max Green Setting (Gmax), s	10.4	52.1		41.3	12.1	52.1		41.3				
Max Q Clear Time (g_c+I1), s	5.1	20.6		13.2	2.1	37.1		27.0				
Green Ext Time (p_c), s	0.1	9.8		0.4	0.0	8.5		2.2				
Intersection Summary												
HCM 6th Ctrl Delay	27.8											
HCM 6th LOS	C											

HCM 6th Signalized Intersection Summary

2: Acad. Pkwy & Osuna

Explore Academy
2021 BUILD, 11/18/2020 4:30 pm



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰ ↱ ↲ ↳	↰ ↱ ↲ ↳		↰ ↱ ↲ ↳	↰ ↱ ↲ ↳			↰ ↱ ↲ ↳		↰ ↱ ↲ ↳	↰ ↱ ↲ ↳	
Traffic Volume (veh/h)	15	934	3	24	1136	28	12	0	40	104	1	73
Future Volume (veh/h)	15	961	3	24	1168	28	12	0	40	104	1	73
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	16	1011	3	25	1229	29	12	0	42	108	1	76
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	385	4018	12	479	3943	93	55	17	122	194	2	158
Arrive On Green	0.01	0.76	0.76	0.01	0.77	0.77	0.10	0.00	0.10	0.10	0.10	0.10
Sat Flow, veh/h	1781	5256	16	1781	5132	121	183	164	1218	1365	21	1568
Grp Volume(v), veh/h	16	655	359	25	815	443	54	0	0	108	0	77
Grp Sat Flow(s), veh/h/ln	1781	1702	1868	1781	1702	1849	1565	0	0	1365	0	1588
Q Serve(g_s), s	0.2	6.7	6.7	0.4	8.8	8.8	0.0	0.0	0.0	4.0	0.0	5.5
Cycle Q Clear(g_c), s	0.2	6.7	6.7	0.4	8.8	8.8	5.5	0.0	0.0	9.5	0.0	5.5
Prop In Lane	1.00		0.01	1.00		0.07	0.22		0.78	1.00		0.99
Lane Grp Cap(c), veh/h	385	2602	1428	479	2615	1420	194	0	0	194	0	160
V/C Ratio(X)	0.04	0.25	0.25	0.05	0.31	0.31	0.28	0.00	0.00	0.56	0.00	0.48
Avail Cap(c_a), veh/h	529	2602	1428	616	2615	1420	397	0	0	377	0	372
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)	0.86	0.86	0.86	1.00	1.00	1.00	1.00	0.00	0.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	3.4	4.1	4.1	3.2	4.2	4.2	50.2	0.0	0.0	52.9	0.0	51.0
Incr Delay (d2), s/veh	0.0	0.2	0.4	0.0	0.3	0.6	0.6	0.0	0.0	1.8	0.0	1.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	0.1	3.2	3.7	0.2	4.2	4.8	2.8	0.0	0.0	6.0	0.0	4.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	3.4	4.3	4.5	3.2	4.5	4.8	50.8	0.0	0.0	54.7	0.0	52.7
LnGrp LOS	A	A	A	A	A	A	D	A	A	D	A	D
Approach Vol, veh/h	1030			1283			54			185		
Approach Delay, s/veh	4.4			4.6			50.8			53.9		
Approach LOS	A			A			D			D		
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	5.2	97.2		17.6	4.7	97.7		17.6				
Change Period (Y+Rc), s	3.5	5.5		5.5	3.5	5.5		5.5				
Max Green Setting (Gmax), s	10.9	66.5		28.1	10.9	66.5		28.1				
Max Q Clear Time (g_c+I), s	12.4	8.7		11.5	2.2	10.8		7.5				
Green Ext Time (p_c), s	0.0	7.4		0.5	0.0	10.1		0.2				
Intersection Summary												
HCM 6th Ctrl Delay	9.1											
HCM 6th LOS	A											

HCM 6th Signalized Intersection Summary

3: Jefferson & Osuna

Explore Academy
2021 BUILD, 11/18/2020 4:30 pm

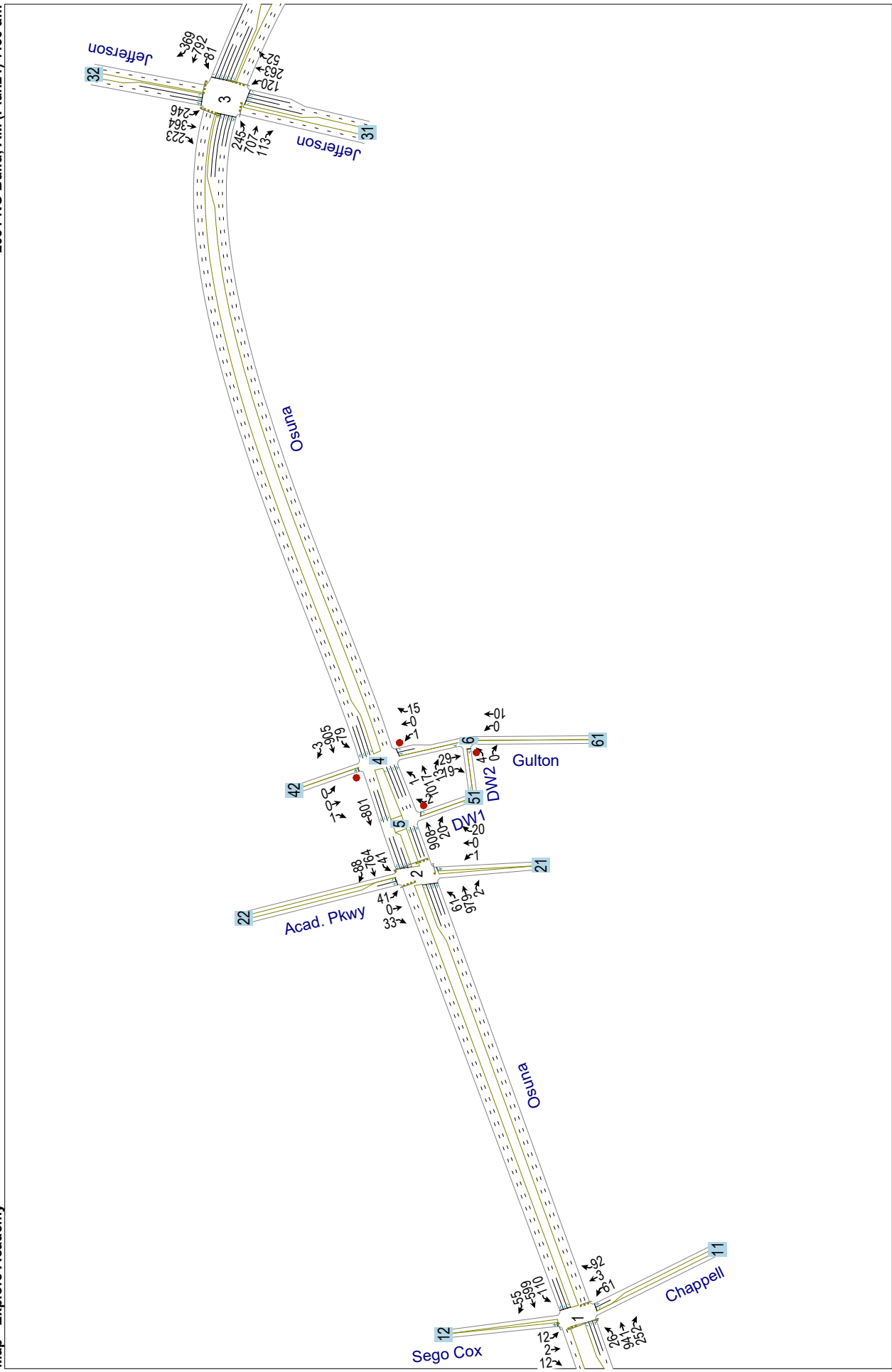


Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰↱	↑↑↓		↰↱	↑↑↑	↰	↰	↑↑	↰	↰	↑↑	
Traffic Volume (veh/h)	230	996	75	50	761	166	123	334	152	347	244	269
Future Volume (veh/h)	236	1022	77	50	783	166	127	334	152	347	244	277
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No				No						No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	248	1075	81	53	824	175	134	351	160	365	257	291
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	307	2347	177	191	2303	715	241	572	255	372	398	355
Arrive On Green	0.06	0.32	0.32	0.06	0.45	0.45	0.08	0.16	0.16	0.14	0.22	0.22
Sat Flow, veh/h	3456	4844	365	3456	5106	1585	1781	3554	1585	1781	1777	1585
Grp Volume(v), veh/h	248	755	401	53	824	175	134	351	160	365	257	291
Grp Sat Flow(s),veh/h/ln	1728	1702	1805	1728	1702	1585	1781	1777	1585	1781	1777	1585
Q Serve(g_s), s	8.5	21.1	21.2	1.8	12.7	8.2	7.4	11.0	11.3	16.9	15.8	20.9
Cycle Q Clear(g_c), s	8.5	21.1	21.2	1.8	12.7	8.2	7.4	11.0	11.3	16.9	15.8	20.9
Prop In Lane	1.00		0.20	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	307	1650	875	191	2303	715	241	572	255	372	398	355
V/C Ratio(X)	0.81	0.46	0.46	0.28	0.36	0.24	0.56	0.61	0.63	0.98	0.65	0.82
Avail Cap(c_a), veh/h	487	1650	875	314	2303	715	335	1066	476	372	551	491
HCM Platoon Ratio	0.67	0.67	0.67	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	55.4	28.0	28.0	54.4	21.6	20.3	38.5	46.9	47.0	38.8	42.3	44.3
Incr Delay (d2), s/veh	2.3	0.9	1.7	0.3	0.4	0.8	0.7	1.5	3.6	41.2	2.5	9.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	6.9	14.1	15.1	1.4	8.6	5.7	5.9	8.6	8.2	11.3	11.5	13.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	57.7	28.9	29.8	54.7	22.0	21.1	39.2	48.4	50.6	80.0	44.8	53.4
LnGrp LOS	E	C	C	D	C	C	D	D	D	F	D	D
Approach Vol, veh/h	1404				1052				645		913	
Approach Delay, s/veh	34.3				23.5				47.0		61.6	
Approach LOS	C				C				D		E	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	40.1	64.1	12.9	32.8	14.2	60.1	20.4	25.3				
Change Period (Y+Rc), s	3.5	6.0	3.5	6.0	3.5	6.0	3.5	6.0				
Max Green Setting (Gmax), s	10.9	37.2	15.7	37.2	16.9	31.2	16.9	36.0				
Max Q Clear Time (g_c+13.8), s	13.8	23.2	9.4	22.9	10.5	14.7	18.9	13.3				
Green Ext Time (p_c), s	0.0	7.8	0.1	3.9	0.2	7.4	0.0	3.9				
Intersection Summary												
HCM 6th Ctrl Delay			39.7									
HCM 6th LOS			D									

Intersection												
Int Delay, s/veh	3.9											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↵ ↑↑↑			↵ ↑↑↑			↵ ↑			↵		
Traffic Vol, veh/h	1	1150	9	29	1095	5	9	0	66	14	0	3
Future Vol, veh/h	1	1150	36	63	1095	5	41	0	100	14	0	3
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	0	-	-	125	-	-	-	-	50	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	96	96	96	96	96	96	96	96	96	96	96	96
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	1	1210	38	66	1152	5	43	0	104	15	0	3
Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	1157	0	0	1248	0	0	1824	2520	624	1773	2537	579
Stage 1	-	-	-	-	-	-	1231	1231	-	1287	1287	-
Stage 2	-	-	-	-	-	-	593	1289	-	486	1250	-
Critical Hdwy	5.34	-	-	5.34	-	-	6.44	6.54	7.14	6.44	6.54	7.14
Critical Hdwy Stg 1	-	-	-	-	-	-	7.34	5.54	-	7.34	5.54	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.74	5.54	-	6.74	5.54	-
Follow-up Hdwy	3.12	-	-	3.12	-	-	3.82	4.02	3.92	3.82	4.02	3.92
Pot Cap-1 Maneuver	328	-	-	297	-	-	82	28	367	88	27	393
Stage 1	-	-	-	-	-	-	137	248	-	125	233	-
Stage 2	-	-	-	-	-	-	418	232	-	486	243	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	328	-	-	297	-	-	67	22	367	52	21	393
Mov Cap-2 Maneuver	-	-	-	-	-	-	67	22	-	52	21	-
Stage 1	-	-	-	-	-	-	137	247	-	125	181	-
Stage 2	-	-	-	-	-	-	323	180	-	347	242	-
Approach	EB			WB			NB			SB		
HCM Control Delay, s	0			1.1			49.8			86.6		
HCM LOS							E			F		
Minor Lane/Major Mvmt	NBLn1	NBLn2	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1			
Capacity (veh/h)	67	367	328	-	-	297	-	-	61			
HCM Lane V/C Ratio	0.637	0.284	0.003	-	-	0.221	-	-	0.29			
HCM Control Delay (s)	125.7	18.7	16	-	-	20.5	-	-	86.6			
HCM Lane LOS	F	C	C	-	-	C	-	-	F			
HCM 95th %tile Q(veh)	2.8	1.1	0	-	-	0.8	-	-	1			

Intersection						
Int Delay, s/veh	0.1					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑↑↓			↑↑↑↑		↗
Traffic Vol, veh/h	1107	1	0	1018	0	9
Future Vol, veh/h	1134	1	0	1050	0	9
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	96	96	96	96	96	96
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	1181	1	0	1094	0	9
Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	-	-	-	591
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	7.14
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	3.92
Pot Cap-1 Maneuver	-	-	0	-	0	386
Stage 1	-	-	0	-	0	-
Stage 2	-	-	0	-	0	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	-	-	-	386
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Approach	EB		WB		NB	
HCM Control Delay, s	0		0		14.6	
HCM LOS					B	
Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBT		
Capacity (veh/h)	386	-	-	-		
HCM Lane V/C Ratio	0.024	-	-	-		
HCM Control Delay (s)	14.6	-	-	-		
HCM Lane LOS	B	-	-	-		
HCM 95th %tile Q(veh)	0.1	-	-	-		

Intersection						
Int Delay, s/veh	0.7					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	13	0	0	25	7	2
Future Vol, veh/h	13	0	0	91	68	2
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	96	96	96	96	96	96
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	14	0	0	95	71	2
Major/Minor	Minor2	Major1		Major2		
Conflicting Flow All	167	72	73	0	-	0
Stage 1	72	-	-	-	-	-
Stage 2	95	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	823	990	1527	-	-	-
Stage 1	951	-	-	-	-	-
Stage 2	929	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	823	990	1527	-	-	-
Mov Cap-2 Maneuver	823	-	-	-	-	-
Stage 1	951	-	-	-	-	-
Stage 2	929	-	-	-	-	-
Approach	EB	NB		SB		
HCM Control Delay, s	9.4	0		0		
HCM LOS	A					
Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR	
Capacity (veh/h)	1527	-	823	-	-	
HCM Lane V/C Ratio	-	-	0.016	-	-	
HCM Control Delay (s)	0	-	9.4	-	-	
HCM Lane LOS	A	-	A	-	-	
HCM 95th %tile Q(veh)	0	-	0.1	-	-	



HCM 6th Signalized Intersection Summary

1: Chappell/Sego Cox & Osuna

Explore Academy

2031 NO Build, AM (Plan21) 7:30 am

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	26	840	252	110	535	55	61	3	92	12	2	12
Future Volume (veh/h)	26	840	252	110	535	55	61	3	92	12	2	12
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	30	1081	290	126	689	63	70	3	106	14	2	14
Peak Hour Factor	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	511	2059	548	347	2514	230	183	4	155	67	20	38
Arrive On Green	0.02	0.74	0.74	0.01	0.25	0.25	0.10	0.10	0.10	0.10	0.10	0.10
Sat Flow, veh/h	1781	2775	739	1781	3292	301	1397	44	1548	227	204	377
Grp Volume(v), veh/h	30	689	682	126	372	380	70	0	109	30	0	0
Grp Sat Flow(s),veh/h/ln	1781	1777	1737	1781	1777	1816	1397	0	1592	808	0	0
Q Serve(g_s), s	0.5	19.6	20.0	2.0	20.2	20.2	0.0	0.0	7.9	0.1	0.0	0.0
Cycle Q Clear(g_c), s	0.5	19.6	20.0	2.0	20.2	20.2	7.0	0.0	7.9	8.1	0.0	0.0
Prop In Lane	1.00		0.43	1.00		0.17	1.00		0.97	0.47		0.47
Lane Grp Cap(c), veh/h	511	1318	1289	347	1357	1387	183	0	159	125	0	0
V/C Ratio(X)	0.06	0.52	0.53	0.36	0.27	0.27	0.38	0.00	0.69	0.24	0.00	0.00
Avail Cap(c_a), veh/h	663	1318	1289	460	1357	1387	525	0	548	477	0	0
HCM Platoon Ratio	1.00	1.00	1.00	0.33	0.33	0.33	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.98	0.98	0.98	1.00	0.00	1.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	4.9	6.5	6.6	5.9	18.2	18.2	51.7	0.0	52.2	49.6	0.0	0.0
Incr Delay (d2), s/veh	0.0	1.5	1.6	0.2	0.5	0.5	1.9	0.0	7.2	1.4	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	0.3	10.3	10.3	1.0	14.7	15.0	3.8	0.0	6.2	1.6	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	4.9	8.0	8.1	6.1	18.6	18.7	53.6	0.0	59.4	51.0	0.0	0.0
LnGrp LOS	A	A	A	A	B	B	D	A	E	D	A	A
Approach Vol, veh/h	1401				878			179			30	
Approach Delay, s/veh	8.0				16.8			57.1			51.0	
Approach LOS	A				B			E			D	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	8.0	94.5		17.5	5.4	97.1		17.5				
Change Period (Y+Rc), s	4.0	5.5		5.5	3.5	5.5		5.5				
Max Green Setting (Gmax), s	11.6	52.1		41.3	12.1	52.1		41.3				
Max Q Clear Time (g_c+I1), s	4.0	22.0		10.1	2.5	22.2		9.9				
Green Ext Time (p_c), s	0.1	15.4		0.2	0.0	6.8		1.2				
Intersection Summary												
HCM 6th Ctrl Delay	15.2											
HCM 6th LOS	B											

HCM 6th Signalized Intersection Summary 2: Acad. Pkwy & Osuna

Explore Academy
2031 NO Build, AM (Plan21) 7:30 am



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰ ↱ ↲ ↳	↰ ↱ ↲ ↳		↰ ↱ ↲ ↳	↰ ↱ ↲ ↳			↰ ↱ ↲ ↳		↰ ↱ ↲ ↳	↰ ↱ ↲ ↳	
Traffic Volume (veh/h)	61	874	2	41	682	88	1	0	20	41	0	33
Future Volume (veh/h)	61	874	2	41	682	88	1	0	20	41	0	33
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	70	1125	2	47	878	101	1	0	23	47	0	38
Peak Hour Factor	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	505	4011	7	474	3524	404	33	5	148	201	0	154
Arrive On Green	0.05	1.00	1.00	0.02	0.76	0.76	0.10	0.00	0.10	0.10	0.00	0.10
Sat Flow, veh/h	1781	5263	9	1781	4646	532	18	49	1523	1388	0	1585
Grp Volume(v), veh/h	70	728	399	47	642	337	24	0	0	47	0	38
Grp Sat Flow(s),veh/h/ln	1781	1702	1869	1781	1702	1775	1590	0	0	1388	0	1585
Q Serve(g_s), s	1.1	0.0	0.0	0.7	6.7	6.8	0.0	0.0	0.0	1.7	0.0	2.7
Cycle Q Clear(g_c), s	1.1	0.0	0.0	0.7	6.7	6.8	1.7	0.0	0.0	3.3	0.0	2.7
Prop In Lane	1.00		0.01	1.00		0.30	0.04		0.96	1.00		1.00
Lane Grp Cap(c), veh/h	505	2594	1424	474	2582	1346	186	0	0	201	0	154
V/C Ratio(X)	0.14	0.28	0.28	0.10	0.25	0.25	0.13	0.00	0.00	0.23	0.00	0.25
Avail Cap(c_a), veh/h	625	2594	1424	601	2582	1346	370	0	0	363	0	339
HCM Platoon Ratio	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.79	0.79	0.79	1.00	1.00	1.00	1.00	0.00	0.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	3.1	0.0	0.0	3.0	4.3	4.3	49.6	0.0	0.0	50.3	0.0	50.1
Incr Delay (d2), s/veh	0.0	0.2	0.4	0.0	0.2	0.4	0.2	0.0	0.0	0.4	0.0	0.6
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(95%),veh/ln	0.5	0.1	0.3	0.3	3.3	3.6	1.2	0.0	0.0	2.4	0.0	2.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	3.2	0.2	0.4	3.1	4.5	4.8	49.9	0.0	0.0	50.7	0.0	50.7
LnGrp LOS	A	A	A	A	A	A	D	A	A	D	A	D
Approach Vol, veh/h	1197			1026			24			85		
Approach Delay, s/veh	0.4			4.6			49.9			50.7		
Approach LOS	A			A			D			D		
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	5.9	96.9		17.2	6.3	96.5		17.2				
Change Period (Y+Rc), s	3.5	5.5		5.5	3.5	5.5		5.5				
Max Green Setting (Gmax), s	10.9	68.9		25.7	10.9	68.9		25.7				
Max Q Clear Time (g_c+I2), s	12.7	2.0		5.3	3.1	8.8		3.7				
Green Ext Time (p_c), s	0.0	8.6		0.2	0.0	7.2		0.1				
Intersection Summary												
HCM 6th Ctrl Delay				4.6								
HCM 6th LOS				A								

