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Maverik Convenience Store

(Interstate 25 / Jefferson St.)

Traffic Impact Study

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FINAL

Presented to:

City of Albuquerque Transportation Development Section

NM Dept. of Transportation District 3

Prepared for:

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Maverik Convenience Store (Interstate 25 / Jefferson St.) Traffic Impact Study

Executive Summary

The purpose of this study is to evaluate the transportation conditions before and after implementation of the proposed Maverik Convenience Store, determine the impact of the development on the adjacent transportation system and recommend mitigation measures where necessary. This study is prepared to meet the requirements of the City of Albuquerque Transportation Development Section, Planning Department and the New Mexico Department of Transportation (NMDOT) associated with their review of the Maverik Convenience Store.

The proposed development is located at the south quadrant of Interstate 25 / Jefferson St. The study area includes the intersections of Singer Blvd. / Jefferson St., the two Interstate 25 ramps / Jefferson St., McLeod Rd. / Jefferson St., Outback Dr. / Jefferson St., as well as the existing two driveways for the project.

The proposed development is to be developed as a 28 pump Gasoline / Service Station w/ Convenience Market. Since this development will replace an existing restaurant, those trips have been subtracted from the overall trips for the purpose of quantifying the net increase (decrease) in the trip generation rate. The anticipated implementation year for this site is the year 2019. A horizon year of 2029 will also be analyzed. According to the Institute of Traffic Engineers' (ITE) trip generation rates, the weekday AM Peak Hour period is anticipated to generate approximately 222 entering trips and 213 exiting trips. During the weekday PM Peak Hour period, it is anticipated that it will generate approximately 200 entering trips and 192 exiting trips. The previous use (Quality Restaurant) generated approximately 4 entering and 4 exiting trips during the AM Peak Hour and approximately 52 entering and 26 exiting trips during the PM Peak Hour.

The development will be accessed via two existing unsignalized driveways. The northern driveway (Driveway "A") will be restricted to a right-in only driveway. The southern driveway will be full access. There are no previous developments to be included in this analysis.

Analysis results by analysis year are included in the following tables:

EXECUTIVE SUMMARY RESULTS TABLE

			20	19 AM(PN	/I) PEAK HC	UR		
INTERSECTION NO. & NAME	NO	BUILD	В	UILD	MITIGATED		2019 RECOMMENDATIONS	
1 - SingerBlvd. / Jefferson St.	Signalized	C- 20.1	(D- 43.0)	C- 20.2	(D- 43.0)			No recommendation.
2 - I-25 N. Ramp / Jefferson St.	Signalized	B- 13.7	(C- 30.0)	B- 14.1	(C- 33.0)			No Recommendation.
3 - I-25 S. Ramp / Jefferson St.	Signalized	B- 18.8	(C- 22.7)	B- 19.3	(C- 23.1)			No Recommendation.
4 - McLeod Rd. / Jefferson St.	Signalized	B- 17.8	(B- 16.4)	C- 21.9	(C- 21.3)			No recommendation.
5 - Outback Driveway / Jefferson St.	Unsignalized	u- 0.1	(u- 0.2)	u- 0.1	(u- 0.3)			No Recommendation.
6 - Driveway "A" / Jefferson St.	Unsignalized	u- 1.4	(u- 1.0)	u- 1.6	(u- 1.3)			No Recommendation.
7 - Driveway "B" / Jefferson St.	Unsignalized	u- 0.0	(u- 0.0)	u- 22.6	(u- 8.5)			No Recommendation.

EXECUTIVE SUMMARY RESULTS TABLE

			20:	29 AM(PI	/I) PEAK HO	UR		
INTERSECTION NO. & NAME	INTERSECTION NO. & NAME SIGNALIZATION				UILD	MITIC	GATED	2029 RECOMMENDATIONS
1 - SingerBlvd. / Jefferson St.	Signalized	C- 20.9	(D- 46.4)	C- 21.0	(D- 46.4)			No recommendation.
2 - I-25 N. Ramp / Jefferson St.	Signalized	B- 14.1	(D- 35.7)	B- 14.7	(D- 42.0)			No Recommendation.
3 - I-25 S. Ramp / Jefferson St.	Signalized	B- 19.3	(C- 23.6)	B- 19.9	(C- 24.1)			No Recommendation.
4 - McLeod Rd. / Jefferson St.	Signalized	B- 18.6	(B- 17.4)	C- 23.3	(C- 24.5)			No recommendation.
5 - Outback Driveway / Jefferson St.	Unsignalized	u- 0.1	(u- 0.3)	u- 0.1	(u- 0.4)			No Recommendation.
6 - Driveway "A" / Jefferson St.	Unsignalized	u- 1.7	(u- 1.2)	u- 1.9	(u- 3.2)			No Recommendation.
7 - Driveway "B" / Jefferson St.	Unsignalized	u- 0.0	(u- 0.0)	u- 33.7	(u- 1.6)			No Recommendation.

In summary, the proposed development does not have a significant adverse impact to the adjacent transportation system and the minimal impact to the transportation system can be mitigated by the recommended measures described in this report and summarized in the table above. In summary, the recommendations of this study are:

Recommendations:

Implementation Year (2019) – Design and construction of all improvements including driveway modifications should preserve adequate sight distances along Jefferson St.

Driveway "A" should be designed and constructed as a right-turn-in only driveway.

Driveway "B" should be designed and constructed as a full-access unsignalized driveway with two exiting lanes (one for left turns and one for right turns) and one entering lane minimum.

Drive design should be able to accommodate large delivery trucks.

Horizon Year (2029) – Same recommendations as Implementation Year. Also, cross access should be incorporated when the property to the south develops to provide Maverik traffic access to Outback Dr. to relieve future congestion at Driveway "B".

Maverik Convenience Store (Interstate 25 / Jefferson St.) Traffic Impact Study

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Maverik Convenience Store (Interstate 25 / Jefferson St.) Traffic Impact Study

Introduction

The purpose of this study is to evaluate the transportation conditions before and after implementation of the proposed Maverik Convenience Store and determine the impact of the development on the adjacent transportation system. The recommendations of this study will provide measures to mitigate the impact of the development of the site plan on critical intersections and street segments. This study is prepared to meet the requirements of the City of Albuquerque Transportation Development Section, Planning Department and the New Mexico Dept. of Transportation (NMDOT), District 3 Office, associated with its review of the Maverik Convenience Store as shown on the plan on Page A-3 in the Appendix of this report.

The proposed development is located at the south quadrant of Interstate 25 / Jefferson St. in Albuquerque, New Mexico. If the property was to develop in a manner significantly different than the proposed plan considered in this report such that the number of generated trips is significantly greater, then an update to this study may be required by the City of Albuquerque Transportation Development Section, Planning Department or the New Mexico Department of Transportation.

Following is a vicinity map depicting the location of the proposed project:



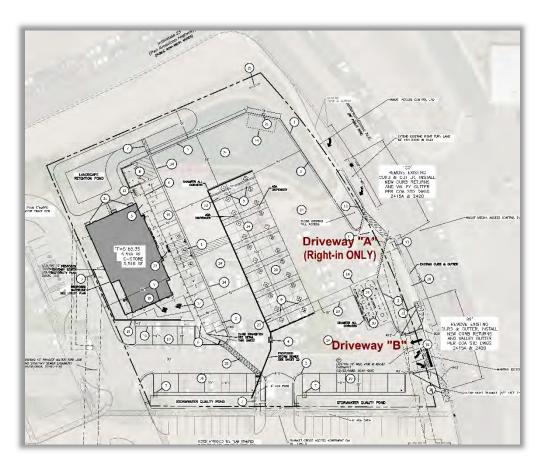
Description of Proposed Development

The proposed project is described as a 28 pump Gas station w/ Convenience Store at the south quadrant of Interstate 25 / Jefferson St. The project lies in the city limits of Albuquerque, NM. The project fronts on a Community Principal Arterial Roadway (Jefferson St.) which is maintained by the New Mexico Department of Transportation. Therefore, the project will be required to comply with the requirements of the City of Albuquerque with regard to the overall development and with the requirements of the New Mexico Department of Transportation with regard to transportation issues along State roads.

This development will be constructed in one phase. This study will analyze an implementation year of 2019 and a horizon year of 2029.

The development will be accessed via two existing driveways for this parcel of land. The north driveway (Driveway "A") is proposed as a right-in only driveway. The south driveway (Driveway "B") is proposed to be full access.

Following is the proposed site development plan depicting driveway (access) locations (also, see Appendix Page A-3 for a more complete version of the proposed site development plan):



Study Area Conditions

A Traffic Impact Study Scoping Meeting was held with the City of Albuquerque Transportation Dev. Section, Planning Dept. staff (Ernest Armijo) & NMDOT staff (Nancy Perea, Margaret Haynes, and Brad Julian). During the meeting, it was determined that the study area would include the following list of intersections to be analyzed in the Traffic Impact Study:

- 1. Singer Blvd. / Jefferson St.
- 2. I-25 N. Ramp / Jefferson St.
- 3. I-25 S. Ramp / Jefferson St.
- 4. McLeod Rd. / Jefferson St.
- 5. Outback Dr. / Jefferson St.
- 6. Driveway "A" / Jefferson St.
- 7. Driveway "B" / Jefferson St.

This scope of study was based on the assumption that the parcel in question would be developed as a gas station / convenience store as shown on the proposed site plan.

There are no known land development projects in the area to be incorporated into the background traffic model for this study. There are no known Transportation Improvement Program projects in the area that need to be considered in the Traffic Impact Study.

This project is served by public transit services in the area; specifically Routes #140, 251 and 551. These routes run along Jefferson St. in the vicinity of the project. See Appendix page A-118 for City of Albuquerque Transit Bus Route Map.

Jefferson St., Singer Blvd. & McLeod Rd. are designated on the Futures 2040 Metropolitan Transportation Plan (2040 Long Range Bikeway System) as either Proposed or Existing Bicycle Lanes & Routes. See Appendix Pg. A-6 for a portion of that map.

There are pedestrian facilities in the project area – curb & gutter and sidewalks along the roads, as well as some raised medians for pedestrians & bicyclists crossing against traffic.

Singer Blvd. & McLeod Rd. are classified as Major Collector Roadways on the Mid-Region Council of Government's Futures 2040 Long Range Roadway System Map. They are two-lane urban-type roadways with no raised median and curb & gutter with sidewalks in the area. The posted speed limit along McLeod Rd. is 35 MPH and along Singer Blvd. is 30 MPH.

Jefferson St. is classified as Community Principal Arterial Roadway on the Mid-Region Council of Government's Futures 2040 Long Range Roadway System Map. It is a four-lane roadway with curb & gutter as well as sidewalks. The posted speed limit along this section is 35 MPH.

Analysis of Existing Conditions

Due to the fact that the Implementation Year is only one year in the future, an existing analysis was not requested by the City of Albuquerque. Existing traffic volumes (turning movement counts) were collected at the intersections targeted for analysis in this study in November 2018 and are included on Appendix Pages A-25 thru A-40.

Analysis of Implementation Year Conditions

Traffic Projections

Background traffic was taken from recent traffic counts (Appendix A-113 through A-117). Traffic count data (i.e., AM / PM Peak Hour turning movements volumes) were adjusted for demand based on the remnant queue on each approach of a major intersection at the end of each 15-minute period of the count interval. To accomplish this quantification of queuing at the end of each 15-minute interval, a company was hired to launch a drone with video camera to an altitude of approximately 400 feet above ground level to capture the queuing during the following time intervals:

For the AM Peak Hour count period:	For the PM Peak Hour count period:
7:13 AM to 7:17 AM	4:13 PM to 4:17 PM
7:28 AM to 7:32 AM	4:28 PM to 4:32 PM
7:43 AM to 7:47 AM	4:43 PM to 4:47 PM
7:58 AM to 8:02 AM	4:58 PM to 5:02 PM
8:13 AM to 8:17 AM	5:13 PM to 5:17 PM
8:28 AM to 8:32 AM	5:28 PM to 5:32 PM
8:43 AM to 8:47 AM	5:43 PM to 5:47 PM

The drone capture video of the queuing conditions for a four-minute interval. The video was stopped at each 15-minute interval (i.e., 7:15 AM, 7:30 AM, 7:45 AM, etc.) to estimate the number of vehicles queued for each lane group in the video. The queued vehicles were included in the previous 15-minute count interval and subtracted out from the subsequent 15-minute count interval. This count method was utilized for the intersections of Singer / Jefferson, I-25 N. Ramp / Jefferson, and I-25 S. Ramp / Jefferson. McLeod / Jefferson was not visible on the video, so the standard method of counting was utilized.

This study assumes that the development will be implemented in one phase with an implementation year of 2019 and a horizon year of 2029.

Projected trips were calculated based on the Institute of Traffic Engineers (ITE) Trip Generation Manual (10th Edition). Trips for the development were determined based on land use defined on the Conceptual Site Development Plan on Page A-3 in the Appendix of this report. The following table summarized the trip generation rate for the project:

Proposed C-Store (Jefferson St. / Interstate 25)

Trip Generation Data (ITE Trip Generation Manual - 10th Edition)

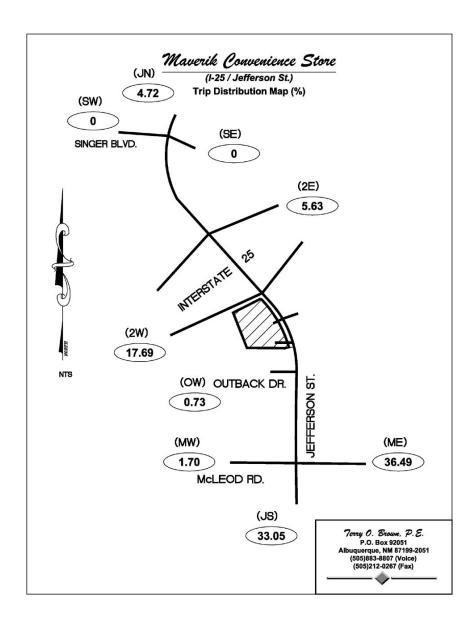
	USE (ITE CODE)		24 HR VOL	A. M. PE	AK HR.	P. M. PE	AK HR.
COMMENT	DESCRIPTION		GROSS	ENTER	EXIT	ENTER	EXIT
	Summary Sheet	Units					
Proposed	Gasoline / Service Station w/ Convenience Market (945)	28.00	6,356	222	213	200	192
Existing	Quality Restaurant (931)	10.00	538	4	4	52	26
	Increase (Decrease) Trip Generation Rate		5,818	218	209	148	166

No pass-by trips were applied to this project. See Appendix Pages A-7 thru A-9 for more information regarding the trip generation.

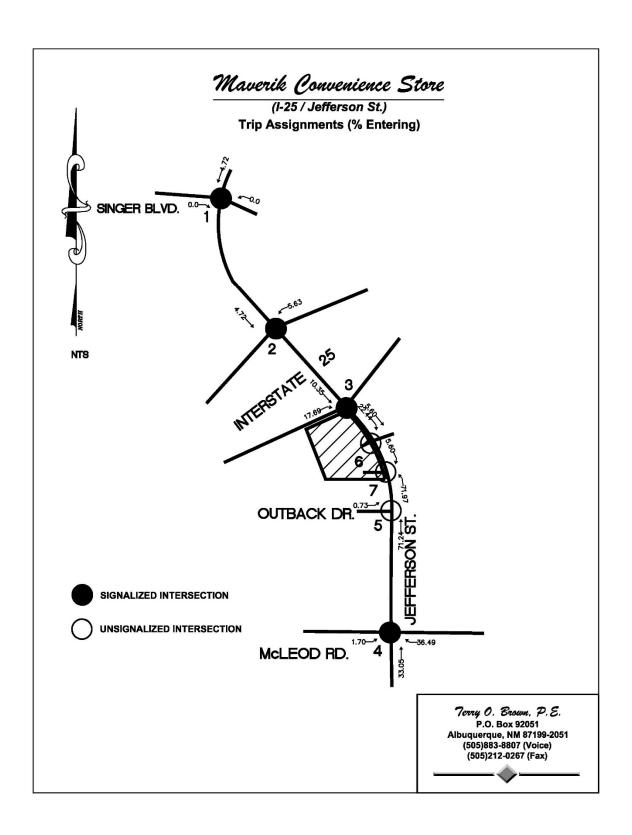
For purposes of determining how much more traffic the proposed Maverick Convenience Store generates than the previous quality restaurant that was on the parcel, the trip generation table above deducts the traffic that was generated by the previous use (restaurant). However, the traffic count (turning movements volumes) data for this project was collected in November 2018 when the restaurant had been closed and was out of business. Therefore, for the purposed of determining 2019 and 2029 BUILD volumes for this analysis, the restaurant trips were not deducted from the trip generation rate for the Maverick facility.

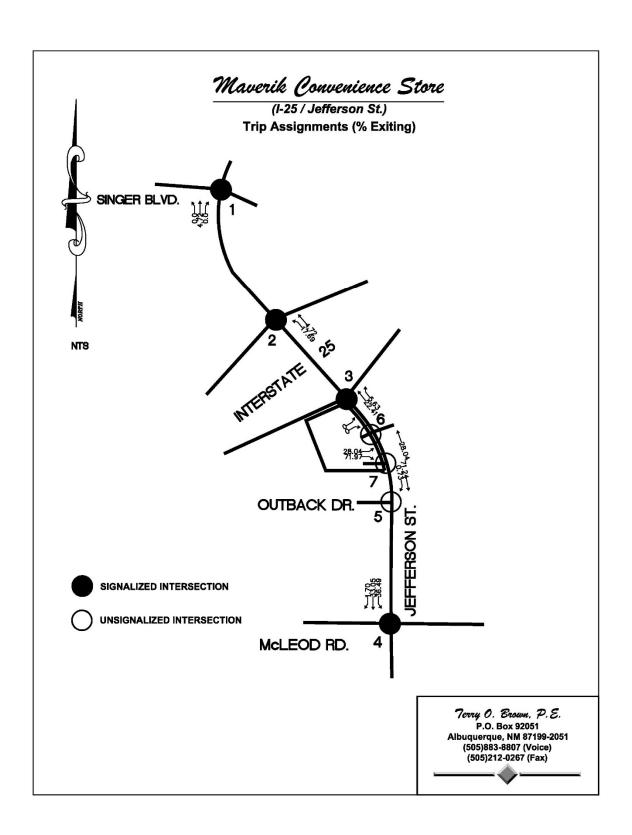
Commercial Trip Distribution

The Gravity Model was used to determine trip distribution where primary trips for the commercial land use development were distributed proportionally to the 2019 projected population of Data Analysis Subzones (DASZ) within a 1.5-mile radius. Population data for the years 2012 and 2040 were taken from the 2040 Socioeconomic Forecasts by Subareas for the Mid-Region of New Mexico supplied by the Mid-Region Council of Governments (MRCOG). Population data from the years 2012 and 2040 was interpolated linearly to obtain 2019 population data to utilize for this analysis. Population Subzones were grouped based on the most likely major street(s) or route(s) to the subject development. The trip distribution worksheets and associated map of data analysis subzones are shown in the Appendix on Pages A-10 thru A-13. The commercial Trip Distribution map can be found below and in the Appendix on Page A-14.



Trip assignments are first made on a percentage basis derived from data established in the trip distribution determination process and logical routing. Those percentages are then applied to the projected trips to determine individual traffic movements. Percentage trip assignments for commercial trips are shown below and in the Appendix on Pages A-15 thru A-16. No adjustment for pass-by trips was applied on this project.





Background traffic growth rates were considered for each individual approach to an intersection that was targeted for analysis based on data from the 2008 through 2017 Traffic Flow maps prepared by the Mid-Region Council of Governments. Most of the Traffic Flow Data for those years taken from the MRCOG Traffic Flow Maps were Standard Data. The data from those years for each approach was plotted on a graph and a linear "regression trend line" calculated using the equation format *y=mx+b*. The growth rate was determined by calculating the average volume increase per year during the time period considered and dividing that volume into the most recent AWDT used in the analysis from which future volumes will be calculated. The rate of growth of that trend line was utilized as the annual growth rate for each approach if that calculated rate appeared feasible. However, in some roadway segments considered in this analysis, the rate indicated either an inconsistent or a negative growth trend; therefore, the growth rate was considered to be a generic 0.5%. Historical Growth Rate Graphs with linear regression trend lines are shown in the Appendix on Pages A-18 thru A-23. The growth rate utilized for each approach to an intersection is printed at the top of the Turning Movement sheets for each intersection (Appendix Pages A-27 thru A-40 & 43 thru 56).

The trip generation, trip distribution and trip assignments were utilized along with the existing 2018 background traffic volumes and the historical traffic growth rates to determine the Implementation year NO BUILD and BUILD volumes, see Appendix Pages A-25 thru A-40. Implementation year AM Peak Hour and PM Peak Hour NO BUILD and BUILD volumes / lane geometry / Level-of-Service results are summarized graphically on the Lanes / Volumes / Analysis Maps at the end of the front-end text of this Study:

Traffic Analysis

A capacity analysis using existing traffic signal timing settings furnished by the City of Albuquerque Traffic Operations Section of the Municipal Development Department was conducted for the Implementation Year (2019) NO BUILD and BUILD Conditions and the results are summarized as follows:

#1 - Singer Blvd. / Jefferson St. - Pages A-57 thru A-84

The results of the 2019 analyses of the signalized intersection of Singer Blvd. / Jefferson St. are summarized in the following tables:

Intersection: 1 - SingerBlvd. / Jefferson St.

		<u>2019</u>	AM Peak	(Hou	<u>ır</u>		2019 PM Peak Hour					
			(EXIST.	GEON	l.)		(EXIST. GEOM.)					
		N	O BUILD		BUILD		N	BUILD		BUILD		
		Lanes	LOS-Delay	Lanes	LOS-Delay		Lanes	LOS-Delay	Lanes	LOS-Delay		
	L	1	D - 44.7	1	D - 44.7	L	1	E - 64.9	1	E - 64.9		
EB	Т	1	C - 33.0	1	C - 33.0	\vdash	1	C - 32.3	1	C - 32.3		
	R	1	C - 23.8	1	C - 23.8	R	1	E - 69.3	1	E - 69.3		
П	L	2	D - 41.5	2	D - 41.5	L	2	D - 54.1	2	D - 54.1		
WB	Т	2	D - 37.0	2	D - 37.0	Т	2	D - 36.1	2	D - 36.1		
	R	>	D - 37.3	۸	D - 37.3	R	^	D - 36.3	^	D - 36.3		
Г	L	1	B - 12.8	1	B - 13.0	L	1	C - 21.2	1	C - 21.4		
NB NB	Т	2	B - 13.1	2	B - 13.2	Т	2	B - 20.0	2	B - 20.0		
	R	1	A - 0.0	1	A - 0.0	R	1	A - 0.0	1	A - 0.0		
	L	1	B - 13.6	1	B - 13.6	L	1	B - 18.2	1	B - 18.2		
SB	Т	2	C - 20.7	2	C - 20.9	Т	2	C - 32.0	2	C - 32.1		
Ĺ	R	>	C - 21.1	^	C - 21.2	R	^	C - 32.0	>	C - 32.3		
Int	erse	ection:	C - 20.1		C - 20.2			D - 43.0		D - 43.0		

Note: ">" designates a shared right or left turn lane.

No recommendation.

The 2019 analysis of the intersection of Singer Blvd. / Jefferson St. demonstrates that the overall intersection level-of-service will be acceptable for both the AM Peak Hour and PM Peak Hour NO BUILD and BUILD conditions analyzed in this report. The implementation of the proposed development increases the delay at the intersection by 0.1 seconds during the AM Peak Hour and by 0.0 seconds during the PM Peak Hour. Therefore, no recommendations are made for the intersection of Singer Blvd. / Jefferson St.

#2 -I-25 N. Ramp / Jefferson St. - Pages A-57 thru A-84

The results of the analysis of the signalized intersection of the I-25 N. Ramp / Jefferson St. are summarized in the following table:

Intersection: 2 - I-25 N. Ramp / Jefferson St.

		<u>2019</u>	AM	<u>Peak</u>	Hou	_				<u>2019</u>	PM I	Peak	Hour	• •		
				EXIST.	GEOM	.)					(EXIST.	GEOM	.)	-	
		NO BUILD BUILD								NO BUILD BUILD						
		Lanes LOS-Delay Lanes LOS-Delay								Lanes	LOS-D	elay	Lanes	LOS	i-D	elay
	Г	2	D -	38.6	2	D	-	38.6	L	2	D -	50.5	2	D	-	50.6
WB	Т	2	D -	36.8	2	D	-	36.8	Т	2	D -	45.3	2	D	-	45.5
	R	1	D -	35.5	1	D	-	35.1	R	1	С -	34.2	1	С	-	34.0
NB	L	1	Α -	8.3	1	Α	-	9.9	L	1	D -	36.8	1	D	-	38.4
Z	Т	2	Α -	0.7	2	Α	-	0.6	Т	2	Α -	0.2	2	Α	-	0.1
SB	Т	2	В -	12.5	2	В	-	13.8	Т	2	C -	26.7	2	С	-	30.5
S	R	1	В-	12.8	1	В	-	14.0	R	1	D -	36.0	1	D	-	45.0
Int	ers	ection:	В-	13.7		В	-	14.1			C -	30.0		С	-	33.0

Note: ">" designates a shared right or left turn lane.

No Recommendation.

The 2019 analysis of the intersection of the I-25 N. Ramp (WB) / Jefferson St. (NB / SB) demonstrates that the delays will be acceptable for all conditions analyzed in this report. Therefore, no recommendations are made for the intersection of the I-25 N. Ramp / Jefferson St.

#3 -I-25 S. Ramp / Jefferson St. - Pages A-57 thru A-84

The results of the analysis of the signalized intersection of the I-25 S. Ramp / Jefferson St. are summarized in the following table:

Intersection: 3 - I-25 S. Ramp / Jefferson St.

		<u>2019</u>	AM Peak	(Hou	<u>ır</u>		2019 PM Peak Hour					
			(EXIST.	GEON	1.)		(EXIST. GEOM.)					
		N	BUILD		BUILD		N	O BUILD		BUILD		
		Lanes	LOS-Delay	Lanes	LOS-Delay		Lanes	LOS-Delay	Lanes	LOS-Delay		
	L	2	C - 28.9	2	C - 28.7	L	2	D - 41.1	2	D - 41.0		
EB	Т	2	C - 33.5	2	C - 33.2	Т	2	D - 37.9	2	D - 37.8		
	R	1	C - 29.7	1	C - 31.2	R	1	C - 31.9	1	C - 33.0		
	L		A - 0.0		A - 0.0	L		A - 0.0		A - 0.0		
NB	Т	2	B - 17.9	2	B - 19.0	Т	2	C - 25.4	2	C - 26.6		
	R	>	B - 18.0	>	B - 19.1	R	>	C - 25.8	^	C - 27.0		
	L	1	B - 11.0	1	B - 11.9	L	1	B - 14.8	1	B - 15.9		
SB	Т	2	A - 0.2	2	A - 0.3	Т	2	A - 0.2	2	A - 0.2		
	R		A - 0.0		A - 0.0	R		A - 0.0		A - 0.0		
Int	erse	ection:	B - 18.8		B - 19.3			C - 22.7		C - 23.1		

Note: ">" designates a shared right or left turn lane.

No Recommendation.

The 2019 analysis of the intersection of the I-25 S. Ramp / Jefferson St. demonstrates that the delays will be acceptable for all conditions analyzed in this report. Therefore, no recommendations are made for the intersection of the I-25 S. Ramp / Jefferson St.

#4 -McLeod Rd. / Jefferson St. - Pages A-57 thru A-84

The results of the analysis of the signalized intersection of the McLeod Rd. / Jefferson St. are summarized in the following table:

Intersection: 4 - McLeod Rd. / Jefferson St.

2019 AM Peak Hour 2019 PM Peak Hour (EXIST. GEOM.) (EXIST. GEOM.) **NO BUILD BUILD** NO BUILD **BUILD** Lanes LOS-Delay Lanes LOS-Delay Lanes LOS-Delay Lanes LOS-Delay C - 20.7 C - 21.3 C - 23.7 C - 23.8 C - 20.7 C - 21.0 T C - 24.6 C - 24.5 C - 20.7 C - 24.6 C - 24.5 > C - 21.0 R C - 23.8 1 C - 24.1 C - 28.8 C - 28.6 C - 20.1 C - 20.4 Т C - 23.1 C - 23.1 C - 21.2 C - 21.9 R B - 19.5 B - 19.1 1 В-11.6 1 B -15.9 B - 10.4 В - 13.2 B - 18.7 C - 26.3 T C - 22.7 2 2 B - 17.6 B - 18.6 C - 26.2 R B - 17.7 C - 22.7 > > B - 12.2 B - 19.7 L B - 13.0 C - 29.1 1 1 1 2 B - 14.9 2 B - 18.1 T 2 B - 12.4 B - 14.6

Note: ">" designates a shared right or left turn lane.

B - 14.9

No recommendation.

Intersection: B - 17.8

The 2019 analysis of the intersection of the McLeod Rd. / Jefferson St. demonstrates that the delays will be acceptable for all conditions analyzed in this report. Therefore, no recommendations are made for the intersection of the McLeod Rd. / Jefferson St.

B - 18.0 R

C - 21.9

B - 12.3

B - 16.4

B - 14.6

C - 21.3

#5 – Outback Dr. / Jefferson St. – Pages A-57 thru A-84

The results of the analysis of the unsignalized intersection of Outback Dr. / Jefferson St. are summarized in the following table:

2010 PM Book Hour

Intersection: 5 - Outback Driveway / Jefferson St.

2010 AM Book Hour

		2019	AM	Peak	Ηου	<u>ır</u>			2019	PM	Pear	(Hou	<u>ır</u>	
			(E	XIST.	GEON	1.)								
		NO BUILD BUILD							N	NO BUILD BUIL				
		Lanes LOS-Delay Lanes LOS-Delay						Lanes	LOS-	Delay	Lanes	LOS-	Delay	
	L	^	В-	12.7	>	С -	19.8	L	^	C -	15.8	>	C -	22.5
EB	Т	1	Α -	0.0	1	Α -	0.0	Т	1	Α -	0.0	1	Α -	0.0
	R	>	В-	12.7	>	С -	19.8	R	>	C -	15.8	>	C -	22.5
	L	>	Α -	8.1	>	Α -	8.4	L	>	Α -	9.3	>	Α -	9.8
NB	Т	2	Α -	0.1	2	Α -	0.1	Т	2	Α -	0.1	2	Α -	0.2
	R		Α -	0.0	0	Α -	0.0	R	0	Α -	0.0	0	Α -	0.0
	L		Α -	0.0	0	Α -	0.0	L	0	Α -	0.0	0	Α -	0.0
SB	Т	2	Α -	0.0	2	Α -	0.0	Т	2	Α -	0.0	2	Α -	0.0
	R	>	Α -	0.0	>	Α -	0.0	R	>	Α -	0.0	>	Α -	0.0
Inte	erse	ection:	и -	0.1		и -	0.1			и -	0.2		и -	0.3
NI	oto.	">" de	sianat	20 20	hared	riaht /	or left to	irn l	lana			•		

Note: ">" designates a shared right or left turn lane.

No Recommendation.

The 2019 analysis of the intersection of Outback Dr. / Jefferson St. demonstrates that the delays will be acceptable for all conditions analyzed in this report. Therefore, no recommendations are made for the intersection of Outback Dr. / Jefferson St.

#6 – Driveway "A" / Jefferson St. - Pages A-57 thru A-84

Driveway "A" is full access on the east side of Jefferson St. (existing driveway) and restricted to right-in only on the west side. Driveway "A" on the west side of Jefferson St. has been relocated approximately 35 feet to the south to slightly offset it from the existing driveway across the street on the east side of Jefferson St. The offset should not be detrimental since Driveway "A" into the Maverik Store is a right-in only access. The results of the 2019 analyses of the unsignalized intersection of Driveway "A" / Jefferson St. are summarized in the following table:

Intersection: 6 - Driveway "A" / Jefferson St.

			(EXIST.	GEON	l.)			(EXIST.	GEOM	l.)
		NO	O BUILD		BUILD		NO	BUILD		
		Lanes	LOS-Delay	Lanes	LOS-Delay		Lanes	LOS-Delay	Lanes	LOS-Delay
	L	1	A - 0.0	1	A - 0.0	L	1	A - 0.0	1	A - 0.0
EB	Т	1	A - 0.0	1	A - 0.0	Т	1	A - 0.0	1	A - 0.0
	R	>	A - 0.0	>	A - 0.0	R	>	A - 0.0	>	A - 0.0
П	L	>	D - 25.9	>	D - 33.4	L	>	C - 17.5	>	D - 30.4
WB	Т	1	D - 25.9	1	A - 0.0	Т	1	C - 17.5	1	A - 0.0
П	R	>	D - 25.9	>	D - 33.4	R	>	C - 17.5	>	D - 30.4
П	L	>	A - 8.0	>	A - 0.0	L	>	A - 8.9	>	A - 0.0
NB	Т	2	A - 0.0	2	A - 0.0	Т	2	A - 0.0	2	A - 0.0
	R	>	A - 0.0	>	A - 0.0	R	>	A - 0.0	>	A - 0.0
П	L	>	B - 11.1	>	B - 11.5	L	>	B - 10.1	>	B - 10.4
SB	Т	2	A - 0.6	2	A - 0.3	Т	2	A - 0.7	2	A - 0.8
	R	1	A - 0.0	1	A - 0.0	R	1	A - 0.0	1	A - 0.0
Inte	erse	ection:	u - 1.4		u - 1.6			u - 1.0		u - 1.3

Note: ">" designates a shared right or left turn lane.

No Recommendation.

The 2019 analysis of the intersection of Driveway "A" / Jefferson St. demonstrates that the delays will be acceptable for all conditions analyzed in this report except for the eastbound (exiting) left turn movement. Therefore, no recommendations are made for the intersection of Driveway "A" / Jefferson St.

Driveway "A" is located approximately 275 feet southeast of the I-25 S. Ramp / Jefferson St. signalized intersection. It has historically been a full access unsignalized driveway since the mid-1990's. It was aligned with an existing full-access unsignalized driveway across the street that accesses an existing Holiday Inn & Suites Motel and a NAPA Truck Part and Service facility. Driveway "A" into the Maverik Store is being restricted to a right-in only driveway since the New Mexico Department of Transportation has an access control line in the middle of Jefferson St. that extends through the driveway, thus prohibiting left-in and left-out traffic.

#7 - Driveway "B" / Jefferson St. - Pages A-57 thru A-84

The results of the 2019 analyses of the full access unsignalized intersection of Driveway "B" / Jefferson St. are summarized in the following table:

Intersection: 7 - Driveway "B" / Jefferson St.

			(E	XIST.	GEON	l.)					(E	XIST.	GEON	l.)	
		N	O BUIL	D		BUIL	.D			NO	O BUIL	.D		BUILD	
		Lanes	LOS-E)elay	Lanes	LOS	S-D	elay		Lanes	LOS-E)elay	Lanes	LOS-E	elay
	L	^	Α -	0.0	>	F	-	189	L	^	Α -	0.0	>	F-	87.1
EB	Т	1 A - 0.0 > F - 18							Т	1	Α -	0.0	>	F -	87.1
	R							189	R	>	Α -	0.0	>	F-	87.1
	L	> A - 0.0 > A - 8.8					8.8	L	>	Α -	0.0	>	Α -	9.6	
NB	Т							1.3	Т	2	A -	0.0	^	A -	1.1
	R	>	Α -	0.0	>	Α	-	0.0	R	>	Α -	0.0	>	Α -	0.0
	L	>	A -	0.0	>	Α	-	0.0	L	>	A -	0.0	>	A -	0.0
SB	Т	2 A - 0.0 > A - 0				0.0	Т	2	A -	0.0	>	A -	0.0		
	R > A - 0.0 > A - 0					0.0	R	^	Α -	0.0	>	Α -	0.0		
Int	Intersection: u		u -	0.0		u ·	- 2	22.6			и -	0.0		и -	8.5

Note: ">" designates a shared right or left turn lane.

No Recommendation.

Driveway "B" is located approximately 150 feet south of Driveway "A" and approximately 450 feet south of the I-25 northbound off-ramp. The 2019 analysis of the intersection of Driveway "B" / Jefferson St. demonstrates that the delays will be excessive during the 2019 AM and 2019 PM Peak Hour BUILD Conditions. Restricting Driveway "A" to prevent exiting traffic (especially left-out movements) has forced all exiting traffic from this development to Driveway "B". It is anticipated that there will be long delays and long queues for exiting traffic in Driveway "B". To lessen the problem, it is recommended that Driveway "B" incorporate two exiting lanes – one for left turn movements and one for right turn movements.

Analysis of Horizon Year Conditions

Traffic Projections

Methodology to forecast 2029 Horizon Year background traffic volumes, trip distribution of new trips generated by the Maverik project, and trip generation calculations utilized were the same as for the Implementation Year analysis with the one exception that the

Traffic Analysis

A capacity analysis using existing traffic signal timing setting furnished by the City of Albuquerque Traffic Operations Section of the Municipal Development Department was conducted for the Horizon Year (2029) NO BUILD and BUILD Conditions and the results are summarized as follows:

#1 - Singer Blvd. / Jefferson St. - Pages A-85 thru A-112

The results of the 2029 analyses of the signalized intersection of Singer Blvd. / Jefferson St. are summarized in the following tables:

Intersection: 1 - SingerBlvd. / Jefferson St.

		<u>2029</u>	AM Peal	k Hou	<u>ır</u>		<u>2029</u>	PM Peak	k Hou	<u>ır</u>
			(EXIST.	GEON	1.)			(EXIST.	GEON	1.)
		N	O BUILD		BUILD		N	O BUILD		BUILD
		Lanes	LOS-Delay	Lanes	LOS-Delay		Lanes	LOS-Delay	Lanes	LOS-Delay
	L	1	D - 44.8	1	D - 44.8	L	1	E - 66.8	1	E - 66.8
EB	Т	1	C - 32.9	1	C - 32.9	Т	1	C - 32.6	1	C - 32.6
	R	1	C - 23.0	1	C - 23.0	R	1	E - 80.2	1	E - 80.2
	L	2	D - 42.0	2	D - 42.0	L	2	E - 55.2	2	E - 55.2
WB	Т	2	D - 37.3	2	D - 37.3	Т	2	D - 36.6	2	D - 36.6
	R	>	D - 37.5	^	D - 37.5	R	>	D - 36.9	>	D - 36.9
	L	1	B - 14.5	1	B - 14.7	L	1	C - 22.7	1	C - 22.9
NB	Т	2	B - 13.5	2	B - 13.5	Т	2	C - 20.3	2	C - 20.4
	R 1 A - 0.0 1				A - 0.0	R	1	A - 0.0	1	A - 0.0
	L	1	B - 14.4	1	B - 14.4	L	1	B - 18.7	1	B - 18.7
SB	Т	2	C - 22.3	2	C - 22.4	Т	2	C - 34.1	2	C - 34.4
	R	^	C - 22.6	>	C - 22.8	R	>	C - 34.2	>	C - 34.5
Int	erse	ection:	C - 20.9		C - 21.0			D - 46.4		D - 46.4

Note: ">" designates a shared right or left turn lane.

No recommendation.

The 2029 analysis of the intersection of Singer Blvd. / Jefferson St. demonstrates that the overall intersection level-of-service will be acceptable for both the AM Peak Hour and PM Peak Hour NO BUILD and BUILD conditions analyzed in this report. The implementation of the proposed development increases the delay at the intersection by 0.1 seconds during the AM Peak Hour and by 0.0 seconds during the PM Peak Hour. Therefore, no recommendations are made for the intersection of Singer Blvd. / Jefferson St.

The 95th Percentile Queuing calculation (HCM 6 methodology) results based on the horizon year analysis are summarized in the following table:

Queueing Analysis Summary Sheet

Project: Maverik Convenience Store (I-25 / Jefferson St.)

Intersection: Singer Blvd. / Jefferson St.

2029

Approach	Le	ft Tu	rns_	Thru	Move	ments	Rig	ht Tu	<u>ırns</u>
Eastbound	# Lanes	Vol.	Length	# Lanes	Vol.	Length	# Lanes	Vol.	Length
Existing Lane Length	1	124	170+	1	29	Cont	1	185	170+
AM NO BUILD Queue	1	131	166	1	31	31	1	195	169
AM BUILD Queue	1	131	166	1	31	31	1	195	169
Existing Lane Length	1	222	170+	1	37	Cont	1	464	170+
PM NO BUILD Queue	1	234	333	1	39	41	1	490	694
PM BUILD Queue	1	234	333	1	39	41	1	490	694
<u>Westbound</u>	# Lanes	Vol.	Length	# Lanes	Vol.	Length	# Lanes	Vol.	Length
Existing Lane Length	2	75	170	2	20	Cont	0	21	0
AM NO BUILD Queue	2	79	46	2	21	23	0	22	26
AM BUILD Queue	2	79	46	2	21	23	0	22	26
Existing Lane Length	2	295	170	2	45	Cont	0	46	0
PM NO BUILD Queue	2	311	215	2	47	54	0	49	54
PM BUILD Queue	2	311	215	2	47	54	0	49	54
Northbound	# Lanes	Vol.	Length	# Lanes	Vol.	Length	# Lanes	Vol.	Length
Existing Lane Length	1	389	115	2	535	Cont	1	303	300
AM NO BUILD Queue	1	410	228	2	564	179	1	320	0
AM BUILD Queue	1	410	228	2	574	184	1	320	0
Existing Lane Length	1	193	115	2	273	Cont	1	157	300
PM NO BUILD Queue	1	204	154	2	288	118	1	166	0
PM BUILD Queue	1	204	154	2	296	120	1	166	0
Southbound	# Lanes	Vol.	Length	# Lanes	Vol.	Length	# Lanes	Vol.	Length
Existing Lane Length	1	20	140	2	264	Cont	0	162	0
AM NO BUILD Queue	1	21	13	2	279	200	0	171	195
AM BUILD Queue	1	21	13	2	289	205	0	171	197
Existing Lane Length	1	15	140	2	629	Cont	0	133	0
PM NO BUILD Queue	1	16	13	2	664	397	0	140	394
PM BUILD Queue	1	16	13	2	671	402	0	140	399

NOTE: Queue Lengths are in feet.

Queue Lengths are 95th percentile confidence level.

Queue Lengths are based on Synchro 10 (HCM6) methodology

The eastbound left and right turn lanes are both effectively at least 700 feet long since both lanes extend beyond the limits to which they are striped. The eastbound left turn lane extends into an existing center two-way left turn lane and the right turn lane extends into the existing outside thru lane. The eastbound thru lane queue is very short (two vehicles). When the eastbound queuing extends beyond the designated striped left and / or right turn lane, the traffic will still queue in such a manner to not block eastbound thru traffic, but it will queue through existing private driveways momentarily. Therefore, no recommendation is made for the eastbound left or right turn auxiliary lanes.

A similar situation exists for the dual westbound left turn lanes on Singer Blvd. The queuing a short distance beyond the striped dual left turn lanes will not block other westbound traffic.

The northbound left turn queuing is projected to spill into the northbound inside thru lane. There is an NM DOT messaging sign located in the median such that it precludes extending the existing northbound left turn lane by a substantial distance. It is positioned approximately 10 feet behind the existing median curb. Therefore, no recommendation is made.

#2 -I-25 N. Ramp / Jefferson St. - Pages A-85 thru A-112

The results of the analysis of the signalized intersection of the I-25 N. Ramp / Jefferson St. are summarized in the following table:

2020 PM Peak Hour

Intersection: 2 - I-25 N. Ramp / Jefferson St.

2020 AM Peak Hour

		2023	AW Fear	Hou	<u> </u>			2029	rivi rear	Hou	<u> </u>
			(EXIST.	GEOM	l.)				(EXIST.	GEON	l.)
		NO	BUILD	ı	BUILD)		N	O BUILD		BUILD
		Lanes	LOS-Delay	Lanes	LOS-	Delay		Lanes	LOS-Delay	Lanes	LOS-Delay
	L	2	D - 38.8		D -	38.9	L		D - 51.8		D - 52.1
WB	Т	2	D - 36.8		D -	36.9	Т		D - 46.0		D - 46.3
	R	1	D - 35.2		C -	24.8	R		C - 33.7		C - 33.5
	L	1	A - 9.7		В-	11.9	L		D - 38.3		D - 39.2
NB	Т	2	A - 0.7		A -	0.7	Т		A - 0.1		A - 0.1
	R		A - 0.0		A -	0.0	R		A - 0.0		A - 0.0
	L		A - 0.0		A -	0.0	L		A - 0.0		A - 0.0
SB	Т	2	B - 13.6		В-	14.9	Т		C - 33.1		D - 41.9
					15.2	R		E - 55.2		E - 75.7	
Int	Intersection: B - 14.1 B -								D - 35.7		D - 42.0

Note: ">" designates a shared right or left turn lane

No Recommendation.

The 2029 analysis of the intersection of the I-25 N. Ramp / Jefferson St. demonstrates that the overall intersection delays will be acceptable for all conditions analyzed in this report. The implementation of the proposed development increases the delay at the intersection by 0.6 seconds during the AM Peak Hour and by 6.3 seconds during the PM Peak Hour. Therefore, no recommendations are made for the intersection of the I-25 N. Ramp / Jefferson St.

The 95th Percentile Queuing calculation (HCM 6 methodology) results based on the horizon year analysis are summarized in the following table:

Queueing Analysis Summary Sheet

Project: Maverik Convenience Store (I-25 / Jefferson St.)

Intersection: I-25 N. Ramp / Jefferson St.

2029

Approach	ns	l	Thru	Mover	ments	Rid	ght Tu	rne			
Арріодон	<u> </u>	JIL IUI	113		<u> </u>	MOVE	licits	1 1	giit iu		
Westbound	# Lanes	Vol.	Length		# Lanes	Vol.	Length	# Lanes	Vol.	Length	
Existing Lane Length	2	258	400		2	323	Cont	1	140	320	
AM NO BUILD Queue	2	272	236		2	341	241	1	148	166	
AM BUILD Queue	2	284	241		2	341	246	1	148	166	
Existing Lane Length	2	362	400		2	491	Cont	1	47	320	
PM NO BUILD Queue	2	382	356		2	518	351	1	50	51	
PM BUILD Queue	2	390	361		2	518	358	1	50	51	
Northbound	# Lanes	Vol.	Length		# Lanes	Vol.	Length	# Lanes	Vol.	Length	
Existing Lane Length	1	277	140		2	0	Cont	0	0	0	
AM NO BUILD Queue	1	295	108		2	1,227	10	0	0	0	
AM BUILD Queue	1	332	125		2	1,237	10	0	0	0	
Existing Lane Length	1	383	140		2	0	Cont	0	0	0	
PM NO BUILD Queue	1	408	335		2	607	3	0	0	0	
PM BUILD Queue	1	437	346		2	615	3	0	0	0	
Southbound	# Lanes	Vol.	Length		# Lanes	Vol.	Length	# Lanes	Vol.	Length	
Existing Lane Length	0	0	0		2	0	Cont	1	235	370	
AM NO BUILD Queue	0	0	0		2	603	195	1	248	166	
AM BUILD Queue	0	0	0		2	613	207	1	248	177	
Existing Lane Length	0	0	0		2	0	Cont	1	615	370	
PM NO BUILD Queue	0	0	0		2	1,318	550	1	649	684	
PM BUILD Queue	0	0	0		2	1,325	614	1	649	783	

NOTE: Queue Lengths are in feet.

Queue Lengths are 95th percentile confidence level.

Queue Lengths are based on Synchro 10 (HCM6) methodology.

The northbound left turn queuing and the southbound right turn queuing are projected to spill into the adjacent thru lanes and, in fact, currently experience the spill-over, especially during the PM Peak Hour period. Neither the northbound left turn lane nor the southbound right turn lane can be extended due to existing field constraints. The northbound left turn lane length cannot be extended in that it would shorten the existing length of the complimentary southbound left turn lane at the I-25 S. Ramp. The southbound right turn lane length cannot be extended due to the presence of an existing private driveway located approximately 550 feet north of the signalized intersection of the I-25 N. Ramp / Jefferson St. (centerline to centerline). Therefore, no recommendation is made.

#3 –I-25 S. Ramp / Jefferson St. – Pages A-85 thru A-112

The results of the analysis of the signalized intersection of the I-25 S. Ramp / Jefferson St. are summarized in the following table:

2020 DM Dook Hours

Intersection: 3 - I-25 S. Ramp / Jefferson St.

2020 AM Dook Hour

		<u>2029</u>	AM Peak	Hou	<u>ır</u>		2029	PM Peak	Hou	<u>ır</u>
			(EXIST.	GEON	l.)			(EXIST.	GEON	l.)
		NO	BUILD		BUILD		N	O BUILD		BUILD
		Lanes	LOS-Delay	Lanes	LOS-Delay		Lanes	LOS-Delay	Lanes	LOS-Delay
	L 2 C - 28.2 2 C - 28.1						2	D - 41.8	2	D - 41.6
EB	Т	2	C - 32.9	2	C - 32.7	Т	2	D - 38.1	2	D - 38.0
	R	1	C - 29.1	1	C - 30.5	R	1	C - 31.4	1	C - 32.6
	L		A - 0.0	0	A - 0.0	L	0	A - 0.0	0	A - 0.0
NB	Т	2	B - 19.6	2	C - 20.9	Т	2	C - 28.5	2	C - 30.0
	R	^	B - 19.8	۸	C - 21.1	R	>	C - 29.0	^	C - 30.6
	L	1	B - 12.3	1	B - 13.4	L	1	B - 16.4	1	B - 16.9
SB ⊤		2	A - 0.3	2	A - 0.3	Т	2	A - 0.2	2	A - 0.1
	R		A - 0.0	0	A - 0.0	R	0	A - 0.0	0	A - 0.0
Int	erse	ection:	B - 19.3		B - 19.9			C - 23.6		C - 24.1

Note: ">" designates a shared right or left turn lane.

No Recommendation.

The 2029 analysis of the intersection of the I-25 S. Ramp / Jefferson St. demonstrates that the delays will be acceptable for all conditions analyzed in this report. Therefore, no recommendations are made for the intersection of the I-25 S. Ramp / Jefferson St.

The 95th Percentile Queuing calculation (HCM 6 methodology) results based on the horizon year analysis are summarized in the following table:

Queueing Analysis Summary Sheet

Project: Maverik Convenience Store (I-25 / Jefferson St.)

Intersection: I-25 S. Ramp / Jefferson St.

2029

Approach					Move	nents	Rig	ight Turns	
Eastbound	# Lanes	Vol.	Length	# Lanes	Vol.	Length	# Lanes	Vol.	Length
Existing Lane Length	2	760	300+	2	304	Cont	1	177	340
AM NO BUILD Queue	2	802	200	2	321	317	1	187	192
AM BUILD Queue	2	802	200	2	321	317	1	226	230
Existing Lane Length	2	480	300+	2	654	Cont	1	208	340
PM NO BUILD Queue	2	506	420	2	690	420	1	219	220
PM BUILD Queue	2	506	417	2	690	420	1	245	253
Northbound	# Lanes	Vol.	Length	# Lanes	Vol.	Length	# Lanes	Vol.	Length
Existing Lane Length	0	0	0	2	682	Cont	0	203	0
AM NO BUILD Queue	0	0	0	2	720	351	0	214	343
AM BUILD Queue	0	0	0	2	767	381	0	226	376
Existing Lane Length	0	0	0	2	482	Cont	0	356	0
PM NO BUILD Queue	0	0	0	2	509	402	0	376	374
PM BUILD Queue	0	0	0	2	546	435	0	385	404
Southbound	# Lanes	Vol.	Length	# Lanes	Vol.	Length	# Lanes	Vol.	Length
Existing Lane Length	1	101	190	2	464	Cont	0	0	0
AM NO BUILD Queue	1	108	49	2	495	3	0	0	0
AM BUILD Queue	1	108	49	2	518	5	0	0	0
Existing Lane Length	1	301	190	2	935	Cont	0	0	0
PM NO BUILD Queue	1	321	120	2	997	3	0	0	0
PM BUILD Queue	1	321	110	2	1,012	0	0	0	0

NOTE: Queue Lengths are in feet.

Queue Lengths are 95th percentile confidence level.

Queue Lengths are based on Synchro 10 (HCM6) methodology.

The eastbound left turn lanes' queuing is calculated to extend beyond the limits to which the lanes are striped. However, the extended queue will be contained in the upstream thru lanes without blocking thru traffic since the gore point of the ramp is located approximately 800+ feet west of the eastbound stop bar for the I-25 S. Ramp. Therefore, no recommendation is made.

#4 -McLeod Rd. / Jefferson St. - Pages A-85 thru A-112

The results of the analysis of the signalized intersection of the McLeod Rd. / Jefferson St. are summarized in the following table:

Intersection: 4 - McLeod Rd. / Jefferson St.

		<u>2029</u>	AM Peak	Hou	<u>ır</u>		<u>2029</u>	PM Peak	(Hou	<u>ır</u>
			(EXIST.	GEON	1.)			(EXIST.	GEON	l.)
		N	O BUILD		BUILD		N	O BUILD		BUILD
		Lanes	LOS-Delay	Lanes	LOS-Delay		Lanes	LOS-Delay	Lanes	LOS-Delay
	L	1	C - 20.7	1	C - 21.4	L	1	C - 23.9	1	C - 23.5
EB	Т	1	C - 20.6	1	C - 21.1	Т	1	C - 24.8	1	C - 24.3
	R	^	C - 20.6	۸	C - 21.1	R	^	C - 24.8	۸	C - 24.3
	L	1	C - 23.9	1	C - 24.4	L	1	C - 29.3	1	C - 28.6
WB	Т	1	B - 20.0	1	C - 20.5	Т	1	C - 23.3	1	C - 22.9
	T R	1	C - 21.4	1	C - 22.2	R	1	B - 19.3	1	B - 19.2
	L	1	B - 12.4	1	B - 17.0	L	1	B - 11.1	1	B - 13.6
NB	Т	2	C - 20.1	2	C - 28.5	Т	2	B - 19.0	2	C - 23.8
	R	>	C - 20.1	۸	C - 28.4	R	^	B - 19.1	^	C - 23.9
	L	1	B - 13.0	1	C - 23.2	L	1	B - 15.8	1	D - 42.8
SB	Т	2	B - 15.7	2	B - 18.9	Т	2	B - 12.9	2	B - 15.4
L	R	>	B - 15.7	>	B - 18.9	R	^	B - 12.9	>	B - 15.4
Int	tersection: B - 18.6 C - 23.							B - 17.4		C - 24.5

Note: ">" designates a shared right or left turn lane.

No recommendation.

The 2029 analysis of the intersection of the McLeod Rd. / Jefferson St. demonstrates that the delays will be acceptable for all conditions analyzed in this report. Therefore, no recommendations are made for the intersection of the McLeod Rd. / Jefferson St.

The 95th Percentile Queuing calculation (HCM 6 methodology) results based on the horizon year analysis are summarized in the following table:

Queueing Analysis Summary Sheet

Project: Maverik Convenience Store (I-25 / Jefferson St.)

Intersection: McLeod Rd. / Jefferson St.

2029

Approach	<u>L</u> (eft Tur	ns_	Thru Movements					Rig	jht Tu	rns_
Eastbound	# Lanes	Vol.	Length		# Lanes	Vol.	Length	#	# Lanes	Vol.	Length
Existing Lane Length	1	10	75		1	46	Cont		0	17	0
AM NO BUILD Queue	1	11	5		1	49	0		0	18	51
AM BUILD Queue	1	15	13		1	49	0		0	18	56
Existing Lane Length	1	13	75		1	66	Cont		0	25	0
PM NO BUILD Queue	1	14	10		1	70	0		0	26	72
PM BUILD Queue	1	17	13		1	70	0		0	26	74
Westbound	# Lanes	Vol.	Length		# Lanes	Vol.	Length	#	# Lanes	Vol.	Length
Existing Lane Length	1	88	150		1	29	Cont		1	367	250
AM NO BUILD Queue	1	93	82	•	1	31	23	F	1	387	305
AM BUILD Queue	1	93	90		1	31	26		1	467	394
Existing Lane Length	1	102	150		1	12	Cont		1	327	250
PM NO BUILD Queue	1	108	90		1	13	10	Г	1	345	225
PM BUILD Queue	1	108	92		1	13	10		1	399	276
Northbound	# Lanes	Vol.	Length		# Lanes	Vol.	Length	#	# Lanes	Vol.	Length
Existing Lane Length	1	17	75		2	442	Cont		0	25	0
AM NO BUILD Queue	1	18	10		2	466	197		0	26	202
AM BUILD Queue	1	18	13		2	538	279		0	26	287
Existing Lane Length	1	10	75		2	468	Cont		0	106	0
PM NO BUILD Queue	1	11	5		2	494	202		0	112	202
PM BUILD Queue	1	11	5		2	543	253		0	112	253
Southbound	# Lanes	Vol.	Length		# Lanes	Vol.	Length	#	# Lanes	Vol.	Length
Existing Lane Length	1	205	400		2	372	Cont		0	25	0
AM NO BUILD Queue	1	216	120		2	392	146		0	26	148
AM BUILD Queue	1	292	230		2	461	205		0	30	210
Existing Lane Length	1	401	400		2	626	Cont		0	8	0
PM NO BUILD Queue	1	423	197		2	660	172	Γ	0	8	179
PM BUILD Queue	1	484	374		2	715	215	Ī	0	11	223

NOTE: Queue Lengths are in feet.

Queue Lengths are 95th percentile confidence level.

Queue Lengths are based on Synchro 10 (HCM6) methodology.

All of the existing auxiliary left and right turn lanes at this intersection are demonstrated to be of adequate length to contain the calculated 95th Percentile queue lengths. Therefore, no recommendation is made.

#5 – Outback Dr. / Jefferson St. – Pages A-85 thru A-112

The results of the analysis of the unsignalized intersection of Outback Dr. / Jefferson St. are summarized in the following table:

Intersection: 5 - Outback Driveway / Jefferson St.

		<u>2029</u>	AM	Peal	κ Ηοι	<u>ır</u>			2029 PM Peak Hour						
			(EXIST.	GEON	1.)				(E	XIST.	GEON	1.)		
		N) BU	ILD		BUILI)		N	O BUIL	.D		BUILD		
		Lanes	LOS	-Delay	Lanes	LOS-	Delay		Lanes	LOS-I	Delay	Lanes	LOS-	Delay	
	L	>	В -	13.4	>	С -	21.7	L	>	C -	16.8	>	D -	25.1	
EB	Т	1 A - 0.0 1 A - 0.0 T		Т	1	Α -	0.0	1	Α -	0.0					
	R	>	В-	13.4	>	С -	21.7	R	>	C -	16.8	^	D -	25.1	
	L	>	Α -	8.3	>	Α -	8.6	L	>	Α -	9.4	>	Α -	9.9	
NB	Т	2	Α -	0.1	2	Α -	0.1	Т	2	Α -	0.2	2	Α -	0.3	
	R		Α -	0.0	0	Α -	0.0	R	0	Α -	0.0	0	Α -	0.0	
	L		Α -	0.0	0	Α -	0.0	L	0	Α -	0.0	0	Α -	0.0	
SB	Т	2	Α -	0.0	2	Α -	0.0	Т	2	A -	0.0	2	Α -	0.0	
	R	>	Α -	0.0	>	Α -	0.0	R	>	Α -	0.0	^	Α -	0.0	
Int	tersection: u - 0.1 u - 0.						0.1			и -	0.3		и -	0.4	

Note: ">" designates a shared right or left turn lane.

No Recommendation.

The 2029 analysis of the intersection of Outback Dr. / Jefferson St. demonstrates that the delays will be acceptable for all conditions analyzed in this report. Also, calculated 95th Percentile Queuing at this intersection is not projected to 1 vehicle for any turning movement. (See Appendix Pages A-96 and A-110). Therefore, no recommendations are made for the intersection of Outback Dr. / Jefferson St.

#6 - Driveway "A" / Jefferson St. - Pages A-85 thru A-112

The results of the 2029 analyses of the unsignalized intersection of Driveway "A" / Jefferson St. are summarized in the following table:

Intersection: 6 - Driveway "A" / Jefferson St.

2029 AM Peak Hour 2029 PM Peak Hour

			(E	XIST.	GEON	1.)				(E	XIST.	GEON	1.)	
		NO) BUIL	_D		BUIL	D		N	O BUII	_D		BUILD)
		Lanes	LOS-I	Delay	Lanes	LOS	-Delay		Lanes	LOS-	Delay	Lanes	LOS-	Delay
	L	1	Α -	0.0	1	Α -	0.0	L	1	Α -	0.0	1	F-	79.2
EB	Т	1	Α -	0.0	1	Α -	0.0	Т	1	Α -	0.0	1	C -	16.3
							0.0	R	^	Α -	0.0	>	C -	16.3
	L	>	D -	31.5	>	Ε-	40.3	L	>	C -	19.4	>	C -	23.4
WB	Т	1	D -	31.5	1	Α -	0.0	Т	1	C -	19.4	1	C -	23.4
	R	>	D -	31.5	>	Е-	40.3	R	^	C -	19.4	>	C -	23.4
	L	>	Α -	8.2	>	Α -	0.0	L	>	Α -	9.0	>	Α -	9.4
NB	Т	2	Α -	0.0	2	Α -	0.0	Т	2	Α -	0.0	2	Α -	0.4
						0.0	R	^	Α -	0.0	>	Α -	0.0	
	L	>	В -	11.5	>	В -	11.9	L	>	В -	10.4	>	В-	10.4
SB	Т	2	Α -	0.7	2	Α -	0.8	Т	2	Α -	0.9	2	Α -	1.0
R 1 A - 0.0 1 A - 0				0.0	R	1	Α -	0.0	1	Α -	0.0			
Int	ntersection: u - 1.7 u - 1									и -	1.2		и -	3.2

Note: ">" designates a shared right or left turn lane.

No Recommendation.

The 2029 analysis of the intersection of Driveway "A" / Jefferson St. demonstrates that the delays will be acceptable for all conditions analyzed in this report except for the eastbound (exiting) left turn movement. Therefore, no recommendations are made for the intersection of Driveway "A" / Jefferson St.

Driveway "A" is located approximately 275 feet southeast of the I-25 S. Ramp / Jefferson St. signalized intersection. It has historically been a full access unsignalized driveway since the mid-1990's. It was aligned with an existing full-access unsignalized driveway across the street that accesses an existing Holiday Inn & Suites Motel and a NAPA Truck Part and Service facility. Driveway "A" into the Maverik Store is being restricted to a right-in only driveway since the New Mexico Department of Transportation has an access control line in the middle of Jefferson St. that extends through the driveway, thus prohibiting left-in and left-out traffic.

#7 – Driveway "B" / Jefferson St. - Pages A-85 thru A-112

The results of the 2029 analyses of the full access unsignalized intersection of Driveway "B" / Jefferson St. are summarized in the following table:

Intersection: 7 - Driveway "B" / Jefferson St.

2020	A NA	Dook	Haur I	BUILD	2029 PM	Dool	- Haur	ם וווום
ZUZS	AIVI	reak	nour i	DUILD	ZUZY PIVI	rear	k mour	DUILD

		(EXIST. GEOM.)							(EXIST. GEOM.)					
		NO		BUILD			NO BUILD			BUILD				
		Lanes	LOS-Delay		Lanes LOS-Delay			Lanes	LOS-Delay		Lanes LOS-Delay		Delay	
EB	L	^	Α -	0.0	^	F	299	L	^	Α -	0.0	>	Α -	0.0
	Т	1	Α -	0.0	۸	F	299	Т	1	Α -	0.0	>	Α -	0.0
	R	>	Α -	0.0	۸	F	299	R	>	Α -	0.0	>	Α -	0.0
NB	L	>	A -	0.0	>	Α -	9.0	L	>	Α -	0.0	>	E -	36.9
	Т	2	A -	0.0	>	Α -	1.5	Т	2	Α -	0.0	>	A -	0.0
	R	>	A -	0.0	>	Α -	0.0	R	>	Α -	0.0	>	E -	36.9
SB	L	>	A -	0.0	>	Α -	0.0	L	>	Α -	0.0	>	В-	10.7
	Т	2	A -	0.0	>	Α -	0.0	Т	2	Α -	0.0	>	Α -	1.0
	R	>	Α -	0.0	^	Α -	0.0	R	>	Α -	0.0	>	Α -	0.0
Intersectio		ection:	и -	0.0		u -	33.7			и -	0.0		и -	1.6

Note: ">" designates a shared right or left turn lane.

No Recommendation.

Driveway "B" is located approximately 150 feet south of Driveway "A" and approximately 450 feet south of the I-25 northbound off-ramp. The 2029 analysis of the intersection of Driveway "B" / Jefferson St. demonstrates that the delays will be excessive during the 2019 AM and 2019 PM Peak Hour BUILD Conditions. Restricting Driveway "A" to prevent exiting traffic (especially left-out movements) has forced all exiting traffic from this development to Driveway "B". It is anticipated that there will be long delays and long queues for exiting traffic in Driveway "B". To lessen the problem, it is recommended that Driveway "B" incorporate two exiting lanes — one for left turn movements and one for right turn movements. As the property to the south develops, it would be beneficial to plan for cross-access so that Maverik traffic can access Outback Dr. to relieve congestion at Driveway "B".

Impact Assessment

Generally speaking, the Jefferson / I-25 Interchange area is congested during the AM Peak Hour and PM Peak Hour periods. The calculated and actual delays are significant, but not as bad as expected. Some of the queuing for certain turning movements at the ramps spill into the thru lanes, thus making the delays seem worse than the calculated values would seem to indicate. The queuing capacity, especially for the northbound left turn movement at the I-25 N. Ramp and the complementary southbound left turn movement at the I-25 S. Ramp are substandard and cannot be lengthened as a result of the inherent design of the tight diamond interchange. The proposed development will have minimal adverse impact on the adjacent

transportation system. All the levels-of-service were determined to be acceptable for the overall intersections.

Access Design Specifications

Sight distance at Driveway "A" and at Driveway "B" are adequate. The Maverik driveways are both along the inside of a horizontal curve in Jefferson St. but considering the posted speed limit of 35 MPH in this area, the sight distances are sufficient.

There is an existing southbound right turn deceleration lane (about 60 feet long plus transition) on Jefferson St. at Driveway "A". The right turn deceleration lane will be extended a bit when the driveway is relocated approximately 35 feet to the south.

Driveway "B" is located on Jefferson St. outside of the I-25 / Jefferson interchange access control area. Driveway "A" is located within the I-25 / Jefferson interchange access control area (with the access control line located in the center of Jefferson St.) so that left turns in and out are prohibited. The detailed design and construction of driveways should comply with the Development Process Manual and the City design policy for driveways consistent with the Traffic Engineer in the Transportation Development Section of the City of Albuquerque Planning Department.

Summary of Deficiencies, Anticipated Impacts, and Recommendations

Neither the 2019 (Implementation Year) nor the 2029 (Horizon Year) analyses determined any significant deficiencies in the adjacent transportation system. The Jefferson St. / I-25 Interchange was studied as a part of the North I-25 Phase 1A Final Report w/Appendix. With regard to the Jefferson / I-25 Interchange, the Report states:

Jefferson Street

The existing interchange at Jefferson Street consists of a standard diamond. Notable aspects of the existing interchange to consider in the development of improvement alternatives include:

- The existing bridge is relatively new, but is too narrow to provide the capacity that is needed. There is insufficient left-turn storage on the bridge.
- The bridge span is not wide enough to build continuous frontage roads along with providing an additional mainline lane on I-25.
- This interchange serves large retail developments in the southwest and northwest quadrants and provides the southern access to the North I-25 Business Center, which is one of the major activity centers in the Albuquerque region.

The New Mexico Department of Transportation is in the initial stages of considering options to solve existing traffic issues at the interchange. Under the North I-25 Phase 1A Report (Sheet 5-18), there are four options being considered:

- Alternative 1 The standard diamond configuration is maintained, but the bridge would be widened to accommodate dual left turn bays in each direction
- Alternative 2 Similar to Alternative 1.
- Alternative 3 The standard diamond configuration is maintained, but the existing bridge is replaced with a new structure able to accommodate dual left turn bays and Texas U-turns for both northbound and southbound traffic. The new bridge structure would also accommodate continuous frontage roads which would provide a route to bypass the signalized intersections of Jefferson Street and the northbound and southbound frontage roads.
- Alternative 4 A Diverging Diamond Interchange (DDI) layout was considered (see Sheet INT-3 in Appendix G), but without substantial right-of-way impacts, the geometry of a DDI would be undesirable.

The queuing issues at the Jefferson / I-25 Interchange are existing regional issues that should be addressed in the foreseeable future by constructing the recommended improvements as defined in the North I-25 Phase 1A Report.

The proposed Maverik Convenience Store does not contribute any additional traffic to the southbound left turn movement on Jefferson St. at the I-25 South Ramp nor to the southbound right turn movement on Jefferson St. at the I-25 North Ramp, two of the turning movements with the longest calculated queue lengths. The Maverik Convenience Store will only generate a small percentage of trips to the northbound left turn movement on Jefferson St. at the I-25 North Ramp.

Recommendations:

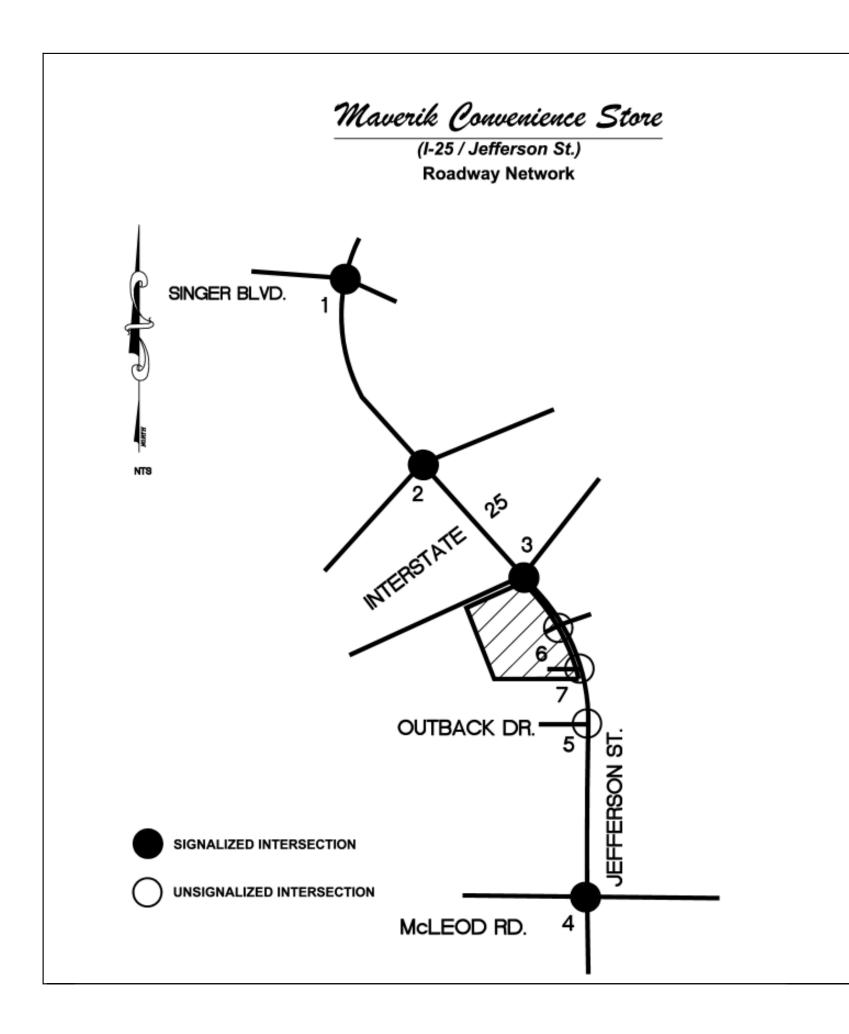
Implementation Year (2019) – Design and construction of all improvements including driveway modifications should preserve adequate sight distances along Jefferson St.

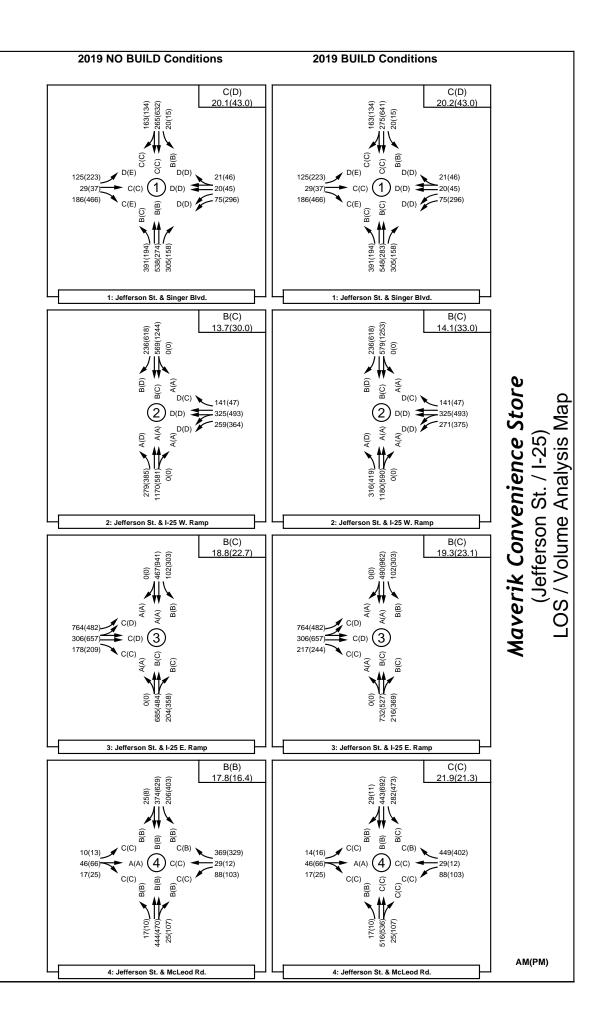
Driveway "A" should be designed and constructed as a right-turn-in only driveway.