HCM 6th Signalized Intersection Summary

3: Jefferson & Osuna

Explore Academy

2031 NO Build, AM (Plan21) 7:30 am



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	231	631	107	76	707	348	113	248	49	232	343	210
Future Volume (veh/h)	231	631	107	76	707	348	113	248	49	232	343	210
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No				No				No			
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	281	812	130	93	910	424	138	302	60	283	418	256
Peak Hour Factor	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	340	2061	328	220	2192	681	233	757	338	382	506	307
Arrive On Green	0.03	0.15	0.15	0.06	0.43	0.43	0.08	0.21	0.21	0.10	0.24	0.24
Sat Flow, veh/h	3456	4441	706	3456	5106	1585	1781	3554	1585	1781	2126	1289
Grp Volume(v), veh/h	281	621	321	93	910	424	138	302	60	283	349	325
Grp Sat Flow(s),veh/h/ln	1728	1702	1743	1728	1702	1585	1781	1777	1585	1781	1777	1638
Q Serve(g_s), s	9.7	19.7	19.9	3.1	14.9	25.0	7.2	8.8	3.7	12.1	22.3	22.7
Cycle Q Clear(g_c), s	9.7	19.7	19.9	3.1	14.9	25.0	7.2	8.8	3.7	12.1	22.3	22.7
Prop In Lane	1.00		0.41	1.00		1.00	1.00		1.00	1.00		0.79
Lane Grp Cap(c), veh/h	340	1580	809	220	2192	681	233	757	338	382	423	390
V/C Ratio(X)	0.83	0.39	0.40	0.42	0.42	0.62	0.59	0.40	0.18	0.74	0.82	0.83
Avail Cap(c_a), veh/h	418	1580	809	418	2192	681	277	1031	460	382	515	475
HCM Platoon Ratio	0.33	0.33	0.33	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	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	57.0	35.6	35.7	54.1	23.8	26.7	34.8	40.6	38.6	35.2	43.3	43.5
Incr Delay (d2), s/veh	9.0	0.7	1.5	0.5	0.6	4.3	0.9	0.5	0.4	6.6	9.8	11.4
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(95%),veh/ln	8.4	14.1	14.7	2.4	9.9	15.2	5.6	7.0	2.7	4.4	16.2	15.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	66.0	36.3	37.1	54.5	24.4	30.9	35.7	41.1	39.0	41.8	53.1	54.8
LnGrp LOS	E	D	D	D	C	C	D	D	D	D	D	D
Approach Vol, veh/h	1223				1427		500				957	
Approach Delay, s/veh	43.4				28.3		39.4				50.4	
Approach LOS	D				C		D				D	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	11.1	61.7	12.6	34.6	15.3	57.5	15.6	31.6				
Change Period (Y+Rc), s	3.5	6.0	3.5	6.0	3.5	6.0	3.5	6.0				
Max Green Setting (Gmax), s	14.5	39.6	12.1	34.8	14.5	39.6	12.1	34.8				
Max Q Clear Time (g_c+I15), s	15.1	21.9	9.2	24.7	11.7	27.0	14.1	10.8				
Green Ext Time (p_c), s	0.1	7.3	0.0	3.9	0.1	7.7	0.0	2.9				

Intersection Summary

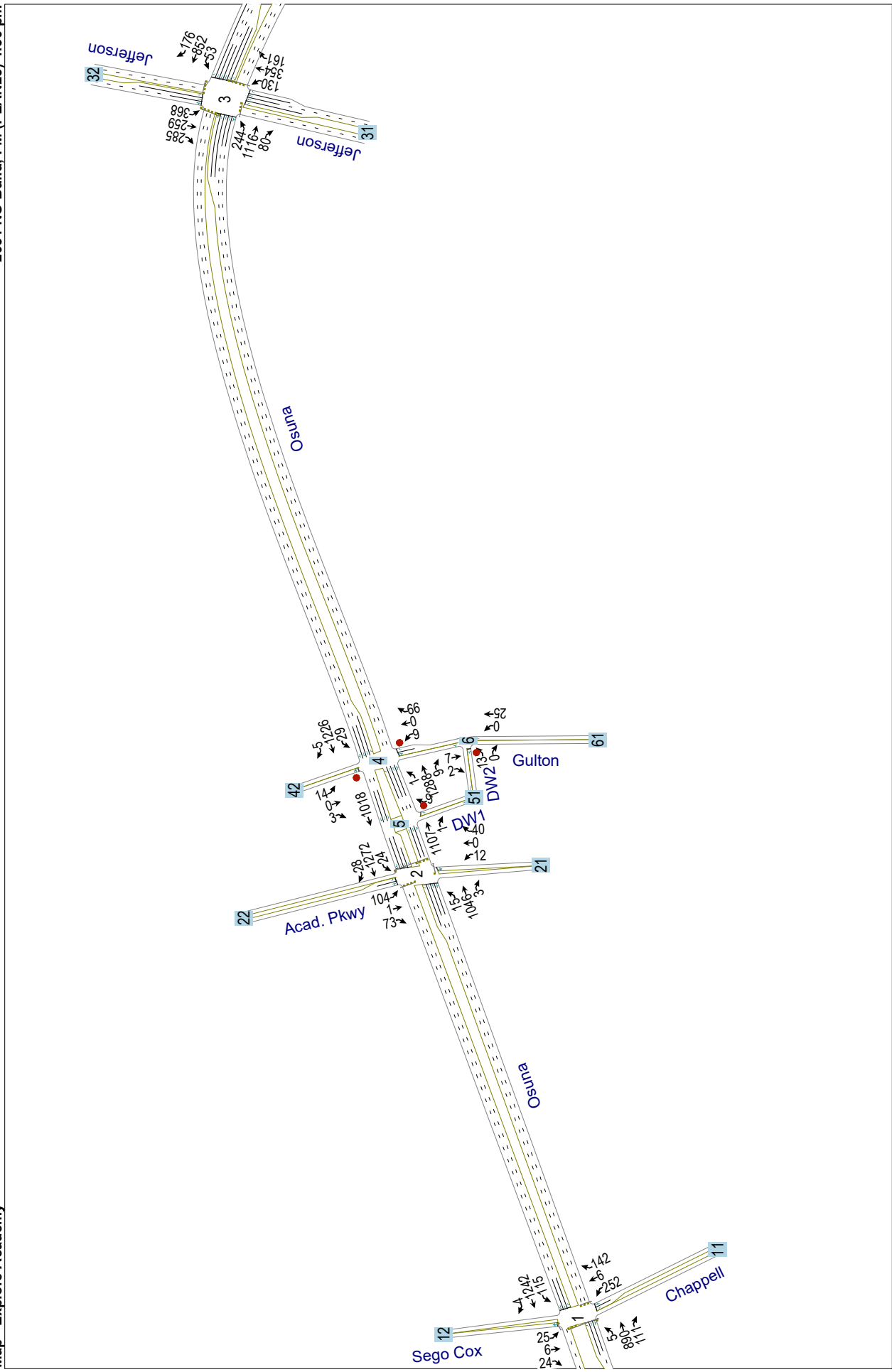
HCM 6th Ctrl Delay 39.3

HCM 6th LOS D

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	1	908	13	79	808	3	1	0	15	0	0	1
Future Vol, veh/h	1	908	13	79	808	3	1	0	15	0	0	1
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	0	-	-	125	-	-	-	-	50	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	87	87	87	87	87	87	87	87	87	87	87	87
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	1	1169	15	91	1040	3	1	0	17	0	0	1
Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	1043	0	0	1184	0	0	1777	2404	592	1694	2410	522
Stage 1	-	-	-	-	-	-	1179	1179	-	1224	1224	-
Stage 2	-	-	-	-	-	-	598	1225	-	470	1186	-
Critical Hdwy	5.34	-	-	5.34	-	-	6.44	6.54	7.14	6.44	6.54	7.14
Critical Hdwy Stg 1	-	-	-	-	-	-	7.34	5.54	-	7.34	5.54	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.74	5.54	-	6.74	5.54	-
Follow-up Hdwy	3.12	-	-	3.12	-	-	3.82	4.02	3.92	3.82	4.02	3.92
Pot Cap-1 Maneuver	373	-	-	319	-	-	87	33	385	98	32	428
Stage 1	-	-	-	-	-	-	149	262	-	139	250	-
Stage 2	-	-	-	-	-	-	415	249	-	496	260	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	373	-	-	319	-	-	68	24	385	73	23	428
Mov Cap-2 Maneuver	-	-	-	-	-	-	68	24	-	73	23	-
Stage 1	-	-	-	-	-	-	149	261	-	139	179	-
Stage 2	-	-	-	-	-	-	296	178	-	473	259	-
Approach	EB			WB			NB			SB		
HCM Control Delay, s	0			1.7			17.6			13.4		
HCM LOS							C			B		
Minor Lane/Major Mvmt	NBLn1		NBLn2	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1		
Capacity (veh/h)	68		385	373	-	-	319	-	-	428		
HCM Lane V/C Ratio	0.017		0.045	0.003	-	-	0.285	-	-	0.003		
HCM Control Delay (s)	58.9		14.8	14.7	-	-	20.7	-	-	13.4		
HCM Lane LOS	F		B	B	-	-	C	-	-	B		
HCM 95th %tile Q(veh)	0.1		0.1	0	-	-	1.1	-	-	0		

Intersection						
Int Delay, s/veh	0					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑↑↓			↑↑↑↑		↗
Traffic Vol, veh/h	899	20	0	793	0	2
Future Vol, veh/h	899	20	0	793	0	2
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	87	87	87	87	87	87
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	1044	23	0	921	0	2
Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	-	-	-	534
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	7.14
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	3.92
Pot Cap-1 Maneuver	-	-	0	-	0	420
Stage 1	-	-	0	-	0	-
Stage 2	-	-	0	-	0	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	-	-	-	420
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Approach	EB		WB		NB	
HCM Control Delay, s	0		0		13.6	
HCM LOS					B	
Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBT		
Capacity (veh/h)	420	-	-	-		
HCM Lane V/C Ratio	0.005	-	-	-		
HCM Control Delay (s)	13.6	-	-	-		
HCM Lane LOS	B	-	-	-		
HCM 95th %tile Q(veh)	0	-	-	-		

Intersection						
Int Delay, s/veh	0.6					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	4	0	0	10	29	19
Future Vol, veh/h	4	0	0	10	29	19
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	87	87	87	87	87	87
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	5	0	0	11	33	22
Major/Minor	Minor2	Major1		Major2		
Conflicting Flow All	55	44	55	0	-	0
Stage 1	44	-	-	-	-	-
Stage 2	11	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	953	1026	1550	-	-	-
Stage 1	978	-	-	-	-	-
Stage 2	1012	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	953	1026	1550	-	-	-
Mov Cap-2 Maneuver	953	-	-	-	-	-
Stage 1	978	-	-	-	-	-
Stage 2	1012	-	-	-	-	-
Approach	EB	NB		SB		
HCM Control Delay, s	8.8	0		0		
HCM LOS	A					
Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR	
Capacity (veh/h)	1550	-	953	-	-	
HCM Lane V/C Ratio	-	-	0.005	-	-	
HCM Control Delay (s)	0	-	8.8	-	-	
HCM Lane LOS	A	-	A	-	-	
HCM 95th %tile Q(veh)	0	-	0	-	-	



HCM 6th Signalized Intersection Summary

1: Chappell/Sego Cox & Osuna

Explore Academy
2031 NO Build, 11/18/2020 4:30 pm

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	5	795	111	115	1109	4	252	6	142	25	6	24
Future Volume (veh/h)	5	795	111	115	1109	4	252	6	142	25	6	24
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	5	928	116	120	1294	4	262	6	148	26	6	25
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	200	1880	235	362	2300	7	361	15	371	148	43	116
Arrive On Green	0.00	0.59	0.59	0.01	0.21	0.21	0.24	0.24	0.24	0.24	0.24	0.24
Sat Flow, veh/h	1781	3178	397	1781	3634	11	1378	62	1532	432	179	478
Grp Volume(v), veh/h	5	519	525	120	633	665	262	0	154	57	0	0
Grp Sat Flow(s),veh/h/ln	1781	1777	1799	1781	1777	1868	1378	0	1595	1089	0	0
Q Serve(g_s), s	0.1	20.2	20.2	3.0	38.3	38.3	14.0	0.0	9.7	1.2	0.0	0.0
Cycle Q Clear(g_c), s	0.1	20.2	20.2	3.0	38.3	38.3	24.9	0.0	9.7	10.9	0.0	0.0
Prop In Lane	1.00		0.22	1.00		0.01	1.00		0.96	0.46		0.44
Lane Grp Cap(c), veh/h	200	1051	1064	362	1125	1183	361	0	386	308	0	0
V/C Ratio(X)	0.02	0.49	0.49	0.33	0.56	0.56	0.73	0.00	0.40	0.19	0.00	0.00
Avail Cap(c_a), veh/h	373	1051	1064	443	1125	1183	501	0	549	453	0	0
HCM Platoon Ratio	1.00	1.00	1.00	0.33	0.33	0.33	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.94	0.94	0.94	1.00	0.00	1.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	14.5	14.1	14.1	10.9	32.6	32.6	44.8	0.0	38.1	37.2	0.0	0.0
Incr Delay (d2), s/veh	0.0	1.7	1.6	0.2	1.9	1.8	4.3	0.0	0.9	0.4	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	0.1	12.4	12.6	2.0	25.6	26.7	12.5	0.0	7.0	2.7	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	14.6	15.8	15.8	11.1	34.5	34.4	49.1	0.0	39.1	37.6	0.0	0.0
LnGrp LOS	B	B	B	B	C	C	D	A	D	D	A	A
Approach Vol, veh/h	1049				1418				416			
Approach Delay, s/veh	15.8				32.5				45.4			
Approach LOS	B				C				D			
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	8.9	76.5		34.6	4.0	81.5		34.6				
Change Period (Y+Rc), s	4.0	5.5		5.5	3.5	5.5		5.5				
Max Green Setting (Gmax), s	10.4	52.1		41.3	12.1	52.1		41.3				
Max Q Clear Time (g_c+I1), s	5.0	22.2		12.9	2.1	40.3		26.9				
Green Ext Time (p_c), s	0.1	10.5		0.4	0.0	7.7		2.2				
Intersection Summary												
HCM 6th Ctrl Delay	28.4											
HCM 6th LOS	C											

HCM 6th Signalized Intersection Summary

2: Acad. Pkwy & Osuna

Explore Academy
2031 NO Build, 11/18/2020 4:30 pm



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰ ↱ ↲ ↳	↰ ↱ ↲ ↳		↰ ↱ ↲ ↳	↰ ↱ ↲ ↳			↰ ↱ ↲ ↳		↰ ↱ ↲ ↳	↰ ↱ ↲ ↳	
Traffic Volume (veh/h)	15	934	3	24	1136	28	12	0	40	104	1	73
Future Volume (veh/h)	15	934	3	24	1136	28	12	0	40	104	1	73
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	16	1090	3	25	1325	29	12	0	42	108	1	76
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	355	4019	11	448	3950	86	55	17	122	194	2	158
Arrive On Green	0.01	0.76	0.76	0.01	0.77	0.77	0.10	0.00	0.10	0.10	0.10	0.10
Sat Flow, veh/h	1781	5257	14	1781	5142	113	183	164	1218	1365	21	1568
Grp Volume(v), veh/h	16	706	387	25	877	477	54	0	0	108	0	77
Grp Sat Flow(s), veh/h/ln	1781	1702	1868	1781	1702	1850	1565	0	0	1365	0	1588
Q Serve(g_s), s	0.2	7.4	7.4	0.4	9.7	9.7	0.0	0.0	0.0	4.0	0.0	5.5
Cycle Q Clear(g_c), s	0.2	7.4	7.4	0.4	9.7	9.7	5.5	0.0	0.0	9.5	0.0	5.5
Prop In Lane	1.00		0.01	1.00		0.06	0.22		0.78	1.00		0.99
Lane Grp Cap(c), veh/h	355	2602	1428	448	2615	1421	194	0	0	194	0	160
V/C Ratio(X)	0.05	0.27	0.27	0.06	0.34	0.34	0.28	0.00	0.00	0.56	0.00	0.48
Avail Cap(c_a), veh/h	499	2602	1428	584	2615	1421	397	0	0	377	0	372
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)	0.83	0.83	0.83	1.00	1.00	1.00	1.00	0.00	0.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	3.4	4.2	4.2	3.2	4.3	4.3	50.2	0.0	0.0	52.9	0.0	51.0
Incr Delay (d2), s/veh	0.0	0.2	0.4	0.0	0.3	0.6	0.6	0.0	0.0	1.8	0.0	1.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	0.1	3.6	4.1	0.2	4.7	5.3	2.8	0.0	0.0	6.0	0.0	4.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	3.5	4.4	4.6	3.2	4.7	5.0	50.8	0.0	0.0	54.7	0.0	52.7
LnGrp LOS	A	A	A	A	A	A	D	A	A	D	A	D
Approach Vol, veh/h	1109			1379			54			185		
Approach Delay, s/veh	4.5			4.8			50.8			53.9		
Approach LOS	A			A			D			D		
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	5.2	97.2		17.6	4.7	97.7		17.6				
Change Period (Y+Rc), s	3.5	5.5		5.5	3.5	5.5		5.5				
Max Green Setting (Gmax), s	10.9	66.5		28.1	10.9	66.5		28.1				
Max Q Clear Time (g_c+I), s	12.4	9.4		11.5	2.2	11.7		7.5				
Green Ext Time (p_c), s	0.0	8.2		0.5	0.0	11.4		0.2				
Intersection Summary												
HCM 6th Ctrl Delay	8.9											
HCM 6th LOS	A											

HCM 6th Signalized Intersection Summary

3: Jefferson & Osuna

Explore Academy

2031 NO Build, 11/18/2020 4:30 pm



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	230	996	75	50	761	166	123	334	152	347	244	269
Future Volume (veh/h)	230	996	75	50	761	166	123	334	152	347	244	269
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No				No				No			
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	254	1162	83	55	888	183	136	369	168	383	269	297
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	313	2331	166	194	2270	705	242	589	263	371	405	361
Arrive On Green	0.06	0.32	0.32	0.06	0.44	0.44	0.08	0.17	0.17	0.14	0.23	0.23
Sat Flow, veh/h	3456	4865	347	3456	5106	1585	1781	3554	1585	1781	1777	1585
Grp Volume(v), veh/h	254	813	432	55	888	183	136	369	168	383	269	297
Grp Sat Flow(s),veh/h/ln	1728	1702	1808	1728	1702	1585	1781	1777	1585	1781	1777	1585
Q Serve(g_s), s	8.7	23.2	23.2	1.8	14.0	8.7	7.5	11.6	11.9	16.9	16.5	21.4
Cycle Q Clear(g_c), s	8.7	23.2	23.2	1.8	14.0	8.7	7.5	11.6	11.9	16.9	16.5	21.4
Prop In Lane	1.00		0.19	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	313	1631	866	194	2270	705	242	589	263	371	405	361
V/C Ratio(X)	0.81	0.50	0.50	0.28	0.39	0.26	0.56	0.63	0.64	1.03	0.66	0.82
Avail Cap(c_a), veh/h	487	1631	866	314	2270	705	335	1066	476	371	551	491
HCM Platoon Ratio	0.67	0.67	0.67	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	55.3	29.1	29.1	54.3	22.4	20.9	38.0	46.6	46.7	38.8	42.2	44.0
Incr Delay (d2), s/veh	2.9	1.1	2.0	0.3	0.5	0.9	0.8	1.6	3.7	55.5	2.7	9.4
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(95%),veh/ln	7.1	15.3	16.3	1.4	9.4	6.0	5.9	9.0	8.5	13.6	12.0	14.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	58.2	30.2	31.1	54.6	22.9	21.8	38.8	48.2	50.4	94.3	44.8	53.4
LnGrp LOS	E	C	C	D	C	C	D	D	D	F	D	D
Approach Vol, veh/h	1499				1126				673		949	
Approach Delay, s/veh	35.2				24.3				46.8		67.5	
Approach LOS	D				C				D		E	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	30.2	63.5	12.9	33.3	14.4	59.3	20.4	25.9				
Change Period (Y+Rc), s	3.5	6.0	3.5	6.0	3.5	6.0	3.5	6.0				
Max Green Setting (Gmax), s	10.9	37.2	15.7	37.2	16.9	31.2	16.9	36.0				
Max Q Clear Time (g_c+13.8), s	13.8	25.2	9.5	23.4	10.7	16.0	18.9	13.9				
Green Ext Time (p_c), s	0.0	7.4	0.1	4.0	0.2	7.5	0.0	4.1				