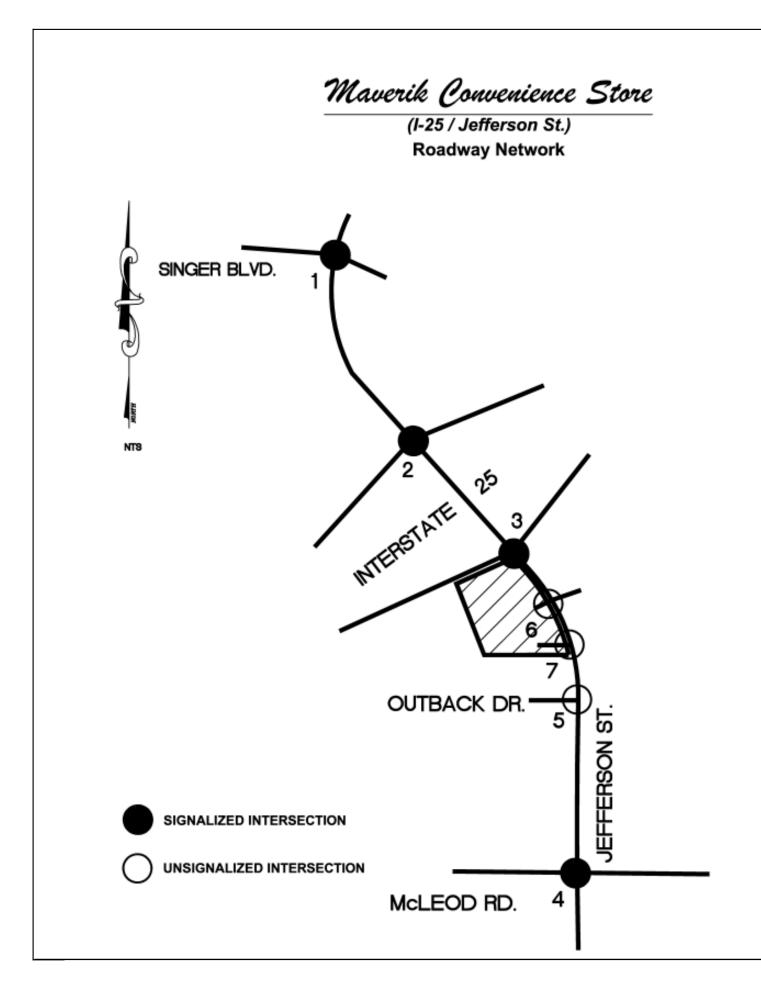
Driveway "B" should be designed and constructed as a full-access unsignalized driveway with two exiting lanes (one for left turns and one for right turns) and one entering lane minimum.

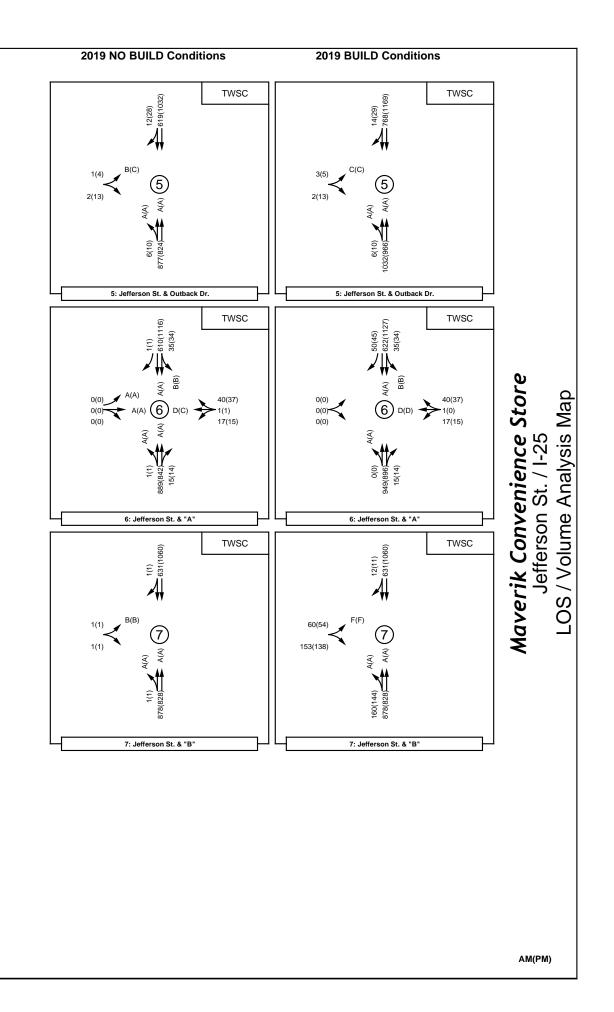
Drive design should be able to accommodate large delivery trucks.

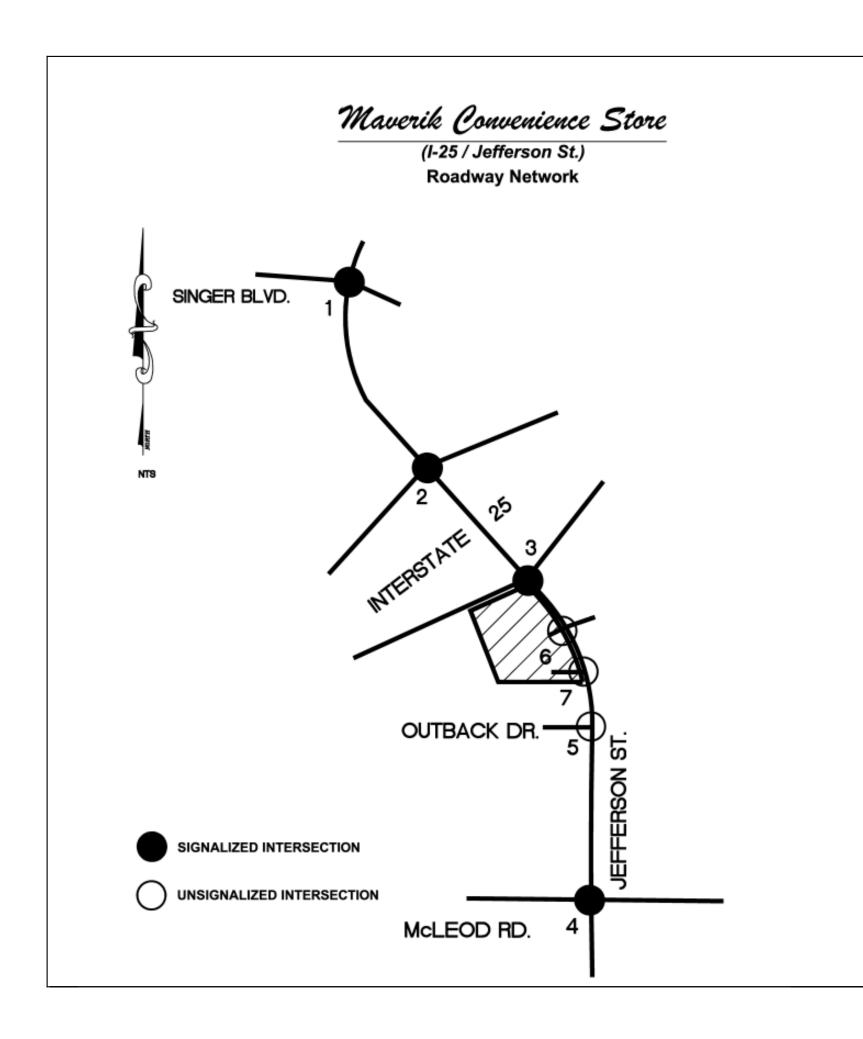
Horizon Year (2029) – Same recommendations as Implementation Year. Also, cross access should be incorporated when the property to the south develops to provide Maverik traffic access to Outback Dr. to relieve future congestion at Driveway "B".

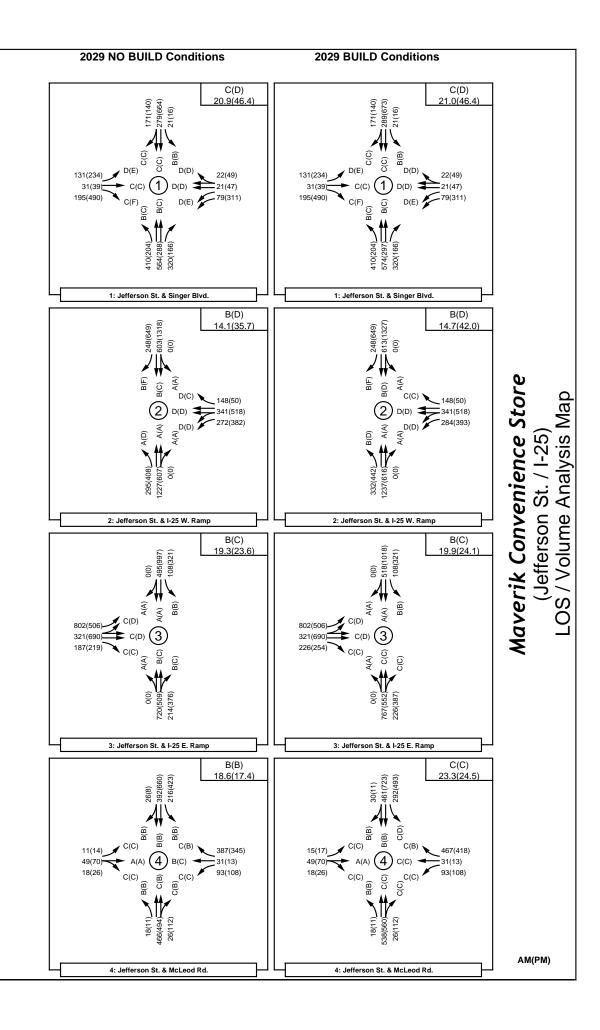


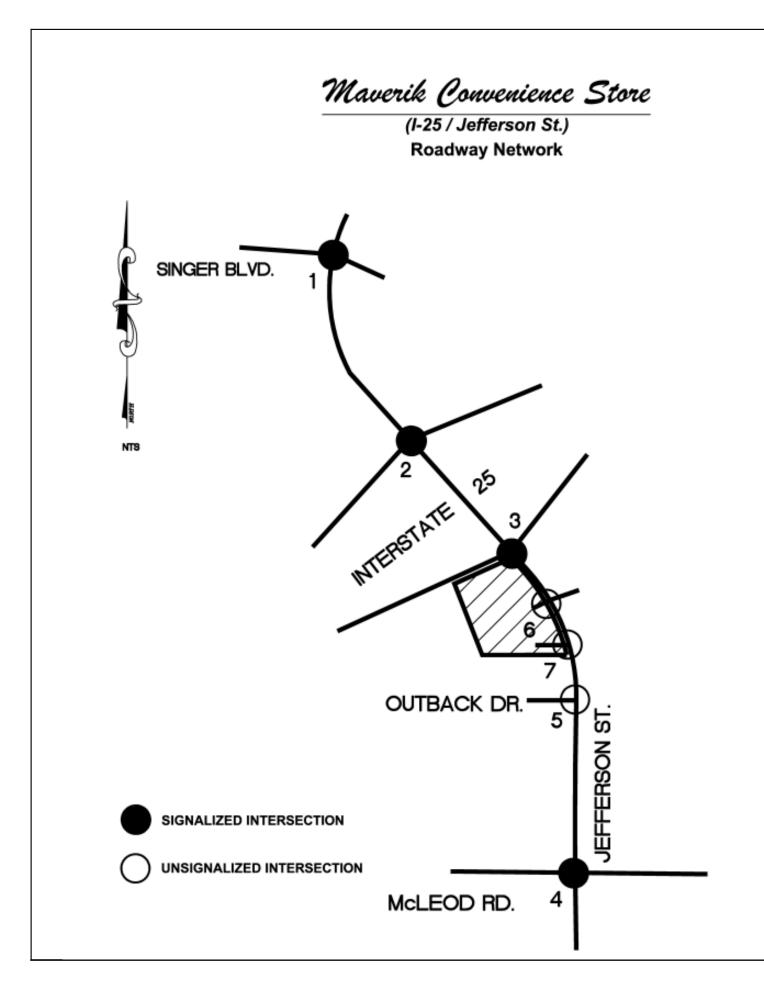


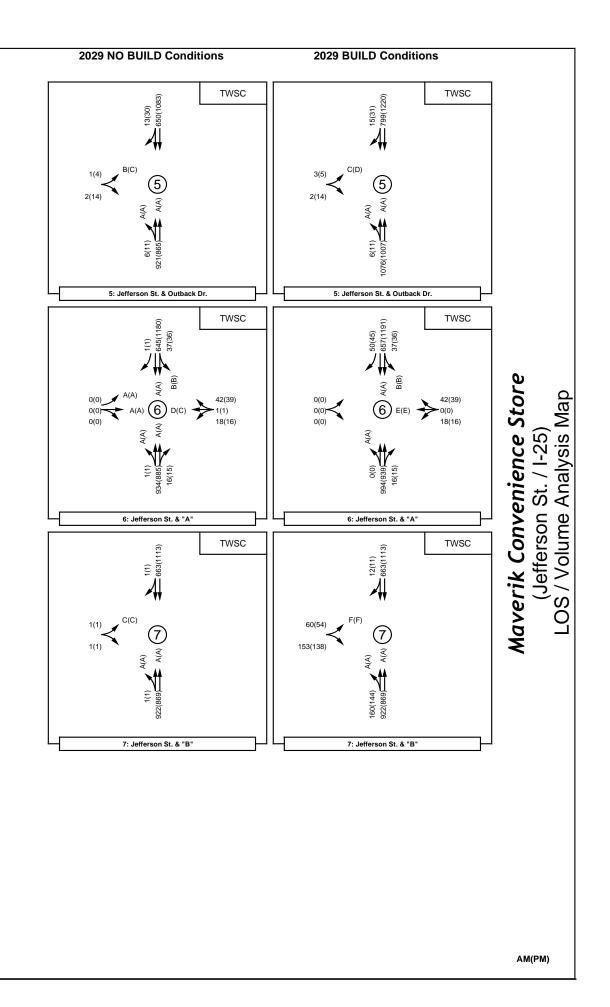








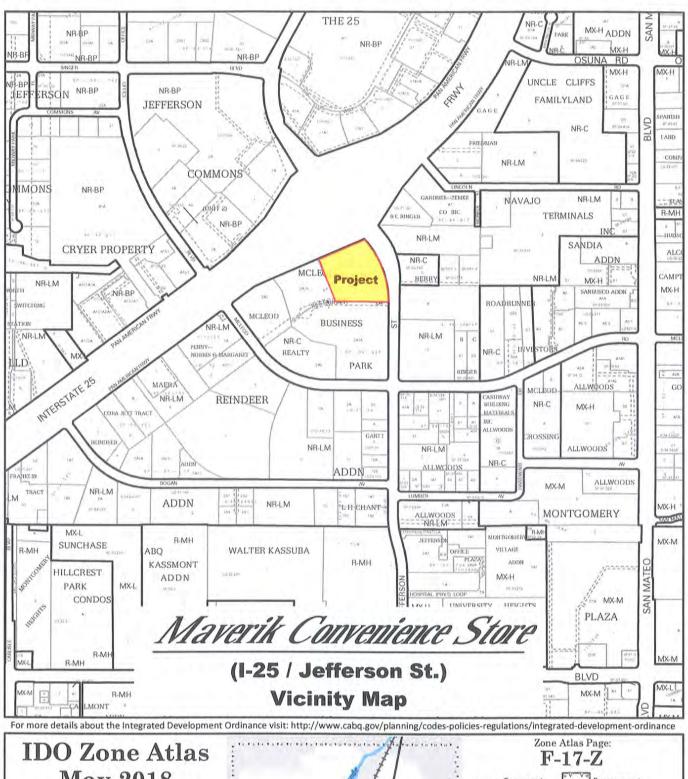


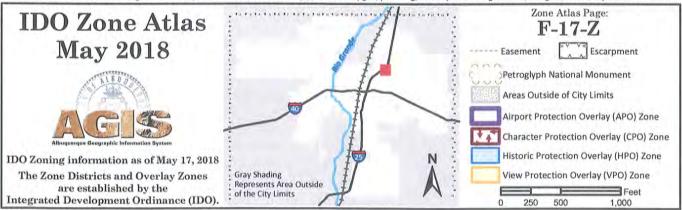


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APPENDIX

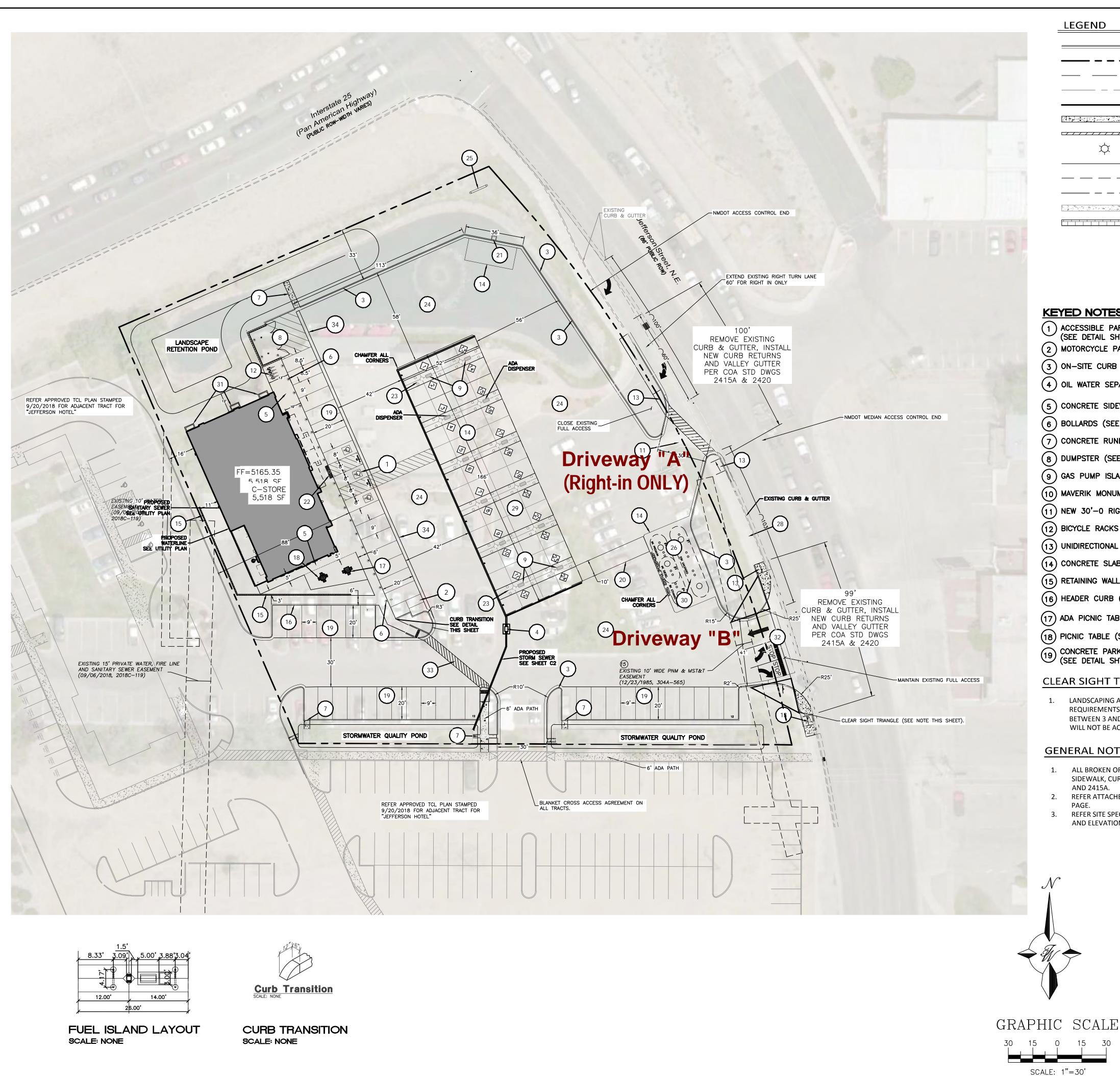


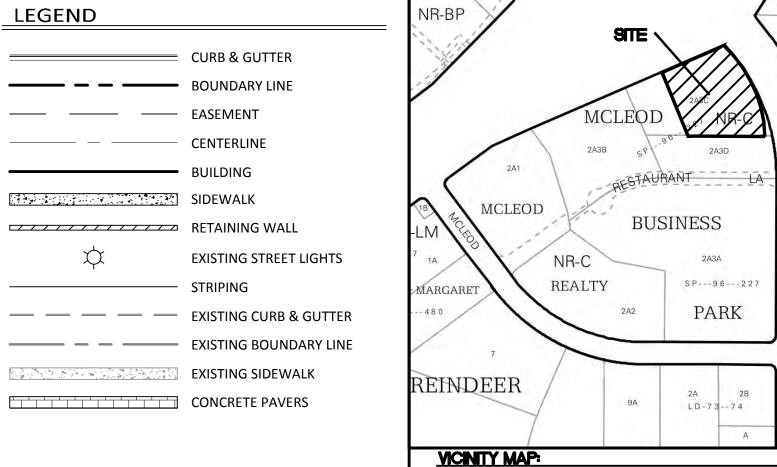




Maverik Convenience Store

(I-25 / Jefferson St.) Vicinity Map





LEGAL DESCRIPTION:

TRACT 2-A-3-C-1 MCLEOD BUSINESS PARK

KEYED NOTES

- 1 ACCESSIBLE PARKING PER ADA STANDARDS WITH SIGN (SEE DETAIL SHT. C6)
- (2) MOTORCYCLE PARKING WITH SIGN (SEE DETAIL SHT. C6)
- (3) ON-SITE CURB & GUTTER (SEE DETAIL SHT. C6)
- 4 OIL WATER SEPARATOR (SEE DTAIL SHT. C8)
- (5) CONCRETE SIDEWALK (SEE DETAIL SHT. C7)
- (6) BOLLARDS (SEE DETAIL SHT. C7)
- 7 CONCRETE RUNDOWN
- 8 DUMPSTER (SEE DETAIL SHT. C8)
- (9) GAS PUMP ISLAND (TYP)
- (10) MAVERIK MONUMENT SIGN (SEE ARCH. PLANS)
- (11) NEW 30'-0 RIGHT-IN DRIVEWAY ENTRANCE
- (12) BICYCLE RACKS (SEE DETAIL SHT. C7)
- (13) UNIDIRECTIONAL ACCESSIBLE RAMP (SEE DETAIL SHT. C8)
- (14) CONCRETE SLAB W/CHAMFERED CORNERS
- (15) RETAINING WALL (SEE GRADING SHT C2, MAX HEIGHT 2.0')
- (16) HEADER CURB (SEE DETAIL SHT. C6)
- (17) ADA PICNIC TABLE (SEE ARCH. PLANS)
- (18) PICNIC TABLE (SEE ARCH. PLANS)
- (SEE DETAIL SHT. C7)

CLEAR SIGHT TRIANGLE NOTE:

LANDSCAPING AND SIGNAGE WILL NOT INTERFERE WITH CLEAR SIGHT REQUIREMENTS. THEREFORE, SIGNS, WALLS, TREES, AND SHRUBBERY BETWEEN 3 AND 8 FEET TALL (AS MEASURED FROM THE GUTTER PAN) WILL NOT BE ACCEPTABLE IN THE CLEAR SIGHT TRIANGLE.

GENERAL NOTES:

- ALL BROKEN OR CRACKED SIDEWALK MUST BE REPLACED WITH SIDEWALK, CURB AND GUTTER AS REQUIRED PER COA STD DWG 2430
- REFER ATTACHED DETAIL SHEETS FOR STD DWGS REFERENCED THIS
- REFER SITE SPECIFIC GRADING PLAN SHEET FOR ADA RAMP DETAILS AND ELEVATIONS.

- PETROLEUM TRENCH CAP SECTION (SEE DETAIL SHT. C6)
- (21) XACTAIR AIR STATION (SEE DETAIL SHT. C6)

SP--84--2

ROADRUN

F-17-Z

NR-LM

- 22 TRUNCATED DOMES (SEE DETAIL SHT. C8)
- (23) "HOOP" BOLLARD (SEE DETAIL SHT. C7)
- ASPHALT PAVING (SEE GEOTECH REPORT)
- MAVERIK D/F ILLUMINATED PYLON SIGN (SEE ARCH. PLANS)
- UNDERGROUND STORAGE FUEL TANKS (REFER MECH. PLANS)
- (27) SIDEWALK CULVERT COA STD DWG 2236
- (28) EXISTING 6' PUBLIC SIDEWALK
- 29 ALL UNDER CANOPY LIGHTING TO BE RECESSED
- TANK PIT WALL TO BE LINED WITH GEOTEXTILE FILTER FABRIC PER XERXES
- (31) 6', 28" HIGH LANDSCAPE PLANTER BOX
- MODIFIED EXISTING FULL ACCESS DRIVEWAY
- 33) 5' PEDESTRIAN CROSS WALK (34) 2' CONCRETE WATERWAY (SEE DETAIL SHT. C6)
 - SITE DATA:

ASPHALT AREA:

PARKING PROVIDED:

PROPOSED USAGE: GAS & CONVENIENCE STORE IDO CLASSIFICATION: LIGHT VEHICLE FUELING STATION LOT AREA: 94,950 SF (2.17 ACRES)

BUILDING AREA: 5,518 SF STACK: 2X7x2 (28 UNITS)

22 SPACES (4 SPACES PER 1,000 SF) 48 SPACES PARKING REQUIRED:

41,350 SF

HC PARKING REQUIRED: 3 SPACES

HC PARKING PROVIDED: 3 SPACES (1 VAN ACCESSIBLE)

MC PARKING REQUIRED: 2 SPACES MC PARKING PROVIDED: 2 SPACES

BICYCLE PARKING REQUIRED: 2 SPACES BICYCLE PARKING PROVIDED: 4 SPACES

LANDSCAPE AREA REQUIRED: 13,405 SF LANDSCAPE AREA PROVIDED: 24,201 SF

ENGINEER'S SEAL **MAVERIK** 5001 JEFFERSON ST. NE 87109 TRAFFIC CIRCULATION LAYOUT TIERRA WEST, LLC 5571 MIDWAY PARK PLACE NE ALBUQUERQUE, NM 87109 3/12/2019 (505) 858-3100 www.tierrawestllc.com

P.E. #7868

RONALD R. BOHANNAN

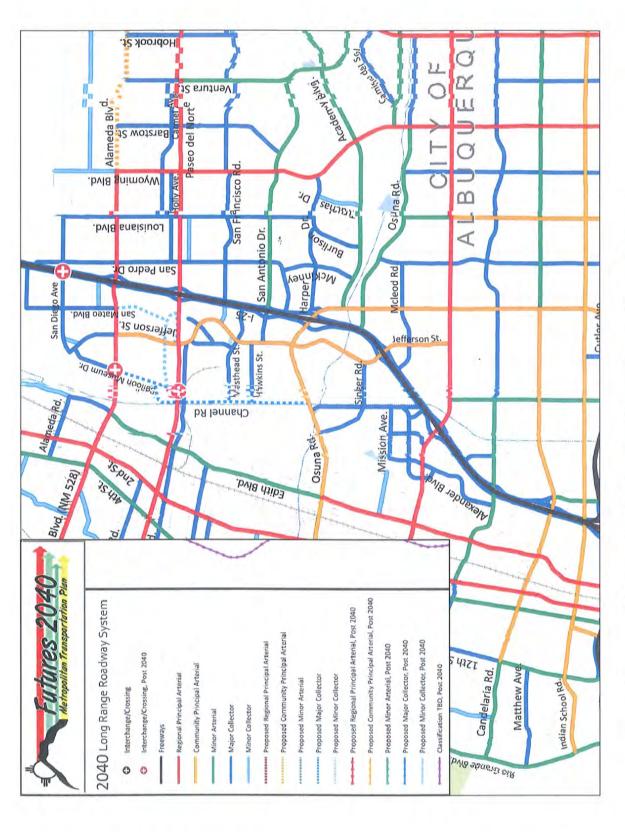
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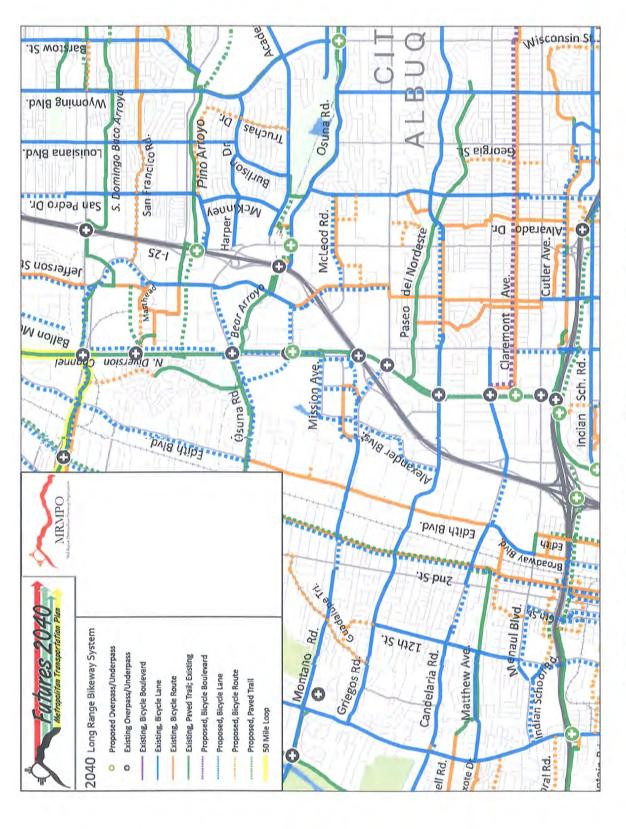
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Portion of 2017 Traffic Flow Map (from Mid-Region Council of Governments)



Portion of Futures 2040 Long Range Roadway System (from Mid-Region Council of Governments)



Portion of Futures 2040 Long Range Bikeway System (from Mid-Region Council of Governments)

Proposed C-Store (Jefferson St. / Interstate 25)
Trip Generation Data (ITE Trip Generation Manual - 10th Edition)

	USE (ITE CODE)		24 HR VOL	A. M. PEAK HR.	AK HR.	P. M. PEAK HR.	AK HR.
COMMENT	DESCRIPTION		GROSS	ENTER	EXIT	ENTER	EXIT
	Summary Sheet	Units					
Proposed	Gasoline / Service Station w/ Convenience Market (945)	28.00	6,356	222	213	200	192
Existing	Quality Restaurant (931)	10.00	538	4	4	52	26
	Increase (Decrease) Trip Generation Rate		5,818	218	209	148	166

Trip Generation Data (ITE Trip Generation Manual - 10th Edition) Proposed C-Store (Jefferson St. / Interstate 25)

USE (ITE CODE)		24 HOUR TWO-WAY VOLUME	.M.A	PEAK	P. M.	HOUR
		GROSS	ENTER	EXIT	ENTER	EXIT
	Units					
Gasoline / Service Station w/ Convenience Market (945)	28	6,356	222	213	200	192
	Fireling Positions					

ITE Trip Generation Equations:

Average Vehicle Trip Ends on a Weekday (24 HOUR TWO-WAY VOLUME)

$$T = 268.46 (X) + -1161$$

50% Enter, 50% Exit

Average Vehicle Trip Ends on a Weekday, Peak Hour of Adjacent Street Traffic, One Hour Between 7am and 9am (A.M. PEAK HOUR)

Average Vehicle Trip Ends on a Weekday, Peak Hour of Adjacent Street Traffic, One Hour Between 4pm and 6pm (P.M. PEAK HOUR)

$$T = 13.99 (X) + 0$$

51% Enter, 49% Exit

Comments:

Proposed

Based on ITE Trip Generation Manual - 10th Edition

Trip Generation Data (ITE Trip Generation Manual - 10th Edition) Proposed C-Store (Jefferson St. / Interstate 25)

JSE (ITE CODE)		Z4 HOUR TWO-WAY VOLUME	.M.A	PEAK	P. M.	PEAK
		GROSS	ENTER	EXIT	ENTER	EXIT
	Units					
Suality Restaurant (931)	10.00	538	4	4	52	26

ITE Trip Generation Equations:

Average Vehicle Trip Ends on a Weekday (24 HOUR TWO-WAY VOLUME)

$$T = 53.84 (X) + 0$$

50% Enter, 50% Exit

Average Vehicle Trip Ends on a Weekday, Peak Hour of Adjacent Street Traffic, One Hour Between 7am and 9am (A.M. PEAK HOUR)

$$T = 0.73 (X) + 0$$

50% Enter, 50% Exit

Average Vehicle Trip Ends on a Weekday, Peak Hour of Adjacent Street Traffic, One Hour Between 4pm and 6pm (P.M. PEAK HOUR)

$$T = 7.8 (X) + 0$$

67% Enter, 33% Exit

Comments:

Existing

Based on ITE Trip Generation Manual - 10th Edition

DATA ANALYSIS SUBZONE (DASZ) MAP
Maverik Convenience Store (I-25 / Jefferson St.)

Trip Distribution Table Maverik Convenience Store (Interstate 25 / Jefferson St.)

Data Analysis Subzone Population Data for determination of Local Trip Distribution for Proposed Retail Commercial Trips

2012 and 2040 Data Taken from Mid-Region Cournal of Governments' 2040 Socioeconomic Forecasts by Data Analysis Subzones for fine Mid-Region of New Mexico

Shudy Petrcent Patricing % Population in Petrcent Patricing % Population in Petrcent Patricing % Publishing Population in Petrcent Patricing % Publishing Population Patricing % Publishing % Population Patricing % Publishing							ale	Jefferson St. North	th.	S	Singer Blvd. East	15	E	Interstate 25 East	76
2040 2019 CORPS 27 27 27 27 </th <th>712 Popu</th> <th>lation</th> <th>2040 Population</th> <th>Interpolated Population for the Year</th> <th>Population in Study</th> <th>Percent Population</th> <th>% Utilizing</th> <th>% Population Utilizing</th> <th>Population</th> <th>% Utilizing</th> <th>% Population Utilizing</th> <th>Population</th> <th>% Utilizing</th> <th>% Population Uffizing</th> <th>Population</th>	712 Popu	lation	2040 Population	Interpolated Population for the Year	Population in Study	Percent Population	% Utilizing	% Population Utilizing	Population	% Utilizing	% Population Utilizing	Population	% Utilizing	% Population Uffizing	Population
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17.5 1.4 Color 1.5 Color		0		0	0			0.00%	0	%0	%0000	0	960	ĺ	0
17.50 4.26 642 2.18% CVS C.007% C C C C C C C C C	П	20			20			0.08%	25	%0	0.00%	0	20%		25
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1028 865 865 2.84% 0.9% 0.00% 0.0% 0.0% 0.00		2375	3067	2,548				1		%0	%00.0	0	%0		0
1083 1,084 316 1,07% 0% 0.00% 0		810	1029	865				1		%0		0	%0		0
2240 2.088 1.965 6.57% 0.00% 0.0%		1044	1083	1,054					1,2	%0		0	6%		0
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1175 1188 398 1.35% 0% 0.00% 0 0% 0.00% 0 0% 0.00% 0 00% 0 00% 0 00% 0 00% 0 00% 0 0 0% 0 00% 0 0 0% 0 0 0% 0 0 0% 0 0 0% 0 0 0% 0 0 0% 0 0 0 0		1422	1450						0	80	1	0	8	0.00%	0
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819 732 695 2.36% 0% 0.00% 0 0% 0.00% 0 100% 2.35% 1772 1,791 627 2.13% 0% 0.00% 0 0% 0.00% 0 0% 0.00% 0 0% 0.00% 0 0% 0.00% 0 0% 0.00% 0 0% 0.00% 0 0 0% 0.00% 0 <td></td> <td>1511</td> <td>1503</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>0</td> <td>%0</td> <td></td> <td>0</td> <td>100%</td> <td>1.28%</td> <td>377</td>		1511	1503						0	%0		0	100%	1.28%	377
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29,443 100.00% 1,389		1036	1232						0	%0		0	%0		0
	ш			42,302	į				1,389						1,657

Trip Distribution Table Maverik Convenience Store (Interstate 25 / Jefferson St.)

Data Analysis Subzone Population Data for determination of Local Trip Distribution for Proposed Retail Commercial 1

2012 and 2040 Data Taken from Mid-Region Council of Governmants' 2040 Socioeconomic Forecasts by Data Analysis Subzones for the Mid-Region of New Mexico

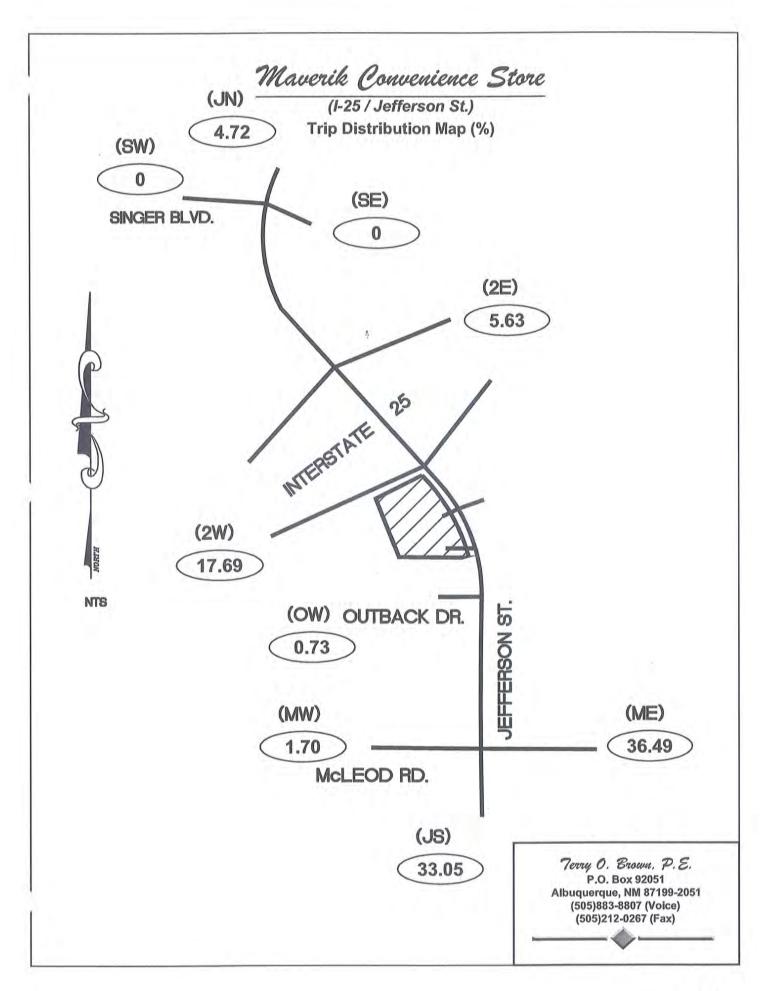
DASZ # % Sub Areas 2012 Population in Study Infletpolated Population in Study Infletpolated Population in Study Population in	Study Study 67 27 27 642 642 642 642 642 642 642 642 642 642	Percent Population 0.09% 0.00%	% Utilizing	% Population	Danilation	% Utilizing	% Population	Population	of, 1 Hillinian	% Population	Population
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45% 0 0 0 100% 50 50 50 100% 50 50 50 100% 1328 1733 1,426 100% 0 1967 492 100% 0 1967 492 10% 82 101 87 35% 0 0 0 10% 1024 4428 4,096 10% 1024 1,084 0 100% 0 0 0 100% 0 0 0 100% 0 0 0 100% 0 0 0 100% 0 0 0 100% 0 0 0 100% 158 2460 2.224 80% 186 1742 1,781 100% 168 1,742 1,781 100% 100% 0 0	642 642 642 0 492 0 1,229 1,229 1,00 0 0	0.00%	%0	0.00%	0	%0	0.00%	0			0
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	2.548	8.65%	100%	8.65%	2,548	%0	%000	0			0
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30% 1044 1083 1,054	316	1.07%	100%	1.07%	316	%0	0.00%	0			0
95% 2011 2240 2,068 1	1,965	6.67%	20%	3.34%	983	20%		983			0
100% 2629 3860	2,937	9.38%	20%	4.99%	1,469	50%	÷	1,469		7	0
7111 5% 1249 1135 1,221 61	19	0.21%	700%	0.21%	150	%0		0			0
100% 1081 1233	1,119	3,80%	20%	1.90%	260	路	%0000	0			0
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1511 1503	377	1.28%	%0	%00'0	0	%0		0	%0		0
95% 703 819 732	989	2.36%	%0	0.00%	0	0%	0.00%	0			0
35% 1797 1772 1,791	627	2.13%	20%	1.06%	314	50%	1.06%	314			0
100% 936 1054 966	996	3.28%	20%	1.64%	483	20%	1.64%	483			0
45% 1036 1232 1,085	488	1.66%	20%	0.83%	244	50%	0.83%	244		0.00%	0
53	29,443	100.00%			10,744			9,730			200
					36.49%			33.05%			1.70%

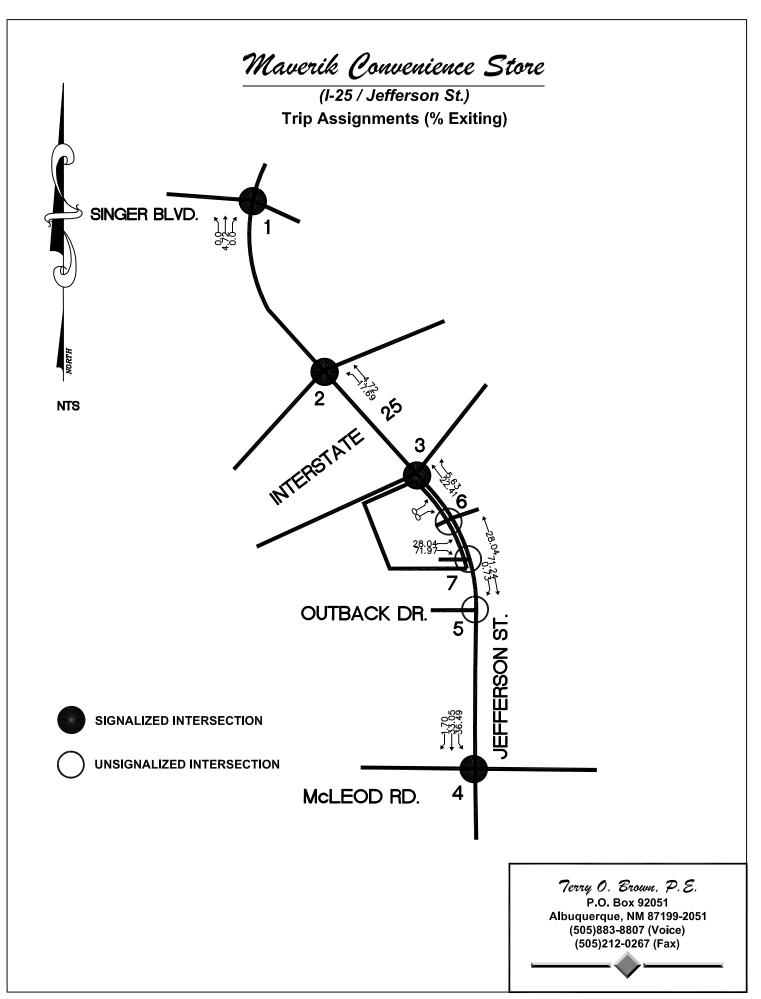
Trip Distribution Table Maverik Convenience Store (Interstate 25 / Jefferson St.)

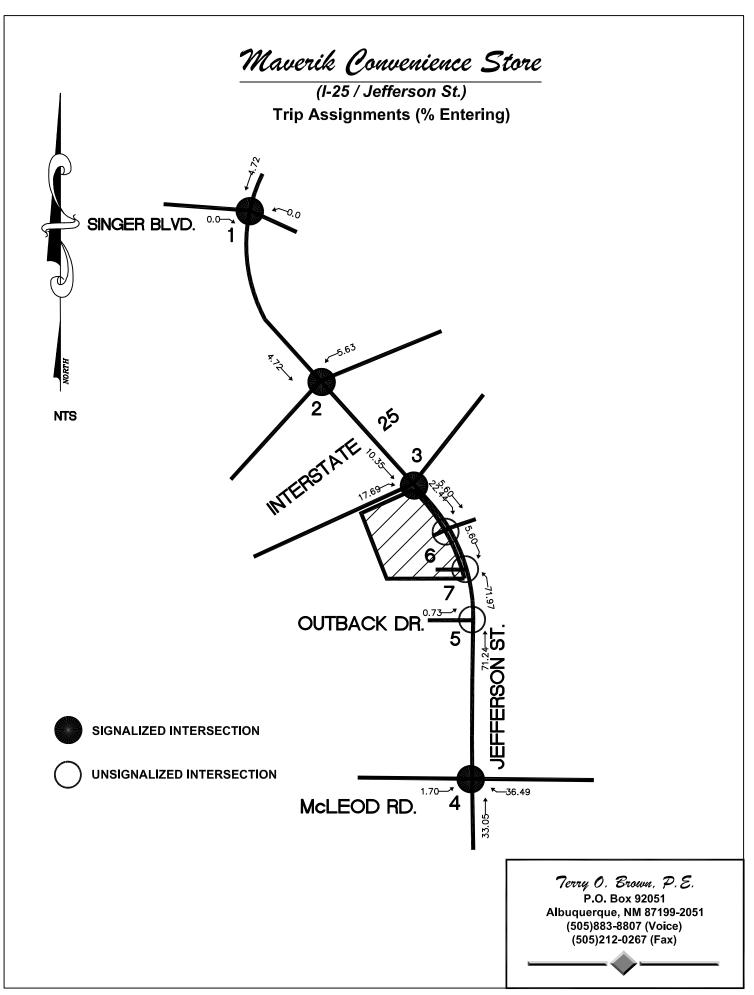
Data Analysis Subcome Population Data for determination of Local Trip Distribution for Proposed Retail Commercial T

2012 and 2040 Data Taken from MAS-Region Council of Governments' 2040 Socioeconomic Forecasts by Data Analysis Sultzones for the Mid-Region of New Mexico

	Population			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	214	0	0	0	0	0	0	214
(OW) Outback Dr. West	% Population P			0.00%	%00.0	0.00%	96000	0.00%	96000	0.00%	0.00%	0.00%	0.00%	%00'0	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0,000%	0.00%	0.00%	0.00%	0.00%	0.00%	%00.0	%0000	0.00%	0.73%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	
Outp	% Utilizing %			260	%0	950	%0	960	960	360	%0	%0	860	%0	960	950	200	0%0	%	02%	960	%0	960	950	%0	860	26	%0	%6	%0	%0	960	%0	%0	%0	%0	15%	%0	%0	%0	%	%0	960	
12	Population			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	D	0	0	0	0	0	0	0	O	0	0	0	0	0	0	0.00%
(SW) Singer Blvd. West	% Population Utilizing			0.00%	%00.0	9600.0	0.00%	%00.0	%00.0	9600'0	0.00%	0.00%	%00.0	960000	0.00%	0.00%	%00.0	0.00%	0.00%	%00.0	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	9600.0	0.00%	0.00%	%00.0	0.00%	0.00%	0.00%	%00.0	%00.0	2600.0	960000	9600'0	%00.0	0.00%	0.00%	%00'0	%0000	
Sin	% Utilizing			0%	%0	960	%0	%0	100%	%0	%0	%0	%0	%0	860	960	%0	75%	200	%0	%0	200	0%	960	%0	%0	%0	%0	960	%0	%6	8	9%	960	%0	960	960	960	960	%0	960	960	960	
	Population			0	0	0	0	642	0	492	o	0	0	0	0	0	0	0	0	445	1,206	299	0	0	0	0	1,748	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5,209
(2W) Interstate 25 West	% Population Utilizing			0.00%	%00.0	0.00%	0.00%	2.18%	0.00%	1.67%	0.03%	%00.0	0.00%	%00.0	%00.0	9600.0	%00.0	%00.0	960000	1.51%	4.10%	2.27%	0.00%	%00.0	0.00%	0.00%	5.94%	0.00%	96000	0.00%	0.00%	0,00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	%00.0	0.00%	9600'0	9600'0	%00.0	
inte	% Utilizing			%0	%0	560	%0	100%	%0	100%	100%	100%	0%0	%0	960	960	%0	%0	25%	100%	100%	100%	%0	%0	960	%0	20%	950	960	0%0	960	960	%0	%0	%0	%0	960	%0	%0	\$60	9%0	960	560	
	Percent Population			%60'0	%0000	9,0000	0.17%	2.18%	0.00%	1.67%	0.03%	96000	4.17%	0.37%	96000	0.00%	0.00%	%0000	%0000	1.51%	4.10%	2.27%	3.44%	5.73%	5.69%	5.95%	11,87%	960000	0.52%	8.65%	2.94%	1.07%	6.67%	9.38%	0.21%	3.80%	4.85%	1.35%	1.28%	2,36%	2.13%	3.28%	1.56%	100.00%
	Population in Study			22	0	0	20	642	0	492	6	0	1,229	108	0	0	0	0	0	445	1,206	299	1,014	1,687	1,674	1,751	3,496	T.	154	2,548	865	316	1,965	2,937	19	1,119	1,429	398	377	982	627	996	488	29,443
	m 5	2019		16	0	0	20	1,426	0	492	87	0	4,095	1,084	0	0	0	0	0	963	1,206	2,224	1,268	1,687	2,092	1,751	3,496	1[154	2,548	865	1,054	2,068	2,937	1,221	1,119	1,429	1,138	1,509	732	1,791	996	1,085	42,302
		2040		362	0	0	20	1733	0	1967	101	0	4428	1262	0	0	0	0	0	799	1230	2460	1217	1742	2439	2056	3860	ന	257	3067	1029	1083	2240	3860	1135	1233	1450	1175	1503	819	1772	1054	1232	
	2012 Population 2040 Population	2012	Map	0	0	0	20	1323	0	0	82	0	3984	1024	0	0	0	0	0	582	1198	2145	1285	1668	1976	1649	3374	0	120	2375	810	1044	2011	2629	1249	1081	1422	1125	1511	703	1797	936	1036	
	% Sub Area in Study		Boundary Specified on DASZ Map	30%	45%	100%	100%	45%	100%	100%	10%	25%	30%	10%	100%	100%	100%	100%	100%	70%	100%	30%	80%	100%	80%	100%	100%	100%	100%	100%	100%	30%	95%	100%	5%	100%	100%	35%	25%	95%	35%	100%	45%	
	DASZ #		Boundary Spec	6055	8056	6057	6058	6062	5063	6064	6075	6076	6085	9809	6091	6092	6093	6094	6095	7012	7013	7014	7021	7022	7031	7032	7051	7052	7053	7101	7102	7103	7106	7107	7111	7151	7152	7154	7156	7157	7611	7612	7622	



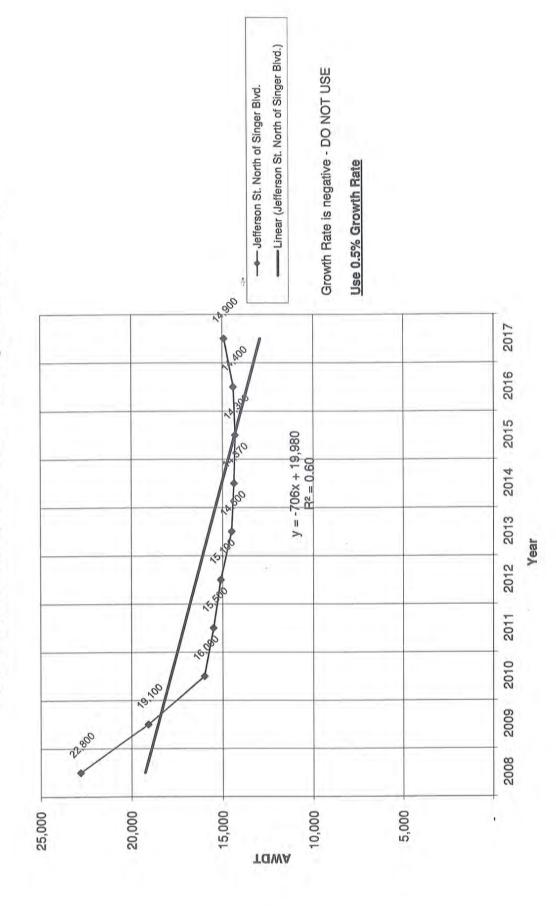




Maverik Convenience Store (I-25 / Jefferson St.) Historic Growth Rate Table

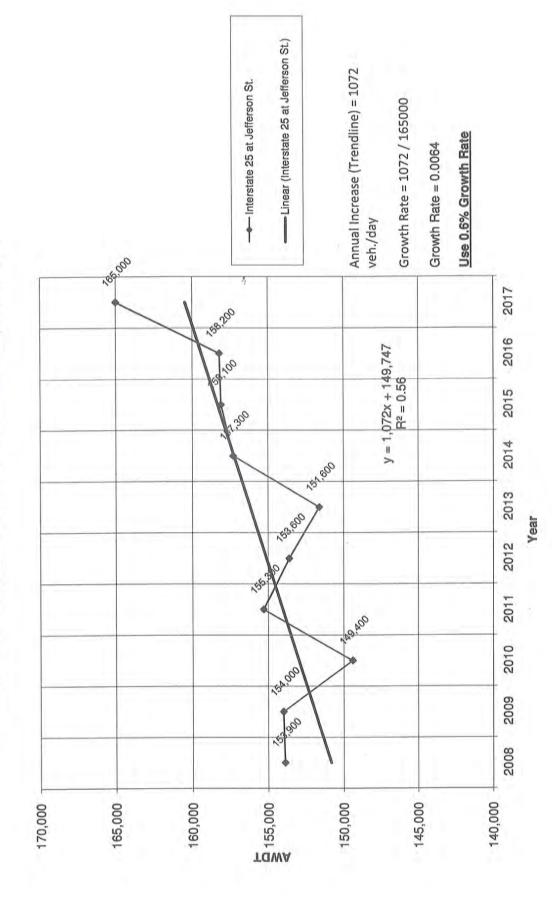
Traffic Flows from MRCOG Map						ħ				
	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
Jefferson St. North of Singer Blvd.	22,800	19,100	16,000	15,500	15,100	14,500	14,370	14,300	14,400	14,900
Interstate 25 at Jefferson St.	153,900	-	149,400	155,300	153,600	151,600	1	158,100	158,200	165,000
McLeod Rd. East of Jefferson St.	11,900		10,900	10,700	10,700	11,800	12.00	11,600	12,000	12,000
Jefferson St. South of McLeod Rd.	15,500	15,300	15,100	11,500	11,500	11,500		12,700	12,700	12,900
McLeod Rd. West of Jefferson St.	1,300		1,200	1,000	1,000	1,000		006	910	760
Singer Blvd. West of Jefferson St.	13,000	-	11,500	10,100	9,900	10,400	11,240	11,300	11,400	11,200

Historic Growth Chart Jefferson St. North of Singer Blvd. (2008-2017)



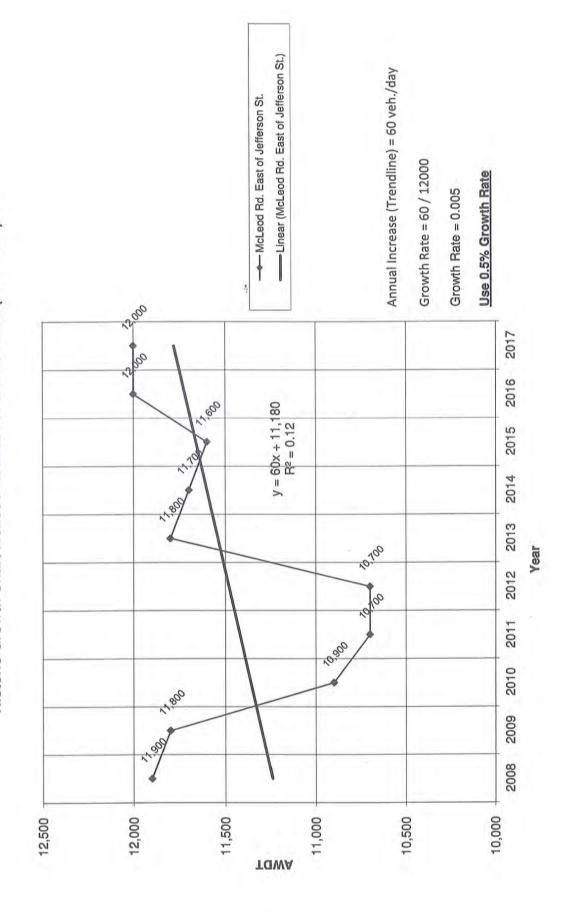
Mav_Jefferson_Growth.xlsx

Historic Growth Chart Interstate 25 at Jefferson St. (2008-2017)



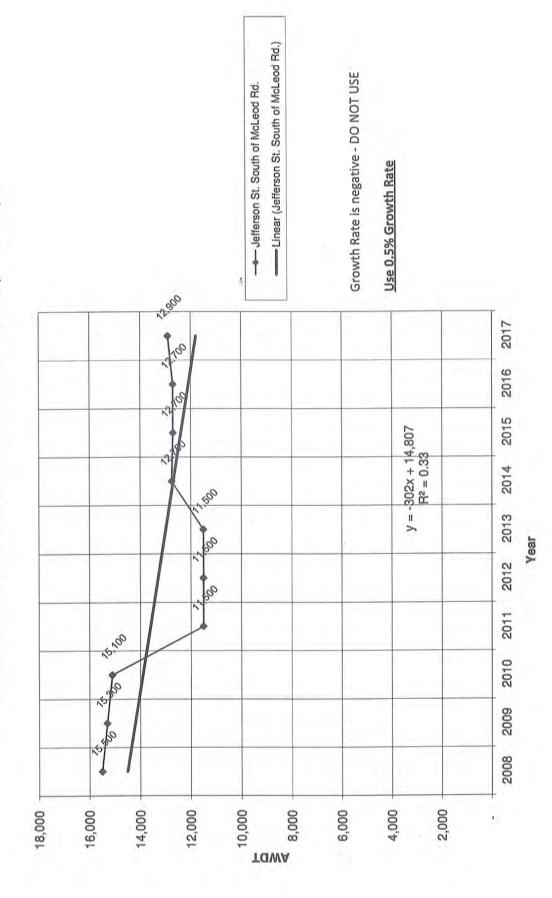
May Jefferson Growth.xlsx

Historic Growth Chart McLeod Rd. East of Jefferson St. (2008-2017)



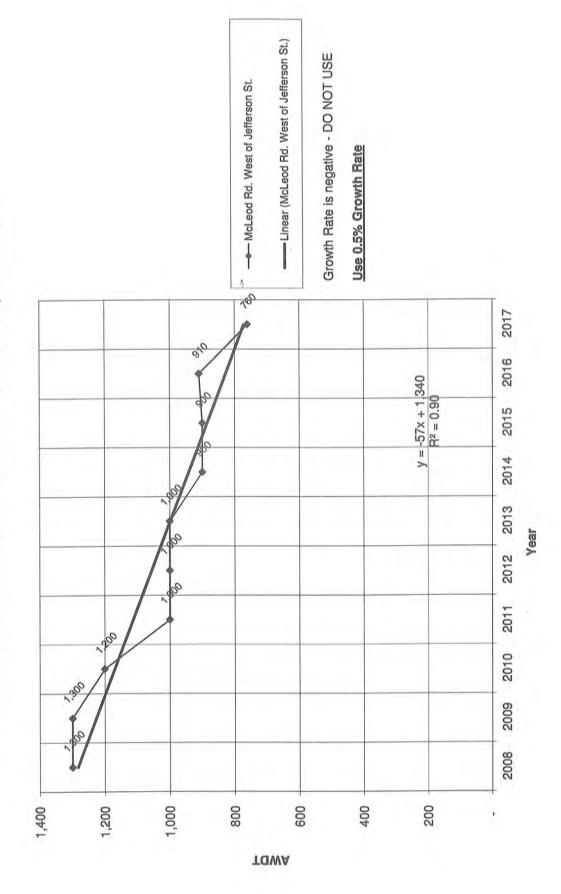
Mav_Jefferson_Growth.xlsx

Historic Growth Chart Jefferson St. South of McLeod Rd. (2008-2017)



May Jefferson Growth.xlsx

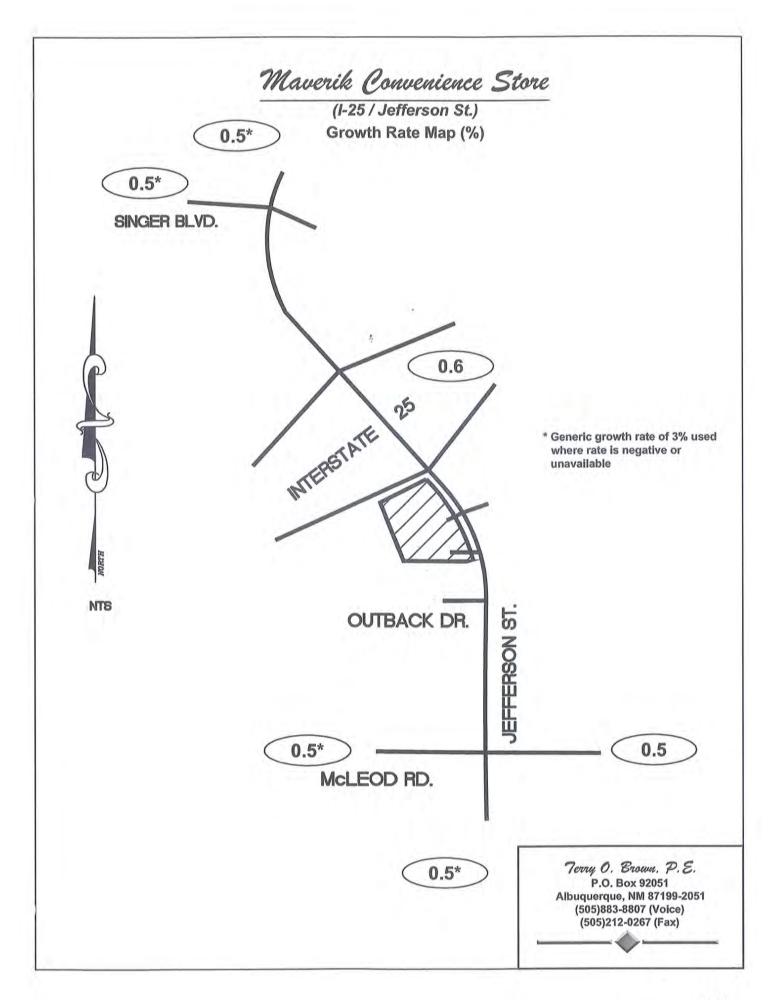
Historic Growth Chart McLeod Rd. West of Jefferson St. (2008-2017)



Mav_Jefferson_Growth.xlsx

--- Linear (Singer Blvd. West of Jefferson St.) Growth Rate is negative - DO NOT USE --- Singer Blvd. West of Jefferson St. Use 0.5% Growth Rate 2017 2016 2015 Historic Growth Chart Singer B Ivd. West of Jefferson St. (2008-2017) 2014 0,00 2013 Year 2012 y = -149x + 12,120 $R^2 = 0.18$ 2011 2010 2009 2008 14,000 10,000 12,000 8,000 2,000 6,000 4,000 TOWA

May Jefferson Growth.xlsx



Projected Turning Movements SUMMARY

PROPOSED DEVELOPMENT (2019) - 100% Development

		:	PRUPUSEL	DEVELO	PIVIEIN I (20	19) - 100%	Developini	ent				
INTERSECTION:	Sı	ımma	r y									
Singer Blvd. / Jefferson St.		0.84			0.84			0.84			0.84	PHF
(1)	Eastbo	und (Singer	r Blvd.)	Westbo	ound (Singe	r Blvd.)	Northbo	ound (Jeffer	son St.)	Southb	ound (Jeffers	son St.)
3.0% Truck	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing (2019)	125	29	186	75	20	21	391	538	305	20	265	163
2019 (NO BUILD - A.M.)	125	29	186	75	20	21	391	538	305	20	265	163
2019 (BUILD - A.M.)	125	29	186	75	20	21	391	548	305	20	275	163
, , ,	J	0.93	<u> </u>		0.93			0.93			0.93	PHF
[Eastbo	und (Singer	r Blvd.)	Westbo	ound (Singe	r Blvd.)	Northbo	ound (Jeffer	son St.)	Southb	ound (Jeffers	son St.)
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing (2019)	223	37	466	296	45	46	194	274	158	15	632	134
2019 (NO BUILD - P.M.)	223	37	466	296	45	46	194	274	158	15	632	134
2019 (BUILD - P.M.)	223	37	466	296	45	46	194	283	158	15	641	134
I-25 N. Ramp / Jefferson St.		0.83			0.83			0.83			0.83	PHF
(2)	Fastho	und (I-25 N.	Ramn)	Westho	o.03	Ramn)	Northbo	ound (Jeffer	son St)	Southh	ound (Jeffers	
3.0% Truck	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing (2019)	0		0	259	325	141	279	0	0	0		236
2019 (NO BUILD - A.M.)	0	0	0	259	325	141	279	1.170	0	0		236
2019 (BUILD - A.M.)	0	0	0	271	325	141	317	1,180	Ö	0		236
1010 (20122 111111)	<u> </u>	0.95			0.95		<u> </u>	0.95		<u>*</u>	0.95	PHF
[Eastbo	und (I-25 N.	Ramp)	Westbo	und (I-25 N	. Ramp)	Northbo	ound (Jeffer	son St.)	Southb	ound (Jeffers	
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing (2019)	0	0	0	364	493	47	385	0	0	0	0	618
2019 (NO BUILD - P.M.)	0	0	0	364	493	47	385	581	0	0	1,244	618
2019 (BUILD - P.M.)	0	0	0	375	493	47	419	590	0	0	1,253	618
I-25 S. Ramp / Jefferson St.		0.83			0.83			0.83			0.83	PHF
(3)	Fastho	und (I-25 S.	Ramn)	Westho	ound (I-25 S.	Ramn)	Northh	ound (Jeffer	son St \	Southh	ound (Jeffers	
3.0% Truck	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing (2019)	764	306	178	0	0	U	0		204	102		0
2019 (NO BUILD - A.M.)	764	306	178	0	0	0	0	685	204	102	467	0
2019 (BUILD - A.M.)	764	306	217	0	0	Ö	0	733	216	102	490	0
2010 (20122 711111)		0.94			0.94			0.94	=		0.94	PHF
	Eastbo	und (I-25 S.	Ramp)	Westbo	und (I-25 S.	. Ramp)	Northbo	ound (Jeffer	son St.)	Southb	ound (Jeffers	son St.)
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing (2019)	482	657	209	0	0	0	0	484	358	303	941	0
2019 (NO BUILD - P.M.)	482	657	209	0	0	0	0	484	358	303	941	0
2019 (BUILD - P.M.)	482	657	244	0	0	0	0	527	369	303	962	0
McLeod Rd. / Jefferson St.		0.80			0.80			0.80			0.80	PHF
(4)		ound (McLed			ound (McLe			ound (Jeffer			ound (Jeffers	
3.0% Truck	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing (2019)	10	46	17	88	29		17	444	25	206		25
2019 (NO BUILD - A.M.)	10	46	17	88	29	369	17	444	25	206	374	25
2019 (BUILD - A.M.)	14	46	17	88	29	450	17	517	25	284	444	29
r	Footh	0.93 ound (McLed	od Dd /	Mooth	0.93 ound (McLe	od Dd /	North	0.93 ound (Jeffer	con St \	Sauth	0.93 ound (Jeffers	PHF
ŀ	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing (2019)	13	66	25	103	11110	329	10	470	107	403		Right 8
-Albung (2013)												0
2019 (NO BUILD - P.M.)	13	66	25	103	12	329	10	470	107	403	629	8

2019 (BUILD - P.M.)

Projected Turning Movements SUMMARY
PROPOSED DEVELOPMENT (2019) - 100% Development

INTERSECTION:	Su	mmar	у									
Outback Dr. / Jefferson St.		0.83			0.83			0.83			0.83	PHF
(5)	Eastbo	und (Outbac	k Dr.)	Westbo	ound (Outba	ck Dr.)	Northbo	ound (Jeffer	son St.)	Southbo	und (Jeffers	on St.)
3.0% Truck	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing (2019)	1	0	2	0	0	0	6	877	0	0	619	12
2019 (NO BUILD - A.M.)	1	0	2	0	0	0	6	877	0	0	619	12
2019 (BUILD - A.M.)	3	0	2	0	0	0	6	1,035	0	0	771	14
		0.97			0.97			0.97			0.97	PHF
	Eastbo	und (Outbac		Westbo	ound (Outba		Northbo	ound (Jeffer		Southbo	und (Jeffers	on St.)
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing (2019)	4	0	13	0	0	0	10	824	0	0	1,032	28
2019 (NO BUILD - P.M.)	4	0	13	0	0	0	10	824	0	0	1,032	28
2019 (BUILD - P.M.)	5	0	13	0	0	0	10	966	0	0	1,169	29
Driveway "A" / Jefferson St.		0.83			0.83			0.83			0.83	PHF
(6)		nd (Drivewa			und (Drivew			ound (Jeffer			und (Jeffers	
3.0% Truck	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing (2019)	0	0	0	17	0	40	0	0	15	35	0	0
2019 (NO BUILD - A.M.)	0	0	0	17	0	40	0	889	15	35	610	0
2019 (BUILD - A.M.)	0	0	0	17	0	40	0	949	15	35	622	50
r		0.94			0.94			0.94	•		0.94	PHF
		nd (Drivewa Thru	y "A") Right		und (Drivew Thru	Right	Left	ound (Jeffer		Left	und (Jeffers Thru	
Existing (2019)	Left 0	0	Right 0	Left 15	0	Right 37	Leit 0	Thru 0	Right 14	34	O	Right
2019 (NO BUILD - P.M.)	0	0		15		37	-	842	14	34	1.116	0
2019 (NO BUILD - P.M.) 2019 (BUILD - P.M.)	0	0	0 0	15	0 0	37 37	0 0	896	14	34 34	1,116 1.127	45
2019 (BUILD - P.W.)	U	U	U	15	U	3/	U	090	14	34	1,127	43
Driveway "B" / Jefferson St.		0.83			0.83			0.83			0.83	PHF
(7)	Fasthou	nd (Drivewa	v "B")	Westho	und (Drivew	av "R")	Northbo	ound (Jeffer	son St)	Southbo	und (Jeffers	
3.0% Truck	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing (2019)	0	0	0	0	0	0	0	0	0	0	0	0
2019 (NO BUILD - A.M.)	0	0	0	0	0	0	0	878	0	0	631	0
2019 (BUILD - A.M.)	60	0	153	0	0	0	160	878	0	0	631	12
, [0.94			0.94			0.94			0.94	PHF
	Eastbou	nd (Drivewa		Westbo	und (Drivew		Northbo	ound (Jeffer	son St.)	Southbo	und (Jeffers	on St.)
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing (2019)	0	0	0	0	0	0	0	0	0	0	0	0
2019 (NO BUILD - P.M.)	0	0	0	0	0	0	0	828	0	0	1,060	0
2019 (BUILD - P.M.)	54	0	138	0	0	0	144	828	0	0	1,060	11

Projected Turning Movements Worksheet

Singer Blvd. / Jefferson St.

INTERSECTION: E-W Street: Singer Blvd.

N-S Street: Jefferson St.

Year of Existing Counts 2018 Implementation Year 2019

Growth Rates 0.50% 0.50% 0.50% Eastbound (Singer Blvd.) Westbound (Singer Blvd.) Northbound (Jefferson St.)

(1)

Southbound (Jefferson St.) Right Right Left Right Existing Volumes 185 162 124 75 21 389 535 303 20 20 264 Background Traffic Growth <u>0</u> **20** Subtotal (NO BUILD - A.M.) 391 125 29 186 75 20 21 538 305 265 163 0.00% 0.00% 0.00% 0.00% 0.00% 0.00% 0.00% 0.00% 0.00% 0.00% 0.00% Percent Commercial Trips Generated(Entering) 4.72% Percent Commercial Trips Generated(Exiting) 0.00% 0.00% 0.00% 0.00% 0.00% 0.00% 0.00% 4.72% 0.00% 0.00% 0.00% 0.00% Total Trips Generated **Total AM Peak Hour BUILD Volumes** 125 186 75 391 548 305 20 163

Existing Volumes Background Traffic Growth Subtotal (NO BUILD - P.M.) Percent Commercial Trips Generated(Entering) Percent Commercial Trips Generated(Exiting) Total Trips Generated **Total PM Peak Hour BUILD Volumes**

ı	Eastbo	und (Singer	·Blvd.)	Westbo	ound (Singer	r Blvd.)	Northbo	und (Jeffers	son St.)	Southb	ound (Jeffers	son St.)
I	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Ī	222	37	464	295	45	46	193	273	157	15	629	133
I	<u>1</u>	0	<u>2</u>	<u>1</u>	<u>0</u>	<u>0</u>	<u>1</u>	<u>1</u>	<u>1</u>	0	<u>3</u>	<u>1</u>
I	223	37	466	296	45	46	194	274	158	15	632	134
Ī	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	4.72%	0.00%
I	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	4.72%	0.00%	0.00%	0.00%	0.00%
	0	0	0	0	0	0	0	9	0	0	9	0
s	223	37	466	296	45	46	194	283	158	15	641	134

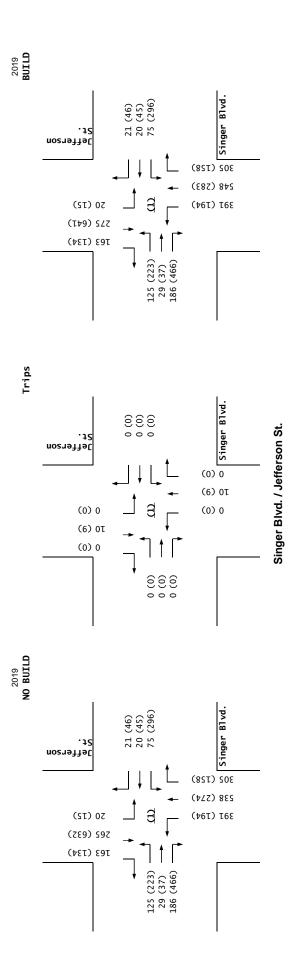
Exiting Entering

Number of Commercial Trips Generated 213 A.M. 100% Commercial Development 222 P.M.

200 192

Eastbound (Singer Blvd.) Westbound (Singer Blvd.) Northbound (Jefferson St.) Southbound (Jefferson St.) 2019 AM Peak Hr. Volumes 125 75 391 538 20 265 163 2019 PM Peak Hr. Volumes 223 466 296 46 194 158 15 134 632

0.50%



Projected Turning Movements Worksheet

(2)

I-25 N. Ramp / Jefferson St.

INTERSECTION: E-W Street: I-25 N. Ramp

Total AM Peak Hour BUILD Volumes

N-S Street: Jefferson St. Due to the close proximity of the ramps & Drive "A", the volumes were

38

0.60%

10

1,180

0

10

balanced & may not match the existing volumes.

Year of Existing Counts 2018 Implementation Year 2019

Existing Volumes

Total Trips Generated

Growth Rates

0.50% 0.50% Eastbound (I-25 N. Ramp) Westbound (I-25 N. Ramp) Northbound (Jefferson St.) Southbound (Jefferson St.) Thru | Right Left Left Thru Right Left Thru Right Left Thru Right 258 323 140 277 235 Background Traffic Growth <u>0</u> <u>0</u> **0** <u>0</u> **0** <u>0</u> Subtotal (NO BUILD - A.M.) 259 325 141 279 1,170 569 236 0.00% 0.00% 0.00% 5.63% 0.00% 0.00% 0.00% 0.00% 4.72% Percent Commercial Trips Generated(Entering) 0.00% 0.00% 0.00% Percent Commercial Trips Generated(Exiting) 0.00% 0.00% 0.00% 0.00% 0.00% 0.00% 17.69% 4.72% 0.00% 0.00% 0.00% 0.00%

12

0.50%

Existing Volumes Background Traffic Growth Subtotal (NO BUILD - P.M.) Percent Commercial Trips Generated(Entering) Percent Commercial Trips Generated(Exiting)

Total Trips Generated **Total PM Peak Hour BUILD Volumes**

ſ	Eastbo	und (I-25 N.	Ramp)	Westbo	ound (I-25 N.	Ramp)	Northbo	ound (Jeffers	son St.)	Southbo	ound (Jeffers	son St.)
I	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Ī	0	0	0	362	491	47	383	0	0	0	0	615
I	0	0	0	<u>2</u>	<u>2</u>	0	<u>2</u>	0	0	<u>0</u>	<u>0</u>	<u>3</u>
I	0	0	0	364	493	47	385	581	0	0	1,244	618
Ī	0.00%	0.00%	0.00%	5.63%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	4.72%	0.00%
I	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	17.69%	4.72%	0.00%	0.00%	0.00%	0.00%
I	0	0	0	11	0	0	34	9	0	0	9	0
;	0	0	0	375	493	47	419	590	0	0	1,253	618

0

141

Exiting Entering

0

0

Number of Commercial Trips Generated

222 213 A.M. 100% Commercial Development P.M. 200 192

Eastbound (I-25 N. Ramp) Westbound (I-25 N. Ramp) Northbound (Jefferson St.) Southbound (Jefferson St.) 2019 AM Peak Hr. Volumes 259 325 2019 PM Peak Hr. Volumes 0 364 493 47 385 0 618

Projected Turning Movements Worksheet

I-25 S. Ramp / Jefferson St.

(3)

INTERSECTION: E-W Street: I-25 S. Ramp

N-S Street: Jefferson St. Due to the close proximity of the ramps & Drive "A", the volumes were

balanced & may not match the existing volumes.

Year of Existing Counts 2018 Implementation Year 2019 **Growth Rates**

Existing Volumes

Background Traffic Growth Subtotal (NO BUILD - A.M.)

Percent Commercial Trips Generated(Entering) Percent Commercial Trips Generated(Exiting) Total Trips Generated

Total AM Peak Hour BUILD Volumes

0.50% 0.50% 0.50% Eastbound (I-25 S. Ramp) Westbound (I-25 S. Ramp) Northbound (Jefferson St.) Southbound (Jefferson St.) Right Right Left Thru Left Thru Left Thru Right Left 760 304 177 682 203 101

<u>0</u> <u>0</u> 764 306 178 0 685 204 102 467 0 0.00% 17.69% 0.00% 0.00% 10.35% 0.00% 0.00% 0.00% 0.00% 0.00% 0.00% 0.00% 0.00% 0.00% 0.00% 0.00% 0.00% 0.00% 0.00% 22.41% 5.63% 0.00% 0.00% 0.00% 39 0 0 48 12 23 764 306 217 733 216 102 490

Existing Volumes Background Traffic Growth Subtotal (NO BUILD - P.M.) Percent Commercial Trips Generated(Entering) Percent Commercial Trips Generated(Exiting) Total Trips Generated Total PM Peak Hour BUILD Volumes

Eastbound (I-25 S. Ramp)			Westbound (I-25 S. Ramp)			Northbo	und (Jeffer	son St.)	Southbound (Jefferson St.)		
Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
480	654	208	0	0	0	0	482	356	301	935	0
2	3	<u>1</u>	0	0	0	0	2	2	2	<u>6</u>	0
482	657	209	0	0	0	0	484	358	303	941	0
0.00%	0.00%	17.69%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	10.35%	0.00%
0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	22.41%	5.63%	0.00%	0.00%	0.00%
0	0	35	0	0	0	0	43	11	0	21	0
482	657	244	0	0	0	0	527	369	303	962	0

Entering

Number of Commercial Trips Generated

Exiting 222 213 100% Commercial Development A.M. 200 P.M. 192

2019 AM Peak Hr. Volumes 2019 PM Peak Hr. Volumes

	Eastbound (I-25 S. Ramp)			Westbound (I-25 S. Ramp)			Northb	ound (Jeffer	son St.)	Southbound (Jefferson St.)			
Γ	764	306	178	0	0	0	0	685	204	102	467	0	
Г	707	657	200	0	0	٥	0	101	250	202	0/11	٥	

0.60%

Right

Thru

Projected Turning Movements Worksheet

(4)

McLeod Rd. / Jefferson St.

INTERSECTION: E-W Street: McLeod Rd.

N-S Street: Jefferson St.

Due to the close proximity of the ramps & Drive "A", the volumes were

0 500/

balanced & may not match the existing volumes.

Year of Existing Counts 2018 Implementation Year 2019

lementation Year 2019
Growth Rates

Existing Volumes
Background Traffic Growth
Subtotal (NO BUILD - A.M.)

Subtotal (NO BUILD - A.M.)

Percent Commercial Trips Generated(Entering)

Percent Commercial Trips Generated(Exiting)

Total Trips Generated

Total AM Peak Hour BUILD Volumes

•	0.30%			0.30%				0.50%		0.30%			
	Eastbound (McLeod Rd.)			Westbo	Westbound (McLeod Rd.)			Northbound (Jefferson St.)			Southbound (Jefferson St.)		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
	10	46	17	88	29	367	17	442	25	205	372	25	
	0	0	0	0	0	2	0	2	0	<u>1</u>	2	0	
	10	46	17	88	29	369	17	444	25	206	374	25	
	1.70%	0.00%	0.00%	0.00%	0.00%	36.49%	0.00%	33.05%	0.00%	0.00%	0.00%	0.00%	
	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	36.49%	33.05%	1.70%	
	4	0	0	0	0	81	0	73	0	78	70	4	
s	14	46	17	88	29	450	17	517	25	284	444	29	

Existing Volumes
Background Traffic Growth
Subtotal (NO BUILD - P.M.)
Percent Commercial Trips Generated(Entering)
Percent Commercial Trips Generated(Exiting)
Total Trips Generated
Total PM Peak Hour BUILD Volumes

Eastbound (McLeod Rd.)			westbound (wcLeod Rd.)			Northbo	ouna (Jener	son St.)	Southbound (Jefferson St.)		
Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
13	66	25	102	12	327	10	468	106	401	626	8
0	0	0	<u>1</u>	0	<u>2</u>	0	<u>2</u>	<u>1</u>	2	<u>3</u>	0
13	66	25	103	12	329	10	470	107	403	629	8
1.70%	0.00%	0.00%	0.00%	0.00%	36.49%	0.00%	33.05%	0.00%	0.00%	0.00%	0.00%
0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	36.49%	33.05%	1.70%
3	0	0	0	0	73	0	66	0	70	63	3
16	66	25	103	12	402	10	536	107	473	692	11

Number of Commercial Trips Generated

Entering Exiting 222 213

222 213 A.M. 100% Commercial Development 200 192 P.M.

2019 AM Peak Hr. Volumes 2019 PM Peak Hr. Volumes

	Eastbo	Eastbound (McLeod Rd.)		Westbound (McLeod Rd.)			Northbo	ound (Jeffer	son St.)	Southbound (Jefferson St.)			
	10	46	17	88	29	369	17	444	25	206	374	25	
ı	13	66	25	103	12	320	10	470	107	403	620	Q	

Projected Turning Movements Worksheet

Outback Dr. / Jefferson St.

INTERSECTION: E-W Street: Outback Dr.

N-S Street: Jefferson St.

Year of Existing Counts 2018 Implementation Year 2019

Growth Rates 0.50% 0.50% 0.50% 0.50% Eastbound (Outback Dr.) Westbound (Outback Dr.) Northbound (Jefferson St.) Southbound (Jefferson St.) Right Left Right Left Right Existing Volumes 873 616 12 Background Traffic Growth <u>0</u> **0** Subtotal (NO BUILD - A.M.) 0 877 619 12 0.73% 0.00% 0.00% 0.00% 0.00% 0.00% 0.00% 0.00% 0.00% 0.00% 71.24% 0.00% Percent Commercial Trips Generated(Entering) Percent Commercial Trips Generated(Exiting) 0.00% 0.00% 0.00% 0.00% 0.00% 0.00% 0.00% 0.00% 0.00% 0.00% 71.24% 0.73% Total Trips Generated 158 152 **Total AM Peak Hour BUILD Volumes** 1,035 14

(5)

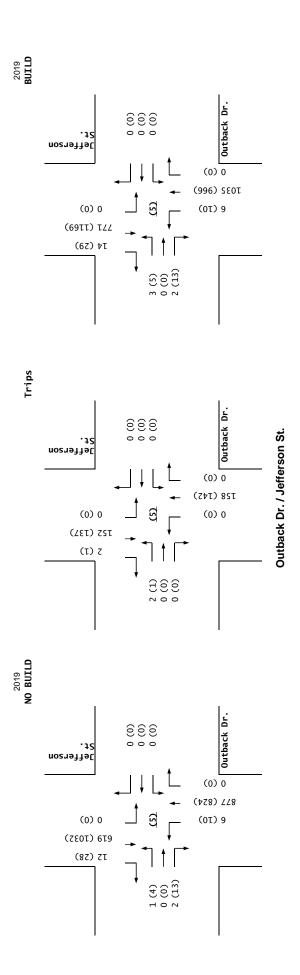
Existing Volumes Background Traffic Growth Subtotal (NO BUILD - P.M.) Percent Commercial Trips Generated (Entering) Percent Commercial Trips Generated(Exiting) Total Trips Generated

	Eastbo	und (Outba	ck Dr.)	Westbo	ound (Outba	ck Dr.)	Northbo	ound (Jeffers	son St.)	Southbo	ound (Jeffers	on St.)
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
olumes	4	0	13	0	0	0	10	820	0	0	1,027	28
d Traffic Growth	<u>0</u>	0	<u>0</u>	0	<u>0</u>	<u>0</u>	0	<u>4</u>	0	<u>0</u>	<u>5</u>	0
Subtotal (NO BUILD - P.M.)	4	0	13	0	0	0	10	824	0	0	1,032	28
t Commercial Trips Generated(Entering)	0.73%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	71.24%	0.00%	0.00%	0.00%	0.00%
nt Commercial Trips Generated(Exiting)	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	71.24%	0.73%
Generated	1	0	0	0	0	0	0	142	0	0	137	1
Total PM Peak Hour BUILD Volumes	5	0	13	0	0	0	10	966	0	0	1,169	29

Number of Commercial Trips Generated

Entering Exiting 222 A.M. 100% Commercial Development 213 200 192 P.M.

Eastl	oound (Outba	ick Dr.)	Westb	ound (Outba	ick Dr.)	Northbo	ound (Jeffer	son St.)	Southb	ound (Jeffei	rson St.)
•	1 0	2	0	0	0	6	877	0	0	619	12
	1 0	12	0	Λ	0	10	924	0	Λ	1 022	20



Projected Turning Movements Worksheet

Driveway "A" / Jefferson St.

INTERSECTION: E-W Street: Driveway "A" (6)

N-S Street: Jefferson St.

Year of Existing Counts 2018

Implementation Year 2019 **Growth Rates**

Subtotal (NO BUILD - A.M.)

Existing Volumes

Background Traffic Growth

Total Trips Generated

0.50% 0.50% 0.50% 0.50% Eastbound (Driveway "A") Westbound (Driveway "A") Northbound (Jefferson St.) Southbound (Jefferson St.) Right Right Left 40 15 35 <u>0</u> <u>0</u> **0** <u>0</u> **35** 40 0 889 15 610 0.00% 0.00% 0.00% 0.00% 0.00% 0.00% 0.00% 0.00% 0.00% 0.00% 5.60% 22.44% Percent Commercial Trips Generated(Entering) Percent Commercial Trips Generated(Exiting) 0.00% 0.00% 0.00% 0.00% 0.00% 0.00% 0.00% 28.04% 0.00% 0.00% 0.00% **Total AM Peak Hour BUILD Volumes** 949 50

Existing Volumes Background Traffic Growth Subtotal (NO BUILD - P.M.) Percent Commercial Trips Generated (Entering) Percent Commercial Trips Generated(Exiting) Total Trips Generated **Total PM Peak Hour BUILD Volumes**

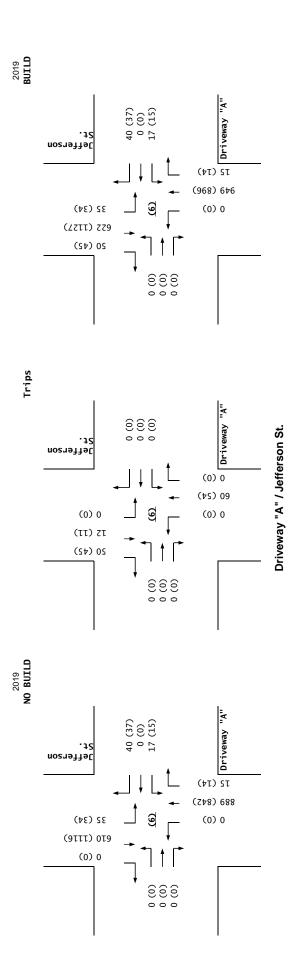
L	Eastbo	und (Drivew	ay "A")	Westbo	und (Drivew	ay "A")	Northbo	und (Jeffer:	son St.)	Southbo	ound (Jeffer	son St.)
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Ī	0	0	0	15	0	37	0	0	14	34	0	0
	0	0	<u>0</u>	0	<u>0</u>	<u>0</u>	<u>0</u>	0	<u>0</u>	0	0	0
	0	0	0	15	0	37	0	842	14	34	1,116	0
Ī	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	5.60%	22.44%
I	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	28.04%	0.00%	0.00%	0.00%	0.00%
	0	0	0	0	0	0	0	54	0	0	11	45
s	0	0	0	15	0	37	0	896	14	34	1,127	45

Entering Exiting

Number of Commercial Trips Generated 222 213 A.M. 100% Commercial Development

200 192 P.M.

	Eastbo	und (Drivew	ay "A")	Westbo	und (Drivev	/ay "A")	Northbo	ound (Jeffer	son St.)	Southbo	ound (Jeffers	son St.)
2019 AM Peak Hr. Volumes	0	0	0	17	0	40	0	0	15	35	0	0
2010 DM Dook Hr Volumos	Λ	٥	۸	15	۸	27	Λ	۸	1.1	24	Λ.	



Projected Turning Movements Worksheet

Driveway "B" / Jefferson St.

INTERSECTION: E-W Street: Driveway "B"

N-S Street: Jefferson St.

Year of Existing Counts 2018 Implementation Year 2019

Growth Rates 0.50% 0.50% 0.50% 0.50% Eastbound (Driveway "B")
Left Thru Right Westbound (Driveway "B") Northbound (Jefferson St.) Southbound (Jefferson St.) Right Left Left Right Existing Volumes 878 631

Background Traffic Growth Subtotal (NO BUILD - A.M.)

Percent Commercial Trips Generated(Entering)	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	71.97%	0.00%	0.00%	0.00%	0.00%	5.60%
Percent Commercial Trips Generated(Exiting)	28.04%	0.00%	71.97%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Total Trips Generated	60	0	153	0	0	0	160	0	0	0	0	12
Total AM Peak Hour BUILD Volumes	60	0	153	0	0	0	160	878	0	0	631	12

(7)

Existing Volumes Background Traffic Growth Subtotal (NO BUILD - P.M.) Percent Commercial Trips Generated(Entering) Percent Commercial Trips Generated(Exiting) Total Trips Generated **Total PM Peak Hour BUILD Volumes**

1	Eastbo	und (Drivew	ay "B")	Westbo	und (Drivew	/ay "B")	Northbo	ound (Jeffer:	son St.)	Southb	ound (Jeffer	son St.)
[Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
ſ	0	0	0	0	0	0	0	0	0	0	0	0
ſ	0	0	0	<u>0</u>	0	0	0	0	0	0	<u>0</u>	<u>0</u>
	0	0	0	0	0	0	0	828	0	0	1,060	0
Ī	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	71.97%	0.00%	0.00%	0.00%	0.00%	5.60%
Ī	28.04%	0.00%	71.97%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
ſ	54	0	138	0	0	0	144	0	0	0	0	11
s	54	0	138	0	0	0	144	828	0	0	1,060	11

Entering Exiting

Number of Commercial Trips Generated 222 213 A.M. 100% Commercial Development

200 192 P.M.

	Eastbo	und (Drivew	/ay "B")	Westbo	Westbound (Driveway "B")			und (Jeffer	son St.)	Southbound (Jefferson St.)			
2019 AM Peak Hr. Volumes	0	0	0	0	0	0	0	0	0	0	0	0	
2019 PM Peak Hr. Volumes	0	0	0	0	0	0	0	0	0	0	0	0	

Projected Turning Movements SUMMARY

PROPOSED DEVELOPMENT (2029) - 100% Development

INTERSECTION: Summary

INTERSECTION:	<u></u>											
Singer Blvd. / Jefferson St.		0.84			0.84			0.84			0.84	PHF
(1)	Eastbou	ınd (Singer E		Westbour		·Blvd.)	Northbou	ınd (Jeffers	on St.)	Southboo	und (Jeffers	on St.)
3.0% Truck	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing (2019)	125	29	186	75	20	21	391	538	305	20	265	163
2029 (NO BUILD - A.M.)	131	31	195	79	21	22	410	564	320	21	279	171
2029 (BUILD - A.M.)	131	31	195	79	21	22	410	574	320	21	289	171
		0.93			0.93			0.93			0.93	PHF
	Eastbou	ınd (Singer E	Blvd.)	Westbour	ıd (Singer	·Blvd.)	Northbou	ınd (Jeffers	on St.)	Southboo	und (Jeffers	on St.)
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing (2019)	223	37	466	296	45	46	194	274	158	15	632	134
2029 (NO BUILD - P.M.)	234	39	490	311	47	49	204	288	166	16	664	140
2029 (BUILD - P.M.)	234	39	490	311	47	49	204	297	166	16	673	140
•												
I-25 N. Ramp / Jefferson St.	i	0.83			0.83			0.83			0.83	PHF
(2)	Eastbou	ınd (I-25 N. R	Ramp)	Westbour	d (I-25 N.	Ramp)	Northbou	ınd (Jeffers	on St.)	Southboo	and (Jeffers	on St.)
3.0% Truck	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing (2019)	0	0	0	259	325	141	279	0	0	0	0	236
2029 (NO BUILD - A.M.)	0	0	0	272	341	148	295	1,227	0	0	603	248
2029 (BUILD - A.M.)	0	0	0	284	341	148	333	1,237	0	0	613	248
		0.95			0.95			0.95			0.95	PHF
	Eastbou	ınd (I-25 N. R	Ramp)	Westbour	ıd (I-25 N.	Ramp)	Northbou	ınd (Jeffers	on St.)	Southboo	and (Jeffers	on St.)
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing (2019)	0	0	0	364	493	47	385	0	0	0	0	618
2029 (NO BUILD - P.M.)	0	0	0	382	518	50	408	607	0	0	1,318	649
2029 (BUILD - P.M.)	0	0	0	393	518	50	442	616	0	0	1,327	649
2029 (BUILD - P.M.)	0	0	0		and the second		وأورون والمتاريخ	616	0	0	1,327	649
2029 (BUILD - P.M.) I-25 S. Ramp / Jefferson St.	0	0.83	0		and the second		442	0.83	- 1	0	1,327	649 PHF
I-25 S. Ramp / Jefferson St.	- }			393	518	50	442	0.83 und (Jeffers	- 1		, ,	PHF
I-25 S. Ramp / Jefferson St.	- }	0.83		393	518 0.83	50	442	0.83	- 1		0.83	PHF
I-25 S. Ramp / Jefferson St.	Eastbou Left 764	0.83 Ind (I-25 S. R Thru	Ramp) Right 178	Westbour Left	0.83 od (I-25 S. Thru	Ramp) Right	Northbou Left	0.83 und (Jeffers Thru 685	on St.) Right	Southbou	0.83	PHF on St.) Right
I-25 S. Ramp / Jefferson St. (3) 3.0% Truck	Eastbou Left	0.83 Ind (I-25 S. R	Ramp) Right	393 Westbour Left	0.83 od (I-25 S. Thru	50 Ramp) Right	442 Northbou	0.83 und (Jeffers Thru	on St.) Right	Southbou Left	0.83 und (Jefferso	PHF on St.) Right
I-25 S. Ramp / Jefferson St. (3) 3.0% Truck Existing (2019)	Eastbou Left 764	0.83 Ind (I-25 S. R Thru	Ramp) Right 178	Westbour Left	0.83 od (I-25 S. Thru	Ramp) Right	Northbou Left	0.83 und (Jeffers Thru 685	on St.) Right	Southbou Left	0.83 und (Jefferso Thru 467	PHF on St.) Right
I-25 S. Ramp / Jefferson St. (3) 3.0% Truck Existing (2019) 2029 (NO BUILD - A.M.)	Eastbou Left 764 802	0.83 Ind (I-25 S. R Thru 306 321	Ramp) Right 178 187	Westbour Left 0	0.83 Id (I-25 S. Thru 0	8amp) Right 0 0	Northbot Left	0.83 und (Jeffers Thru 685 720	on St.) Right 204 214	Southboo Left 102 108	0.83 und (Jefferso Thru 467 495	PHF on St.) Right 0
I-25 S. Ramp / Jefferson St. (3) 3.0% Truck Existing (2019) 2029 (NO BUILD - A.M.)	Eastbou Left 764 802 802	0.83 Ind (I-25 S. R Thru 306 321 321 0.94 Ind (I-25 S. R	Ramp) Right 178 187 226 Ramp)	Westbour Left 0 0 Westbour	0.83 ad (I-25 S. Thru 0 0 0 0 0 0.94	Ramp) Right 0 0 0 Ramp)	Northboo	0.83 Ind (Jeffers Thru 685 720 768 0.94 Ind (Jeffers	on St.) Right 204 214 226 on St.)	Southbook Left 102 108 108 Southbook	0.83 Thru 467 495 518 0.94 und (Jefferse	PHF on St.) Right 0 0 PHF on St.)
I-25 S. Ramp / Jefferson St. (3) 3.0% Truck Existing (2019) 2029 (NO BUILD - A.M.)	Eastbou Left 764 802 802	0.83 ind (I-25 S. R Thru 306 321 0.94	Ramp) Right 178 187 226	Westbour Left 0 0 0	0.83 od (I-25 S. Thru 0 0 0 0 0.94	8amp) Right 0 0 0	Northboo Left 0 0	0.83 Ind (Jeffers Thru 685 720 768 0.94	on St.) Right 204 214 226	Southbot Left 102 108	0.83 Und (Jefferson Thru 467 495 518 0.94	PHF on St.) Right 0 0 0 PHF
I-25 S. Ramp / Jefferson St. (3) 3.0% Truck Existing (2019) 2029 (NO BUILD - A.M.) 2029 (BUILD - A.M.)	Eastbou Left 764 802 802 Eastbou Left 482	0.83 Ind (I-25 S. R Thru 306 321 321 0.94 Ind (I-25 S. R Thru 657	Right 178 187 226 Ramp) Right 209	Westbour Left O Westbour Left O O O O O O O O O O O O O	0.83 old (I-25 S. Thru 0 0 0 0 0.94 old (I-25 S. Thru	Ramp) Right 0 0 0 Ramp) Right	Northbool Left O O Northbool Left Northbool Left	0.83 und (Jeffers Thru 685 720 768 0.94 und (Jeffers Thru 484	on St.) Right 204 214 226 on St.) Right 358	Southbot Left 102 108 108 Southbot Left 303	0.83 Und (Jefferso Thru 467 495 518 0.94 Und (Jefferso Thru 941	PHF on St.) Right 0 0 PHF on St.) Right
1-25 S. Ramp / Jefferson St. (3) 3.0% Truck Existing (2019) 2029 (NO BUILD - A.M.) 2029 (BUILD - A.M.) Existing (2019) 2029 (NO BUILD - P.M.)	Eastbou Left 764 802 802 Eastbou Left	0.83 Ind (I-25 S. R Thru 306 321 321 0.94 Ind (I-25 S. R	Right 178 187 226 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	Westbour Left 0 0 Westbour Left	0.83 old (I-25 S. Thru 0 0 0 0 0.94 old (I-25 S. Thru	Ramp) Right 0 0 0 Ramp) Right	Northboo Left 0 0 0 Northboo	0.83 Ind (Jeffers Thru 685 720 768 0.94 Ind (Jeffers Thru	on St.) Right 204 214 226 on St.) Right	Southbook Left 102 108 108 Southbook Left	0.83 Und (Jefferso Thru 467 495 518 0.94 Und (Jefferso Thru 941 997	PHF on St.) Right 0 0 PHF on St.) Right
I-25 S. Ramp / Jefferson St. (3) 3.0% Truck Existing (2019) 2029 (NO BUILD - A.M.) 2029 (BUILD - A.M.)	Eastbou Left 764 802 802 Eastbou Left 482	0.83 Ind (I-25 S. R Thru 306 321 321 0.94 Ind (I-25 S. R Thru 657	Right 178 187 226 Ramp) Right 209	Westbour Left O Westbour Left O O O O O O O O O O O O O	0.83 old (I-25 S. Thru 0 0 0 0 0.94 old (I-25 S. Thru	Ramp) Right 0 0 0 Ramp) Right	Northbool Left O O Northbool Left Northbool Left	0.83 und (Jeffers Thru 685 720 768 0.94 und (Jeffers Thru 484	on St.) Right 204 214 226 on St.) Right 358	Southbot Left 102 108 108 Southbot Left 303	0.83 Und (Jefferso Thru 467 495 518 0.94 Und (Jefferso Thru 941	PHF on St.) Right 0 0 PHF on St.) Right
1-25 S. Ramp / Jefferson St. (3) 3.0% Truck Existing (2019) 2029 (NO BUILD - A.M.) 2029 (BUILD - A.M.) Existing (2019) 2029 (NO BUILD - P.M.) 2029 (BUILD - P.M.)	Eastbou Left 764 802 802 Eastbou Left 482 506	0.83 Ind (I-25 S. R Thru 306 321 321 0.94 Ind (I-25 S. R Thru 657	Right 178 187 226 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	Westbour Left Westbour Left O O O O O O O O O O O O O O O O O O	0.83 dd (I-25 S. Thru 0 0 0 0.94 dd (I-25 S. Thru 0 0 0 0.94	Ramp) Right 0 0 0 Ramp) Right Right 0 0 0	Northboo Left 0 0 0 Northboo Left 0	0.83 Ind (Jeffers Thru 685 720 768 0.94 Ind (Jeffers Thru 484 509	on St.) Right 204 214 226 on St.) Right 358 376	Southbook Left 102 108 108 Southbook Left 303 321	0.83 Und (Jefferso Thru 467 495 518 0.94 Und (Jefferso Thru 941 997	PHF on St.) Right 0 0 PHF on St.) Right
1-25 S. Ramp / Jefferson St. (3) 3.0% Truck Existing (2019) 2029 (NO BUILD - A.M.) 2029 (BUILD - A.M.) Existing (2019) 2029 (NO BUILD - P.M.)	Eastbou Left 764 802 802 Eastbou Left 482 506 506	0.83 Ind (I-25 S. R Thru 306 321 321 0.94 Ind (I-25 S. R Thru 657 690 0.80	Right 178 187 226 184mp) Right 209 219 254	Westbour Left Westbour Left O O O O O O O O O O O O O O O O O O	0.83 dd (I-25 S. Thru 0 0 0 0.94 dd (I-25 S. Thru 0 0 0.94 cd (I-25 S. 0 0 0 0	Ramp) Right 0 0 0 Ramp) Right 0 0 0 0 0 0 0	Northbook Left O O Northbook Left O O O O O O O O O O O O O O O O O O	0.83 Ind (Jeffers Thru 685 720 768 0.94 Ind (Jeffers Thru 484 509 552	on St.) Right 204 214 226 on St.) Right 358 376 387	Southbot Left 102 108 108 Southbot Left 303 321 321	0.83 Ind (Jeffers Thru 467 495 518 0.94 Ind (Jeffers Thru 941 997 1,018	PHF on St.) Right 0 0 PHF on St.) Right 0 PHF
I-25 S. Ramp / Jefferson St. (3) 3.0% Truck Existing (2019) 2029 (NO BUILD - A.M.) 2029 (BUILD - A.M.) Existing (2019) 2029 (NO BUILD - P.M.) 2029 (BUILD - P.M.) McLeod Rd. / Jefferson St. (4)	Eastbou Left 764 802 802 Eastbou Left 482 506 506	0.83 Ind (I-25 S. R Thru 306 321 321 0.94 Ind (I-25 S. R Thru 657 690 0.80 Und (McLeod	Right 178 187 226 Ramp) Right 209 279 254	Westbour Left 0 0 0 Westbour Left 0 Westbour	0.83 Id (I-25 S. Thru 0 0 0.94 Id (I-25 S. Thru 0 0 0.94 0 (I-25 S. 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	Ramp) Right 0 0 0 Ramp) Right 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	Northbook Left 0 0 Northbook Left 0 Northbook Northbook Northbook	0.83 Ind (Jeffers Thru 685 720 768 0.94 Ind (Jeffers Thru 484 509 552 0.80 Ind (Jeffers	on St.) Right 204 214 226 on St.) Right 358 376 387	Southbot Left 102 108 108 Southbot Left 303 321 321 Southbot	0.83 Und (Jefferson 467 495 518 0.94 Und (Jefferson 497 1,018 0.80 Und (Jefferson 4,018 0.80)	PHF on St.) Right 0 0 PHF on St.) Right 0 0 PHF on St.) Right
I-25 S. Ramp / Jefferson St. (3) 3.0% Truck Existing (2019) 2029 (NO BUILD - A.M.) 2029 (BUILD - A.M.) Existing (2019) 2029 (NO BUILD - P.M.) 2029 (BUILD - P.M.) McLeod Rd. / Jefferson St. (4) 3.0% Truck	Eastbou Left 764 802 802 Eastbou Left 482 506 506 Eastbou Left	0.83 Ind (I-25 S. R Thru 306 321 0.94 Ind (I-25 S. R Thru 657 690 0.80 O.80 Ind (McLeod	Right 178 187 226 18mp) Right 209 219 254 1Rd.)	Westbour Left 0 0 Westbour Left 0 Westbour Left 0 Westbour	0.83 od (I-25 S. Thru 0 0 0 0.94 od (I-25 S. Thru 0 0 0.94 od (I-25 S. O 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	Ramp) Right 0 0 0 Ramp) Right 0 0 0 Right 0 0 Right	Northbook Left O O Northbook Left O Northbook Left O O Left O Left O Left O Left O Left	0.83 Ind (Jeffers Thru 685 720 768 0.94 Ind (Jeffers Thru 484 509 552 0.80 Ind (Jeffers Thru	on St.) Right 204 214 226 on St.) Right 358 376 387 on St.) Right	Southbor Left 102 108 108 Southbor Left 303 321 321 Southbor Left	0.83 und (Jefferson 495) 518 0.94 und (Jefferson 941) 997 1,018 0.80 und (Jefferson 197) Thru	PHF on St.) Right 0 0 PHF on St.) Right 0 PHF 0 Right
1-25 S. Ramp / Jefferson St. (3) 3.0% Truck	Eastbou Left 764 802 802 Eastbou Left 482 506 506 Eastbou Left	0.83 Ind (I-25 S. R Thru 306 321 0.94 Ind (I-25 S. R Thru 657 690 0.80 Ind (McLeod Thru 46	Right 178 187 226 Ramp) Right 209 219 254 Rd.) Right 17	Westbour Left 0 0 Westbour Left 0 Westbour Left 0 0 88	0.83 od (I-25 S. Thru 0 0 0 0.94 od (I-25 S. Thru 0 0 0.94 od (I-25 S. O 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	Ramp) Right 0 0 0 Ramp) Right 0 0 0 Right 0 0 Right 369	Northbook Left O O Northbook Left O Northbook Left O O T T T T T T T T T T T T T T T T T	0.83 Ind (Jeffers Thru 685 720 768 0.94 Ind (Jeffers Thru 484 509 552 0.80 Ind (Jeffers Thru 444	on St.) Right 204 214 226 on St.) Right 358 376 387 on St.) Right 25	Southbor Left 102 108 108 Southbor Left 303 321 321 Southbor Left 206	0.83 und (Jefferson 495) 518 0.94 und (Jefferson 71,018) 0.80 und (Jefferson 71,018) 0.80 und (Jefferson 71,018) 0.80	PHF on St.) Right 0 0 PHF on St.) Right 0 0 PHF on St.) Right 0 PHF on St.) Right 25
1-25 S. Ramp / Jefferson St. (3) 3.0% Truck	Eastbou Left 764 802 802 Eastbou Left 482 506 506 Eastbou Left 10 11	0.83 Ind (I-25 S. R Thru 306 321 0.94 Ind (I-25 S. R Thru 657 690 0.80 Ind (McLeod Thru 46 49	Right 178 187 226 Ramp) Right 209 219 254 Right 17 18	Westbour Left O Westbour Left O Westbour Left Self Westbour Left Self Self	0.83 old (I-25 S. Thru old 0 old (I-25 S. Thru old 0 old (I-25 S. Thru old 0 old (McLeo Thru 29 31	Ramp) Right 0 0 Ramp) Right 0 0 Ramp) Right 0 0 Right 369 387	Northbook Left O Northbook Left O Northbook Left IT7	0.83 Ind (Jeffers Thru 685 720 768 0.94 Ind (Jeffers Thru 484 509 552 0.80 Ind (Jeffers Thru 444 466	on St.) Right 204 214 226 on St.) Right 358 376 387 on St.) Right 25 26	Southbor Left 102 108 108 Southbor Left 303 321 321 Southbor Left 206 216	0.83 und (Jefferson 495) 518 0.94 und (Jefferson 71,018) 0.80 und (Jefferson 71,018) 374 392	PHF on St.) Right 0 0 PHF on St.) Right 0 0 PHF 0 Right 25 26
1-25 S. Ramp / Jefferson St. (3) 3.0% Truck	Eastbou Left 764 802 802 Eastbou Left 482 506 506 Eastbou Left	0.83 Ind (I-25 S. R Thru 306 321 321 0.94 Ind (I-25 S. R Thru 657 690 690 0.80 Ind (McLeod Thru 46 49 49	Right 178 187 226 Ramp) Right 209 219 254 Rd.) Right 17	Westbour Left 0 0 Westbour Left 0 Westbour Left 0 0 88	0.83 dd (I-25 S. Thru 0 0 0 0.94 dd (I-25 S. Thru 0 0 0.94 dd (I-25 S. Thru 0 0 0 0 394 dd (I-25 S. Thru 29 31 31	Ramp) Right 0 0 0 Ramp) Right 0 0 0 Right 0 0 Right 369	Northbook Left O O Northbook Left O Northbook Left O O T T T T T T T T T T T T T T T T T	0.83 und (Jeffers Thru 685 720 768 0.94 und (Jeffers Thru 484 509 552 0.80 und (Jeffers Thru 444 466 539	on St.) Right 204 214 226 on St.) Right 358 376 387 on St.) Right 25	Southbor Left 102 108 108 Southbor Left 303 321 321 Southbor Left 206	0.83 und (Jefferso Thru 467 495 518 0.94 und (Jefferso Thru 941 997 1,018 0.80 und (Jefferso Thru 374 392 462	PHF on St.) Right 0 0 PHF on St.) Right 0 0 PHF on St.) Right 25 26 30
1-25 S. Ramp / Jefferson St. (3) 3.0% Truck	Eastbou Left 764 802 802 Eastbou Left 482 506 506 Eastbou Left 10 11 15	0.83 Ind (I-25 S. R Thru 306 321 321 0.94 Ind (I-25 S. R Thru 657 690 690 0.80 Und (McLeod Thru 46 49 49 0.93	Ramp) Right 178 187 226 Ramp) Right 209 219 254 Rd.) Right 17 18 18	Westbour Left 0 0 Westbour Left 0 0 Westbour Left 9 3 93	0.83 dd (I-25 S. Thru 0 0 0 0.94 dd (I-25 S. Thru 0 0 0.94 dd (I-25 S. Thru 0 0 0 0 0 394 dd (McLeo Thru 29 31 31 0.93	Ramp) Right 0 0 0 Ramp) Right 0 0 Right 0 0 Right 468	Northbool Left 0 0 0 Northbool Left 0 0 1 17 18 18	0.83 Ind (Jeffers Thru 685 720 768 0.94 Ind (Jeffers Thru 484 509 552 0.80 Ind (Jeffers Thru 444 466 539 0.93	on St.) Right 204 214 226 on St.) Right 358 376 387 on St.) Right 25 26 26	Southbot Left 102 108 108 Southbot Left 303 321 321 Southbot Left 206 216 294	0.83 und (Jefferso Thru 467 495 518 0.94 und (Jefferso Thru 941 997 1,018 0.80 und (Jefferso Thru 374 392 462 0.93	PHF on St.) Right 0 0 PHF on St.) Right 0 PHF on St.) Right 25 26 30 PHF
1-25 S. Ramp / Jefferson St. (3) 3.0% Truck	Eastbou Left 764 802 802 Eastbou Left 482 506 506 Eastbou Left 10 11 15	0.83 Ind (I-25 S. R Thru 306 321 0.94 Ind (I-25 S. R Thru 657 690 0.80 Ind (McLeod Thru 46 49 0.93 Ind (McLeod	Ramp) Right 178 187 226 Ramp) Right 209 219 254 Right 17 18 18	Westbour Left O O Westbour Left O O Westbour Left SSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSS	0.83 dd (I-25 S. Thru 0 0 0 0.94 dd (I-25 S. Thru 0 0 0.94 dd (I-25 S. Thru 0 0 0 31 31 0.93 dd (McLeo	Ramp) Right 0 0 0 Ramp) Right 0 0 Right 0 0 8 Ramp) Right 4 0 0 0 Right 369 387 468	Northbool Left O Northbool Left O Northbool Left 17 18 18	0.83 Ind (Jeffers Thru 685 720 768 0.94 Ind (Jeffers Thru 484 509 552 0.80 Ind (Jeffers Thru 444 466 539 0.93 Ind (Jeffers	on St.) Right 204 214 226 on St.) Right 358 376 387 on St.) Right 25 26 26 on St.)	Southbot Left 102 108 108 Southbot Left 303 321 321 Southbot Left 206 216 294 Southbot	0.83 und (Jefferso	PHF on St.) Right 0 0 PHF on St.) Right 0 PHF on St.) Right 25 26 30 PHF on St.)
1-25 S. Ramp / Jefferson St. (3) 3.0% Truck	Eastbou Left 764 802 802 Eastbou Left 482 506 506 Eastbou Left 10 11 15 Eastbou Left	0.83 Ind (I-25 S. R Thru 306 321 321 0.94 Ind (I-25 S. R Thru 657 690 690 0.80 Und (McLeod Thru 46 49 49 0.93 Und (McLeod Thru	Right 178 187 226 Right 209 254 Right 17 18 18 18 Rd.) Right	Westbour Left	0.83 dd (I-25 S. Thru 0 0 0.94 dd (I-25 S. Thru 0 0 0.94 dd (I-25 S. Thru 20 0 0 3.80 dd (McLeo Thru 29 31 0.93 dd (McLeo Thru 1 0.93	Ramp) Right 0 0 0 Ramp) Right 0 0 0 Right 369 387 468	Northbook Left O Northbook Left O Northbook Left 17 18 18 Northbook Left	0.83 Ind (Jeffers Thru 685 720 768 0.94 Ind (Jeffers Thru 484 509 552 0.80 Ind (Jeffers Thru 444 466 539 0.93 Ind (Jeffers Thru	on St.) Right 204 214 226 on St.) Right 358 376 387 on St.) Right 25 26 26 on St.) Right	Southbot Left 102 108 108 Southbot Left 303 321 321 Southbot Left 206 216 294 Southbot Left	0.83 und (Jefferson 495 518 0.94 und (Jefferson 495 Thru 941 997 1,018 0.80 und (Jefferson 499 Thru 374 392 462 0.93 und (Jefferson 499	PHF on St.) Right 0 0 PHF on St.) Right 0 PHF on St.) Right 25 26 30 PHF
1-25 S. Ramp / Jefferson St. (3) 3.0% Truck	Eastbou Left 764 802 802 Eastbou Left 482 506 506 Eastbou Left 10 11 15 Eastbou Left	0.83 Ind (I-25 S. R Thru 306 321 321 0.94 Ind (I-25 S. R Thru 657 690 690 0.80 Ind (McLeod Thru 46 49 49 0.93 Ind (McLeod Thru 666	Right 178 187 226 Ramp) Right 209 254 Right 17 18 18 18 Rd.) Right 25 Right 25	Westbour	0.83 dd (I-25 S. Thru 0 0 0 0.94 dd (I-25 S. Thru 0 0 0 0.94 dd (I-25 S. Thru 0 0 0 0 3.94 dd (I-25 S. Thru 0 0 0 0 3.94 dd (I-25 S. Thru 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	Ramp) Right 0 0 0 Ramp) Right 0 0 0 Right 0 0 0 Right 369 387 468	Northbook Left O Northbook Left O Northbook Left 17 18 18 Northbook Left 17 18 18	0.83 Ind (Jeffers Thru 685 720 768 0.94 Ind (Jeffers Thru 484 509 552 0.80 Ind (Jeffers Thru 444 466 539 0.93 Ind (Jeffers Thru 470	on St.) Right 204 214 226 on St.) Right 358 376 387 on St.) Right 25 26 26 on St.) Right 107	Southbot Left 102 108 108 Southbot Left 303 321 321 Southbot Left 206 216 294 Southbot Left 403	0.83 und (Jefferson 495 518 0.94 und (Jefferson 495 518 0.94 und (Jefferson 497 1,018 0.80 und (Jefferson 497 1,018 0.80 und (Jefferson 497 2,019 2,019 3,010 3	PHF on St.) Right 0 0 PHF on St.) Right 0 0 PHF on St.) Right 25 26 30 PHF on St.) Right
1-25 S. Ramp / Jefferson St. (3) 3.0% Truck	Eastbou Left 764 802 802 Eastbou Left 482 506 506 Eastbou Left 10 11 15 Eastbou Left	0.83 Ind (I-25 S. R Thru 306 321 321 0.94 Ind (I-25 S. R Thru 657 690 690 0.80 Und (McLeod Thru 46 49 49 0.93 Und (McLeod Thru	Right 178 187 226 Right 209 254 Right 17 18 18 18 Rd.) Right	Westbour Left	0.83 dd (I-25 S. Thru 0 0 0.94 dd (I-25 S. Thru 0 0 0.94 dd (I-25 S. Thru 20 0 0 3.80 dd (McLeo Thru 29 31 0.93 dd (McLeo Thru 1 0.93	Ramp) Right 0 0 0 Ramp) Right 0 0 0 Right 369 387 468	Northbook Left O Northbook Left O Northbook Left 17 18 18 Northbook Left	0.83 Ind (Jeffers Thru 685 720 768 0.94 Ind (Jeffers Thru 484 509 552 0.80 Ind (Jeffers Thru 444 466 539 0.93 Ind (Jeffers Thru	on St.) Right 204 214 226 on St.) Right 358 376 387 on St.) Right 25 26 26 on St.) Right	Southbot Left 102 108 108 Southbot Left 303 321 321 Southbot Left 206 216 294 Southbot Left	0.83 und (Jefferson 495 518 0.94 und (Jefferson 495 Thru 941 997 1,018 0.80 und (Jefferson 499 Thru 374 392 462 0.93 und (Jefferson 499	PHF on St.) Right 0 0 PHF on St.) Right 0 PHF on St.) Right 25 26 30 PHF on St.) Right

Projected Turning Movements SUMMARY

PROPOSED DEVELOPMENT (2029) - 100% Development

INTERSECTION:	S u	mmar	у									
Outhook Dr. / Joffaraon St		0.00			0.83			0.00			0.00	PHF
Outback Dr. / Jefferson St.	Faath a	0.83 und (Outbac	le Du \	Month	ind (Outback	D=1	Nawhhau	0.83	C4 \	Cauthhai	0.83 Ind (Jeffers	
(5) 3.0% Truck	Left	Thru :	Right	Left :	Thru	Right	Left	Thru	Right	Left	Thru	Right
	1	0:	2	0:	0	O O	6	877	0	0	619	12
Existing (2019) 2029 (NO BUILD - A.M.)	1	0	2	0	0	0	6	921	0	0	650	13
2029 (NO BUILD - A.M.)	3	0	2	0	0	o	6	1.079	o	0	802	15 15
2029 (BUILD - A.W.)	3	0.97	Z	V :	0.97	U	U :	0.97	V	U	0.97	PHF
	Fasthou	und (Outbac	k Dr \	Weethou	ind (Outback	Dr \	Northhou	ind (Jeffers	on St)	Southhou	ınd (Jeffers	
	Left	Thru :	Right	Left :	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing (2019)	4	0:	13	0:	0	0	10	824	0	0	1,032	28
2029 (NO BUILD - P.M.)	4	0	14	0	0	0	11	865	0	0	1.083	30
2029 (BUILD - P.M.)	5	0	14	0	0	o o	11	1.007	ő	0	1.220	31
2020 (20122 11111)				· ·		• 1		.,		-	1,220	٠.
Driveway "A" / Jefferson St	Ł.	0.83			0.83			0.83			0.83	PHF
(6)		ınd (Driveway	y "A")	Westbou	nd (Driveway	' "A")	Northbou	ınd (Jeffers	on St.)	Southbou	ınd (Jeffers	on St.)
3.0% Truck	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing (2019)	0	0	0	17	0	40	0:	0	15	35	0	0
2029 (NO BUILD - A.M.)	0	0	0	18	0	42	0	934	16	37	645	0
2029 (BUILD - A.M.)	0	0	0	18	0	42	0	994	16	37	657	50
, , ,	`	0.94			0.94			0.94			0.94	PHF
	Eastbou	ınd (Driveway	y "A")	Westbou	nd (Driveway	' "A")	Northbou	ind (Jeffers	on St.)	Southbou	ınd (Jeffers	on St.)
	Left Left	Ind (Driveway Thru	y "A") Right	Westbou Left	nd (Driveway Thru	Right	Northbou Left	ind (Jeffers Thru	on St.) Right	Southbou Left	i nd (Jeffers Thru	Right
Existing (2019)					٠ .			,	,		•	,
Existing (2019) 2029 (NO BUILD - P.M.)	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
O ()	Left 0	Thru 0	Right 0	Left 15	Thru 0	Right 37	Left 0	Thru 0	Right 14	Left 34	Thru 0	Right 0
2029 (NO BUILD - P.M.)	Left 0	Thru 0 0	Right 0	Left 15 16	Thru 0	Right 37 39	Left 0	Thru 0 885	Right 14 15	Left 34 36	Thru 0 1,180	Right 0
2029 (NO BUILD - P.M.)	0 0 0 0	Thru 0 0	Right 0	Left 15 16	Thru 0	Right 37 39	Left 0	Thru 0 885	Right 14 15	Left 34 36	Thru 0 1,180	Right 0
2029 (NO BUILD - P.M.) 2029 (BUILD - P.M.) Driveway "B" / Jefferson St	Left 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	Thru 0 0 0 0 0 0 0.83	Right 0 0 0 0 v "B")	15 16 16	7 hru 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	37 39 39 39	0 0 0	7 hru 0 885 939 0.83 und (Jeffers	Right 14 15 15 15 on St.)	34 36 36	7 hru 0 1,180 1,191 0.83 und (Jeffers	Right 0 0 45 PHF
2029 (NO BUILD - P.M.) 2029 (BUILD - P.M.) Driveway "B" / Jefferson St	Left 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	Thru 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0	15 16 16	Thru 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	37 39 39	0 0 0	7 hru 0 885 939 0.83	Right 14 15 15	34 36 36	Thru 0 1,180 1,191 0.83	Right 0 0 45 PHF
2029 (NO BUILD - P.M.) 2029 (BUILD - P.M.) Driveway "B" / Jefferson St	Left 0 0 0 0 0 t	Thru 0 0 0 0 0 0 0.83	Right 0 0 0 0 v "B")	Left 15 16 16 Westbou	7 hru 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	37 39 39 39	Left 0 0 0 Northbou	0 885 939 0.83 and (Jeffers Thru	Right 14 15 15 15 on St.)	34 36 36 Southbou	7 hru 0 1,180 1,191 0.83 und (Jeffers	Right 0 0 45 PHF son St.)
2029 (NO BUILD - P.M.) 2029 (BUILD - P.M.) Driveway "B" / Jefferson St (7) 3.0% Truck	Left 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	Thru 0 0 0 0 0 total priveway Thru	Right 0 0 0 0 v "B") Right	Left 15 16 16 Westbou	Thru 0 0 0 0 0 0 0 0 0 0 0 0 0 0 Thru	37 39 39 39 "B") Right	Left 0 0 0 Northbou	0 885 939 0.83 and (Jeffers	Right 14 15 15 15 on St.)	34 36 36 36 Southbou	7 hru 0 1,180 1,191 0.83 1nd (Jeffers	Right 0 45 PHF on St.) Right
2029 (NO BUILD - P.M.) 2029 (BUILD - P.M.) Driveway "B" / Jefferson St (7) 3.0% Truck Existing (2019)	Left 0 0 0 0 t. Eastbou Left 0 0	Thru 0 0 0 0 0 0 0 Driveway Thru 0	Right 0 0 0 v "B") Right 0	Left 15 16 16 Westbou Left 0	Thru 0 0 0 0 0 0 0 Driveway Thru 0	37 39 39 39 "B") Right	Left 0 0 Northbou	0 885 939 0.83 and (Jeffers Thru	Right 14 15 15 15 on St.) Right 0	Left 34 36 36 36 Southbou	7 hru 0 1,180 1,191 0.83 1nd (Jeffers Thru 0	Right 0 45 PHF con St.) Right 0
2029 (NO BUILD - P.M.) 2029 (BUILD - P.M.) Driveway "B" / Jefferson St (7) 3.0% Truck Existing (2019) 2029 (NO BUILD - A.M.)	Left 0 0 0 0 t. Eastbou Left 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	Thru 0 0 0 0 0 0 Ind (Drivewa) Thru 0 0	Right 0 0 0 0 v "B") Right 0 0 0	Left 15 16 16 16 Westbou Left 0 0	Thru 0 0 0 0 0 0 0 0 this property of the control	Right 37 39 39 39 "B") Right 0 0	Left 0 0 Northbou Left 0 0	0 885 939 0.83 1nd (Jeffers Thru 0 922	Right 14 15 15 15 on St.) Right 0 0	Left 34 36 36 36 Southbou Left 0 0	0 1,180 1,191 0.83 1nd (Jeffers Thru 0 663	Right 0 45 PHF son St.) Right 0 0
2029 (NO BUILD - P.M.) 2029 (BUILD - P.M.) Driveway "B" / Jefferson St (7) 3.0% Truck Existing (2019) 2029 (NO BUILD - A.M.)	Left 0 0 0 t. Eastbou 60 C 60 C Eastbou	O 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	Right 0 0 0 v "B") Right 0 0 0 153	Left 15 16 16 Westbou Left 0 0 Westbou Westbou Westbou Westbou Discourse 1	Thru 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	Right 37 39 39 39 Piggs 6 0 0 0 0 Piggs 6 0 Pigg	Northbou	0 885 939 0.83 ind (Jeffers Thru 0 922 922 0.94 ind (Jeffers Ind (Jefe	Right 14 15 15 15 00 St.) Right 0 0 0 0 0	Left 34 36 36 Southbou Left 0 0 Southbou Southbou	Thru 0 1,180 1,191 0.83 ind (Jeffers Thru 0 663 663 0.94 ind (Jeffers (Jeffers) (Jeffers)	Right 0 0 45 PHF on St.) Right 0 0 12 PHF on St.)
2029 (NO BUILD - P.M.) 2029 (BUILD - P.M.) Driveway "B" / Jefferson St (7) 3.0% Truck Existing (2019) 2029 (NO BUILD - A.M.) 2029 (BUILD - A.M.)	Left 0 0 0 t. Eastbou 60 Eastbou Left	O 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	Right 0 0 0 v "B") Right 0 153 v "B") Right	Left 15 16 16 Westbou Left 0 0 Westbou Left Left Left Left Left Westbou Left Left Left Left Left Left Left Left	Thru 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	Right 37 39 39 39 Fight 0 0 0 0 Fight Right Righ	Northbou Left Northbou Left Northbou Left	0 885 939 0.83 Ind (Jeffers Thru 0 922 922 0.94 Ind (Jeffers Thru	Right 14 15 15 on St.) Right 0 0 on St.) Right	Left 34 36 36	0 1,180 1,191 0.83 1nd (Jeffers Thru 0 663 663 0.94 1nd (Jeffers Thru	Right
2029 (NO BUILD - P.M.) 2029 (BUILD - P.M.) Driveway "B" / Jefferson St (7) 3.0% Truck Existing (2019) 2029 (NO BUILD - A.M.) 2029 (BUILD - A.M.)	Left 0 0 0 Left 0 0 60 Eastbou Left 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	O 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	Right 0 0 0 v "B") Right 0 153 v "B") Right 0 0 0	Left 15 16 16 16 Westbou Left 0 0 Westbou Left 0 0 0 Westbou Left 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	Thru 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	Right 37 39 39 39 Fight 0 0 0 Fight 0 Right 0 0 Right 0 0	Northbou Left 0 0 Northbou Left 0 Northbou Left 0	0 885 939 0.83 Ind (Jeffers Thru 0 922 922 0.94 Ind (Jeffers Thru 0	Right 14 15 15 15 00 St.) Right 0 0 0 0 Right 0 Right 0 0 0	Left 34 36 36	0 1,180 1,191 0.83 1nd (Jeffers Thru 0 663 663 0.94 1nd (Jeffers Thru 0 0 0 0.94 1nd (Jeffers Thru 0 0 0 0.94 0.94 0.94 0.94 0.94 0.94 0.9	Right
2029 (NO BUILD - P.M.) 2029 (BUILD - P.M.) Driveway "B" / Jefferson St (7) 3.0% Truck Existing (2019) 2029 (NO BUILD - A.M.) 2029 (BUILD - A.M.)	Left 0 0 0 t. Eastbou 60 Eastbou Left	O 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	Right 0 0 0 v "B") Right 0 153 v "B") Right	Left 15 16 16 Westbou Left 0 0 Westbou Left Left Left Left Left Westbou Left Left Left Left Left Left Left Left	Thru 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	Right 37 39 39 39 Fight 0 0 0 0 Fight Right Righ	Northbou Left Northbou Left Northbou Left	0 885 939 0.83 Ind (Jeffers Thru 0 922 922 0.94 Ind (Jeffers Thru	Right 14 15 15 on St.) Right 0 0 on St.) Right	Left 34 36 36	0 1,180 1,191 0.83 1nd (Jeffers Thru 0 663 663 0.94 1nd (Jeffers Thru	Right

Projected Turning Movements Worksheet

Singer Blvd. / Jefferson St.

INTERSECTION: E-W Street: Singer Blvd.

N-S Street: Jefferson St.

Year of Existing Counts 2018 Horizon Year 2029

> **Growth Rates** 0.50% 0.50% 0.50% 0.50% Eastbound (Singer Blvd.) Westbound (Singer Blvd.) Northbound (Jefferson St.)

Southbound (Jefferson St.) Right Right Left Right Existing Volumes 185 162 124 29 75 21 389 535 303 20 20 264 Background Traffic Growth <u>2</u> 31 10 <u>21</u> **410** 29 **564** 15 **279** 320 Subtotal (NO BUILD - A.M.) 131 195 79 21 22 21 171 0.00% 0.00% 0.00% 0.00% 0.00% 0.00% 0.00% 0.00% 0.00% 0.00% 0.00% Percent Commercial Trips Generated(Entering) 4.72% Percent Commercial Trips Generated(Exiting) 0.00% 0.00% 0.00% 0.00% 0.00% 0.00% 0.00% 4.72% 0.00% 0.00% 0.00% 0.00% Total Trips Generated 10 **Total AM Peak Hour BUILD Volumes** 131 195 410 320 289 171

(1)

Existing Volumes Background Traffic Growth Subtotal (NO BUILD - P.M.) Percent Commercial Trips Generated(Entering) Percent Commercial Trips Generated(Exiting) Total Trips Generated **Total PM Peak Hour BUILD Volumes**

ı	Eastbo	und (Singer	·Blvd.)	Westbo	ound (Singer	· Blvd.)	Northbo	und (Jeffers	son St.)	Southb	ound (Jeffer:	son St.)
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Ī	222	37	464	295	45	46	193	273	157	15	629	133
ſ	<u>12</u>	<u>2</u>	<u>26</u>	<u>16</u>	<u>2</u>	<u>3</u>	<u>11</u>	<u>15</u>	9	<u>1</u>	<u>35</u>	<u>7</u>
Ī	234	39	490	311	47	49	204	288	166	16	664	140
Ī	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	4.72%	0.00%
	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	4.72%	0.00%	0.00%	0.00%	0.00%
	0	0	0	0	0	0	0	9	0	0	9	0
s	234	39	490	311	47	49	204	297	166	16	673	140

Exiting Entering

Number of Commercial Trips Generated 213 A.M. 100% Commercial Development 222

P.M. 200 192

Eastbound (Singer Blvd.) Westbound (Singer Blvd.) Northbound (Jefferson St.) Southbound (Jefferson St.) 2019 AM Peak Hr. Volumes 125 186 75 391 538 20 265 163 2019 PM Peak Hr. Volumes 223 466 296 46 194 158 15 134 632

Projected Turning Movements Worksheet

I-25 N. Ramp / Jefferson St.

INTERSECTION: E-W Street: I-25 N. Ramp

N-S Street: Jefferson St.

Due to the close proximity of the ramps & Drive "A", the volumes were

balanced & may not match the existing volumes.

Year of Existing Counts 2018 Horizon Year 2029

Orizon Year 2029 Growth Rates

0.50% 0.60% 0.50% 0.50% Eastbound (I-25 N. Ramp) Westbound (I-25 N. Ramp) Northbound (Jefferson St.) Southbound (Jefferson St.) Thru | Right Thru Right Left Left Left Thru Right Left Thru Right 235 <u>14</u> 272 <u>0</u> 13 **248** 18 **341** 18 **295** <u>0</u> <u>8</u> 148 <u>0</u> **0** <u>0</u> 1,227 603 4.72% 0.00% 0.00% 0.00% 5.63% 0.00% 0.00% 0.00% 0.00% 0.00% 0.00% 0.00% 0.00% 0.00% 0.00% 0.00% 0.00% 0.00% 17.69% 4.72% 0.00% 0.00% 0.00% 0.00% 0 0 12 0 38 10 0 10 1,237

Subtotal (NO BUILD - A.M.)
Percent Commercial Trips Generated(Entering)
Percent Commercial Trips Generated(Exiting)
Total Trips Generated
Total AM Peak Hour BUILD Volumes

Existing Volumes

Background Traffic Growth

Existing Volumes	Ī
Background Traffic Growth	I
Subtotal (NO BUILD - P.M.)	ľ
Percent Commercial Trips Generated(Entering)	ı
Percent Commercial Trips Generated(Exiting)	I
Total Trips Generated	I
Total PM Peak Hour BUILD Volumes	ſ

ſ	Eastbo	und (I-25 N.	Ramp)	Westbo	ound (I-25 N.	Ramp)	Northbo	ound (Jeffer	son St.)	Southbo	ound (Jeffers	son St.)
[Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Ī	0	0	0	362	491	47	383	0	0	0	0	615
I	0	0	0	<u>20</u>	<u>27</u>	<u>3</u>	<u>25</u>	0	0	<u>0</u>	<u>0</u>	34
I	0	0	0	382	518	50	408	607	0	0	1,318	649
Ī	0.00%	0.00%	0.00%	5.63%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	4.72%	0.00%
I	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	17.69%	4.72%	0.00%	0.00%	0.00%	0.00%
I	0	0	0	11	0	0	34	9	0	0	9	0
;	0	0	0	393	518	50	442	616	0	0	1,327	649

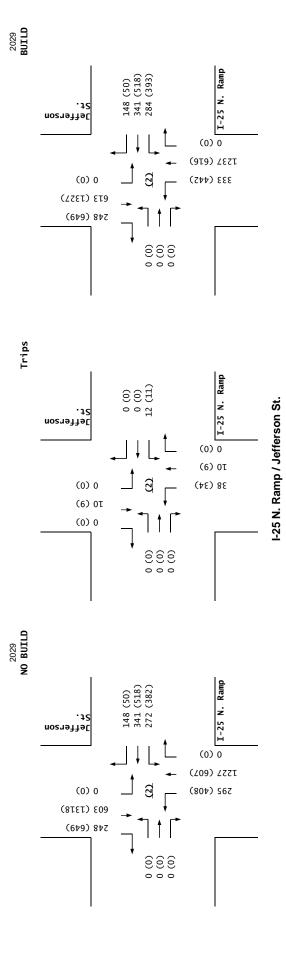
Number of Commercial Trips Generated

Entering Exiting

222 213 A.M. 100% Commercial Development

200 192 P.M.

Eastbo	und (I-25 N.	. Ramp)	Westbo	ound (I-25 N.	Ramp)	Northbo	ound (Jeffer:	son St.)	Southbo	und (Jeffer	son St.)
0	0	0	259	325	141	279	0	0	0	0	236
0	0	0	364	493	47	385	0	0	0	0	618



Projected Turning Movements Worksheet

(3)

I-25 S. Ramp / Jefferson St.

Westbound (I-25 S. Ramp)
Left | Thru | Right

0.00%

0.00%

0

0

0.00%

0.00%

INTERSECTION: E-W Street: I-25 S. Ramp

N-S Street: Jefferson St. Due to the close proximity of the ramps & Drive "A", the volumes were

Northbound (Jefferson St.)

0.00%

22.41%

Left Thru Right

482

27 **509**

43

552

Southbound (Jefferson St.)

Left

301

20 **321**

321

0.00%

0.00%

356

<u>20</u> **376**

11

387

0.00%

5.63%

Thru Right

0.00%

0.00%

935

62 **997**

21

1,018

10.35%

0.00%

balanced & may not match the existing volumes.

Year of Existing Counts 2018 Horizon Year 2029

Growth Rates

Existing Volumes Background Traffic Growth Subtotal (NO BUILD - A.M.)

Percent Commercial Trips Generated(Entering) Percent Commercial Trips Generated(Exiting) Total Trips Generated

Total AM Peak Hour BUILD Volumes

	0.50%			0.50%			0.50%			0.60%	
Eastbo	und (I-25 S.	Ramp)	Westbo	ound (I-25 S.	Ramp)	Northbo	ound (Jeffer	son St.)	Southbo	ound (Jeffer:	son St.)
Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
760	304	177	0	0	0	0	682	203	101	464	0
42	<u>17</u>	10	0	0	0	0	38	<u>11</u>	7	<u>31</u>	0
802	321	187	0	0	0	0	720	214	108	495	0
0.00%	0.00%	17.69%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	10.35%	0.00%
0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	22.41%	5.63%	0.00%	0.00%	0.00%
0	0	39	0	0	0	0	48	12	0	23	0
802	321	226	0	0	0	0	768	226	108	518	0

0.00%

0.00%

0.00%

0.00%

Existing Volumes **Background Traffic Growth** Subtotal (NO BUILD - P.M.) Percent Commercial Trips Generated(Entering) Percent Commercial Trips Generated(Exiting)

Total Trips Generated
Total PM Peak Hour BUILD Volumes

Exiting Entering

n

506

480

26 **506**

0.00%

0.00%

Eastbound (I-25 S. Ramp)
Left Thru Right

654

<u>36</u> **690**

690

0.00%

0.00%

Number of Commercial Trips Generated

222 213 A.M. 100% Commercial Development 200 192 P.M.

208

219

35

254

17.69%

0.00%

	Eastbou	nd (I-25 S.	Ramp)	Westbo	ound (I-25 S.	Ramp)	Northbo	und (Jeffer	son St.)	Southbo	ound (Jeffer	son St.)
2019 AM Peak Hr. Volumes	764	306	178	0	0	0	0	685	204	102	467	0
2019 PM Peak Hr. Volumes	482	657	209	0	0	0	0	484	358	303	941	0

Projected Turning Movements Worksheet

McLeod Rd. / Jefferson St.

INTERSECTION: E-W Street: McLeod Rd.

N-S Street: Jefferson St. Due to the close proximity of the ramps & Drive "A", the volumes were

balanced & may not match the existing volumes.

Year of Existing Counts 2018 2029

Horizon Year

Growth Rates 0.50% 0.50%

(4)

0.50% 0.50%

Westbound (McLeod Rd.) Eastbound (McLeod Rd.) Northbound (Jefferson St.) Southbound (Jefferson St.) Right Left Thru Left Thru Right Left Thru Right Left Thru Right **Existing Volumes** 10 46 88 442 25 Background Traffic Growth 24 **466** 3 **49** 93 <u>20</u> **387** 1 18 20 **392** Subtotal (NO BUILD - A.M.) 11 18 31 26 216 26 0.00% 0.00% 0.00% 0.00% 36.49% 33.05% 0.00% 0.00% 0.00% 0.00% Percent Commercial Trips Generated(Entering) 1.70% 0.00% Percent Commercial Trips Generated(Exiting) 0.00% 0.00% 0.00% 0.00% 0.00% 0.00% 0.00% 0.00% 0.00% 36.49% 33.05% 1.70% 73 Total Trips Generated 0 81 0 78 70 **Total AM Peak Hour BUILD Volumes** 15 18 93 539 462

Existing Volumes **Background Traffic Growth** Subtotal (NO BUILD - P.M.) Percent Commercial Trips Generated(Entering) Percent Commercial Trips Generated(Exiting)

Total Trips Generated

Total PM Peak Hour BUILD Volumes

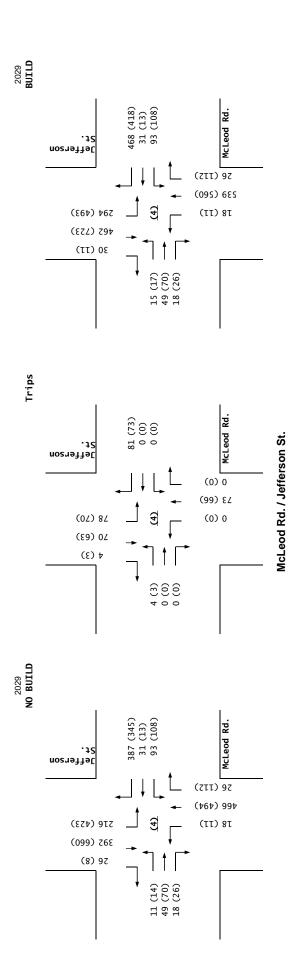
Eastbo	ound (McLed	od Rd.)	Westbo	ound (McLe	od Rd.)	Northbo	ound (Jeffer	son St.)	Southb	ound (Jeffer	son St.)
Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
13	66	25	102	12	327	10	468	106	401	626	8
<u>1</u>	4	<u>1</u>	6	1	<u>18</u>	<u>1</u>	26	6	22	34	0
14	70	26	108	13	345	11	494	112	423	660	8
1.70%	0.00%	0.00%	0.00%	0.00%	36.49%	0.00%	33.05%	0.00%	0.00%	0.00%	0.00%
0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	36.49%	33.05%	1.70%
3	0	0	0	0	73	0	66	0	70	63	3
17	70	26	108	13	418	11	560	112	493	723	11

Exiting Entering

Number of Commercial Trips Generated

222 213 A.M. 100% Commercial Development 200 P.M. 192

Eastbo	Eastbound (McLeod Rd.) 10 46		Westbe	ound (McLe	od Rd.)	Northb	ound (Jeffer	son St.)	Southbound (Jefferson St.)			
10	46	17	88	29	369	17	444	25	206	374	25	
13	66	25	103	12	329	10	470	107	403	629	8	



Projected Turning Movements Worksheet

Outback Dr. / Jefferson St.

INTERSECTION: E-W Street: Outback Dr. (5)

N-S Street: Jefferson St.

Year of Existing Counts 2018 Horizon Year 2029

Growth Rates 0.50% 0.50% 0.50% 0.50% Eastbound (Outback Dr.) Westbound (Outback Dr.) Northbound (Jefferson St.) Southbound (Jefferson St.) Right Left Right Left Existing Volumes 873 616 12 Background Traffic Growth 48 **921** <u>0</u> **0** 34 **650** Subtotal (NO BUILD - A.M.) 13 0.73% 0.00% 0.00% 0.00% 0.00% 0.00% 71.24% 0.00% 0.00% 0.00% 0.00% 0.00% Percent Commercial Trips Generated(Entering) Percent Commercial Trips Generated(Exiting) 0.00% 0.00% 0.00% 0.00% 0.00% 0.00% 0.00% 0.00% 0.00% 0.00% 71.24% 0.73% Total Trips Generated 158 **Total AM Peak Hour BUILD Volumes** 1,079

Existing Volumes
Background Traffic Growth
Subtotal (NO BUILD - P.M.)
Percent Commercial Trips Generated(Entering)
Percent Commercial Trips Generated(Exiting)
Total Trips Generated
Total PM Peak Hour BUILD Volumes

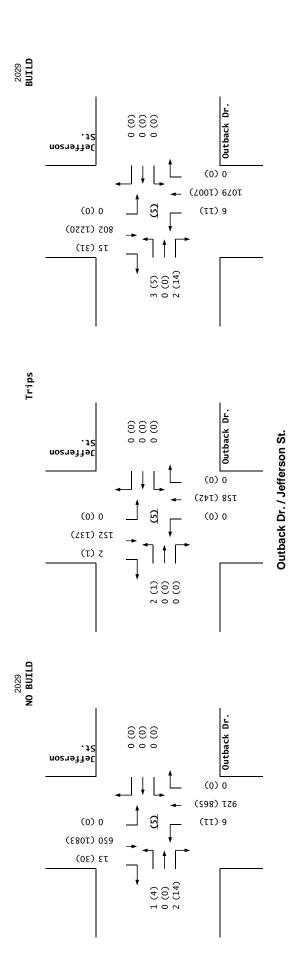
ı	Eastbo	und (Outba	ck Dr.)	Westbo	ound (Outba	ck Dr.)	Northbo	ound (Jeffer:	son St.)	Southb	ound (Jeffers	son St.)
I	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
ı	4	0	13	0	0	0	10	820	0	0	1,027	28
ı	0	<u>0</u>	<u>1</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>1</u>	<u>45</u>	<u>0</u>	0	<u>56</u>	2
ı	4	0	14	0	0	0	11	865	0	0	1,083	30
ı	0.73%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	71.24%	0.00%	0.00%	0.00%	0.00%
	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	71.24%	0.73%
	1	0	0	0	0	0	0	142	0	0	137	1
s	5	0	14	0	0	0	11	1,007	0	0	1,220	31

Number of Commercial Trips Generated 2

Entering Exiting

222 213 A.M. 100% Commercial Development
200 192 P.M.