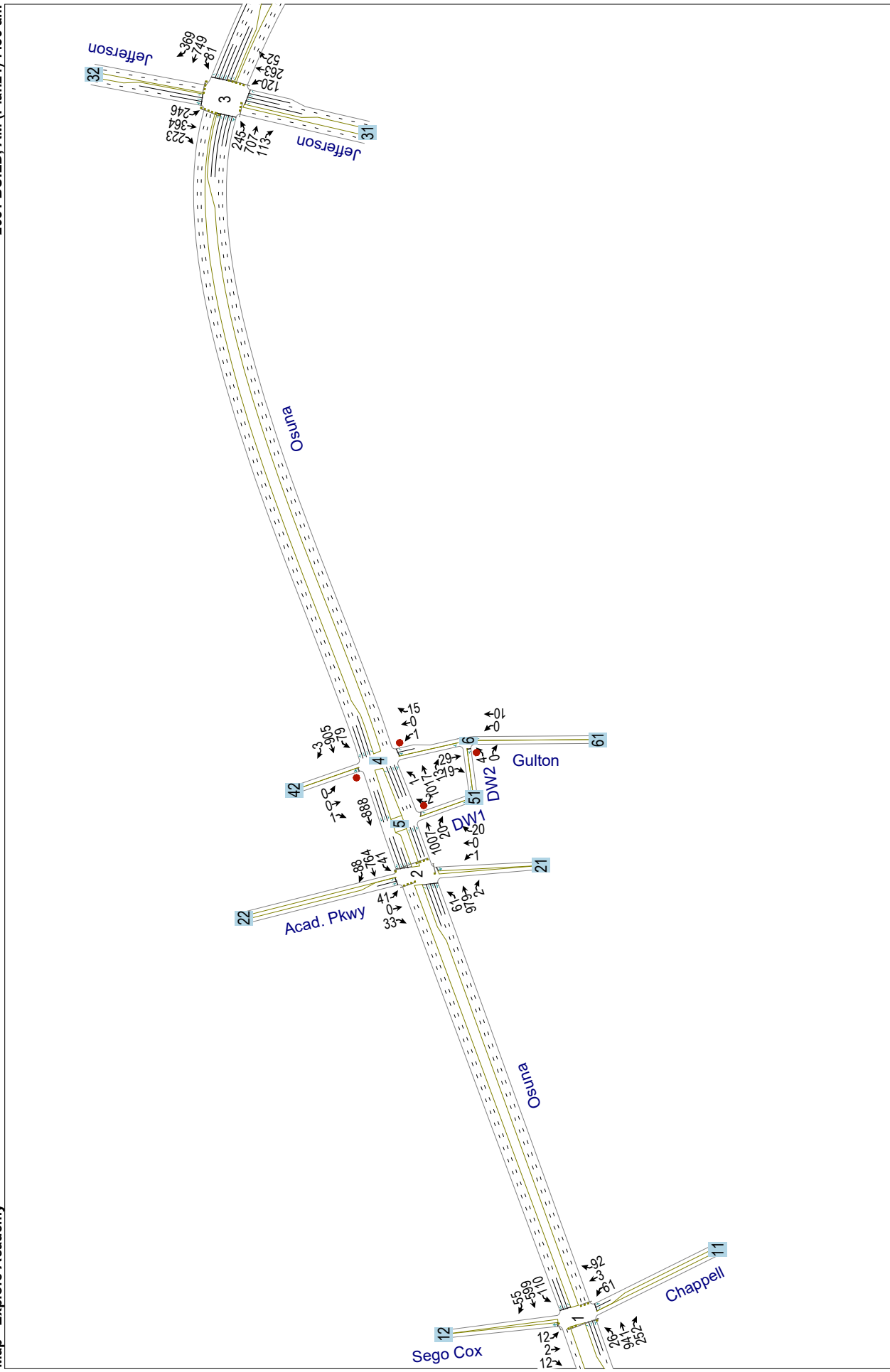
Intersection Summary

HCM 6th Ctrl Delay	41.4
HCM 6th LOS	D

Intersection												
Int Delay, s/veh	1.5											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↵ ↑↑↑↵			↵ ↑↑↑↵			↵ ↵			↵↵		
Traffic Vol, veh/h	1	1150	9	29	1095	5	9	0	66	14	0	3
Future Vol, veh/h	1	1150	9	29	1095	5	9	0	66	14	0	3
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	0	-	-	125	-	-	-	-	50	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	96	96	96	96	96	96	96	96	96	96	96	96
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	1	1342	9	30	1278	5	9	0	69	15	0	3
Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	1283	0	0	1351	0	0	1920	2692	676	1880	2694	642
Stage 1	-	-	-	-	-	-	1349	1349	-	1341	1341	-
Stage 2	-	-	-	-	-	-	571	1343	-	539	1353	-
Critical Hdwy	5.34	-	-	5.34	-	-	6.44	6.54	7.14	6.44	6.54	7.14
Critical Hdwy Stg 1	-	-	-	-	-	-	7.34	5.54	-	7.34	5.54	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.74	5.54	-	6.74	5.54	-
Follow-up Hdwy	3.12	-	-	3.12	-	-	3.82	4.02	3.92	3.82	4.02	3.92
Pot Cap-1 Maneuver	285	-	-	264	-	-	71	21	339	75	21	357
Stage 1	-	-	-	-	-	-	113	217	-	115	219	-
Stage 2	-	-	-	-	-	-	431	219	-	451	216	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	285	-	-	264	-	-	64	19	339	54	19	357
Mov Cap-2 Maneuver	-	-	-	-	-	-	64	19	-	54	19	-
Stage 1	-	-	-	-	-	-	113	216	-	115	194	-
Stage 2	-	-	-	-	-	-	379	194	-	358	215	-
Approach	EB			WB			NB			SB		
HCM Control Delay, s	0			0.5			24.6			81.5		
HCM LOS							C			F		
Minor Lane/Major Mvmt	NBLn1	NBLn2	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1			
Capacity (veh/h)	64	339	285	-	-	264	-	-	64			
HCM Lane V/C Ratio	0.146	0.203	0.004	-	-	0.114	-	-	0.277			
HCM Control Delay (s)	70.7	18.3	17.7	-	-	20.4	-	-	81.5			
HCM Lane LOS	F	C	C	-	-	C	-	-	F			
HCM 95th %tile Q(veh)	0.5	0.7	0	-	-	0.4	-	-	1			

Intersection						
Int Delay, s/veh	0.1					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑↑↓			↑↑↑↑		↗
Traffic Vol, veh/h	1107	1	0	1018	0	9
Future Vol, veh/h	1107	1	0	1018	0	9
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	96	96	96	96	96	96
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	1153	1	0	1060	0	9
Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	-	-	-	577
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	7.14
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	3.92
Pot Cap-1 Maneuver	-	-	0	-	0	394
Stage 1	-	-	0	-	0	-
Stage 2	-	-	0	-	0	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	-	-	-	394
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Approach	EB		WB		NB	
HCM Control Delay, s	0		0		14.4	
HCM LOS					B	
Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBT		
Capacity (veh/h)	394	-	-	-		
HCM Lane V/C Ratio	0.024	-	-	-		
HCM Control Delay (s)	14.4	-	-	-		
HCM Lane LOS	B	-	-	-		
HCM 95th %tile Q(veh)	0.1	-	-	-		

Intersection						
Int Delay, s/veh	2.4					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	13	0	0	25	7	2
Future Vol, veh/h	13	0	0	25	7	2
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	96	96	96	96	96	96
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	14	0	0	26	7	2
Major/Minor	Minor2	Major1		Major2		
Conflicting Flow All	34	8	9	0	-	0
Stage 1	8	-	-	-	-	-
Stage 2	26	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	979	1074	1611	-	-	-
Stage 1	1015	-	-	-	-	-
Stage 2	997	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	979	1074	1611	-	-	-
Mov Cap-2 Maneuver	979	-	-	-	-	-
Stage 1	1015	-	-	-	-	-
Stage 2	997	-	-	-	-	-
Approach	EB	NB		SB		
HCM Control Delay, s	8.7	0		0		
HCM LOS	A					
Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR	
Capacity (veh/h)	1611	-	979	-	-	
HCM Lane V/C Ratio	-	-	0.014	-	-	
HCM Control Delay (s)	0	-	8.7	-	-	
HCM Lane LOS	A	-	A	-	-	
HCM 95th %tile Q(veh)	0	-	0	-	-	



HCM 6th Signalized Intersection Summary

1: Chappell/Sego Cox & Osuna

Explore Academy
2031 BUILD, AM (Plan21) 7:30 am

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	26	840	252	110	535	55	61	3	92	12	2	12
Future Volume (veh/h)	26	960	252	122	593	55	61	3	105	12	2	12
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	30	1236	290	140	763	63	70	3	121	14	2	14
Peak Hour Factor	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	468	2107	488	304	2524	208	181	4	161	63	20	34
Arrive On Green	0.02	0.74	0.74	0.01	0.25	0.25	0.10	0.10	0.10	0.10	0.10	0.10
Sat Flow, veh/h	1781	2864	663	1781	3323	274	1397	38	1552	181	191	325
Grp Volume(v), veh/h	30	761	765	140	408	418	70	0	124	30	0	0
Grp Sat Flow(s),veh/h/ln	1781	1777	1751	1781	1777	1821	1397	0	1591	697	0	0
Q Serve(g_s), s	0.5	23.7	24.6	2.2	22.3	22.3	0.0	0.0	9.1	0.1	0.0	0.0
Cycle Q Clear(g_c), s	0.5	23.7	24.6	2.2	22.3	22.3	7.4	0.0	9.1	9.2	0.0	0.0
Prop In Lane	1.00		0.38	1.00		0.15	1.00		0.98	0.47		0.47
Lane Grp Cap(c), veh/h	468	1307	1288	304	1350	1383	181	0	165	116	0	0
V/C Ratio(X)	0.06	0.58	0.59	0.46	0.30	0.30	0.39	0.00	0.75	0.26	0.00	0.00
Avail Cap(c_a), veh/h	620	1307	1288	413	1350	1383	517	0	548	461	0	0
HCM Platoon Ratio	1.00	1.00	1.00	0.33	0.33	0.33	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.97	0.97	0.97	1.00	0.00	1.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	5.4	7.3	7.4	8.1	19.2	19.2	51.5	0.0	52.3	49.2	0.0	0.0
Incr Delay (d2), s/veh	0.0	1.9	2.0	0.4	0.6	0.5	1.9	0.0	9.3	1.6	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	0.3	12.3	12.5	1.6	16.0	16.4	3.8	0.0	7.2	1.6	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	5.4	9.2	9.5	8.4	19.7	19.7	53.4	0.0	61.6	50.9	0.0	0.0
LnGrp LOS	A	A	A	A	B	B	D	A	E	D	A	A
Approach Vol, veh/h	1556				966				194		30	
Approach Delay, s/veh	9.3				18.1				58.6		50.9	
Approach LOS	A				B				E		D	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	8.3	93.8		18.0	5.4	96.6		18.0				
Change Period (Y+Rc), s	4.0	5.5		5.5	3.5	5.5		5.5				
Max Green Setting (Gmax), s	11.6	52.1		41.3	12.1	52.1		41.3				
Max Q Clear Time (g_c+I1), s	4.2	26.6		11.2	2.5	24.3		11.1				
Green Ext Time (p_c), s	0.1	16.0		0.2	0.0	7.5		1.4				
Intersection Summary												
HCM 6th Ctrl Delay	16.3											
HCM 6th LOS	B											

HCM 6th Signalized Intersection Summary

2: Acad. Pkwy & Osuna

Explore Academy
2031 BUILD, AM (Plan21) 7:30 am



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰ ↱ ↲ ↳	↰ ↱ ↲ ↳		↰ ↱ ↲ ↳	↰ ↱ ↲ ↳			↰ ↱ ↲ ↳		↰ ↱ ↲ ↳	↰ ↱ ↲ ↳	
Traffic Volume (veh/h)	61	874	2	41	682	88	1	0	20	41	0	33
Future Volume (veh/h)	61	1007	2	41	752	88	1	0	20	41	0	33
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	70	1296	2	47	968	101	1	0	23	47	0	38
Peak Hour Factor	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	469	4012	6	417	3563	371	33	5	148	201	0	154
Arrive On Green	0.05	1.00	1.00	0.02	0.76	0.76	0.10	0.00	0.10	0.10	0.00	0.10
Sat Flow, veh/h	1781	5265	8	1781	4697	489	18	49	1523	1388	0	1585
Grp Volume(v), veh/h	70	838	460	47	701	368	24	0	0	47	0	38
Grp Sat Flow(s),veh/h/ln	1781	1702	1869	1781	1702	1782	1590	0	0	1388	0	1585
Q Serve(g_s), s	1.1	0.0	0.0	0.7	7.5	7.5	0.0	0.0	0.0	1.7	0.0	2.7
Cycle Q Clear(g_c), s	1.1	0.0	0.0	0.7	7.5	7.5	1.7	0.0	0.0	3.3	0.0	2.7
Prop In Lane	1.00		0.00	1.00		0.27	0.04		0.96	1.00		1.00
Lane Grp Cap(c), veh/h	469	2594	1424	417	2582	1352	186	0	0	201	0	154
V/C Ratio(X)	0.15	0.32	0.32	0.11	0.27	0.27	0.13	0.00	0.00	0.23	0.00	0.25
Avail Cap(c_a), veh/h	589	2594	1424	544	2582	1352	370	0	0	363	0	339
HCM Platoon Ratio	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.71	0.71	0.71	1.00	1.00	1.00	1.00	0.00	0.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	3.2	0.0	0.0	3.0	4.4	4.4	49.6	0.0	0.0	50.3	0.0	50.1
Incr Delay (d2), s/veh	0.0	0.2	0.4	0.0	0.3	0.5	0.2	0.0	0.0	0.4	0.0	0.6
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(95%),veh/ln	0.5	0.2	0.3	0.3	3.7	4.1	1.2	0.0	0.0	2.4	0.0	2.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	3.2	0.2	0.4	3.1	4.7	4.9	49.9	0.0	0.0	50.7	0.0	50.7
LnGrp LOS	A	A	A	A	A	A	D	A	A	D	A	D
Approach Vol, veh/h	1368			1116			24			85		
Approach Delay, s/veh	0.5			4.7			49.9			50.7		
Approach LOS	A			A			D			D		
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	5.9	96.9		17.2	6.3	96.5		17.2				
Change Period (Y+Rc), s	3.5	5.5		5.5	3.5	5.5		5.5				
Max Green Setting (Gmax), s	10.9	68.9		25.7	10.9	68.9		25.7				
Max Q Clear Time (g_c+I2), s	12.7	2.0		5.3	3.1	9.5		3.7				
Green Ext Time (p_c), s	0.0	10.7		0.2	0.0	8.1		0.1				
Intersection Summary												
HCM 6th Ctrl Delay	4.4											
HCM 6th LOS	A											

HCM 6th Signalized Intersection Summary

3: Jefferson & Osuna

Explore Academy

2031 BUILD, AM (Plan21) 7:30 am



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	231	631	107	76	707	348	113	248	49	232	343	210
Future Volume (veh/h)	256	699	119	76	808	348	129	248	49	232	343	240
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	312	900	145	93	984	424	157	302	60	283	418	292
Peak Hour Factor	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	370	1983	318	220	2062	640	243	817	364	401	498	345
Arrive On Green	0.04	0.15	0.15	0.06	0.40	0.40	0.08	0.23	0.23	0.10	0.25	0.25
Sat Flow, veh/h	3456	4435	711	3456	5106	1585	1781	3554	1585	1781	2007	1390
Grp Volume(v), veh/h	312	690	355	93	984	424	157	302	60	283	370	340
Grp Sat Flow(s),veh/h/ln	1728	1702	1742	1728	1702	1585	1781	1777	1585	1781	1777	1620
Q Serve(g_s), s	10.8	22.2	22.4	3.1	17.1	26.1	8.0	8.6	3.6	12.1	23.7	24.0
Cycle Q Clear(g_c), s	10.8	22.2	22.4	3.1	17.1	26.1	8.0	8.6	3.6	12.1	23.7	24.0
Prop In Lane	1.00		0.41	1.00		1.00	1.00		1.00	1.00		0.86
Lane Grp Cap(c), veh/h	370	1522	779	220	2062	640	243	817	364	401	441	402
V/C Ratio(X)	0.84	0.45	0.46	0.42	0.48	0.66	0.65	0.37	0.16	0.71	0.84	0.85
Avail Cap(c_a), veh/h	418	1522	779	418	2062	640	275	1031	460	401	515	470
HCM Platoon Ratio	0.33	0.33	0.33	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	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	56.9	37.7	37.8	54.1	26.4	29.1	33.6	38.9	37.0	33.8	42.9	43.0
Incr Delay (d2), s/veh	11.9	1.0	1.9	0.5	0.8	5.3	2.8	0.4	0.3	4.8	11.2	12.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	9.4	15.5	16.2	2.4	11.2	16.0	6.5	6.8	2.6	3.6	17.2	16.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	68.8	38.7	39.7	54.5	27.2	34.5	36.4	39.3	37.3	38.5	54.1	55.9
LnGrp LOS	E	D	D	D	C	C	D	D	D	D	D	E
Approach Vol, veh/h	1357			1501			519			993		
Approach Delay, s/veh	45.9			31.0			38.2			50.3		
Approach LOS	D			C			D			D		
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	11.1	59.7	13.4	35.8	16.4	54.5	15.6	33.6				
Change Period (Y+Rc), s	3.5	6.0	3.5	6.0	3.5	6.0	3.5	6.0				
Max Green Setting (Gmax), s	14.5	39.6	12.1	34.8	14.5	39.6	12.1	34.8				
Max Q Clear Time (g_c+I1), s	15.1	24.4	10.0	26.0	12.8	28.1	14.1	10.6				
Green Ext Time (p_c), s	0.1	7.5	0.0	3.7	0.1	7.6	0.0	2.9				

Intersection Summary

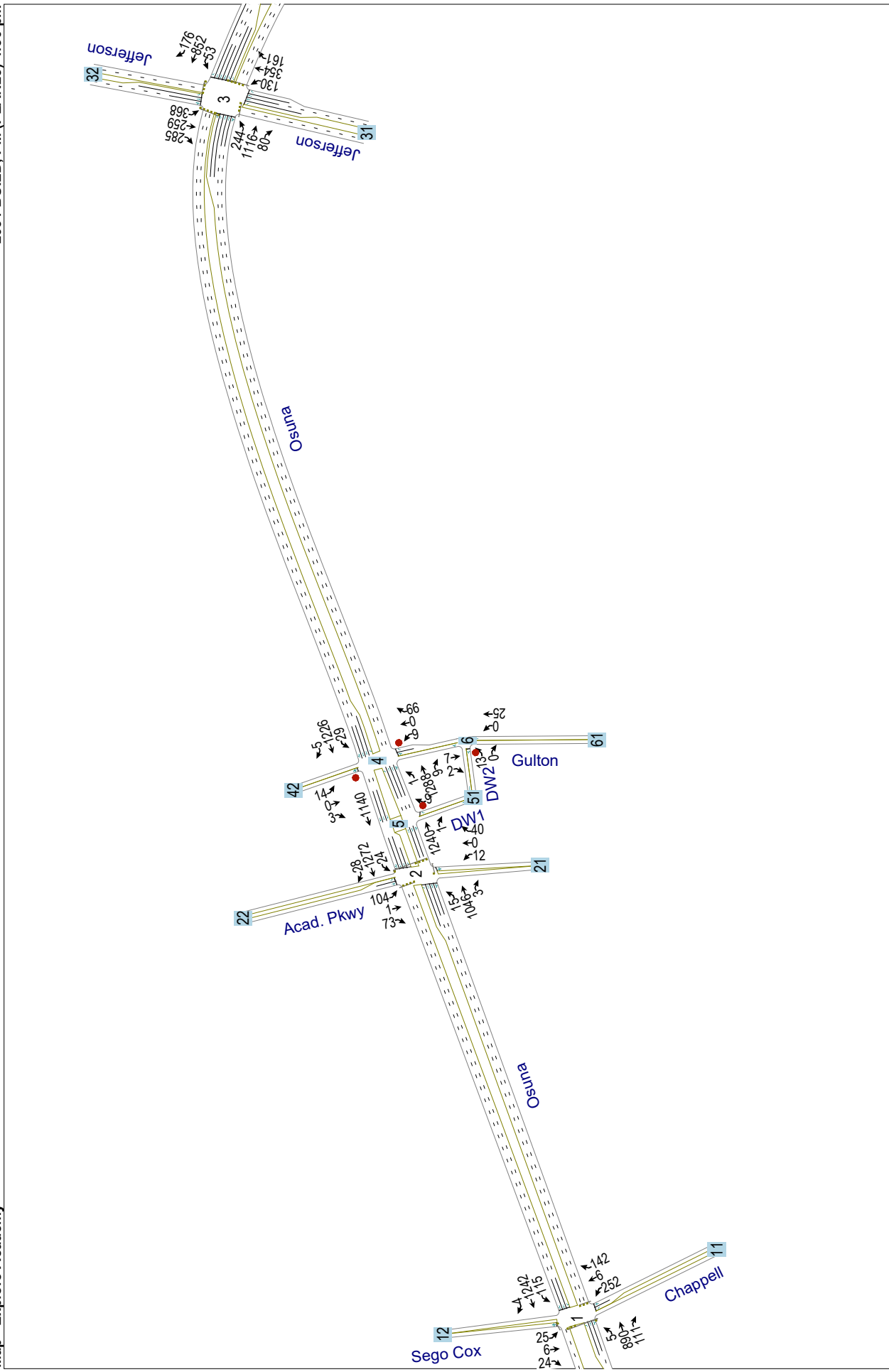
HCM 6th Ctrl Delay 40.8

HCM 6th LOS D

Intersection												
Int Delay, s/veh	246.2											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰ ↑↑↑			↰ ↑↑↑				↰ ↑	↰		↰	
Traffic Vol, veh/h	1	908	13	79	808	3	1	0	15	0	0	1
Future Vol, veh/h	1	908	146	226	808	3	71	0	120	0	0	1
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	0	-	-	125	-	-	-	-	50	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	87	87	87	87	87	87	87	87	87	87	87	87
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	1	1169	168	260	1040	3	82	0	138	0	0	1
Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	1043	0	0	1337	0	0	2191	2818	669	2032	2901	522
Stage 1	-	-	-	-	-	-	1255	1255	-	1562	1562	-
Stage 2	-	-	-	-	-	-	936	1563	-	470	1339	-
Critical Hdwy	5.34	-	-	5.34	-	-	6.44	6.54	7.14	6.44	6.54	7.14
Critical Hdwy Stg 1	-	-	-	-	-	-	7.34	5.54	-	7.34	5.54	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.74	5.54	-	6.74	5.54	-
Follow-up Hdwy	3.12	-	-	3.12	-	-	3.82	4.02	3.92	3.82	4.02	3.92
Pot Cap-1 Maneuver	373	-	-	268	-	-	~ 48	18	343	61	16	428
Stage 1	-	-	-	-	-	-	132	241	-	80	171	-
Stage 2	-	-	-	-	-	-	258	171	-	496	220	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	373	-	-	268	-	-	~ 5	1	343	4	0	428
Mov Cap-2 Maneuver	-	-	-	-	-	-	~ 5	1	-	4	0	-
Stage 1	-	-	-	-	-	-	132	240	-	80	5	-
Stage 2	-	-	-	-	-	-	~ 8	5	-	296	219	-
Approach	EB			WB			NB			SB		
HCM Control Delay, s	0			17.6			\$ 3105.5			13.4		
HCM LOS							F			B		
Minor Lane/Major Mvmt	NBLn1 NBLn2		EBL	EBT	EBR	WBL	WBT	WBR	SBLn1			
Capacity (veh/h)	5 343		373	-	-	268	-	-	428			
HCM Lane V/C Ratio	16.322 0.402		0.003	-	-	0.969	-	-	0.003			
HCM Control Delay (s)	\$ 8316.4 22.4		14.7	-	-	88.4	-	-	13.4			
HCM Lane LOS	F C		B	-	-	F	-	-	B			
HCM 95th %tile Q(veh)	12.1 1.9		0	-	-	9.4	-	-	0			
Notes												
~: Volume exceeds capacity		\$: Delay exceeds 300s			+: Computation Not Defined				*: All major volume in platoon			