Eastbo	und (Outba	ick Dr.)	Westb	ound (Outba	ck Dr.)	Northbo	ound (Jeffer	son St.)	Southbo	ound (Jeffer	son St.)
1	0	2	0	0	0	6	877	0	0	619	12
1	Λ	13	Λ	Λ	Λ	10	824	0	0	1 032	28



Projected Turning Movements Worksheet

Driveway "A" / Jefferson St.

INTERSECTION: E-W Street: Driveway "A" (6)

N-S Street: Jefferson St.

Year of Existing Counts 2018
Horizon Year 2029

Horizon Year 2029
Growth Rates

0.50% 0.50% 0.50% 0.50% Eastbound (Driveway "A") Westbound (Driveway "A") Northbound (Jefferson St.) Southbound (Jefferson St.) Right Right Left Existing Volumes 40 15 35 Background Traffic Growth <u>2</u> 37 Subtotal (NO BUILD - A.M.) 0 18 42 0 934 16 645 0.00% 0.00% 0.00% 0.00% 0.00% 0.00% 0.00% 5.60% 0.00% 0.00% 0.00% 22.44% Percent Commercial Trips Generated(Entering) Percent Commercial Trips Generated(Exiting) 0.00% 0.00% 0.00% 0.00% 0.00% 0.00% 0.00% 28.04% 0.00% 0.00% 0.00% Total Trips Generated 60 50 **Total AM Peak Hour BUILD Volumes** 994

Existing Volumes
Background Traffic Growth
Subtotal (NO BUILD - P.M.)
Percent Commercial Trips Generated(Entering)
Percent Commercial Trips Generated(Exiting)
Total Trips Generated
Total PM Peak Hour BUILD Volumes

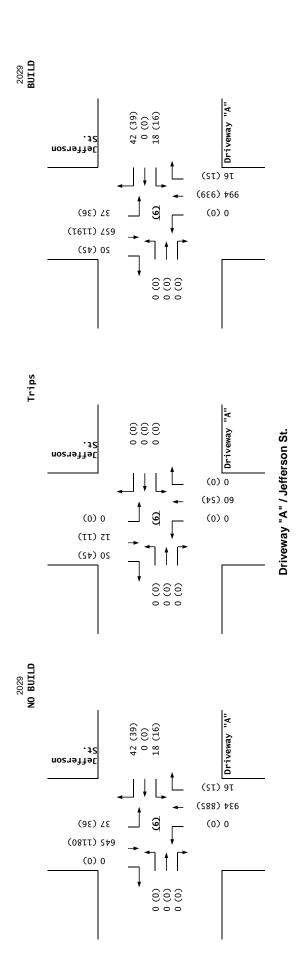
ı	Eastbo	und (Drivew	ay "A")	Westbo	und (Drivew	ay "A")	Northbo	ound (Jeffer:	son St.)	Southb	ound (Jeffer	son St.)
I	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Ī	0	0	0	15	0	37	0	0	14	34	0	0
I	0	<u>0</u>	0	<u>1</u>	<u>0</u>	<u>2</u>	<u>0</u>	0	<u>1</u>	<u>2</u>	0	<u>0</u>
I	0	0	0	16	0	39	0	885	15	36	1,180	0
Ī	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	5.60%	22.44%
I	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	28.04%	0.00%	0.00%	0.00%	0.00%
	0	0	0	0	0	0	0	54	0	0	11	45
s	0	0	0	16	0	39	0	939	15	36	1,191	45

Number of Commercial Trips Generated

Entering Exiting

222 213 A.M. 100% Commercial Development
200 192 P.M.

Eastboun	d (Drivewa	ay "A")	Westbo	und (Drivew	ay "A")	Northb	ound (Jeffer	son St.)	Southb	ound (Jeffer	rson St.)
0	0	0	17	0	40	0	0	15	35	0	0
Λ	Λ	Λ	15	0	27	0	0	1/	24	٥	Λ



Projected Turning Movements Worksheet

Driveway "B" / Jefferson St.

INTERSECTION: E-W Street: Driveway "B"

N-S Street: Jefferson St.

Year of Existing Counts 2018 Horizon Year 2029

Growth Rates 0.50% 0.50% 0.50% 0.50% Eastbound (Driveway "B") Westbound (Driveway "B") Northbound (Jefferson St.) Southbound (Jefferson St.) Right

(7)

Existing Volumes

Background Traffic Growth	<u>0</u>	<u>0</u>	0	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	0	<u>0</u>	<u>0</u>	<u>0</u>
Subtotal (NO BUILD - A.M.)	0	0	0	0	0	0	0	922	0	0	663	0
Percent Commercial Trips Generated(Entering)	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	71.97%	0.00%	0.00%	0.00%	0.00%	5.60%
Percent Commercial Trips Generated(Exiting)	28.04%	0.00%	71.97%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Total Trips Generated	60	0	153	0	0	0	160	0	0	0	0	12
Total AM Peak Hour BUILD Volumes	60	0	153	0	0	0	160	922	0	0	663	12
	Eastbo	und (Drivew	ay "B")	Westbo	und (Drivew	ay "B")	Northb	ound (Jeffer:	son St.)	Southbo	ound (Jeffers	on St.)

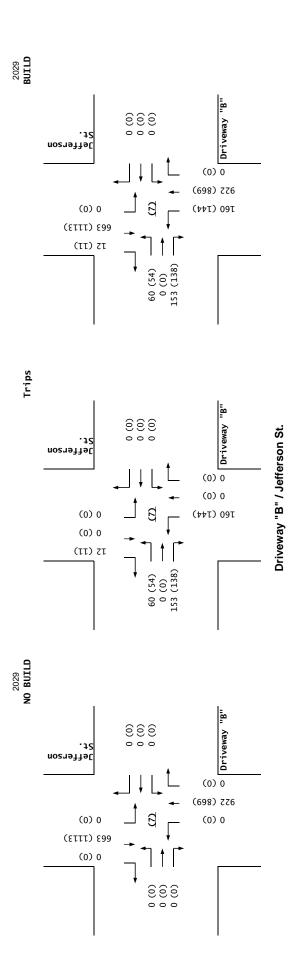
Existing Volumes Background Traffic Growth Subtotal (NO BUILD - P.M.) Percent Commercial Trips Generated(Entering) Percent Commercial Trips Generated(Exiting) Total Trips Generated **Total PM Peak Hour BUILD Volumes**

Eastbo	und (Drivew	ay "B")	Westbo	und (Drivew	ay "B")	Northbo	ound (Jeffer	son St.)	Southbound (Jefferson St.)			
Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
0	0	0	0	0	0	0	0	0	0	0	0	
<u>0</u>	0	<u>0</u>	<u>0</u>	0	0	<u>0</u>	0	0	0	<u>0</u>	0	
0	0	0	0	0	0	0	869	0	0	1,113	0	
0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	71.97%	0.00%	0.00%	0.00%	0.00%	5.60%	
28.04%	0.00%	71.97%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	
54	0	138	0	0	0	144	0	0	0	0	11	
54	0	138	0	0	0	144	869	0	0	1,113	11	

Number of Commercial Trips Generated

Entering Exiting 222 213 A.M. 100% Commercial Development 200 192 P.M.

Eastbo	und (Drivev	/ay "B")	Westbo	und (Drivew	/ay "B")	Northbo	ound (Jeffers	son St.)	Southbo	und (Jeffers	son St.)
0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0



Timings 1: Jefferson St. & Singer Blvd.

Terry O. Brown, PE 12/18/2018

	4	1	P	1	1	1	4	4	A	-	
Lane Group	留	E81	EBH	WE	WBT	N.	NBI	NEW	88	SBI	
Lane Configurations	M	4	V.	N.	44	N.	44	R	<i>y-</i>	47	
Traffic Volume (vph)	125	82	186	75	50	391	538	308	20	265	
	125	53	186	75	20	391	538	305	20	265	
Turn Type	Prot	NAI	WO+MIC	Prot	NA	pm+pt	NA	Perm	THE PARTY	NA	
Protected Phases	7	4	S	က	œ	2		ľ	-	9	
Permitted Phases			4			2		CI	60		
Detector Phase	7	4	4	e	00	ıo	N	2		ø	
Switch Phase			Ì								
Minimum Initial (s)	5.0	5.0	2.0	5.0	2.0	5.0	2.0	5.0	5.0	5.0	
Minimum Split (s)	10.0	21.0	10.0	10.0	21.0	10.0	21.0	21.0	10.0	21.0	
Total Split (s)	25.0	30.0	35.0	21.0		35.0	50.0	50.0	17.0	32.0	
Total Solf (%)	21.2%	25.4%	29.7%	17.8%	2	29.7%	42.4%	42.4%	14.4%	27.1%	
Yellow Time (s)	4.0	4.0	4.0	4.0		4.0	4.0	4.0	4.0	4.0	
All-Red Time (s)	1.0	1.0	1.0	1.0		1.0	1.0	1.0	1.0	1.0	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	1	0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)	5.0	5.0	5.0	5.0		5.0	5.0	5.0	5.0	5.0	
Lead/Lag	Lead	Lag	Lead	Lead	Lag	Lead	Lag	Lag	Lead	Lag	
Lead-Lag Optimize?											
Recall Mode	Min	Min	Min	Min	Min	Min	Max	Max		Max	
Act Effet Green (s)	13.2	11.7	38.5	7.9	6.3	58.2	47.1	47.1		31.4	
Actuated g/C Ratio	0.14	0.13	0.41	0.09	0.07	0.63	0.51	0.51		0.34	
v/c Ratio	09.0	0.15	0.28	0.31	0.20	0.72	0.36	0.37		0.43	
Control Delay	48.2	38.6	3.0	44.3	28.0	16.7	15.1	2.8		22.2	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	
Total Delay	48.2	38.6	3.0	44.3	28.0	16.7	15.1	2.8	11.8	22.2	
SOT	٥	0	×	0	O	00	00	×		0	
Approach Delay		22.7			38.5		12.5			21.7	
Approach LOS		O			0		œ			o	
intersection Summary			Į.								
Cycle Length: 118	11	N									
Actuated Cycle Length: 92.9	1: 92.9										
Matural Confee Of											

Oycle Length: 118
Cycle Length: 92.9
Actuated Cycle Length: 92.9
Natural Cycle: 80
Control Type: Semi Act-Uncoord
Maximum wic Ratio: 0.72
Intersection Signal Delay: 17.5
Intersection Signal Delay: 17.5
Intersection LoS: B
Intersection Capacity Utilization 60.39
Analysis Period (min) 15

 Splits and Phases: 1: Jefferson St. & Singer Blvd.

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2019 AM Peak NOBUILD Conditions - Existing Geometry

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2019 AM Peak NOBUILD Conditions - Existing Geometry

HCM 6th Signalized Intersection Summary 1: Jefferson St. & Singer Blvd.

Terry O. Brown, PE 12/18/2018

Rovement ane Configurations												
ane Configurations		100	88	1	WE.	WEB	R	199	NBR	88	SBI	SBR
	W	4	VC.	IL.	44		15	#	R.	W-	44	
Traffic Volume (veh/h)	125	29	186	75	50	23	391	538	305	20	265	23
Future Volume (veh/h)	125	58	186	75	20	21	391	538	305	20	265	163
rillal 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			9			8		Ì	S N	
Adj Sat Flow, veh/fufin	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	149	35	221	88	24	52	465	640	0	24	315	194
Peak Hour Factor	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84
Percent Heavy Veh, %	es	m	m	က	ო	m	es	က	က	က	ო	က
Cap, veh/h	191	263	511	196	160	143	653	1815		488	823	495
Arrive On Green	0.11	0.14	0.14	90.0	0.09	60.0	0.18	0.51	0.00	90.0	0.39	0.39
Sat Flow, veh/h	1767	1856	1572	3428	1763	1572	1767	3526	1572	1767	2116	1273
Grp Volume(v), veh/h	149	35	221	88	24	52	465	640	0	24	261	248
Gro Sat Flow(s), veh/hin	1767	1856	1572	1714	1763	1572	1767	1763	1572	1767	1763	1626
C Serve(g s), s	7.2	1.4	9.6	22	1.1	1.3	12.6	9.4	0.0	0.7	9.3	9.6
Oycle Q Clearing c), s	7.2	1.4	9.6	22	1.1	1,3	12.6	9.4	0.0	0.7	9.3	9.6
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.78
ane Grp Cap(c), veh/h	191	263	511	196	160	143	653	1815		488	989	633
//C Ratio(X)	0.78	0.13	0.43	0.45	0.15	0.17	0.71	0.35		0.05	0.38	0.39
Avail Cap(c_a), veh/h	404	-631	738	628	454	378	936	1815		630	989	633
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00
Jniform Delay (d), s/veh	38.0	32.8	23.2	39.9	36.6	36.7	11.3	12.6	0.0	13.6	19.1	19.2
nor Delay (d2), siveh	6.8	0.2	9.0	1.6	0.4	9.0	5.5	0.5	0.0	0.0	1.6	1.00
nitial 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 6.1	VIn 6.1	1.2	6.4	1.7	0.9	0.9	8.1	6.5	0.0	0.5	7.1	6.9
Unsig. Movement Delay, s/veh	s/veh	r										
.nGrp Delay(d),s/veh	44.7	33.0	23.8	41.5	37.0	37.3	12.8	13.1	0.0	13.6	20.7	27.7
LuGrp LOS	٥	O	O	٥	٥	٥	m	00		m	٥	
Approach Vol, veh/h		405			138			1105	A		233	
Approach Delay, s/veh		32.3			40.0			13.0			20.6	
Approach LOS		O			٥			m		ı	O	
Timer - Assigned Phs	1	2	m	4	10	9	7	00				
Phs Duration (G+Y+Rc), s10.0	\$10.0	50.0	10.0	17.4	21.0	39.0	14.4	12.9				
Change Period (Y+Rc), s	s 5.0	5.0	5.0	2.0	5.0	5.0	5.0	2.0				
Max Green Setting (Gmax)200	ax)250	45.0	16.0	25.0	30.0	27.0	20.0	21.0				
Max Q Clear Time (g_c+l1)297	+11)25	11.4	4.2	11.6	14.6	11.6	9.5	3.3				
Green Ext Time (p_c), s	0.0	5.0	0.2	0.7	1.4	2.8	0.3	0.2				N
intersection Summary	N											ì
HCM 6th Ctrl Delay			20.1									
HCM 6th LOS			C									

Unsignalized Delay for [NBR] is excluded from calculations of the approach delay and intersection delay.

Timings 2: Jefferson St. & I-25 W. Ramp

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259 325 141 279 1170 569 2 Perm NA Perm pm-Pti NA NA Per Res 5 2 6 8 8 8 2 2 6 8 8 8 2 2 6 8 8 8 2 2 6 8 8 8 8	ne Configurations	No.	44	r-	1	44	#	\$t_
259 325 141 279 1170 569 2 Perm NA Perm pm+pt NA NA NA Perm Pm+pt NA	ffic Volume (vph)	528	325	141	279	1170	569	236
Perm NA Perm pm+pt NA NA Perm Pm+pt NA NA Per B 8 8 5 2 6 8 8 8 2 2 6 8 8 8 2 2 6 6 8 8 8 8 5 2 2 6 6 8 9 8 2 2 6 6 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9	ure Volume (vph)	259	325	141	279	1170	569	236
8 8 5 2 6 8 8 8 6 2 8 8 8 6 2 8 8 8 7 5 6 8 8 8 7 5 6 8 8 8 7 5 6 8 8 8 7 5 7 6 8 8 8 7 5 7 6 8 8 8 7 5 7 6 8 8 8 7 5 7 6 8 8 8 7 5 7 6 8 8 8 7 5 7 6 8 8 8 7 5 7 6 8 8 8 7 5 7 6 8 8 8 7 5 7 6 8 9 9 6 3 0 8 9 9 6 3 0 8 9 9 6 3 0 8 9 9 6 3 0 8 9 9 6 3 0 8 9 9 16 3 0 8 9 16	m Type	Репп	NA	Регш	pm+pt	M	NA A	Perm
8 8 8 5 2 6 8 8 8 5 5 6 8 8 8 6 5 2 6 8 8 8 8 5 5 2 6 8 10 50 50 50 50 50 50 50 50 210 210 210 210 210 210 210 270 270 180 630 450 40 4.0 4.0 4.0 4.0 4.0 4.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 0.0 0.0 0.0 0.0 0.0 1.0 5.0 5.0 5.0 5.0 5.0 1.0 193 193 193 60.7 60.7 44.1 40 0 021 021 021 021 067 067 049 0 0 021 021 021 021 067 067 049 0 0 021 021 021 021 067 067 049 0 0 021 021 021 021 067 067 049 0 0 021 021 021 021 067 067 049 0 0 021 021 021 021 067 067 049 0 0 021 021 021 021 067 067 049 0 0 021 021 021 021 067 067 049 0 0 021 021 021 021 067 067 049 0 0 021 021 021 021 067 067 049 0 0 021 021 021 021 067 067 049 0 0 021 021 021 021 067 067 049 0 0 021 021 021 021 067 067 049 0 0 021 021 021 021 021 067 067 049 0 0 021 021 021 021 021 067 067 049 0 0 021 021 021 021 021 067 049 0 0 021 021 021 021 021 021 021 021 021 02	stected Phases		00		S	2	9	
(s) 5.0 5.0 5.0 5.0 5.0 5.0 5.0 5.0 5.0 5.0	mitted Phases	00		00	CI			9
(s) 5.0 5.0 5.0 5.0 5.0 5.0 5.0 5.0 5.0 (s) 21.0	tector Phase	00	00	00	S	2	9	9
imfurnicial (s) 5.0 5.0 5.0 5.0 5.0 5.0 5.0 5.0 imfurnicial (s) 5.0 5.0 5.0 5.0 5.0 5.0 5.0 5.0 5.0 5.0	itch Phase			i				
himum Split (s) 21.0 21.0 21.0 21.0 21.0 21.0 21.0 21.0	nimum Initial (s)	2.0	5.0	5.0	2.0	2.0	5.0	5.0
lat Split (\$) 27.0 27.0 18.0 63.0 45.0 lat Split (\$) 27.0 27.0 27.0 18.0 63.0 45.0 lat Split (\$) 30.0% 30.0% 30.0% 20.0% 50.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.	nimum Split (s)	21.0	21.0	21.0	10.0	21.0	21.0	21.0
Section Spite (%) 30.0% 30.0% 20.0% 20.0	tal Split (s)	27.0	27.0	27.0	18.0	63.0	45.0	45.0
New Time (s)	al Split (%)	30.0%	30.0%	30.0%	20.0%			50.0%
Ped Time (s) 1.0 1	llow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0
at Lag Optimize? Min Min Min Min C-Max C-	Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Item Color	st Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
adv. ag Lead Lag	al Lost Time (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0
ad-Lag Optimize? additional Min Min Min Min C-Max C-M	ad/Lag				Lead		Lag	Lag
call Mode Min Min Min Chax Chax Chax Call Mode Min Min Min Chax Chax Chax Chax Call Mode Min Min Min Chax Chax Chax Chax Chax Chax Chax Chax	ad-Lag Optimize?							
Fific Green (s) 19.3 19.3 19.3 60.7 44.1 44.1 Lated GC Ratio 0.21 0.21 0.21 0.21 0.21 0.21 0.21 Ratio 0.67 0.42 0.49 Ratio 0.67 0.42 0.64 0.60 0.49 Atomic Delay 42.0 37.0 18.4 15.9 9.9 16.3 7.1 Latel Delay 0.0 0.0 0.0 0.0 0.0 Latel Delay 0.0 0.0 0.1 0.0 0.0 S	call Mode	Min	Min	Min	Min	C-Max	C-Max	C-Max
Leaded g/C Ratio 0.21 0.21 0.21 0.57 0.49 0.49 Ratio 0.67 0.67 0.64 0.60 0.40 0.33 Ratio 0.67 0.67 0.64 0.60 0.60 0.71 eue Delay 4.20 37.0 18.4 15.9 9.9 16.3 7.1 eue Delay 4.20 37.0 18.4 15.9 10.1 16.3 7.1 S D D B B B A Assection Loss C B B B A Assection Summary C B B B B B Assection Loss C B B B B B B Assection Cummary C B B B B B B Assection Cycle: Condinated Assection Cycle: Condinated <td>Effot Green (s)</td> <td>19.3</td> <td>19.3</td> <td>19.3</td> <td>60.7</td> <td>50.7</td> <td>44.1</td> <td>44.1</td>	Effot Green (s)	19.3	19.3	19.3	60.7	50.7	44.1	44.1
Ratio 0.67 0.67 0.64 0.60 0.40 0.33 Introl Delay 42.0 37.0 18.4 15.9 16.3 7.1 Subble 1.0 0.0 0.0 0.0 0.0 0.0 Introl Delay 42.0 37.0 18.4 15.9 16.3 7.1 Subble 1.0 0.0 0.0 0.0 0.0 0.0 Subble 1.0 0.0 0.0 0.0 0.0 0.0 B B B A Subble 1.0 0.0 0.0 0.0 0.0 0.0 B B B A Interpretable 1.0 0.0 0.0 0.0 0.0 Introl Cycle: 60 0.0 0.0 0.0 Interpretable 1.0 0.0 0.0 0.0 Interpretable 1.0 0.0 0.0 0.0 0.0 Interpretable 1.0 0.0 0.0 0.0 0.0 0.0 Interpretable 1.0 0.0 0.0 0.0 0.0 0.0 0.0 Interpretable 1.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 Interpretable 1.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	tuated g/C Ratio	0.21	0.21	0.21	0.67	0.67	0.49	0.49
ntrol Delay	Ratio	79.0	0.67	0.42	0.64	0.60	0.40	0.33
ata Delay 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.	ntrol Delay	42.0	37.0	18.4	15.9	9.9	16.3	7.1
S	eue Delay	0.0	0.0	0.0	0.0	0.1	0.0	0.0
S D D B B B A Protect Delay 34.7 11.2 13.6 Protect LOS C B B B A 11.2 13.6	al Delay	42.0	37.0	18.4	15.9	10.1	16.3	7.1
proach Delay 34.7 11.2 13.6 proach LOS C B B proach Cycle Length: 90 set: 0.9 (1%), Referenced to phase 2:NBTL and 6:SBT, Start of Green trial Cycle Length Coordinated ximum v/c Ratio: 0.67 intersection LOS: B intersection Capacity Utilization 56.6% IOU Level of Service B silvass Period (min) 15	S	0	0	60	00	60	00	A
Arsection Signal Delay: 17.6 B B B Arsection Summary Length: 90 Lated Cycle Length: 90 Lated Cycle Length: 90 Attorned Cycle Length: 90 Attorned Cycle Length: 90 Attorned Cycle Length: 90 Attorned Cycle (0) Attorned	proach Delay		34.7			11.2	13.6	
size clion Summary ble Length: 90 uated Cycle Length: 90 uated Cycle Length: 90 set 0.9 (1%), Reletenced to phase 2:NBTL and 6:SBT, Start of Green set 0.9 (1%), Reletenced Coordinated miral Cycle: 60 miral Type: Actuated-Coordinated ximum v/c Ratio: 0.67 intersection LOS: B intersection Capacity Utilization 56.6% ICU Level of Service B alysis Period (min) 15	proach LOS		O			œ	00	
be Length: 90 Lusted Cycle Length: 90 set 0.9 (1%), Reletenced to phase 2:NBTL and 6:SBT, Start of Green set 0.9 (1%), Reletenced to phase 2:NBTL and 6:SBT, Start of Green lural Cycle: 60 ntirol Type: Actuated-Coordinated ntirol Type: Actuated-Coordinated ntirol Type: Actuated-Coordinated interestination of Ratio: 0.67 intersection LOS: B intersection Capacity Utilization 56.6% ICU Level of Service B alysis Period (min) 15	ersection Summany		W					
tuated Cycle Length: 90 set 0.9 (1%), Referenced to phase 2:NBTL and 6:SBT, Start of Green trust Cycle: 60 trival Cycle: 60 trival Cycle: 60 trival Type: Actuated-Coordinated trival Type: Actuated-Coordinated-Coordinated trival Type: Actuated-Coordinated trival Type: Actuated-Coordinated-Coordinated trival Type: Actuated-Coordinated-Coord	cle Length: 90			,				
set u. 9. f. vis, merenned to phase zind 0.351, Start of Green itural Cycle: 60 itural Cycl	tuated Cycle Length	: 90		1000	2	100	1	
Coordinated: 17.6 ization 56.6%	ser u.y (1%), herer fural Cycle: 60	oi paqua	bugge	ZNBIL	arid o.c	DD1, 208	5 5	
: 17.6 ization 56.6%	offroi Tyne- Actualed	Conner	Patra	b				
: 17.6 ization 56.6%	vimim v/c Ratio. 0	67	3					
	ersection Signal Del	lav 17.6	Į,		1	nlersect	ion LOS	80
	ersection Capacity L	Utilization	56.6%			CU Leve	el of Sei	rvice B
	alysis Period (min)	15						

Spilts and Phases: 2: Jefferson St. & L25 W. Ramp

\$\int_0 2(R)\$

\$\int_0 5 \quad \frac{1}{2} \times 6(R)\$

\$\int_0 5 \quad \frac{1}{2} \times 6(R)\$

2019 AM Peak NOBUILD Conditions - Existing Geometry

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HCM 6th Signalized Intersection Summary 2: Jefferson St. & I-25 W. Ramp

Terry O. Brown, PE 12/18/2018

128 B 3618 12.5 B 970 12.6 B 1.00 No 1856 686 0.36 1.00 12.0 0.5 0.5 0.0 6.9 1889 \$69 2 0.83 1763 10.1 0.00 1.00 0.83 0.0 0.00 000 0.83 0.00 8.8 0.00 0.00 0.0 0.57 2486 2.00 0.70 0.7 0.0 0.0 0.83 746 2.1 21.5 5.0 22.0 13.4 3.1 1.00 1.00 0.7 2486 525 0.23 1767 7.9 7.9 1.00 525 525 5.00 5.79 5.79 5.70 0.70 83 289 0.18 35.5 53.2 5.0 40.0 12.1 6.4 8.9 1.00 289 0.59 0.59 384 1.00 1.00 38.6 36.8 D D 37.0 D 1856 500 0.83 15.2 5.0 13.0 9.9 0.3 500 24.6 9.00 9.00 9.00 325 0.18 235 1856 259 5.0 5.0 58.0 2.0 16.7 00 00 %ile BackOfQ(95%),veh/lin Unsig. Movement Delay, s/veh LnGrp Delay(d),s/veh Max Green Setting (Gmax), s Max Q Clear Time (g_c+i1), s Green Ext Time (p_c), s Parking Bus, Adj Work Zone On Approach Adj Sat Flow, veh/h/in Adj Flow Rate, veh/h Phs Duration (G+Y+Rc), s Change Period (Y+Rc), s Grp Sat Flow(s), weh/h/ln LnGrp LOS Approach Vol, veh/h Approach Delay, s/veh Uniform Delay (d), s/veh Lane Configurations Traffic Volume (veh/h) Future Volume (veh/h) Q Serve(g_s), s Cycle Q Clear(g_c), s Prop In Lane Avail Cap(c_a), veh/h HCM Platoon Ratio Upstream Piter(I) nitial Q Delay(d3),s/veh Lane Grp Cap(c), veh/ħ Percent Heavy Veh, % Sat Flow, veh/h Grp Volume(v), veh/h Ped-Bike Adj(A_pbT) incr Delay (d2), siveh milial Q (Qb), veh Peak Hour Factor Cap, veh/h Arrive On Green Approach LOS V/C Ratio(X)

Notes
User approved volume balancing among the lanes for turning movement.

13.7 B

HCM 6th Ctrl Delay HCM 6th LOS 2019 AM Peak NOBUILD Conditions - Existing Geometry

HCM 6th Signalized Intersection Summary 3: Jefferson St. & I-25 E. Ramp D'O Brown C

Terry O. Brown, PE 12/18/2018

		ס. ספוופופטון פני מין בס בי וומווום			١		0103012
	4	1	1	4-	-	→	
are Group		183	88	N	SBI	SBT	
ane Configurations	N-	44	R.	4.4	N-	**	
raffic Volume (vph)	764	306	178	685	102	467	
-uture Volume (vph)	764	306	178	685	102	467	
Tum Type	Perm	NA	Регт	N.	NA pm+pt	NA	
Protected Phases		4		2	-	9	
Permitted Phases	4		4		æ		
Detector Phase	4	4	4	2	-	9	
Switch Phase							
Ainimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	
linimum Split (s)	21.0	21.0	21.0	21.0	10.0	21.0	
otal Split (s)	43.0	43.0	43.0	34.0	13.0	47.0	
otal Spili (%)	47.8%	47.8%	47.8%	37.8%	14.4%	52.2%	
(ellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	
VII-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	
ost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	
ofal Lost Time (s)	5.0	5.0	5.0	5.0	5.0	5.0	
.ead/Lag				Lag	Lead		
.ead-Lag Optimize?							
Recall Mode	Min	Min	Min	Min C-Max	Min	Min C-Max	
Act Effot Green (s)	25.7	25.7	25.7	41.3	54.3	54.3	
Actuated g/C Ratio	0.29	0.29	0.29	0.46	09.0	0.60	
vic Ratio	0.60	0.59	0.36	0.68	0.43	0.27	
Control Delay	32.0	29.4	4.6	23.5	21.2	7.9	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	
otal Delay	32.0	29.4	4.6	23.5	21.2	7.9	
80	O	0	×	O	O	A	
proach Delay		25.0		23.5		10.2	
Approach LOS		O		O		8	
ntersection Summary		۱					
Owele Length: 90			Ì				
Actuated Cycle Length: 90	. 90						

0.00

563 1763 0.0

19.3

0.00

1763

0.00

2.8 2.8 1.00 338 0.36 2.00 0.88 0.88 0.06

0.00

214 1572 10.5 10.5 1.00 1.00 1.00 28.6

0.77

0.50 1492 8.8

Lane Grp Cap(c), veh/h Avail Cap(c_a), veh/h HCM Platoon Ratio Upstream Filler(!)

1.00

Uniform Delay (d), s/veh 28.4

1.00

0.0

1.00

1.00 1856 825

1.00

1.00

Ped-Bike Adj(A_bbT) 1. Parking Bus, Adj 1. Work Zone On Approach

00088

00

00

Lane Configurations
Traffic Volume (veh/h)
Future Volume (veh/h)

Initial Q (Qb), veh

WBI

0.1 No 563 563 0.83

467

0.83

123 338

246

0.83

0.83

214

1856

1.00 No 1856 368 0.83

1856 0.83

Adj Sat Flow, vehitvin

Flow Rate, veh/h

461

3 1.00 3618

1767

414 0.52 798

0.00

407 0.26 1572

480 0.26 1856

914

Percent Heavy Veh, %

Peak Hour Factor Cap, veh/h Arrive On Green 368

Sai Flow, veh/h 3534 Grp Volume(v), veh/h 461 Grp Sat Flow(s), veh/h/ln 1767

16.5

10.0

Q Serve(g_s), s Cycle Q Clear(g_c), s Prop In Lane

1390 0.52 0.00

2222 0.25 2200 2200 0.08 0.0 0.0 0.0

0.00 0.00 0.00

0.2 A 886 2.2

11.0

18.0 B

17.9 B

0.0

29.7

33.5

12.0

%ile BackOfQ(95%),veh/ln 7.6 Unsig. Movement Delay, s/veh LnGrp Delay(d),s/veh 28.9

nitial Q Delay(d3),s/veh

incr Delay (d2), siveh

1043

Approach Vol, veh/h Approach Delay, s/veh

-nGrp LOS

Approach LOS

Ç

17.9 17.9 B

61.7 5.0 42.0 2.0 4.4

28.3 5.0 38.0 18.5 4.8

51.7 5.0 29.0 21.3 4.1

Phs Duration (G+Y+Rc), s10.0

Change Period (Y+Rc), s 5.0 Max Green Setting (Gmax),80 Max Q Clear Time (g_c+l1),48 Green Ext Time (p_c), s 0.1

(management)		
Cycle Length: 90		
Actuated Cycle Length: 90		
Offset: 6.3 (7%), Referenced to phase 2:NBT and 6:SBTL, Start of Green	and 6:SBTL, Start of Green	
Natural Cycle: 60		
Control Type: Actuated-Coordinated		
Maximum v/c Ratio: 0.68		
Intersection Signal Delay: 20.8	Intersection LOS: C	
Intersection Capacity Utilization 56.6%	ICU Level of Service B	
Analysis Period (min) 15		

1 3: Jefferson St. & I-25 E. Ramp 02 (R) Splits and Phases: D6 (R) Synchro 10 Report 2019ANX.syn

2019 AM Peak NOBUILD Conditions - Existing Geometry

Synchro 10 Report 2019ANX.syn

2019 AM Peak NOBUILD Conditions - Existing Geometry

Notes
User approved volume balancing among the lanes for furning movement.

18.8 B

HCM 6th Ctrl Delay HCM 6th LOS

Timings 4: Jefferson St. & McLeod Rd.

Terry O. Brown, PE 12/18/2018

	1	1	1	1	1	1	4	1	→	
Lane Group	283	EBI	加斯	WET	WBR	NBI	TBN	SBI	SBT	
Lane Configurations	M	24	N.	*	N.	M	44	15	45	
Traffic Volume (vph)	10	46	88	83	369	17	444	206	374	
Future Volume (vph)	10	46	88	53	369	17	444	206	374	
Tum Type	Perm	NA	Perm	NA	NA pm+ov	+md	NA	pm+pt	NA	
Protected Phases		寸		00	-		2	-	9	
Permitted Phases	4		00		00	CI		9		
Detector Phase	4	4	00	60	-	2	N	-	9	
Switch Phase										
Minimum Initial (s)	5.0	5.0					5.0	5.0	5.0	
Minimum Solit (s)	21.0	21.0	Die.	21			21.0	10.0	21.0	
Total Split (s)	43.0	43.0	43.0	43.0	20.0	20.0	37.0	20.0	37.0	
Total Soft (%)	43.0%	43.0%		100			37.0%	20.0%	37.0%	
Yellow Time (s)	4.0	4.0					4.0	4.0	4.0	
All-Red Time (s)	1.0	1.0				1.0	1.0	1.0	1.0	
Lost Time Adjust (s)	0.0	0.0			١.	0.0	0.0	0.0	0.0	
Total Lost Time (s)	5.0	5.0			5.0	5.0	5.0	5.0	5.0	
Lead/Lag					Lead	Lead	Lag	Lead	Lag	
Lead-Lag Optimize?										
Recall Mode	Min	Min					Max	Min	Max	
Act Effot Green (s)	11.3	11.3					32.3	46.5	37.0	
Actuated g/C Ratio	0.16	0.16					0.47	0.67	0.53	
v/c Ratio	90.0	0.26	0.52	0.12	0.68	0.04	0.36	0.43	0.27	
Control Delay	25.5	22.3					13.7	6.7	9.5	
Queue Delay	0.0	0.0					0.0	0.0	0.0	
Total Delay	25.5	22.3					13.7	6.7	9.5	
SOT	O	O			100	40	00	×	A	
Approach Delay		22.8		22.2			13.4		9.8	
Approach LOS		O		O			m		×	
Intersection Summary					N	N	I	K		
Cycle Length: 100						N				
Artisted Carle Length 69.2	600									

Intersection LOS: B 4: Jefferson St. & McLeod Rd. Actuated Oycle Length: 69.2
Natural Oycle: 55
Control Type: Semi Act-Uncoord
Maximum vic Ratio: 0.68
Intersection Signal Delay: 14.6
Intersection Capacity Utilization 52.6%
Analysis Period (min) 15 Splits and Phases:

†8

2019 AM Peak NOBUILD Conditions - Existing Geometry

Synchro 10 Report 2019ANX.syn

HCM 6th Signalized Intersection Summary 4: Jefferson St. & McLeod Rd.

Terry O. Brown, PE 12/18/2018

	1	†	-	4	,	1	~	-	-	A	4	7
Movement	H	EBI	288	WBL	報图	WBB	MBL	NBI	MBR	SBE	SBI	SBR
Lane Configurations	1	2,		N-	4	VC.	15	44		W.	44	
Traffic Volume (weh/h)	10	46	17	88	53	369	17	444	53	206	374	53
Future Volume (veh/h)	10	46	17	88	83	369	17	444	52	206	374	SS
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adi(A pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adi	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.		ŀ	No.			No			No	
Adi Sat Flow, vehihin	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856
Adi Flow Rate, veh/h	12	28	21	110	36	461	21	555	31	258	468	સ
Peak Hour Factor	0.80	0.80	080	080	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80
Percent Heavy Veh. %	m	en	es	m	m	ო	က	က	က	က	က	
Cap, veh/h	344	386	140	437	551	643	525	1367	92	523	1515	100
Arrive On Green	0.30	0.30	0.30	0.30	0.30	0.30	90.0	0.40	0.40	0.11	0.45	0.45
Sat Flow, vehih	883	1300	471	1309	1856	1572	1767	3395	189	1767	3357	222
Gro Volume(v), veh/h	12	0	79	110	36	461	21	288	298	258	245	254
Gro Sat Flow(s), veh/hin	883	0	1771	1309	1856	1572	1767	1763	1821	1767	1763	1816
Q Serve(q s), s		0.0	2.6	5.4	1.1	19.5	0.5	9.3	9.3	6.5	7.0	7.1
Cycle Q Clearlg cl. s	1.9	0.0	2.6	8.0	1.1	19.5	0.5	9.3	9.3	6.5	7.0	7.1
Prop In Lane	1.00		0.27	1.00		1.00	1.00		0.10	1.00		0.12
Lane Gro Cap(c), veh/h	344	0	526	437	551	643	525	710	733	523	795	819
V/C Ratio(X)	0.03	0.00	0.15	0.25	0.07	0.72	0.04	0.41	0.41	0.49	0.31	0.31
Avail Cap(c a), veh/h	505	0 4	847	674	887	927	747	710	733	629	795	818
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	00:00	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	1 20.7	0.0	20.5	23.5	20.0	19.7	11.6	17.0	17.0	11.4	13.9	13.9
Incr Delay (d2), siveh	0.0	0.0	0.1	0.3	0.0	ri.	0.0	1.7	1.7	0.7	1.0	1.0
Initial Q Delay(d3),s/veh	1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfO(95%),vehvin 0.3	Vin 0.3	0.0	1.9	3.0	0.8	11.2	0.3	7.0	7.2	4.3	5.1	S
Unsig. Movement Delay, s/veh	s/veh											
LnGrp Delay(d),s/veh	20.7	0.0	20.7	23.8	20.1	21.2	11.6	18.7	18.6	12.2	14.9	14.9
LnGrp LOS	O	A	O	O	O	O	В	В	В	В	8	"
Approach Vol, veh/h		91			607			607			757	
Approach Delay, s/veh		20.7			21.6			18.4			14.0	
Approach LOS		O			O			m			cca	
Times - Assigned Phs	4	N		2	S	9		60				0
Phs Duration (G+Y+Rc), s13.9	\$13.9	37.0		28.6	10.0	40.9		28.6				
Change Period (Y+Rc), s	s 5.0	5.0		5.0	2.0	5.0		5.0				
Max Green Setting (Gmax),590	ax(500	32.0		38.0	15.0	32.0		38.0				
Max Q Clear Time (g_c+l1)8\$	+11)855	11.3		4.6	2.5	9.1		21.5				
Green Ext Time (p_c), s	0.4	3.5		0.5	0.0	3.0		2.1				
Intersection Summary												
HCM 6th Ctrl Delay			17.8									
UCH SELOO			œ									

2019 AM Peak NOBUILD Conditions - Existing Geometry

Intersection							
Int Delay, s/veh 0	.1						
Movement EE	BL EBR	NBL	NBT	SBT	SBR		
Lane Configurations 1			414	↑ ↑			
Traffic Vol, veh/h	1 2	6	877	619	12		
Future Vol, veh/h	1 2	6	877	619	12	постиничность в постиничного составления поставления поста	
Conflicting Peds, #/hr		0	0	0	0		
Sign Control Sto	p Stop	Free	Free	Free	Free		
RT Channelized	- None		None		None		
Storage Length	0 -	-	-	-	-	Markov	
Veh in Median Storage	90# -	-	0	0	*	and the state of t	
Grade, %	0 -	-		0	-		
	33 83	83	83	83	83		
Heavy Vehicles, %	3 3	3		3	3		W 14 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
Mvmt Flow	1 2		1057	746	14	- 2	
			AND THE PARTY OF T				
Major/Minor Mino	r2 N	1ajor1	N	lajor2			
				iajuiz	0		
Conflicting Flow All 129		760	t-the-take IIII.		-	0 × 1 × 1000 × 1 × 1 × 100	
The state of the s	53 -	-	7	-	100		
3	43 -	110	-	-	-		
Critical Hdwy 6.8		4.16			- 5		
Critical Hdwy Stg 1 5.8			-	- 1	-		
Critical Hdwy Stg 2 5.8		0.00	-		-		
Follow-up Hdwy 3.5				-			
Pot Cap-1 Maneuver25		1159		lin und	III TIL		
	23 -	in the state of th	-	-	_		
	43 -	1					Number of the second se
Platoon blocked, %	1 1	1450	-	-	-		
Mov Cap-1 Maneuve		1159		- +	7		
Mov Cap-2 Maneuvæ		-	-	-	-		management and the second
Transfer to the Contract of th	12 -		dinomika a ala				
Stage 2 5	43 -	-	-	-	-		
	Mariantana da A						
Approach E	EB	NB		SB			
HCM Control Delay,18	2.7	0.2		0			
HCM LOS	В	***************************************	and the comments	onderpring in a part			
(President and Control of the Contro							
Minor Lane/Major Mvr	nt NBL	NBT	EBLn1	SBT	SBR		
Capacity (veh/h)	1159	ALTERNATION AND ADDRESS OF THE PARTY OF THE	469				
HCM Lane V/C Ratio	0.006		0.008				
HCM Control Delay (s			12.7		an an angular paragraphic		
HCM Lane LOS) 0.1 A						
HCM 95th %tile Q(veh			Lancaca Market Street, Series			production for the second	
Encodes and the control of the contr	, ,		,				undimengamoskom ämi i von un rompus prosecorpus ministrativa seconomicano.
Notes							
~: Volume exceeds ca	apacity	\$: [Delay e	xceed	ls 300s	+: Computation Not Defined	*: All major volume in p

Intersection		- 2										
Int Delay, s/veh 1.4												
Movement EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	
Lane Configurations	1>			4			413			414	79	
Traffic Vol, veh/h 0		0	17	1	40	1	889	15	35	610	1	
Future Vol, veh/h 0	0	0	17	1	40	1	889	15	35	610	1	
Conflicting Peds, #/hr 0	0	0	0	0	0	0	0	0	0	0	0	
Sign Control Stop		Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free	
RT Channelized -		None	THE Y		None	-		None		-	None	
Storage Length 35	-	-	-	-	-	-	-	-	-	-	75	
Veh in Median Storage,-	# 0		-	0	-	-	0	-	with the same of t	0	-	
Grade, % -		-	-	0	-	-	0	-	-	0	-	The state of the s
Peak Hour Factor 83	83	83	83	83	83	83	83	83	83	83	83	The state of the s
Heavy Vehicles, % 3	A LITTLE STREET, STREE	3	3	3		3	3	3	3	3	3	Muntum compression of the compre
Mvmt Flow 0		0	20	1	48	1	1071	18	42	735	1	- medicine and mandament of the formal management of the first of the
						ner sunique sunique	dennes e incitor	minister recent	anamanihin aa			m 1 of Midworth a pake of harmonic
Major/Minor Minor2		N	linor1		N	lajor1		N	lajor2			
Conflicting Flow All1357	1910			1902		736	0		1089	0	0	
Stage 1 819				1082		-	-					
	1091	-	Marin State of State	820		-	-	-	-		-	
Critical Hdwy 7.56			7.56	6.56		4.16			4.16			
Critical Hdwy Stg 1 6.56		0.50	6.56			7.10	-		1.10			
Critical Hdwy Stg 7 6.56			-	5.56			1 1/2	_		- 2		
						2.23	-		2.23			
			*129	84		1191			631			
Pot Cap-1 Maneuver192			*230	290		1191	-	100	001			
Stage 1 636				587		_				- Contract Contract		
Stage 2 492			*780			-		-	-	- 7	-	
Platoon blocked, % 1		1	1	1		1			204			
Mov Cap-1 Maneuver55			*118	74		1191	-	-	631	-	*	
Mov Cap-2 Maneuver55			*118	74		-		- 7	-	-		
Stage 1 635			*230	289	in the community	-	-			100	ofice manufacture	
Stage 2 440	286	-	*692	521	-		-	-	-	-	-	
					ļ		minamaniania		naturia ministra		Luckerion (mm)	
Approach EB			WB	7000	The same	NB		375	SB	2000		
HCM Control Delay, s 0			25.9			0			1.2			
HCM LOS A	NORE CONCORDED CONTRACT TO THE		D	. Hilliam Parameter	aliku amu ya Kama		ommonto de della	minaman pamanasaa		o someonich erfe		
					i in the							
Minor Lane/Major Mvmt	NBI	NBT	NBF	BLn1	EBLn/A	BLn1	SBL	SBT	SBR			
Capacity (veh/h)	1191		-			241	al Mineral Science of the Control			1		
HCM Lane V/C Ratio	0.001	-	***************************************	animinum in the			0.067		-			
HCM Control Delay (s)	8			-			11.1	0.6		rangement (general	12 305 38880	
HCM Lane LOS	A					23.5 D	В		-	Winning V.S.	Market State of the State of th	
HCM 95th %tile Q(veh)	0					1.2					ly all	
***************************************	1.1744444444444444444444444444444444444	······································		President (1997)			111111 - 110-11111		1500			
Notes	ar and a second								1			

ntersection		77.7	3				
nt Delay, s/veh 0							
Movement EBL	EBR	MRI	NBT	SRT	SBR		
Lane Configurations	low loof 1 h	1 11 100 100	474	↑ ↑			
	1	1	878	631	1		
Traffic Vol, veh/h 1			878	631	1	The second secon	
Future Vol, veh/h 1	1	1		and the same			
Conflicting Peds, #/hr 0	0	_ 0		0	A STATE OF THE PARTY OF THE PAR		
			Free				
	None		None	-	None		
Storage Length 0		·	-	-	-		e dela firma de la completa de la c
Veh in Median Storage0a	A STATE OF THE PARTY OF THE PAR	4		0			
Grade, % 0				0			
Peak Hour Factor 83				83			
Heavy Vehicles, % 3				3			
Mvmt Flow 1	1	1	1058	760	1		
The state of the s							
Major/Minor Minor2	N.	/lajor1	N	/ajor2			
Conflicting Flow All1292			0				
Stage 1 761	301		-	and the second	-		acceding to the second
			_				
The state of the s	6.96	116		_			
		4.10			anno anno la		
Critical Hdwy Stg 1 5.86		-	-	_			
Critical Hdwy Stg 2 5.86			•				
Follow-up Hdwy 3.53		2.23				and approximately a second	- Walling
Pot Cap-1 Maneuve 257		1158					
Stage 1 715	-	-	-		-	eterophical eterop	
Stage 2 551	-	-			in the		
Platoon blocked, % 1	1			-	-		
Mov Cap-1 Maneuve256		1158	-				
Mov Cap-2 Maneuve256			-		-		and the resource in the control of t
Stage 1 713							
Stage 2 551	-	-	-	-	-		
Approach EB		NB		SB			
HCM Control Delay,1st.3		0		0			
HCM LOS B		U		multi-lame Hillander		A section of the sect	
I IOWI LOS B						en la Partino de la Companyona del Mediano, propriamo de proceso de la proceso de la companyona de la Compan	and the second s
		K I Project					
Minor Lane/Major Mvmt			EBLn1		SBR		
Capacity (veh/h)	1158		391				
	0.001		0.006				
HCM Control Delay (s)	8.1		14.3				
HCM Lane LOS	Α						
HCM 95th %tile Q(veh)	0		0				
Notes			7000				
	acity	¢. r)alay c	VCOC	ds 300s	+: Computation Not Defined	*: All major volume i
~: Volume exceeds capa	acity	φ. ι.	Jeiay E	VC660	49 9008	+. Computation Not Defined	. All major volume i

Timings 1: Jefferson St. & Singer Blvd.

Terry O. Brown, PE 12/18/2018

	1	1	1	1	1	1	4	4	A	-	
Lare Group	曲	EBI	EBR	WBE	WET	NBI	LEN	NBR	SS	SBT	
Lane Configurations	M	+	N.	N.	44	15	*	N.	K-	44	
Traffic Volume (vph)	125	83	186	75	50	391	548	305	20	275	
Future Volume (vph)	125	58	186	75	20		248	305	20	275	
Turn Type	Prof	NA	NA pm+ov	Prot	NA	+und	NA	Perm	ртнрі	NA	
Protected Phases	7	4	'n	ო	00		2		-	9	
Permitted Phases			4			CI		2	60		
Detector Phase	7	4	S	m	œ	2	2	2	-	9	
Switch Phase											
Minimum Initial (s)	2.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	2.0	5.0	
Minimum Split (s)	10.0	21.0	10.0	10.0	21.0	10.0	21.0	21.0	10.0	21.0	
Total Split (s)	25.0	30.0	35.0	21.0	26.0	35.0	50.0	50.0	17.0	32.0	
Total Solit (%)		25.4%	29.7%	17.8%	22.0%	29.7%	42.4%	42.4%		27.1%	
Yellow Time (s)	4.0	4.0	4.0	4.0		4.0	4.0	4.0	4.0	4.0	
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	
Lead/Lag	Lead	Lag	Lead	Lead	Lag	Lead	Lag	Lag	Lead	Lag	
Lead-Lag Optimize?											
Recall Mode	Min	Min	Min	Min	Min		Max	Max	Min	Max	
Act Effol Green (s)	13.2	11.7	38.8	7.9	6.3		47.2	47.2	37.3	31.2	
Actuated g/C Ratio	0.14	0.13	0.42	0.08	0.07		0.51	0.51	0.40	0.34	
v/c Ratio	0.60	0.15	0.28	0.31	0.20	0.72	0.37	0.37	0.07	0.44	Į,
Control Delay	48.3	38.7	2.9	44.4	28.0		15.1	2.8	11.8	23.1	
Queue Delay	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	
Total Delay	48.3	38.7	2.9	44.4	28.0		15.1	2.8	11.8	23.1	
807	۵	٥	×	٥	O	80	œ	×	00	o	
Approach Delay		22.7			38.6		12.7			22.6	
Approach LOS		O			0	Įį.	80	ľ		o	V
Intersection Summary			ı	l							
Cycle Length: 118											
Actuated Cycle Length: 93	1: 93										

Natural Cycle: 80
Control Type: Semi Act-Uncoord
Maximum wic Ratio: 0.72
Intersection Signal Delay: 17.8
Intersection Capacity Utilization 60.6%
Analysis Period (min) 15

Intersection LOS: B ICU Level of Service B

16 E03 1: Jefferson St. & Singer Blvd. Splits and Phases: ₹ 00s

2019 AM Peak BUILD Conditions - Existing Geometry

Synchro 10 Report 2019ABX.syn

HCM 6th Signalized Intersection Summary 1: Jefferson St. & Singer Blvd.

Terry O. Brown, PE 12/18/2018

A de se me me me la												
MODELLERIE	田田	題	SE SE	188	WBI	WBR	187	MEI	NBR	SBI	SBI	SBR
I and Configurations	M	4	M	K	44		K	44	R	pr.	44	
Troffe Volume (unhit)	105	200	- 00	7	200	8	301	248	305	20	275	2
Traine Volume (versit)	3 40	200	900	S K	3 6	3 6	304	248	305	200	275	163
rume volume (venim)	2	2	000	2 0	3	9	3	5	3	3	0	3 6
miliar (CO), ven	2	23	0 0	0 0	0	0 0	0 00	0	9 6	9 5	>	9 6
Ped-Bike Adj(A_pb1)	30.		9	3		3	3		3.	3		9.1
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		9			8			2	į	١	2	
Adi Sat Flow, veh/h/fin	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856
Adi Flow Rate, veh/h	149	32	221	88	24	53	465	652	0	24	327	194
Peak Hour Factor	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84
Percent Heavy Veh. %	m	e	en	m	e	63	m	e	es	m	ო	m
Can, veh/h	191	263	511	196	160	143	848	1815		485	835	485
Arrive On Green	0.11	0.14	0.14	90.0	0.09	0.09	0.18	0.51	0.00	90.0	0.39	0.39
Sat Flow, vehith	1767	1856	1572	3428	1763	1572	1767	3526	1572	1767	2147	1247
Gro Volume(v), veh/h	149	35	221	88	24	52	465	652	0	24	267	254
Grp Sat Flow(s), veh/h/ln	1767	1856	1572	1714	1763	1572	1767	1763	1572	1767	1763	1631
Q Serve(q s), s	7.2	1.4	9.6	2.2	1.1	1.3	12.6	9.6	0.0	0.7	9.5	9.8
Cycle Q Clear(g c), s	7.2	1.4	9.6	2.2	1.1	1,3	12.6	9.6	0.0	0.7	9.5	9.8
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.76
Lane Grp Cap(c), veh/h	191	263	511	196	160	143	648	1815		485	989	635
V/C Ratio(X)	0.78	0.13	0.43	0.45	0.15	0.17	0.72	0.36		0.05	0.39	0.40
Avail Cap(c a), veh/h	404		738	628	454	378	931	1815		929	989	839
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	J 38.0	32.8	23.2	39.9	36.6	36.7	11.4	12.6	0.0	13.6	19.2	19.3
incr Delay (d2), s/veh	6.8	0.2	9.0	1,6	9.4	9.0	12	9.0	0.0	0.0	1.7	1.9
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 BackOfO(95%),veh/ln 6.1	Min 6.1	12	6.4	1.7	6.0	6.0	 00	9.9	0.0	0.5	7.3	7.1
Unsig. Movement Delay, s/veh	's s/veh									1		
LnGrp Delay(d), siveh	44.7	33.0	23.8	41.5	37.0	37.3	13.0	13.2	0.0	13.6	50.9	212
LnGrp LOS	٥	O	O	٥	٥	٥	m	8		В	0	
Approach Vol, veh/fn		405			138			1117	¥		545	
Approach Delay, s/veh		32.3			40.0			13.1			20.7	
Approach LOS		O			0			Ω			O	
Timer - Assigned Phs	-	CV	00	4	10	9	7	œ				
Phs Duration (G+Y+Rc), s10.0	0,015,0	50.0	10.0	17.4	21.0	39.0	14.4	12.9				
Change Period (Y+Rc), s	s 5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0				
Max Green Selting (Gmax) 230	18X 380	45.0	16.0	25.0	30.0	27.0	20.0	21.0				
Max Q Clear Time (g_c+l1)297	+11)25	11.6	4.2	11.6	14.6	11.8	9.2	3.3				
Green Ext Time (p_c), s	0.0	5.1	0.2	0.7	1.4	2.9	0.3	0.2				
Intersection Summary				1				1				
HCM 6th Ctrl Delay	11		20.2									
UCH SHIDS			C									

Notes Unsignalized Delay for [NBR] is excluded from calculations of the approach delay and intersection delay.

2019 AM Peak BUILD Conditions - Existing Geometry

Terry O. Brown, PE 12/18/2018 Timings 2: Jefferson St. & I-25 W. Ramp

236

579 879 8 8 8

1180 1180 NA

4↑ 325 325 NA

277 271 Perm

Lane Configurations Traffic Volume (vph) Future Volume (vph)

Turn Type Protected Phases Permitted Phases

Detector Phase

WE WEL

1

HCM 6th Signalized Intersection Summary 2: Jefferson St. & I-25 W. Ramp

1 1

Terry O. Brown, PE 12/18/2018

FBI		1	1	-	4	,	1	-	-	1	A	•	7
10	Movement	田田	EBI	8	WBL	WBI	WBH	MBL	NBI	NBR	SBL	SBT	SBF
or	Lane Configurations				F	474	W_	N.	44			44	
0 0 0 271 325 141 316 1180 0 0 0 0 0 100 0 0 0 0 0 0 0 0 0 0	Traffic Volume (veh/h)	0	0	0	271	325	141	316	1180	0	0	579	236
ach 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.0	Future Volume (veh/h)	0	0	0	271	325	141	316	1180	0	0	579	236
ach 100 100 100 100 100 100 100 100 100 10	Initial Q (Qb), veh	W			0	0	0	0	0	0	0	0	
ach 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.0	Ped-Bike Adj(A_pbT)				1.00		1.00	1.00		1.00	1.00		1.00
ach 1856 1856 1856 1856 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
6 1856 1856 1856 1856 1856 1856 1856 185	Work Zone On Approac	45				No			S			2	H
84 35 695 295 586 2473 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	Adj Sat Flow, veh/hiln				1856	1856	1856	1856	1856	0	0	1856	1856
Fig. 8. O.83 0.83 0.83 0.83 0.83 0.83 0.83 0.83 0	Adj Flow Rate, veh/h				240	514	170	381	1422	0	0	869	284
eh, % 33 3 3 3 3 3 0 0 eh, % 331 865 295 586 2473 0 0 0.19 0.19 0.19 0.25 1.00 0.00 0.00 eh/h 1767 3771 1572 1767 3618 0 0 0 c), s 115 118 8.9 9.6 0.0 0.0 0.0 c), s 115 118 8.9 9.6 0.0 0.0 0.0 eh/h 331 695 295 386 2473 0 0 eh/h 331 695 295 396 0.0 0.0 0.0 eh/h 342 907 384 560 2473 0 0 fito 1.00 1.00 1.00 0.64 0.00 0.00 i), sveh 344 345 333 73 0.0 0.0 i), sveh 42 2.3 18 26 0.6 0.0 0.0 i) sveh 42 2.3 18 2.6 0.6 0.0 0.0 i) sveh 50 9.2 6.2 4.5 0.4 0.0 0.0 i) sveh 60 9.2 6.2 4.5 0.4 0.0 0.0 ii) 9.2 6.2 4.5 0.4 0.0 0.0 iii) 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 iii) 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.	Peak Hour Factor	h			0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83
15 15 15 15 15 15 15 15	Percent Heavy Veh, %				es	es	က	က	m	0	0	က	
1767 371 1572 1767 3618 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	Cap, veh/ħ				331	695	295	536	2473	0	0	1815	810
1767 3711 1572 1767 3618 0 0	Arrive On Green				0.19	0.19	0.19	0.26	1.00	0.00	00.00	0.51	0.51
1767 1866 1477 381 1422 0	Sat Flow, vehith				1767	3711	1572	1767	3618	0	0	3618	1572
veh 1767 1856 1572 1767 1763 0 115 118 8.9 9.6 0.0 0.0 110 1.00 1.00 1.00 0.0 331 695 295 536 2473 0 1.00 1.00 1.00 1.00 0.00 331 695 295 536 2473 0 1.00 1.00 1.00 1.00 2.00 2.00 1.00 1.00 1.00 22.0 2.00 1.00 344 345 333 73 0.74 0.00 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	Gro Volume(v), veh/h				240	514	170	381	1422	0	0	869	284
veh 115 118 8.9 9.6 0.0 0.0 110 110 100 100 0.00 331 695 295 536 2473 0 0 0.73 0.74 0.58 0.71 0.57 0.00 1.00 1.00 1.00 2.00 2.00 344 34,5 33.3 73 0.0 0.0 344 34,5 33.3 73 0.0 0.0 344 34,5 33.3 73 0.0 0.0 344 34,5 33.3 73 0.0 0.0 344 34,5 33.3 73 0.0 0.0 344 34,5 33.3 73 0.0 0.0 344 34,5 33.3 73 0.0 0.0 354 34,5 33.3 73 0.0 0.0 36 34 34,5 33.3 73 0.0 0.0 37 0 0.0 0.0 0.0 0.0 38 35,1 9,9 0.6 0.0 37 0 0.0 0.0 0.0 37 0 0.0 0.0 0.0 38 35,1 9,9 0.6 0.0 37 0 0.0 0.0 0.0 37 0 0.0 0.0 0.0 37 0 0.0 0.0 0.0 38 35,1 9,9 0.6 0.0 37 0 0.0 0.0 0.0 38 35,1 9,9 0.6 0.0 37 0 0.0 0.0 0.0 37 0 0.0 0.0 0.0 38 35,1 9,9 0.6 0.0 37 0 0.0 0.0 0.0 38 35,1 9,9 0.6 0.0 38 37 0 0.0 0.0 38 37 0 0.0 0.0 38 37 0 0.0 0.0 38 37 0 0.0 0.0 38 37 0 0.0 0.0 38 38 0 0.0 0.0 38	Gro Sat Flow(s), veh/h/lr	-			1767	1856	1572	1767	1763	0	0	1763	1572
H15 11.8 8.9 9.6 0.0 0.0 0.0 1.00 1.00 1.00 1.00 1.00	Q Serve(q s). s				11.5	11.8	8.9	9.6	0.0	0.0	0.0	10.8	9.6
1,00	Cycle Q Clearfo c), s				11.5	11.8	8.9	9.6	0.0	0.0	0.0	10.8	9.6
Neh 231 695 285 536 2473 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	Prop In Lane				1.00		1.00	1.00		00.00	0.00		1.00
No. 1, 10, 10, 10, 10, 10, 10, 10, 10, 10,	Lane Grp Cap(c), veh/h				331	695	295	536	2473	0	0	1815	810
A 432 907 384 560 2473 0 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	V/C Ratio(X)				0.73	0.74	0.58	0.71	0.57	0.00	0.00	0.38	0.35
Neh 24, 34, 34, 34, 34, 34, 34, 34, 34, 34, 3	Avail Cap(c a), veh/fh		*		432	206	384	260	2473	0	0	1815	810
veh 38.6 36.8 35.1 9.9 0.6 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	HCM Platoon Ratio				1.00	1.00	1.00	2.00	2.00	1.00	1.00	1.00	1.00
84.4 34.5 33.3 7.3 0.0 0.0 4.2 2.3 18 2.6 0.6 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 9.0 9.2 6.2 4.5 0.4 0.0 38.6 36.8 35.1 9.9 0.6 0.0 0.0 924 1803 37.0 2.6 8 88.1 16.8 51.3 21.9 5.0 5.0 5.0 5.0 1.5 58.0 11.6 12.8 13.8 17.0 0.2 6.5 3.1	Upstream Filter(I)		ı		1.00	1.00	1.00	0.64	0.64	00.0	0.00	0.93	0.93
Help 2.3 1.8 2.6 0.6 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0	Uniform Delay (d), s/ver	_			34.4	34.5	33.3	7.3	0.0	0.0	0.0	13.2	12.9
Neh Neh Neh Neh Neh Neh Neh Neh	incr Delay (d2), s/veh				4.2	23	1.8	2.6	9.0	0.0	0.0	9.0	-
weh 38.6 36.8 35.1 9.9 0.6 0.0 D D D A A A A A A A A A A A A A A A A	Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Helay, s/veh 38.6 36.8 35.1 9.9 0.6 0.0 0.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0	%ile BackOfQ(95%),vef	hlin		W	9.0	9.2	6.2	4.5	0.4	0.0	0.0	7.4	0
hh 98.6 96.8 95.1 9.9 0.6 0.0 1	Unsig. Movement Delay	l, s/veh				į							ĺ
The part of the pa	LnGrp Delay(d),s/veh				38.6	36.8	35.1	0.0	9.0	0.0	0.0	13.8	14.0
1 924 11 10 924 11 11 12 924 11 11 12 924 11 11 12 924 11 11 12 924 11 11 12 924 11 12 924 11 12 924 11 13 924 11 14 924 12 15 924 12 16 924 12 17 924 924 12 18 924 924 12 18 924 924 924 18 924 924 924 18 924 924 924 18 924 924 924 18 924 924 924 18 924 924 924 18 924 924 924 18 924 18 924	LnGrp LOS				0		٥	A	×	¥	∢	n	
eth 37.0 D D D D D D D D D D D D D D D D D D D	Approach Vol, veh/h					924			1803			982	
The State of the S	Approach Delay, s/veh					37.0			2.6			13.9	
FRS 2 5 6 FRO, S 68.1 16.8 51.3 FRO, S 5.0 5.0 G(max), S 58.0 13.0 40.0 G(mt), S 2.0 11.6 12.8 G, c+1), S 2.0 0.2 6.5 FRO, S 41.1	Approach LOS		N	1		Ω			A			00	
He), s 68.1 16.8 51.3 He), s 5.0 5.0 G(max), s 58.0 13.0 40.0 G(m+1), s 77.0 0.2 6.5 Hy 14.1	Times - Assigned Phs		ru			LC.	9		00				M
RO, S 5.0 5.0 5.0 (Gmax), S 58.0 13.0 40.0 2.0 (Q-c+I), S 2.0 11.6 12.8 1.2 (s), S 17.0 0.2 6.5 ary 14.1 14.1	Phs Duration (G+Y+Rc)	s,	68.1			16.8	51.3		21.9				
(Gmax), s 58.0 13.0 40.0 10.0 10.0 10.0 11.6 12.8 17.0 0.2 6.5 17.0 14.1	Change Period (Y+Rc),	co	5.0			5.0	2.0		5.0				
(g_c+l), s 2.0 11.6 12.8 c), s 17.0 0.2 6.5 ary 14.1.	Max Green Setting (Gm.	RX), S	58.0			13.0	40.0		22.0				
c), s 17.0 0.2 6.5	Max Q Clear Time (g. c.	+I1), s	2.0			11.6			13.8				
ary 14	Green Ext Time (p_c), s		17.0			0.2	6.5		3.1				
14	Intersection Summary		ľ	N			N						W
	HCM 6th Cirl Delay			14.1									
	HCM 6th LOS			0									

G-Max 43.2 0.48 0.34 8.3 0.0 8.3

Min 60.5 0.67 0.67 20.8 20.8 20.8

Min 19.5 0.22 0.42 18.3 18.3 8

Min 19.5 0.22 0.67 42.3 0.0 42.3

Lead/Lag Lead-Lag Optimize? Recall Mode Act Effct Green (s) Actuated g/C Ratio

Min 19.5 0.22 0.68 37.2 0.0 37.2 0.0

Control Delay Queue Delay Total Delay v/c Ratio

Approach Delay Approach LOS

0.0

10.3 12.5

C-Max C-Max C 60.5 43.2 0.67 0.48 0.60 0.42 10.1 16.9

Switch Phase
Minimum Initial (s)
Minimum Split (s)
Total Split (s)
Total Split (%)
Yellow Time (s)
All-Red Time 4(s)
Lost Time Adjust (s)
Total Lost Time 4(s)

Notes
User approved volume balancing among the lanes for turning movement.

2019 AM Peak BUILD Conditions - Existing Geometry

Synchro 10 Report 2019ABX.syn

Ø6 (R) 05

2019 AM Peak BUILD Conditions - Existing Geometry

\$ BB

Intersection LOS: B ICU Level of Service B

Control Type: Actualed-Coordinated Coordinated Maximum Vic Ratio. 0.72 Intersection Signal Delay: 18.4 Intersection Capacity Utilization 58.3% Analysis Period (min) 15

2: Jefferson St. & I-25 W. Ramp

Splits and Phases:

Oycle Length: 90
Actuated Oycle Length: 90
Clites: 09 (1%), Referenced to phase 2:NBTL and 6:SBT, Start of Green
Natural Cycle: 60

0.00 0.000.000 1.00 0.00 0.00 0.83 1856 590 0.83 0.27 2216 590 0.0 0.0 2.00 0.3 A 23 1.00 1.00 3618 0.0 SBT 2 123 123 2.8 2.8 1.00 315 0.39 374 374 0.39 0.39 8.8 1767 200 19.1 B 409 0.52 790 8.8 19.0 B 1142 19.0 B 1.00 No 1856 882 0.83 1763 0.63 912 1.00 1.00 0.52 732 0.00 0.00 0.00 0.00 0.00 0.00 0.0 0 8 8 0.00 0.00 Notes User approved volume balancing among the lanes for turning movement 61.6 5.0 42.0 2.0 4.6 WBI 28.4 5.0 5.0 5.0 5.0 00 19,3 B 3 409 0.26 1572 261 261 13.2 13.2 13.2 13.2 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.7 33.2 1.00 N 1856 368 0.83 483 0.26 1856 1.00 30.8 C 51.6 5.0 29.0 23.3 3.5 368 1856 16.5 2.5 483 30.7 Grp Volume(v), veh/m 461 Grp Sat Flow(s), veh/m 1767 1 Q Serve(g, s), s 10.0 Oycle O Clear(g, c), s 10.0 Prop in Lane Lane Grp Cap(c), veh/m 920 Initial Q Delay(d3),sveh 0.0 %ile BaakO(Q(95%),vehin 7.5 Unsig. Movement Delay, sveh LnGrp Delay(d),sveh 28.7 LnGrp LOS Phs Duration (G+Y+Rc), s10.0 Change Period (Y+Rc), s 5.0 Max Green Setting (Gmax)880 Max Q Clear Time (g_C+1)488 Green Ext Time (g_C+1)48 1.00 0 0 0 920 0.83 0.50 Uniform Delay (d), s/veh 28.3 461 Initial Q (Qb), veh
Ped-Bike Adj(A_pbT) 1
Parking Bus, Adj 1
Work Zone On Approach Approach Vof, veh/h Approach Delay, s/veh Percent Heavy Veh, % Avail Cap(c_a), veh/h Future Volume (veh/h) incr Delay (d2), s/veh (raffic Volume (veh/h) Sat How, vehiblin Timer - Assigned Phs Flow Rate, veh/h HCM Platoon Ratio HCM 6th Ctrl Delay HCM 6th LOS Peak Hour Factor Arrive On Green Sal Flow, vehilt Approach LOS V/C Ratio(X) Cap, vehih

0.00 0.00 0.00 0.00 0.00

Min (26.5 0.29 0.43 7.4 7.4 7.4

Min 26.5 0.29 0.58 28.5 28.5 28.5

Min 26.5 0.29 0.58 30.8 30.8

Control Delay Queue Delay **Fotal Delay**

v/c Ratio

Min 53.5 0.59

40.6

Lead/Lag Lead-Lag Optimize? Recall Mode Act Effot Green (s) Actuated g/C Ratio

Fotal Lost Time (s)

0.47 25.9 0.0 25.9

0.74 25.5 0.0 25.5

4 E. 8

Approach Delay Approach LOS

47.0 4.0 4.0 1.0 0.0 5.0

Total Split (s)
Total Split (%)
Yellow Time (s)
All-Red Time (s)
Lost Time Adjust (s)

Switch Phase Minimum Initial (s) Minimum Split (s)

Detector Phase

14.4%

1.0 0.0 5.0 Lead

Terry O. Brown, PE 12/18/2018

HCM 6th Signalized Intersection Summary

3: Jefferson St. & I-25 E.

. Brown, PE 12/18/2018

Terry O.

3: Jefferson St. & I-25 E. Ramp

1

490 490 AN

102 102 рт+рt

₹ 88 8 ¥

217

306 306 NA

764 Perm Perm

Traffic Volume (vph) Future Volume (vph)

Protected Phases Permitted Phases

N

		-	
200	or o	10	
▼ D6 (R)			
7.5			

4

3: Jefferson St. & I-25 E. Ramp

Splits and Phases:

Intersection LOS: C ICU Level of Service B

Intersection Capacity Utilization 58.3%

Analysis Period (min) 15

ntersection Signal Delay: 21.5 Maximum v/c Ratio: 0.74

Control Type: Actuated-Coordinated

Vatural Cycle: 60

Actuated Cycle Length: 90 Offset: 6.3 (7%), Referenced to phase 2:NBT and 6:SBTL, Start of Green

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2019 AM Peak BUILD Conditions - Existing Geometry

2019 AM Peak BUILD Conditions - Existing Geometry

Terry O. Brown, PE 12/18/2018 Timings 4: Jefferson St. & McLeod Rd.