Intersection						
Int Delay, s/veh	0					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑↑↓			↑↑↑↑		↗
Traffic Vol, veh/h	899	20	0	793	0	2
Future Vol, veh/h	1032	20	0	863	0	2
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	87	87	87	87	87	87
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	1329	23	0	1111	0	2
Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	-	-	-	676
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	7.14
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	3.92
Pot Cap-1 Maneuver	-	-	0	-	0	339
Stage 1	-	-	0	-	0	-
Stage 2	-	-	0	-	0	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	-	-	-	339
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Approach	EB		WB		NB	
HCM Control Delay, s	0		0		15.7	
HCM LOS					C	
Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBT		
Capacity (veh/h)	339	-	-	-		
HCM Lane V/C Ratio	0.007	-	-	-		
HCM Control Delay (s)	15.7	-	-	-		
HCM Lane LOS	C	-	-	-		
HCM 95th %tile Q(veh)	0	-	-	-		

Intersection						
Int Delay, s/veh	0.1					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	4	0	0	10	29	19
Future Vol, veh/h	4	0	0	185	309	19
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	87	87	87	87	87	87
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	5	0	0	213	355	22
Major/Minor	Minor2	Major1		Major2		
Conflicting Flow All	579	366	377	0	-	0
Stage 1	366	-	-	-	-	-
Stage 2	213	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	477	679	1181	-	-	-
Stage 1	702	-	-	-	-	-
Stage 2	823	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	477	679	1181	-	-	-
Mov Cap-2 Maneuver	477	-	-	-	-	-
Stage 1	702	-	-	-	-	-
Stage 2	823	-	-	-	-	-
Approach	EB	NB		SB		
HCM Control Delay, s	12.6	0		0		
HCM LOS	B					
Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR	
Capacity (veh/h)	1181	-	477	-	-	
HCM Lane V/C Ratio	-	-	0.01	-	-	
HCM Control Delay (s)	0	-	12.6	-	-	
HCM Lane LOS	A	-	B	-	-	
HCM 95th %tile Q(veh)	0	-	0	-	-	



HCM 6th Signalized Intersection Summary

1: Chappell/Sego Cox & Osuna

Explore Academy
2031 BUILD, 11/18/2020 4:30 pm

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	5	795	111	115	1109	4	252	6	142	25	6	24
Future Volume (veh/h)	5	818	111	118	1138	4	252	6	146	25	6	24
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	5	954	116	123	1328	4	262	6	152	26	6	25
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	191	1880	229	353	2296	7	361	15	374	148	43	115
Arrive On Green	0.00	0.59	0.59	0.01	0.21	0.21	0.24	0.24	0.24	0.24	0.24	0.24
Sat Flow, veh/h	1781	3190	388	1781	3634	11	1378	61	1534	427	178	472
Grp Volume(v), veh/h	5	531	539	123	649	683	262	0	158	57	0	0
Grp Sat Flow(s),veh/h/ln	1781	1777	1801	1781	1777	1868	1378	0	1594	1076	0	0
Q Serve(g_s), s	0.1	21.0	21.0	3.1	39.5	39.5	13.9	0.0	10.0	1.2	0.0	0.0
Cycle Q Clear(g_c), s	0.1	21.0	21.0	3.1	39.5	39.5	25.0	0.0	10.0	11.2	0.0	0.0
Prop In Lane	1.00		0.22	1.00		0.01	1.00		0.96	0.46		0.44
Lane Grp Cap(c), veh/h	191	1047	1061	353	1122	1180	361	0	388	306	0	0
V/C Ratio(X)	0.03	0.51	0.51	0.35	0.58	0.58	0.73	0.00	0.41	0.19	0.00	0.00
Avail Cap(c_a), veh/h	364	1047	1061	433	1122	1180	500	0	549	449	0	0
HCM Platoon Ratio	1.00	1.00	1.00	0.33	0.33	0.33	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.94	0.94	0.94	1.00	0.00	1.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	14.9	14.4	14.4	11.2	33.1	33.1	44.7	0.0	38.1	37.1	0.0	0.0
Incr Delay (d2), s/veh	0.0	1.8	1.7	0.2	2.0	1.9	4.3	0.0	1.0	0.4	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	0.1	12.9	13.0	2.0	26.2	27.3	12.5	0.0	7.2	2.7	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	15.0	16.2	16.2	11.4	35.2	35.1	49.1	0.0	39.1	37.5	0.0	0.0
LnGrp LOS	B	B	B	B	D	D	D	A	D	D	A	A
Approach Vol, veh/h	1075				1455				420			
Approach Delay, s/veh	16.2				33.1				45.3			
Approach LOS	B				C				D			
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	9.0	76.2		34.7	4.0	81.3		34.7				
Change Period (Y+Rc), s	4.0	5.5		5.5	3.5	5.5		5.5				
Max Green Setting (Gmax), s	10.4	52.1		41.3	12.1	52.1		41.3				
Max Q Clear Time (g_c+I1), s	5.1	23.0		13.2	2.1	41.5		27.0				
Green Ext Time (p_c), s	0.1	10.7		0.4	0.0	7.3		2.2				
Intersection Summary												
HCM 6th Ctrl Delay	28.8											
HCM 6th LOS	C											

HCM 6th Signalized Intersection Summary 2: Acad. Pkwy & Osuna

Explore Academy
2031 BUILD, 11/18/2020 4:30 pm



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰ ↱ ↲ ↳	↰ ↱ ↲ ↳		↰ ↱ ↲ ↳	↰ ↱ ↲ ↳			↰ ↱ ↲ ↳		↰ ↱ ↲ ↳	↰ ↱ ↲ ↳	
Traffic Volume (veh/h)	15	934	3	24	1136	28	12	0	40	104	1	73
Future Volume (veh/h)	15	961	3	24	1168	28	12	0	40	104	1	73
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	16	1121	3	25	1363	29	12	0	42	108	1	76
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	344	4020	11	436	3953	84	55	17	122	194	2	158
Arrive On Green	0.01	0.76	0.76	0.01	0.77	0.77	0.10	0.00	0.10	0.10	0.10	0.10
Sat Flow, veh/h	1781	5258	14	1781	5145	109	183	164	1218	1365	21	1568
Grp Volume(v), veh/h	16	726	398	25	902	490	54	0	0	108	0	77
Grp Sat Flow(s), veh/h/ln	1781	1702	1868	1781	1702	1851	1565	0	0	1365	0	1588
Q Serve(g_s), s	0.2	7.7	7.7	0.4	10.0	10.0	0.0	0.0	0.0	4.0	0.0	5.5
Cycle Q Clear(g_c), s	0.2	7.7	7.7	0.4	10.0	10.0	5.5	0.0	0.0	9.5	0.0	5.5
Prop In Lane	1.00		0.01	1.00		0.06	0.22		0.78	1.00		0.99
Lane Grp Cap(c), veh/h	344	2602	1428	436	2615	1422	194	0	0	194	0	160
V/C Ratio(X)	0.05	0.28	0.28	0.06	0.34	0.34	0.28	0.00	0.00	0.56	0.00	0.48
Avail Cap(c_a), veh/h	488	2602	1428	573	2615	1422	397	0	0	377	0	372
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)	0.82	0.82	0.82	1.00	1.00	1.00	1.00	0.00	0.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	3.5	4.2	4.2	3.2	4.4	4.4	50.2	0.0	0.0	52.9	0.0	51.0
Incr Delay (d2), s/veh	0.0	0.2	0.4	0.0	0.4	0.7	0.6	0.0	0.0	1.8	0.0	1.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	0.1	3.7	4.2	0.2	4.9	5.5	2.8	0.0	0.0	6.0	0.0	4.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	3.5	4.4	4.6	3.3	4.7	5.0	50.8	0.0	0.0	54.7	0.0	52.7
LnGrp LOS	A	A	A	A	A	A	D	A	A	D	A	D
Approach Vol, veh/h	1140			1417			54			185		
Approach Delay, s/veh	4.5			4.8			50.8			53.9		
Approach LOS	A			A			D			D		
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	5.2	97.2		17.6	4.7	97.7		17.6				
Change Period (Y+Rc), s	3.5	5.5		5.5	3.5	5.5		5.5				
Max Green Setting (Gmax), s	10.9	66.5		28.1	10.9	66.5		28.1				
Max Q Clear Time (g_c+I), s	12.4	9.7		11.5	2.2	12.0		7.5				
Green Ext Time (p_c), s	0.0	8.5		0.5	0.0	11.9		0.2				
Intersection Summary												
HCM 6th Ctrl Delay	8.8											
HCM 6th LOS	A											

HCM 6th Signalized Intersection Summary

3: Jefferson & Osuna

Explore Academy
2031 BUILD, 11/18/2020 4:30 pm

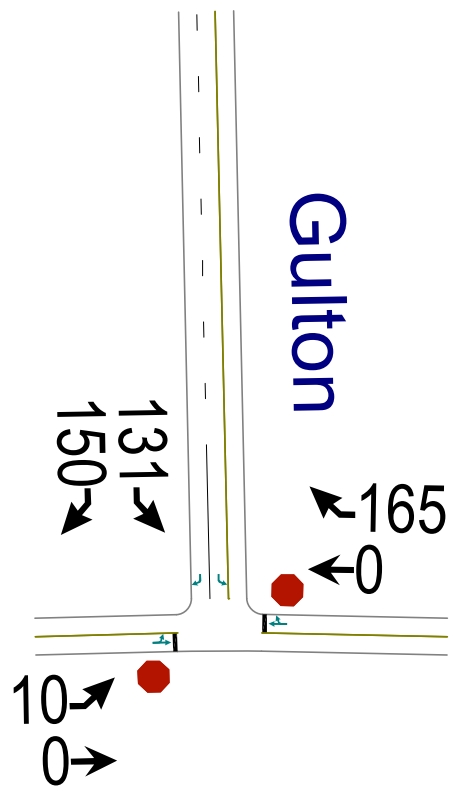


Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰↱	↑↑↓		↰↱	↑↑↑	↰	↰	↑↑	↰	↰	↑↑	
Traffic Volume (veh/h)	230	996	75	50	761	166	123	334	152	347	244	269
Future Volume (veh/h)	236	1022	77	50	783	166	127	334	152	347	244	277
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No				No						No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	261	1192	85	55	914	183	140	369	168	383	269	306
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	320	2299	164	194	2226	691	244	612	273	377	414	369
Arrive On Green	0.06	0.32	0.32	0.06	0.44	0.44	0.08	0.17	0.17	0.14	0.23	0.23
Sat Flow, veh/h	3456	4865	347	3456	5106	1585	1781	3554	1585	1781	1777	1585
Grp Volume(v), veh/h	261	834	443	55	914	183	140	369	168	383	269	306
Grp Sat Flow(s),veh/h/ln	1728	1702	1808	1728	1702	1585	1781	1777	1585	1781	1777	1585
Q Serve(g_s), s	9.0	24.0	24.0	1.8	14.8	8.8	7.7	11.5	11.8	16.9	16.4	22.0
Cycle Q Clear(g_c), s	9.0	24.0	24.0	1.8	14.8	8.8	7.7	11.5	11.8	16.9	16.4	22.0
Prop In Lane	1.00		0.19	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	320	1609	854	194	2226	691	244	612	273	377	414	369
V/C Ratio(X)	0.82	0.52	0.52	0.28	0.41	0.26	0.57	0.60	0.62	1.02	0.65	0.83
Avail Cap(c_a), veh/h	487	1609	854	314	2226	691	335	1066	476	377	551	491
HCM Platoon Ratio	0.67	0.67	0.67	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	55.3	29.8	29.8	54.3	23.3	21.6	37.5	45.9	46.0	38.5	41.6	43.7
Incr Delay (d2), s/veh	3.5	1.2	2.2	0.3	0.6	0.9	0.8	1.4	3.2	50.3	2.4	10.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	7.3	15.7	16.9	1.4	9.8	6.2	6.0	8.9	8.4	13.1	11.9	14.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	58.8	31.0	32.1	54.6	23.8	22.5	38.3	47.2	49.2	88.8	44.0	53.7
LnGrp LOS	E	C	C	D	C	C	D	D	D	F	D	D
Approach Vol, veh/h	1538				1152				677		958	
Approach Delay, s/veh	36.0				25.1				45.9		65.0	
Approach LOS	D				C				D		E	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	10.2	62.7	13.1	34.0	14.6	58.3	20.4	26.7				
Change Period (Y+Rc), s	3.5	6.0	3.5	6.0	3.5	6.0	3.5	6.0				
Max Green Setting (Gmax), s	10.9	37.2	15.7	37.2	16.9	31.2	16.9	36.0				
Max Q Clear Time (g_c+I), s	13.8	26.0	9.7	24.0	11.0	16.8	18.9	13.8				
Green Ext Time (p_c), s	0.0	7.2	0.1	3.9	0.2	7.5	0.0	4.1				
Intersection Summary												
HCM 6th Ctrl Delay			41.1									
HCM 6th LOS			D									

Intersection												
Int Delay, s/veh	5.3											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	T ↑↑↑			T ↑↑↑			T ↑			T ↑		
Traffic Vol, veh/h	1	1150	9	29	1095	5	9	0	66	14	0	3
Future Vol, veh/h	1	1150	36	63	1095	5	41	0	100	14	0	3
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	0	-	-	125	-	-	-	-	50	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	96	96	96	96	96	96	96	96	96	96	96	96
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	1	1342	38	66	1278	5	43	0	104	15	0	3
Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	1283	0	0	1380	0	0	2006	2778	690	1952	2795	642
Stage 1	-	-	-	-	-	-	1363	1363	-	1413	1413	-
Stage 2	-	-	-	-	-	-	643	1415	-	539	1382	-
Critical Hdwy	5.34	-	-	5.34	-	-	6.44	6.54	7.14	6.44	6.54	7.14
Critical Hdwy Stg 1	-	-	-	-	-	-	7.34	5.54	-	7.34	5.54	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.74	5.54	-	6.74	5.54	-
Follow-up Hdwy	3.12	-	-	3.12	-	-	3.82	4.02	3.92	3.82	4.02	3.92
Pot Cap-1 Maneuver	285	-	-	255	-	-	63	19	332	68	18	357
Stage 1	-	-	-	-	-	-	111	214	-	102	202	-
Stage 2	-	-	-	-	-	-	390	202	-	451	210	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	285	-	-	255	-	-	50	14	332	37	13	357
Mov Cap-2 Maneuver	-	-	-	-	-	-	50	14	-	37	13	-
Stage 1	-	-	-	-	-	-	111	213	-	102	150	-
Stage 2	-	-	-	-	-	-	287	150	-	308	209	-
Approach	EB			WB			NB			SB		
HCM Control Delay, s	0			1.2			76.8			133.7		
HCM LOS							F			F		
Minor Lane/Major Mvmt	NBLn1 NBLn2		EBL	EBT	EBR	WBL	WBT	WBR	SBLn1			
Capacity (veh/h)	50	332	285	-	-	255	-	-	44			
HCM Lane V/C Ratio	0.854	0.314	0.004	-	-	0.257	-	-	0.402			
HCM Control Delay (s)	213.8	20.7	17.7	-	-	23.9	-	-	133.7			
HCM Lane LOS	F	C	C	-	-	C	-	-	F			
HCM 95th %tile Q(veh)	3.6	1.3	0	-	-	1	-	-	1.4			

Intersection						
Int Delay, s/veh	0.1					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑↑↓			↑↑↑↑		↗
Traffic Vol, veh/h	1107	1	0	1018	0	9
Future Vol, veh/h	1134	1	0	1050	0	9
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	96	96	96	96	96	96
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	1323	1	0	1225	0	9
Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	-	-	-	662
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	7.14
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	3.92
Pot Cap-1 Maneuver	-	-	0	-	0	347
Stage 1	-	-	0	-	0	-
Stage 2	-	-	0	-	0	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	-	-	-	347
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Approach	EB		WB		NB	
HCM Control Delay, s	0		0		15.7	
HCM LOS					C	
Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBT		
Capacity (veh/h)	347	-	-	-		
HCM Lane V/C Ratio	0.027	-	-	-		
HCM Control Delay (s)	15.7	-	-	-		
HCM Lane LOS	C	-	-	-		
HCM 95th %tile Q(veh)	0.1	-	-	-		

Intersection						
Int Delay, s/veh	0.7					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	13	0	0	25	7	2
Future Vol, veh/h	13	0	0	91	68	2
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	96	96	96	96	96	96
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	14	0	0	95	71	2
Major/Minor	Minor2	Major1		Major2		
Conflicting Flow All	167	72	73	0	-	0
Stage 1	72	-	-	-	-	-
Stage 2	95	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	823	990	1527	-	-	-
Stage 1	951	-	-	-	-	-
Stage 2	929	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	823	990	1527	-	-	-
Mov Cap-2 Maneuver	823	-	-	-	-	-
Stage 1	951	-	-	-	-	-
Stage 2	929	-	-	-	-	-
Approach	EB	NB		SB		
HCM Control Delay, s	9.4	0		0		
HCM LOS	A					
Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR	
Capacity (veh/h)	1527	-	823	-	-	
HCM Lane V/C Ratio	-	-	0.016	-	-	
HCM Control Delay (s)	0	-	9.4	-	-	
HCM Lane LOS	A	-	A	-	-	
HCM 95th %tile Q(veh)	0	-	0.1	-	-	

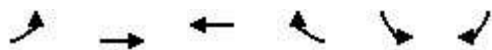


HCM Unsignalized Intersection Capacity Analysis

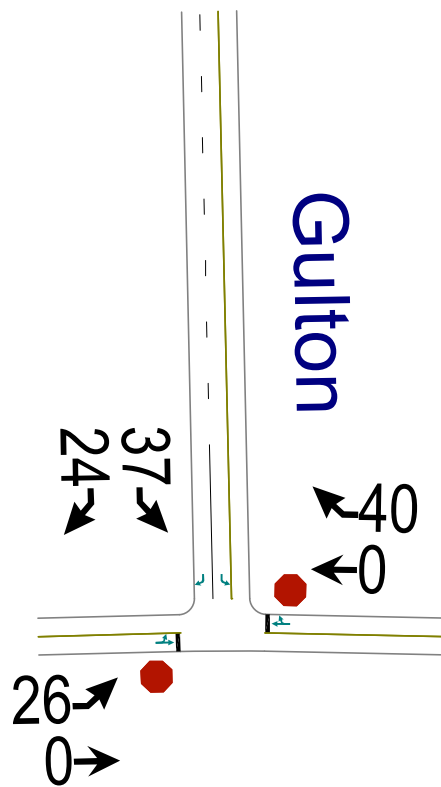
61: Gulton

Explore Academy

2021 BUILD 7:30 am 11/18/2020



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	10	0	0	165	131	150
Future Volume (Veh/h)	10	0	0	165	131	150
Sign Control		Stop	Stop		Free	
Grade		0%	0%		0%	
Peak Hour Factor	0.87	0.87	0.87	0.87	0.87	0.87
Hourly flow rate (vph)	11	0	0	190	151	172
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type					None	
Median storage veh						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	492	302	474	0	0	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	492	302	474	0	0	
tC, single (s)	7.1	6.5	6.5	6.2	4.1	
tC, 2 stage (s)						
tF (s)	3.5	4.0	4.0	3.3	2.2	
p0 queue free %	97	100	100	82	91	
cM capacity (veh/h)	373	554	443	1085	1623	
Direction, Lane #	EB 1	WB 1	SB 1	SB 2		
Volume Total	11	190	151	172		
Volume Left	11	0	151	0		
Volume Right	0	190	0	172		
cSH	373	1085	1623	1700		
Volume to Capacity	0.03	0.18	0.09	0.10		
Queue Length 95th (ft)	2	16	8	0		
Control Delay (s)	14.9	9.0	7.4	0.0		
Lane LOS	B	A	A			
Approach Delay (s)	14.9	9.0	3.5			
Approach LOS	B	A				
Intersection Summary						
Average Delay			5.7			
Intersection Capacity Utilization			26.2%	ICU Level of Service		A
Analysis Period (min)			15			



HCM Unsignalized Intersection Capacity Analysis

61: Gulton

Explore Academy

2021 BUILD 4:30 pm 11/18/2020

						
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	26	0	0	40	37	24
Future Volume (Veh/h)	26	0	0	40	37	24
Sign Control		Stop	Stop		Free	
Grade		0%	0%		0%	
Peak Hour Factor	0.87	0.87	0.87	0.87	0.87	0.87
Hourly flow rate (vph)	30	0	0	46	43	28
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type					None	
Median storage veh						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	132	86	114	0	0	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	132	86	114	0	0	
tC, single (s)	7.1	6.5	6.5	6.2	4.1	
tC, 2 stage (s)						
tF (s)	3.5	4.0	4.0	3.3	2.2	
p0 queue free %	96	100	100	96	97	
cM capacity (veh/h)	788	783	756	1085	1623	
Direction, Lane #	EB 1	WB 1	SB 1	SB 2		
Volume Total	30	46	43	28		
Volume Left	30	0	43	0		
Volume Right	0	46	0	28		
cSH	788	1085	1623	1700		
Volume to Capacity	0.04	0.04	0.03	0.02		
Queue Length 95th (ft)	3	3	2	0		
Control Delay (s)	9.7	8.5	7.3	0.0		
Lane LOS	A	A	A			
Approach Delay (s)	9.7	8.5	4.4			
Approach LOS	A	A				
Intersection Summary						
Average Delay			6.8			
Intersection Capacity Utilization			18.1%		ICU Level of Service	A
Analysis Period (min)			15			

APPENDIX G

Traffic Signal Warrant Study

4: Gulton & Osuna

Intersection Information

	Major Street	Minor Street
Street Name	Osuna	Gulton
Direction	EB/WB	NB/SB
Number of Lanes	2	2
Approach Speed	45	25

Warrant	Met?	Notes
Warrant 1, Eight-Hour Vehicular Volume		
	No	
Condition A or B Met?	No	3 Hours met (8 required)
Condition A and B Met?	No	0 Hours met (8 required)
Warrant 2, Four-Hour Vehicular Volume		
	No	2 Hours met (4 required)
Warrant 3, Peak Hour		
	No	
Condition A Met?	No	0 Hours met (1 required)
Condition B Met?	No	0 Hours met (1 required)
Warrant 4, Pedestrian Volume		
	No	
Condition A Met?	No	0 Hours met (4 required)
Condition B Met?	No	0 Hours met (1 required)
Warrant 5, School Crossing		
	No	

Warrant 6, Coordinated Signal System

No

Warrant 7, Crash Experience

No

Traffic Volume Conditio

No

 5 Hours met (8 required)

Ped Condition?