EBL EBL gurations 14 14 ume (vph) 14 14								
igurations ume (vph) ume (vph)	EBI	WE	WBT	WER	NBL	NBT 187	SBI	SBI
ume (vph) ume (vph)	25	15	+	W_	K	44	W.	46
ume (vph)	46	88	83	449	17	516	282	443
	46	88	83	449	17	516	282	443
THE LANGE	NA.	Регт	NA	VO+MIC	pm+pt		pm+pt	NA
Protected Phases	4		60	8	2	CI	-	9
Permitted Phases 4		00	1	00	N		9	
Detector Phase 4	4	00	00	-	2	N	-	9
Switch Phase								
		5.0	5.0	5.0			5.0	
21.0		21.0	21.0	10.0			10.0	21.0
43.0	43.0	43.0	43.0	20.0	20.0		20.0	
		43.0%	43.0%	20.0%		37.0%		37.0%
4.0		4.0	4.0	4.0				
1.0		1.0	1.0	1.0	1.0			
t (s) 0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0
		5.0	5.0	5.0	5.0			
Lead/Lag				Lead	Lead	Lag	Lead	Lag
Lead-Lag Optimize?								
Min	Min	Min	Min	Min		Max		Max
	11.4	11.4	11.4	30.6		32.1		40.6
	0.16	0.16	0.16	0.42	Ε.	0.44	0.71	0.56
60:0	0.27	0.54	0.12	0.80	0.04	0.44		0.30
	23.3	38.7	27.1	25.4		15.9	8.5	9.5
0.0	0.0	0.0	0.0	0.0		0.0		0.0
26.7	23.3	38.7	27.1	25.4		15.9		9.5
0	O	۵	O	O	K	ω	×	A
Approach Delay	23.9		27.6			15.5		9.1
	O		O			00		A

Intersection LOS: B ICU Level of Service B intersection Summary
Cycle Length: 100
Actuated Cycle Length: 72.8
Natural Cycle: 80
Control Type: Semi Act-Uncoord
Maximum wic Ballio: 0.80
Intersection Signal Delay: 16:9
Intersection Capacity Unitication 59.5%
Analysis Period (min) 15

188 4: Jefferson St. & McLeod Rd. Splits and Phases:

2019 AM Peak BUILD Conditions - Existing Geometry

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	1	1	P	1	ļ	1	•	-	•	A	-	₹
Movement	E	183	EBR	WBL	WBI	WBR	MBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	K	ž,		K	4	V.	IF.	44		W-	4	
Traffic Volume (veh/h)	14	46	17	88	58	449	17	516	53	282	443	Ki
Future Volume (veh/h)	14	46	17	88	53	449	17	516	52	282	443	Ki
Initial Q (Qb), veh	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	-	9			No			S			No.	
Adi Sat Flow, veh/h/ln	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856
Adi Flow Rate, veh/h	19	28	21	110	36	561	2	645	31	352	554	38
Peak Hour Factor	0.80	0.80	080	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80
Percent Heavy Veh, %	m	e	ო	es	m	e	ო	e	es	က	က	ľ
Cap, veh/ft	342	435	157	477	62	753	451	1215	28	490	1491	97
Arrive On Green	0.33	0.33	0.33	0.33	0.33	0.33	90.0	0.35	0.35	0.14	0.44	0.44
Sal How, vehin	815	1300	471	1309	1856	1572	1767	3424	164	1767	3361	218
Gro Volume(v), veh/h	18	0	79	110	36	561	21	332	344	352	290	300
Grp Sat Flow(s), veh/h/ln	00	0	1771	1309	1856	1572	1767	1763	1826	1767	1763	1816
Q Serve(q s), s		0.0	2.8	5.8	1.2	26.1	9.0	13.5	13.5	10.7	9.9	9.9
Cycle Q Clear(g c), s	2.6	0.0	2.8	8.6	12	26.1	9.0	13.5	13.5	10.7	6.6	9.9
Prop In Lane	1.00	l	0.27	1.00		1.00	1.00		0.09	1.00		0.12
Lane Grp Cap(c), veh/h	342	0	592	477	621	753	451	625	648	490	782	806
V/C Ratio(X)	0.05	00.00	0.13	0.23	90.0	0.74	0.05	0.53	0.53	0.72	0.37	0.37
Avail Cap(c a), veh/h	412	0	746	591	782	888	647	625	648	529	782	806
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	00.00	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	21.2	0.0	20.9	23.9	20.4	19.0	15.9	23.1	23.1	15.4	16.7	16.7
Incr Delay (d2), siveh	0.1	0.0	0.1	0.2	0.0	29	0.0	3.2	3.1	4.3	4.	1.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln 0.5	An 0.5	0.0	21	3.2	6.0	14.5	0.5	10.0	10.3	8.1	7.4	7.8
Unsig. Movement Delay, s/veh	s/veh											
LnGrp Delay(d),s/veh	21.3	0.0	21.0	24.1	20.4	21.9	15.9	26.3	26.2	19.7	18.1	18.0
LnGrp LOS	O	A	O	O	O	٥	В	O	0	8	8	
Approach Vol, veh/h		97			707			269			942	
Approach Delay, s/veh		21.1			22.2			26.0			18.7	
Approach LOS		O			O			O			m	
Timer - Assigned Phs	green.	CI		4	w	9		00				
Phs Duration (G+Y+Rc), s18.0	\$18.0	37.0		35.2	10.0	45.0		35.2				
Change Period (Y+Rc), s	s 5.0	2.0		5.0	2.0	5.0)	5.0				
Max Green Setting (Gmax),590	ax),580	32.0		38.0	15.0	32.0		38.0				
Max Q Clear Time (g_c+l11)257	11125	15.5	ı	4.8	2.6	11.9		28.1				
Green Ext Time (p_c), s	0.3	3.9		0.5	0.0	3.5		2.1				
Intersection Summary												N
HCM 6th Ctrl Delay			21.9							,		M
00 - 10 - 10 - 10 - 1			C									

2019 AM Peak BUILD Conditions - Existing Geometry

ntersection							
nt Delay, s/veh 0.	1						
Movement EBI	_ EBR	NBL	NBT	SBT	SBR		
ane Configurations	A STATE OF THE PARTY OF THE PAR	1 M South Book	414	47>		The second secon	The state of the s
	3 2	6	1032	768			
	3 2		1032	768			operation manufacture seation and particular construction
Conflicting Peds, #/hr		0	0	0			
Sign Control Stop	o Stop						
	- None		None		None	the commence of the contract o	
	0 -	7.	NONE		140116		
	Total Control of the		0	0			
Veh in Median Storage			0	0		and the same and t	
	0 -		83	83			
Peak Hour Factor 8:				3			
	3 3						
Mvmt Flow	4 2	/	1243	925	17	A commence of the second secon	
Major/Minor Minor	2 1	Aniort	T.	laior2			
Major/Minor Minor		/lajor1 942	0	lajor2 -			
Conflicting Flow All157			-	-		The state of the s	
Stage 1 93			70				
Stage 2 63			-	-			
Critical Hdwy 6.8		4.16		-			
Critical Hdwy Stg 1 5.8		_	-	-			
Critical Hdwy Stg 2 5.8			-	-	-		
Follow-up Hdwy 3.5		2.23	-		_	T II III	
Pot Cap-1 Maneuverl7		1069	-				
Stage 1 67		-	-	-	-	шиноправа	alini
Stage 2 48	7 -	-	+	-	-		
Platoon blocked, %	1 1			-	-		
Mov Cap-1 Maneuver7	3 *758	1069	-				
Mov Cap-2 Maneuver7	3 -	-	-	-	-		
Stage 1 65	6 -	-	all sign	-			
Stage 2 48		-	-	-	-		
	line in		III I				
Approach E	В	NB		SB			
HCM Control Delay,19.		0.1		0	***************************************		
	C		de la	J	Andrew Manager		de la companya de la
TOW LOS				photo in			
Minor Lane/Major Mvm	t NBL	NBT	BLn1	SBT	SBR		
Capacity (veh/h)	1069	***************************************	250				
HCM Lane V/C Ratio	0.007		0.024		Sanar Androni (Chillia		
HCM Control Delay (s)	8.4		19.8	-	mouning general		
HCM Lane LOS	Α			_		The state of the s	Salara Sur Communication (State of State of Stat
			ministrative and a literature by				
HCM 95th %tile Q(veh)) 0		0.1				
Notes	The second secon						

Intersection												
Int Delay, s/veh 1.6	6											
Movement EBI	L	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					4			414			414	7
	0	0	0	17	1	40	0	949	15	35	622	50
· · · · · · · · · · · · · · · · · · ·	0	0	0	17	1	40	0	949	15	35	622	50
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
			Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
	-		None	-		None	-		None	-	-	Free
	-	-	-	-	-	-	-	-	-	-	-	75
Veh in Median Storage	,-#	0	-	-	0	-	-	0	-	-	0	-
	<i>-</i>	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor 83	3	83	83	83	83	83	83	83	83	83	83	83
	3	3	3	3	3	3	3	3	3	3	3	3
, ,	0	0	0	20	1	48		1143	18	42	749	60
Major/Minor			M	linor1		M	lajor1		M	lajor2		
Conflicting Flow All				1611	1985	581	749	0		1161	0	0
Stage 1					1152	-	_	_	_	-	-	-
Stage 2				459	833	-	_	-	_	-	-	-
Critical Hdwy				6.86	6.56	6.96	4.16	-	_	4.16	-	-
Critical Hdwy Stg 1				5.86	5.56	-	-	-	_		-	-
Critical Hdwy Stg 2				5.86	5.56	-	-	-	_	-	-	-
Follow-up Hdwy				3.53	4.03	3.33	2.23	-	_	2.23	-	-
Pot Cap-1 Maneuver				94	60	454	849	-	_	592	-	0
Stage 1				261	268	-	-	_	_	-	-	0
Stage 2				600	379	-	-	-	_	-	-	0
Platoon blocked, %								_	_		-	
Mov Cap-1 Maneuver				83	0	454	849	-	_	592	-	-
Mov Cap-2 Maneuver				83	0	-	-	-	_		-	-
Stage 1				261	0	-	-	-	_	-	-	-
Stage 2				527	0	-	_	_	_	-	_	-
- 13.gv -												
Approach				WB			NB			SB		
HCM Control Delay, s				33.4			0			1.2		
HCM LOS				D								
Minor Lane/Major Mvm	ıt	NBL	NBT	NBR	'BLn1	SBL	SBT					
Capacity (veh/h)		849	-	-	195	592	-					
HCM Lane V/C Ratio		-	-		0.358		-					
HCM Control Delay (s)		0	-			11.5	0.6					
HCM Lane LOS		A	-	-	D	В	Α					
HCM 95th %tile Q(veh))	0	-	-	1.5		-					

Intersection						
Int Delay, s/veh	22.6					
Movement	FRI	FBR	NRI	NBT	SRT	SBR
Lane Configuration			, ,DL	414	↑ ↑	ODIN
Traffic Vol, veh/h	60	153	160	878	631	12
Future Vol, veh/h	60	153	160	878	631	12
Conflicting Peds, #		0	0	0/0	031	
				Free		
Sign Control						
RT Channelized		None	-	None		None
Storage Length	0	-	-	-	-	
Veh in Median Sto	rage0#	# -	-		0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	83	83	83	83	83	83
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	72	184		1058	760	
THE POW	12	10-7	.00	1000	, 00	17
Major/Minor M	1inor2	N	lajor1	M	lajor2	
Conflicting Flow Al	11682	387	774	0	_	0
Stage 1	767	_	_	_	_	_
Stage 2	915	_	_	_	_	_
Critical Hdwy		6.96	116			_
			4.10	_	-	-
Critical Hdwy Stg 1		-	-	-	-	-
Critical Hdwy Stg 2		-	-	-	-	-
Follow-up Hdwy	3.53	3.33	2.23	-	-	-
Pot Cap-1 Maneuv	/er120	*827	1142	-	-	-
Stage 1	709	-	-	-	-	-
Stage 2	348	-	-	-	-	-
Platoon blocked, %		1	1	_	_	_
Mov Cap-1 Maneu				_	_	
•			1142	_	-	-
Mov Cap-2 Maneu		-	-	-	-	-
Stage 1	418	-	-	-	-	-
Stage 2	348	-	-	-	-	-
Approach	ED		NID		CD	
Approach	EB		NB		SB	
HCM Control Dela			2.5		0	
HCM LOS	F					
Minar Lana/Maiar I	N /1:	NIDI	NIDT	DI sa	CDT	CDD
Minor Lane/Major I	ivivmt				ORI	SBR
Capacity (veh/h)		1142		207	-	-
HCM Lane V/C Ra	itio (0.169	-	1.24	-	-
HCM Control Delay	y (s)	8.8	1.3	188.6	-	-
HCM Lane LOS	,	Α	A	F	-	-
HCM 95th %tile Q	(veh)	0.6		13.4	-	
	(1311)	0.0		.0.7		
Notes						
~: Volume exceeds	s capa	city	\$: D	elay e	xceed	ls 300s
		•				

Terry O. Brown, PE 12/18/2018 Timings 1: Jefferson St. & Singer Blvd.

	4	1	-	1	ţ	1	4-	4	A	-	
Lare Group		田田	588	WE	WET	W.	NST NST	NBR	83	SBI	
Lane Configurations	N-	4	11	P. P.	44	ħ.	++	V-	W-	44	
Traffic Volume (vph)	223	37	466	296	45	194	274	158	15	632	
Future Volume (vph)	223	37	466	296	45	194	274	158	15	632	
Turn Type	Prof	NA	АО+ШО	Prot	N	pm+pt	NA	Perm	pm+pt	NA	
Protected Phases	7	4	4	m	60	c	2		-	9	
Permitted Phases			4		ì	21		2	9		
Detector Phase	7	4	ιņ	က	00	ιO	N	2	-	9	
Switch Phase											
Minimum Initial (s)	5.0	5.0	2.0	5.0	2.0	5.0	2.0	5.0	2.0		
Minimum Split (s)	10.0	21.0	10.0	10.0	21.0	10.0	21.0	21.0	10.0	21.0	
Total Split (s)	25.0	30.0	35.0	21.0	26.0	35.0	50.0		17.0		
Total Som (%)	21.2%	C) I	29.7%	17.8%	22.0%	29.7%	42.4%	No.		W	
Yellow Time (s)	4.0		4.0	4.0	4.0	4.0	4.0	4.0			
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	
Lost Time Adjust (s)	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Total Lost Time (s)	5.0	64	5.0	5.0	5.0	5.0	5.0		5.0	5.0	
Lead/Lag	Lead	Lag	Lead	Lead	Lag	Lead	Lag		Lead	Lag	
Lead-Lag Optimize?											
Recall Mode	Min	Min	Min	Min	Min	Min	Max	Max	Min	Max	
Act Effct Green (s)	17.6	10.9	39.6	13.7	7.0	58.7	47.8	47.8	35.9	30.0	
Actuated g/C Ratio	0.18	0.11	0.40	0.14	0.07	09.0	0.49	0.49	0.36	0.30	
v/c Ratio	77.0	0.20	0.75	0.67	0.35	0.41	0.17	0.20	0.04	0.78	
Control Delay	56.2	43.7	28.9	48.4	28.6	14.1	12.1	3.0	13.0	38.9	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Delay	56.2	43.7	28.9	48.4	28.6	14.1	15.1	3.0	13.0	38.9	
SOT	w	٥	O	O	O	00	00	×	80	0	
Approach Delay .		38.0			43.8		11.7			38.4	
Approach LOS		0			٥		00			۵	
Intersection Summary				ı							

Intersection LOS: C ICU Level of Service C Intersection Surringsy
Oycle Length: 118
Oycle Length: 188.4
Natural Oycle: 80
Control Type: Semi Act-Uncoord
Maximum wit Ranio. 0.78
Intersection Signal Delay: 32.5
Intersection Capacity Utilization 71.5%
Analysis Period (min) 15

E03 1: Jefferson St. & Singer Blvd. Splits and Phases: ₹ 05

2019 PM Peak NOBUILD Conditions - Existing Geometry

Synchro 10 Report 2019PNX.syn

HCM 6th Signalized Intersection Summary 1: Jefferson St. & Singer Blvd.

12/18/2018	efferson St. & Singer Blvd.
Terry O. Brown, PE	M 6th Signalized Intersection Summary

Movement EBL Lane Configurations 7 Tradit Volume (vehh) 223 Future Volume (vehh) 223 Future Volume (vehh) 223 Farsing Bus, Adi 1:00 Ped-Bike Adi(A_DbT) 1:00 Ped-Bike Adi(Sat Flow, vehh/h) 1886 Adi Flow Rate, vehh/h 240 Adi Sat Flow, vehh/h 240 Adi Flow Rate, vehh/h 240 Adi Flow Rate, vehh/h 240 Adi Flow Rate, vehh/h 240 Pegest Hour Factor 0,93	EBT 4	*	WEL	WBT	WBR	NBL	NBT	NEW Y	SBL	SBT	SBR
1.0 (r) 22 (r) 22 (r) 23 (r) 24 (r) 24 (r) 26 (r) 2		k						*	M		
22 (r			K	44		F	#	PL.	-	4	
22 (III		466	596	45	46	194	274	158	15	632	134
1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0	3 37	466	296	45	46	194	274	158	15	632	134
1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0	0 0	0	0	0	0	0	0	0	0	O	0
1.0 aach 1.8 24 0.9		1.00	1.00		1.00	1.00		1.00	1.00		1.00
0.00	00.1 0	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
20.00	S			No			No			S S	
0.0	8 1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856
0.5		501	318	48	49	209	295	0	16	680	144
76	3 0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
0	60	က	ო	က	ო	es	က	m	es	က	ന
Cap, veh/h 272	2 433	513	389	340	303	351	1480		544	1082	229
Arrive On Green 0.15	5 0.23	0.23	0.11	0.19	0.19	0.09	0.42	0.00	0.05	0.37	0.37
Sal Flow, veh/h 1767	7 1856	1572	3428	1763	1572	1767	3526	1572	1767	2895	613
Grp Volume(v), veh/h 240	0 40	501	318	48	49	209	295	0	16	414	410
3rp Sat Flow(s), veh/h/ln 1767	7 1856	1572	1714	1763	1572	1767	1763	1572	1767	1763	1745
	2 1.8	25.0	9.7	2.4	2.8	7.4	5.7	0.0	9.0	20.6	20.6
r(g_c), s	2 1.8	25.0	9.7	2.4	2.8	7.4	5.7	0.0	9.0	20.6	20.6
		1.00	1.00	1	1.00	1.00		1.00	1.00		0.35
o(c), veh/h		513	389	340	303	321	1480		244	629	652
_		0.98	0.82	0.14	0.16	0.60	0.20		0.03	0.63	0.63
Avail Cap(c_a), veh/h 330	0 433	513	512	345	308	189	1480		099	629	652
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
Upstream Filter(I) 1.00		1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00
Uniform Delay (d), s/veh 44.4	.,	35.7	46.4	35.9	36.0	19.6	19.7	0.0	18.2	27.5	27.5
nor Delay (d2), siveh 20.5		33.6	7.7	0.2	0.2	1.6	0.3	0.0	0.0	4.5	4.6
nitial 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/irt2.3	3 1.5	24.3	8.0	6.1	2.0	5.6	4.3	0.0	0.4	14.4	14.3
ay, s								1			
.nGrp Delay(d),siveh 64.9	33	69.3	25.7	38.1	36.3	212	20.0	0.0	18.2	32.0	32.0
nGrp LOS	C	ш	٥	٥	٥	O	m	1	20	٥	اد
Approach Vol, veh/h	781			415			204	K		840	I
Approach Delay, s/veh	99.1			49.9			20.5			31.7	1
Approach LOS	ш			0			ပ			Ö	
Timer - Assigned Phs	2	00	4	S	9	1	8				
Phs Duration (G+Y+Rc), s10.0	0.05 0		30.0	15.0	45.0	21.5	25.7				
Change Period (Y+Rc), s 5.0			5.0	5.0	2.0	5.0	5.0				
Max Green Setting (Gmax) 20	4		25.0	30.0	27.0	20.0	21.0				
Max Q Clear Time (g_c+l1)2s5	5 7.7	7	27.0	9.4	22.6	16.2	4.8				
Green Ext Time (p_c), s 0.0	0 2.1	0.5	0.0	9.0	2.0	0.2	0.4				
ntersection Summary										1	
HCM 6th Cirl Delay		43.0									-
HCM 6th LOS		٥									

Notes Unsignalized Delay for [NBR] is excluded from calculations of the approach delay and intersection delay.

2019 PM Peak NOBUILD Conditions - Existing Geometry

HCM 6th Signalized Intersection Summary	Terry O. Brown, PE
2: Jefferson St. & I-25 W. Ramp	12/18/2018

Terry O. Brown, PE 12/18/2018

		•		•			-	,				
Movement	田田	EBE	88	WBI	NB.	WEH	N	MBI	NEW NEW	SBL	SBT	SBR
Lane Configurations				M	44	W_	15	44			44	NC.
Traffic Volume (veh/h)	0	0	0	364	493	47	382	581	0	0	1244	618
Future Volume (veh/h)	0	0	0	364	493	47	385	581	0	0	1244	618
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		1.00	1.00	1	1.00	1.00	1	1.0
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	Į.				8			9			S.	
Adj Sat Flow, veh/fulln				1856	1856	1856	1856	1856	0	0	1826	1856
Adj Flow Rate, veh/h				301	834	49	405	612	0	0	1309	851
Peak Hour Factor				0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %				ო	က	ო	က	က	0	0	e	(2)
Cap, veh/h				368	772	327	431	2456	0	0	1630	727
Arrive On Green				0.21	0.21	0.21	0.37	1.00	0.00	0.00	0.46	0.46
Sat Flow, veh/h				1767	3711	1572	1767	3618	0	0	3618	1572
Gro Volume(v), veh/h				301	634	49	405	612	0	0	1309	651
Gro Sat Flow(s), veh/h/in	-	8)		1767	1856	1572	1767	1763	0	0	1763	1572
Q Serve(g s), s				17.1	17.1	2.7	16.8	0.0	0.0	0.0	33.3	39.9
Cycle Q Clearly c), s				17.1	17.1	27	16.8	0.0	0.0	0.0	33.3	39.9
Prop In Lane				1.00		1.00	1.00		0.00	0.00		1.00
Lane Grp Cap(c), veh/h				368	772	327	431	2456	0	0	1630	727
V/C Ratio(X)				0.82	0.82	0.15	0.94	0.25	0.00	0.00	0.80	0.90
Avail Cap(c a), veh/h		15		421	884	374	538	2456	0	0	1630	727
HCM Platoon Ratio				1.00	1.00	1.00	2.00	2.00	1.00	1.00	1.00	1.00
Upstream Filter(I)				1.00	1.00	1.00	0.64	0.64	0.00	0.00	0.58	0.58
Uniform Delay (d), s/veh			V	39.7	39.7	34.0	20.7	0.0	0.0	0.0	24.1	25.9
Incr Delay (d2), siveh				10.8	5.6	0.2	16.2	0.2	0.0	0.0	2.5	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
%ile BackOfQ(95%),veh/In	Nin			13.2	13.1	6,	13.2	0.1	0.0	0.0	18.6	21.3
Unsig. Movement Delay, s/veh	'sveh										1	
LnGrp Delay(d), siveh				50.5	45.3	34.2	36.8	0.2	0.0	0.0	199	36.0
LuGrp LOS				0		٥		4	×	<	3	1
Approach Vol, veh/h			1		984			101	Ì		1960	
Approach Delay, s/veh					46.3			0.4	Į		23.0	1
Approach LOS		ľ	I		0			m	l		ی	
Timer - Assigned Phs		cv			2	40		60				
Phs Duration (G+Y+Rc), s	8	78.2			24.6	53.6	I	26.8				
Change Period (Y+Rc), s	· so	5.0			5.0	5.0		5.0				
Max Green Setting (Gmax), s	RX), S	70.0			26.0	39.0		25.0				
Max Q Clear Time (g c+l1), s	+11), s	2.0			18.8	41.9		19.1				
Green Ext Time (p_c), s	10	4.9			0.8	0.0		2.7				
Intersection Summary											V	M
HCM 8th Ctrl Delaw			30.0									
HCM 6th LOS			30									
TOTAL PROPERTY.			,									

Switch Phase
Minimum Initial (s)
Minimum Spiti (s)
Total Spiti (s)
Total Spiti (%)
Yellow Time (s)
Yellow Time (s)
All-Red Time Adjust (s)
Lost Time Adjust (s)

2

364 364 Perm

Lane Configurations
Traffic Volume (vph)
Future Volume (vph)
Turn Type
Protected Phases
Permitted Phases

MBI

2: Jefferson St. & I-25 W. Ramp

Timings

C/I

to or ro

00 00

Detector Phase

00

4.2 4.2 A

Control Delay Queue Delay Total Delay LOS

Approach Delay Approach LOS

Min 23.8 0.23 0.12

Lead/Lag Lead-Lag Optimize? Recall Mode Act Effct Green (s) Actuated g/C Ratio v/c Ratio

Min 23.8 0.23 0.81 47.7 47.7

Min 23.8 0.23 0.81 56.4 56.4

Notes
User approved volume balancing among the lanes for furning movement.

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Ø6 (R)

-

Intersection LOS: D

Intersection Signal Delay: 38.4 Intersection Capacity Utilization 88.2%

Analysis Period (min) 15

2: Jefferson St. & I-25 W. Ramp

Splits and Phases:

02 (R)

Cycle Length: 105
Actualed Cycle Length: 105
Offset: 0.7 (1%), Referenced to phase 2:NBTL and 6:SBT, Start of Green
Natural Cycle: 75
Control Type: Actualed-Coordinated
Maximum vic Ratio: 0.91

2019 PM Peak NOBUILD Conditions - Existing Geometry

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2019 PM Peak NOBUILD Conditions - Existing Geometry

HCM 6th Signalized Intersection Summary 3: Jefferson St. & I-25 E. Ramp Terry O. Brown, PE 12/18/2018

Terry O. Brown, PE 12/18/2018

	100	193	EBR	WEL	WBI	WBR	NBL	MBI	NBR	SBI	SBI	SBF
Lane Comigurations	M -	44	R					44		#	#	
Traffic Volume (veh/h)	482	657	209	0	0	0	0	484	328	303	941	
Future Volume (veh/h)	482	657	209	0	0	0	0	484	358	303	84	
Initial Q (Qb), veh.	0	0	0				0	0	0	0	0	
Ped-Bike Adj(A_pbT)	1.00		1.00				1.0	1	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	1.0
Work Zone On Approach		S S						8			No	1
Adj Sat Flow, veh/fv/in	1856	1856	1856				0	1856	1856	1856	1856	
Adj Flow Rate, veh/h	404	852	222				0	515	381	322	1001	
Peak Hour Factor	0.94	0.94	0.94				0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	m	m	ო				0	60	က	ო	က	
Cap, veh/fh	208	1066	452				0	829	635	439	2177	
Arrive On Green	0.29	0.29	0.29				0.00	0.44	0.44	0.25	1.00	0.00
Sat Flow, veh/h	1767	3711	1572				0	2025	1429	1767	3618	
Gro Volume(v), veh/h	404	852	222				0	470	426	322	1001	
Gro Sat Flow(s), veh/h/in	1767	1856	1572				0	1763	1598	1767	1763	
Q Serve(g. s), s	22.2	22.3	12.3				0.0	21.2	21.2	10.6	0.0	0.0
Cycle Q Clear(g_c), s	22.2	22.3	12.3				0.0	21.2	21.2	10.6	0.0	0.0
Prop In Lane	1.00		1.00				0.00		0.89	1.00		0.00
Lane Grp Cap(c), veh/ħ	208	1066	452				0	784	711	439	2177	
V/C Ratio(X)	0.80	0.80	0.49				0.00	0.60	0.60	0.73	0.46	0.00
Avail Cap(c_a), veh/h	589	1237	524				0	784	711	238	2177	
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00	2.00	2.00	1.00
Upstream Filter(I)	1.00	1.00	1.00				0.00	1.00	1.00	0.34	0.34	0.00
Uniform Delay (d), s/veh	34.6	34.6	31.1				0.0	22.1	22.1	13.4	0.0	0.0
Incr Delay (d2), s/veh	6.5	3.3	8.0				0.0	3.4	3.7	1.4	0.2	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
%ile BackOfO(95%),veh/lrl 5.6	Art 5.6	15.7	8.3				0.0	14.3	13.3	4.8	0.1	0.0
Unsig. Movement Delay, s/veh	s/veh										0	•
LnGrp Delay(d),sweh	41.1	37.9	31.9				0.0	9.0	9.0	6.4	7.0	0.0
LnGrp LOS			٥				×	0	ن	20	×	
Approach Vol, veh/h		1478						896			1323	
Approach Delay, s/veh		37.9						25.6			3.00	
Approach LOS								O			×	
Timer - Assigned Phs	1	63		4		9		V			I	
Phs Duration (G+Y+Rc), s18.2	s18.2	51.7		35.2		8.69						
Change Period (Y+Rc), s	5.0	5.0		2.0		5.0						
Max Green Setting (Gmax),980	085(xs	36.0		35.0		80.0						
Max Q Clear Time (g_c+l11)2s5	11125	23.2		24.3		2.0						
Green Ext Time (p_c), s	0.5	4.9		5.9		9.5						
Intersection Summany		V			I							n
HCM 6th Cirl Delay			22.7									
HCM 6th LOS			O		ı							

Permitted Phases
Detector Phase
Switch Phase
Minimum Initial (s)
Minimum Split (s)
Total Split (%)
Yellow Time (s)
Lost Time Adjust (s)
Total Lost Time (s)

148 AN 8

₹8 8 ¥

414 657 NA

Traffic Volume (vph) Future Volume (vph)

Protected Phases

3: Jefferson St. & I-25 E. Ramp

1

pm+pt 303

CV

Notes
User approved volume balancing among the lanes for turning movement.

1

3: Jefferson St. & I-25 E. Ramp

Splits and Phases:

D6 (R)

02 (R)

Intersection LOS: C ICU Level of Service E

Intersection Signal Delay: 29.2 Intersection Capacity Utilization 88.2% Analysis Period (min) 15

Natural Cycle: 55 Confrol Type: Actuated-Coordinated Maximum v/c Ratio: 0.81

Actuated Cycle Length: 105 Offset: 2.1 (2%), Referenced to phase 2:NBT and 6:SBTL, Start of Green

Min C-Max 61.8 61.8 0.59 0.59 0.59 0.49 43.6 15.9 0.0 0.0 43.6 15.9 D B 22.6

Min C-Max 33.2 40.3 0.32 0.38 0.39 0.68 15.8 27.5 0.0 0.0 15.8 27.5 B C C

33.2 0.32 0.78 38.1 38.1

Min 33.2 0.32 0.79 44.6 0.0 0.0

Control Delay Queue Delay Total Delay

Approach Delay Approach LOS

Lead/Lag
Lead-Lag Optimize?
Recall Mode
Act Effct Green (s)
Actualed g/C Ratio

2019 PM Peak NOBUILD Conditions - Existing Geometry

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2019 PM Peak NOBUILD Conditions - Existing Geometry

Timings
Timings
4: Jefferson St. & McLeod Rd.

ane Group EBL EBT WEL WBT WBR NBI are Configurations \$	*	WBR	10	4500	100	100
13 66 103 12 329 13 66 103 12 329 Perm NA Perm NA Pm+ov 4 4 8 8 1 5.0 5.0 5.0 5.0 5.0 21.0 21.0 21.0 21.0 10.0 43.0% 43.0% 43.0% 22.0% 4.0 4.0 4.0 4.0 4.0			TOP:	202	200	200
13 66 103 12 328 13 66 103 12 328 14 8 8 1 4 4 8 8 8 1 5.0 5.0 5.0 5.0 5.0 43.0 43.0% 43.0% 43.0% 43.0% 4.0 4.0 4.0 4.0 4.0	N	W_	15	44	F	44
Ferm NA Perm NA pm+ov 4 8 8 8 4 4 8 8 1 5.0 5.0 5.0 5.0 5.0 21.0 21.0 21.0 21.0 10.0 43.0 43.0 43.0 43.0 20.0 43.09, 43.09, 43.09, 43.09, 20.09 43.09, 43.09, 43.09, 43.09, 20.09 43.09, 43.09, 43.09, 43.09, 20.09 43.09, 43.09, 43.09, 43.09, 20.09 43.09, 43.09, 43.09, 43.09, 20.09		329		470	403	629
Perm NA Perm NA pm+ov 4		359		470	403	629
4 8 8 1 4 4 8 8 1 5.0 5.0 5.0 5.0 5.0 21.0 21.0 21.0 21.0 10.0 43.0% 43.0% 43.0% 43.0% 4.0 4.0 4.0 4.0 4.0		W+Ov	pm+pt	N	pm+pt	NA
50 5.0 5.0 5.0 5.0 5.0 5.0 5.0 43.0 43.0 43.0 43.0 43.0 43.0 43.0 43	00	-		2	-	9
5.0 5.0 5.0 5.0 5.0 5.0 5.0 5.0 5.0 5.0	1	00			9	
5.0 5.0 5.0 5.0 5.0 5.0 5.0 5.0 21.0 21.0 21.0 21.0 21.0 21.0 21.0 21		٠	ß	2	1	9
5.0 5.0 5.0 5.0 5.0 5.0 5.0 5.0 21.0 21.0 21.0 21.0 21.0 21.0 21.0 21						
21.0 21.0 21.0 21.0 10.0 43.0 43.0 43.0 43.0 20.0 43.0% 43.0% 43.0% 20.0% 4.0 4.0 4.0 4.0 4.0		5.0	2.0	2.0	2.0	5.0
43.0 43.0 43.0 43.0 20.0 43.0% 43.0% 43.0% 20.0% 4.0 4.0 4.0 4.0 4.0 4.0	飪	10.0	10.0	21.0	10.0	21.0
43.0% 43.0% 43.0% 43.0% 20.0% 4.0 4.0 4.0 4.0 4.0 4.0		20.0	20.0	37.0	20.0	37.0
4.0 4.0 4.0 4.0 4.0	43.0%	20.0%	20.0%	37.0%	20.0% 3	37.0%
		4.0	4.0	4.0	4.0	
1.0 1.0 1.0 1.0		1.0	1.0	1.0	1.0	1.0
0.0 0.0 0.0 0.0		0.0	0.0	0.0	0.0	
5.0 5.0 5.0 5.0 5.0		5.0	5.0	5.0	5.0	
Lead		Lead	Lead	Lag	Lead	Lag
Lead-Lag Optimize?						
Min Min Min Min Min		Min	Min	Max	Min	Max
en (s) 11.6 11.6 11.6 31.6	N.	31.6	37.7	32.1	52.1	41.4
0.16 0.16 0.16 0.43		0.43	0.51	0.44	0.71	0.56
0.06 0.33 0.55 0.04 0.47 (0.47	0.05	0.41	0.67	0.35
24.8 39.3 25.8 11.0		11.0	5.6	15.2	10.9	9.9
0.0 0.0 0.0 0.0 0.0		0.0	0.0	0.0	0.0	0.0
24.8 39.3 25.8 11.0		11.0	5.6	15.2	10.9	9.9
8 0 0 0 0		œ	A	83	8	«
	18.0			15.0		10.3
Approach LOS C B	00			83		80

lorcochen Stamman		
Ovcie Length: 100		
Actuated Cycle Length: 73.7		
Natural Cycle: 60		
Control Type: Semi Act-Uncoord		
Maximum v/c Ratio: 0.67		
ntersection Signal Delay: 13.8	Intersection LOS: B	
ntersection Capacity Utilization 63.6%	ICU Level of Service B	
Analysis Period (min) 15		
Splits and Phases: 4: Jefferson St. & McLeod Rd.	eod Rd.	
100 M	+04-	
0.5	3535	
	*	

2019 PM Peak NOBUILD Conditions - Existing Geometry

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HCM 6th Signalized Intersection Summary 4: Jefferson St. & McLeod Rd.

Terry O. Brown, PE 12/18/2018

EBI		WBR 329 329 329 329 0 0 1.00 1.00 1.00 1.00 1.00 3 8.4 6.08 0.23 1.572 1.572 1.3.7 1.00 0.058 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.0	NBL 100 100 1100 1100 1100 1100 1100 1100	1856 1856 170 0 0 1856 1856 1856 1955 1763 1763 1763 1764 1765 1766 1766 1766 1766 1766 1766 1766	107 107 107 0 1.00 11.00 115 0.93 3 270 0.42 647 309 1739 9.7	SEL 403 403 403 403 403 610 0 1.00 0.16 610 6.16 7.767 7.767 9.8 9.8 9.8 9.8 9.8	829 629 0 0 1.00 No No 1.00 8.7 8.3 8.7 8.7 8.7 8.7 8.7 8.7 8.7 8.7 8.7 8.7	8 8 8 1.00 1.00 1.00 1.00 9 9 9 0.93
13 66 25 10 0 0 0 100 1.00 100		329 329 329 0 0 1.00 1.00 1.00 3 6.08 3.54 1572 1572 1572 1572 13.7 11.00 10.05 10.0	10 10 10 10 10 10 10 10 10 10 10 10 10 1	476 470 470 0 0 0 0 1856 505 505 505 0.93 3 1192 0.93 3 1192 0.93 3 11763 9.6 9.6 9.6	107 107 100 1.00 1.00 1.00 1.00 1.00 3 2.70 0.42 647 647 647 647 647 647 647 647 647 647	403 403 1.00 1.00 1.00 1.00 1.00 3 3 610 610 610 610 610 610 610 610 610 610	629 629 0 0 1.00 No No 1856 676 675 0.53 3 3 3 3 5 878 878 878 878 878 878 878 878 878 8	8 8 0 1.00 1.00 1.856 9 9 9 0.93
13 66 25 1 0 0 0 0 1.00 1.00 1.00 1.00 1.00 1.00		329 329 11.00 11.00 11.00 354 0.93 3 6.08 0.23 1572 1572 1572 1572 1572 11.00 10.05 11.00	100 1.00 1.00 1.00 1.00 1.00 3 3 5.09 0.07 1767 1767 1767 1767 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.0	470 470 0 0 0 0 0 1856 505 505 505 0.93 3 1192 0.93 3 1192 1163 3 11763 3 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	107 107 100 1.00 1.00 1.00 1.00 2.70 0.42 647 647 647 647 8309 1739 87 87 87 87 87 87 87 87 87 87 87 87 87	403 403 11.00 11.00 11.00 610 610 610 610 610 610 610 610 610 6	629 629 629 629 676 676 676 676 676 676 733 334 1763 877	8 8 1.00 1.00 1.00 9 9 9 0.93 8
13 66 25 100 100 100 100 100 100 100 100 100 10		329 0 1.00 1.00 1.00 354 354 0.93 3 608 0.23 1572 1572 1572 1572 113.7 11.00 10.00 1	100 1,000 1,100 1,100 1,100 1,100 1,100 1,000 1,	11.00 No	107 11.00 11.00 11.00 11.00 270 270 0.42 847 847 87 1739 9.7 9.7 9.7	403 11.00 11.00 11.00 433 1767 1767 9.8 9.8	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	1.00 1.00 1.00 9 0.93 3
0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0		1.00 1.00 1.00 1.00 3.354 0.93 3.54 0.93 3.54 1.572 1.572 1.3.7 1.3.7 1.3.7 1.3.7 1.00 6.08 6.08	100 1,000 1,	1.00 No	1100 1100 1100 1115 1115 1115 1115 1115	1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00	0 1.00 No 1856 676 0.93 3562 334 8.7 8.7 8.7 8.7 8.7 8.7 8.7 8.7 8.7 8.7	1.00 1.00 1.00 1856 9 0.93
1,00 1,00 1,00 1,00 1,00 1,00 1,00 1,00		1.00 1.00 1.00 3 354 0.93 3 608 0.03 3 1572 1572 13.7 13.7 13.7 11.00 608 0.58	1,00 1,00 1,00 1,00 1,00 1,00 1,00 1,00	1.00 No No 1.05 5.05 0.93 3 1.1192 0.42 2855 3.11 1.763 9.6 9.6 9.6	1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00	1.00 1.00 1.00 1.00 3 3 610 0.16 1767 1767 9.8 9.8 9.8	1.00 No 1856 676 0.93 3 3 3562 3362 334 1763 8.7	1.00 1.00 1.00 9 0.93
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operation Summary								
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2019 PM Peak NOBUILD Conditions - Existing Geometry

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EBR					
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Intersection	-3-2													
Int Delay, s/veh	1							-						-
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR		
Lane Configurations		1>			4	1400		ৰকি			414	7		
Traffic Vol, veh/h	0	. 0	0	15		37	1	842	14	34	1116	1		
Future Vol, veh/h	0	0	0	15	1	37	1	842	14	34	1116	1		
Conflicting Peds, #/	hr 0	0	0	0	. 0	0	0	0	0	0	0	0		
			Stop	Stop		Stop	Free	Free	Free	Free	Free	Free	anthum — selmminametericina — musteric — in	Arrent Process
RT Channelized			None			None			None			None		
Storage Length	35	-	-	-	-	-	-	-	-	-	<u>↓</u>	75		
Veh in Median Stora	Children of Children	ŧ 0	-	i mi	0	-	-	0	0		0	-		101501
Grade, %	-9-1	0	-	-	0	-	2	0	-	-	0	-	mana Antara da Institutiona de Company de Company	
Peak Hour Factor	94	94	94	94	94	94	94	94	94	94	94	94		***************************************
Heavy Vehicles, %	3	3	3	3	3	3	3	3	3	3	3			
Mvmt Flow	0	0	0	16	1	39	1	896	15		1187	1		20000000
WIVIII 1 IOW		0				00		000		-				
Major/Minor Mi	nor2		N	linor1		N	lajor1		N	lajor2				
Conflicting Flow All	DOM: NOW ASSESSED.	2172			2166		1188	0			0	0		
		1259	-	906	906		1100	-		-				
Stage 2	451	913	-		1260	-		_		-	-	-		
	7.56	6.56	- Inches	7.56	6.56	6.96	4.16			4.16		-		
Critical Hdwy Stg 1		5.56	0.30	6.56			7.10	-		1,10		-		
Critical Hdwy Stg 2		5.56			5.56									
		4.03		3.53			2.23			2.23				
	3.53			*246	*64		*935	-		737				
Pot Cap-1 Maneuve		*63		*295		549	900			/3/	-			1.74
and the second section of the second section of the second second second section (1) and the second second second section (1) and the second s	*590	*517					-		-	-	-			901
to the region of the contract	*555	*348		*590		-		-			-			-
Platoon blocked, %		1	1	1	1	E 46	1	_		·90 ·9	-	-		
Mov Cap-1 Maneuv		*53	*625	*219	*54		*935	-	+	737	in the second second		and the state of t	
Mov Cap-2 Maneuv		*53	-	*219	*54		-			-	-	-		
	*589	*443		*294			-	**	-	-		*		in district
Stage 2	*513	*347	-	*505	*443	-	-	-	-	_	Who -	-		
	amantiliminin		ommonostations.				AID	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,		00			аший жазастының менен алықтын анырға беле	minimum)
Approach	EB			WB			NB			SB				
<b>HCM Control Delay</b>				17.5			0			1				
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		KIM	NIO	NIDE	-131 4	TD1	/DL d		COT	opp	- iisamum h			m-6004
Minor Lane/Major N	//vmt		NBI	NBH	count	EBLn/A	and the same of the same of	SBL		SBR				
Capacity (veh/h)	<u> </u>	* 935	-	•	•	-	THE RESERVE AND ADDRESS.	737					Minimum and Minimum and State of the State o	
HCM Lane V/C Rat		0.001	-	-			0.164							
HCM Control Delay	(s)	8.9		-	minimum minimum fine				0.7	-				
HCM Lane LOS		Α		-		- Constant	С	В				1-11-11-11-11		unit
HCM 95th %tile Q(v	veh)	0		-	-	н	0.6	0.2	-	-			MATERIAL CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CO	CALLES DAYS
Notes														
~: Volume exceeds	capa	city	\$: D	elay e	exceed	ds 300	s +	: Com	putation	on Not	Defin	red	*: All major volume i	n pla

nt Delay, s/veh 0					
	EBR	NBL	NBT	SBT	SBR
Lane Configurations 🦞			414	<b>1</b> 1>	
Traffic Vol, veh/h 1	NAMES OF TAXABLE PROPERTY OF TAXABLE PARTY.	1		1060	1
Future Vol, veh/h 1		1		1060	1
Conflicting Peds, #/hr 0		0	A STATE OF THE STA	0	0
	Stop				
RT Channelized -	None		None		None
Storage Length 0			INOTIC		140116
			0	0	
Veh in Median Storage0			Manager Co.		
Grade, % 0		-		0	
Peak Hour Factor 94		94		94	
Heavy Vehicles, % 3		3		3	
Mvmt Flow 1	1	- 1	881	1128	1
Malay/Minor Minor	K	laiart	N.	lajor2	
Major/Minor Minor2		lajor1			
Conflicting Flow All1572	and the same of th	1129	umment = 7	-	0
Stage 1 1129		1.50	100		
Stage 2 443		-	-	-	-
Critical Hdwy 6.86		4.16	-		-
Critical Hdwy Stg 1 5.86	-	-	-	-	1
Critical Hdwy Stg 2 5.86	-	4	-		-
Follow-up Hdwy 3.53		2.23	-		-
Pot Cap-1 Maneuve 274		*935	Andrew Marketon		-
Stage 1 *591		The second second second	-	-	-
Stage 2 *611			4		
Service of the control of the contro		1			-
				on to make	100
Mov Cap-1 Maneuvt273		*935	minum a distribution di la constitución de la const		
Mov Cap-2 Maneuv®73		-	-		
Stage 1 *590			L.		-
Stage 2 *611	-	-	-	-	-
Approach EB		NB	(See 102)	SB	110000
HCM Control Delay,1st.5		0		0	al analysis and a second
HCM LOS E	3				
	na a da farita da				
Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	* 935	***************************************	380		
HCM Lane V/C Ratio	0.001		0.006		Maritan Laborat
HCM Control Delay (s)	8.9		14.5		annementalinieniarius
HCM Lane LOS	A				
HCM 95th %tile Q(veh)	0		0		
The second section of the section of		***************************************			

Timings 1: Jefferson St. & Singer Blvd.

Terry O. Brown, PE 12/19/2018

Lame Group		1	1	1	1	\$	1	-	1	A	<b>+</b>	
1	Lane Group	田田	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBL	SBT	
(1) 223 37 466 296 45 194 283 158 15 15 16 17 18 18 18 18 18 19 18 18 19 19 18 19 19 19 19 19 19 19 19 19 19 19 19 19	Lane Configurations	15	*	W_	N. W.	44	N.	44	Nr.	15	434	
1,	Traffic Volume (vph)	223	37	466	296	45	194	283	158	15	641	
Proj. NA   pm+ov   Proj. NA   pm+pt   NA   Perm   pm+pt   Proj. NA   pm+pt   NA   Perm   pm+pt   Proj. NA   Perm   Pm+pt   Proj. NA   Perm   Pm+pt   Pm+pt	Future Volume (vph)	223	37	466	296	45	194	283	158	15	641	
7 4 5 3 8 5 2 2 6 6 6 7 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	Tum Type	Prot	NA	VO+mq	Prot	NA	pm+pt	NA	Perm	pm+pt	NA	
7 4 5 3 8 5 2 2 5 1  5.0 5.0 5.0 5.0 5.0 5.0 5.0 5.0 5.0 5.0	Protected Phases	7	4	3	3	00	10	2		-	9	
7 4 5 3 8 5 2 2 2 1  10.0 21.0 10.0 10.0 21.0 10.0 21.0 10.0 22.0 20 1  25.0 30.0 35.0 21.0 10.0 10.0 21.0 10.0 21.0 10.0  25.0 30.0 35.0 21.0 26.0 35.0 50.0 50.0 17.0  1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0	Permitted Phases			4			2		2	9		
5.0 5.0 5.0 5.0 5.0 5.0 5.0 5.0 5.0 5.0	Detector Phase	7	4	S	60	60	10	2	2	-	9	
5.0 5.0 5.0 5.0 5.0 5.0 5.0 5.0 5.0 5.0	Switch Phase											
100 21,0 100 100 21,0 100 21,0 100 21,0 21,	Minimum Initial (s)	2.0	5.0	2.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	
250 300 356 210 260 355 500 500 170 212% 25,4% 21,4% 21,4% 21,2% 25,4% 29,7% 42,4% 42,4% 44,4% 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0	Minimum Split (s)	10.0	21.0	10.0	10.0	21.0	10.0	21.0	21.0	10.0	21.0	
212% 25.4% 29.7% 17.8% 22.0% 29.7% 42.4% 42.4% 14.4% 1.0	Total Split (s)	25.0	30.0	35.0	21.0	26.0	35.0	50.0	50.0	17.0	32.0	
4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0	Total Split (%)	212%	25.4%	29.7%	17.8%	22.0%	29.7%	42.4%	42.4%	14.4%	27.1%	
10 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1	Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	
100   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0	All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	
10 5.0 5.0 5.0 5.0 5.0 5.0 5.0 5.0 5.0 5.	Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	Total Lost Time (s)	2.0	2.0	2.0	200	5.0	5.0	5.0	5.0	9.0	5.0	
Min Min Min Min Min Min Min Min Max Max Min	Lead/Lag	Lead	Lag	Lead	Lead	Lag	Lead	Lag	Lag	Lead	Lag	
Min         Min <td>Lead-Lag Optimize?</td> <td></td>	Lead-Lag Optimize?											
17.6 10.9 39.6 13.7 7.0 58.7 47.8 47.8 35.9 0.18 0.11 0.40 0.14 0.07 0.60 0.49 0.29 0.36 0.77 0.20 0.75 0.67 0.35 0.41 0.18 0.20 0.04 0.36 0.00 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0	Recall Mode	Min	Min	Min	Min	Min	Min	Max	Max	Min	Max	
0.18 0.11 0.40 0.14 0.07 0.60 0.49 0.49 0.36 0.77 0.20 0.75 0.55 0.77 0.35 0.41 0.18 0.20 0.04 0.05 0.04 0.00 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0	Act Effct Green (s)	17.6	10.9	39.6	13.7	7.0	58.7	47.8	47.8	35.9	30.0	
0,77 0,20 0,75 0,67 0,35 0,41 0,18 0,20 0,04 56.2 4,37 28.9 48.4 28.6 14.4 15.1 3.0 13.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	Actuated g/C Ratio	0.18	0.11	0.40	0.14	0.07	09.0	0.49	0.49	0.36	0.30	
56.2 43.7 28.9 48.4 28.6 14.4 15.1 3.0 13.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	vic Ratio	0.77	0.20	0.75	79.0	0.35	0.41	0.18	0.20	0.04	0.79	
0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	Control Delay	56.2	43.7	28.9	48.4	28.6	14.4	12.1	3.0	13.0	39.4	
56.2 43.7 28.9 48.4 28.6 14.4 15.1 3.0 13.0 13.0 E B B A B B A B D D D B B B A B B B B B B	Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
E D C D C B B A B A B D D D D B B A B B A B B A B B A B B A B B A B B B B A B B B B B B B B B B B B B B B B B B B B	Total Delay	56.2	43.7	28.9	48.4	28.6	14.4	15.1	3.0	13:0	39.4	
38.0 43.8 11.9 D D D B	507	ш	0	0	0	0	m	8	≪	œ	0	
0	Approach Delay		38.0			43.8		11.9			38.9	
	Approach LOS		D			0		8			0	
	Cycle Length: 118 Act isted Cycle Length: 98.4											
Oyole Length: 118 Anthobard Curries lannift: 08.4	Natural Cycle: 80											
Oyole Length: 118 Actuated Cycle Length: 98.4 Natural Cycle: 80	Control Type: Semi Act-Unco	poord										
Oyde Length; 118. Actuated Cycle Length; 98.4 Natural Cycle: 80.7 Sontral Type: Semi Act-Uncourd	Intersection Signal Delay: 32	92			2	tersection	1.0S: C					
	Intersection Capacity Utilizat	ion 71.8%			N	U Level	of Service	0				
Oyole Length; 188 Actuated Cycle Length; 98.4 Actuated Cycle Ength; 98.4 Natural Cycle; 80 Control Type; Semi Act-Uncoord Maximum vic Ratio; 0.79 Intersection Signal Delay; 32.6 Intersection Capacity Unitzation 71.8% INCL. Level of Service C	Annhois Boring (min) 15											

is alid Pliases.	Splits and misses. It seliets on a single ping.		
100	022	* 63	404
-	48	213	30.5
₹ 05	90	A 07	<b>↓</b>
	20	26.5	100

2019 PM Peak BUILD Conditions - Existing Geometry

Synchro 10 Report 2019PBX.syn

2019 PM Peak BUILD Conditions - Existing Geometry

HCM 6th Signalized Intersection Summary 1: Jefferson St. & Singer Blvd.

Terry O. Brown, PE 12/19/2018

Movement   EB		1	1	1	1	ţ	1	1	<b>—</b>	4	A	<b>-</b>	V
100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100	Movement	盟	EBT	EBR	WBI	WBT	WBR	NBC	NBT	NBR	SBL	SBT	SBR
223 37 466 296 45 46 194 283 158 15 641  224 3 7 466 296 45 46 194 283 158 15 641  100 100 100 100 100 100 100 100 100 1	Lane Configurations	15-	+	W_	II.	4		M-	*	Ve_	M-	44	
223 37 466 296 45 46 194 283 158 15 641  1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.	Traffic Volume (veh/h)	223	37	466	296	45	46	184	283	158	15	641	134
100	Future Volume (veh/h)	223	37	466	296	45	46	194	283	158	12	641	134
100 100 100 100 100 100 100 100 100 100	Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
1,00   1,00   1,00   1,00   1,00   1,00   1,00   1,00   1,00   1,00   1,00   1,00   1,00   1,00   1,00   1,00   1,00   1,00   1,00   1,00   1,00   1,00   1,00   1,00   1,00   1,00   1,00   1,00   1,00   1,00   1,00   1,00   1,00   1,00   1,00   1,00   1,00   1,00   1,00   1,00   1,00   1,00   1,00   1,00   1,00   1,00   1,00   1,00   1,00   1,00   1,00   1,00   1,00   1,00   1,00   1,00   1,00   1,00   1,00   1,00   1,00   1,00   1,00   1,00   1,00   1,00   1,00   1,00   1,00   1,00   1,00   1,00   1,00   1,00   1,00   1,00   1,00   1,00   1,00   1,00   1,00   1,00   1,00   1,00   1,00   1,00   1,00   1,00   1,00   1,00   1,00   1,00   1,00   1,00   1,00   1,00   1,00   1,00   1,00   1,00   1,00   1,00   1,00   1,00   1,00   1,00   1,00   1,00   1,00   1,00   1,00   1,00   1,00   1,00   1,00   1,00   1,00   1,00   1,00   1,00   1,00   1,00   1,00   1,00   1,00   1,00   1,00   1,00   1,00   1,00   1,00   1,00   1,00   1,00   1,00   1,00   1,00   1,00   1,00   1,00   1,00   1,00   1,00   1,00   1,00   1,00   1,00   1,00   1,00   1,00   1,00   1,00   1,00   1,00   1,00   1,00   1,00   1,00   1,00   1,00   1,00   1,00   1,00   1,00   1,00   1,00   1,00   1,00   1,00   1,00   1,00   1,00   1,00   1,00   1,00   1,00   1,00   1,00   1,00   1,00   1,00   1,00   1,00   1,00   1,00   1,00   1,00   1,00   1,00   1,00   1,00   1,00   1,00   1,00   1,00   1,00   1,00   1,00   1,00   1,00   1,00   1,00   1,00   1,00   1,00   1,00   1,00   1,00   1,00   1,00   1,00   1,00   1,00   1,00   1,00   1,00   1,00   1,00   1,00   1,00   1,00   1,00   1,00   1,00   1,00   1,00   1,00   1,00   1,00   1,00   1,00   1,00   1,00   1,00   1,00   1,00   1,00   1,00   1,00   1,00   1,00   1,00   1,00   1,00   1,00   1,00   1,00   1,00   1,00   1,00   1,00   1,00   1,00   1,00   1,00   1,00   1,00   1,00   1,00   1,00   1,00   1,00   1,00   1,00   1,00   1,00   1,00   1,00   1,00   1,00   1,00   1,00   1,00   1,00   1,00   1,00   1,00   1,00   1,00   1,00   1,00   1,00   1,00   1,00   1,00   1,00   1,00   1,00   1,00   1,00   1,00   1,00	Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
No	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
1956 1856 1856 1856 1856 1856 1856 1856 18	Work Zone On Approach		No			No			No			No	
240 40 501 318 48 49 209 304 0 16 688  277 433 513 389 340 393 093 093 093 093 093 093 093 093 09	Adj Sat Flow, vehihin	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856
0.93 0.93 0.93 0.93 0.93 0.93 0.93 0.93	Adj Flow Rate, veh/h	240	40	501	318	48	49	200	304	0	16	689	144
272 433 513 389 340 303 348 1480 539 1085 0.15 0.23 0.11 0.19 0.19 0.09 0.42 0.00 0.05 0.37 1767 1886 1572 3428 1763 1572 1767 3826 1572 1767 2933 1742 1886 1572 3428 1763 1572 1767 3826 1572 1767 2933 1742 1886 1572 3428 1763 1572 1767 3826 1572 1767 2933 1742 1886 1572 1744 1763 1572 1767 1763 1572 1767 2933 1742 1886 1572 1744 1763 1572 1767 1763 1572 1767 2933 1742 1886 1572 1744 1763 1572 1767 1763 1572 1767 2933 1742 1886 1572 1744 1763 1742 188 25.0 9.7 2.4 2.8 7.4 5.9 0.0 0.6 20.9 5.0 5.0 5.0 5.0 5.0 5.0 5.0 5.0 5.0 5.0	Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
272 433 513 389 340 303 348 1480 539 1085  1767 1868 1572 3428 1733 1572 1767 1763 1572 1767 2003  1767 1868 1572 1774 1733 1572 1767 1763 1572 1767 1763 1572 1767 1763 1764 1763 1572 1767 1763 1572 1767 1763 1572 1767 1763 1572 1767 1763 1764 1763 1572 1767 1763 1572 1767 1763 1572 1767 1763 1764 1763 1764 1763 1764 1763 1764 1763 1764 1763 1764 1763 1764 1763 1764 1763 1764 1763 1764 1763 1764 1763 1764 1763 1764 1763 1764 1763 1764 1763 1764 1763 1764 1763 1764 1763 1764 1763 1764 1763 1764 1763 1764 1763 1764 1763 1764 1763 1764 1763 1764 1763 1764 1763 1764 1763 1764 1763 1764 1763 1764 1763 1764 1763 1764 1763 1764 1763 1764 1764 1763 1764 1763 1764 1763 1764 1763 1764 1763 1764 1763 1764 1763 1764 1764 1764 1764 1764 1764 1764 1764	Percent Heavy Veh, %	m	m	3	67	m	3	e	es	63	es	3	m
1767   1856   1572   1422   1767   1767   1767   1767   1767   1767   1767   1767   1767   1767   1767   1767   1767   1767   1767   1767   1767   1767   1767   1767   1767   1767   1767   1767   1767   1767   1767   1767   1767   1767   1767   1767   1767   1767   1767   1767   1767   1767   1767   1767   1767   1767   1767   1767   1767   1767   1767   1767   1767   1767   1767   1767   1767   1767   1767   1767   1767   1767   1767   1767   1767   1767   1767   1767   1767   1767   1767   1767   1767   1767   1767   1767   1767   1767   1767   1767   1767   1767   1767   1767   1767   1767   1767   1767   1767   1767   1767   1767   1767   1767   1767   1767   1767   1767   1767   1767   1767   1767   1767   1767   1767   1767   1767   1767   1767   1767   1767   1767   1767   1767   1767   1767   1767   1767   1767   1767   1767   1767   1767   1767   1767   1767   1767   1767   1767   1767   1767   1767   1767   1767   1767   1767   1767   1767   1767   1767   1767   1767   1767   1767   1767   1767   1767   1767   1767   1767   1767   1767   1767   1767   1767   1767   1767   1767   1767   1767   1767   1767   1767   1767   1767   1767   1767   1767   1767   1767   1767   1767   1767   1767   1767   1767   1767   1767   1767   1767   1767   1767   1767   1767   1767   1767   1767   1767   1767   1767   1767   1767   1767   1767   1767   1767   1767   1767   1767   1767   1767   1767   1767   1767   1767   1767   1767   1767   1767   1767   1767   1767   1767   1767   1767   1767   1767   1767   1767   1767   1767   1767   1767   1767   1767   1767   1767   1767   1767   1767   1767   1767   1767   1767   1767   1767   1767   1767   1767   1767   1767   1767   1767   1767   1767   1767   1767   1767   1767   1767   1767   1767   1767   1767   1767   1767   1767   1767   1767   1767   1767   1767   1767   1767   1767   1767   1767   1767   1767   1767   1767   1767   1767   1767   1767   1767   1767   1767   1767   1767   1767   1767   1767   1767   1767   1767   1767   1767   1767   1767   1767   1767	Cap, veh/h	272	433	513	388	340	303	348	1480		539	1085	226
1767 1886 1572 3428 1763 1572 1767 3526 1572 1767 2903  144 2 18 25.0 9.7 24 28 74 5.9 0.0 0.6 20.9 14.2 18 25.0 9.7 24 2.8 7.4 5.9 0.0 0.6 20.9 14.2 18 25.0 9.7 24 2.8 7.4 5.9 0.0 0.6 20.9 14.2 18 25.0 9.7 24 2.8 7.4 5.9 0.0 0.6 20.9 10.0 1.00 1.00 1.00 1.00 1.00 1.00 1	Arrive On Green	0.15	0.23	0.23	0.11	0.19	0.19	0.09	0.42	0000	90.0	0.37	0.37
142   186   1572   1744   1753   1572   1767   1768   1452   1767   1768   1452   1767   1768   1572   1767   1768   1452   1767   1768   1572   1767   1768   1762   1768   1763   1762   1768   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   17	Sat Flow, veh/h	1767	1856	1572	3428	1763	1572	1767	3526	1572	1767	2903	909
1,167   1856   1572   1714   1763   1572   1767   1763   1572   1767   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763	Grp Volume(v), veh/h	240	40	501	318	48	49	209	304	0	16	418	415
142 18 25.0 9.7 24 2.8 7.4 5.9 0.0 0.6 20.9 1.0 1.00 1.00 1.00 1.00 1.00 1.00 1.	Grp Sat Flow(s),veh/h/lin	1767	1856	1572	1714	1763	1572	1767	1763	1572	1767	1763	1746
142 18 25.0 9.7 24 2.8 7.4 5.9 0.0 0.6 20.9 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1	Q Serve(g_s), s	14.2	1.00	25.0	9.7	24	28	7.4	5.9	0.0	9.0	20.9	20.9
100	Cycle Q Clear(g_c), s.	14.2	1,00	25.0	9.7	2.4	2.8	7.4	5.9	0.0	9.0	20.9	20.9
1,000	Prop In Lane	1.00		1.00	1,00		1.00	1.00		1.00	1.00		0.35
0.88 0.09 0.98 0.82 0.14 0.16 0.60 0.21 0.03 0.63 0.63 0.03 0.83 0.09 0.98 0.82 0.14 0.16 0.60 0.21 0.00 0.03 0.63 0.09 0.09 0.100 1.00 1.00 1.00 1.00 1.0	Lane Grp Cap(c), vehih	272	433	513	389	340	303	348	1480		539	699	652
330 3-433 513 512 345 308 679 1480 655 659 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00	V/C Ratio(X)	0.88	0.09	0.98	0.82	0.14	0.16	09.0	0.21		0.03	0.63	0.64
1.00	Avail Cap(c_a), veh/h	330	433	513	512	345	308	679	1480		999	699	652
1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00	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
hin 123 15 24.6 35.9 36.0 19.7 19.7 00 18.2 27.6 10.5 0.5 0.1 33.6 7.7 0.2 0.2 1.7 0.3 0.0 10.0 4.6 hin 12.3 15 24.3 8.0 19.9 20 5.6 4.4 0.0 0.0 0.0 0.0 10.0 0.0 0.0 0.0 0.0 0.	Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	00.0	1.00	1.00	1.00
hh 123 15 24.3 80 7.7 0.2 0.2 1.7 0.3 0.0 0.0 4.6 hh 123 1.5 24.3 8.0 1.9 2.0 5.6 4.4 0.0 0.0 0.0 0.0 0.0 0.0 hh 123 1.5 24.3 8.0 1.9 2.0 5.6 4.4 0.0 0.4 145   F C E D D D C C C B C C B C C C C C C C C C C	Uniform Delay (d), s/veh	44.4	32.2	35.7	46.4	35.9	36.0	19.7	19.7	0.0	18.2	27.6	27.6
hin 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.	nor Delay (d2), s/veh	20.5	0.1	33.6	7.7	0.2	0.2	1.7	0.3	0.0	0.0	4.6	4.7
hylin 123 15 24.3 80 19 20 5.6 44 0.0 0.4 14.5 hy, siveh 64.9 32.3 69.3 54.1 36.1 36.3 21.4 20.0 0.0 182 32.2 E C E D D C C C B C C B C C C B C C C B C C C C	nitial 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
9, s/Neh 643 323 693 54,1 36.1 36.3 21,4 20.0 0.0 182 32.2 E C E D D C C B C B C C B C C B C C B C C B C C C B C C C B C C C C B C C C C C C C C C C C C C C C C C C C C	%ile BackOfQ(95%),veh/ln	12.3	1.5	24.3	8.0	1.9	2.0	5.6	4.4	0.0	0.4	14.5	14.5
649 323 693 541 361 363 214 20,0 0,0 182 322     E	Unsig. Movement Delay, sheh												
F C E D D C C B B   F C E D D C C C B   F C E D D C C C B   F C E D D C C C B   F C C E D C C C B   F C C C C B   F C C C C C B   F C C C C C C C C C C C C C C C C C C	.nGrp Delay(d),siveh	64.9	32.3	69.3	54.1	36.1	36.3	21.4	20.0	0.0	18.2	32.2	32.3
66.1 415 513 A 66.1 49.9 20.6 E D C C C C S S S S S S S S S S S S S S S S	LINGUD LOS	ш	O	ш	٥	O	٥	O	S		B	O	٥
66.1 49.9 20.6  E D C C  1 2 3 4 5 6 7 8  C C C C C C C C C C C C C C C C C C	Approach Vol, vehifi		781			415			513	A		849	
1 2 3 4 5 6 7 8 10.0 50.0 172 30.0 15.0 45.0 215 25.7 15.0 5.0 5.0 5.0 5.0 5.0 5.0 5.0 1.5 12.0 45.0 16.0 25.0 30.0 27.0 20.0 21.0 1.5 2 7.9 11.7 27.0 94 22.9 16.2 4.8 43.0 43.0	Approach Delay, s/veh		66.1			49.9			20.6			32.0	
10.0 50.0 17.2 30.0 15.0 45.0 21.5 2 5.0 5.0 5.0 5.0 5.0 5.0 5.0 5.0 5.0 5.0	Approach LOS		ш			0			O			O	
10.0 50.0 17.2 30.0 15.0 45.0 21.5 2 5.0 5.0 5.0 5.0 5.0 5.0 5.0 5.0 5.0 5.0	Timer - Assigned Phs	+	2	60	4	10	9	1	00				
5.0 5.0 5.0 5.0 5.0 5.0 5.0 5.0 5.0 5.0	Phs Duration (G+Y+Rc), s	10.0	50.0	17.2	30.0	15.0	45.0	21.5	25.7				
4) s 12.0 45.0 16.0 25.0 30.0 27.0 20.0 2 1), s 26 7.9 11.7 27.0 9.4 22.9 16.2 0.0 2.1 0.5 0.0 0.6 2.0 0.2 43.0	Change Period (Y+Rc), s	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0				
(g_C+11), s 26 7.9 11.7 27.0 9.4 22.9 16.2 c), s 0.0 2.1 0.5 0.0 0.6 2.0 0.2 my 43.0 D	Max Green Setting (Gmax), s	12.0	45.0	16.0	25.0	30.0	27.0	20.0	21.0				
c), s 0.0 2.1 0.5 0.0 0.6 2.0 0.2 eay 43.0 D	Max Q Clear Time (q. c+l1), s	2.6	7.9	11.7	27.0	4.6	22.9	16.2	6.4				
30	Green Ext Time (p_c), s	0.0	2.1	0.5	0.0	9.0	2.0	0.2	0.4				
	Intersection Summary												
	HOM 6th Ctrl Delay			120									1
	HCM 6th LOS			2.0									

Notes Unsignalized Delay for [NBR] is excluded from calculations of the approach delay and intersection delay.

Timings 2: Jefferson St. & I-25 W. Ramp

	1	ļ	1	-	-	-	*
Lane Group	WBL	WBT	WBR	NBI	NBT	SBT	SBR
Lane Configurations	15	44	N.	M-	44	#	N.
Traffic Volume (vph)	375	493	47	419	290	1253	618
Future Volume (vph)	375	493	47	419	280	1253	618
Tum Type	Perm	N	Реш	pm+pt	NA	NA	Perm
Protected Phases		00		9	2	9	
Permitted Phases	00		00	2			9
Detector Phase	00	60	00	10	2	9	9
Switch Phase							
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	21.0	21.0	21.0	10.0	21.0	21.0	21.0
Total Split (s)	30.0	30.0	30.0	31.0	75.0	44.0	44.0
Total Split (%)	28.6%	28.6%	28.6%	29.5%	71.4%	41.9%	41.9%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Leadillag				Lead		Lag	Lag
Lead-Lag Optimize?							
Recall Mode	Min	Min	Min	Min	C-Max	C-Max	C-Max
Act Effct Green (s)	23.9	23.9	23.9	71.1	71.1	41.9	41.9
Actuated g/C Ratio	0.23	0.23	0.23	0.68	0.68	0.40	0.40
v/c Ratio	0.82	0.82	0.12	0.93	0.26	0.94	0.95
Control Delay	57.2	48.1	4.2	51.8	8.4	45.9	51.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	57.2	48.1	4.2	51.8	8.4	45.9	51.9
S07	ш	Q	<,	0	<₹,	0	0
Approach Delay		48.6			26.4	47.9	
Approach LOS		0			O	0	
Intersection Summary							
Ovde Length: 105							
Actuated Cycle Length: 105 Actuated Cycle Length: 105 Offset 0.7 (1%), Referenced to phase 2:NBTL and 6:SBT, Start of Green Astural Cycle St.	d to phase	2NBTL a	nd 6:SBT	Start of	Green		
Control Type: Actuated-Coordinated Maximum vir Batior 0 05	ordinated						
MaxIIIIIIIII WC Nabo, 0.30					ĺ	-	
Intersection Signal Delay: 42.4 Intersection Capacity Utilization 90.3%	2.4 ation 90.3%			50	Intersection LOS: D ICU Level of Service E	LOS: D	<u></u>
Analysis Parind (min) 15							

₩ ¥ Ø6 (R.) Splits and Phases: 2: Jefferson St. & I-25 W. Ramp (R) ₩ 055

2019 PM Peak BUILD Conditions - Existing Geometry

Synchro 10 Report 2019PBX.syn

2019 PM Peak BUILD Conditions - Existing Geometry

HCM 6th Signalized Intersection Summary 2: Jefferson St. & I-25 W. Ramp

Terry O. Brown, PE 12/19/2018

Terry O. Brown, PE 12/19/2018

Movement EBI EBI  ana Configurations 0  Traffic Volume (veh/h) 0  Traffic Volume (veh/h) 0  Indiaa (Q (Ds), veh Ped-Bike Adj(A_pbT)  Parking Bus, Adj  Work Zone On Approach  Adj Sat Flow, veh/h Peak Hour Factor  Percent Heavy Veh, %  Adjo, veh/h  Adjo, veh/h	T EBR	2								
ach %		WEL	WBT	WBR	NB	NBT	NBR	SBL	SBT	SBR
ach %		je-	44	N.	N.	44			*	Nr.
o o o o o o o o o o o o o o o o o o o	0 0	375	493	47	419	290	0	0	1253	618
al O (Qb), veh FERSE AdjiA_pbT) FERSE AdjiA_pbT) AdjiA_pbT) A Zone On Approach Sat Flow, vehlrin Flow Rate, vehr Flow Rate, vehr A Hour Factor Cent Heavy Veh, %		375	493	47	419	290	0	0	1253	618
FBike Adj(A_pbT) king Bus, Adj king Bus, Adj king Bus, Adj Kaone On Approach Sat Flow, vehhin Flow Raie, vehh sk Hour Factor cent Heavy Veh, % vehhin on On One		0	0	0	0	0	0	0	0	0
king Bus, Adj K Zone On Approach rik Zone On Approach Sat Flow, sehlvlin Sid Hour Factor Cent Heavy Veh, %		1.00		1.00	1.00		1.00	1.00		1.00
rk Zone On Approach Sast Flow, vehinhin Flow Rase, whih sk Hour Factor cent Heavy Veh, %		1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Sat Flow, vehinhin Flow Rate, vehin k Hour Factor cent Heavy Veh, %			No			No			No	
Flow Rate, vehlh sk Hour Factor cont Heavy Veh, % o, vehlh nn An		1856	1856	1856	1856	1856	0	0	1856	1856
ik Hour Factor cont Heavy Veh, % o, veh/h		305	645	49	14	621	0	0	1319	651
cent Heavy Veh, % p, veh/h		0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
o, vehih		es	3	es	es	en	0	0	es	en
in On Cropn		372	781	331	463	2448	0	0	1536	685
Ne Oll Gleen		0.21	0.21	0.21	0.42	1.00	0.00	0.00	0.44	0.44
Sat Flow, vehifi		1767	3711	1572	1767	3618	0	0	3618	1572
Srp Volume(v), veh/h		305	645	49	441	621	0	0	1319	651
Grp Sat Flow(s), vehifulin		1767	1856	1572	1767	1763	0	0	1763	1572
Q Serve(g_s), s		17.3	17.4	27	19.5	0.0	0.0	0.0	35.4	41.9
Cycle Q Clear(g_c), s		17.3	17.4	2.7	19.5	0.0	0.0	0.0	35.4	41.9
Prop In Lane		1.00		1.00	1.00		0.00	0.00		1.00
.ane Grp Cap(c), veh/h		372	781	331	463	2448	0	0	1536	685
//C Ratio(X)		0.82	0.83	0.15	0.95	0.25	0.00	0.00	0.86	0.95
Avail Cap(c_a), vehift		421	884	374	278	2448	0	0	1536	685
HCM Platoon Ratio		1.00	1.00	1.00	2.00	2.00	1.00	1.00	1.00	1.00
Upstream Filter(I)		1.00	1.00	1.00	0.59	0.59	000	0.00	0.57	0.57
Uniform Delay (d), s/veh		39.6	39.6	33.8	20.1	0.0	0.0	0.0	26.7	28.5
nor Delay (d2), s/veh		11.1	5.9	0.2	18.2	0.1	0.0	0.0	3.8	16.5
nitial Q Delay(d3),s/veh		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),vehilin		13.4	13.3	1.9	13.6	0.1	0.0	0.0	19.9	23.5
Jnsig. Movement Delay, s/veh					9					,
InGrp Delay(d),siven		90.6	45.5	34.0	38.4	0.1	0.0	0.0	30.5	65.0
.nem Lus		0	0 00	د	2	H COL	×	<	3	
Approach Vol, veh/h			888			1062			1970	
Approach Delay, swen			40.0			19.0			30.3	
Approach LOS			0			60			0	
Timer - Assigned Phs 2	2		ın	49		60				
Phs Duration (G+Y+Rc), s 77.9	6		272	50.7		27.1				
Change Period (Y+Rc), s 5.0			5.0	5.0		5.0				
	0		26.0	39.0		25.0				
Max Q Clear Time (g_c+l1), s 2.0	0		21.5	43.9		19.4				
Green Ext Time (p_c), s 5.0	0		0.7	0.0		2.6				
ntersection Summary										
HCM 8th Ctrl Delav	33.0									
HCM 6th LOS	3									

User approved volume balancing among the lanes for turning movement.