No

 0 Hours met (8 required)

Warrant 8, Roadway Network

No

Warrant 1: Eight-hour Vehicular Volume

Explore Academy TIS

4: Gulton & Osuna

Intersection Information

Major Street Name: Osuna
Major Street Direction: EB/WB
Minor Street Direction: NB/SB

WARRANT 1 MET? **No**

Details:

Condition A Met? **No** 3 Hours met (8 required)
Condition B Met? **No** 0 Hours met (8 required)

Hour	Major Street Vehicles (Total of Both Approaches)		High Volume Minor Approach Vehicles		70% Standard Met? Cond. A OR Cond. B		56% Standard Met? Cond. A AND Cond. B	
					Condition A 70% Column	Condition B 70% Column	Condition A 56% Column	Condition B 56% Column
07:00 to 08:00	1,654		9		No	No	No	No
Condition A	Volume >= 70% column (420)?	Yes	Volume >= 70% column (630)?	No				
	Volume >= 56% column (336)?	Yes	Volume >= 56% column (504)?	No				
Condition B	Volume >= 70% column (630)?	Yes	Volume >= 70% column (70)?	No				
	Volume >= 56% column (504)?	Yes	Volume >= 56% column (56)?	No				
07:15 to 08:15	1,798		17		No	No	No	No
Condition A	Volume >= 70% column (420)?	Yes	Volume >= 70% column (630)?	No				
	Volume >= 56% column (336)?	Yes	Volume >= 56% column (504)?	No				
Condition B	Volume >= 70% column (630)?	Yes	Volume >= 70% column (70)?	No				
	Volume >= 56% column (504)?	Yes	Volume >= 56% column (56)?	No				
07:30 to 08:30	1,812		16		No	No	No	No
Condition A	Volume >= 70% column (420)?	Yes	Volume >= 70% column (630)?	No				
	Volume >= 56% column (336)?	Yes	Volume >= 56% column (504)?	No				
Condition B	Volume >= 70% column (630)?	Yes	Volume >= 70% column (70)?	No				
	Volume >= 56% column (504)?	Yes	Volume >= 56% column (56)?	No				
07:45 to 08:45	1,793		17		No	No	No	No
Condition A	Volume >= 70% column (420)?	Yes	Volume >= 70% column (630)?	No				
	Volume >= 56% column (336)?	Yes	Volume >= 56% column (504)?	No				
Condition B	Volume >= 70% column (630)?	Yes	Volume >= 70% column (70)?	No				
	Volume >= 56% column (504)?	Yes	Volume >= 56% column (56)?	No				

08:00 to 09:00	1,741	20	No	No	No	No
Condition A	Volume >= 70% column (420)?	Yes	Volume >= 70% column (630)?	No		
	Volume >= 56% column (336)?	Yes	Volume >= 56% column (504)?	No		
Condition B	Volume >= 70% column (630)?	Yes	Volume >= 70% column (70)?	No		
	Volume >= 56% column (504)?	Yes	Volume >= 56% column (56)?	No		

08:15 to 09:15	1,640	17	No	No	No	No
Condition A	Volume >= 70% column (420)?	Yes	Volume >= 70% column (630)?	No		
	Volume >= 56% column (336)?	Yes	Volume >= 56% column (504)?	No		
Condition B	Volume >= 70% column (630)?	Yes	Volume >= 70% column (70)?	No		
	Volume >= 56% column (504)?	Yes	Volume >= 56% column (56)?	No		

08:30 to 09:30	1,585	22	No	No	No	No
Condition A	Volume >= 70% column (420)?	Yes	Volume >= 70% column (630)?	No		
	Volume >= 56% column (336)?	Yes	Volume >= 56% column (504)?	No		
Condition B	Volume >= 70% column (630)?	Yes	Volume >= 70% column (70)?	No		
	Volume >= 56% column (504)?	Yes	Volume >= 56% column (56)?	No		

08:45 to 09:45	1,593	23	No	No	No	No
Condition A	Volume >= 70% column (420)?	Yes	Volume >= 70% column (630)?	No		
	Volume >= 56% column (336)?	Yes	Volume >= 56% column (504)?	No		
Condition B	Volume >= 70% column (630)?	Yes	Volume >= 70% column (70)?	No		
	Volume >= 56% column (504)?	Yes	Volume >= 56% column (56)?	No		

09:00 to 10:00	1,575	26	No	No	No	No
Condition A	Volume >= 70% column (420)?	Yes	Volume >= 70% column (630)?	No		
	Volume >= 56% column (336)?	Yes	Volume >= 56% column (504)?	No		
Condition B	Volume >= 70% column (630)?	Yes	Volume >= 70% column (70)?	No		
	Volume >= 56% column (504)?	Yes	Volume >= 56% column (56)?	No		

09:15 to 10:15	1,688	29	No	No	No	No
Condition A	Volume >= 70% column (420)?	Yes	Volume >= 70% column (630)?	No		
	Volume >= 56% column (336)?	Yes	Volume >= 56% column (504)?	No		
Condition B	Volume >= 70% column (630)?	Yes	Volume >= 70% column (70)?	No		
	Volume >= 56% column (504)?	Yes	Volume >= 56% column (56)?	No		

09:30 to 10:30	1,757	37	No	No	No	No
Condition A	Volume >= 70% column (420)?	Yes	Volume >= 70% column (630)?	No		
	Volume >= 56% column (336)?	Yes	Volume >= 56% column (504)?	No		
Condition B	Volume >= 70% column (630)?	Yes	Volume >= 70% column (70)?	No		
	Volume >= 56% column (504)?	Yes	Volume >= 56% column (56)?	No		

09:45 to 10:45	1,787	41	No	No	No	No
Condition A	Volume >= 70% column (420)?	Yes	Volume >= 70% column (630)?	No		
	Volume >= 56% column (336)?	Yes	Volume >= 56% column (504)?	No		
Condition B	Volume >= 70% column (630)?	Yes	Volume >= 70% column (70)?	No		
	Volume >= 56% column (504)?	Yes	Volume >= 56% column (56)?	No		

10:00 to 11:00	1,843	42	No	No	No	No
Condition A	Volume >= 70% column (420)?	Yes	Volume >= 70% column (630)?	No		
	Volume >= 56% column (336)?	Yes	Volume >= 56% column (504)?	No		
Condition B	Volume >= 70% column (630)?	Yes	Volume >= 70% column (70)?	No		
	Volume >= 56% column (504)?	Yes	Volume >= 56% column (56)?	No		

10:15 to 11:15	1,793	41	No	No	No	No
Condition A	Volume >= 70% column (420)?	Yes	Volume >= 70% column (630)?	No		
	Volume >= 56% column (336)?	Yes	Volume >= 56% column (504)?	No		
Condition B	Volume >= 70% column (630)?	Yes	Volume >= 70% column (70)?	No		
	Volume >= 56% column (504)?	Yes	Volume >= 56% column (56)?	No		

10:30 to 11:30	1,798	37	No	No	No	No
Condition A	Volume >= 70% column (420)?	Yes	Volume >= 70% column (630)?	No		
	Volume >= 56% column (336)?	Yes	Volume >= 56% column (504)?	No		
Condition B	Volume >= 70% column (630)?	Yes	Volume >= 70% column (70)?	No		
	Volume >= 56% column (504)?	Yes	Volume >= 56% column (56)?	No		

10:45 to 11:45	1,887	44	No	No	No	No
Condition A	Volume >= 70% column (420)?	Yes	Volume >= 70% column (630)?	No		
	Volume >= 56% column (336)?	Yes	Volume >= 56% column (504)?	No		
Condition B	Volume >= 70% column (630)?	Yes	Volume >= 70% column (70)?	No		
	Volume >= 56% column (504)?	Yes	Volume >= 56% column (56)?	No		

11:00 to 12:00	1,997	42	No	No	No	No
Condition A	Volume >= 70% column (420)?	Yes	Volume >= 70% column (630)?	No		
	Volume >= 56% column (336)?	Yes	Volume >= 56% column (504)?	No		
Condition B	Volume >= 70% column (630)?	Yes	Volume >= 70% column (70)?	No		
	Volume >= 56% column (504)?	Yes	Volume >= 56% column (56)?	No		

11:15 to 12:15	2,145	58	No	No	No	Yes
Condition A	Volume >= 70% column (420)?	Yes	Volume >= 70% column (630)?	No		
	Volume >= 56% column (336)?	Yes	Volume >= 56% column (504)?	No		
Condition B	Volume >= 70% column (630)?	Yes	Volume >= 70% column (70)?	No		
	Volume >= 56% column (504)?	Yes	Volume >= 56% column (56)?	Yes		

11:30 to 12:30	2,260	70	No	Yes*	No	Yes
Condition A	Volume >= 70% column (420)?	Yes	Volume >= 70% column (630)?	No		
	Volume >= 56% column (336)?	Yes	Volume >= 56% column (504)?	No		
Condition B	Volume >= 70% column (630)?	Yes	Volume >= 70% column (70)?	Yes		
	Volume >= 56% column (504)?	Yes	Volume >= 56% column (56)?	Yes		

11:45 to 12:45	2,252	84	No	Yes	No	Yes
Condition A	Volume >= 70% column (420)?	Yes	Volume >= 70% column (630)?	No		
	Volume >= 56% column (336)?	Yes	Volume >= 56% column (504)?	No		
Condition B	Volume >= 70% column (630)?	Yes	Volume >= 70% column (70)?	Yes		
	Volume >= 56% column (504)?	Yes	Volume >= 56% column (56)?	Yes		

12:00 to 13:00	2,207	90	No	Yes	No	Yes
Condition A	Volume >= 70% column (420)?	Yes	Volume >= 70% column (630)?	No		
	Volume >= 56% column (336)?	Yes	Volume >= 56% column (504)?	No		
Condition B	Volume >= 70% column (630)?	Yes	Volume >= 70% column (70)?	Yes		
	Volume >= 56% column (504)?	Yes	Volume >= 56% column (56)?	Yes		

12:15 to 13:15	2,170	77	No	Yes	No	Yes
Condition A	Volume >= 70% column (420)?	Yes	Volume >= 70% column (630)?	No		
	Volume >= 56% column (336)?	Yes	Volume >= 56% column (504)?	No		
Condition B	Volume >= 70% column (630)?	Yes	Volume >= 70% column (70)?	Yes		
	Volume >= 56% column (504)?	Yes	Volume >= 56% column (56)?	Yes		

12:30 to 13:30	2,110	69	No	No	No	Yes
Condition A	Volume >= 70% column (420)?	Yes	Volume >= 70% column (630)?	No		
	Volume >= 56% column (336)?	Yes	Volume >= 56% column (504)?	No		
Condition B	Volume >= 70% column (630)?	Yes	Volume >= 70% column (70)?	No		
	Volume >= 56% column (504)?	Yes	Volume >= 56% column (56)?	Yes		

12:45 to 13:45	1,582	38	No	No	No	No
Condition A	Volume >= 70% column (420)?	Yes	Volume >= 70% column (630)?	No		
	Volume >= 56% column (336)?	Yes	Volume >= 56% column (504)?	No		
Condition B	Volume >= 70% column (630)?	Yes	Volume >= 70% column (70)?	No		
	Volume >= 56% column (504)?	Yes	Volume >= 56% column (56)?	No		

13:00 to 14:00	1,622	42	No	No	No	No
Condition A	Volume >= 70% column (420)?	Yes	Volume >= 70% column (630)?	No		
	Volume >= 56% column (336)?	Yes	Volume >= 56% column (504)?	No		
Condition B	Volume >= 70% column (630)?	Yes	Volume >= 70% column (70)?	No		
	Volume >= 56% column (504)?	Yes	Volume >= 56% column (56)?	No		

13:15 to 14:15	1,620	43	No	No	No	No
Condition A	Volume >= 70% column (420)?	Yes	Volume >= 70% column (630)?	No		
	Volume >= 56% column (336)?	Yes	Volume >= 56% column (504)?	No		
Condition B	Volume >= 70% column (630)?	Yes	Volume >= 70% column (70)?	No		
	Volume >= 56% column (504)?	Yes	Volume >= 56% column (56)?	No		

13:45 to 14:45	2,137	52	No	No	No	No
Condition A	Volume >= 70% column (420)?	Yes	Volume >= 70% column (630)?	No		
	Volume >= 56% column (336)?	Yes	Volume >= 56% column (504)?	No		
Condition B	Volume >= 70% column (630)?	Yes	Volume >= 70% column (70)?	No		
	Volume >= 56% column (504)?	Yes	Volume >= 56% column (56)?	No		

14:00 to 15:00	2,106	41	No	No	No	No
Condition A	Volume >= 70% column (420)?	Yes	Volume >= 70% column (630)?	No		
	Volume >= 56% column (336)?	Yes	Volume >= 56% column (504)?	No		
Condition B	Volume >= 70% column (630)?	Yes	Volume >= 70% column (70)?	No		
	Volume >= 56% column (504)?	Yes	Volume >= 56% column (56)?	No		

14:15 to 15:15	2,044	42	No	No	No	No
Condition A	Volume >= 70% column (420)?	Yes	Volume >= 70% column (630)?	No		
	Volume >= 56% column (336)?	Yes	Volume >= 56% column (504)?	No		
Condition B	Volume >= 70% column (630)?	Yes	Volume >= 70% column (70)?	No		
	Volume >= 56% column (504)?	Yes	Volume >= 56% column (56)?	No		

14:30 to 15:30	2,036	37	No	No	No	No
Condition A	Volume >= 70% column (420)?	Yes	Volume >= 70% column (630)?	No		
	Volume >= 56% column (336)?	Yes	Volume >= 56% column (504)?	No		
Condition B	Volume >= 70% column (630)?	Yes	Volume >= 70% column (70)?	No		
	Volume >= 56% column (504)?	Yes	Volume >= 56% column (56)?	No		

14:45 to 15:45	2,038	36	No	No	No	No
Condition A	Volume >= 70% column (420)?	Yes	Volume >= 70% column (630)?	No		
	Volume >= 56% column (336)?	Yes	Volume >= 56% column (504)?	No		
Condition B	Volume >= 70% column (630)?	Yes	Volume >= 70% column (70)?	No		
	Volume >= 56% column (504)?	Yes	Volume >= 56% column (56)?	No		

15:00 to 16:00	2,016	52	No	No	No	No
Condition A	Volume >= 70% column (420)?	Yes	Volume >= 70% column (630)?	No		
	Volume >= 56% column (336)?	Yes	Volume >= 56% column (504)?	No		
Condition B	Volume >= 70% column (630)?	Yes	Volume >= 70% column (70)?	No		
	Volume >= 56% column (504)?	Yes	Volume >= 56% column (56)?	No		

15:15 to 16:15	2,053	60	No	No	No	Yes
Condition A	Volume >= 70% column (420)?	Yes	Volume >= 70% column (630)?	No		
	Volume >= 56% column (336)?	Yes	Volume >= 56% column (504)?	No		
Condition B	Volume >= 70% column (630)?	Yes	Volume >= 70% column (70)?	No		
	Volume >= 56% column (504)?	Yes	Volume >= 56% column (56)?	Yes		

15:30 to 16:30	2,123	71	No	Yes*	No	Yes
Condition A	Volume >= 70% column (420)?	Yes	Volume >= 70% column (630)?	No		
	Volume >= 56% column (336)?	Yes	Volume >= 56% column (504)?	No		
Condition B	Volume >= 70% column (630)?	Yes	Volume >= 70% column (70)?	Yes		
	Volume >= 56% column (504)?	Yes	Volume >= 56% column (56)?	Yes		

15:45 to 16:45	2,159	85	No	Yes	No	Yes
Condition A	Volume >= 70% column (420)?	Yes	Volume >= 70% column (630)?	No		
	Volume >= 56% column (336)?	Yes	Volume >= 56% column (504)?	No		
Condition B	Volume >= 70% column (630)?	Yes	Volume >= 70% column (70)?	Yes		
	Volume >= 56% column (504)?	Yes	Volume >= 56% column (56)?	Yes		

16:00 to 17:00	2,255	82	No	Yes	No	Yes
Condition A	Volume >= 70% column (420)?	Yes	Volume >= 70% column (630)?	No		
	Volume >= 56% column (336)?	Yes	Volume >= 56% column (504)?	No		
Condition B	Volume >= 70% column (630)?	Yes	Volume >= 70% column (70)?	Yes		
	Volume >= 56% column (504)?	Yes	Volume >= 56% column (56)?	Yes		

16:15 to 17:15	2,289	79	No	Yes	No	Yes
Condition A	Volume >= 70% column (420)?	Yes	Volume >= 70% column (630)?	No		
	Volume >= 56% column (336)?	Yes	Volume >= 56% column (504)?	No		
Condition B	Volume >= 70% column (630)?	Yes	Volume >= 70% column (70)?	Yes		
	Volume >= 56% column (504)?	Yes	Volume >= 56% column (56)?	Yes		

16:30 to 17:30	2,289	75	No	Yes*	No	Yes
Condition A	Volume >= 70% column (420)?	Yes	Volume >= 70% column (630)?	No		
	Volume >= 56% column (336)?	Yes	Volume >= 56% column (504)?	No		
Condition B	Volume >= 70% column (630)?	Yes	Volume >= 70% column (70)?	Yes		
	Volume >= 56% column (504)?	Yes	Volume >= 56% column (56)?	Yes		

16:45 to 17:45	2,308	77	No	Yes	No	Yes
Condition A	Volume >= 70% column (420)?	Yes	Volume >= 70% column (630)?	No		
	Volume >= 56% column (336)?	Yes	Volume >= 56% column (504)?	No		
Condition B	Volume >= 70% column (630)?	Yes	Volume >= 70% column (70)?	Yes		
	Volume >= 56% column (504)?	Yes	Volume >= 56% column (56)?	Yes		

17:00 to 18:00		2,315		73		No	Yes	No	Yes
Condition A	Volume >= 70% column (420)?	Yes	Volume >= 70% column (630)?	No					
	Volume >= 56% column (336)?	Yes	Volume >= 56% column (504)?	No					
Condition B	Volume >= 70% column (630)?	Yes	Volume >= 70% column (70)?	Yes					
	Volume >= 56% column (504)?	Yes	Volume >= 56% column (56)?	Yes					
17:15 to 18:15		1,767		56		No	No	No	Yes
Condition A	Volume >= 70% column (420)?	Yes	Volume >= 70% column (630)?	No					
	Volume >= 56% column (336)?	Yes	Volume >= 56% column (504)?	No					
Condition B	Volume >= 70% column (630)?	Yes	Volume >= 70% column (70)?	No					
	Volume >= 56% column (504)?	Yes	Volume >= 56% column (56)?	Yes					
17:30 to 18:30		1,172		39		No	No	No	No
Condition A	Volume >= 70% column (420)?	Yes	Volume >= 70% column (630)?	No					
	Volume >= 56% column (336)?	Yes	Volume >= 56% column (504)?	No					
Condition B	Volume >= 70% column (630)?	Yes	Volume >= 70% column (70)?	No					
	Volume >= 56% column (504)?	Yes	Volume >= 56% column (56)?	No					
17:45 to 18:45		612		16		No	No	No	No
Condition A	Volume >= 70% column (420)?	Yes	Volume >= 70% column (630)?	No					
	Volume >= 56% column (336)?	Yes	Volume >= 56% column (504)?	No					
Condition B	Volume >= 70% column (630)?	No	Volume >= 70% column (70)?	No					
	Volume >= 56% column (504)?	Yes	Volume >= 56% column (56)?	No					

4: Gulton & Osuna

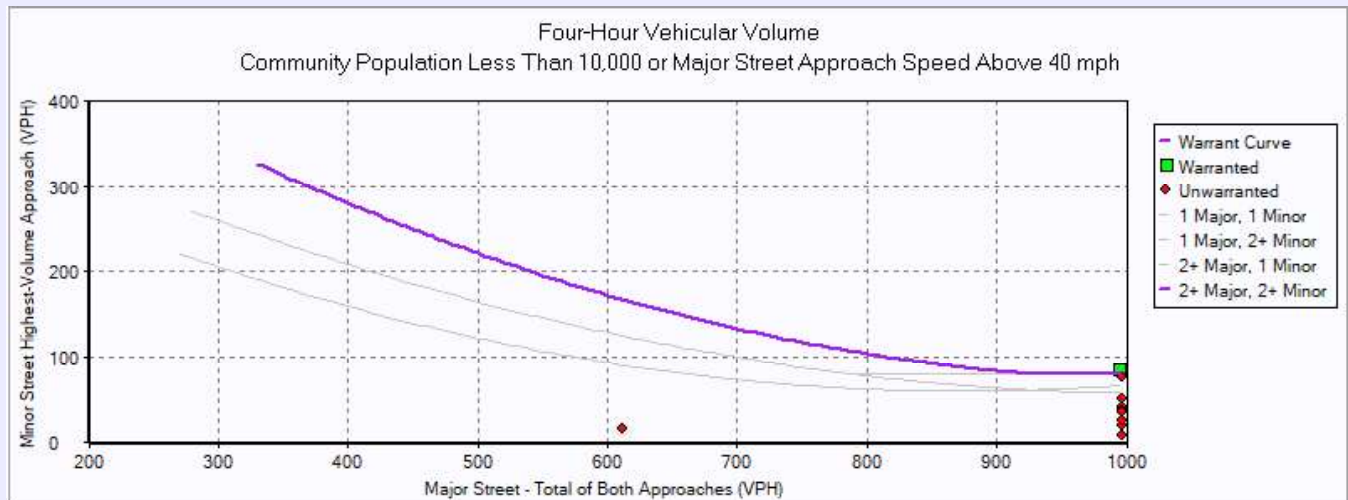
Intersection Information

	Major Street	Minor Street
Street Name	Osuna	Gulton
Direction	EB/WB	NB/SB
Number of Lanes	2	2
Approach Speed	45	25