Timings
3: Jefferson St. & I-25 E. Ramp 12/19/2018

55 (2) (1) (2) (3) (3) (4) (4) (4) (4) (4) (4) (4) (4) (4) (4	EBL EBT EBR NBT SBL  482 657 244 577 303  482 657 244 577 303  482 657 244 577 303  482 657 244 577 303  Perm NA Perm NA Print SBL  4 4 4 2 1  5.0 5.0 5.0 5.0 5.0  2.1.0 2.1.0 2.1.0 24.0  4.0 4.0 4.0 4.1.0 24.0  4.0 4.0 4.0 4.1.0 24.0  38.1% 38.1% 39.1% 39.0% 22.9% 6  4.0 4.0 4.0 4.0 4.0 0.0  5.0 5.0 5.0 5.0 5.0  5.0 5.0 5.0 5.0  5.0 5.0 5.0 5.0  6.0 0.0 0.0  7.0 0.0 0.0 0.0  7.0 0.0 0.0 0.0  7.0 4.3 37.9 19.3 29.7 47.3  D D B C D  36.3 29.7 47.3		1	1	<b>†</b>	4	A	<b>→</b>
### ### ### ### ### ### ### ### ### ##	## ## ## ## ## ## ## ## ## ## ## ## ##	Lane Group	EBI	EBT	EBR	NBT	SBL	SBT
482 657 244 527 303  Perm NA Perm NA Prit  4 4 4 4 2 1  5.0 5.0 5.0 5.0 5.0  21.0 21.0 21.0 21.0 10.0  40.0 40.0 40.0 41.0 24.0  38.1% 38.1% 38.1% 39.0% 22.9% 6  40.0 40.0 0.0 0.0  5.0 5.0 5.0 5.0 5.0  5.0 5.0 5.0 5.0 5.0  40.0 0.0 0.0 0.0  5.0 5.0 5.0 5.0 5.0  40.0 0.0 0.0 0.0  5.0 5.0 5.0 5.0 5.0  40.0 0.0 0.0 0.0  40.3 37.3 33.3 33.3 39.7 61.7  60.0 0.0 0.0 0.0  44.3 37.9 19.3 29.7 47.3  60.0 0.0 0.0 0.0  44.3 37.9 19.3 29.7 47.3  60.0 0.0 0.0 0.0  44.3 37.9 19.3 29.7 47.3  60.0 0.0 0.0 0.0  40.0 0.0 0.0  40.0 0.0 0.0  40.0 0.0 0.0  40.0 0.0 0.0  40.0 0.0 0.0  40.0 0.0 0.0  40.0 0.0 0.0  40.0 0.0 0.0  40.0 0.0 0.0  40.0 0.0 0.0  40.0 0.0 0.0  40.0 0.0 0.0  40.0 0.0 0.0  40.0 0.0 0.0  40.0 0.0 0.0  40.0 0.0 0.0  40.0 0.0 0.0  40.0 0.0 0.0  40.0 0.0 0.0  40.0 0.0 0.0  40.0 0.0 0.0  40.0 0.0 0.0  40.0 0.0 0.0  40.0 0.0 0.0  40.0 0.0 0.0  40.0 0.0 0.0  40.0 0.0 0.0  40.0 0.0 0.0  40.0 0.0 0.0  40.0 0.0 0.0  40.0 0.0 0.0  40.0 0.0 0.0  40.0 0.0 0.0  40.0 0.0 0.0  40.0 0.0 0.0  40.0 0.0 0.0 0.0  40.0 0.0 0.0 0.0  40.0 0.0 0.0 0.0  40.0 0.0 0.0 0.0  40.0 0.0 0.0 0.0  40.0 0.0 0.0 0.0  40.0 0.0 0.0 0.0  40.0 0.0 0.0 0.0  40.0 0.0 0.0 0.0 0.0  40.0 0.0 0.0 0.0 0.0  40.0 0.0 0.0 0.0 0.0  40.0 0.0 0.0 0.0 0.0  40.0 0.0 0.0 0.0 0.0  40.0 0.0 0.0 0.0 0.0  40.0 0.0 0.0 0.0 0.0  40.0 0.0 0.0 0.0 0.0  40.0 0.0 0.0 0.0 0.0 0.0  40.0 0.0 0.0 0.0 0.0 0.0  40.0 0.0 0.0 0.0 0.0 0.0  40.0 0.0 0.0 0.0 0.0 0.0  40.0 0.0 0.0 0.0 0.0 0.0  40.0 0.0 0.0 0.0 0.0 0.0 0.0  40.0 0.0 0.0 0.0 0.0 0.0 0.0  40.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0  40.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	482 657 244 527 303  482 657 244 527 303  Perm NA Perm NA Pritt  4 4 4 4 2 1  5.0 5.0 5.0 5.0 5.0 5.0  4.0 40.0 40.0 40.0 40.0  38.1% 38.1% 38.1% 39.0% 22.9% 6  4.0 4.0 10 10 10 10 10  0.0 0.0 0.0 0.0 0.0  5.0 5.0 5.0 5.0 5.0 5.0  4.0 4.0 4.0 4.0 4.0  4.0 4.0 4.0 4.0 4.0  4.1 10 10 10 10 10  5.0 5.0 5.0 5.0 5.0  5.0 5.0 5.0 5.0 5.0  4.3 37.3 33.3 33.3 39.7 61.7  0.3 0.3 0.3 0.3 0.3 0.3 0.3 0.3 0.3 0.3	Lane Configurations	M-	44	W_	44	M-	44
482 657 244 527 303  Perm NA Perm NA Printpt 4 4 4 2 1  5.0 5.0 5.0 5.0 5.0  21.0 21.0 21.0 21.0 10.0  20.1 21.0 21.0 21.0 10.0  38.1% 38.1% 39.0% 22.9% 4.0  1.0 1.0 1.0 1.0 1.0 1.0  1.0 1.0 1.0 1.0 1.0  5.0 5.0 5.0 5.0 5.0 5.0  5.0 5.0 5.0 5.0 5.0  44.3 37.3 33.3 33.3 39.7 61.7  0.78 0.77 0.46 0.73 0.84  44.3 37.9 19.3 29.7 47.3  0.0 0.0 0.0 0.0 0.0  44.3 37.9 19.3 29.7 47.3  0.0 0.0 0.0 0.0 0.0  44.3 37.9 19.3 29.7 47.3  0.0 0.0 0.0 0.0 0.0  44.3 37.9 19.3 29.7 47.3  0.0 0.0 0.0 0.0 0.0  44.3 37.9 19.3 29.7 47.3  0.0 0.0 0.0 0.0 0.0  44.3 37.9 19.3 29.7 47.3  0.0 0.0 0.0 0.0 0.0 0.0  44.3 37.9 19.3 29.7 47.3  0.0 0.0 0.0 0.0 0.0 0.0  44.3 37.9 19.3 29.7 47.3  0.0 0.0 0.0 0.0 0.0 0.0  44.3 37.9 19.3 29.7 47.3  0.0 0.0 0.0 0.0 0.0 0.0  44.3 37.9 19.3 29.7 47.3  0.0 0.0 0.0 0.0 0.0 0.0  44.3 37.9 19.3 29.7 47.3  0.0 0.0 0.0 0.0 0.0 0.0  44.3 37.9 19.3 29.7 47.3  0.0 0.0 0.0 0.0 0.0 0.0  44.3 37.9 19.3 29.7 47.3  0.0 0.0 0.0 0.0 0.0 0.0  44.3 37.9 19.3 29.7 47.3  0.0 0.0 0.0 0.0 0.0 0.0 0.0  44.3 37.9 19.3 29.7 47.3  0.0 0.0 0.0 0.0 0.0 0.0 0.0  44.3 37.9 19.3 29.7 47.3  0.0 0.0 0.0 0.0 0.0 0.0 0.0  0.0 0.0 0	98 657 244 527 303  Perm NA Perm NA Primpt  4 4 4 2 1  50 50 50 50 50  210 210 210 210 100  210 210 210 210 100  40 40 40 410 229%  40 40 40 10 10  10 10 10 10  10 0 0 0 0 0 0  50 50 50 50 50  1443 373 193 297 473  0 0 0 0 0 0 0 0 0  443 379 193 297 473  0 0 0 0 0 0 0 0 0  443 379 193 297 473  0 0 0 0 0 0 0 0 0  443 379 193 297 473  0 0 0 0 0 0 0 0 0  443 379 193 297 473  0 0 0 0 0 0 0 0 0  443 379 193 297 473  0 0 0 0 0 0 0 0 0  444 3 759 193 297 473	Traffic Volume (vph)	482	657	244	527	303	962
Ferm NA Perm NA pript  4	Ferm NA Perm NA pript  4 4 4 4 2 1  4 4 4 4 2 1  5.0 5.0 5.0 5.0 5.0 5.0  21.0 21.0 21.0 21.0 10.0  40.0 40.0 40.0 41.0 24.0  10 10 10 10 10  10 0.0 0.0 0.0 0.0 0.0  5.0 5.0 5.0 5.0 5.0 5.0  1.0 10 10 10  1.0 10 10 10  1.0 10 10 10  1.0 10 10 10  1.0 10 10  1.0 10 10  1.0 10 10  1.0 10 10  1.0 10 10  1.0 10 10  1.0 0.0 0.0 0.0  1.0 5.0 5.0 5.0  1.0 5.0 5.0 5.0  1.0 5.0 5.0 5.0  1.0 5.0 5.0 5.0  1.0 5.0 5.0 5.0  1.0 5.0 5.0 5.0  1.0 5.0 5.0 5.0  1.0 5.0 5.0 5.0  1.0 5.0 5.0 5.0  1.0 5.0 5.0 5.0  1.0 5.0 5.0 5.0  1.0 5.0 5.0 5.0  1.0 5.0 5.0 5.0  1.0 5.0 5.0 5.0  1.0 5.0 5.0 5.0  1.0 5.0 5.0 5.0  1.0 5.0 5.0 5.0  1.0 5.0 5.0 5.0  1.0 5.0 5.0 5.0  1.0 5.0 5.0 5.0  1.0 5.0 5.0 5.0  1.0 5.0 5.0 5.0  1.0 5.0 5.0 5.0  1.0 5.0 5.0 5.0  1.0 5.0 5.0 5.0  1.0 5.0 5.0 5.0  1.0 5.0 5.0 5.0  1.0 5.0 5.0 5.0  1.0 5.0 5.0 5.0  1.0 5.0 5.0 5.0  1.0 5.0 5.0 5.0  1.0 5.0 5.0 5.0  1.0 5.0 5.0 5.0  1.0 5.0 5.0 5.0  1.0 5.0 5.0 5.0  1.0 5.0 5.0 5.0  1.0 5.0 5.0 5.0  1.0 5.0 5.0 5.0  1.0 5.0 5.0 5.0  1.0 5.0 5.0 5.0  1.0 5.0 5.0 5.0  1.0 5.0 5.0 5.0  1.0 5.0 5.0 5.0  1.0 5.0 5.0 5.0  1.0 5.0 5.0 5.0  1.0 5.0 5.0 5.0  1.0 5.0 5.0 5.0  1.0 5.0 5.0 5.0  1.0 5.0 5.0 5.0  1.0 5.0 5.0 5.0  1.0 5.0 5.0 5.0  1.0 5.0 5.0 5.0  1.0 5.0 5.0 5.0  1.0 5.0 5.0 5.0  1.0 5.0 5.0 5.0  1.0 5.0 5.0 5.0  1.0 5.0 5.0 5.0  1.0 5.0 5.0 5.0  1.0 5.0 5.0 5.0  1.0 5.0 5.0 5.0  1.0 5.0 5.0 5.0  1.0 5.0 5.0 5.0  1.0 5.0 5.0 5.0  1.0 5.0 5.0 5.0  1.0 5.0 5.0 5.0  1.0 5.0 5.0 5.0  1.0 5.0 5.0 5.0  1.0 5.0 5.0 5.0  1.0 5.0 5.0 5.0  1.0 5.0 5.0 5.0  1.0 5.0 5.0 5.0  1.0 5.0 5.0 5.0  1.0 5.0 5.0 5.0  1.0 5.0 5.0 5.0  1.0 5.0 5.0 5.0  1.0 5.0 5.0 5.0  1.0 5.0 5.0 5.0  1.0 5.0 5.0 5.0  1.0 5.0 5.0 5.0  1.0 5.0 5.0 5.0  1.0 5.0 5.0 5.0  1.0 5.0 5.0 5.0  1.0 5.0 5.0 5.0  1.0 5.0 5.0 5.0  1.0 5.0 5.0 5.0  1.0 5.0 5.0 5.0  1.0 5.0 5.0 5.0  1.0 5.0 5.0 5.0  1.0 5.0 5.0 5.0  1.0 5.0 5.0 5.0  1.0 5.0 5.0 5.0  1.0 5.0 5.0 5.0  1.0 5.0 5.0 5.0  1.0 5.0 5.0 5.0  1.0 5.0 5.0 5.0  1.0 5.0 5.0 5.0  1.0 5.0 5.0 5.0  1.0 5.0 5.0 5.0  1.0 5.0 5.0 5.0  1.0 5.0 5.0 5.0  1.0 5.0 5.0 5.0	Future Volume (vph)	482	657	244	527	303	962
4 4 4 2 1 5.0 5.0 5.0 5.0 5.0 21.0 21.0 21.0 21.0 24.0 40.0 40.0 40.0 41.0 24.0 40.0 40.0 40.0 41.0 24.0 40.0 40.0 40.0 41.0 1.0 0.0 0.0 0.0 0.0 0.0 5.0 5.0 5.0 5.0 5.0 5.0 5.0 5.0 5.0 5.0 44.3 37.9 19.3 29.7 47.3 0.0 0.0 0.0 0.0 44.3 37.9 19.3 29.7 47.3 0.0 0.0 0.0 0.0 44.3 37.9 19.3 29.7 47.3 0.0 0.0 0.0 0.0 44.3 37.9 19.3 29.7 47.3 0.0 0.0 0.0 0.0 44.3 37.9 19.3 29.7 47.3 0.0 0.0 0.0 0.0 44.3 37.9 19.3 29.7 47.3 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	4 4 4 2 1  4 4 4 4 2  5 5 5 5 5 5 5 5 5 5 5  2 1,0 21,0 21,0 21,0 24,0 10,0  40,0 40,0 40,0 41,0 24,0  38,1% 38,1% 38,1% 39,0% 22,9% 6  4,0 4,0 4,0 4,0 4,0 4,0  1,0 1,0 1,0 1,0 1,0 1,0  0,0 0,0 0,0 0,0 0,0  5,0 5,0 5,0 5,0 5,0  5,0 5,0 5,0 5,0 5,0  44,3 37,9 19,3 29,7 47,3  D D B C D  36,3 29,7 47,3  D D B C D  14,10,4,0,4,0,4,0,4,0  15,0 0,0 0,0 0,0  16,0 0,0 0,0 0,0  16,0 0,0 0,0 0,0  16,0 0,0 0,0 0,0  16,0 0,0 0,0 0,0  16,0 0,0 0,0 0,0  16,0 0,0 0,0 0,0  16,0 0,0 0,0 0,0  16,0 0,0 0,0 0,0  16,0 0,0 0,0 0,0  16,0 0,0 0,0 0,0  16,0 0,0 0,0 0,0  16,0 0,0 0,0 0,0  16,0 0,0 0,0 0,0  16,0 0,0 0,0 0,0  16,0 0,0 0,0 0,0  16,0 0,0 0,0 0,0  16,0 0,0 0,0 0,0  16,0 0,0 0,0 0,0  16,0 0,0 0,0 0,0  16,0 0,0 0,0 0,0  16,0 0,0 0,0 0,0  16,0 0,0 0,0 0,0  16,0 0,0 0,0 0,0  16,0 0,0 0,0 0,0  16,0 0,0 0,0 0,0  16,0 0,0 0,0 0,0  16,0 0,0 0,0 0,0  16,0 0,0 0,0 0,0  16,0 0,0 0,0 0,0  16,0 0,0 0,0 0,0  16,0 0,0 0,0 0,0 0,0  16,0 0,0 0,0 0,0 0,0  16,0 0,0 0,0 0,0 0,0  16,0 0,0 0,0 0,0 0,0 0,0  16,0 0,0 0,0 0,0 0,0 0,0  16,0 0,0 0,0 0,0 0,0 0,0  16,0 0,0 0,0 0,0 0,0 0,0 0,0  16,0 0,0 0,0 0,0 0,0 0,0 0,0 0,0  16,0 0,0 0,0 0,0 0,0 0,0 0,0 0,0 0,0 0,0	Tum Type	Perm	NA	Реш	N	pm+pt	NA
5.0 5.0 5.0 5.0 5.0 5.0 5.0 5.0 5.0 5.0	5.0 5.0 5.0 5.0 5.0 5.0 5.0 5.0 5.0 5.0	Protected Phases		4		2	-	9
5.0 5.0 5.0 5.0 5.0 5.0 5.0 5.0 5.0 5.0	5.0 5.0 5.0 5.0 5.0 5.0 5.0 5.0 5.0 5.0	Permitted Phases	7		4		9	
5.0 5.0 5.0 5.0 5.0 5.0 5.0 5.0 21.0 21.0 21.0 21.0 21.0 21.0 21.0 21	5.0 5.0 5.0 5.0 5.0 5.0 5.0 5.0 5.0 21.0 21.0 21.0 21.0 21.0 21.0 21.0 21	Detector Phase	4	4	4	2	-	9
210 5.0 5.0 5.0 5.0 5.0 5.0 5.0 5.0 5.0 5.	210 210 210 210 100 400 400 410 240 38.1% 38.1% 38.1% 39.0% 22.9% 40 40 40 40 410 240 10 10 10 110 110 110 10 0.0 0.0 0.0 0.0 5.0 5.0 5.0 5.0 5.0 5.0 5.0 5.0 5.0 5.0 5.0 1.3 33.3 33.3 33.3 39.7 61.7 0.3 0.3 0.4 6.0 73 0.84 44.3 37.9 19.3 29.7 47.3 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 44.3 37.9 19.3 29.7 47.3 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	Switch Phase						
210 210 210 210 100 40.0 40.0 40.0 410 24.0 38.1% 38.1% 38.1% 38.0% 22.9% 4.0 4.0 4.0 4.0 4.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 5.0 5.0 5.0 5.0 5.0 5.0 5.0 5.0 5.0 5.0 5.0 5.0 1.33 33.3 33.3 33.3 33.7 0.3 0.78 0.77 0.46 0.73 0.84 44.3 37.9 19.3 29.7 47.3 0.0 0.0 0.0 0.0 0.0 44.3 37.9 19.3 29.7 47.3 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	210 210 210 100 38,1% 38,1% 38,1% 39,0% 22,9% 4.0 4.0 4.0 4.0 4.0 24,0 1.0 10 10 10 10 0.0 0.0 0.0 0.0 0.0 0.0 5.0 5.0 5.0 5.0 5.0 5.0 1.3 33.3 33.3 33.3 39,7 61,7 0.3 0.7 0.46 0.73 0.84 44.3 37.9 19,3 29,7 47,3 0.0 0.0 0.0 0.0 0.0 44.3 37.9 19,3 29,7 47,3 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	Minimum Initial (s)	20	9.0	2.0	2.0	2.0	5.0
400 400 410 240 38.1% 38.1% 38.1% 39.0% 22.9% 4.0 4.0 4.0 4.0 4.0 4.0 1.0 1.0 1.0 1.0 0.0 0.0 0.0 0.0 0.0 5.0 5.0 5.0 5.0 5.0 5.0 1.33 33.3 33.3 33.3 39.7 61.7 0.78 0.77 0.46 0.73 0.84 44.3 37.9 19.3 29.7 47.3 0.0 0.0 0.0 0.0 0.0 44.3 37.9 19.3 29.7 47.3 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	400 400 410 240 38.1% 38.1% 38.1% 39.0% 22.9% 40 40 40 40 40 410 240 10 10 10 10 10 10 00 00 00 00 00 00 50 50 50 50 50 50 50 33.3 33.3 33.3 39.7 61.7 0.32 0.32 0.32 0.38 0.59 0.78 0.77 0.46 0.73 0.84 44.3 37.9 19.3 29.7 47.3 0.0 0 0 0 0 0 0 0 0 44.3 37.9 19.3 29.7 47.3 0.0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	Minimum Split (s)	21.0	21.0	21.0	21.0	10.0	21.0
38.1% 38.1% 39.1% 39.0% 22.9% 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0	38.1% 38.1% 39.1% 39.0% 22.9% 4.0 4.0 4.0 4.0 4.0 4.0 4.0 1.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0	Total Split (s)	40.0	40.0	40.0	41.0	24.0	65.0
4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1	4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 0.0 0.0	Total Split (%)	38.1%	38.1%	38.1%	39.0%	22.9%	61.9%
1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0	1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0	Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0
5.0 5.0 5.0 5.0 5.0 5.0 5.0 6.0 6.0 6.0 6.0 6.0 6.0 6.0 6.0 6.0 6	5.0 5.0 5.0 5.0 5.0 5.0 5.0 4.2 Lag Lead  Min Min Min CMax Min CMa	Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Lag Lead  Min Min Min C-Max Min  33.3 33.3 33.3 39.7 61.7  0.32 0.32 0.32 0.38 0.59  0.77 0.46 0.73 0.84  44.3 37.9 19.3 29.7 47.3  0.0 0.0 0.0 0.0  44.3 37.9 19.3 29.7 47.3  D B C D  36.3 29.7  V	Lag Lead  Min Min Min CMax Min 33.3 33.3 33.3 39.7 61.7 0.32 0.32 0.33 0.59 0.77 0.46 0.73 0.84 44.3 37.9 19.3 29.7 47.3 0.0 0.0 0.0 0.0 0.0 0.0 0.0 44.3 37.9 19.3 29.7 47.3 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	Total Lost Time (s)	2.0	5.0	5.0	5.0	5.0	5.0
Min Min Min C/Max Min 33.3 33.3 33.3 33.3 33.7 61.7 0.32 0.32 0.38 0.59 0.78 0.77 0.46 0.73 0.84 44.3 37.9 19.3 29.7 47.3 0.0 0.0 0.0 0.0 0.0 44.3 37.9 0.8	Min Min Min CMax Min 33.3 33.3 33.3 33.3 33.3 34.7 61.7 0.46 0.73 0.84 44.3 37.9 19.3 29.7 47.3 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0	Lead/Lag				Lag	Lead	
Min Min Min CMax Min 33, 38, 38, 38, 38, 38, 38, 38, 38, 38,	Min Min Min CMax Min 33.3 38.3 38.3 38.3 38.3 38.3 38.7 38.0 59.7 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0	Lead-Lag Optimize?						
n(s) 333 333 333 97 617  Ratio 0.32 0.32 0.32 0.38 0.59  0.78 0.77 0.46 0.73 0.84  44.3 37.9 19.3 29.7 47.3  9, 0.0 0.0 0.0 0.0 0.0  44.3 37.9 19.3 29.7 47.3  5 0.0 0.0 0.0 0.0 0.0  18.5 0.0 0.0 0.0  18.5 0.0 0.0 0.0  19.5 0.0 0.0 0.0  19.5 0.0 0.0 0.0  19.5 0.0 0.0 0.0  19.5 0.0 0.0 0.0  19.5 0.0 0.0 0.0  19.5 0.0 0.0 0.0  19.5 0.0 0.0 0.0  19.5 0.0 0.0 0.0  19.5 0.0 0.0 0.0  19.5 0.0 0.0 0.0  19.5 0.0 0.0 0.0  19.5 0.0 0.0 0.0  19.5 0.0 0.0 0.0  19.5 0.0 0.0 0.0  19.5 0.0 0.0 0.0  19.5 0.0 0.0 0.0  19.5 0.0 0.0 0.0  19.5 0.0 0.0 0.0  19.5 0.0 0.0 0.0  19.5 0.0 0.0 0.0  19.5 0.0 0.0 0.0  19.5 0.0 0.0 0.0  19.5 0.0 0.0 0.0  19.5 0.0 0.0 0.0  19.5 0.0 0.0 0.0  19.5 0.0 0.0 0.0  19.5 0.0 0.0 0.0  19.5 0.0 0.0 0.0  19.5 0.0 0.0 0.0  19.5 0.0 0.0 0.0  19.5 0.0 0.0 0.0  19.5 0.0 0.0 0.0  19.5 0.0 0.0 0.0  19.5 0.0 0.0 0.0  19.5 0.0 0.0 0.0  19.5 0.0 0.0 0.0  19.5 0.0 0.0 0.0  19.5 0.0 0.0 0.0  19.5 0.0 0.0 0.0  19.5 0.0 0.0 0.0  19.5 0.0 0.0 0.0  19.5 0.0 0.0 0.0  19.5 0.0 0.0 0.0  19.5 0.0 0.0 0.0  19.5 0.0 0.0 0.0  19.5 0.0 0.0 0.0  19.5 0.0 0.0 0.0  19.5 0.0 0.0 0.0  19.5 0.0 0.0 0.0  19.5 0.0 0.0 0.0  19.5 0.0 0.0 0.0  19.5 0.0 0.0 0.0  19.5 0.0 0.0 0.0  19.5 0.0 0.0 0.0  19.5 0.0 0.0 0.0  19.5 0.0 0.0 0.0  19.5 0.0 0.0 0.0  19.5 0.0 0.0 0.0  19.5 0.0 0.0 0.0  19.5 0.0 0.0 0.0  19.5 0.0 0.0 0.0  19.5 0.0 0.0 0.0  19.5 0.0 0.0 0.0  19.5 0.0 0.0 0.0  19.5 0.0 0.0 0.0  19.5 0.0 0.0 0.0  19.5 0.0 0.0 0.0  19.5 0.0 0.0 0.0  19.5 0.0 0.0 0.0  19.5 0.0 0.0 0.0  19.5 0.0 0.0 0.0  19.5 0.0 0.0 0.0  19.5 0.0 0.0 0.0  19.5 0.0 0.0 0.0  19.5 0.0 0.0 0.0  19.5 0.0 0.0 0.0  19.5 0.0 0.0 0.0  19.5 0.0 0.0 0.0  19.5 0.0 0.0 0.0  19.5 0.0 0.0 0.0  19.5 0.0 0.0 0.0  19.5 0.0 0.0 0.0  19.5 0.0 0.0 0.0  19.5 0.0 0.0 0.0  19.5 0.0 0.0 0.0  19.5 0.0 0.0 0.0  19.5 0.0 0.0 0.0  19.5 0.0 0.0 0.0  19.5 0.0 0.0 0.0  19.5 0.0 0.0 0.0  19.5 0.0 0.0 0.0  19.5 0.0 0.0 0.0  19.5 0.0 0.0 0.0  19.5 0.0 0.0 0.0  19.5 0.0 0.0 0.0  19.5 0.0 0.0 0.0  19.5 0.0 0.0 0.0  19.5 0.0 0.0 0.0  19.5 0.0 0.0 0.0  19.5 0.0 0.0 0.0  19.5 0.0 0.0 0.0  19.5 0.0 0	n(s) 333 333 333 97 617 Ratio 0.32 0.32 0.32 0.38 0.59 0.78 0.77 0.42 0.73 0.84 44.3 37.9 19.3 29.7 47.3 0 0.0 0.0 0.0 0.0 0 0.0 0.0 0.0 0 0.0 0.	Recall Mode	Win	Min	Min	C-Max	Min	C-Max
Ratio 0.32 0.32 0.32 0.38 0.59 0.78 0.77 0.46 0.73 0.84 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	Ratio 0.32 0.32 0.38 0.59 0.78 0.77 0.46 0.73 0.84 0.78 0.77 0.46 0.73 0.84 0.4.3 37.9 19.3 29.7 47.3 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	Act Effct Green (s)	33.3	33.3	33.3	39.7	61.7	61.7
0.78 0.77 0.46 0.73 0.84 44.3 37.9 19.3 29.7 47.3 0.0 0.0 0.0 0.0 0.0 0.0 44.3 37.9 19.3 29.7 47.3 38.3 29.7 47.3 38.3 29.7 38.3 29.7 38.3 29.7 38.3 29.7 38.3 29.7	97 0.76 0.77 0.46 0.73 0.84 44.3 77.9 19.3 29.7 47.3 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0	Actuated g/C Ratio	0.32	0.32	0.32	0.38	0.59	0.59
44.3 37.9 19.3 29.7 47.3 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0	44.3 37.9 19.3 29.7 47.3 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0	v/c Ratio	0.78	0.77	0.46	0.73	0.84	0.50
0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	94 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.	Control Delay	44.3	37.9	19.3	29.7	47.3	16.8
44.3 37.9 19.3 29.7 47.3 9.4 5.6 5.0 5.0 5.0 5.0 5.0 5.0 5.0 5.0 5.0 5.0	44.3 37.9 19.3 29.7 47.3 39.9 36.3 29.7 D B C D D B C D D B C D D D D D D D D D	Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
36.3 29.7 D B C D B C D B C D C D C C C C C C C C	9y 36.3 29.7 D minimary 5 c c c c c c c c c c c c c c c c c c	Total Delay	44.3	37.9	19.3	29.7	47.3	16.8
36.3 29.7 D C	36.3 29.7 D C	T08	0	0	œ	S	O	80
D C	O	Approach Delay		36.3		29.7		24.1
Intersection Summary Avial a north-16.	Intersection Summary Cycle Length: 105 Archarlad Annah: 116	Approach LOS		O		O		O
Ourla Lauretin 10%	Cycle Length: 105 Archarlad Punia I anneth: 105	Intersection Summary						
	Oylor English 105 Oylor English 105 Ashrinted Purklish Bandti 105	Ourle Landth: 105						

						+0+		
SBTL, Start of Green		Intersection LOS: C	ICU Level of Service E			1	308	
Officers 2.1 (2%), Referenced to phase 2:NBT and 6:SBTL, Start of Green Natural Cycle: 55	ed-Coordinated 0.84	elay: 30.3	/ Utilization 90.3%	) 15	Splits and Phases: 3: Jefferson St. & I-25 E. Ramp	▼ TO2(R)		
Offiset: 2.1 (2%), Referenced Natural Cycle: 55	Control Type: Actuated-Coordinated Maximum v/c Ratio: 0.84	Intersection Signal Delay: 30.3	Intersection Capacity Utilization 90.3%	Analysis Period (min) 15	Splits and Phases:	01	196	

2019 PM Peak BUILD Conditions - Existing Geometry

Synchro 10 Report 2019PBX.syn

HCM 6th Signalized Intersection Summary 3: Jefferson St. & I-25 E. Ramp

Terry O. Brown, PE 12/19/2018

Movement   EB		4	1	1	1	1	1	1	4	4	A	<b>→</b>	V
1	Мочетел	183	EBT	EBR	WBL	WBT	WBR	NBI	NBT	NBR	SBI	SBT	SBR
482 657 244 0 0 0 527 389 303 952 482 657 244 0 0 0 0 57 389 303 952 482 657 244 0 0 0 0 57 389 303 952 482 657 244 0 0 0 0 57 389 303 952 100 100 100 100 100 100 100 100 100 10	Lane Configurations	F	474	W.					47		M	**	
482 657 244 0 0 0 527 389 303 962 100 100 100 100 100 100 100 100 100 10	Traffic Volume (vehih)	482	657	244	0	0	0	0	527	369	303	962	0
1.00	Future Volume (veh/h)	482	657	244	0	0	0	0	527	369	303	962	0
100 100 100 100 100 100 100 100 100 100	Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100	Ped-Bike Adj(A_pbT)	1,00		1.00				1.00		1.00	1.00		1.00
No	Parking Bus, Adj	1,00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856	Work Zone On Approach		No.						No			No	
10	Adj Sat Flow, vehihiln	1856	1856	1856				0	1856	1856	1856	1856	0
094 094 094 094 094 094 094 094 094 094	Adj Flow Rate, veh/h	404	825	260				0	561	383	322	1023	0
100   100   3   3   3   3   3   3   3   3   3	Peak Hour Factor	0.94	0.94	0.94				0.94	0.94	0.94	0.94	0.94	0.94
1767   1866   453   0 0 879   616   421   2174     1767   1865   1572   0 0 0074   1888   1767   1763     1767   1865   1572   0 0 0774   1888   1767   1763     1767   1866   1572   0 0 0 1763   1806   1767   1763     1767   1866   1572   0 0 0 0 23:1   23:1   10.6   0.0     1767   1866   1572   0 0 0 0 23:1   23:1   10.6   0.0     1767   1866   1572   0 0 0 0 23:1   23:1   10.6   0.0     1767   1866   1572   0 0 0 0 23:1   23:1   10.6   0.0     1767   1866   1572   0 0 0 0 23:1   23:1   10.6   0.0     1767   1866   1572   0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	Percent Heavy Veh, %	e	m	m				0	e	e	e	3	0
1767   3711   1572   0.00   0.44   0.44   0.25   1.00   0.44   0.44   0.25   1.00   0.44   0.44   0.25   1.00   0.44   0.44   0.25   1.00   0.25   0.23   0.00   0.23   0.23   0.23   0.23   0.23   0.23   0.23   0.23   0.23   0.23   0.23   0.23   0.23   0.23   0.23   0.23   0.23   0.23   0.23   0.23   0.23   0.23   0.23   0.23   0.23   0.23   0.23   0.23   0.23   0.23   0.23   0.23   0.23   0.23   0.23   0.23   0.23   0.23   0.23   0.23   0.23   0.23   0.23   0.23   0.23   0.23   0.23   0.23   0.23   0.23   0.23   0.23   0.23   0.23   0.23   0.23   0.23   0.23   0.23   0.23   0.23   0.23   0.23   0.23   0.23   0.23   0.23   0.23   0.23   0.23   0.23   0.23   0.23   0.23   0.23   0.23   0.23   0.23   0.23   0.23   0.23   0.23   0.23   0.23   0.23   0.23   0.23   0.23   0.23   0.23   0.23   0.23   0.23   0.23   0.23   0.23   0.23   0.23   0.23   0.23   0.23   0.23   0.23   0.23   0.23   0.23   0.23   0.23   0.23   0.23   0.23   0.23   0.23   0.23   0.23   0.23   0.23   0.23   0.23   0.23   0.23   0.23   0.23   0.23   0.23   0.23   0.23   0.23   0.23   0.23   0.23   0.23   0.23   0.23   0.23   0.23   0.23   0.23   0.23   0.23   0.23   0.23   0.23   0.23   0.23   0.23   0.23   0.23   0.23   0.23   0.23   0.23   0.23   0.23   0.23   0.23   0.23   0.23   0.23   0.23   0.23   0.23   0.23   0.23   0.23   0.23   0.23   0.23   0.23   0.23   0.23   0.23   0.23   0.23   0.23   0.23   0.23   0.23   0.23   0.23   0.23   0.23   0.23   0.23   0.23   0.23   0.23   0.23   0.23   0.23   0.23   0.23   0.23   0.23   0.23   0.23   0.23   0.23   0.23   0.23   0.23   0.23   0.23   0.23   0.23   0.23   0.23   0.23   0.23   0.23   0.23   0.23   0.23   0.23   0.23   0.23   0.23   0.23   0.23   0.23   0.23   0.23   0.23   0.23   0.23   0.23   0.23   0.23   0.23   0.23   0.23   0.23   0.23   0.23   0.23   0.23   0.23   0.23   0.23   0.23   0.23   0.23   0.23   0.23   0.23   0.23   0.23   0.23   0.23   0.23   0.23   0.23   0.23   0.23   0.23   0.23   0.23   0.23   0.23   0.23   0.23   0.23   0.23   0.23   0.23   0.23   0.23   0.23   0.23	Cap, vehih	909	1069	453				0	879	919	421	2174	0
1767 3711 1572	Arrive On Green	0.29	0.29	0.29				0.00	0.44	0.44	0.25	1.00	0000
No.   167   1862   260   0   499   455   322   1023   1024   1025   148   100   100   1763   1806   1767   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763	Sat Flow, veh/h	1767	3711	1572				0	2074	1388	1767	3618	0
In   1767   1856   1572   0   1763   1606   1767   1763   1606   1767   1763   1606   1767   1763   1606   1767   1763   1606   1767   1763   1763   1763   1764   1763   1764   1763   1764   1764   1765   1765   1765   1765   1765   1765   1765   1765   1765   1765   1765   1765   1765   1765   1765   1765   1765   1765   1765   1765   1765   1765   1765   1765   1765   1765   1765   1765   1765   1765   1765   1765   1765   1765   1765   1765   1765   1765   1765   1765   1765   1765   1765   1765   1765   1765   1765   1765   1765   1765   1765   1765   1765   1765   1765   1765   1765   1765   1765   1765   1765   1765   1765   1765   1765   1765   1765   1765   1765   1765   1765   1765   1765   1765   1765   1765   1765   1765   1765   1765   1765   1765   1765   1765   1765   1765   1765   1765   1765   1765   1765   1765   1765   1765   1765   1765   1765   1765   1765   1765   1765   1765   1765   1765   1765   1765   1765   1765   1765   1765   1765   1765   1765   1765   1765   1765   1765   1765   1765   1765   1765   1765   1765   1765   1765   1765   1765   1765   1765   1765   1765   1765   1765   1765   1765   1765   1765   1765   1765   1765   1765   1765   1765   1765   1765   1765   1765   1765   1765   1765   1765   1765   1765   1765   1765   1765   1765   1765   1765   1765   1765   1765   1765   1765   1765   1765   1765   1765   1765   1765   1765   1765   1765   1765   1765   1765   1765   1765   1765   1765   1765   1765   1765   1765   1765   1765   1765   1765   1765   1765   1765   1765   1765   1765   1765   1765   1765   1765   1765   1765   1765   1765   1765   1765   1765   1765   1765   1765   1765   1765   1765   1765   1765   1765   1765   1765   1765   1765   1765   1765   1765   1765   1765   1765   1765   1765   1765   1765   1765   1765   1765   1765   1765   1765   1765   1765   1765   1765   1765   1765   1765   1765   1765   1765   1765   1765   1765   1765   1765   1765   1765   1765   1765   1765   1765   1765   1765   1765   1765   1765   1765   1765   1765   1765	Grp Volume(v), veh/fr	404	852	260				0	499	455	322	1023	0
222 223 148 000 23.1 23.1 10.6 0.0 10.0 10.0 10.0 10.0 10.0 10.	3rp Sat Flow(s),veh/h/ln	1767	1856	1572				0	1763	1606	1767	1763	0
222 223 148 0.00 23.1 23.1 10.6 0.0 0.00 1.00 1.00 1.00 1.00 1.0	2 Serve(g_s), s	22.2	22.3	14.8				0.0	23.1	23.1	10.6	0.0	0.0
100 100 0.00 0.86 1.00 0.00 0.87 1.03 1.04 0.00 0.00 0.00 0.00 0.00 0.00 0.00	Cycle Q Clear(g_c), s	22.2	22.3	14.8				0.0	23.1	23.1	10.6	0.0	0.0
508   1069   453   0   782   713   421   2174     508   1069   453   0   0   782   713   421   2174     508   0.57   0   0.57   0   0.07   0.47     1.00   1.00   1.00   0.00   1.00   1.00   1.00     1.00   1.00   1.00   0.00   1.00   1.00   0.20   2.00     1.00   1.00   1.00   0.00   0.00   1.00   0.20   2.00     1.00   1.00   0.00   0.00   0.00   0.00     1.00   0.00   0.00   0.00   0.00   0.00     1.00   0.00   0.00   0.00   0.00   0.00     1.00   0.00   0.00   0.00   0.00     1.00   0.00   0.00   0.00   0.00     1.00   0.00   0.00   0.00     1.00   0.00   0.00   0.00     1.00   0.00   0.00   0.00     1.00   0.00   0.00     1.00   0.00   0.00     1.00   0.00   0.00     1.00   0.00   0.00     1.00   0.00   0.00     1.00   0.00   0.00     1.00   0.00   0.00     1.00   0.00   0.00     1.00   0.00   0.00     1.00   0.00   0.00     1.00   0.00   0.00     1.00   0.00   0.00     1.00   0.00   0.00     1.00   0.00   0.00     1.00   0.00   0.00     1.00   0.00   0.00     1.00   0.00   0.00     1.00   0.00   0.00     1.00   0.00   0.00     1.00   0.00   0.00     1.00   0.00   0.00     1.00   0.00   0.00     1.00   0.00   0.00     1.00   0.00   0.00     1.00   0.00   0.00     1.00   0.00   0.00     1.00   0.00   0.00     1.00   0.00   0.00     1.00   0.00   0.00     1.00   0.00   0.00     1.00   0.00   0.00     1.00   0.00   0.00     1.00   0.00   0.00     1.00   0.00   0.00     1.00   0.00   0.00     1.00   0.00   0.00     1.00   0.00   0.00     1.00   0.00   0.00     1.00   0.00   0.00     1.00   0.00   0.00     1.00   0.00   0.00     1.00   0.00   0.00     1.00   0.00   0.00     1.00   0.00   0.00     1.00   0.00   0.00     1.00   0.00   0.00     1.00   0.00   0.00     1.00   0.00   0.00     1.00   0.00   0.00     1.00   0.00   0.00     1.00   0.00   0.00     1.00   0.00   0.00     1.00   0.00   0.00     1.00   0.00   0.00     1.00   0.00   0.00     1.00   0.00   0.00     1.00   0.00   0.00     1.00   0.00   0.00     1.00   0.00   0.00     1.00   0.00   0.00     1.00   0.00   0.00     1.00   0.00   0.00     1.00	Prop In Lane	1.00		1.00				00.0		0.86	1.00		0.00
Secondary   Seco	ane Grp Cap(c), veh/h	509	1069	453				0	782	713	421	2174	0
5891237  524	//C Ratio(X)	0.79	0.80	0.57				00.0	0.64	0.64	0.77	0.47	0.00
100 100 100 100 100 100 100 100 200 200	wail Cap(c_a), vehih	589	1237	524				0	782	713	519	2174	0
1.00 1.00 1.00 0.00 1.00 0.27 0.27 of 65 34.5 31.9 0.00 0.00 1.00 1.00 0.27 0.27 of 65 34.5 31.9 0.0 0.00 2.0 0.0 0.0 0.0 0.0 0.0 0.0 0.	HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00	2.00	2.00	1.00
th 345 345 319 000 227 227 144 000 65 33 12 000 400 400 400 156 9.6 0.00 0.00 0.00 0.00 0.00 157 8 33.0 0.00 0.00 0.00 0.00 157 8 33.0 0.00 26.6 27.0 15.9 0.2 1516 352 69.8 26.8 5.0 5.0 5.0 23.1 23.1 23.1 23.1 23.1 24 6 6 0.00 25.7 25.7 37.8 26.8 3.9 26.8 3.9 26.8 3.9 26.8 3.9 26.8 3.9 26.8 3.9 26.8 3.9 26.8 3.9 26.8 3.9 26.8 3.9 26.8 3.9 26.8 3.9 26.8 3.9 26.8 3.9 26.8 3.9 26.8 3.9 26.8 3.9 26.8 3.9 26.8 3.9 26.8 3.9 26.8 3.9 26.8 3.9 27 28.8 3.9 28.8 3.9 28.8 3.9 28.8 3.9 28.8 3.9 28.8 3.9 28.8 3.9 28.8 3.9 28.8 3.9 28.8 3.9 28.8 3.9 28.8 3.9 28.8 3.9 28.8 3.9 28.8 3.9 28.8 3.9 28.8 3.9 28.8 3.9 28.8 3.9 28.8 3.9 28.8 3.9 28.8 3.9 28.8 3.9 28.8 3.9 3.9 3.9 3.0 3.0 3.0 3.0 3.0 3.0 3.0 3.0 3.0 3.0	(I) pstream Filter(I)	1.00	1.00	1.00				000	1.00	1.00	0.27	0.27	0.00
6.5 3.3 1.2 0.0 4.0 4.3 1.5 0.2  h	Uniform Delay (d), s/veh	34.5	34.5	31.9				0.0	22.7	22.7	14.4	0.0	0.0
hin 15.5 15.6 9.6 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0	nor Delay (d2), siveh	6.5	3.3	12				0.0	4.0	4.3	1.5	0.2	0.0
high 155 156 96 0.0 154 14.3 4.7 0.1  y, siveh 410 37.8 33.0 0.0 266 27.0 15.9 0.2  D D C C B A C C B A 1345  1516 37.8 26.8 33.9  1 2 4 6 7 7 8.3  3.9 20  3.1 2 4 6 8 3.9  5.1 5.0 5.0 5.0 5.0  5.1 5.1 24.3 2.0  5.2 4.8 6.0 9.9  5.3 4.8 6.0 9.9	ritial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0	0.0	0.0	0.0
y, siveh 410 37.8 33.0 0.0 26.6 27.0 15.9 0.2 0.2 0.2 0.2 0.2 0.2 0.2 0.2 0.2 0.2	ile BackOfQ(95%),veh/ln	15.5	15.6	9.6				0.0	15.4	14.3	4.7	0.1	0.0
410 378 330 0.0 266 270 159 0.2  1516	Insig. Movement Delay, s/veh												
1516 A C C B 1516 964 37.8 C C B 37.8 C C B 37.8 C C B 37.8 C C B 36.8 C C B 36.8 C C B 36.8 C C C C C C C C C 36.8 C C C C C C C C C C 36.8 C C C C C C C C C C C C C C 36.8 C C C C C C C C C C C C C C C C C C C	nGrp Delay(d),s/veh	41.0	37.8	33.0				0.0	26.6	27.0	15.9	0.2	0.0
1516 984 37.8 26.8 D 0 C C C 35.2 69.8 18.5 5.0 5.0 5.0 5.0 18.5 126 25.1 24.3 2.0 23.1 23.1	ngm LOS	2	0	د				ď	اد	٥	α	× :	×
37.8 20.8 1 2 4 6 C C C C C C C C C C C C C C C C C C	pproach Vol, vehih		1516						354			1345	
18 1 2 4 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6	oproach Delay, siven		37.8						20.07			3,5	
Reb, s 182 51.6 35.2 (4 20.4 s), s 182 51.6 50.0 (5.0 5.0 5.0 5.0 5.0 5.0 (5.0 5.0 5.0 5.0 5.0 5.0 (5.0 5.0 5.1 5.1 5.1 5.1 5.0 5.1 5.1 5.1 5.1 5.1 5.1 5.1 5.1 5.1 5.1	Approach LUS		0						د			ď	
Re), s 18.2 51.6 35.2 (Re), s 5.0 5.0 5.0 5.0 5.0 5.0 5.0 5.0 5.0 5.0	Trner - Assigned Phs	1	2		4		9						
R0, s 5.0 5.0 5.0 (Gmax), s 19.0 36.0 35.0 (Gmax), s 19.0 36.0 25.0 24.3 (C.), s 0.5 4.8 6.0 23.1 C.	hs Duration (G+Y+Rc), s	18.2	51.6		35.2		8.69						
(Gmax), s 19.0 36.0 35.0 (g.c+lf), s 12.6 25.1 24.3 (c), s 0.5 4.8 6.0 arg	Change Period (Y+Rc), s	2.0	2.0		2.0		2.0						
9,c+11),s 12,6 25,1 24,3 6.0 (.),s 0.5 4,8 6.0 (.)	Max Green Setting (Gmax), s	19.0	36.0		35.0		0.09						
C), S 0.5 4.8 6.0	Max Q Clear Time (g_c+l1), s	12.6	25.1		24.3		20						
ery .	Green Ext Time (p_c), s	0.5	4.8		0.9		9.9						
	ntersection Summary												
	HCM 6th Ctrl Delay			23.1									
Ustone	HCM 6th LOS			0									
	Datos												

User approved volume balancing among the lanes for turning movement.

2019 PM Peak BUILD Conditions - Existing Geometry

Timings 4: Jefferson St. & McLeod Rd.

Terry O. Brown, PE 12/19/2018

	4	1	1	1	1	*	4	•	<b>→</b>	
Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	SBL	SBT	
Lane Configurations	<b>F</b>	£,	F	+	W_	N-	4	F	44	
Traffic Volume (vph)	16	99	103	12	402	10	536	473	692	
Future Volume (vph)	16	99	103	12	402	10	536	473	692	
Tum Type	Регш	NA	Реп	NA	и м−шф	pm+pt	NA	pm+pt	NA	
Protected Phases		4		00	+	2	2	-	9	
Permitted Phases	4		00		60	2		9		
Detector Phase	4	4	00	00	+	ĸ	2		9	
Switch Phase										
Minimum Initial (s)	5.0	5.0	2.0	5.0	2.0	2.0	5.0	5.0	5.0	
Minimum Split (s)	21.0	21.0	21.0	21.0	10.0	10.0	21.0	10.0	21.0	
Total Split (s)	43.0	43.0	43.0	43.0	20.0	20.0	37.0	20.0	37.0	
Total Split (%)	43.0%	43.0%	43.0%	43.0%	20.0%	20.0%	37.0%	20.0%	37.0%	
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)	5.0	5.0	5.0	9.0	5.0	5.0	9.0	5.0	2.0	
Lead/Lag					Lead	Lead	Lag	Lead	Lag	
Lead-Lag Optimize?										
Recall Mode	Min	Min	Min	Win	Min	Min	Max	Min	Max	
Act Effct Green (s)	11.6	11.6	11.6	11.6	31.6	37.7	32.1	52.1	41.4	
Actuated g/lC Ratio	0.16	0.16	0.16	0.16	0.43	0.51	0.44	0.71	0.56	
v/c Ratio	0.08	0.33	0.55	0.04	0.59	0.03	0.46	0.83	0.38	
Control Delay	26.4	24.8	39.3	25.8	15.8	5.6	15.9	21.4	10.2	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Delay	26.4	24.8	39.3	25.8	15.8	5.6	15.9	21.4	10.2	
SOT	0	O	0	O	8	¥	8	O	8	
Approach Delay		25.0		20.7			15.8		14.7	
Approach LOS		O		O			8		80	
Intersection Summary										
Cycle Length: 100										
Actuated Cycle Length: 73.7										
Natural Cycle: 60	3									
Maximum vic Ratio: 0.83	DJO									
Intersection Signal Delay: 16.7	7.			2	Intersection LOS: B	110S:B				
Intersection Capacity Utilization 69.3% Analysis Period (min) 15	on 69.3%			Si .	U Level	ICU Level of Senice C	S			

2019 PM Peak BUILD Conditions - Existing Geometry

4: Jefferson St. & McLeod Rd.

Synchro 10 Report 2019PBX.syn

HCM 6th Signalized Intersection Summary 4: Jefferson St. & McLeod Rd.

Terry O. Brown, PE 12/19/2018

							-	-				
Movement	BBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
ane Configurations	pc-	4		K	4	NC.	15	413		N-	47	
raffic Volume (veh/h)	16	99	52	103	12	402	10	536	107	473	692	11
Future Volume (veh/h)	16	99	52	103	12	405	10	536	107	473	692	11
nitial 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
Nork Zone On Approach		e N			No			No			No	
Adj Sat Flow, vehifuln	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856
Adj Flow Rate, vehih	17	71	27	111	13	432	11	976	115	200	744	12
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh. %	m	e	e	m	m	en	3	m	ო	en	ლ	en
Cap, veh/h	324	333	126	364	482	069	451	1120	223	574	1781	29
Arrive On Green	0.26	0.26	0.26	0.26	0.26	0.26	90.0	0.38	0.38	0.18	0.50	0.50
Sat Flow, vehilh	937	1281	487	1287	1856	1572	1767	2930	583	1767	3551	57
Srp Volume(v), veh/h	17	0	86	111	13	432	11	346	345	909	369	387
Srp Sat Flow(s), vehihilin	937	0	1768	1287	1856	1572	1767	1763	1751	1767	1763	1845
Q Serve(g_s), s	12	0.0	3.6	6.2	0.4	17.8	0.3	12.6	12.7	14.1	11.1	11.1
Cycle Q Clear(g_c), s	1.6	0.0	3.6	8.6	0.4	17.8	0.3	12.6	12.7	14.1	11.1	11.1
Prop In Lane	1.00		0.28	1.00		1.00	1.00		0.33	1.00		0.03
ane Grp Cap(c), vehih	324	0	428	364	482	069	451	674	699	574	884	925
//C Ratio(X)	0.05	0.00	0.21	0.30	0.03	0.63	0.02	0.51	0.52	0.89	0.42	0.42
Avail Cap(c_a), veh/h	909	0	802	614	842	966	995	674	699	574	884	925
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
Jpstream Filter(I)	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Jniform Delay (d), s/veh	23.7	0.0	24.3	282	23.1	18.2	13.1	19.9	19.9	13.8	13.2	13.2
nor Delay (d2), s/veh	0.1	0.0	0.2	0.5	0.0	0.9	0.0	28	2.8	15.4	1.5	1.4
nitial 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
Wile BackOfQ(95%),vehilin	0.5	0.0	2.7	3.4	0.3	10.3	0.2	9.3	9.3	11.7	7.9	9.1
Jnsig. Movement Delay, s/veh												
nGrp Delay(d),s/veh	23.8	0.0	24.5	28.6	23.1	19.1	13.2	22.7	22.7	29.1	14.6	14.6
.nGrp LOS	O	A	O	O	O	В	8	O	O	O	80	60
Approach Vol, veh/h		115			929			702			1265	
Approach Delay, s/veh		24.4			21.1			22.6			20.4	
Approach LOS		o			O			O			O	
imer - Assigned Phs	*	2		4	40	9		00				
Phs Duration (G+Y+Rc), s	20.0	37.0		26.7	10.0	47.0		26.7				
Change Period (Y+Rc), s	5.0	5.0		5.0	5.0	5.0		5.0				
Max Green Setting (Gmax), s		32.0		38.0	15.0	32.0		38.0				
Max Q Clear Time (g_c+11), s	16.1	14.7		5.6	23	13.1		19.8				
Green Ext Time (p_c), s	0.0	4.1		9.0	0.0	4.6		1.9				
ntersection Summary				١	I							
HCM 6th Cm Delay			213									
HCM 6th LOS			0									

2019 PM Peak BUILD Conditions - Existing Geometry

Int Delay, s/veh	0.3						
Movement	EBL	EBR	NBL	NBT	SBT	SBR	
Lane Configurations	W			414	1		
Traffic Vol, veh/h	5	13	10	966	1169	29	
Future Vol, veh/h	5	13	10	966	1169	29	
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	-	
Grade, %	0			0	0	_	
Peak Hour Factor	83	83	83	83	83	83	
Heavy Vehicles, %	3	3	3	3	3	3	
Mymt Flow	6	16	12	1164	1408	35	
WWIII FIOW	0	10	12	1104	1400	33	
Major/Minor N	Minor2		Major1		Major2		
Conflicting Flow All	2032	722	1443	0	najoiz	0	
	1426		1443	U			
Stage 1	606	*	-	-	-		
Stage 2		0.00	4.40			-	
Critical Hdwy	6.86	6.96	4.16		-		
Critical Hdwy Stg 1	5.86					-	
Critical Hdwy Stg 2	5.86	-	-	-	-	+	
Follow-up Hdwy	3.53	3.33	2.23	-		-	
Pot Cap-1 Maneuver	91	*596	765	-	-	-	
Stage 1	475	7	-	-	-	-	
Stage 2	504	-		-		-	
Platoon blocked, %	1	1	1	-	-		
Mov Cap-1 Maneuver	87	*596	765	-	-	4	
Mov Cap-2 Maneuver	87	-	- 2		-	-	
Stage 1	454	-	-	-	4	+	
Stage 2	504	-	-	-	-	-	
Approach	EB		NB		SB		
HCM Control Delay, s	22.5		0.3		0		
HCM LOS	С						
Minor Lane/Major Mvm	t	NBL	NBT	EBLn1	SBT	SBR	
Capacity (veh/h)		765		227	-		
HCM Lane V/C Ratio		0.016		0.096	-	-	
HCM Control Delay (s)		9.8	0.2	22.5	-	-	
HCM Lane LOS		Α	Α	C	-	-	
HCM 95th %tile Q(veh)		0		0.3	-	-	
Notes							

Intersection											
Int Delay, s/veh 1.	3										
Movement EB	L EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations				4			414			414	1
	0 0	0	15	0	37	0	896	14	34	1127	45
•	0 0		15	0	37	0	896	14	34	1127	45
	0 0		0	0	0	0	0	0	0	0	0
Sign Control Sto		Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
DT 01 " 1		None	-	-	None	-	-	None	-	-	Free
01 1 11		-	-	-	-	-	-	-	-	-	75
	- 0	-	-	0	-	-	0	-	-	0	-
a . a.	- 0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor 9	4 94	94	94	94	94	94	94	94	94	94	94
Heavy Vehicles, %	3 3	3	3	3	3	3	3	3	3	3	3
	0 0	0	16	0	39	0	953	15	36	1199	48
Major/Minor			Minor1		ı	Major1		N	//ajor2		
Conflicting Flow All			1633	2232	484	1199	0	0	968	0	0
Stage 1			961	961	-	-	-	-	-	-	-
Stage 2			672	1271	_	_	_	<u> </u>	_	_	_
Critical Hdwy			6.86	6.56	6.96	4.16	_	_	4.16	_	_
Critical Hdwy Stg 1			5.86	5.56	-	T. 10	_	<u>-</u>	-	_	<u>-</u>
Critical Hdwy Stg 2			5.86	5.56	_	_	_	_	_	_	_
Follow-up Hdwy			3.53	4.03	3.33	2.23	<u>-</u>	<u>-</u>	2.23	-	<u>-</u>
Pot Cap-1 Maneuver			91	42	526	572	-	_	701	_	0
Stage 1			329	331	-	-	_	_	-	_	0
Stage 2			466	235	-	-	-	-	-	-	0
Platoon blocked, %							_	_		_	
Mov Cap-1 Maneuver			77	0	526	572	-	-	701	-	-
Mov Cap-2 Maneuver			77	0	-	-	-	-	-	-	-
Stage 1			329	0	-	-	-	-	-	-	-
Stage 2			394	0	-	-	_	_	-	-	_
Ŭ											
Approach			WB			NB			SB		
HCM Control Delay, s			30.4			0			1.1		
HCM LOS			D								
Minor Lane/Major Mvmt	NBL	NBT	NBRV	VBLn1	SBL	SBT					
Capacity (veh/h)	572		-	196	701	-					
HCM Lane V/C Ratio	-			0.282		_					
HCM Control Delay (s)	0		_	30.4	10.4	0.8					
HCM Lane LOS	A		_	D	В	A					
HCM 95th %tile Q(veh)	0		_	1.1	0.2	-					
					<b>V.</b>						

Intersection								
Int Delay, s/veh	8.5							
Movement	EBL	EBR	NBL	NBT	SBT	SBR		
Lane Configurations	W			41	<b>†</b> 1>	02.1		
Traffic Vol, veh/h	54	138	144	828	1060	11		
Future Vol, veh/h	54	138	144	828	1060	11		
Conflicting Peds, #/hr	0	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	_		
Grade, %	0	_	_	0	0	_		
Peak Hour Factor	94	94	94	94	94	94		
Heavy Vehicles, %	3	3	3	3	3	3		
Mymt Flow	57	147	153	881	1128	12		
IVIVITIL I IUW	31	141	100	001	1120	12		
NA =: = =/NA:== =	M: C		M-1. A		1-1: 0			
	Minor2		Major1		Major2			
Conflicting Flow All	1881	570	1140	0	-	0		
Stage 1	1134	-	-	-	-	-		
Stage 2	747	-	-	-	-	-		
Critical Hdwy	6.86	6.96	4.16	-	-	-		
Critical Hdwy Stg 1	5.86	-	-	-	-	-		
Critical Hdwy Stg 2	5.86	-	-	-	-	-		
Follow-up Hdwy	3.53	3.33	2.23	-	-	-		
Pot Cap-1 Maneuver	*124	*625	*935	-	-	-		
Stage 1	*591	-	-	-	-	-		
Stage 2	*426	-	-	-	-	-		
Platoon blocked, %	1	1	1	-	-	-		
Mov Cap-1 Maneuver	*84	*625	*935	-	-	-		
Mov Cap-2 Maneuver	*84	-	-	-	-	-		
Stage 1	*402	-	-	-	-	_		
Stage 2	*426	-	-	-	-	-		
Approach	EB		NB		SB			
HCM Control Delay, s	87.1		2.4		0			
HCM LOS	F							
	•							
Minor Lane/Major Mvm	.+	NBL	NDT	EBLn1	SBT	SBR		
	· ·	* 935	INDII	222	- 201	JDK		
Capacity (veh/h) HCM Lane V/C Ratio		0.164		0.92	-	-		
			- 11			-		
HCM Long LOS		9.6	1.1	87.1	-	-		
HCM Lane LOS HCM 95th %tile Q(veh)		A 0.6	A -	7.7	-	-		
		0.0		1.1				
Notes								
~: Volume exceeds cap	pacity	\$: De	lay exc	eeds 30	00s	+: Comp	outation Not Defined	*: All major volume in platoon

Timings 1: Jefferson St. & Singer Blvd.

Terry O. Brown, PE 12/18/2018

ations e (vph) ses ses se											
SU (F) (F)	33	E81	EBR	WE	WET	300	NOT	NBH	SBL	881	
(f) (h)	15	+	N.	W.	44	N-	44	PC.	W.	44	
(hc	131	31	195	79	2	410	564	320	21	279	
	131	31	195	79	2	410	564	320	21	279	
	Prof	NA pm+ov	70+U	Prot		PITH-	N	Perm	pm+pt	NA	
	1	4	2	m	60		2		-	9	
			4			2		2	9		
	7	4	S	ო	œ	S	2	2		9	
Switch Phase											
Minimum Initial (s) 5	5.0	5.0	5.0	5.0	5.0	5.0	2.0	5.0	5.0	5.0	
Minimum Split (s) 10	0.01	21.0	10.0	10.0	21.0	10.0	21.0	21.0	10.0		
Total Split (s) 25	25.0	30.0	35.0	21.0	26.0	35.0	50.0	50.0	17.0	32.0	
Total Split (%) 21.2%		25.4% 2	29.7%	17.8%	22.0%	29.7%	42.4%	42.4%	14.4%	27.1%	
(6)	4.0	4.0	4.0	4.0	4.0		4.0	4.0	4.0	4.0	
All-Red Time (s) 1	1.0	1.0	1.0	1.0	1.0		1.0	1.0	1.0	1.0	
t (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	
	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	2.0	
	Lead	Lag	Lead	Lead	Lag	Lead	Lag	Lag	Lead	Lag	
Lead-Lag Optimize?											
	Min	Min	Min	Min	Min	Min	Max	Max	Min	Max	
Act Effct Green (s) 13	13.7	12.0	41.5	60	6.4	59.2	48.0	48.0	35.9	29.7	
Actuated g/C Ratio 0.1	15	0.13	0.44	0.09	0.07	0.63	0.51	0.51	0.38	0.31	
	1970	0.16	0.28	0.32	0.21	0.75	0.38	0.39	0.07	0.48	
Control Delay 49	49.2	39.1	2.9	45.2	28.4	18.9	15.4	2.8	12.3	24.4	
Queue Delay 0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
	49.2	39.1	2.9	45.2	28.4	18.9	15.4	2.8	12.3	24.4	
SOT	0	٥	×		O	8	60	AC.	80		
Approach Delay		23.0			39.3		13.4			23.9	
Approach LOS		O			0		œ			O	
Intersection Summary				3							
Ovcle Length: 118							N				
Actuated Cycle Length: 94.4	st.										
Natural Cycle: 80											
Control Type: Semi Act-Uncoord	pooc										
Maximum v/c Ratio: 0.75							V				
Intersection Signal Delay: 18.6	9.6				ntersec	Intersection LOS: B	œ				
Intersection Capacity Utilization 62.3%	ation 6	2.3%			CU Lev	ICU Level of Service B	Nice B				
Analysis Period (min) 15											

₩ 03 1: Jefferson St. & Singer Blvd. Splits and Phases: ₹ 05°

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2029 AM Peak NOBUILD Conditions - Existing Geometry

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HCM 6th Signalized Intersection Summary 1: Jefferson St. & Singer Blvd.

Terry O. Brown, PE 12/18/2018

	1	î	~	•		•	-					
dovement	西	田田田田田田田田田田田田田田田田田田田田田田田田田田田田田田田田田田田田田田田	88	WBI	WBI	WBB	MBI	NBI	NBR	SBI	SBT	SBR
ane Configurations	K	+	W.	N. P.	44		15	44	K	15	44	
raffic Volume (veh/fn)	131	31	195	79	2	22	410	564	320	2	279	171
Future Volume (veh/h)	131	31	195	79	2	22	410	564	320	21	279	171
nitial 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.			S N			No.	
Acj Sat Flow, veh/hiln	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	156	37	232	94	52	56	488	671	0	52	332	204
Peak Hour Factor	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84
Percent Heavy Veh, %	e	m	m	m	က	က	က	ო	es	es	ო	m
Cap, veh/fit	198	271	535	195	160	143	646	1807		468	793	477
Arrive On Green	0.11	0.15	0.15	90.0	0.09	0.09	0.19	0.51	0.00	90.0	0.38	0.38
Sal Flow, veh/h	1767	1856	1572	3428	1763	1572	1767	3526	1572	1767	2116	1273
Gro Volume(v), veh/h	156	37	232	8	52	56	488	671	0	25	275	261
Gro Sat Flow(s), veh/hin	1	1856	1572	1714	1763	1572	1767	1763	1572	1767	1763	1626
O Serve(a s). s	7.5	1.5	10.0	23	1.1	5	13.7	10.1	0.0	0.7	10.2	10.5
Ovcle O Clearfo c), s	7.5	1,5	10.0	23	1.1	53	13.7	10.1	0.0	0.7	10.2	10.5
Prop in Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.78
ane Gro Cap(c), veh/h	198	271	535	195	160	143	646	1807		468	661	610
//C Ratio(X)	0.79	0.14	0.43	0.48	0.16	0.18	97.0	0.37		0.05	0.42	0.43
Avail Cap(c a), veh/h	403	528	754	625	422	376	906	1807		609	661	610
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
Jostream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00
Jniform Delay (d), s/veh	38.0	32.7	22.4	40.1	36.8	36.9	12.1	12.9	0.0	14.4	20.3	20.4
nor Delay (d2), siveh	6.8	0.2	9.0	1.00	0.4	9.0	23	9.0	0.0	0.0	1:9	2.2
nitial 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 BackOfO(95%),veh/ln 6.5	VIn 6.5	1.2	9.9	1.8	0.9	1.0	8.9	7.0	0.0	0.5	7.8	7.6
Jnsig. Movement Delay, s/veh	s/veh							1				
unGrp Delay(d), siveh	44.8	32.9	23.0	42.0	37.3	37.5	14.5	13.5	0.0	14.4	22.3	22.6
LINGIT LOS	0	O	O	٥	٥	0	В	8		8	O	
Approach Vol, veh/h		425			145			1159	A		561	
Approach Delay, s/veh		31.9			40.4			13.9			22.1	
Approach LOS		O			Ω			œ			O	
Timer - Assigned Phs		2	60	4	NO.	9	7	80				ı
Phs Duration (G+Y+Rc), s10.0	. s10.0	50.0	10.0	17.8	22.1	37.9	14.8	13.0				
Change Period (Y+Rc), s	s 5.0	5.0	5.0	2.0	5.0	5.0	5.0	5.0				
Max Green Setting (Gmax) 230	ax)230	45.0	16.0	25.0	30.0	27.0	20.0	21.0				
Max Q Clear Time (g_c+l1)297	+11)25	12.1	4.3	12.0	15.7	12.5	9.5	3.3				
Green Ext Time (p_c), s	0.0	5.2	0.2	0.8	1.4	2.9	0.3	0.2				
mersection Summary								V				
HCM 6th Chri Delay		ľ	20.9									

Notes
Unsignalized Delay for [NBR] is excluded from calculations of the approach delay and intersection delay.

2029 AM Peak NOBUILD Conditions - Existing Geometry

HCM 6th Signalized Intersection Summary 2: Jefferson St. & I-25 W. . Brown, PE 12/18/2018 Terry O.

Terry O. Brown, PE 12/18/2018

SBT \$ 88 88

0.36 0.0 0.0 8.8 45.0 50.0% 4.0 1.0 0.0 5.0 Lag C-Max 43.3 0.48 Intersection LOS: B ICU Level of Service B 248 Offset: 0.9 (1%), Referenced to phase 2:NBTL and 6:SBT, Start of Green 50.0% 0.43 17.0 0.0 17.0 9 œ 45.0 4.0 1.0 5.0 5.0 C-Max C-Max 14.7 \$ 88 £ Z 30.0% 30.0% 30.0% 20.0% 70.0% 56 4.0 4.0 4.0 4.0 4.0 4.0 1.0 1.0 1.0 1.0 1.0 1.0 0.0 0.0 0.0 0.0 0.0 5.0 5.0 5.0 5.0 5.0 Lead 0.63 10.8 0.2 N 10.9 m 12.6 1221 Min 60.2 0.67 0.70 19.7 0.0 19.7 5.0 10.0 18.0 O N IO 295 pm+pt Min 19.8 0.22 0.43 18.9 18.9 5.0 21.0 27.0 00 00 5.0 21.0 27.0 Min 19.8 0.22 0.68 37.1 0.0 2: Jefferson St. & I-25 W. Ramp Intersection Capacity Utilization 58.9% WBI NA 37.1 34.4 Control Type: Actuated-Coordinated 5.0 21.0 27.0 Min 19.8 0.22 0.68 42.4 42.4 272 272 Perm ntersection Signal Delay: 18.6 1 Cycle Length: 90 Actuated Cycle Length: 90 Analysis Period (min) 15 Maximum v/c Ratio: 0.70 Total Spirt (s)
Total Spirt (%)
Yellow Time (s)
All-Red Time (s)
Lost Time Adjust (s) Lead/Lag Lead-Lag Optimize? Recall Mode Traffic Volume (vph) Future Volume (vph) Minimum Initial (s) Minimum Split (s) Total Lost Time (s) Act Effet Green (s) Actuated g/C Ratio Permitted Phases Protected Phases Natural Cycle: 60 Detector Phase Control Delay Queue Delay Total Delay Approach Delay Approach LOS Switch Phase Tum Type v/c Ratio

\$ 2: Jefferson St. & I-25 W. Ramp Ø6 (R) Splits and Phases: 02 (R) 03

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2029 AM Peak NOBUILD Conditions - Existing Geometry

0.00 8.8 0.00 0.0 0.83 0.00 0.83 0.0 8.8 0.00 0.0 2463 2.00 0.64 0.0 3618 2.4 A. 0.83 1.00 0.0 0.7 2463 1763 512 1767 355 8 8 355 0.24 9.7 35.2 299 9.3 1.00 1.00 1.00 1.00 1.9 1.9 1.9 6.5 6.5 1.00 1572 36.8 1.00 949 37.0 525 1856 12.0 12.0 1.00 N 1856 525 0.83 3711 2.5 336 0.19 246 1767 11.8 11.00 336 0.73 432 1.00 1.00 38.8 0 8 8 246 00 00 Î 00 %ile BackOfQ(95%),veh/lin Unsig. Movement Delay, s/veh LnGrp Delay(d),s/veh Parking Bus, Adj Work Zone On Approach Grp Sat Flow(s), veh/fulln Uniform Delay (d), s/veh Q Serve(g_s), s Cycle Q Clear(g_c), s Prop In Lane Initial Q Delay(d3),s/veh Lane Grp Cap(c), veh/h Percent Heavy Veh, % Avail Cap(c_a), veh/h HCM Platoon Ratio Approach Vol, veh/h Approach Delay, s/veh Future Volume (veh/h) Initial Q (Qb), veh raffic Volume (weh/h) Grp Volume(v), veh/h Ped-Bike Adj(A_pbT) Sat Flow, vehihin Incr Delay (d2), s/veh Flow Rate, veh/h Peak Hour Factor Arrive On Green Sat Flow, vehith V/C Ratio(X) LINGITD LOS Cap, veh/h

3618

1763

0.52

1837

No 727 0.83

至

1.00

299 0.83 3 819 0.52 299 1572 1572 10.1 1.00 819 0.36 819 0.36 819 0.36 819 0.36 819 0.36 819 0.36 6.5 6.5

13.9

13.6

13.0 0.6 0.0 7.6

0.40 1.00 0.92

1837

1026 13.7 B

22.0 22.0 14.0 3.1

51.9 5.0 40.0 13.2 6.8

16.0 5.0 13.0 10.7 0.3

67.9 5.0 58.0 2.0 18.2

Approach LOS

Max Q Clear Time (g_c+l1), s Green Ext Time (p_c), s Phs Duration (G+Y+Rc), s Change Period (Y+Rc), s Max Green Selfing (Gmax), s

2029 AM Peak NOBUILD Conditions - Existing Geometry

Notes
User approved volume balancing among the lanes for turning movement.