Warrant 2 Met? **No**

Details:

Notes	2 Hours met (4 required)
Low population	No



Hourly Volumes

Hour	Major Street Total All Approaches (vph)	Minor Street Highest Volume Approach (vph)
00:00:00 - 01:00:00	0.00	0.00
01:00:00 - 02:00:00	0.00	0.00
02:00:00 - 03:00:00	0.00	0.00
03:00:00 - 04:00:00	0.00	0.00
04:00:00 - 05:00:00	0.00	0.00
05:00:00 - 06:00:00	0.00	0.00
06:00:00 - 07:00:00	0.00	0.00
07:00:00 - 08:00:00	1,654.00	9.00
08:00:00 - 09:00:00	1,741.00	20.00
09:00:00 - 10:00:00	1,575.00	26.00
10:00:00 - 11:00:00	1,843.00	42.00
11:00:00 - 12:00:00	1,997.00	42.00
12:00:00 - 13:00:00	2,207.00	90.00
13:00:00 - 14:00:00	1,622.00	42.00
14:00:00 - 15:00:00	2,106.00	41.00
15:00:00 - 16:00:00	2,016.00	52.00
16:00:00 - 17:00:00	2,255.00	82.00
17:00:00 - 18:00:00	2,315.00	73.00
18:00:00 - 19:00:00	0.00	0.00
19:00:00 - 20:00:00	0.00	0.00
20:00:00 - 21:00:00	0.00	0.00
21:00:00 - 22:00:00	0.00	0.00
22:00:00 - 23:00:00	0.00	0.00
23:00:00 - 00:00:00	0.00	0.00

Warranted Volumes

Hour	Major Street Total All Approaches (vph)	Minor Street Highest Volume Approach (vph)
11:45:00 - 12:45:00	2,252.00	84.00
15:45:00 - 16:45:00	2,159.00	85.00

4: Gulton & Osuna

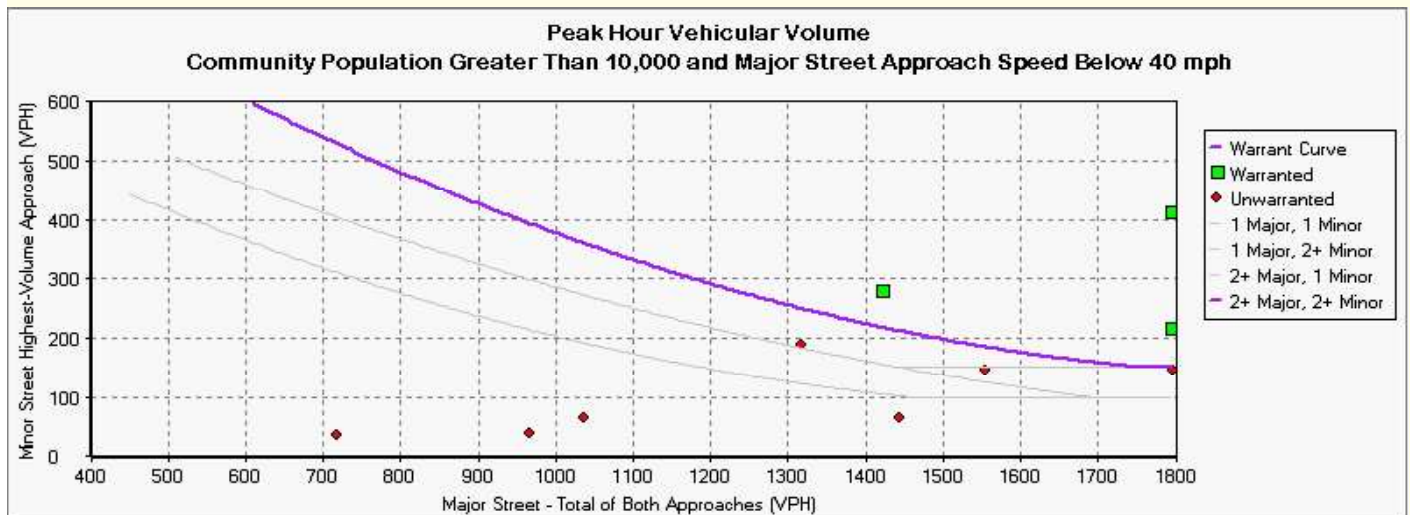
Intersection Information

	Major Street	Minor Street
Street Name	Osuna	Gulton
Direction	EB/WB	NB/SB
Number of Lanes	2	2
Approach Speed	45	25

Warrant 3 Met? **No**

Details

Low Population?	No		
Condition A Met?	No	Condition B Met?	No
Notes	0 Hours met (1 required)	Notes	0 Hours met (1 required)
Minor Approach Time Delay Condition Met?	Not Met		
Minor Approach Volume Condition Met?	Not Met		
Total Entering Intersection Volume Condition Met?	Not Met		



Hour	Major Street Total All Approaches (vph)	Minor Street Highest Volume Approach (vph)
7:00	1,654	9
8:00	1,741	20
9:00	1,575	26
10:00	1,843	42
11:00	1,997	42
12:00	2,207	90
13:00	1,622	42
14:00	2,106	41
15:00	2,016	52
16:00	2,255	82
17:00	2,315	73

4: Gulton & Osuna

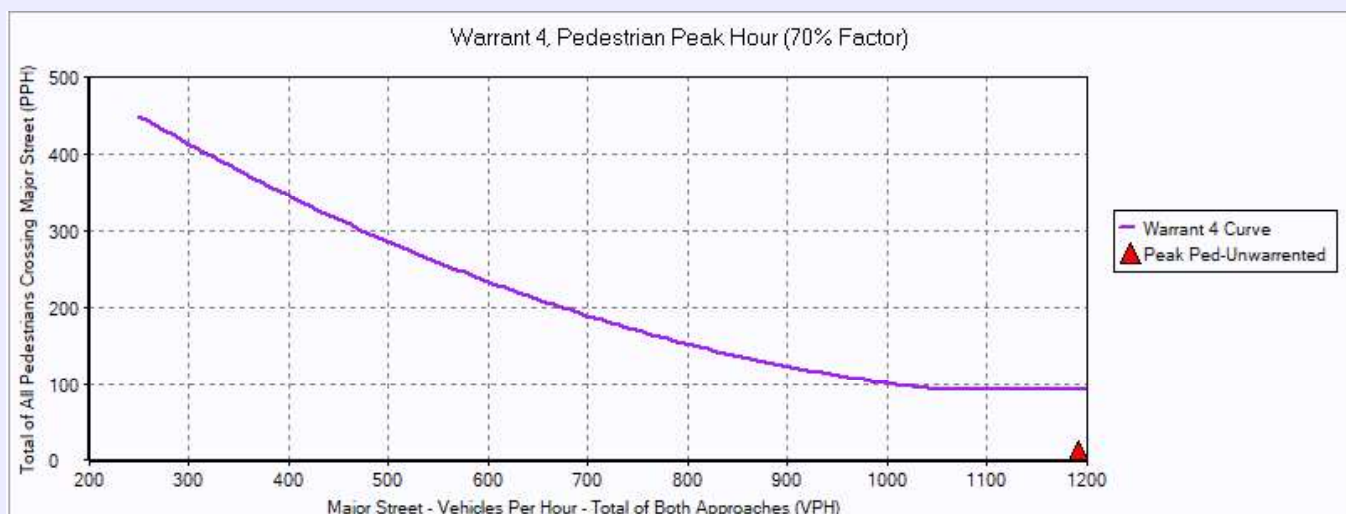
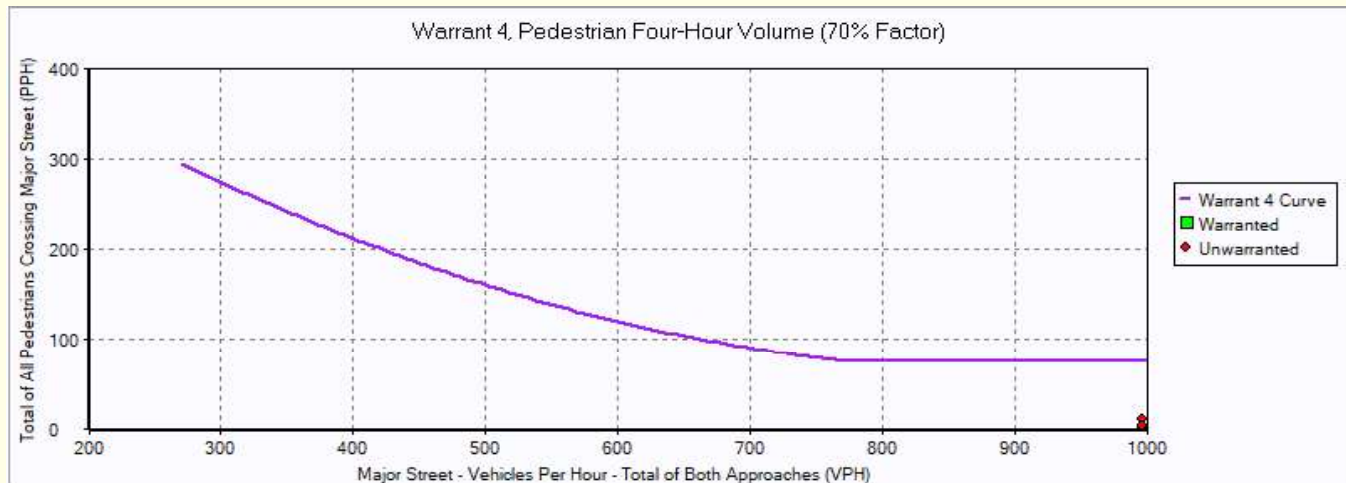
Intersection Information

	Major Street	Minor Street
Street Name	Osuna	Gulton
Direction	EB/WB	NB/SB
Number of Lanes	2	2
Approach Speed	45	25

WARRANT 4 MET ? **No**

Details

Pedestrian Four Hour Volume Warrant Met?	No	
Pedestrian Peak Hour Warrant Met?	No	Notes 0 Hours met (4 required)
Speed Limit or 85th Percentile Speed on Major Street > 35mph, or Intersection lies within an Isolated Community with Population < 10,000?	Yes	



Warrant 5: School Crossing

Explore Academy TIS

4: Gulton & Osuna

Intersection Information

Major Street Name	Osuna
Major Street Direction	EB/WB

WARRANT 5 MET? **No**

Details:

Time Period Interval for Students Crossing (min)	0
Number of Students Crossing in Time Period	0
Number of Adequate Gaps in Time Period	0
Other Remedial Measures Attempted?	No
Adjacent Signal on EB approach?	Yes
Distance to signal on EB Approach (ft)	372
Adjacent Signal on WB approach?	Yes
Distance to signal on WB Approach (ft)	2142
Will New Signal Restrict Progressive Traffic?	No

4: Gulton & Osuna

Intersection Information

Major Street Name	Osuna
Major Street Direction	EB/WB

WARRANT 6 MET? **No**

Details:

Approach Direction & Name	Acceptable Platooning?	Adjacent Coordinating Signal?	Adjacent Intersection Distance
SB Approach (Gulton)	No	No	N/A
NB Approach (Gulton)	No	No	N/A
WB Approach (Osuna)	Yes	Yes	2,142.00
EB Approach (Osuna)	Yes	Yes	372.00

Unacceptable Platooning?
(At least one approach)

Yes

Distance to Closest Signal
(Must be N/A or > 1000)

2,142.00

4: Gulton & Osuna

Intersection Information

Major Street Name	Osuna
Major Street Direction	EB/WB
Minor Street Direction	NB/SB

WARRANT 7 MET? **No**

Details:

Low Population?	No	Traffic Volume Condition Met?	No
Major Street Speed Limit	45		5 Hours Met (8 Required)
Major Street 85 th -% tile Speed	0.00	Ped Volume Condition Met?	No
			0 Hours Met (8 Required)
Qualifying Crashes		0	
Adequate Alternative Trials?		No	

Hour	Traffic Volumes				Pedestrian Volumes			
	Major Street Vehicles	Minor Street Vehicles	80% Standard Met? A or B		Northbound Ped Volumes		Southbound Ped Volumes	
			Condition A	Condition B	Peds	> 80?	Peds	> 80?
07:00 to 08:00	1,654	0	No	No	0	No	0	No
07:15 to 08:15	1,798	0	No	No	0	No	0	No
07:30 to 08:30	1,812	0	No	No	0	No	0	No
07:45 to 08:45	1,793	0	No	No	0	No	0	No
08:00 to 09:00	1,741	0	No	No	0	No	0	No
08:15 to 09:15	1,640	0	No	No	0	No	0	No
08:30 to 09:30	1,585	0	No	No	0	No	0	No
08:45 to 09:45	1,593	0	No	No	0	No	0	No

09:00 to 10:00	1,575	0	No	No	0	No	0	No
09:15 to 10:15	1,688	0	No	No	0	No	0	No
09:30 to 10:30	1,757	0	No	No	0	No	0	No
09:45 to 10:45	1,787	0	No	No	0	No	0	No
10:00 to 11:00	1,843	0	No	No	0	No	0	No
10:15 to 11:15	1,793	0	No	No	0	No	0	No
10:30 to 11:30	1,798	0	No	No	0	No	0	No
10:45 to 11:45	1,887	0	No	No	0	No	0	No
11:00 to 12:00	1,997	0	No	No	0	No	0	No
11:15 to 12:15	2,145	0	No	No	0	No	0	No
11:30 to 12:30	2,260	0	No	No	0	No	0	No
11:45 to 12:45	2,252	0	No	No	0	No	0	No
12:00 to 13:00	2,207	0	No	No	0	No	0	No
12:15 to 13:15	2,170	0	No	No	0	No	0	No
12:30 to 13:30	2,110	0	No	No	0	No	0	No
12:45 to 13:45	1,582	0	No	No	0	No	0	No
13:00 to 14:00	1,622	0	No	No	0	No	0	No
13:15 to 14:15	1,620	0	No	No	0	No	0	No

13:45 to 14:45	2,137	0	No	No	0	No	0	No
14:00 to 15:00	2,106	0	No	No	0	No	0	No
14:15 to 15:15	2,044	0	No	No	0	No	0	No
14:30 to 15:30	2,036	0	No	No	0	No	0	No
14:45 to 15:45	2,038	0	No	No	0	No	0	No
15:00 to 16:00	2,016	0	No	No	0	No	0	No
15:15 to 16:15	2,053	0	No	No	0	No	0	No
15:30 to 16:30	2,123	0	No	No	0	No	0	No
15:45 to 16:45	2,159	0	No	No	0	No	0	No
16:00 to 17:00	2,255	0	No	No	0	No	0	No
16:15 to 17:15	2,289	0	No	No	0	No	0	No
16:30 to 17:30	2,289	0	No	No	0	No	0	No
16:45 to 17:45	2,308	0	No	No	0	No	0	No
17:00 to 18:00	2,315	0	No	No	0	No	0	No
17:15 to 18:15	1,767	0	No	No	0	No	0	No
17:30 to 18:30	1,172	0	No	No	0	No	0	No
17:45 to 18:45	612	0	No	No	0	No	0	No

4: Gulton & Osuna

Intersection Information

Major Street Name	Osuna
Major Street Direction	EB/WB
Minor Street Direction	NB/SB

WARRANT 8 MET? (A or B) **No**

Details:

Growth Rates % (per year)				
	NB	SB	EB	WB
L	0.00	0.00	0.00	0.00
T	0.00	0.00	0.00	0.00
R	0.00	0.00	0.00	0.00

Condition A, Total Entering Volume		Condition B, Non-normal Business Day		
			Existing	Future
Existing Peak Hour	2,401	Highest Hour	0	0
Years	0.00	Second Highest Hour	0	0
Future Peak Hour	2,401	Third Highest Hour	0	0
Warrant 1 in 5 Years?	No	Fourth Highest Hour	0	0
Warrant 2 in 5 Years?	No	Fifth Highest Hour	0	0
Warrant 3 in 5 Years?	No	Yearly Growth Rate (%)	0.00	
		Years	0.00	

Condition A Met? **No**Condition B Met? **No**

4: Gulton & Osuna

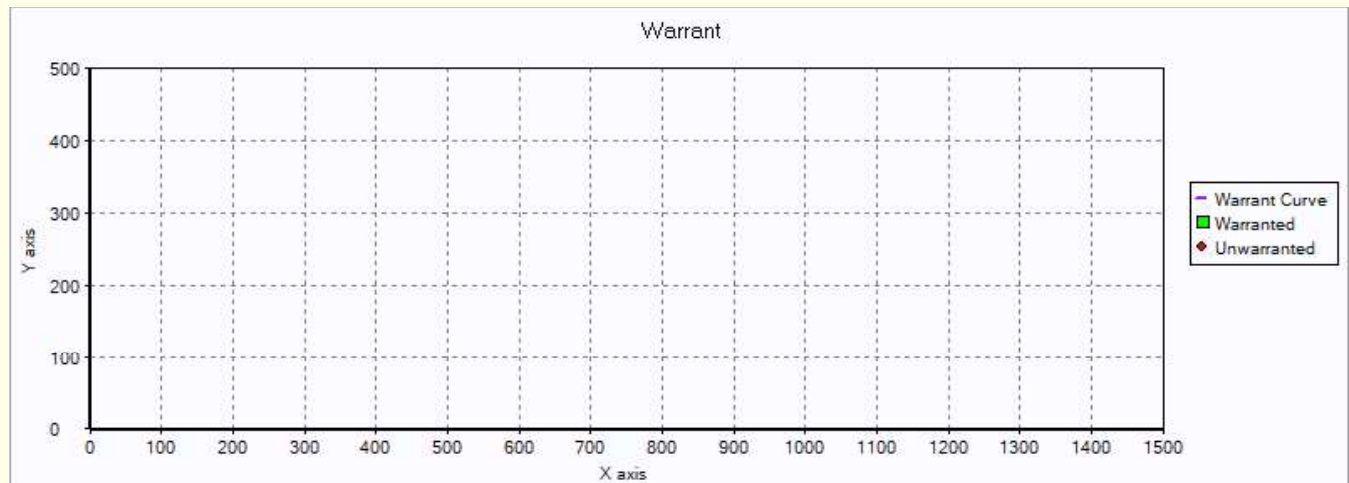
Intersection Information

	Major Street	Minor Street
Street Name	Osuna	Gulton
Direction	EB/WB	NB/SB
Number of Lanes	2	2
Approach Speed	45	25

WARRANT 9 MET ? **No**

Details

Note	No approach with a railroad grade crossing		
Minor street approach having a grade crossing			
Distance from the center of the track to the stop or yield line	Interpolated		
Number of occurrences of rail traffic per day	Adjustment Factor		
Percentage of high-occupancy buses crossing the track (%)	Adjustment Factor		
Percentage of tractor-trailer trucks crossing the track (%)	Adjustment Factor		
The rail traffic arrival times are unknown, the highest traffic volume hour of the day is used			



Hour	Major Street Total of Both Approaches (vph)	Minor Street Adjusted Volume Crossing Tracks (vph)

Hourly Distribution of Entering and Exiting Vehicle Trips by Land Use

Source: ITE *Trip Generation Manual*, 10th Edition

Land Use Code	522
Land Use	Middle School/Junior High School
Setting	General Urban/Suburban
Time Period	Weekday
Trip Type	Vehicle
# Data Sites	2

PROJECT:

Explore Academy, Albuquerque

-Calculated hourly volumes by LU522 distribution

-Est. daily trips for combined site LU522 & LU 530

Daily trips	1738
-------------	------

Directional distribution**

Time	Entering	Exiting	Total
12-1 AM	0	0.1	0.1
1-2 AM	0	0	0.0
2-3 AM	0	0	0.0
3-4 AM	0	0	0.0
4-5 AM	0.2	0.2	0.4
5-6 AM	0.7	0.5	1.2
6-7 AM	4.1	1.7	5.8
7-8 AM	20.8	15.6	36.4
8-9 AM	6.5	6.7	13.2
9-10 AM	2.2	2.0	4.2
10-11 AM	1.4	1.7	3.1
11-12 PM	2.2	2.1	4.3
12-1 PM	1.5	1.6	3.1
1-2 PM	2.0	1.7	3.7
2-3 PM	9.3	6.7	16.0
3-4 PM	9.7	11.5	21.2
4-5 PM	9.6	8.9	18.5
5-6 PM	12.2	11.1	23.3
6-7 PM	9.5	8.9	18.4
7-8 PM	4.0	9.8	13.8
8-9 PM	2.3	6.7	9.0
9-10 PM	1.2	1.5	2.7
10-11 PM	0.4	0.7	1.1
11-12 AM	0.1	0.1	0.2
SUM	100	100	199.7

Entering*	Exiting*	EBR	WBL	NBL	NBR	Total
0	1	0	0	0	1	1
0	0	0	0	0	0	0
0	0	0	0	0	0	0
0	0	0	0	0	0	0
2	2	1	1	1	1	3
6	4	3	3	2	3	10
36	15	17	19	6	9	50
181	136	87	94	54	81	316
56	58	27	29	23	35	115
19	17	9	10	7	10	36
12	15	6	6	6	9	27
19	18	9	10	7	11	37
13	14	6	7	6	8	27
17	15	8	10	6	9	32
81	58	36	44	23	35	139
84	100	38	46	40	60	184
83	77	38	46	31	46	161
106	96	48	58	39	58	202
83	77	37	45	31	46	160
35	85	16	19	34	51	120
20	58	9	11	23	35	78
10	13	5	6	5	8	23
3	6	2	2	2	4	10
1	1	0	0	0	1	2
868	867	401	468	347	520	1735

Total

1735

867

*Values are 1/2 of directional %

**Per Table 1 of TIS report during AM & PM periods

4: Gulton & Osuna

Intersection Information

	Major Street	Minor Street
Street Name	Osuna	Gulton
Direction	EB/WB	NB/SB
Number of Lanes	2	2
Approach Speed	45	25

Warrant	Met?	Notes
Warrant 1, Eight-Hour Vehicular Volume		
	Yes	
Condition A or B Met?	Yes	8 Hours met (8 required)
Condition A and B Met?	No	4 Hours met (8 required)
Warrant 2, Four-Hour Vehicular Volume		
	Yes	7 Hours met (4 required)
Warrant 3, Peak Hour		
	Yes	
Condition A Met?	No	0 Hours met (1 required)
Condition B Met?	Yes	6 Hours met (1 required)
Warrant 4, Pedestrian Volume		
	No	
Condition A Met?	No	0 Hours met (4 required)
Condition B Met?	No	0 Hours met (1 required)
Warrant 5, School Crossing		
	No	

Warrant 7, Crash Experience

	No	
Traffic Volume Condition?	Yes	10 Hours met (8 required)
	No	0 Hours met (8 required)

Warrant 1: Eight-hour Vehicular Volume

Explore Academy TIS

4: Gulton & Osuna

Intersection Information

Major Street Name: Osuna

Major Street Direction: EB/WB

Minor Street Direction: NB/SB

WARRANT 1 MET?

Yes

Details:

Condition A Met? Yes 8 Hours met (8 required)

Condition B Met? No 4 Hours met (8 required)

Hour	Major Street Vehicles (Total of Both Approaches)	High Volume Minor Approach Vehicles	70% Standard Met? Cond. A OR Cond. B		56% Standard Met? Cond. A AND Cond. B	
			Condition A 70% Column	Condition B 70% Column	Condition A 56% Column	Condition B 56% Column
07:00 to 08:00	1,835	144	Yes*	Yes*	Yes*	Yes*
Condition A	Volume >= 70% column (420)?	Yes	Volume >= 70% column (630)?	Yes		
	Volume >= 56% column (336)?	Yes	Volume >= 56% column (504)?	Yes		
Condition B	Volume >= 70% column (630)?	Yes	Volume >= 70% column (70)?	Yes		
	Volume >= 56% column (504)?	Yes	Volume >= 56% column (56)?	Yes		
07:15 to 08:15	1,854	75	No	Yes	No	Yes
Condition A	Volume >= 70% column (420)?	Yes	Volume >= 70% column (630)?	No		
	Volume >= 56% column (336)?	Yes	Volume >= 56% column (504)?	No		
Condition B	Volume >= 70% column (630)?	Yes	Volume >= 70% column (70)?	Yes		
	Volume >= 56% column (504)?	Yes	Volume >= 56% column (56)?	Yes		
07:30 to 08:30	1,868	74	No	Yes	No	Yes
Condition A	Volume >= 70% column (420)?	Yes	Volume >= 70% column (630)?	No		
	Volume >= 56% column (336)?	Yes	Volume >= 56% column (504)?	No		
Condition B	Volume >= 70% column (630)?	Yes	Volume >= 70% column (70)?	Yes		
	Volume >= 56% column (504)?	Yes	Volume >= 56% column (56)?	Yes		
07:45 to 08:45	1,849	75	No	Yes	No	Yes
Condition A	Volume >= 70% column (420)?	Yes	Volume >= 70% column (630)?	No		
	Volume >= 56% column (336)?	Yes	Volume >= 56% column (504)?	No		
Condition B	Volume >= 70% column (630)?	Yes	Volume >= 70% column (70)?	Yes		
	Volume >= 56% column (504)?	Yes	Volume >= 56% column (56)?	Yes		

08:00 to 09:00		1,797		78	No	Yes*	No	Yes
Condi tion A	Volume >= 70% column (420)?	Yes	Volume >= 70% column (630)?	No				
	Volume >= 56% column (336)?	Yes	Volume >= 56% column (504)?	No				
Condi tion B	Volume >= 70% column (630)?	Yes	Volume >= 70% column (70)?	Yes				
	Volume >= 56% column (504)?	Yes	Volume >= 56% column (56)?	Yes				
08:15 to 09:15		1,659		34	No	No	No	No
Condi tion A	Volume >= 70% column (420)?	Yes	Volume >= 70% column (630)?	No				
	Volume >= 56% column (336)?	Yes	Volume >= 56% column (504)?	No				
Condi tion B	Volume >= 70% column (630)?	Yes	Volume >= 70% column (70)?	No				
	Volume >= 56% column (504)?	Yes	Volume >= 56% column (56)?	No				
08:30 to 09:30		1,604		39	No	No	No	No
Condi tion A	Volume >= 70% column (420)?	Yes	Volume >= 70% column (630)?	No				
	Volume >= 56% column (336)?	Yes	Volume >= 56% column (504)?	No				
Condi tion B	Volume >= 70% column (630)?	Yes	Volume >= 70% column (70)?	No				
	Volume >= 56% column (504)?	Yes	Volume >= 56% column (56)?	No				
08:45 to 09:45		1,612		40	No	No	No	No
Condi tion A	Volume >= 70% column (420)?	Yes	Volume >= 70% column (630)?	No				
	Volume >= 56% column (336)?	Yes	Volume >= 56% column (504)?	No				
Condi tion B	Volume >= 70% column (630)?	Yes	Volume >= 70% column (70)?	No				
	Volume >= 56% column (504)?	Yes	Volume >= 56% column (56)?	No				
09:00 to 10:00		1,594		43	No	No	No	No
Condi tion A	Volume >= 70% column (420)?	Yes	Volume >= 70% column (630)?	No				
	Volume >= 56% column (336)?	Yes	Volume >= 56% column (504)?	No				
Condi tion B	Volume >= 70% column (630)?	Yes	Volume >= 70% column (70)?	No				
	Volume >= 56% column (504)?	Yes	Volume >= 56% column (56)?	No				
09:15 to 10:15		1,700		44	No	No	No	No
Condi tion A	Volume >= 70% column (420)?	Yes	Volume >= 70% column (630)?	No				
	Volume >= 56% column (336)?	Yes	Volume >= 56% column (504)?	No				
Condi tion B	Volume >= 70% column (630)?	Yes	Volume >= 70% column (70)?	No				
	Volume >= 56% column (504)?	Yes	Volume >= 56% column (56)?	No				
09:30 to 10:30		1,769		52	No	No	No	No
Condi tion A	Volume >= 70% column (420)?	Yes	Volume >= 70% column (630)?	No				
	Volume >= 56% column (336)?	Yes	Volume >= 56% column (504)?	No				
Condi tion B	Volume >= 70% column (630)?	Yes	Volume >= 70% column (70)?	No				
	Volume >= 56% column (504)?	Yes	Volume >= 56% column (56)?	No				

09:45 to 10:45	1,799	56	No	No	No	Yes
Condi tion A	Volume >= 70% column (420)?	Yes	Volume >= 70% column (630)?	No		
	Volume >= 56% column (336)?	Yes	Volume >= 56% column (504)?	No		
Condi tion B	Volume >= 70% column (630)?	Yes	Volume >= 70% column (70)?	No		
	Volume >= 56% column (504)?	Yes	Volume >= 56% column (56)?	Yes		

10:00 to 11:00	1,855	57	No	No	No	Yes
Condi tion A	Volume >= 70% column (420)?	Yes	Volume >= 70% column (630)?	No		
	Volume >= 56% column (336)?	Yes	Volume >= 56% column (504)?	No		
Condi tion B	Volume >= 70% column (630)?	Yes	Volume >= 70% column (70)?	No		
	Volume >= 56% column (504)?	Yes	Volume >= 56% column (56)?	Yes		

10:15 to 11:15	1,812	59	No	No	No	Yes
Condi tion A	Volume >= 70% column (420)?	Yes	Volume >= 70% column (630)?	No		
	Volume >= 56% column (336)?	Yes	Volume >= 56% column (504)?	No		
Condi tion B	Volume >= 70% column (630)?	Yes	Volume >= 70% column (70)?	No		
	Volume >= 56% column (504)?	Yes	Volume >= 56% column (56)?	Yes		

10:30 to 11:30	1,817	55	No	No	No	No
Condi tion A	Volume >= 70% column (420)?	Yes	Volume >= 70% column (630)?	No		
	Volume >= 56% column (336)?	Yes	Volume >= 56% column (504)?	No		
Condi tion B	Volume >= 70% column (630)?	Yes	Volume >= 70% column (70)?	No		
	Volume >= 56% column (504)?	Yes	Volume >= 56% column (56)?	No		

10:45 to 11:45	1,906	62	No	No	No	Yes
Condi tion A	Volume >= 70% column (420)?	Yes	Volume >= 70% column (630)?	No		
	Volume >= 56% column (336)?	Yes	Volume >= 56% column (504)?	No		
Condi tion B	Volume >= 70% column (630)?	Yes	Volume >= 70% column (70)?	No		
	Volume >= 56% column (504)?	Yes	Volume >= 56% column (56)?	Yes		

11:00 to 12:00	2,016	60	No	No	No	Yes
Condi tion A	Volume >= 70% column (420)?	Yes	Volume >= 70% column (630)?	No		
	Volume >= 56% column (336)?	Yes	Volume >= 56% column (504)?	No		
Condi tion B	Volume >= 70% column (630)?	Yes	Volume >= 70% column (70)?	No		
	Volume >= 56% column (504)?	Yes	Volume >= 56% column (56)?	Yes		

11:15 to 12:15	2,158	72	No	Yes*	No	Yes
Condi tion A	Volume >= 70% column (420)?	Yes	Volume >= 70% column (630)?	No		
	Volume >= 56% column (336)?	Yes	Volume >= 56% column (504)?	No		
Condi tion B	Volume >= 70% column (630)?	Yes	Volume >= 70% column (70)?	Yes		
	Volume >= 56% column (504)?	Yes	Volume >= 56% column (56)?	Yes		

11:30 to 12:30	2,273	84	No	Yes	No	Yes
Condi tion A	Volume >= 70% column (420)?	Yes	Volume >= 70% column (630)?	No		
	Volume >= 56% column (336)?	Yes	Volume >= 56% column (504)?	No		
Condi tion B	Volume >= 70% column (630)?	Yes	Volume >= 70% column (70)?	Yes		
	Volume >= 56% column (504)?	Yes	Volume >= 56% column (56)?	Yes		

11:45 to 12:45	2,265	98	No	Yes	No	Yes
Condi tion A	Volume >= 70% column (420)?	Yes	Volume >= 70% column (630)?	No		
	Volume >= 56% column (336)?	Yes	Volume >= 56% column (504)?	No		
Condi tion B	Volume >= 70% column (630)?	Yes	Volume >= 70% column (70)?	Yes		
	Volume >= 56% column (504)?	Yes	Volume >= 56% column (56)?	Yes		

12:00 to 13:00	2,220	104	No	Yes	No	Yes
Condi tion A	Volume >= 70% column (420)?	Yes	Volume >= 70% column (630)?	No		
	Volume >= 56% column (336)?	Yes	Volume >= 56% column (504)?	No		
Condi tion B	Volume >= 70% column (630)?	Yes	Volume >= 70% column (70)?	Yes		
	Volume >= 56% column (504)?	Yes	Volume >= 56% column (56)?	Yes		

12:15 to 13:15	2,188	92	No	Yes*	No	Yes
Condi tion A	Volume >= 70% column (420)?	Yes	Volume >= 70% column (630)?	No		
	Volume >= 56% column (336)?	Yes	Volume >= 56% column (504)?	No		
Condi tion B	Volume >= 70% column (630)?	Yes	Volume >= 70% column (70)?	Yes		
	Volume >= 56% column (504)?	Yes	Volume >= 56% column (56)?	Yes		

12:30 to 13:30	2,128	84	No	Yes	No	Yes
Condi tion A	Volume >= 70% column (420)?	Yes	Volume >= 70% column (630)?	No		
	Volume >= 56% column (336)?	Yes	Volume >= 56% column (504)?	No		
Condi tion B	Volume >= 70% column (630)?	Yes	Volume >= 70% column (70)?	Yes		
	Volume >= 56% column (504)?	Yes	Volume >= 56% column (56)?	Yes		

12:45 to 13:45	1,600	53	No	No	No	No
Condi tion A	Volume >= 70% column (420)?	Yes	Volume >= 70% column (630)?	No		
	Volume >= 56% column (336)?	Yes	Volume >= 56% column (504)?	No		
Condi tion B	Volume >= 70% column (630)?	Yes	Volume >= 70% column (70)?	No		
	Volume >= 56% column (504)?	Yes	Volume >= 56% column (56)?	No		

13:00 to 14:00	1,640	57	No	No	No	Yes
Condi tion A	Volume >= 70% column (420)?	Yes	Volume >= 70% column (630)?	No		
	Volume >= 56% column (336)?	Yes	Volume >= 56% column (504)?	No		
Condi tion B	Volume >= 70% column (630)?	Yes	Volume >= 70% column (70)?	No		
	Volume >= 56% column (504)?	Yes	Volume >= 56% column (56)?	Yes		

13:15 to 14:15	1,700		101	No	Yes*	No	Yes
Condi tion A	Volume >= 70% column (420)?	Yes	Volume >= 70% column (630)?	No			
	Volume >= 56% column (336)?	Yes	Volume >= 56% column (504)?	No			
Condi tion B	Volume >= 70% column (630)?	Yes	Volume >= 70% column (70)?	Yes			
	Volume >= 56% column (504)?	Yes	Volume >= 56% column (56)?	Yes			

13:45 to 14:45	2,217		110	No	Yes	No	Yes
Condi tion A	Volume >= 70% column (420)?	Yes	Volume >= 70% column (630)?	No			
	Volume >= 56% column (336)?	Yes	Volume >= 56% column (504)?	No			
Condi tion B	Volume >= 70% column (630)?	Yes	Volume >= 70% column (70)?	Yes			
	Volume >= 56% column (504)?	Yes	Volume >= 56% column (56)?	Yes			

14:00 to 15:00	2,186		99	No	Yes	No	Yes
Condi tion A	Volume >= 70% column (420)?	Yes	Volume >= 70% column (630)?	No			
	Volume >= 56% column (336)?	Yes	Volume >= 56% column (504)?	No			
Condi tion B	Volume >= 70% column (630)?	Yes	Volume >= 70% column (70)?	Yes			
	Volume >= 56% column (504)?	Yes	Volume >= 56% column (56)?	Yes			

14:15 to 15:15	2,128		142	Yes*	Yes*	Yes*	Yes*
Condi tion A	Volume >= 70% column (420)?	Yes	Volume >= 70% column (630)?	Yes			
	Volume >= 56% column (336)?	Yes	Volume >= 56% column (504)?	Yes			
Condi tion B	Volume >= 70% column (630)?	Yes	Volume >= 70% column (70)?	Yes			
	Volume >= 56% column (504)?	Yes	Volume >= 56% column (56)?	Yes			

14:30 to 15:30	2,120		137	No	Yes	Yes	Yes
Condi tion A	Volume >= 70% column (420)?	Yes	Volume >= 70% column (630)?	No			
	Volume >= 56% column (336)?	Yes	Volume >= 56% column (504)?	Yes			
Condi tion B	Volume >= 70% column (630)?	Yes	Volume >= 70% column (70)?	Yes			
	Volume >= 56% column (504)?	Yes	Volume >= 56% column (56)?	Yes			

14:45 to 15:45	2,122		136	No	Yes	Yes	Yes
Condi tion A	Volume >= 70% column (420)?	Yes	Volume >= 70% column (630)?	No			
	Volume >= 56% column (336)?	Yes	Volume >= 56% column (504)?	Yes			
Condi tion B	Volume >= 70% column (630)?	Yes	Volume >= 70% column (70)?	Yes			
	Volume >= 56% column (504)?	Yes	Volume >= 56% column (56)?	Yes			

15:00 to 16:00	2,100		152	Yes	Yes	Yes	Yes
Condi tion A	Volume >= 70% column (420)?	Yes	Volume >= 70% column (630)?	Yes			
	Volume >= 56% column (336)?	Yes	Volume >= 56% column (504)?	Yes			
Condi tion B	Volume >= 70% column (630)?	Yes	Volume >= 70% column (70)?	Yes			
	Volume >= 56% column (504)?	Yes	Volume >= 56% column (56)?	Yes			

15:15 to 16:15		2,137		137		No	Yes*	Yes*	Yes*
Condi tion A	Volume >= 70% column (420)?	Yes	Volume >= 70% column (630)?	No					
	Volume >= 56% column (336)?	Yes	Volume >= 56% column (504)?	Yes					
Condi tion B	Volume >= 70% column (630)?	Yes	Volume >= 70% column (70)?	Yes					
	Volume >= 56% column (504)?	Yes	Volume >= 56% column (56)?	Yes					
15:30 to 16:30		2,207		148		Yes*	Yes	Yes	Yes
Condi tion A	Volume >= 70% column (420)?	Yes	Volume >= 70% column (630)?	Yes					
	Volume >= 56% column (336)?	Yes	Volume >= 56% column (504)?	Yes					
Condi tion B	Volume >= 70% column (630)?	Yes	Volume >= 70% column (70)?	Yes					
	Volume >= 56% column (504)?	Yes	Volume >= 56% column (56)?	Yes					
15:45 to 16:45		2,243		162		Yes	Yes	Yes	Yes
Condi tion A	Volume >= 70% column (420)?	Yes	Volume >= 70% column (630)?	Yes					
	Volume >= 56% column (336)?	Yes	Volume >= 56% column (504)?	Yes					
Condi tion B	Volume >= 70% column (630)?	Yes	Volume >= 70% column (70)?	Yes					
	Volume >= 56% column (504)?	Yes	Volume >= 56% column (56)?	Yes					
16:00 to 17:00		2,339		159		Yes	Yes	Yes	Yes
Condi tion A	Volume >= 70% column (420)?	Yes	Volume >= 70% column (630)?	Yes					
	Volume >= 56% column (336)?	Yes	Volume >= 56% column (504)?	Yes					
Condi tion B	Volume >= 70% column (630)?	Yes	Volume >= 70% column (70)?	Yes					
	Volume >= 56% column (504)?	Yes	Volume >= 56% column (56)?	Yes					
16:15 to 17:15		2,395		176		Yes	Yes*	Yes*	Yes*
Condi tion A	Volume >= 70% column (420)?	Yes	Volume >= 70% column (630)?	Yes					
	Volume >= 56% column (336)?	Yes	Volume >= 56% column (504)?	Yes					
Condi tion B	Volume >= 70% column (630)?	Yes	Volume >= 70% column (70)?	Yes					
	Volume >= 56% column (504)?	Yes	Volume >= 56% column (56)?	Yes					
16:30 to 17:30		2,395		172		Yes*	Yes	Yes	Yes
Condi tion A	Volume >= 70% column (420)?	Yes	Volume >= 70% column (630)?	Yes					
	Volume >= 56% column (336)?	Yes	Volume >= 56% column (504)?	Yes					
Condi tion B	Volume >= 70% column (630)?	Yes	Volume >= 70% column (70)?	Yes					
	Volume >= 56% column (504)?	Yes	Volume >= 56% column (56)?	Yes					
16:45 to 17:45		2,414		174		Yes	Yes	Yes	Yes
Condi tion A	Volume >= 70% column (420)?	Yes	Volume >= 70% column (630)?	Yes					
	Volume >= 56% column (336)?	Yes	Volume >= 56% column (504)?	Yes					
Condi tion B	Volume >= 70% column (630)?	Yes	Volume >= 70% column (70)?	Yes					
	Volume >= 56% column (504)?	Yes	Volume >= 56% column (56)?	Yes					

17:00 to 18:00		2,421		170		Yes	Yes	Yes	Yes
Condi tion A	Volume >= 70% column (420)?	Yes	Volume >= 70% column (630)?	Yes					
	Volume >= 56% column (336)?	Yes	Volume >= 56% column (504)?	Yes					
Condi tion B	Volume >= 70% column (630)?	Yes	Volume >= 70% column (70)?	Yes					
	Volume >= 56% column (504)?	Yes	Volume >= 56% column (56)?	Yes					
17:15 to 18:15		1,767		56		No	No	No	Yes
Condi tion A	Volume >= 70% column (420)?	Yes	Volume >= 70% column (630)?	No					
	Volume >= 56% column (336)?	Yes	Volume >= 56% column (504)?	No					
Condi tion B	Volume >= 70% column (630)?	Yes	Volume >= 70% column (70)?	No					
	Volume >= 56% column (504)?	Yes	Volume >= 56% column (56)?	Yes					
17:30 to 18:30		1,172		39		No	No	No	No
Condi tion A	Volume >= 70% column (420)?	Yes	Volume >= 70% column (630)?	No					
	Volume >= 56% column (336)?	Yes	Volume >= 56% column (504)?	No					
Condi tion B	Volume >= 70% column (630)?	Yes	Volume >= 70% column (70)?	No					
	Volume >= 56% column (504)?	Yes	Volume >= 56% column (56)?	No					
17:45 to 18:45		612		16		No	No	No	No
Condi tion A	Volume >= 70% column (420)?	Yes	Volume >= 70% column (630)?	No					
	Volume >= 56% column (336)?	Yes	Volume >= 56% column (504)?	No					
Condi tion B	Volume >= 70% column (630)?	No	Volume >= 70% column (70)?	No					
	Volume >= 56% column (504)?	Yes	Volume >= 56% column (56)?	No					