14.1 B

HCM 6th Ctrl Delay HCM 6th LOS

HCM 6th Signalized Intersection Summary 3: Jefferson St & L25 F Ramn Brown, PE 12/18/2018

Terry O.

Terry O. Brown, PE 12/18/2018

SBR

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	1	1	1	1	1	1	1	4	-
Movement	193	EBI	88	WBL	<b>WB</b>	WBR	NBI	NBI	NBB
Lane Configurations	15	44	N-					44	
Traffic Volume (veh/h)	802	321	187	0	0	0	0	720	214
Future Volume (veh/ħ)	802	321	187	0	0	0	0	720	214
Initial Q (Qb), veh	0	0	0				0	0	
Ped-Bike Adj(A pbT)	1.00		1.00				1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00
Work Zone On Approach	_	S.						8	
Adi Sat Flow, vehihin	1856	1856	1856				0	1856	1856
Adi Flow Rate, veh/h	483	386	225				0	867	258
Peak Hour Factor	0.83	0.83	0.83				0.83	0.83	0.83
Percent Heavy Veh, %	m	m	က				0	က	
Cap, veh/h	952	200	424				0	1359	404
Arrive On Green	0.27	0.27	0.27				0.00	0.51	0.51
					I		1	1	1

495 AA 8

₹888¥

187

802 802 Perm

Protected Phases Permitted Phases Detector Phase

EBH 321 321 NA

盟

ane Configurations Fraffic Volume (vph) Future Volume (vph

1

3: Jefferson St. & I-25 E. Ramp

CV

0.83

0.83

1856 596 0.83

0.8

1.00

1.00

0

495

108

0.00

3618 596

367

1.00

315 1767 0.000

130 1767 3.0 3.0 1.00 315 0.41 372 2.00 0.86

225 111.0 111.0 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11

500 0.77 1.00 1.00 30.3 2.6 0.0 12.4

Uniform Delay (d), s/veh 27.8

Upstream Filter(II)

G-Max 52.8 0.59 0.29 8.5 0.0 8.5 4 12.0 8

0.74 25.9 0.0 25.9

25.9

Approach Delay Control Delay Queue Delay Total Delay LOS

Approach LOS

Min 52.8 0.59 0.50 27.7 27.7 27.7

Min 27.2 0.30 0.37 5.5 0.0

Min 27.2 0.30 0.59 28.2 0.0 28.2

Min 27.2 0.30 0.59 0.59 0.0

v/c Ratio

C-Max 39.9 0.44

Lead/Lag Lead-Lag Optimize? Recall Mode Act Effot Green (s) Actuated g/C Ratio

47.0 52.2% 4.0 1.0 0.0

Total Spiri (s)

Total Spiri (%)
Yellow Time (s)
All-Red Time (s)
Lost Time Adjust (s)

Total Lost Time (s)

Switch Phase Minimum Initial (s) Minimum Split (s)

Initial Q Delay(d3),s/veh

Incr Delay (d2), siveh

1.00

Avail Cap(c_a), veh/h HCM Platoon Ratio

1763 0.0

570 1763 21.2 21.2

Sat How, veh/n 3534
Gp Volume(v), veh/n 483
Gp Sat How(s), veh/n 1767
Q Servel(g, s), s 10.4
Sycle Q Glear(g, c), s 10.4
Prop In Lane 1.00
Lane Grp Cap(c), veh/n 952
V/C Ratio(X)

0.00 0.00 0.00 0.00 0.00 0.00

2184 2200 2200 2200 0.086 0.086 0.00 0.00 0.00 0.00 0.00

894 894 894 11.00 11.00 116.2 3.5 0.0 13.7

0.3 A 228 A

12.3

19.8

19.6 B 1125 19.7 B

5.0 42.0 2.0 4.7

29.2 5.0 38.0 19.3 5.0

50.7 5.0 23.3 3.4

Phs Duration (G+Y+Rc), s10.1 Change Period (Y+Rc), s 5.0 Max Green Setting (Gmax),80

Max Q Clear Time (g_c+l1)5s0 Green Ext Time (p_c), s 0.1

0.0

29.1

32.9 C

%ile BackOfQ(95%), weh/in 7.8 Unsig. Movement Delay, s/veh LnGrp Delay(d), s/veh 28.2

30.1 Ç

LnGrp LOS Approach Vol, veh/h Approach Delay, s/veh

Approach LOS

0.0

Intersection LOS: C ICU Level of Service B 3: Jefferson St. & I-25 E. Ramp Intersection Capacity Utilization 58.9% Analysis Period (min) 15 ntersection Signal Delay: 21.8

Offset: 6.3 (7%), Referenced to phase 2:NBT and 6:SBTL, Start of Green

Actuated Cycle Length: 90

Control Type: Actuated-Coordinated

4 02 (R) Splits and Phases: D6 (R)

Synchro 10 Report 2029ANX.syn

2029 AM Peak NOBUILD Conditions - Existing Geometry

Synchro 10 Report 2029ANX.syn

2029 AM Peak NOBUILD Conditions - Existing Geometry

Notes User approved volume balancing among the lanes for turning movement

19.3 B

HCM 6th Ctrl Delay HCM 6th LOS

12/18/2018	Jefferson St. & McLeod Rd.
lerry O. Brown, P.C.	mings

	1	1	1	1	1	1	4-	A	<b>→</b>	
Lane Group	超	EBI	ME	WBT	WBR	NBL	NET	SBL	SBI	
Lane Configurations	N-	2,	M	4	W.	M	44	15	43	
Traffic Volume (vph)	11	49	83	3	387	18	466	216	392	
Future Volume (vph)	11	49	93	સ	387	13	466	216	392	
Tum Type	Perm	NA	Регш	NA	NA pm+ov	pm+pt		pm+pt	NA	
Protected Phases		4		00	-	S	2	•-	9	
Permitted Phases	4		00		00	2		9		
Detector Phase	4	4	00	ω	-	S	2	1	9	
Switch Phase										
Minimum Initial (s)	5.0	5.0	2.0	2.0	2.0	2.0	2.0	2.0	5.0	
Minimum Split (s)	21.0	21.0	21.0	21.0	10.0	10.0	21.0	10.0	21.0	
Total Split (s)	43.0	43.0	43.0	43.0	20.0	20.0	37.0	20.0	37.0	
Total Solit (%)	43.0%	43.0%	43.0%	43.0%	20.0%	20.0%	37.0%	20.0% 37.0%	37.0%	
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	
Lead/Lag					Lead	Lead	Lag	Lead	Lag	
Lead-Lag Optimize?										
Recall Mode	Min	Min	Min	Min	Min	Min	Max	Min	Max	
Act Effet Green (s)	11.7	11.7	11.7	11.7	28.2	38.2	32.3	47.7	37.9	
Actuated g/C Ratio	0.17	0.17	0.17	0.17	0.40	0.54	0.46	0.68	0.54	
v/c Ratio	90.0	0.27	0.54	0.13	0.71	0.04	0.39	0.46	0.28	
Control Delay	25.8	22.7		26.4	19.8	5.6	14.6	7.1	9.7	
Queue Delay	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	
Total Delay	25.8	22.7	37.5	26.4	19.8	5.6	14.6	7.1	9.7	
507	O	O	0	0	00	×	œ	¥	×	
Approach Delay		23.1		23.5			14.3		8.8	
Approach LOS		O	0.1	O			m		×	
intersection Summany										
Cycle Length: 100		N								
Actuated Cycle Length: 70.6	70.6									
Natural Cycle: 55										
Control Type: Semi Act-Uncoord	ct-Uncoor	q								
Maximum v/c Ratio: 0.71	11									
Intersection Signal Delay: 15.4	lay: 15.4	EA 201			ntersec	Intersection LOS: B	Si B			
Analysis Dariod (min) 15	15	200			3	5 5	200			

4 4: Jefferson St. & McLeod Rd. Intersection Capacity Utilization 54.3%
Analysis Period (min) 15 Splits and Phases:

2029 AM Peak NOBUILD Conditions - Existing Geometry

Synchro 10 Report 2029ANX.syn

Terry O. Brown, PE 12/18/2018 HCM 6th Signalized Intersection Summary 4: Jefferson St. & McLeod Rd.

	1	1	P	1		1	1	-	1	4	4	V
Movement	83	183	88	188	WBI	WBR	NB.	NBI	NBR	SBi	SBT	SBR
Lane Configurations	M	45		F	*	VL.	Nº	474		N-	44	
Traffic Volume (veh/h)	-	49	100	83	3	387	00	466	56	216	392	26
Future Volume (veh/h)	=	49	18	83	31	387	00	466	56	216	392	26
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	
Ped-Bike Adi(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		9			8			S			No	
Adi Sat Flow, veh/h/lin	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	14	19	22	116	33	484	22	582	35	270	490	65
Peak Hour Factor	0.80	0.80	080	080	0.80	0.80	080	0.80	0.80	0.80	0.80	0.80
Percent Heavy Veh. %	m	m	en	က	m	e	m	m	m	m	m	
Cap, veh/h	344	401	145	446	572	999	504	1334	73	206	1500	88
Arrive On Green	0.31	0.31	0.31	0.31	0.31	0.31	90.0	0.39	0.39	0.12	0.45	0.45
Sat Flow, veh/fn	872	1302	469	1305	1856	1572	1767	3398	187	1767	3360	219
Gro Volume(v), veh/h	14	0	8	116	39	484	22	302	312	270	257	265
Gro Sat Flow(s), veh/h/ln	872	0	1771	1305	1856	1572	1767	1763	1822	1767	1763	1816
Q Serve(q s), s	0.9	0.0	2.8	5.8	1.2	20.9	9.0	10.2	10.2	7.0	7.7	7.7
Cycle Q Clear(g c), s	22	0.0	2.8	8.5	12	20.9	9.0	10.2	10.2	7.0	7.7	7.7
Prop In Lane	1.00		0.27	1.00		1.00	1.00		0.10	1.00		0.12
Lane Grp Cap(c), veh/h	344	0	546	446	572	999	204	692	715	206	787	811
V/C Ratio(X)	0.04	0.00	0.15	0.26	0.07	0.73	0.04	0.44	0.44	0.53	0.33	0.33
Avail Cap(c_a), veh/h	482	0	826	652	865	914	721	692	715	628	787	811
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(II)	1.00	0.00	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	20.7	0.0	20.5	23.6	19.9	19.6	12.4	18.1	18.1	12.1	14.6	14.6
Incr Delay (d2), siveh	0.0	0.0	0.1	0.3	0.0	1.9	0.0	2.0	1.9	0.9	1.1	11
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
%le BackOfQ(95%),veh/ln 0.3	Vin 0.3	0.0	2.0	3.2	0.9	11.9	0.4	7.7	7.9	4.7	5.7	5.8
Unsig. Movement Delay, s/veh	s/veh											1
LnGrp Delay(d), s/veh	20.7	0.0	20.6	23.9	20.0	21.4	12.4	28	20.1	13.0	10.7	15.7
LnGrp LOS	O	A	O	O	В	O	8	٥	٥	00	m	
Approach Vol, veh/h		16			638			636			792	
Approach Delay, s/veh		20.6			21.8			19.8			14.8	
Approach LOS		O			O			m			m	
Timer - Assigned Phs	***	CI.		4	S	9		80				N
Phs Duration (G+Y+Rc), s14.4	\$14.4	37.0		30.1	10.0	41.4		30.1				
Change Period (Y+Rc), s	s 5.0	5.0		5.0	5.0	5.0		5.0				
Max Green Selfing (Gmax),580	ax [580	32.0		38.0	15.0	32.0		38.0				
Max Q Clear Time (g c+l1)9s0	H1)980	12.2		4.8	2.6	9.7		22.9				
Green Ext Time (p_c), s	0.4	3.7		0.5	0.0	3.2		2.2				
Inhersection Summary			ľ									
Unit six Ord Dolor			400									
THE PART LAND LAND IN COLUMN			200									

2029 AM Peak NOBUILD Conditions - Existing Geometry

Intersection							
Particular and the second seco	).1						
Movement El	BL EB	R NBL	NBT	SBT	SBR		
Lane Configurations	Wy#		ተቡ	<b>1</b> 13			
Traffic Vol, veh/h	1	2 6		650			
Future Vol, veh/h	1	2 6		650			2 per Constant Anna Antonia and Anna Anna Anna Anna Anna Anna Anna
Conflicting Peds, #/hr		0 0		0			
Sign Control St	on Sto	p Free			Free		
RT Channelized	- Nor		None		None		
Storage Length	0				_		The second secon
Veh in Median Storag		وتتناسب بالتباريس	. 0	0			
Grade, %	0		. 0	0			
	in a company and a second	3 83		83			
	3	3 3		3			A SEA THE TOTAL CONTROL OF THE PARTY OF THE
Heavy Vehicles, %	1		1110	783			
Mvmt Flow	4	<i>L</i> 1	1110	703	10		
Major/Minor Mino	· · · ·	Majort	A	Aniar2			
Major/Minor Mino		Major1		//ajor2			
Conflicting Flow All13		attipi siga and a series and					
	91						
And an extension of the Control of t	69		-	-			
HER CHARLEST AND ACTION OF THE PROPERTY AND THE PROPERTY OF TH	86 6.9	6 4.16			Control Marin		
Critical Hdwy Stg 1 5.		-		-	-		Himmenton and commentation and the comment of the c
Critical Hdwy Stg 2 5.		-		-	-		
	53 3.3			_	-		
Pot Cap-1 Maneuve2		27 1110	) -	-	-		
	83	-		_	-		
Stage 2 5	27	-1		-	i <del></del>		
Platoon blocked, %	1	1 1	-	-			
Mov Cap-1 Maneuve	21 *82	27 1110	) -	-	-		
Mov Cap-2 Maneuve		-		-	-		
	73		- 12		-		
	27	-		-	-	and the transfer of the state o	
	www.quienenenene	panenno anti-		1			
Approach	ЕВ	NE	3	SB	VIEL DO SEL		
HCM Control Delay,19		0.2		0			
HCM LOS	В	nganaga, aanaan A	Annylol   Inner		and the second		annunikuumuun maana kanalin ka
			NAME OF TAXABLE PARTY.				
Minor Lane/Major Mv	mt NE	IL NBT	EBLn1	SBT	SBR		
Capacity (veh/h)	11	****	- 432				
HCM Lane V/C Ratio	0.00		- 0.008			Section 10 to 1 Section 11 Sectio	
HCM Control Delay (s	Marian Marian Maria		1 13.4				
HCM Lane LOS	, 0	A /					
HCM 95th %tile Q(ve	h)	April Marie Company Company	- 0		7195		
I THE RESERVE OF THE PARTY OF T	''/						
Notes		Φ.	Dalau		do 2005	Computation Not Defined	*: All major volume in plate
~: Volume exceeds ca	apacity	\$:	Delay 6	xcee	ds 300s	+: Computation Not Defined	*: All major volume in plato

Intersection													
	.7								,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,				
Movement E	3L	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	
Lane Configurations	1/1	1>			4			413			414	7	
Traffic Vol, veh/h	0	0	0	18	1	42	1		16	37	645		
Future Vol, veh/h	0	0	0	18	1	42	1	934	16	37	645	1	
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0	
			Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free	
RT Channelized			None			None			None	-		None	
	35	-		-	-	-	-	-	-	-	-	75	
Veh in Median Storage	and the same	0			0			0	-		0	-	
Grade, %	-, "	0	-	-	0	-	-	0		-	0		Mindresses - research the Arthur recognized to determine manufactured and the second
	83	83	83	83	83	83	83	83		83	83		
Heavy Vehicles, %	3	3	3	3	3	3	3	3		3	3		
Mymt Flow	0	0	0	22	1	51		1125		45	777		
WWIIII FIOW	U	Ů.	U	66	,	- 51		1120	10	43	,,,	Antonio (necessaria)	. Министический почет от почет
Major/Minor Mino	or2	133.	N	linor1		N	lajor1		N	lajor2		1000	
Conflicting Flow All14		2013	200	1616	2005	572	778	0		1144	0	0	
	67	867		1137		J/_				numinanticiti.			
		1146	-	4.00	868								
Andrews and the Control of the Contr		6.56	6.96	7.56	6.56		4.16	_		4.16	nonaumanung.		
		5.56	Mark Control	6.56	5.56	0.50	4.10			4.10			
Critical Hdwy Stg 1 6.			-	6.56									
Critical Hdwy Stg 2 6.		5.56	- 000			0.00	0.00	-		2.23			
		4.03	3.33	3.53		3.33					-		
Pot Cap-1 Maneuverl		68	*827		69	461	1136			601			
	85	552	-	*213	273	-		-		-	-	,	
DOCUMENT OF STREET STREET, STR	74	270		*780	551	-	1/2/2	1		-			
Platoon blocked, %	1	1	1	1	1	1	1		-		-		
Mov Cap-1 Maneuver		59	*827	*97	60		1136	-	-	601		-	
Mov Cap-2 Maneuver		59	-	*97	60		-	-	-	-	-	-	
Stage 1 5	83	479	-	*213	272		-	-	-				
Stage 2 4	19	269		*677	478	-	_	-			-		
				1015	unumullinimmer		NIC.	ornerie d'Attione	identionio-	- 00			
	EB	- 11.5		WB			NB			SB			
HCM Control Delay, s	0		mini aladicaman	31.5	and William and the		0	en de la companya de		1.3			
HCM LOS	Α			D								- 10	
		KIDI	NIDT	NIDE	DI set	CD1V0	/D14	CDI	COT	CDD	A. John Loten		
Minor Lane/Major Mvr		NBL	HATTAN STATE OF THE PARTY OF TH			EBLn/A		SBL		SBR			
Capacity (veh/h)		1136		-	-		208			-			
HCM Lane V/C Ratio		0.001	-	-			0.353			Account to the same of the sam	مسسست		
HCM Control Delay (s	3)	8.2		+				11.5					
HCM Lane LOS		Α		-	Α	Α		В		-			
HCM 95th %tile Q(vel	h)	0	-	-	•		1.5	0.2	-	in the second se		Market Sales S	
Notes													
~: Volume exceeds ca	apa	city	\$: E	elay e	xceed	ls 300	S +	: Com	putation	on Not	Defir	ned	*: All major volume in pla

Intersection					- 1700		
Int Delay, s/veh	)						
Movement EBL		NBL	NBT	CRT	SBR		
		INDL					
Lane Configurations		1	922	<b>↑</b> ↑≽	1		
		1		663	1		
. dital o vol, volul	The second second second				0		
Conflicting Peds, #/hr (	0	_ 0		0			
The state of the s	Stop						
	- None	Andrews Commence	None		None		
	) -		-	-			
Veh in Median Storage(			The Court of the State of the S				
The second of th	) -						
Peak Hour Factor 83				83			
	3 3						
Mvmt Flow	1 1	1	1111	799	1		
Major/Minor Minora	2 1	/lajor1	N	/ajor2			
Conflicting Flow All1358		800		Open land			
Stage 1 800		-	AND REAL PROPERTY OF THE		-		ستبلغه اسالساماوي المستناه سيت
Stage 2 558		diameter 1		11	A CONTRACTOR OF THE PARTY OF TH		
Critical Hdwy 6.86		4.16					***************************************
Critical Hdwy Stg 1 5.86		Marian Maria No.	_				
Critical Hdwy Stg 2 5.86		Market Commission					
Follow-up Hdwy 3.53		2.23					
Pot Cap-1 Maneuve 22!		1109					
		1103					
THE RESIDENCE OF THE PROPERTY	1 1			Autom 415			
					THE RESERVE OF THE PERSON		
Mov Cap-1 Maneuver25							
Mov Cap-2 Maneuve 2!			-	weeks to the control of			
Stage 1 673		diagram aliah	dhamadha i Bal		÷		and the second
Stage 2 534	4 -		-	-	-		panuma propriore de la comuni
	in a minimum make						
Approach El	3	NE		SB			
HCM Control Delay,15.2	2	C		0			
	3	mannanman	antiminitantimi				
Minor Lane/Major Mvm	+ NIDI	NET	EBLn1	SRT	SBR		
	1109	AND DESCRIPTION OF THE PARTY OF	354				
Capacity (veh/h)					•		
HCM Lane V/C Ratio	0.001		0.007				
HCM Control Delay (s)	8.2		15.2				
HCM Lane LOS	A					THE PARTY OF THE P	
HCM 95th %tile Q(veh)	0		. 0				
Notes							
~: Volume exceeds cap	pacity	\$: [	Delay e	xceed	s 300s	+: Computation Not Defined	*: All majo
		WI SA NOV	Amnillana - ma	NO. 10. 10. 10. 10. 10. 10. 10. 10. 10. 10		A CONTRACTOR OF THE CONTRACTOR	

Timings 1: Jefferson St. & Singer Blvd.

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Terry O. Brown, PE 12/18/2018

			-	10000	-	A LIMIT	0.000	0	200	4000	
Cane Group	EBE	E81	EBR	WBE	MBI	NO	Ser	NDX	Sign of the sign o	3	
Lane Configurations	14-	*	V.	K	44	*	44	R	W-	44	
Traffic Volume (vph)	131	31	195	79	72	410	574	320	21	289	
Future Volume (vph)	131	31	195	79	2	410	574	320	21	289	
Turn Type	Prot	NA	NA pm+ov	Prot	NA	NA pm+pt	NA	Perm	Perm pm+pt	NA.	
Protected Phases	7	4	S	က	00	co	2		-	9	
Permitted Phases			4			CI		2	9		
Detector Phase	7	4	w	က	œ	ιO	Ø	2	-	9	
Switch Phase											
Minimum Initial (s)	2.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	
Minimum Split (s)	10.0	21.0	10.0	10.0	21.0	10.0	21.0	21.0	10.0	21.0	
Total Split (s)	25.0	30.0	35.0	21.0	26.0	35.0	50.0	50.0	17.0	32.0	
Total Split (%)	21.2%	25.4%	29.7%	17.8%	22.0%	29.7%	42.4%	42.4%	14.4%	27.1%	
Yellow Time (s)	4.0	4.0		4.0	4.0	4.0	4.0	4.0	4.0	4.0	
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	
Lead/Lag	Lead	Lag	Lead	Lead	Lag	Lead	Lag	Lag	Lead	Lag	
Lead-Lag Optimize?											
Recall Mode	Min	Min	Min	Min	Min	Min	Max	Max	Min	Max	
Act Effct Green (s)	13.7	12.0	41.8	0.1	6.4	59.3	48.1	48.1	35.6	29.5	
Actuated g/C Ratio	0.14	0.13	0.44	0.09	0.07	0.63	0.51	0.51	0.38	0.31	
w/c Ratio	0.61	0.16	0.28	0.35	0.21	0.75	0.38	0.39	0.07	0.50	
Control Delay	49.3	39.1	2.9	45.2	28.4	19.4	15.5	2.8	12.4	25.3	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Delay	49.3	39.1	2.9	45.2	28.4	19.4	15.5	2.8	12.4	25.3	
807	0	0	A	0	0	00	co	A	89	O	
Approach Delay		23.0			39.3		13.6			24.7	
Approach LOS		O			Q		B			O	
Intersection Summary								K			
Cycle Length: 118	ì							,			
Actuated Cycle Length: 94.5	1: 94.5										
Natural Cycle: 80											
Control Type: Semi Act-Uncoord	ct-Uncoor	Q									
Maximum v/c Ratio: 0.75	75										
Intersection Signal Delay: 18.8	lay: 18.8			-	ntersec	Intersection LOS: B	8; B				
Intersection Capacity Utilization 62.6%	Utilization	62.6%			CU Lev	CU Level of Service B	rvice B				
Analysis Period (min) 15	15										

A 03 1: Jefferson St. & Singer Blvd. Splits and Phases:

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2029 AM Peak BUILD Conditions - Existing Geometry

Synchro 10 Report 2029ABX.syn

12/18/2018	1: Jefferson St. & Singer Blvd.
I erry O. Brown, PE	HCM 6th Signalized Intersection Summary

Movement	H	EBI	888	WBL	WBE	WBR	MBL	NBI	NBR	SBI	SBT	SBR
Lane Configurations	11-	4	N.	15	44	ľ	N-	₩	R.	15	44	
Traffic Volume (veh/h)	131	33	195	79	21	22	410	574	350	21	289	171
Future Volume (veh/h)	131	31	195	79	21	22	410	574	320	21	289	171
mittal 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	_	9			No			No			9	
Adj Sat Flow, vehit/In	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	156	37	232	8	52	56	488	683	0	22	344	204
Peak Hour Factor	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84
Percent Heavy Veh, %	m	က	m	က	က	က	က	ო	ო	က	ო	ന
Cap, veh/h	198	27.1	535	195	160	143	641	1807		465	805	468
Arrive On Green	0.11	0.15	0.15	90.0	0.09	0.09	0.19	0.51	0.00	90.0	0.38	0.38
Sat Flow, veh/h	1767	1856	1572	3428	1763	1572	1767	3526	1572	1767	2145	1248
Grp Volume(v), veh/h	156	37	232	94	52	26	488	683	0	52	281	267
Grp Sat Flow(s), veh/hin	1767	1856	1572	1714	1763	1572	1767	1763	1572	1767	1763	1631
2 Serve(g_s), s	7.5	1.5	10.0	23	1.1	1.3	13.7	10.3	0.0	0.7	10.4	10.7
Cycle Q Clear(g_c), s	7.5	10	10.0	23	17	1,3	13.7	10.3	0.0	0.7	10.4	10.7
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.77
Lane Grp Cap(c), veh/fh	198	271	535	195	160	143	Ä	1807		465	991	612
//C Ratio(X)	0.79	0.14	0.43	0.48	0.16	0.18	0.76	0.38		0.05	0.43	0.44
Avail Cap(c_a), veh/h	403	528	754	625	422	376	901	1807		909	661	612
+CM 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
Jpstream Filler(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00
Jniform Delay (d), síveh	38.0	32.7	22.4	40.1	36.8	36.9	12.2	12.9	0.0	14.4	20.4	20.5
nor Delay (d2), siveh	6.8	0.2	9.0	 00	9.0	9.0	2.5	9.0	0.0	0.0	2.0	23
nitial 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/in 6.5	Vin 6.5	12	9.9	<del>1</del>	0.9	1.0	8.9	72	0.0	0.5	8.0	7.7
Unsig. Movement Delay, s/veh	s/veh								1	1		1
LnGrp Delay(d), siveh	44.8	32.9	23.0	42.0	37.3	37.5	14.7	13.5	0.0	14.4	22.4	22.8
LnGrp LOS	0	O	O	٥	٥	٥	m	В		m	O	ျ
Approach Vol, veh/h		425			145			1171	×		573	
Approach Delay, s/veh		31.9			40.4			14.0			22.2	1
Approach LOS		O			٥			œ			O	
Timer - Assigned Phs	-	N	63	4	up.	9	7	60				
Phs Duration (G+Y+Rc), \$10.0	\$10.0	50.0	10.0	17.8	22.1	37.9	14.8	13.0				
Change Period (Y+Rc), s	s 5.0	5.0	5.0	2.0	5.0	5.0	5.0	5.0				
Max Green Setting (Gmax) 230	ax1230	45.0	16.0	25.0	30.0	27.0	20.0	21.0				
Max Q Clear Time (g_c+l1)287	+11)25	12.3	4.3	12.0	15.7	12.7	9.5	3.3				
Green Ext Time (p_c), s	0.0	5.3	0.2	0.8	1,4	3.0	0.3	0.2				
Intersection Summary				V								
HCM 6th Cirl Delay		۱	21.0									

Notes
Unsignalized Delay for [NBR] is excluded from calculations of the approach delay and intersection delay.

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2029 AM Peak BUILD Conditions - Existing Geometry

HCM 6th Signalized Intersection Summary 2: Jefferson St. & I-25 W. Ramp Terry O. Brown, PE 12/18/2018

2: Jefferson St. & I-25 W. Ramp

Terry O. Brown, PE 12/18/2018

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9.9 0.0 0.0 0.0 0.0 C-Max 248 248 Perm 0.45 C-Max 613 NA 10.9 NBT 1237 Min 60.1 0.67 26.4 26.4 26.4 332 pm+pt Min 0.22 0.43 18.8 0.0 18.8 148 WBI Min 19.9 0.22 0.69 341 341 NA Î Min 19.9 0.22 0.69 0.69 0.0 284 Total Split (s)
Total Split (%)
Yellow Time (s)
All-Red Time (s)
Lost Time Adjust (s)
Total Lost Time (s) Recall Mode Act Effct Green (s) Actuated g/C Ratio Traffic Volume (vph) Future Volume (vph) Lead/Lag Lead-Lag Optimize? Lane Configurations Switch Phase Minimum Initial (s) Minimum Split (s) Turn Type Protected Phases Permitted Phases Detector Phase wic Ratio

Intersection LOS: B ICU Level of Service B Offset: 0.9 (1%), Referenced to phase 2:NBTL and 6:SBT, Start of Green Intersection Capacity Utilization 60.6% Control Type: Actuated-Coordinated Intersection Signal Delay: 19.6 Cycle Length: 90 Actuated Cycle Length: 90 Analysis Period (min) 15 Natural Cycle: 60

\$0 2: Jefferson St. & I-25 W. Ramp Ø6 (R) . Splits and Phases: 02 (R) 95

2029 AM Peak BUILD Conditions - Existing Geometry

Synchro 10 Report 2029ABX.syn

786 0.50 299 299 10.6 1.00 1.00 1.00 1.39 1.39 1.39 1.39 6.9 14.9 1.00 No 739 0.83 1762 3618 1038 15.0 739 0.42 1.00 0.91 0.7 0.0 8.1 0.00 0 0 00.1 0.83 00 0.00 0.00 0.00 0.0 0.00 0.00 0.83 0.1 0.00 0.00 0.00 0.0

2452 2.00 0.58 0.0

9.3 9.3 1.00 304 0.59 384 1.00 1.00 1.8 0.0 6.5

0.75 907 1.00 1.00 34.2 2.7 2.7 9.6

Uniform Delay (d), s/veh

0.0

0.0 37.3 D 37.3

Control Delay Queue Delay Total Delay

00 15.4

m

Approach Delay Approach LOS

Incr Delay (d2), siveh

Initial Q Delay(d3),s/veh

0.7

± 00

34.8

36.9

38.9

%ile BackOfQ(95%),veh/in Unsig. Movement Delay, s/veh LnGrp Delay(d),s/veh

Approach Vol, veh/h Approach Delay, s/veh

LINGTO LOS

Approach LOS

196

0.0

3.0 A

2452

526 0.28 1767 400

342 0.19

1572

1767

538 1856 12.3

Sat Flow, veh/h Grp Volume(v), veh/h Grp Sat Flow(s),veh/h/ln

251 1767 12.0 1.00 1.00 1.00 1.00

Lane Grp Cap(c), vehilh

V/C Ratio(X)

Avail Cap(c_a), vehin HCM Platoon Ratio

Cycle Q Clear(g_c), s Prop In Lane

Serve(g_s), s

0.83

251

490

1.00

1.00 N 1856 538 0.83

Parking Bus, Adj Work Zone On Approach

Ped-Bike Adj(A_pbT)

Initial Q (Qb), veh

Adj Sat Flow, vehihrin Adj Flow Rate, vehih Peak Hour Factor

Percent Heavy Veh, %

Cap, veh/h Arrive On Green

0 8 8

284

00

00

Lane Configurations Traffic Volume (veh/h) Future Volume (veh/h)

Synchro 10 Report 2029ABX.syn

2029 AM Peak BUILD Conditions - Existing Geometry

Motes: User approved volume balancing among the lanes for turning movement.

14.7 B

HCM 6th Ctrl Delay HCM 6th LOS

5.0 5.0 22.0 14.3 3.1

50.0 5.0 40.0 13.9 6.9

17.6 5.0 13.0 12.5 0.1

67.6 5.0 58.0 2.0 18.5

Phs Duration (G+Y+Rc), s Change Period (Y+Rc), s Max Green Setting (Gmax), s Max Q Clear Time (g_c+l1), s Green Ext Time (p_c), s HCM 6th Signalized Intersection Summary 3: Jefferson St. & I-25 E. Ramp

Terry O. Brown, PE 12/18/2018

> Timings 3: Jefferson St. & I-25 E. Ramp

321 ±4 821 ±4

> 802 802 Perm

Lane Configurations
Traffic Volume (vph)
Future Volume (vph)
Turn Type
Protected Phases

Permitted Phases

Detector Phase

MBT

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N

Terry O. Brown, PE 12/18/2018

	1	1	1	6	,	1	1	_	-	4	+	V
Movement	曲	BE	EBB	WBL	WBI	WBR	MBL	NBT	NBR	SBE	SBT	SBR
Lane Configurations	pt-	44	N.					43		N-	44	
Traffic Volume (veh/h)	802	321	226	0	0	0	0	767	226	108	518	0
Future Volume (veh/h)	802	321	226	0	0	0	0	767	226	108	518	0
initial Q (Qb), veh	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
Parking Bus, Adj	1.00	1.00	1,00				1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		9						No			9 N	
Adi Sat Flow, veh/h/ln	1856	1856	1856				0	1856	1856	1856	1856	0
Adi Flow Rate, veh/h	483	386	272				0	924	272	130	624	0
Peak Hour Factor	0.83	0.83	0.83				0.83	0.83	0.83	0.83	0.83	0.83
Percent Heavy Veh, %	m	က	m				0	ო	က	က	ო	0
Cap, veh/h	828	503	426				0	1358	388	294	2178	0
Arrive On Green	0.27	0.27	0.27				0.00	0.51	0.51	0.11	1.00	0.00
Sat Flow, vehith	3534	1856	1572				0	2780	789	1767	3618	0
Grp Volume(v), veh/h	483	386	272				0	909	591	130	624	0
Grp Sat Flow(s), veh/h/lin	1767	1856	1572				0	1763	1714	1767	1763	0
Q Serve(g_s), s	10.4	17.2	13.7				0.0	23.3	23.4	3.0	0.0	0.0
Cycle Q Clear(g_c), s	10.4	17.2	13.7				0.0	23.3	23.4	3.0	0.0	0.0
Prop In Lane	1.00		1.00				0.00		0.46	1.00		0.00
Lane Grp Cap(c), veh/h	959	503	426				0	891	866	294	2178	0
V/C Ratio(X)	0.50	0.77	0.64				0.00	0.68	0.68	0.44	0.29	0.00
Avail Cap(c a), veh/h	1492	24783	864				0	891	998	321	2178	0
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00	2.00	2.00	1.00
Upstream Filter(I)	1.00	1.00	1.00				0.00	1.00	1.00	0.85	0.85	0.00
Uniform Delay (d), s/veh	27.7	30.2	28.9				0.0	16.8	16.8	12.5	0.0	0.0
Incr Delay (d2), siveh	0.4	2.5	1.6				0.0	4.2	4.3	0.9	0.3	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
%ile BackOfQ(95%),vehfin 7.8	In 7.8	12.4	9.0				0.0	14.9	14.7	0.	0.2	0.0
Unsig. Movement Delay, s/veh	s/veh		1				1					1
LnGrp Delay(d), siveh	28.1	32.7	30.5				0.0	20.9	21.1	13.4	0.3	0.0
LnGrp LOS	O	O	O				A	ပ	٥	0	¥	4
Approach Vol, veh/h		1141						1196			154	
Approach Delay, s/veh		30.2						21.0			2.5	
Approach LOS		O						O			<b>«</b>	
Timer - Assigned Phs	4-	rvi		4		9					N	
Phs Duration (G+Y+Rc), s10.1	\$10.1	50.5		29.4		9.09						
Change Period (Y+Rc), s	5.0	2.0		5.0		5.0						
Max Green Setting (Gmax) 880	3x)280	29.0		38.0		45.0						
Max Q Clear Time (g_c+l1)5s0	11)580	25.4		19.2		2.0						1
Green Fxt Time to cl. s	0.1	2.4		5.2		4.9						

Switch Phase
Minimum Spit (s)
Minimum Spit (s)
Total Spit (s)
Total Spit (%)
Yellow Time (s)
Al-Red Time (s)
Lost Time Adjust (s)
Total Lost Time (s)

Notes
User approved volume balancing among the lanes for furning movement.

19.9 B

HCM 6th Chri Delay HCM 6th LOS

Intersection LOS: C

Intersection Signal Delay: 22.8 Intersection Capacity Utilization 60.6% Analysis Period (min) 15

Control Type: Actuated-Coordinated

10

3: Jefferson St. & I-25 E. Ramp

Splits and Phases:

02 (R)

D6 (R)

Oycle Length: 90 Actuated Cycle Length: 90 Offset: 6.3 (7%), Referenced to phase 2:NBT and 6:SBTL, Start of Green

Approach Delay Approach LOS

Min C-Max 52.7 52.7 0.59 0.59 0.54 0.30 32.0 8.7 0.0 0.0 32.0 8.7 C A

C-Max 39.7 0.79 27.9 0.0 27.9 C

Min C 27.3 0.30 0.45 9.3 9.3 9.3

Min Min 27.3 27.3 0.30 0.30 0.59 0.58 30.5 28.1 0.0 0.0 C C

> Control Delay Queue Delay Total Delay

who Ratio

Lead/Lag Lead-Lag Optimize? Recall Mode Act Effot Green (s) Actuated g/C Ratio Synchro 10 Report 2029ABX.syn

2029 AM Peak BUILD Conditions - Existing Geometry

2029 AM Peak BUILD Conditions - Existing Geometry

Synchro 10 Report 2029ABX.syn

Terry O. Brown, PE 12/18/2018 4: Jefferson St. & McLeod Rd.

Timings

451 AN 8 Max 40.7 0.55 0.32 9.8 9.8 Min 51.6 0.70 0.61 9.8 9.8 538 538 NA 16.4 Min 37.9 0.05 5.7 5.7 5.7 31 467 31 467 NA pm+ov p Min 31.3 0.43 0.83 27.8 0.0 C 0 5 0 0.13 0.0 Min 11.8 0.16 0.56 39.1 39.1 Min 11.8 0.16 0.28 23.3 23.00 ¥ 6 4 8 × 1 Min 11.8 0.09 26.5 C.5 C.5 C.5 Lead/Lag Lead-Lag Optimize? Recall Mode Act Effol Green (s) Actuated g/C Ratio Minimum initial (s)
Minimum Spiti (s)
Total Spiti (s)
Total Spiti (s)
Yellow Time (s)
Lost Time Adjust (s)
Total Lost Time (s) Lane Configurations Traffic Volume (vph) Future Volume (vph) Turn Type Protected Phases Permitted Phases Defector Phase Approach Delay Approach LOS Control Delay Queue Delay Switch Phase Total Delay wic Ratio

Intersection LOS: B Intersection Signal Delay: 17.9 Intersection Capacity Utilization 61.3% Analysis Period (min) 15 Control Type: Semi Act-Uncoord Actuated Cycle Length: 73.4 Vatural Cycle: 60

8 45 4: Jefferson St. & McLeod Rd. 98 Splits and Phases: 50

2029 AM Peak BUILD Conditions - Existing Geometry

Synchro 10 Report 2029ABX.syn

HCM 6th Signalized Intersection Summary

Terry O. Brown, PE 12/18/2018 4: Jefferson St. & McLeod Rd.

	4	1	1	1	1	1	1	<del>-</del>	1	A	-	V
dovement	麗	鹽	器	184	WBI	W88	182 183	NBI	N89	SBE	SBT	SBR
ane Configurations	F	2,		N.	+	N.	15-	44		W-	44	
Traffic Volume (veh/h)	15	49	18	83	31	467	100	538	56	292	461	30
Future Volume (veh/h)	15	49	9	83	3	467	9	538	56	292	461	30
nilial 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			No.	
Adj Sat Flow, veh/hiln	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	19	19	23	116	33	584	22	672	35	385	576	38
Peak Hour Factor	0.80	0.80	0.80	0.80	080	0.80	0.80	0.80	0.80	0.80	0.80	0.80
Percent Heavy Veh, %	es	es	es	m	က	က	e	က	m	m	e	က
Cap, veh/h	338	447	161	483	637	77.5	434	1184	26	479	1480	88
Arrive On Green	0.34	0.34	0.34	0.34	0.34	0.34	90.0	0.35	0.35	0.15	0.44	0.44
Sai Flow, vehin	795	1302	469	1305	1856	1572	1767	3426	163	1767	3357	221
Gro Volume(v), veh/h	19	0	88	116	39	584	22	346	358	365	302	312
Gro Sat Flow(s), veh/hiln	795	0	1771	1305	1856	1572	1767	1763	1826	1767	1763	1816
Q Serve(g s), s	1.5	0.0	3.0	6.2	5.	27.8	0.7	14.8	14.8	11.7	10.7	10.7
Cycle Q Clear(g c), s	2.8	0.0	3.0	9.2	1.3	27.8	0.7	14.8	14.8	11.7	10.7	10.7
Prop In Lane	1.00		0.27	1.00		1.00	1.00		0.09	1.00		0.12
Lane Grp Cap(c), vehih	333	0	809	483	637	775	434	609	631	479	111	801
V/C Ratio(X)	90.0	0.00	0.14	0.24	90.0	0.75	0.05	0.57	0.57	0.76	0.39	0.39
Avail Cap(c_a), veh/h	383	0 4	727	57.1	761	880	624	609	631	201	111	801
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	ea	0.0	21.0	24.1	20.4	19.0	16.9	24.7	24.7	16.7	17.5	17.5
nor Delay (d2), s/veh	0.1	0.0	0.1	0.3	0.0	3.3	0.0	3.8	3.7	6.5	1.5	1.4
nitial 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	Vin 0.5	0.0	2.2	3.5	1.0	15.4	0.5	10.9	11.2	9.0	8.0	8.2
ay,	07											
LnGrp Delay(d),s/veh	21.4	0.0	21.1	24.4	20.5	22.2	17.0	28.3	4.62	23.2	18.8	9.0
LnGrp LOS	٥	×	٥	O	٥	٥	20	0	0	0	a	۱۳
Approach Vol, veh/h		102			739			726			979	
Approach Delay, síveh		21.1			22.5			28.1			20.5	
Approach LOS		O			O			O			Ö	
Timer - Assigned Phs	-	N		4	3	9		80				
Phs Duration (G+Y+Rc), s18.8	s18.8	37.0		36.8	10.0	45.8		36.8				
Change Period (Y+Rc), s	s 5.0	5.0		5.0	5.0	5.0		5.0				
Max Green Setting (Gmax),590	ax),5s0	32.0		38.0	15.0	320		38.0				
Max Q Clear Time (g_c+l1t)397	+111357	16.8		2.0	2.7	12.7		29.8				
Green Ext Time (p_c), s	0.2	3.9		9.0	0.0	3.7		2.0				
Intersection Summary	V											
HCM 6th Ctrl Delay			23.3	4								
HCM 6th LOS	l		O									

2029 AM Peak BUILD Conditions - Existing Geometry

Synchro 10 Report 2029/ABX.syn

Intersection					******		
Int Delay, s/veh 0.1							
Movement EBL	EBR	NBL	NBT	SBT	SBR		
Lane Configurations ₩			414	朴玲			3
Traffic Vol, veh/h 3		6	1076	799	15		
Future Vol, veh/h 3			1076	799			Management comments of the company o
Conflicting Peds, #/hr 0		0		0		E	A STATE OF THE STA
Sign Control Stop	Stop						h
	None		None		None		
Storage Length 0			-	_			Annual Company of the
Veh in Median Storage0			0	0	_		
Grade, % 0		-		0			
Peak Hour Factor 83		83		83			70.
Heavy Vehicles, % 3		3		3			
Mymt Flow 4			1296	963			
Wivilli Flow 4	_		1230	300			
N. 0 - 1 /N. 01 N. 01	K	Aniona		Aniora			
Major/Minor Minor2		1ajor1 981	0	/ajor2	0		
Conflicting Flow All1634					0		
Stage 1 972		le a second					Land to the state of the state
Stage 2 662		4 40			-		
Critical Hdwy 6.86		4.16			-		
Critical Hdwy Stg 1 5.86		-		-	-		
Critical Hdwy Stg 2 5.86			-	-	•		
Follow-up Hdwy 3.53		2.23					
Pot Cap-1 Maneuver 54		1020					
Stage 1 630		-	_		delini minimorni del		
Stage 2 472			-			a manufacture and manufacture and matter assume the second	
Platoon blocked, % 1		- 1	-	-	_		MANAGE CONTRACTOR OF THE PARTY
Mov Cap-1 Maneuver50		1020	-		1 - J-1		
Mov Cap-2 Maneuver50		-	-	-	-		
Stage 1 615		-	-	-	<del>-</del>		
Stage 2 472	-	-	-	-	_		CID ALTHOUGH THE CONTROL OF THE CONT
		namen and the state of the stat					
Approach EB	Market 1	NB		SB		and the state of t	5 0 64 B (Legal VIII ) 10 6 4
HCM Control Delay 2st .7		0.1	DAIL T	0			
HCM LOS C		Affantana Barris Mi	atministration and the	anatto in invitation	A. Santatri na nasara sa	A CONTRACTOR OF THE CONTRACTOR	
Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR		
Capacity (veh/h)	1020	Management was	221		1		
HCM Lane V/C Ratio	0.007		0.027		-		:
HCM Control Delay (s)	8.6	a accompany to the desired	AND DESCRIPTION OF THE PARTY OF			The second secon	
HCM Lane LOS	A						
HCM 95th %tile Q(veh)	0		CHARLEST THE PARTY OF THE PARTY	-			
I manage and a second control of the second							
Notes ~: Volume exceeds cap	acity	¢. r	Delay o	VCOC.	ds 300s	+: Computation Not Defined	*: All major volume in platoo
. volume exceeds cap	acity	φ. L	Joilay E	, vceec	13 0003	T. Computation Not Defined	. All major volume in platoc

Intersection												
Int Delay, s/veh	1.9											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					4			414			414	7
Traffic Vol, veh/h	0	0	0	18	0	42	0	994	16	37	657	50
Future Vol, veh/h	0	0	0	18	0	42	0	994	16	37	657	50
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized		-	None	-	-	None	-	-	None	-	-	Free
Storage Length	-	-	-	-	-	-	-	-	-	-	-	75
Veh in Median Storage,	, # -	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	83	83	83	83	83	83	83	83	83	83	83	83
Heavy Vehicles, %	3	3	3	3	3	3	3	3	3	3	3	3
Mvmt Flow	0	0	0	22	0	51	0	1198	19	45	792	60
Major/Minor			I	Minor1		N	/lajor1		_	Major2		
Conflicting Flow All				1694	2090	609	792	0	0	1217	0	0
Stage 1				1208	1208	-	-	-	-	-	-	-
Stage 2				486	882	_	_	_	_	_	_	_
Critical Hdwy				6.86	6.56	6.96	4.16	_	_	4.16	_	-
Critical Hdwy Stg 1				5.86	5.56	-	-	-	-	-	-	-
Critical Hdwy Stg 2				5.86	5.56	-	-	-	-	-	-	-
Follow-up Hdwy				3.53	4.03	3.33	2.23	_	-	2.23	-	-
Pot Cap-1 Maneuver				83	51	436	818	-	-	563	-	0
Stage 1				244	252	-	-	-	-	-	-	0
Stage 2				581	360	-	-	-	-	-	-	0
Platoon blocked, %								-	-		-	
Mov Cap-1 Maneuver				71	0	436	818	-	-	563	-	-
Mov Cap-2 Maneuver				71	0	-	-	-	-	-	-	-
Stage 1				244	0	-	-	-	-	-	-	-
Stage 2				498	0	-	-	-	-	-	-	-
Approach				WB			NB			SB		
HCM Control Delay, s				40.3			0			1.4		
HCM LOS				Е								
Minor Lane/Major Mvm	t	NBL	NBT	NBRV	VBLn1	SBL	SBT					
Capacity (veh/h)		818	_	-		563	-					
HCM Lane V/C Ratio		-	_	_		0.079	_					
HCM Control Delay (s)		0	_	_	40.3	11.9	0.8					
HCM Lane LOS		A	_	_	E	В	A					
HCM 95th %tile Q(veh)		0	-	-	1.9	0.3	-					

Intersection								
Int Delay, s/veh	33.7							
Movement	EBL	EBR	NBL	NBT	SBT	SBR		
_ane Configurations	Y			41	<b>∱</b> ⊅			
raffic Vol, veh/h	60	153	160	922	663	12		
uture Vol, veh/h	60	153	160	922	663	12		
onflicting Peds, #/hr	0	0	0	0	0	0		
ign Control	Stop	Stop	Free	Free	Free	Free		
RT Channelized	-	None	-	None	-	None		
Storage Length	0	-	-	-	-	-		
eh in Median Storage		-	-	0	0	-		
Grade, %	0	-	-	0	0	-		
eak Hour Factor	83	83	83	83	83	83		
eavy Vehicles, %	3	3	3	3	3	3		
lvmt Flow	72	184	193	1111	799	14		
ajor/Minor	Minor2	N	Major1	Λ	/lajor2			
onflicting Flow All	1748	407	813	0	-	0		
Stage 1	806	-	-	-	-	-		
Stage 2	942	-	-	-	-	-		
ritical Hdwy	6.86	6.96	4.16	-	-	-		
itical Hdwy Stg 1	5.86	-	-	-	-	-		
itical Hdwy Stg 2	5.86	-	-	-	-	-		
llow-up Hdwy	3.53	3.33	2.23	-	-	-		
t Cap-1 Maneuver	105	*827	1093	-	-	-		
Stage 1	668	-	-	-	-	-		
Stage 2	337	-	-	-	-	-		
latoon blocked, %	1	1	1	-	-	-		
lov Cap-1 Maneuver	~ 57	*827	1093	-	-	-		
lov Cap-2 Maneuver	~ 57	-	-	-	-	-		
Stage 1	360	-	-	-	-	-		
Stage 2	337	-	-	-	-	-		
pproach	EB		NB		SB			
CM Control Delay, s	298.8		2.6		0			
ICM LOS	F							
linor Lane/Major Mvm	nt	NBL	NRT	EBLn1	SBT	SBR		
apacity (veh/h)	IC .	1093	-		-	ODIN		
CM Lane V/C Ratio		0.176		1.492	-	-		
CM Control Delay (s)		9		298.8	-	-		
CM Lane LOS		A	1.5 A	290.0 F		_		
ICM 95th %tile Q(veh)	)	0.6	-					
`		3.0						
otes	! !	<b>6</b> D	1		10-		station Not D. Co. 1	*. All
: Volume exceeds cap	pacity	\$: De	lay exc	eeds 30	US -	+: Comp	utation Not Defined	*: All major volume in platoon

1: Jefferson St. & Singer Blvd.

Timings

1

Terry O. Brown, PE 12/18/2018

\$ 66 € A 88

Perm pm+pt

2 8 8 8 ₹

14 A

NA pm+ov

Prof 7

Turn Type Protected Phases Permitted Phases

Detector Phase

Lane Configurations Traffic Volume (vph) Future Volume (vph)

204

HCM 6th Signalized Intersection Summary 1: Jefferson St. & Singer Blvd.

Terry O. Brown, PE 12/18/2018

ons eh/h) reh/h) h											
	EBI	田田	WE	WBI	W89	MBI	NST NST	NBR	SBL	SBT	SBR
	4	R	R.	44		M-	++	R	ħ.	44	
	33	490	311	47	49	204	288	166	16	664	14
	39	490	311	47	49	204	288	166	16	664	140
	0 0	0	0	0	0	0	0	0	0	0	
ĺ		1.00	1.00	1	1.00	1.00		1.00	1.00		1.00
Parking bus, Agi	00.1 0	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
pproach	No	-		9 N			8			No	
Adi Sat Flow, veh/fluin 1856	5 1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h 252	2 42	527	334	5	23	219	310	0	17	714	151
Peak Hour Factor 0.93	3 0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
h, %		m	m	m	m	m	m	m	m	m	
Cap, veh/h 283	3 431	518	404	334	298	340	1473		533	1063	225
green	ľ	0.23	0.12	0.19	0.19	0.10	0.42	00.00	0.05	0.37	0.37
· Cal	M	1572	3428	1763	1572	1767	3526	1572	1767	2896	612
Grp Volume(v), veh/h 252	2 42	527	334	51	53	219	310	0	17	434	431
111	15	1572	1714	1763	1572	1767	1763	1572	1767	1763	1745
Q Serve(g_s), s 15.0	0 1.9	25.0	10.3	2.6	3.0	7.9	6.0	0.0	9.0	22.3	22.3
Cycle Q Clear(g c), s 15.0	0 1.9	25.0	10.3	2.6	3.0	7.9	6.0	0.0	9.0	22.3	22.3
Prop In Lane 1.00	0	1.00	1.00		1.00	1.00		1.00	1.00		0.35
Lane Grp Cap(c), veh/h 283	3 431	518	404	334	298	340	1473		533	647	641
V/C Ratio(X) 0.89	9 0.10	1.02	0.83	0.15	0.18	0.64	0.21		0.03	0.67	0.67
Avail Cap(c a), veh/h 328	8 431	518	208	344	307	99	1473		648	647	641
		1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I) 1.00		1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00
Uniform Delay (d), s/veh 44.3	3 32.5	36.1	46.4	36.4	36.6	20.6	20.0	0.0	18.7	28.6	28.6
incr Delay (d2), s/veh 22.5	5 0.1	44.1	8.8	0.2	0.3	2.0	0.3	0.0	0.0	5.5	5.5
Initial Q Delay(d3), s/veh 0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),vehVlrl3.0	9.1 0	27.1	8.4	2.1	2.1	0.0	4.6	0.0	0.5	15.5	15.4
ay, s		- 1								3	č
LnGrp Delay(d), siveh 66.8	8	8	55.2	36.6	39.6	177	20.3	0.0	187	- c	N C
LuGip LOS	2	1	"		٥	٥	2	1	٥		
Approach Vol, veh/h	821		١	438			529	×		882	
Approach Delay, s/veh	73.6			20.8			21.3			33.0	1
Approach LOS	m			0		ì	O			O	
Timer - Assigned Phs	57	63	4	10	9	1	CC				
Phs Duration (G+Y+Rc), s10.0	0 50.0	17.7	30.0	15.5	44.5	22.3	25.4				
Change Period (Y+Rc), s 5.0		5.0	5.0	5.0	5.0	5.0	5.0				
	7	16.0	25.0	30.0	27.0	20.0	21.0				
Max Q Clear Time (q c+11)2s5	L	12.3	27.0	9.9	24.3	17.0	2.0				
Green Ext Time (p_c), s 0		0.4	0.0	9.0	1.4	0.2	0.4				
Intersection Summary				ı						V	W
HCM 6th Ctrl Delay		46.4									
HCM 6th LOS		0									

Max 29.4 0.29 0.85 43.4 43.4

35.4 0.36 0.04 13.2 13.2 8

3.0 A

16.0 16.0

Min 7.1 7.1 0.07 28.5 0.0 28.5 C 44.8

49.8 0.0 49.8

43.9

0.20

Min 18.3 0.18 0.79 57.6

Recall Mode Act Effct Green (s) Actuated g/C Ratio Lead/Lag Lead-Lag Optimize?

v/c Ratio

29.9 0.77

0.0 43.9 D

Approach Delay Control Delay Queue Delay Total Delay LOS

Approach LOS

0.0

15.4 15.4 15.4 12.5 B

Max 48.2 0.48 0.21

Max 48.2 0.48 0.18

Min 59.2 0.59 0.43

Switch Phase
Minimum Initial (s)
Minimum Spiti (s)
Total Spiti (s)
Total Spiti (s)
Yellow Time (s)
Au-Red Time (s)
Lost Time Adjust (s)
Total Lost Time (s)

Unsignalized Delay for [NBR] is excluded from calculations of the approach delay and intersection delay.

Synchro 10 Report 2029PNX.syn

Synchro 10 Report 2029PNX.syn

2029 PM Peak NOBUILD Conditions - Existing Geometry

80

100 E03

90

50

Intersection LOS: C

Intersection Signal Delay: 34.5 Intersection Capacity Utilization 74.5% Analysis Period (min) 15

Control Type: Semi Act-Uncoord

Actuated Cycle Length: 99.7

Vatural Cycle: 90

1: Jefferson St. & Singer Blvd.

Splits and Phases:

2029 PM Peak NOBUILD Conditions - Existing Geometry

ımary	
HCM 6th Signalized Intersection Sur	2: Jefferson St. & I-25 W. Ramp

Terry O. Brown, PE 12/18/2018

HCM 6th Signalized Intersection Summary	Terry O. Brown, PE 12/18/2018
2. lefterson St. & I-25 W. Hamp	12/10/2010

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Mn 1767 18.0 18.0 10.0 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 1	1856 18.0 18.0		19.4	638	0		38.6	45.5 45.5 1.00 1.00
18.0 18.0 1.00 379 379 0.83	18.0		19.4	1763	0	0	38.6	45.5 45.5 1.00 1.00
18.0 1.00 1.00 379 0.83	18.0		19.4	0.0	0.0	0.0		1.00
1.00 379 0.83			1.00	0.0	0.0	0.0	38.6	1.00
Jh 379 0.83			1		00.00	0.00		1 00
0.83	796		452	2433	0	0	1527	1 00
421	0.84		0.95	0.26	0.00	0.00	0.91	2
1	884	374	519	2433	0	0	1527	681
1.00	1.00		2.00	2.00	1.00	1.00	1.00	1.00
Upstream Filter(II)	1.00		0.56	0.56	0.00	0.00	0.51	0.51
	39.5	33.5	21.0	0.0	0.0	0.0	27.8	29.8
Incr Delay (d2), siveh	6.5	0.2	17.3	0.1	0.0	0.0	5.3	25.4
eh 0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln 13.9	13.7	5.0	13.1	0.1	0.0	0.0	21.5	26.7
				1				
y(d),s/veh 51.8	46.0		38.3	0.1	0.0	0.0	33.1	55.2
LnGrp LOS D	۵	O	٥	×	V	A	O	1
	1035			1068			2070	
h	47.1			15.5			40.4	
Approach LOS	۵			m	ļ		0	
Timer - Assigned Phs 2	NO.	9		60	I			
c).s 77.5	27.0	50.5		27.5				
	5.0	5.0		5.0				
Max Green Setting (Gmax), s 70.0	26.0	39.0		25.0				
2.0	21.4	47.5		20.0				
Green Ext Time (p_c), s 5.2	9.0	0.0		2.5				
Intersection Summary								li
HCM 6th Chrl Delay 35.7								
HCM 6th LOS D								

Switch Phase
Minimum Initial (s)
Minimum Spiti (s)
Total Spiti (s)
Total Spiti (%)
Yellow Time (s)
Al-Red Time (s)
Lost Time Adjust (s)
Total Lost Time (s)

408

518 518 NA S18

Traffic Volume (vph)
Future Volume (vph)
Tum Type
Protected Phases Lane Configurations

Permitted Phases

Detector Phase

WEL WET WER NEL

Î

2: Jefferson St. & I-25 W. Ramp

Timings

Min C-Max C-Max C-Max 70.9 70.9 42.2 42.2 0.68 0.68 0.40 0.40 0.40 0.92 48.5 8.5 53.5 60.8 48.5 8.5 53.5 60.8

Min 24.1 0.23 0.13 5.0 5.0 5.0

Min Min 24.1 24.1 0.23 0.23 0.84 0.84 59.2 49.5 0.0 0.0 59.2 49.5

Lead/Lag
Lead-Lag Optimize?
Recall Mode
Act Effct Green (s)
Actuated g/C Ratio

D 55.9 0

Approach Delay Approach LOS

Control Delay Queue Delay Total Delay

Notes
User approved volume balancing among the lanes for turning movement.

Synchro 10 Report 2029PNX.syn

2029 PM Peak NOBUILD Conditions - Existing Geometry

**₽** 

₩ ₩ Ø6(R)

₩ 05

Intersection LOS: DICU Level of Service F

Control Type: Actuated-Coordinated Maximum v/c Ratio: 0.99 Intersection Signal Delay 46.4 Intersection Capacity Utilization 92.2% Analysis Period (min) 15

2: Jefferson St. & I-25 W. Ramp

Splits and Phases:

intersection Summary
Cycle Length: 105
Actuated Cycle Length: 105
Offset: 0.7 (1%), Referenced to phase 2:NBTL and 6:SBT, Start of Green
Natural Cycle: 75

2029 PM Peak NOBUILD Conditions - Existing Geometry

0.94 0.00 0.00 1.00 Terry O. Brown, PE 12/18/2018 0.00 1.00 1763 2145 2.00 2.00 0.19 3618 2145 1.00 1856 1061 997 1061 SBT 427 1767 11.7 11.7 11.00 427 0.80 508 508 0.19 14.9 9 8 341 341 0.94 1767 321 341 608 9.0 400 1429 448 23.5 23.5 23.5 0.89 680 0.66 880.00 1.00 No 1856 822 0.43 2025 1763 23.4 23.4 0.66 750 1.00 1.00 1.00 24.1 0.94 493 0.00 00088 0.00 0.00 0.00 0.00 0.00 0.00 0.00 1848E 00 233 12.9 12.9 1.00 466 0.50 524 1.00 1.00 30.5 0.8 0.0 233 0.94 0.30 0.30 1572 1.00 1.00 N 894 1099 1099 0.81 3711 894 1856 23.5 23.5 1.00 1856 3: Jefferson St. & I-25 E. Ramp 523 0.30 1767 1767 0 00.1 1856 424 0.94 23.3 23.3 1.00 523 0.81 1.00 Sat Flow, veh/h Grp Volume(v), veh/h Grp Sat Flow(s),veh/h/ln 1 Parking Bus, Adj Work Zone On Approach ane Grp Cap(c), veh/h Lane Configurations
Traffic Volume (veh/h)
Future Volume (veh/h) Q Serve(g_s), s Cycle Q Clear(g_c), s Prop In Lane Avail Cap(c_a), veh/fi HCM Platoon Ratio Upstream Filter(I) Percent Heavy Veh, % Sat Flow, vehilifin Ped-Bike Adj(A_pbT) Flow Rate, veh/h Adj Flow Rate, vel Peak Hour Factor Initial Q (Qb), veh Cap, veh/ħ Arrive On Green V/C Ratio(X) P

HCM 6th Signalized Intersection Summary

Terry O. Brown, PE 12/18/2018

Timings

Intersection LOS: C ICU Level of Service F Offset: 2.1 (2%), Referenced to phase 2:NBT and 6:SBTL, Start of Green 61.1 0.58 0.52 17.1 17.2 17.2 8 25.0 198 788 AN SSI 1.0 0.0 5.0 Lead Min 0.58 0.87 49.2 0.0 49.2 32 23 C-Max 38.5 0.37 0.75 31.1 31.1 \$509 ¥¥ N 1.0 5.0 1.0 1.0 0.41 18.3 0.0 18.3 33.9 0.32 219 33.9 0.32 0.80 38.8 ntersection Capacity Utilization 92.2% \$500 NAN 183 3: Jefferson St. & I-25 E. Ramp Î Control Type: Actuated-Coordinated Min 0.32 0.81 0.81 0.0 0.0 0.0 Maximum v/c Ratio: 0.87 Intersection Signal Delay: 31.4 506 506 Cycle Length: 105 Actuated Cycle Length: 105 Total Split (s)
Total Split (%)
Yellow Time (s)
All-Red Time (s)
Lost Time Adjust (s)
Total Lost Time (s) Recall Mode Act Effct Green (s) Actuated g/C Ratio Traffic Volume (vph) Future Volume (vph) Lead/Lag Lead-Lag Optimize? Lane Configurations Minimum Initial (s) Minimum Split (s) Turn Type Protected Phases Permitted Phases Natural Cycle: 60 Detector Phase Approach Delay Control Delay Queue Delay Total Delay Approach LOS Switch Phase nc Ratio

1 02 (R) D6 (R)

3: Jefferson St. & I-25 E. Ramp

Splits and Phases:

Analysis Period (min) 15

Synchro 10 Report 2029PNX.syn

2029 PM Peak NOBUILD Conditions - Existing Geometry

Nates User approved volume balancing among the lanes for turning movement.

23.6 C

HCM 6th Ctrl Delay HCM 6th LOS

2029 PM Peak NOBUILD Conditions - Existing Geometry

Synchro 10 Report 2029PNX.syn

A 4.1 0.2

16.4

29.0

28.5 C

0.0

38.1

kile BackOfO(95%), vehilri 6.4 Unsig. Movement Delay, s/veh LnGrp Delay(d),s/veh 41.8

nitial Q Delay(d3),s/veh

Incr Delay (d2), s/veh

38.1

Approach Vol, veh/h Approach Delay, s/veh

LnGrp LOS

Approach LOS

34.3

34.2

Uniform Delay (d), s/veh

941 28.8

5.0 5.0 5.0 2.0 10.4

36.1 5.0 35.0 25.5 5.7

49.7 5.0 36.0 25.5 4.6

Phs Duration (G+Y+Rc), s19.2 Change Period (Y+Rc), s 5.0 Max Green Setting (Gmax)390

Max Q Clear Time (g_c+l1t)387 Green Ext Time (p_c), s 0.5

0.0 0.0

0.0

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Terry O. Brown, PE 12/18/2018 HCM 6th Signalized Intersection Summary

4: Jefferson St. & McLeod Rd

Terry O. Brown, PE 12/18/2018

	1	1	p	-		1	-	-	-	A	4	,
Movement	田田	EBI	SBR	WBL	WBI	WER	NBL	NBT	NBR	SBE	SBT	SBR
Lane Configurations	15	24		N-	4	W_	ħ.	44		W-	44	
Traffic Volume (veh/h)	14	70	56	108	13	345	1	484	112	423	999	80
Future Volume (veh/h)	14	70	- 26	108	13	345	11	484	112	423	999	80
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		8			9			No			S	
Adj Sat Flow, veh/h/lin	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	15	75	58	116	14	371	12	531	120	455	710	o
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	m	m	m	ო	က	m	m	က	ო	m	es	e
Cap, wehrin	317	300	112	329	432	83	488	1165	262	900	1827	83
Arrive On Green	0.23	0.23	0.23	0.23	0.23	0.23	90.0	0.41	0.41	0.17	0.51	0.51
Sat Flow, veh/h	990	1288	481	1281	1856	1572	1767	2859	643	1767	3565	45
Grp Volume(v), veh/h	15	0	103	116	14	371	12	327	324	455	351	368
Grp Sat Flow(s), veh/h/lin		0	1769	1281	1856	1572	1767	1763	1740	1767	1763	1847
Q Serve(g_s), s		0.0	3.7	6.4	0.5	14.5	0.3	10.6	10.7	10.8	9.5	9.5
Cycle Q Clear(g_c), s	1.4	0.0	3.7	10.1	0.5	14.5	0.3	10.6	10.7	10.8	9.5	9.5
Prop In Lane	1.00		0.27	1.00		1.00	1.00		0.37	1.00		0.02
Lane Grp Cap(c), veh/h	317	0	412	329	435	831	489	719	709	900	903	947
V/C Ratio(X)	0.05	0.00	0.25	0.35	0.03	0.59	0.02	0.45	0.46	0.76	0.39	0.39
Avail Cap(c_a), veh/h	565	0 *	856	651	888	1026	714	719	709	640	903	947
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(II)	1.00	0.00	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	23.8	0.0	24.5	28.6	23.3	18.4	11.1	16.9	16.9	10.9	11.7	11.7
Incr Delay (d2), s/veh	0.1	0.0	0.3	9.0	0.0	0.9	0.0	2.1	2.1	4.9	1,3	1.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln 0.4	Mn 0.4	0.0	2.8	3.5	0.4	8.8	0.2	7.9	7.9	7.7	6.7	7.0
Unsig. Movement Delay, s/veh	, s/veh		1								1	
LnGrp Delay(d),s/veh	23.9	0.0	24.8	29.3	23.3	19.3	11.1	19.0	13.4	15.8	12.9	12.9
LnGrp LOS	O	A	O	O	O	00	m	В	m	m	B	20
Approach Vol, veh/n		118			201			663			1174	
Approach Delay, s/veh		24.7			21.7			18.9			14.0	
Approach LOS		O			O			m			20	
Timer - Assigned Phs	1	2		4	5	O		00				
Phs Duration (G+Y+Rc), s18.2	, s18.2	37.0		23.3	10.0	45.2		23.3				
Change Period (Y+Rc), s	s 5.0	5.0		5.0	5.0	2.0		2.0				
Max Green Setting (Gmax),5s0	lax],5s0	32.0		38.0	15.0	32.0		38.0				
Max Q Clear Time (g_c+l11)28	+11128	12.7		5.7	2.3	11.5		16.5				
Green Ext Time (p_c), s	\$ 0.4	4.0		0.6	0.0	4.5		1.8				
Intersection Summary					N							
HCM 6th Ctrl Delay	M		17.4				N					
0017011011			œ									

Max 41.4 0.56 0.37 10.3 10.3 6 11.7

Max 32.1 0.43 0.44 15.7 0.0 15.7 15.7 B B

Min 52.1 0.70 0.72 13.8 13.8 13.8

Min 37.8 0.51 0.03 5.7 5.7 5.7

Min 32.0 0.43 0.50 12.3 12.3 12.3 8

Min 12.0 0.16 0.05 25.5 25.5 25.5

Min 12.0 0.16 0.57 39.6 39.6

Min 12.0 0.16 0.07 26.1 26.1 26.1

Lead/Lag Lead-Lag Optimize? Recall Mode Act Effet Green (s) Actuated g/C Ratio

Min 12.0 0.16 0.34 24.9 0.0 24.9 C C C C

Control Delay Queue Delay Total Delay r/c Ratio

Total Split (s)
Total Split (%)
Yellow Time (s)
Alf-Red Time (s)
Lost Time Adjust (s)
Total Lost Time (s)

Switch Phase Minimum Initial (s) Minimum Split (s)

Detector Phase

pm+pt 1 423

pm+pt 5 5

₹ \$ \$ ¥

13 345 13 345 NA pm+ov (

* 2 2 5 X

Lane Configurations Traffic Volume (vph) Future Volume (vph)

Turn Type Protected Phases Permitted Phases

ERI

1

Timings 4: Jefferson St. & McLeod Rd.