4: Gulton & Osuna

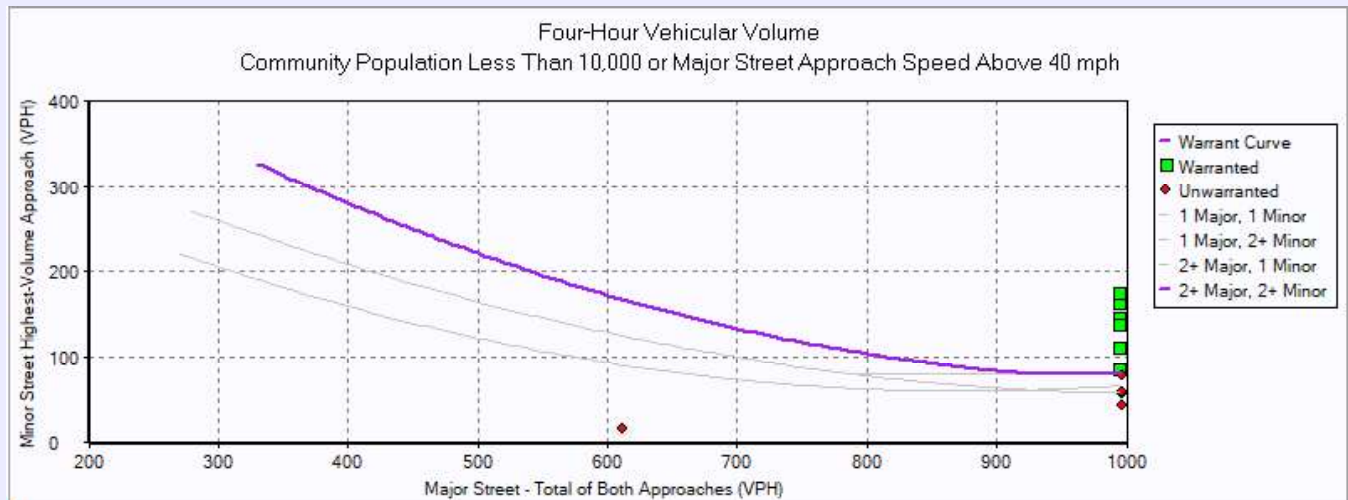
Intersection Information

	Major Street	Minor Street
Street Name	Osuna	Gulton
Direction	EB/WB	NB/SB
Number of Lanes	2	2
Approach Speed	45	25

Warrant 2 Met? **Yes**

Details:

Notes	7 Hours met (4 required)
Low population	No



Hourly Volumes

Hour	Major Street Total All Approaches (vph)	Minor Street Highest Volume Approach (vph)
00:00:00 - 01:00:00	0.00	0.00
01:00:00 - 02:00:00	0.00	0.00
02:00:00 - 03:00:00	0.00	0.00
03:00:00 - 04:00:00	0.00	0.00
04:00:00 - 05:00:00	0.00	0.00
05:00:00 - 06:00:00	0.00	0.00
06:00:00 - 07:00:00	0.00	0.00
07:00:00 - 08:00:00	1835.00	144.00
08:00:00 - 09:00:00	1797.00	78.00
09:00:00 - 10:00:00	1594.00	43.00
10:00:00 - 11:00:00	1,855.00	57.00
11:00:00 - 12:00:00	2,016.00	60.00
12:00:00 - 13:00:00	2,220.00	104.00
13:00:00 - 14:00:00	1640.00	57.00
14:00:00 - 15:00:00	2,186.00	99.00
15:00:00 - 16:00:00	2,100.00	152.00
16:00:00 - 17:00:00	2,339.00	159.00
17:00:00 - 18:00:00	2,421.00	170.00
18:00:00 - 19:00:00	0.00	0.00
19:00:00 - 20:00:00	0.00	0.00
20:00:00 - 21:00:00	0.00	0.00
21:00:00 - 22:00:00	0.00	0.00
22:00:00 - 23:00:00	0.00	0.00
23:00:00 - 00:00:00	0.00	0.00

Warranted Volumes

Hour	Major Street Total All Approaches (vph)	Minor Street Highest Volume Approach (vph)
07:00:00 - 08:00:00	1,835.00	144.00
11:30:00 - 12:30:00	2,273.00	84.00
12:30:00 - 13:30:00	2,128.00	84.00
13:45:00 - 14:45:00	2,217.00	110.00
14:45:00 - 15:45:00	2,122.00	136.00
15:45:00 - 16:45:00	2,243.00	162.00
16:45:00 - 17:45:00	2,414.00	174.00

4: Gulton & Osuna

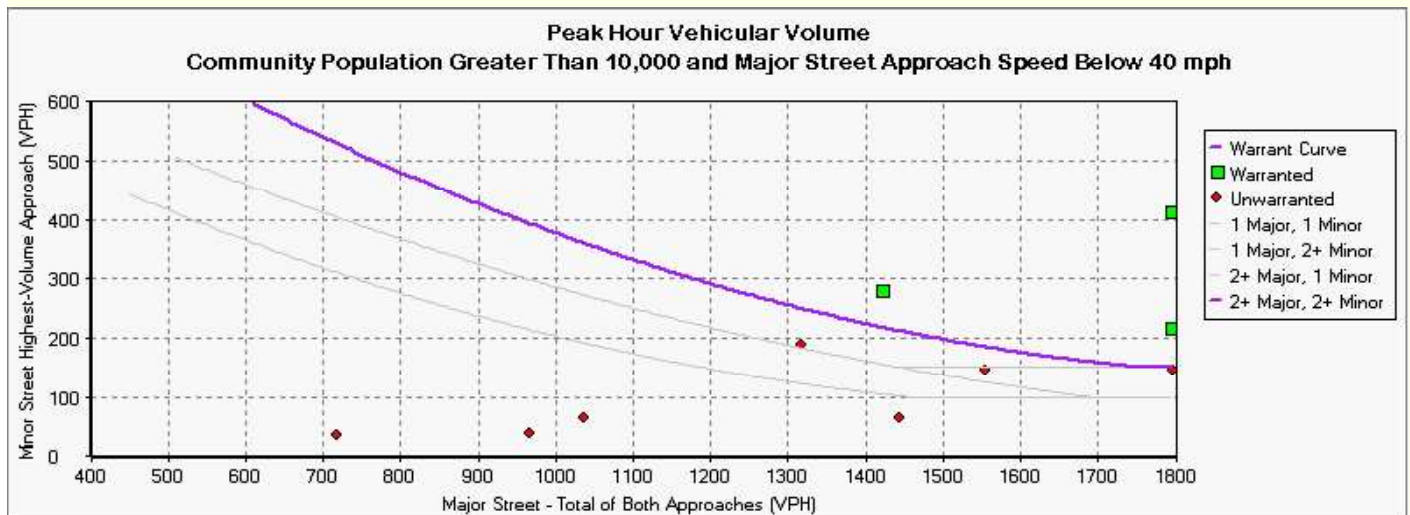
Intersection Information

	Major Street	Minor Street
Street Name	Osuna	Gulton
Direction	EB/WB	NB/SB
Number of Lanes	2	2
Approach Speed	45	25

Warrant 3 Met? **Yes**

Details

Low Population?	No		
Condition A Met?	No	Condition B Met?	Yes
Notes	0 Hours met (1 required)	Notes	6 Hours met (1 required)
Minor Approach Time Delay Condition Met?	Not Met		
Minor Approach Volume Condition Met?	Met		
Total Entering Intersection Volume Condition Met?	Not Met		



Hour	Major Street Total All Approaches (vph)	Minor Street Highest Volume Approach (vph)
7:00	1,835	144
8:00	1,797	78
9:00	1,594	43
10:00	1,855	57
11:00	2,016	60
12:00	2,220	104
13:00	1,640	57
13:15	1,700	101
14:15	2,128	142
15:15	2,137	137
16:15	2,395	176
17:15	1,767	56

4: Gulton & Osuna

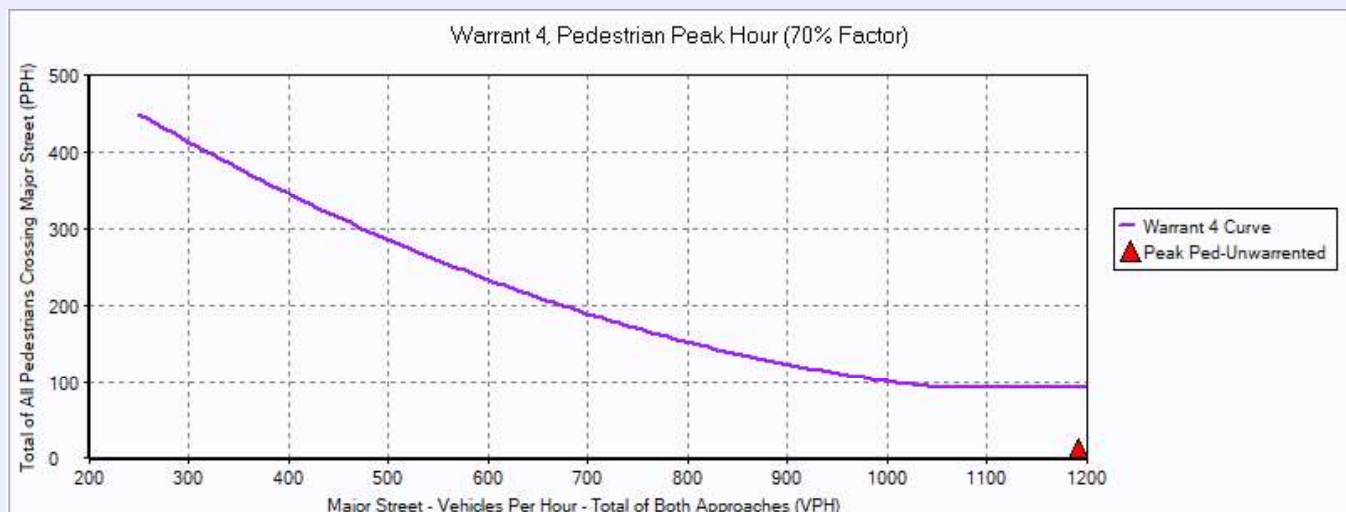
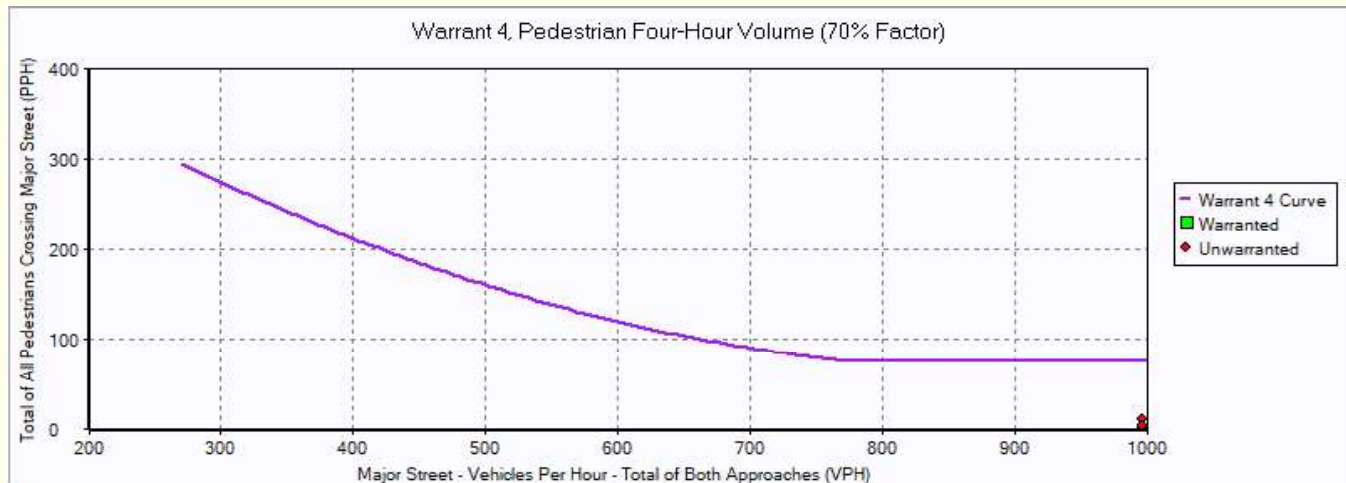
Intersection Information

	Major Street	Minor Street
Street Name	Osuna	Gulton
Direction	EB/WB	NB/SB
Number of Lanes	2	2
Approach Speed	45	25

WARRANT 4 MET ? **No**

Details

Pedestrian Four Hour Volume Warrant Met?	No	
Pedestrian Peak Hour Warrant Met?	No	Notes 0 Hours met (4 required)
Speed Limit or 85th Percentile Speed on Major Street > 35mph, or Intersection lies within an Isolated Community with Population < 10,000?	Yes	



Warrant 5: School Crossing

Explore Academy TIS

4: Gulton & Osuna

Intersection Information

Maj or Street Name Osuna

Maj or Street Di rection EB/WB

WARRANT 5 MET? **No**

Details:

Time Period Interval for Students Crossi ng (mi n)

0

Number of Students Crossi ng in Ti me Peri od

0

Number of Adequate Gaps in Time Period

0

Other Remedial Measures Attempted?

No

Adj acent Si gnal on EB approach?

Yes

Distance to signal on EB Approach (f t)

372

Adj acent Si gnal on WB approach?

Yes

Distance to signal on WB Approach (ft)

2142

Will New Signal Restrict Progressive Traff ic?

No

4: Gulton & Osuna

Intersection Information

Maj or Street Name Osuna
Maj or Street Di rection EB/WB

WARRANT 6 MET? No

Details:

Approach Di rection & Name	Acceptable Patooning?	Adj acent Coordinating Si gnal?	Adj acent Intersection Distance
SB Approach (Gulton)	No	No	N/A
NB Approach (Gulton)	No	No	N/A
WB Approach (Osuna)	Yes	Yes	2,142.00
EB Approach (Osuna)	Yes	Yes	372.00

Unacceptable Patooning?
(At least one approach)

Yes

Distance to Closest Signal
(Must be N/A or > 1000)

2,142.00

4: Gulton & Osuna

Intersection Information

Maj or Street Name Osuna
 Maj or Street Di rection EB/WB
 Mi nor Street Di rection NB/SB

WARRANT 7 MET? **No**

Details:

Low Population? **No** Traffic Volume Condition Met? **Yes**
 Maj or Street Speed Li mit 45 10 Hours Met (8 Required)
 Maj or Street 85th-tile Speed 0.00 Ped Volume Condition Met? **No**
 0 Hours Met (8 Required)
 Qualifying Crashes **0**
 Adequate Alternative Trials? **No**

Hour	Traffic Volumes				Pedestrian Volumes			
	Maj or Street Vehicles	Mi nor Street Vehicles	80% Standard Met? A or B		Northbound Ped Volumes		Southbound Ped Volumes	
			Condi tion A	Condi tion B	Peds	> 80?	Peds	> 80?
07:00 to 08:00	1,835	0	No	No	0	No	0	No
07:15 to 08:15	1,854	0	No	No	0	No	0	No
07:30 to 08:30	1,868	0	No	No	0	No	0	No
07:45 to 08:45	1,849	0	No	No	0	No	0	No
08:00 to 09:00	1,797	0	No	No	0	No	0	No
08:15 to 09:15	1,659	0	No	No	0	No	0	No
08:30 to 09:30	1,604	0	No	No	0	No	0	No
08:45 to 09:45	1,612	0	No	No	0	No	0	No

09:00 to 10:00	1,594	0	No	No	0	No	0	No
09:15 to 10:15	1,700	0	No	No	0	No	0	No
09:30 to 10:30	1,769	0	No	No	0	No	0	No
09:45 to 10:45	1,799	0	No	No	0	No	0	No
10:00 to 11:00	1855	0	No	No	0	No	0	No
10:15 to 11:15	1812	0	No	No	0	No	0	No
10:30 to 11:30	1817	0	No	No	0	No	0	No
10:45 to 11:45	1906	0	No	No	0	No	0	No
11:00 to 12:00	2,016	0	No	No	0	No	0	No
11:15 to 12:15	2,158	0	No	No	0	No	0	No
11:30 to 12:30	2,273	0	No	No	0	No	0	No
11:45 to 12:45	2,265	0	No	No	0	No	0	No
12:00 to 13:00	2,220	0	No	No	0	No	0	No
12:15 to 13:15	2,188	0	No	No	0	No	0	No
12:30 to 13:30	2,128	0	No	No	0	No	0	No
12:45 to 13:45	1,600	0	No	No	0	No	0	No
13:00 to 14:00	1,640	0	No	No	0	No	0	No
13:15 to 14:15	1,700	0	No	No	0	No	0	No

13:45 to 14:45	2,217	0	No	No	0	No	0	No
14:00 to 15:00	2,186	0	No	No	0	No	0	No
14:15 to 15:15	2,128	0	No	No	0	No	0	No
14:30 to 15:30	2,120	0	No	No	0	No	0	No
14:45 to 15:45	2,122	0	No	No	0	No	0	No
15:00 to 16:00	2,100	0	No	No	0	No	0	No
15:15 to 16:15	2,137	0	No	No	0	No	0	No
15:30 to 16:30	2,207	0	No	No	0	No	0	No
15:45 to 16:45	2,243	0	No	No	0	No	0	No
16:00 to 17:00	2,339	0	No	No	0	No	0	No
16:15 to 17:15	2,395	0	No	No	0	No	0	No
16:30 to 17:30	2,395	0	No	No	0	No	0	No
16:45 to 17:45	2,414	0	No	No	0	No	0	No
17:00 to 18:00	2,421	0	No	No	0	No	0	No
17:15 to 18:15	1,767	0	No	No	0	No	0	No
17:30 to 18:30	1,172	0	No	No	0	No	0	No
17:45 to 18:45	612	0	No	No	0	No	0	No

4: Gulton & Osuna

Intersection Information

Maj or Street Name	Osuna
Maj or Street Di rection	EB/WB
Mi nor Street Di rection	NB/SB

WARRANT 8 MET? (A or B) **Yes**

Details:

Growth Rates % (per year)				
	NB	SB	EB	WB
L	0.00	0.00	0.00	0.00
T	0.00	0.00	0.00	0.00
R	0.00	0.00	0.00	0.00

Condition A, Total Entering Volume		Condition B, Non-normal Business Day		
			Existing	Future
Exi sting Peak Hour	2,604	Highest Hour	0	0
Years	0.00	Second Hi ghest Hour	0	0
Future Peak Hour	2,604	Third Highest Hour	0	0
Warrant 1 in 5 Years?	No	Fourth Hi ghest Hour	0	0
Warrant 2 in 5 Years?	Yes	Fi fth Hi ghest Hour	0	0
Warrant 3 in 5 Years?	Yes	Yearly Growth Rate (%)	0.00	
		Years	0.00	

Condition A Met? **Yes**Condition B Met? **No**

4: Gulton & Osuna

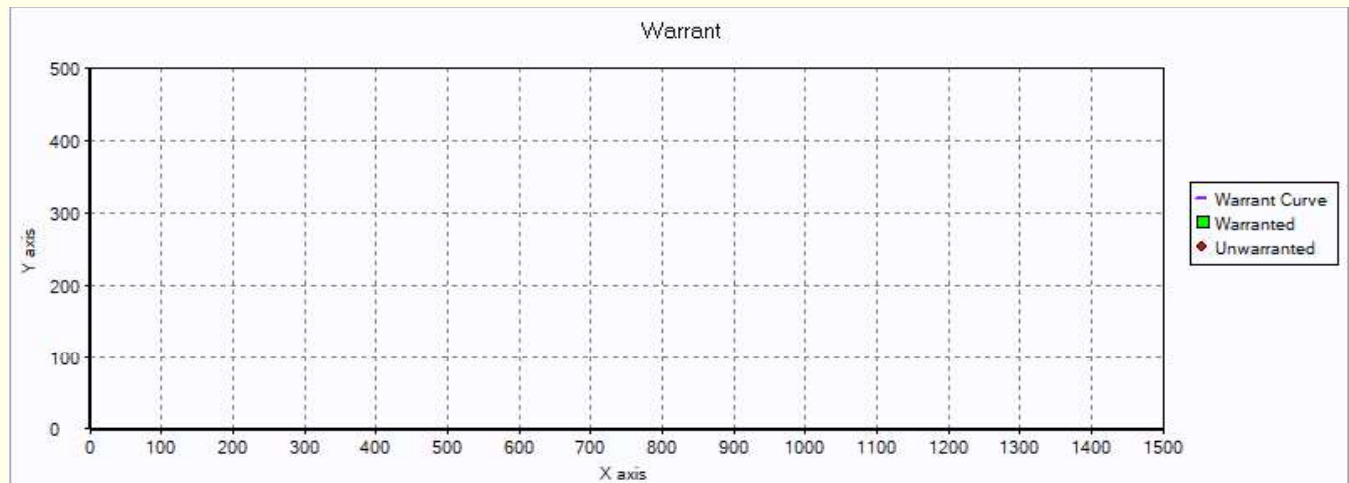
Intersection Information

	Major Street	Minor Street
Street Name	Osuna	Gulton
Direction	EB/WB	NB/SB
Number of Lanes	2	2
Approach Speed	45	25

WARRANT 9 MET ? **No**

Details

Note	No approach with a railroad grade crossing		
Minor street approach having a grade crossing			
Distance from the center of the track to the stop or yield line	Interpolated		
Number of occurrences of rail traffic per day	Adjustment Factor		
Percentage of high-occupancy buses crossing the track (%)	Adjustment Factor		
Percentage of tractor-trailer trucks crossing the track (%)	Adjustment Factor		
The rail traffic arrival times are unknown, the highest traffic volume hour of the day is used			



Hour	Major Street Total of Both Approaches (vph)	Minor Street Adjusted Volume Crossing Tracks (vph)