100 **↓**8

95

4: Jefferson St. & McLeod Rd. Splits and Phases:

Intersection LOS: B

Maximum vic Ratio: 0.72 Intersection Signal Delay: 14.8 Intersection Capacity Utilization 65.8% Analysis Period (min) 15

Control Type: Semi Act-Uncoord Cycle Length: 100 Actuated Cycle Length: 74.1

Natural Cycle: 60

Approach Delay Approach LOS

2029 PM Peak NOBUILD Conditions - Existing Geometry

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2029 PM Peak NOBUILD Conditions - Existing Geometry

ntersection						
Int Delay, s/veh	0.3					
Movement I	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	14/			414	<b>1</b> 13	
Traffic Vol, veh/h	4	14	11		1083	30
Future Vol, veh/h	4	14	11	865	1083	30
Conflicting Peds, #/h	r O	0	0	0	0	0
Sign Control S	Stop			Free		Free
RT Channelized		None		None		None
Storage Length	0	-	-	-	-	-
Veh in Median Stora	ge0#	<b>‡</b> -	-	0	0	-
Grade, %	0	-	-	0	0	
Peak Hour Factor	83	83	83	83	83	83
Heavy Vehicles, %	3	3	3	3	3	
Mvmt Flow	5	17	13	1042	1305	36
	and a state of the				a	
B # 2 /B #Y B #Y-			ledend		lesland	
	nor2		lajor1		lajor2	
Conflicting Flow All1		acardam management	1341	0	-	
	323					-
9	547	-	-	-	-	-
	6.86	6.96	4.16	-		
Critical Hdwy Stg 1 !		-	-	-	-	-
Critical Hdwy Stg 2 !			-	-	-	-
	3.53	3.33		-	_	_
Pot Cap-1 Maneuve		*625	832	-	-	-
	523	-	-	-	_	-
Stage 2	541	-	-	-	-	-
Platoon blocked, %	1	1	1	-	-	
Mov Cap-1 Maneuve		*625	832	-	-	-
Mov Cap-2 Maneuv		-	en interne	-	_	-
	504	-	-	+	-	<b>*</b> 1
Stage 2	541	-	-	-	-	-
77						
			NID		CD.	
Approach	EB		NB		SB	
HCM Control Delay,	**********	din central dellerie	0.3		0	
HCM LOS	С					
	and an all and a					
Minor Lane/Major M	lvmt	NBL	NBT	BLn1	SBT	SBR
Capacity (veh/h)		832	*****	328		
HCM Lane V/C Rati	0	0.016		0.066	-	-
HCM Control Delay	CALED ALADAMA SOCIOLO	9.4		16.8		The surface services
HCM Lane LOS	(0)	Α	A		_	
	eh)	0		AMERICAN PROPERTY.		
HCIVI 95th %tile CIVI		0		CF 1 600		
HCM 95th %tile Q(v Notes	/					

Storage Length 35	Intersection													
Cane Configurations	nt Delay, s/veh	1.2												
Traffic Vol, veh/h	Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	
Fraffic Vol, velv/h O O O O 16 I Suproversity of the velocity	ane Configuration	s Y	1>			4			473			414	7"	
Conflicting Peds, #/hr 0	Traffic Vol, veh/h	0		0	16	000000000000000000000000000000000000000	39	1		15	36	1180	1	
Conflicting Peds, #/hr 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	Future Vol., veh/h	0	0	0	16	1	39	1	885	15	36	1180	1	
Sign Control   Stop		hr 0	0	0	0	0	0	0	0	0	0	0	0	
RT Channelized			Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free	
Storage Length 35 75 Veh in Median Storage, # 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0		Maria de la compansión de			الارتماع المسارين المراز إطاعا	mail and substitute of the entirity	AND ROLL AND ADDRESS OF TAXABLE							
Veh in Median Storage, # 0		35	-	-	-	-	-	-	-	-	-	-	75	A CONTRACTOR OF THE PROPERTY O
Grade, % - 0 - 0 - 0 - 0 - 0 - 0 - 0 - 0 - 0 -		and the second second second second	ŧ 0			0	-		0	-	-	0	-	
Peak Hour Factor   94   94   94   94   94   94   94   9				-	-		-	-	0	-	· ·	0	-	
Heavy Vehicles, % 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3		94		94	94		94	94	94	94	94	94	94	4
Major/Minor   Minor2   Minor1   Major2   Major2												3	3	by a second of the second of t
Major/Minor   Minor2   Minor1   Major1   Major2			and the second second	and the second second second										Ni a sa s
Conflicting Flow All1804 2290 628 1655 2283 479 1256 0 0 957 0 0  Stage 1 1331 1331 - 951 951	WWW.Tiow									iniW unita-ni				
Conflicting Flow All1804 2290 628 1655 2283 479 1256 0 0 957 0 0  Stage 1 1331 1331 - 951 951	Major/Minor M	inor2		N	linor1		N	laior1		IV	laior2	1000		
Stage 1			2290			2283			0			0	0	
Stage 2				muneus doublin	THE RESERVE THE PERSON NAMED IN		-,, 5	TOTAL STREET, SALES				MATERIAL PROPERTY AND ADDRESS OF THE PARTY AND	morno and market	
Critical Hdwy 7,56 6.56 6.96 7.56 6.56 6.96 4.16 - 4.16 - Critical Hdwy Stg 1 6.56 5.56 - 6.56 5.56	9			- 1-										
Critical Hdwy Stg 1 6.56 5.56 - 6.56 5.56					HILLIAN STATES		6 06	116	inangininanginga		4.16			
Critical Hdwy Stg 2 6.56				The state of			0.50	4.10			1000 0000			
Follow-up Hdwy 3.53 4.03 3.33 3.53 4.03 3.33 2.23 - 2.23 - 708 - 708 - 708 - 708 - 708 - 708 - 708 - 708 - 708 - 708 - 708 - 708 - 708 - 708 - 708 - 708 - 708 - 708 - 708 - 708 - 708 - 708 - 708 - 708 - 708 - 708 - 708 - 708 - 708 - 708 - 708 - 708 - 708 - 708 - 708 - 708 - 708 - 708 - 708 - 708 - 708 - 708 - 708 - 708 - 708 - 708 - 708 - 708 - 708 - 708 - 708 - 708 - 708 - 708 - 708 - 708 - 708 - 708 - 708 - 708 - 708 - 708 - 708 - 708 - 708 - 708 - 708 - 708 - 708 - 708 - 708 - 708 - 708 - 708 - 708 - 708 - 708 - 708 - 708 - 708 - 708 - 708 - 708 - 708 - 708 - 708 - 708 - 708 - 708 - 708 - 708 - 708 - 708 - 708 - 708 - 708 - 708 - 708 - 708 - 708 - 708 - 708 - 708 - 708 - 708 - 708 - 708 - 708 - 708 - 708 - 708 - 708 - 708 - 708 - 708 - 708 - 708 - 708 - 708 - 708 - 708 - 708 - 708 - 708 - 708 - 708 - 708 - 708 - 708 - 708 - 708 - 708 - 708 - 708 - 708 - 708 - 708 - 708 - 708 - 708 - 708 - 708 - 708 - 708 - 708 - 708 - 708 - 708 - 708 - 708 - 708 - 708 - 708 - 708 - 708 - 708 - 708 - 708 - 708 - 708 - 708 - 708 - 708 - 708 - 708 - 708 - 708 - 708 - 708 - 708 - 708 - 708 - 708 - 708 - 708 - 708 - 708 - 708 - 708 - 708 - 708 - 708 - 708 - 708 - 708 - 708 - 708 - 708 - 708 - 708 - 708 - 708 - 708 - 708 - 708 - 708 - 708 - 708 - 708 - 708 - 708 - 708 - 708 - 708 - 708 - 708 - 708 - 708 - 708 - 708 - 708 - 708 - 708 - 708 - 708 - 708 - 708 - 708 - 708 - 708 - 708 - 708 - 708 - 708 - 708 - 708 - 708 - 708 - 708 - 708 - 708 - 708 - 708 - 708 - 708 - 708 - 708 - 708 - 708 - 708 - 708 - 708 - 708 - 708 - 708 - 708 - 708 - 708 - 708 - 708 - 708 - 708 - 708 - 708 - 708 - 708 - 708 - 708 - 708 - 708 - 708 - 708 - 708 - 708 - 708 - 708 - 708 - 708 - 708 - 708 - 708 - 708 - 708 - 708 - 708 - 708 - 708 - 708 - 708 - 708 - 708 - 708 - 708 - 708 - 708 - 708 - 708 - 708 - 708 - 708 - 708 - 708 - 708 - 708 - 708 - 708 - 708 - 708 - 708 - 708 - 708 - 708 - 708 - 708 - 708 - 708 - 708 - 708 - 708 - 708 - 708 - 708 - 708 - 708 - 708 - 708 - 708 - 708 - 708 - 708 - 708 - 708 - 708 - 708 - 708 - 708 - 708 - 708 - 708 - 708 - 708 - 7				en managaritimum									Jac— minimum agrimum	
Pot Cap-1 Maneuver143							2 22	2 22			2 22			
Stage 1 *562 *493 - *277 *334					ATTACK DESIGNATION OF THE PARTY			management of the state of the				,		
Stage 2 *538 *331 - *562 *493	AND THE RESIDENCE OF THE PROPERTY OF THE PROPE			596			530	991			700			
Platoon blocked, % 1 1 1 1 1 1 1 1											-	- i - i i i i i i i i i i i i i i i i i	(Jeannannamina	
Mov Cap-1 Maneuver11				- 5							-			
Mov Cap-2 Maneuver11       *40       - *193       *41			Total Control of the		177-1177-1-777-1-777-1-777				umuquinganan)		<b>"</b> "00			
Stage 1 *561 *405 - *276 *333				*596			530	*891	*	-	708			(a) V
Stage 2       *493       *330       -       *462       *405       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -				-	mineu periodicio del			-		-		-		
Approach EB WB NB SB  HCM Control Delay, s 0 19.4 0 1.2  HCM LOS A C  Minor Lane/Major Mvmt NBL NBT NBFEBLn EBLn WBLn1 SBL SBT SBR  Capacity (veh/h) *891 310 708  HCM Lane V/C Ratio 0.001 0.192 0.054  HCM Control Delay (s) 9 0 - 0 0 19.4 10.4 0.9 -  HCM Lane LOS A A - A A C B A -				-			-	-		-	-		-	
Approach   EB   WB   NB   SB	Stage 2	*493	*330	-	*462	- دور شودم بيلوپوس	-	-		-	-		-	
HCM Control Delay, s 0 19.4 0 1.2  HCM LOS A C  Minor Lane/Major Mvmt NBL NBT NBFEBLn'EBLn'WBLn1 SBL SBT SBR  Capacity (veh/h) *891 310 708  HCM Lane V/C Ratio 0.001 0.192 0.054  HCM Control Delay (s) 9 0 - 0 0 19.4 10.4 0.9 -  HCM Lane LOS A A - A A C B A -			dodalidrimë	oliment of median	120					uninesionimminin				amtanaan oodi aatatan ee aan oo
Minor Lane/Major Mvmt         NBL         NBT         NBFEBLnEBLnWBLn1         SBL         SBT         SBR           Capacity (veh/h)         * 891         -         -         -         310         708         -         -           HCM Lane V/C Ratio         0.001         -         -         -         0.192         0.054         -         -           HCM Control Delay (s)         9         0         -         0         0         19.4         10.4         0.9         -           HCM Lane LOS         A         A         -         A         A         C         B         A         -	CULTURE TO THE PROPERTY OF THE	THE PERSON												
Minor Lane/Major Mvmt NBL NBT NBREBLn'EBLn'WBLn1 SBL SBT SBR  Capacity (veh/h) *891 310 708  HCM Lane V/C Ratio 0.0010.192 0.054  HCM Control Delay (s) 9 0 - 0 0 19.4 10.4 0.9 -  HCM Lane LOS A A - A A C B A -		/, s 0	a.mora.amora.a					0			1.2		mandlins disklikerry	minuted the state of the state
Capacity (veh/h) * 891 310 708  HCM Lane V/C Ratio 0.001 0.192 0.054  HCM Control Delay (s) 9 0 - 0 0 19.4 10.4 0.9 -  HCM Lane LOS A A - A A C B A -	HCM LOS	Α			С	_	-		100			-		
Capacity (veh/h) * 891 310 708  HCM Lane V/C Ratio 0.001 0.192 0.054  HCM Control Delay (s) 9 0 - 0 0 19.4 10.4 0.9 -  HCM Lane LOS A A - A A C B A -				manual II dininasa			mana dan	en eso molnomi	( ) and ( ) and (					
HCM Lane V/C Ratio 0.001 0.192 0.054 HCM Control Delay (s) 9 0 - 0 0 19.4 10.4 0.9 - HCM Lane LOS A A - A A C B A -	A THE RESIDENCE OF THE PARTY OF		Control of the Contro	NBT	NBH	:BLn£	:BLn/A	Accordance of the Control of the Con		-	SBR			
HCM Control Delay (s) 9 0 - 0 0 19.4 10.4 0.9 - HCM Lane LOS A A - A A C B A -				-	-	-					-			
HCM Lane LOS A A - A A C B A -	HCM Lane V/C Ra	tio	0.001	-	-	-	-							
HCM Lane LOS A A - A A C B A -	<b>HCM Control Delay</b>	y (s)	9	0	-	0	0				-			
			A	Α	-	A	A			A	-			
		veh)	0			_	-	0.7	0.2	-	-			
Notes	Notes													
~: Volume exceeds capacity \$: Delay exceeds 300s +: Computation Not Defined *: All major volume in p	~: Volume exceeds	s capa	city	\$: D	elay e	exceed	ls 300	s +	: Com	putation	on No	t Defir	ned	*: All major volume in plato

Intersection	T					
Int Delay, s/veh	0					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configuration	s W	and the same of the same		414	<b>1</b> 13	
Traffic Vol, veh/h	1	1	1		1113	1
Future Vol, veh/h	1	1	1	869	1113	1
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 Stor	rage0#	<b>*</b> -		0	0	-
Grade, %	0	-	-	_	0	
Peak Hour Factor	94	94	94		94	
Heavy Vehicles, %		3	3		3	
Mvmt Flow	1	1	1	924	1184	1
Haterpassed and any or consequent the sale of the sale	accompanies of the con-					
Major/Minor N	linor2	N.	lajor1	N.	lajor2	
	CONTRACTOR OF THE PARTY OF THE		1185			
Conflicting Flow Al		regramman, timbre	1185	0	_	0
Stage 1	1185	-	-	-	-	
Stage 2	464	6.06	4.16	-		-
Critical Hdwy	6.86	0.90	4.10	-	i i	
Critical Howy Stg 1		-	-	-	-	-
Critical Hdwy Stg 2		2 22	2 22	-		
Follow-up Hdwy	3.53	3.33	2.23 *935	-	-	
Pot Cap-1 Maneuv		*625	933	-	-	-
Stage 1	*591 *596	-		-		
Stage 2			1	_	-	Car homeomore
Platoon blocked, %		*625			<u> </u>	
Mov Cap-1 Maneu			The Print of the Parket			
Mov Cap-2 Maneu	*590	-	-	enongoverne	-	
Stage 1			And the second s			
Stage 2	*596	-	-		-	
			alma-orden mintr			
Approach	EB		NB		SB	
<b>HCM Control Dela</b>	y, s16		0		0	
HCM LOS	С					
The state of the s						
Minor Lane/Major	***************************************	NBL	NRT	EBLn1	SBT	SBR
COLUMN TO THE OWNER OF THE OWNER OWN		* 935	*************	330		
Capacity (veh/h) HCM Lane V/C Ra		0.001		0.006		Action of the Control
HCM Control Dela		8.9	0	بالرحاء والمستملح المستملح		
HCM Lane LOS	y (S)	6.9 A				
HCM 95th %tile Q	(voh)	0		STATE OF THE PARTY		
FIGINI 95(II 76(IIB Q	(46(1)	U				
Notes						
~: Volume exceed	s capa	city	\$: [	Delay e	xcee	ds 300s

Timings
1: Jefferson St. & Singer Blvd.

	4	1	1	1	ţ	1	4	1	1	<b>-</b>	
Lane Group	188	E	EBR	WBL	WBT	NBL	NBT	NBR	SBL	SBT	
Lane Configurations	<b>F</b>	*	R_	16.	44	F	*	NC.	<b>M</b> -	43	
Traffic Volume (vph)	234	39	490	311	47	204	297	166	16	673	
Future Volume (vph)	234	39	490	311	47	204	297	166	16	673	
Tum Type	Prot	NA	pm+ov	Prot	NA	pm+pt	NA	Рет	pm+pt	N	
Protected Phases	7	A.	ю	m	00	in	2		+	9	
Permitted Phases			4			2		2	9		
Detector Phase	1	4	co	3	00	ın	2	. 2		9	
Switch Phase											
Minimum Initial (s)	5.0	2.0	5.0	2.0	5.0	5.0	5.0	5.0	5.0	2.0	
Minimum Split (s)	10.0	21.0	10.0	10.0	21.0	10.0	21.0	21.0	10.0	21.0	
Total Split (s)	25.0	30.0	35.0	21.0	26.0	35.0	50.0	50.0	17.0	32.0	
Total Split (%)	21.2%	25.4%	29.7%	17.8%	22.0%	29.7%	42.4%	42.4%	14.4%	27.1%	
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	9.0	5.0	
LeadLag	Lead	Lag	Lead	Lead	Lag	Lead	Lag	Lag	Lead	Lag	
Lead-Lag Optimize?											
Recall Mode	Min	Min	Min	Min	Min	Min	Max	Max	Min	Max	
Act Effct Green (s)	18.3	11.4	412	14.0	7.1	59.2	48.2	48.2	35.4	29.4	
Actuated g/C Ratio	0.18	0.11	0.41	0.14	0.07	0.59	0.48	0.48	0.36	0.29	
w/c Ratio	0.79	0.20	0.77	0.70	0.37	0.43	0.19	0.21	0.04	98.0	
Control Delay	57.6	43.9	29.9	49.8	28.5	16.0	15.4	3.0	13.2	44.2	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Delay	57.6	43.9	29.9	49.8	28.5	16.0	15.4	3.0	13.2	44.2	
507	ш	O	O	O	O	80	œ	A	80	0	
Approach Delay		39.1			44.8		12.5			43.6	
Approach LOS		O			0		60			0	
Intersection Summary											
Ovcle Lenath: 118											
Actuated Cycle Length: 99.7											
Natural Cycle: 90											
Control Type: Semi Act-Uncoord	poor										
Maximum vfc Ratio: 0.86											
Intersection Signal Delay: 34.7	7			드	tersection	Intersection LOS: C					
Intersection Capacity Utilization 74.8% Analysis Period (min) 15	ion 74.8%			9	n Level	ICU Level of Service D	0				

2029 PM Peak BUILD Conditions - Existing Geometry

Synchro 10 Report 2029PBX.syn

HCM 6th Signalized Intersection Summary 1: Jefferson St. & Singer Blvd.

Terry O. Brown, PE 12/19/2018

Movement   EB, EB1   EB8   WB1,   WB1   WB1   WB1   WB1   WB2   SB1   SB1   SB1   MB2   SB1   SB2		1	1	P	1	1	1	1	4-	1	A	<b>→</b>	V
1	Movement	曲	EBT	器	WBL	WBT	WBR	NBL	NBT	NBN	SS	SBT	SBR
100 1234 39 490 311 47 49 204 297 166 16 673 10 100 100 100 100 100 100 100 100 100	Lane Confourations	N-	*	VC.	11.1	44		16-	*	W.	K-	413	
1, 234 39 490 311 47 49 204 237 166 16 673     1, 00	Traffic Volume (vehifi)	234	38	490	311	47	49	204	297	166	16	673	140
100 100 100 100 100 100 100 100 100 100	Future Volume (veh/fn)	234	33	490	311	47	49	204	297	166	16	673	140
100	Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
1956 1856 1856 1856 1856 1856 1856 1856 18	Ped-Bike Adj(A_pbT)	1.00		1.00	1,00		1.00	1.00		1.00	1.00		1.00
1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856	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
1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856   1856	Work Zone On Approach		No			No.			No			o N	
252 42 527 334 51 53 219 319 0 17 724  283 431 518 404 334 298 337 1473 528 1066  284 431 518 404 334 298 337 1473 528 1066  285 431 518 404 334 298 337 1473 528 1066  286 431 518 404 334 298 337 1473 528 1066  287 415 1856 1572 3428 1763 1572 1767 1763 1572 1767 1763 1570  150 13 25.0 103 2.6 3.0 7.9 6.2 0.0 0.6 22.6 1500  150 13 25.0 103 2.6 3.0 7.9 6.2 0.0 0.6 22.6 1500  150 100 100 100 100 100 100 100 100 100	Adj Sat Flow, veh/h/ln	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856
0.93 0.93 0.93 0.93 0.93 0.93 0.93 0.93	Adj Flow Rate, veh/h	252	42	527	334	5	83	219	319	0	17	724	151
3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3	Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
283 431 518 404 334 298 337 1473 528 1066  1167 1856 1572 3428 171 1763 1572 1767 1763 1572  1167 1856 1572 1744 1753 1572 1767 1763 1572 1767 1763 1572 1767 1763 1572 1767 1763 1572 1767 1763 1572 1767 1763 1572 1767 1763 1572 1767 1763 1572 1767 1763 1572 1767 1763 1572 1767 1763 1572 1767 1763 1572 1767 1763 1572 1767 1763 1572 1767 1763 1572 1767 1763 1572 1767 1763 1572 1767 1763 1572 1767 1763 1572 1767 1763 1572 1767 1763 1572 1767 1763 1572 1767 1763 1572 1767 1763 1572 1767 1763 1572 1767 1763 1572 1767 1763 1572 1767 1763 1572 1767 1763 1572 1767 1763 1572 1767 1763 1572 1767 1763 1572 1767 1763 1572 1767 1763 1572 1767 1763 1572 1767 1763 1572 1767 1763 1572 1767 1763 1572 1767 1763 1572 1767 1763 1572 1767 1763 1572 1767 1763 1572 1767 1763 1572 1767 1763 1572 1767 1763 1572 1767 1763 1572 1767 1763 1572 1767 1763 1572 1767 1763 1572 1767 1763 1572 1767 1763 1572 1767 1762 1762 1762 1762 1762 1762 17	Percent Heavy Veh, %	m	m	60	62	67	m	m	es	es	60	e	m
1.6	Cap, veh/h	283	431	518	404	334	298	337	1473		528	1066	222
1767   1856   1572   3428   1763   1572   1767   3526   1572   1767   2304     1567   1856   1572   3428   1763   1572   1767   3526   1572   1767   2304     1560   19   2550   103   26   30   7.9   62   0.0   0.6   2256     1560   19   2550   103   26   30   7.9   62   0.0   0.6   2256     1560   19   2550   103   26   30   7.9   62   0.0   0.6   2256     1560   19   2550   103   26   30   7.9   62   0.0   0.6   2256     1560   19   2550   103   26   30   7.9   62   0.0   0.6     100   100   100   100   100   100   100     100   100   100   100   100   100   100   100     100   100   100   100   100   100   100   100     100   100   100   100   100   100   100   100     100   100   100   100   100   100   100   100     100   100   100   100   100   100   100   100     100   100   100   100   100   100   100   100     100   100   100   100   100   100   100   100     100   100   100   100   100   100   100   100     100   100   100   100   100   100   100   100     100   100   100   100   100   100   100   100     100   100   100   100   100   100   100   100     100   100   100   100   100   100   100   100     100   100   100   100   100   100   100     100   100   100   100   100   100   100     100   100   100   100   100   100   100     100   100   100   100   100   100   100     100   100   100   100   100   100     100   100   100   100   100   100     100   100   100   100   100   100     100   100   100   100   100   100     100   100   100   100   100     100   100   100   100   100     100   100   100   100   100     100   100   100   100   100     100   100   100   100   100     100   100   100   100   100     100   100   100   100   100     100   100   100   100   100     100   100   100   100     100   100   100   100     100   100   100   100     100   100   100   100     100   100   100   100     100   100   100   100     100   100   100   100     100   100   100   100     100   100   100   100     100   100   100   100     100   100   100     100   100   100   100     100   100   100   100	Arrive On Green	0.16	0.23	0.23	0.12	0.19	0.19	0.10	0.42	0.00	0.05	0.37	0.37
150   167   1886   157   174   1783   157   1763   157   1763   1767   1886   157   1744   1783   157   1763   157   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   17	Sat Flow, vehifi	1767	1856	1572	3428	1763	1572	1767	3526	1572	1767	2904	909
1767   1856   1572   1714   1783   1572   1767   1763   1572   1767   1763   1572   1767   1763   1572   1767   1763   1572   1767   1763   1572   1767   1763   1572   1767   1763   1572   1767   1763   1572   1767   1763   1572   1767   1763   1572   1767   1763   1572   1767   1763   1572   1767   1763   1572   1767   1763   1572   1767   1763   1572   1767   1763   1572   1767   1763   1572   1767   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763   1763	Gro Volume(v), veh/h	252	42	527	334	51	23	219	319	0	17	439	436
15.0   1.9   25.0   10.3   2.6   3.0   7.9   6.2   0.0   0.6   22.6   10.0   10.0   10.0   10.0   10.0   10.0   10.0   10.0   10.0   10.0   10.0   10.0   10.0   10.0   10.0   10.0   10.0   10.0   10.0   10.0   10.0   10.0   10.0   10.0   10.0   10.0   10.0   10.0   10.0   10.0   10.0   10.0   10.0   10.0   10.0   10.0   10.0   10.0   10.0   10.0   10.0   10.0   10.0   10.0   10.0   10.0   10.0   10.0   10.0   10.0   10.0   10.0   10.0   10.0   10.0   10.0   10.0   10.0   10.0   10.0   10.0   10.0   10.0   10.0   10.0   10.0   10.0   10.0   10.0   10.0   10.0   10.0   10.0   10.0   10.0   10.0   10.0   10.0   10.0   10.0   10.0   10.0   10.0   10.0   10.0   10.0   10.0   10.0   10.0   10.0   10.0   10.0   10.0   10.0   10.0   10.0   10.0   10.0   10.0   10.0   10.0   10.0   10.0   10.0   10.0   10.0   10.0   10.0   10.0   10.0   10.0   10.0   10.0   10.0   10.0   10.0   10.0   10.0   10.0   10.0   10.0   10.0   10.0   10.0   10.0   10.0   10.0   10.0   10.0   10.0   10.0   10.0   10.0   10.0   10.0   10.0   10.0   10.0   10.0   10.0   10.0   10.0   10.0   10.0   10.0   10.0   10.0   10.0   10.0   10.0   10.0   10.0   10.0   10.0   10.0   10.0   10.0   10.0   10.0   10.0   10.0   10.0   10.0   10.0   10.0   10.0   10.0   10.0   10.0   10.0   10.0   10.0   10.0   10.0   10.0   10.0   10.0   10.0   10.0   10.0   10.0   10.0   10.0   10.0   10.0   10.0   10.0   10.0   10.0   10.0   10.0   10.0   10.0   10.0   10.0   10.0   10.0   10.0   10.0   10.0   10.0   10.0   10.0   10.0   10.0   10.0   10.0   10.0   10.0   10.0   10.0   10.0   10.0   10.0   10.0   10.0   10.0   10.0   10.0   10.0   10.0   10.0   10.0   10.0   10.0   10.0   10.0   10.0   10.0   10.0   10.0   10.0   10.0   10.0   10.0   10.0   10.0   10.0   10.0   10.0   10.0   10.0   10.0   10.0   10.0   10.0   10.0   10.0   10.0   10.0   10.0   10.0   10.0   10.0   10.0   10.0   10.0   10.0   10.0   10.0   10.0   10.0   10.0   10.0   10.0   10.0   10.0   10.0   10.0   10.0   10.0   10.0   10.0   10.0   10.0   10.0   10.0   10.0   10.0   10.0   10.0   10.0	Grp Sat Flow(s), wehilin	1767	1856	1572	1714	1763	1572	1767	1763	1572	1767	1763	1747
150   19   25.0   10.3   2.6   3.0   7.9   6.2   0.0   0.6   22.6   1.00   1.00   1.00   1.00   1.00   1.00   1.00   1.00   1.00   1.00   1.00   1.00   1.00   1.00   1.00   1.00   1.00   1.00   1.00   1.00   1.00   1.00   1.00   1.00   1.00   1.00   1.00   1.00   1.00   1.00   1.00   1.00   1.00   1.00   1.00   1.00   1.00   1.00   1.00   1.00   1.00   1.00   1.00   1.00   1.00   1.00   1.00   1.00   1.00   1.00   1.00   1.00   1.00   1.00   1.00   1.00   1.00   1.00   1.00   1.00   1.00   1.00   1.00   1.00   1.00   1.00   1.00   1.00   1.00   1.00   1.00   1.00   1.00   1.00   1.00   1.00   1.00   1.00   1.00   1.00   1.00   1.00   1.00   1.00   1.00   1.00   1.00   1.00   1.00   1.00   1.00   1.00   1.00   1.00   1.00   1.00   1.00   1.00   1.00   1.00   1.00   1.00   1.00   1.00   1.00   1.00   1.00   1.00   1.00   1.00   1.00   1.00   1.00   1.00   1.00   1.00   1.00   1.00   1.00   1.00   1.00   1.00   1.00   1.00   1.00   1.00   1.00   1.00   1.00   1.00   1.00   1.00   1.00   1.00   1.00   1.00   1.00   1.00   1.00   1.00   1.00   1.00   1.00   1.00   1.00   1.00   1.00   1.00   1.00   1.00   1.00   1.00   1.00   1.00   1.00   1.00   1.00   1.00   1.00   1.00   1.00   1.00   1.00   1.00   1.00   1.00   1.00   1.00   1.00   1.00   1.00   1.00   1.00   1.00   1.00   1.00   1.00   1.00   1.00   1.00   1.00   1.00   1.00   1.00   1.00   1.00   1.00   1.00   1.00   1.00   1.00   1.00   1.00   1.00   1.00   1.00   1.00   1.00   1.00   1.00   1.00   1.00   1.00   1.00   1.00   1.00   1.00   1.00   1.00   1.00   1.00   1.00   1.00   1.00   1.00   1.00   1.00   1.00   1.00   1.00   1.00   1.00   1.00   1.00   1.00   1.00   1.00   1.00   1.00   1.00   1.00   1.00   1.00   1.00   1.00   1.00   1.00   1.00   1.00   1.00   1.00   1.00   1.00   1.00   1.00   1.00   1.00   1.00   1.00   1.00   1.00   1.00   1.00   1.00   1.00   1.00   1.00   1.00   1.00   1.00   1.00   1.00   1.00   1.00   1.00   1.00   1.00   1.00   1.00   1.00   1.00   1.00   1.00   1.00   1.00   1.00   1.00   1.00   1.00   1.00   1.00   1.00   1.	Q Serve(q. s), s	15.0	9.	25.0	10.3	2.6	3.0	7.9	6.2	0.0	9.0	22.6	22.6
1.00	Ovole Q Clearfo, cl., s	15.0	6,	25.0	10.3	2.6	3.0	7.9	6.2	0.0	9.0	22.6	22.6
1.00	Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.35
100 100 100 100 100 100 100 100 100 100	Lane Grp Cap(c), veh/h	283	431	518	404	334	298	337	1473		528	647	641
328 -431 518 509 344 307 658 1473 643 647 1100 1100 1100 1100 1100 1100 1100 11	V/C Ratio(X)	0.89	0.10	1.02	0.83	0.15	0.18	0.65	0.22		0.03	0.68	0.68
1.00	4vail Cap(c_a), veh/h	328	431	518	909	344	307	999	1473		643	647	641
1,00   1,00   1,00   1,00   1,00   1,00   1,00   1,00   1,00   1,00   1,00   1,00   1,00   1,00   1,00   1,00   1,00   1,00   1,00   1,00   1,00   1,00   1,00   1,00   1,00   1,00   1,00   1,00   1,00   1,00   1,00   1,00   1,00   1,00   1,00   1,00   1,00   1,00   1,00   1,00   1,00   1,00   1,00   1,00   1,00   1,00   1,00   1,00   1,00   1,00   1,00   1,00   1,00   1,00   1,00   1,00   1,00   1,00   1,00   1,00   1,00   1,00   1,00   1,00   1,00   1,00   1,00   1,00   1,00   1,00   1,00   1,00   1,00   1,00   1,00   1,00   1,00   1,00   1,00   1,00   1,00   1,00   1,00   1,00   1,00   1,00   1,00   1,00   1,00   1,00   1,00   1,00   1,00   1,00   1,00   1,00   1,00   1,00   1,00   1,00   1,00   1,00   1,00   1,00   1,00   1,00   1,00   1,00   1,00   1,00   1,00   1,00   1,00   1,00   1,00   1,00   1,00   1,00   1,00   1,00   1,00   1,00   1,00   1,00   1,00   1,00   1,00   1,00   1,00   1,00   1,00   1,00   1,00   1,00   1,00   1,00   1,00   1,00   1,00   1,00   1,00   1,00   1,00   1,00   1,00   1,00   1,00   1,00   1,00   1,00   1,00   1,00   1,00   1,00   1,00   1,00   1,00   1,00   1,00   1,00   1,00   1,00   1,00   1,00   1,00   1,00   1,00   1,00   1,00   1,00   1,00   1,00   1,00   1,00   1,00   1,00   1,00   1,00   1,00   1,00   1,00   1,00   1,00   1,00   1,00   1,00   1,00   1,00   1,00   1,00   1,00   1,00   1,00   1,00   1,00   1,00   1,00   1,00   1,00   1,00   1,00   1,00   1,00   1,00   1,00   1,00   1,00   1,00   1,00   1,00   1,00   1,00   1,00   1,00   1,00   1,00   1,00   1,00   1,00   1,00   1,00   1,00   1,00   1,00   1,00   1,00   1,00   1,00   1,00   1,00   1,00   1,00   1,00   1,00   1,00   1,00   1,00   1,00   1,00   1,00   1,00   1,00   1,00   1,00   1,00   1,00   1,00   1,00   1,00   1,00   1,00   1,00   1,00   1,00   1,00   1,00   1,00   1,00   1,00   1,00   1,00   1,00   1,00   1,00   1,00   1,00   1,00   1,00   1,00   1,00   1,00   1,00   1,00   1,00   1,00   1,00   1,00   1,00   1,00   1,00   1,00   1,00   1,00   1,00   1,00   1,00   1,00   1,00   1,00   1,00   1,00   1,00	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
Hi 443 325 36.1 46.4 36.4 36.6 20.8 20.1 0.0 18.7 28.7 22.5 0.1 44.1 8.8 0.2 0.3 2.1 0.0 0.0 10.0 5.7 20.1 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	Upstream Filter(I)	1,00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	000	1.00	1.00	1.00
225 0.1 44.1 8.8 0.2 0.3 2.1 0.3 0.0 0.0 5.7 0.0 0.0 0.0 5.7 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0	Uniform Delay (d), s/veh	44.3	32.5	36.1	46.4	36.4	36.6	20.8	20.1	0.0	18.7	28.7	28.7
hin 13.0 1,6 27.1 8,4 2.1 2.1 6.0 4,7 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.	nor Delay (d2), siveh	22.5	0.1	44.1	8.8	0.2	0.3	2.1	0.3	0.0	0.0	5.7	5.7
hhn 130 15 27.1 8.4 2.1 2.1 6.0 4.7 0.0 0.5 15.7 6.8 80.2 55.2 36.6 36.9 22.9 20.4 0.0 18.7 34.4 E.C. F.E. D. D. C. C. B. C. C. C. C. B. C. C. C. C. B. C.	nitial 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
y, s/veh         66.8         32.6         80.2         55.2         36.6         36.9         20.9         20.4         0.0         18.7         34.4           E         C         F         E         D         C         C         B         C           R21         43.6         50.8         53.8         A         892           73.6         73.6         50.8         21.4         34.1           B         7         6         C         C         B         C           C         7         8         7         8         C         C         C         C         C         C         C         C         C         C         B         C         C         B         C         C         C         B         C         C         C         C         C         C         C         C         C         C         C         C         C         C         C         C         C         C         C         C         C         C         C         C         C         C         C         C         C         C         C         C         C         C         C         C <td< td=""><td>%ile BackOfQ(95%),veh/ln</td><td>13.0</td><td>1,6</td><td>27.1</td><td>8.4</td><td>2.1</td><td>2.1</td><td>6.0</td><td>4.7</td><td>0.0</td><td>0.5</td><td>15.7</td><td>15.6</td></td<>	%ile BackOfQ(95%),veh/ln	13.0	1,6	27.1	8.4	2.1	2.1	6.0	4.7	0.0	0.5	15.7	15.6
66.8   32.6   80.2   55.2   36.6   36.9   22.9   20.4   0.0   18.7   34.4     E	Unsig. Movement Delay, síveh	0											
E C F E D D C C B   E C E   E D D C C B   E C E C E E D D C C B   E C E C E E C E E C E E C E E C E E C E E C E E C E E C E E E C E E E E E E E E E E E E E E E E E E E E	nGrp Delay(d),s/veh	8.99	32.6	80.2	55.2	36.6	36.9	22.9	20.4	0.0	18.7	34.4	34.5
12   438   538   A     73.6   50.8   21.4     1	LINGIP LOS	ш	ပ	щ	ш	٥	٥	O	S		В	U	٥
73.6 50.8 21.4  F D C C  1 2 3 4 5 6 7 8  7,5 10.0 50.0 17.7 30.0 15.5 44.5 22.3 25.4  1.8 5.0 5.0 5.0 5.0 5.0 5.0 5.0 5.0  5-11,5 2.6 8.2 12.3 27.0 9.9 24.6 17.0 5.0  5 0.0 2.3 0.4 0.0 0.6 1.3 0.2 0.4  46.4	Approach Vol., veh/h		821			438			538	¥		892	
1 2 3 4 5 6 7 10.0 50.0 17.7 30.0 155 445 22.3 3 12.0 45.0 16.0 25.0 5.0 5.0 5.0 5.0 5.0 5.0 5.0 5.0 5.0	Approach Delay, s/veh		73.6			50.8			21.4			3.7	
100 500 177 300 155 445 223 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5	Approach LOS		ш			O			O			O	
10.0 50.0 17.7 30.0 15.5 44.5 22.3 35.0 5.0 5.0 5.0 5.0 5.0 5.0 5.0 5.0 5.0	Timer - Assigned Phs	1	2	co	7	5	60	7	00				
5.0 5.0 5.0 5.0 5.0 5.0 5.0 5.0 5.0 5.0	Phs Duration (G+Y+Rc), s	10.0	90.09	17.7	30.0	15.5	44.5	22.3	25.4				
12.0 45.0 16.0 25.0 30.0 27.0 20.0 3 2.6 82 12.3 27.0 9.9 24.6 17.0 0.0 2.3 0.4 0.0 0.6 1.3 0.2 46.4	Change Period (Y+Rc), s	5.0	5.0	5.0	5.0	5.0	2.0	5.0	5.0				
s 26 82 123 27.0 99 24.6 17.0 0.0 2.3 0.4 0.0 0.6 1.3 0.2 46.4	Max Green Setting (Gmax), s	12.0	45.0	16.0	25.0	30.0	27.0	20.0	21.0				
c),s 0.0 2.3 0.4 0.0 0.6 1.3 0.2 sry 46.4	Max Q Clear Time (g_c+11), s	2.6	8.2	12.3	27.0	9.9	24.6	17.0	5.0				
II)	Green Ext Time (p_c), s	0.0	23	0.4	0.0	9.0	1.3	0.2	0.4				
	ntersection Summary.											Ì	7
	HCM Sti Ciri Delav			46.4									
	HOM 6th LOS			-									

Notes Unsignalized Delay for INBR] is excluded from calculations of the approach delay and intersection delay.

2029 PM Peak BUILD Conditions - Existing Geometry

Synchro 10 Report 2029PBX syn

Timings 2: Jefferson St. & I-25 W. Ramp

Terry O. Brown, PE 12/19/2018

	1	ţ	1 1	1	+	<b>→</b>	•	
Lane Group	WBL	WBT	WBR	NBL	NBT	SBT	SBR	
Lane Configurations	M-	44	Nr.	W-		44	R.	
Traffic Volume (vph)	383	518	99	442		1327	649	
Future Volume (vph)	393	518	92	442		1327	649	
Tum Type	Perm	NA	Рет	pm+pt		NA	Perm	
Protected Phases		00		2		9		
Permitted Phases	00		00	2			9	
Detector Phase	60	00	60	10	2	ω	9	
Switch Phase								
Minimum Initial (s)	2.0	5.0	2.0	5.0	5.0	5.0	5.0	
Minimum Split (s)	21.0	21.0	21.0	10.0	21.0	21.0	21.0	
Total Split (s)	30.0	30.0	30.0	31.0	75.0	44.0	44.0	
Total Split (%)	28.6%	28.6%	28.6%	29.5%	71.4%	41.9%	41.9%	
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)	2.0	5.0	5.0	5.0	5.0	5.0	5.0	
Leadillag				Lead		Lag	Lag	
Lead-Lag Optimize?								
Recall Mode	Min	Min	Min	Win	C-Max	C-Max	C-Max	
Act Effct Green (s)	24.3	24.3	24.3	707	7.07	40.6	40.6	
Actuated g/C Ratio	0.23	0.23	0.23	19:0	0.67	0.39	0.39	
vic Ratio	0.84	0.84	0.13	0.95	0.27	1.03	1.03	
Control Delay	59.3	49.6	4.9	54.0	8.9	65.7	73.3	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Delay	59.3	49.6	4.9	54.0	8.9	65.7	73.3	
507	ш	0	A	0	A	ш	ш	
Approach Delay		50.2			27.8	68.2		
Approach LOS		0			0	Е		
Intersection Summary								

Cycle Length: 105
Actualed Cycle Length: 105
Actualed Cycle Length: 105
Cycle Length

† g

2029 PM Peak BUILD Conditions - Existing Geometry

Synchro 10 Report 2029PBX.syn

HCM 6th Signalized Intersection Summary 2: Jefferson St. & I-25 W. Ramp

Terry O. Brown, PE 12/19/2018

FEIL EBT EBR WBI WBT WBR NBI NBT NBR SBL SBT		4	1	1	1	<b>†</b>	1	1	4-	4	1	+	1
10	Movement	田田	199	EBR	WBL	WBT	WBR	NS.	NBT	NBR	88	SBT	SBR
0 0 0 0 393 518 50 442 616 0 0 1327 0 10 0 0 0 393 518 50 442 616 0 0 1327 100 100 100 100 100 100 100 100 100 100	Lane Configurations				F	40	R	N.	44			**	PC.
0 0 0 383 518 50 442 616 0 0 1327 0 100 100 100 100 100 100 100 100 100 1	Traffic Volume (veh/h)	0	0	0	393	518	20	442	919	0	0	1327	649
10	Future Volume (veh/h)	0	0	0	393	518	99	442	616	0	0	1327	649
100 100 100 100 100 100 100 100 100 100	initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
1,00	Ped-Bike Adj(A_pbT)				1.00		1.00	1.00		1.00	1.00		1.00
No 1856 1856 1856 1856 1856 1856 1856 1856	Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
1856 1856 1856 1856 1856 10 0 1856 1850 10 0 1850 1850 1850 1850 1850 1850	Nork Zone On Approach					No			8			No No	
320 677 53 465 648 0 0 1397  3 3 3 3 3 3 0 0 0 1397  3 3 3 3 3 3 0 0 0 1397  3 3 3 3 3 3 0 0 0 1437  3 20 677 53 465 648 0 0 0 1437  3 30 677 53 465 648 0 0 0 1437  3 30 677 53 465 648 0 0 0 1437  3 40 6 1572 1767 1763 0 0 0 1408  1 100 1100 1100 1100 100 000 000  1 100 1100 1100 1100 1100 000 0	Adj Sat Flow, vehifulin				1856	1856	1856	1856	1856	0	0	1856	1856
95 035 036 036 036 036 036 036 036 036 036 036	4dj Flow Rate, vehih				320	119	S	465	648	0	0	1397	683
3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3	Peak Hour Factor				0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
383 894 341 484 2426 0 0 1437  1767 182 1022 1022 1022 1022 1022 1022 1022	Percent Heavy Veh. %				es	3	es	e	m	0	0	3	m
Neh  22 0.22 0.22 0.47 100 0.00 0.41  320 1767 53 465 0.00 0.00 0.41  1767 1856 1572 1767 1763 0 0 0 1783  182 184 2.9 22.1 0.0 0.0 0.0 40.8  182 184 2.9 22.1 0.0 0.0 0.0 40.8  383 804 341 484 2426 0 0 1437  100 100 100 100 2.00 0.00 0.97  421 884 374 510 2.00 0.00 0.97  100 100 100 100 2.00 100 100 100  1100 100 100 0.00 0.0 0.0 0.0  127 6.9 0.2 100 0.0 0.0 0.0 0.0  14.1 14.0 2.0 13.5 0.1 0.0 0.0 0.0  14.1 14.0 2.0 13.5 0.1 0.0 0.0 0.0  16.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0  16.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0  17.7 6.9 0.2 13.5 0.1 0.0 0.0 0.0  18.5 6.0 5.0 5.0 5.0  18.6 1.0 0.0 0.0 0.0 0.0 0.0 0.0  18.7 14.1 14.0 2.0 13.5 0.1 0.0 0.0 0.0  18.8 8  18.9 2.0 2.0 1.0 0.0 0.0 0.0 0.0 0.0 0.0  18.9 2.0 2.0 1.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0	Sap, veh/h				383	804	341	484	2426	0	0	1437	641
Tipe 3711 1572 1767 3618 0 0 3618 1  1767 1767 1767 1767 1861 0 0 1397 1767 1767 1767 1767 0 0 0 1397 1767 1768 1 1767 1767 0 0 0 0 1397 1767 1768 1 1767 1767 0 0 0 1763 1 1997 1767 1768 1 184 2.9 22.1 0.0 0.0 0 0 40.8 1 100 1768 1 182 1 184 2.9 22.1 0.0 0.0 0 0 0 40.8 1 100 1769 1 182 1 184 2.9 22.1 0.0 0.0 0 0 0 40.8 1 100 1769 1 100 1 100 1 100 1 100 1 100 1 100 1 100 1760 1 100 1 100 1 100 1 100 1 100 1 100 1 100 1760 1 144 1 144 0 2.0 13.5 0.1 0.0 0.0 0.0 0.0 1760 1 144 1 144 0 2.0 13.5 0.1 0.0 0.0 0.0 0.0 1772 2 294 4 178 27.8 1772 2 294 4 178 27.8 1773 2 20 22.1 1 144 0 2.0 1 164 1 100 1774 1 147 1 148 2.0 1 100 1775 1 148 2.0 1 100 1777 1 148 2.0 1 100 1778 1 148 2.0 1 100 1779 1 148 1 149 1 140 1779 1 140 1 140 1 140 1779 1 140 1 140 1 140 1770 1 140 1 140 1 140 1770 1 140 1 140 1 140 1770 1 140 1 140 1 140 1771 1 140 1 140 1 140 1771 1 140 1 140 1 140 1772 1 144 1 140 1 140 1772 1 144 1 140 1773 1 140 1 140 1 140 1774 1 140 1 140 1775 1 140 1777 1 140 1778 1 140 1778 1 140 1778 1 140 1778 1 140 1778 1 140 1778 1 140 1778 1 140 1778 1 140 1778 1 140 1778 1 140 1778 1 140 1778 1 140 1778 1 140 1778 1 140 1778 1 140 1778 1 140 1778 1 140 1778 1 140 1778 1 140 1778 1 140 1778 1 140 1778 1 140 1778 1 140 1778 1 140 1778 1 140 1778 1 140 1778 1 140 1778 1 140 1778 1 140 1778 1 140 1778 1 140 1778 1 140 1778 1 140 1778 1 140 1778 1 140 1778 1 140 1778 1 140 1778 1 140 1778 1 140 1778 1 140 1778 1 140 1778 1 140 1778 1 140 1778 1 140 1778 1 140 1778 1 140 1778 1 140 1778 1 140 1778 1 140 1778 1 140 1778 1 140 1778 1 140 1778 1 140 1778 1 140 1778 1 140 1778 1 140 1778 1 140 1778 1 140 1778 1 140 1778 1 140 1778 1 140 1778 1 140 1778 1 140 1778 1 140 1778 1 140 1778 1 140 1778 1 140 1778 1 140 1778 1 140 1778 1 140 1778 1 140 1778 1 140 1778 1 140 1778 1 140 1778 1 140 1778 1 140 1778 1 140 1778 1 140 1778 1 140 1778 1 140 1778 1 140 1778 1 140 1778 1 140 1778 1 140 1778 1 140 1778 140 1778 1 140 1778 1 140 1778 1 140 1778 1 140 1778 1 140 1778 1 140 1778 1 140 1778 1 140 1778 1 140 1778 1 140 1778 1 140 1778	Arrive On Green				0.22	0.22	0.22	0.47	1.00	0.00	0.00	0.41	0.41
130   677   53   465   648   0   1397   1367   1367   1367   1367   1367   1367   1367   1367   1367   1367   1367   1367   1367   1367   1367   1367   1367   1367   1367   1367   1367   1367   1367   1367   1367   1367   1367   1367   1367   1367   1367   1367   1367   1367   1367   1367   1367   1367   1367   1367   1367   1367   1367   1367   1367   1367   1367   1367   1367   1367   1367   1367   1367   1367   1367   1367   1367   1367   1367   1367   1367   1367   1367   1367   1367   1367   1367   1367   1367   1367   1367   1367   1367   1367   1367   1367   1367   1367   1367   1367   1367   1367   1367   1367   1367   1367   1367   1367   1367   1367   1367   1367   1367   1367   1367   1367   1367   1367   1367   1367   1367   1367   1367   1367   1367   1367   1367   1367   1367   1367   1367   1367   1367   1367   1367   1367   1367   1367   1367   1367   1367   1367   1367   1367   1367   1367   1367   1367   1367   1367   1367   1367   1367   1367   1367   1367   1367   1367   1367   1367   1367   1367   1367   1367   1367   1367   1367   1367   1367   1367   1367   1367   1367   1367   1367   1367   1367   1367   1367   1367   1367   1367   1367   1367   1367   1367   1367   1367   1367   1367   1367   1367   1367   1367   1367   1367   1367   1367   1367   1367   1367   1367   1367   1367   1367   1367   1367   1367   1367   1367   1367   1367   1367   1367   1367   1367   1367   1367   1367   1367   1367   1367   1367   1367   1367   1367   1367   1367   1367   1367   1367   1367   1367   1367   1367   1367   1367   1367   1367   1367   1367   1367   1367   1367   1367   1367   1367   1367   1367   1367   1367   1367   1367   1367   1367   1367   1367   1367   1367   1367   1367   1367   1367   1367   1367   1367   1367   1367   1367   1367   1367   1367   1367   1367   1367   1367   1367   1367   1367   1367   1367   1367   1367   1367   1367   1367   1367   1367   1367   1367   1367   1367   1367   1367   1367   1367   1367   1367   1367   1367   1367   1367   1367   1367   1367   1367   13	Sat Flow, vehift				1767	3711	1572	1767	3618	0	0	3618	1572
1767 1856 1572 1767 1763 0 0 1763 18 182 184 29 221 0.0 0.0 0.0 408 182 184 29 221 0.0 0.0 0.0 408 182 184 29 221 0.0 0.0 0.0 408 100 100 100 100 100 100 100 100 100 1	Srp Volume(v), veh/h				320	677	53	465	648	0	0	1397	683
H82 184 29 22.1 0.0 0.0 40.8 H82 182 184 2.9 22.1 0.0 0.0 0.0 40.8 H82 184 2.9 22.1 0.0 0.0 0.0 40.8 H82 183 804 341 484 2426 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.	3rp Sat Flow(s), veh/h/ln				1767	1856	1572	1767	1763	0	0	1763	1572
Veh 182 184 29 221 0.0 0.0 40.8 1.0 1.00 1.00 1.00 1.00 1.00 1.00 1.	2 Serve(g_s), s				18.2	18.4	2.9	22.1	0.0	0.0	0.0	40.8	42.8
1,00 1,00 1,00 1,00 1,00 1,00 1,00 1,00	Cycle Q Clear(g_c), s				18.2	18.4	2.9	22.1	0.0	0.0	0.0	40.8	42.8
See 384 341 484 2426 0 0 1437  421 884 344 516 626 027 0.00 0.97  421 884 374 510 2.00 2.00 1.00 0.97  100 100 100 0.50 200 100 1.00 1.00  1100 1100 1100 0.50 0.50 0.00 0.00  127 893 394 333 20.1 0.0 0.0 0.0 0.0  14.1 14.0 2.0 18.5 0.1 0.0 0.0 0.0  14.1 14.0 2.0 18.5 0.1 0.0 0.0 0.0  14.1 14.0 2.0 18.5 0.1 0.0 0.0 0.0  15.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0  16.1 14.1 14.0 2.0 18.5 0.1 0.0 0.0 0.0  17.2 2 5 6 8 8  17.2 294 47.8 27.8  17.2 290 24.1 44.8 20.4  18.0 0.0 20.4  18.0 0.0 20.4  19.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0  19.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	Prop In Lane				1.00		1.00	1.00		0000	00.00		1.00
Neh	ane Grp Cap(c), veh/h				383	804	341	484	2426	0	0	1437	641
Veh 421 884 374 510 2426 0 0 1437 1 100 1100 1100 1100 1100 1100 1100 1	//C Ratio(X)				0.84	0.84	0.16	96.0	0.27	0.00	0.00	0.97	1.07
100 100 100 100 100 100 100 100 100 100	Ivail Cap(c_a), veh/h		1		421	884	374	510	2426	0	0	1437	641
100 100 0.50 0.50 0.00 0.00 0.50 127 127 23.3 20.1 0.0 0.0 0.0 0.0 0.50 127 12.1 0.0 0.1 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0	ICM Platoon Ratio		,		1.00	1.00	1.00	2.00	2.00	1.00	1.00	1.00	1.00
Neh (14) 20 20 10 0.0 0.0 30.5 14.7 6.9 0.2 19.0 0.0 0.0 30.5 19.4 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0	Upstream Filter(I)				1.00	1.00	1.00	0.50	0.50	000	0.00	0.50	0.50
veh (27 6.9 0.2 18.0 0.1 0.0 0.0 11.4 (1.0 0.0 0.0 11.4 1.4 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0	Uniform Delay (d), s/veh				39.3	39.4	33.3	20.1	0.0	0.0	0.0	30.5	31.1
Veh 52,1 46,3 33,5 39,2 0,1 0,0 0,0 0,0 0,0 0,0 0,0 0,0 0,0 0,0	nor Delay (d2), s/veh				12.7	6.9	0.2	19.0	0.1	0.0	0.0	11.4	44.6
veh 52,1 46,3 33,5 39,2 0.1 0.0 0.0 24,0 0.0 0.0 24,0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0	nitial Q Delay(d3),s/veh				0:0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
y, s/veh 52,1 46,3 33,5 39,2 0.1 0.0 0.0 41,9  1050 1173 1050 1173 2080 47,4 118,4 16,4 53,0 18,5 18,5 19,5 19,5 19,5 19,5 19,5 19,5 19,5 19	6ile BackOfQ(95%),vehlin				14.1	14.0	2.0	13.5	0.1	0.0	0.0	24.0	30.6
52.1 46.3 33.5 39.2 0.1 0.0 0.0 41.9  D C D A A A D 1050 1113 2 2 6 8 8 8 1,5 772 2 29,4 47.8 77.8 5.0 5.0 5.0 14.1,5 2.0 26.0 39.0 25.0 42.0 42.0 42.0 42.0 42.0 42.0 42.0 42	Jnsig. Movement Delay, sheh												
1050 1113 A A A A A A A A A A A A A A A A A	.nGrp Delay(d),s/veh				52.1	46.3	33.5	39.2	0.1	0.0	0.0	41.9	75.7
1050 1113 2 47.4 16.4 16.4 16.4 16.4 16.4 16.4 16.4 16	ngip LOS				٥	0	د	2	A	ď	ď	2	1
1,5 772 29.4 47.8 27.8 5.0 5.0 5.0 5.0 5.0 5.0 5.0 5.0 5.0 5.0	Approach Vol, veh/h					1050			1113			2080	
2 5 6 8 8 772 294 478 278 5.0 5.0 5.0 5.0 5.0 5.0 5.0 5.0 5.0 5.0	Approach Delay, s/veh					47.4			16.4			53.0	
2 5 6 772 29,4 47,8 50 5.0 50 5.0 5,5 70,0 26,0 39,0 5,5 20 24,1 44,8 5,3 0.0 42,0	Approach LOS					0			œ			0	
77.2 29.4 47.8 5.0 5.0 5.0 5.0 5.0 5.0 5.0 5.0 5.0 5.0	rmer - Assigned Phs	N	2			2	g		89				
5.0 5.0 5.0 5.0 5.0 5.0 5.0 5.0 5.0 5.0	hs Duration (G+Y+Rc), s		77.2			29.4	47.8		27.8				
tr), s 70.0 26.0 39.0 (1), s 2.0 24.1 44.8 (1), s 5.3 0.0 (24.1 44.8 (24.1 44.8 (24.1 44.8 (24.1 44.8 (24.1 44.8 (24.1 44.8 (24.1 44.8 (24.1 44.8 (24.1 44.8 (24.1 44.8 (24.1 44.8 (24.1 44.8 (24.1 44.8 (24.1 44.8 (24.1 44.8 (24.1 44.8 (24.1 44.8 (24.1 44.8 (24.1 44.8 (24.1 44.8 (24.1 44.8 (24.1 44.8 (24.1 44.8 (24.1 44.8 (24.1 44.8 (24.1 44.8 (24.1 44.8 (24.1 44.8 (24.1 44.8 (24.1 44.8 (24.1 44.8 (24.1 44.8 (24.1 44.8 (24.1 44.8 (24.1 44.8 (24.1 44.8 (24.1 44.8 (24.1 44.8 (24.1 44.8 (24.1 44.8 (24.1 44.8 (24.1 44.8 (24.1 44.8 (24.1 44.8 (24.1 44.8 (24.1 44.8 (24.1 44.8 (24.1 44.8 (24.1 44.8 (24.1 44.8 (24.1 44.8 (24.1 44.8 (24.1 44.8 (24.1 44.8 (24.1 44.8 (24.1 44.8 (24.1 44.8 (24.1 44.8 (24.1 44.8 (24.1 44.8 (24.1 44.8 (24.1 44.8 (24.1 44.8 (24.1 44.8 (24.1 44.8 (24.1 44.8 (24.1 44.8 (24.1 44.8 (24.1 44.8 (24.1 44.8 (24.1 44.8 (24.1 44.8 (24.1 44.8 (24.1 44.8 (24.1 44.8 (24.1 44.8 (24.1 44.8 (24.1 44.8 (24.1 44.8 (24.1 44.8 (24.1 44.8 (24.1 44.8 (24.1 44.8 (24.1 44.8 (24.1 44.8 (24.1 44.8 (24.1 44.8 (24.1 44.8 (24.1 44.8 (24.1 44.8 (24.1 44.8 (24.1 44.8 (24.1 44.8 (24.1 44.8 (24.1 44.8 (24.1 44.8 (24.1 44.8 (24.1 44.8 (24.1 44.8 (24.1 44.8 (24.1 44.8 (24.1 44.8 (24.1 44.8 (24.1 44.8 (24.1 44.8 (24.1 44.8 (24.1 44.8 (24.1 44.8 (24.1 44.8 (24.1 44.8 (24.1 44.8 (24.1 44.8 (24.1 44.8 (24.1 44.8 (24.1 44.8 (24.1 44.8 (24.1 44.8 (24.1 44.8 (24.1 44.8 (24.1 44.8 (24.1 44.8 (24.1 44.8 (24.1 44.8 (24.1 44.8 (24.1 44.8 (24.1 44.8 (24.1 44.8 (24.1 44.8 (24.1 44.8 (24.1 44.8 (24.1 44.8 (24.1 44.8 (24.1 44.8 (24.1 44.8 (24.1 44.8 (24.1 44.8 (24.1 44.8 (24.1 44.8 (24.1 44.8 (24.1 44.8 (24.1 44.8 (24.1 44.8 (24.1 44.8 (24.1 44.8 (24.1 44.8 (24.1 44.8 (24.1 44.8 (24.1 44.8 (24.1 44.8 (24.1 44.8 (24.1 44.8 (24.1 44.8 (24.1 44.8 (24.1 44.8 (24.1 44.8 (24.1 44.8 (24.1 44.8 (24.1 44.8 (24.1 44.8 (24.1 44.8 (24.1 44.8 (24.1 44.8 (24.1 44.8 (24.1 44.8 (24.1 44.8 (24.1 44.8 (24.1 44.8 (24.1 44.8 (24.1 44.8 (24.1 44.8 (24.1 44.8 (24.1 44.8 (24.1 44.8 (24.1 44.8 (24.1 44.8 (24.1 44.8 (24.1 44.8 (24.1 44.8 (24.1 44.8 (24.1 44.8 (24.1 44	Change Period (Y+Rc), s		5.0			5.0	5.0		2.0				
(1), s 20 24.1 44.8 5.3 0.0 0.3 0.0 42.0 D	Max Green Setting (Gmax), s		70.0			26.0	39.0		25.0				
.5.3 0.0 42.0 D	Max Q Clear Time (g_c+l1), s		20			24.1	44.8		20.4				
Į,	Green Ext Time (p_c), s		5.3			0.3	0.0		2.4				
	ntersection Summary	W				3		1					ľ
	HCM 6th Ctrl Delay			42.0									
	HCM 6th LOS			0									

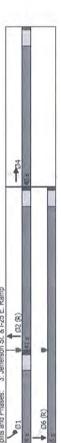
Notes User approved volume balancing among the lanes for turning movement.

2029 PM Peak BUILD Conditions - Existing Geometry

Synchro 10 Report 2029PBX.syn

Terry O. Brown, PE 12/19/2018 Timings 3: Jefferson St. & I-25 E. Ramp

	4	1	1	4	-	<b>→</b>	
Lane Group	EB	EBI	EBR	NBT	SBL	SBT	
Lane Configurations	15	44	W.	44	15	44	
Traffic Volume (vph)	206	069	254	552	321	1018	
Future Volume (vph)	206	069	254	552	321	1018	
Tum Type	Perm	NA	Perm	N	pm+pt	NA	
Protected Phases		4		2	+	9	
Permitted Phases	4		4		9		
Detector Phase	*1	4	4	2	+	9	
Switch Phase							
Minimum Initial (s)	5.0	9.0	9.0	2.0	5.0	5.0	
Minimum Split (s)	21.0	21.0	21.0	21.0	10.0	21.0	
Total Split (s)	40.0	40.0	40.0	41.0	24.0	65.0	
Total Split (%)	38.1%	38.1%	38.1%	39.0%	22.9%	61.9%	
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	
All-Red Time (s)	1.0	1:0	1.0	1.0	1.0	1.0	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)	5.0	5.0	2.0	5.0	5.0	5.0	
Lead/Lag				l ag	Lead		
Lead-Lag Optimize?							
Recall Mode	Min	Min	Min	C-Max	Min	C-Max	
Act Effct Green (s)	33.9	33.9	33.9	382	61.1	61.1	
Actuated g/C Ratio	0.32	0.32	0.32	0.36	0.58	0.58	
w/c Ratio	0.81	0.80	0.48	0.80	0.90	0.53	
Control Delay	45.8	38.8	21.6	33.7	51.9	17.6	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.2	
Total Delay	45.8	38.8	21.6	33.7	51.9	17.7	
TOS	0	0	O	O	0	m	
Approach Delay		37.6		33.7		25.9	
Approach LOS		0		O		o	
Intersection Summary							
Cycle Length: 105							
Actuated Cycle Length: 105							
Offset: 2.1 (2%), Referenced to phase 2:NBT and 6:SBTL, Start of Green Natural Ovole: 70	to phase	2:NBT an	d 6:SBTL	Start of	Green		
Control Type: Actuated-Coordinated	linated						
Maximum v/c Ratio: 0.90							
Intersection Signal Delay: 32.4	4			rl.	tersection	Intersection LOS: C	
Intersection Capacity Utilization 94.3%	on 94.3%			2	ULevel	ICU Level of Service F	
Allarysis renochimily to							



Splits and Phases: 3: Jefferson St. & I-25 E. Ramp

2029 PM Peak BUILD Conditions - Existing Geometry

Synchro 10 Report 2029PBX.syn

2029 PM Peak BUILD Conditions - Existing Geometry

HCM 6th Signalized Intersection Summary 3: Jefferson St. & I-25 E. Ramp

Terry O. Brown, PE 12/19/2018

	1	1	1	1	1	1	1	4	4	1	<b>→</b>	>
Movement	EBL	EBT	EBR	WBI	WBT	WBR	NB	NBT	NBR	SBL	SBT	SBR
Lane Configurations	15	44	R_					44		15-	*	
Traffic Volume (veh/h)	909	069	254	0	0	0	0	295	387	321	1018	0
Future Volume (vehin)	909	069	254	0	0	0	0	295	387	321	1018	0
Initial Q (Qb), veh	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
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		S.						No			o N	
Adj Sat Flow, vehihin	1856	1856	1856				0	1856	1856	1856	1856	0
Adj Flow Rate, vehih	424	894	270				0	287	412	341	1083	0
Peak Hour Factor	0.94	0.94	0.94				0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh. %	en	m	m				0	es	3	က	m	0
Cap, veh/h	525	1102	467				0	841	280	410	2143	0
Arrive On Green	0.30	0.30	0.30				00:00	0.42	0.42	0.27	1.00	00.00
Sat Flow, veh/h	1767	3711	1572				0	2072	1389	1767	3618	0
Grp Volume(v), veh/h	424	894	270				0	523	476	341	1083	0
Grp Sat Flow(s), veh/h/lin	1767	1856	1572				0	1763	1606	1767	1763	0
Q Serve(g_s), s	23.3	23.4	15.3				0.0	25.5	25.5	11.7	0.0	0.0
Cycle Q Clear(g_c), s	23.3	23.4	15.3				0.0	25.5	25.5	11.7	0.0	0.0
Prop In Lane	1.00		1.00				0.00		0.87	1.00		0.00
.ane Grp Cap(c), veh/h	525	1102	467				0	749	682	410	2143	0
//C Ratio(X)	0.81	0.81	0.58				0.00	0.70	0.70	0.83	0.51	0.00
4vail Cap(c_a), vehih	589	1237	524				0	749	682	490	2143	0
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00	2.00	2.00	1.00
Upstream Filter(I)	1.00	1.00	1.00				0.00	1.00	1.00	0.10	0.10	0.00
Jniform Delay (d), s/veh	34.1	34.2	31.3				0.0	24.7	24.7	15.8	0.0	0.0
nor Delay (d2), s/veh	7.5	3.8	1.3				0.0	5.4	5.9	1.1	0.1	0.0
nitial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),vehiln	16.3	16.4	6.6				0.0	17.0	15.8	4.3	0.0	0.0
Jusig. Movement Delay, s/veh									,	į	1	-
.nGrp Delay(d),siveh	41.6	38.0	32.6				0.0	30.0	30.6	16.9	0.1	0.0
NGm LOS	٥	0	U				K	0	٥	a	×.	K
Approach Vol, veh/h		1588						888			1424	
Approach Delay, siveh		38.0						30.3			4.1	
Approach LOS		0						O			∢	
Timer - Assigned Phs	,	2		4		9						
Phs Duration (G+Y+Rc), s	19.2	49.6		36.2		8.89						
Change Period (Y+Rc), s	2.0	5.0		5.0		5.0						
Max Green Setting (Gmax), s	19.0	36.0		35.0		0.09						
Max Q Clear Time (g_c+l1), s	13.7	27.5		25.4		2.0						
Green Ext Time (p_c), s	0.5	4.2		5.7		10.8						
ntersection Summary	1		1				ı					1
HCM 6th Ctrl Delay			24.1									
HCM 6th LOS			O									

Notes User approved volume balancing among the lanes for turning movement.

Synchro 10 Report 2029PBX.syn

Timings 4: Jefferson St. & McLeod Rd.

Terry O. Brown, PE 12/19/2018

SI (A) (A)						-	-		•
	183	183	WBL	WBT	WBR	NE	NBT	88	SBT
	M-	2.5	M-	*	VC.	15	44	K	44
	1	70	108	13	418	11	260	493	723
	17	70	108	13	418	Ξ	260	493	723
	Perm	N	Регт	N	VO+mq	pm+pt	NA	pm+pt	NA
Protected Phases		4		90	-	O	2	-	9
Permitted Phases	4		60		60	2		9	
Detector Phase	ঝ	4	00	00	-	'n	2	-	9
Switch Phase									
Minimum Initial (s)		2.0	5.0	5.0	9.0	5.0	5.0	5.0	
Minimum Split (s) 2	21.0	21.0	21.0	21.0	10.0	10.0	21.0	10.0	
Total Split (s)		43.0	43.0	43.0	20.0	20.0	37.0	20.0	
Total Split (%) 43	43.0%	43.0%	43.0%	43.0%	20.0%	20.0%	37.0%	20.0%	es
Yellow Time (s)		4.0	4.0	4.0	4.0	4.0	4.0	4.0	
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Last Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	2.0	5.0
Lead/Lag					Lead	Lead	Lag	Lead	Lag
Lead-Lag Optimize?									
	Min	Min	Min	Min	Min	Min	Max	Min	Max
Act Effet Green (s)	12.0	12.0	12.0	12.0	32.0	37.8	32.1	52.1	41.4
Actuated g/C Ratio 0	0.16	0.16	0.16	0.16	0.43	0.51	0.43	0.70	0.56
	90.0	0.34	0.57	0.05	0.62	0.03	0.48	0.89	0.40
Control Delay 2	26.3	24.9	39.6	25.5	16.8	5.7	16.4	29.0	10.6
ly.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay 2	26.3	24.9	39.6	25.5	16.8	5.7	16.4	29.0	10.6
SOT	0	O	0	0	m	¥	8	O	m
Approach Delay		25.1		21.6			16.3		18.0
Approach LOS		0		0			В		8
Intersection Summary							١		
Ovcle Length: 100									
Actuated Cycle Length: 74.1									
Natural Cycle: 65 Control Type: Semi Act-Uncoord									
Maximum w/c Ratio: 0.89									
Intersection Signal Delay. 18.6				70	Intersection LOS: B	1.00S: B			
Intersection Capacity Utilization 71.5%	1.5%			×	'In Level	CU Level of Service C	S		

		÷0.	
2	4: Jefferson St. & McLeod Rd.	₽ 02	
or frame and a section of	Splits and Phases:	200	

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2029 PM Peak BUILD Conditions - Existing Geometry

Synchro 10 Report 2029PBX.syn

HCM 6th Signalized Intersection Summary 4: Jefferson St. & McLeod Rd.

Terry O. Brown, PE 12/19/2018

				-		,	-	-	,		*	
Movement	EBF	EBT	EBR	WBL	WBT	WBR	NBL	TBN	NBR	381	SBT	SBR
Lane Configurations	N-	42		N.	4	W.	15	44		K	44	
Traffic Volume (veh/fh)	11	2	58	108	13	418	11	280	112	493	723	11
Future Volume (vehih)	11	70	56	108	13	418	11	260	112	493	723	÷
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	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856
Adj Flow Rate, vehih	92	75	28	116	14	449	12	602	120	230	777	12
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh. %	m	es	es	3	es	en	6	en	m	en	en	(C)
Cap, veh/h	328	346	129	371	486	701	430	1106	220	554	1760	27
Arrive On Green	0.27	0.27	0.27	0.27	0.27	0.27	90'0	0.38	0.38	0.18	0.50	0.50
Sat Flow, vehifi	922	1288	481	1281	1856	1572	1767	2931	583	1767	3554	55
Grp Volume(v), vehih	18	0	103	116	14	449	12	362	360	530	385	404
Grp Sat Flow(s),veh/h/ln	922	0	1769	1281	1856	1572	1767	1763	1751	1767	1763	1846
Q Serve(g_s), s	1.2	0.0	3.8	9.9	0.5	18.8	0.3	13.6	13.7	15.0	12.0	12.0
Cycle Q Clear(g_c), s	1.7	0.0	3.8	10.4	0.5	18.8	0.3	13.6	13.7	15.0	12.0	12.0
Prop In Lane	1.00		0.27	1.00		1.00	1.00		0.33	1.00		0.03
Lane Grp Cap(c), veh/h	328	0	476	371	488	701	430	999	991	554	873	914
V/C Ratio(X)	0.05	0.00	0.22	0.31	0.03	0.64	0.03	0.54	0.55	96.0	0.44	0.44
Avail Cap(c_a), vehih	493	0	793	601	832	983	639	999	199	254	873	914
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	00.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), síveh	23.5	0.0	24.1	28.1	22.8	18.2	13.6	20.7	20.7	15.2	13.8	13.8
Incr Delay (d2), síveh	0.1	0.0	0.2	0.5	0.0	1.0	0.0	32	32	27.6	1.6	1.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),vehiln	0.5	0.0	2.9	3.6	0.4	10.8	0.2	6.6	6.6	14.6	8.4	8.7
Unsig. Movement Delay, sweh												
LnGrp Delay(d),síveh	23.5	0.0	24.3	28.6	22.9	19.2	13.6	23.8	23.9	42.8	15.4	15.4
LnGrp LOS	O	A	O	O	O	8	00	O	O	٥	ω	m
Approach Vol., veh/h		121			579			734			1319	
Approach Delay, s/veh		24.2			21.2			23.7			26.4	
Approach LOS		O			O			O			O	
Timer - Assigned Phs	1	2		4	5	9		8				
Phs Duration (G+Y+Rc), s	20.0	37.0		27.8	10.0	47.0		27.8				
Change Period (Y+Rc), s	5.0	5.0		5.0	5.0	5.0		2.0				
Max Green Setting (Gmax), s	15.0	32.0		38.0	15.0	32.0		38.0				
Max Q Clear Time (g_c+l1), s	17.0	15.7		5.8	23	14.0		20.8				
Green Ext. Time (p_c), s	0.0	4.2		0.7	0.0	4.8		2.0				
Intersection Summary							ľ					I
HCM 6th Chi Delav			24.5									
JOHN CHI LOCK			24.0									

2029 PM Peak BUILD Conditions - Existing Geometry

Synchro 10 Report 2029PBX.syn

Int Delay, s/veh	0.4					1
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	W			414	4%	
Traffic Vol, veh/h	5	14	11	1007	1220	31
Future Vol, veh/h	5	14		1007	1220	31
The base of the contract and the sales of the contract and the sales of the contract and th						
Conflicting Peds, #/hr	0	0		0	0	0
Sign Control	Stop	Stop		Free	Free	Free
RT Channelized		None	-	None		None
Storage Length	0	-		-	-	-
Veh in Median Storage	, # 0	- 4		0	0	-
Grade, %	0	2	-	0	0	
Peak Hour Factor	83	83	83	83	83	83
Heavy Vehicles, %	3	3			3	3
Mvmt Flow	6	17			1470	37
IVIVITIC F IOW	0	17	13	1213	14/0	31
Major/Minor I	Minor2	1	Major1		Major2	
Conflicting Flow All	2122	754	1507	0	-	0
Stage 1	1489			-		
Stage 2	633	_				-
Critical Hdwy	6.86	6.96			-	
Critical Hdwy Stg 1	5.86	0.30				
Critical Hdwy Stg 2	5.86	-				
Follow-up Hdwy	3.53	3.33		-		-
Pot Cap-1 Maneuver	77	*566	743		-	-
Stage 1	466	- 4	-	-	-	
Stage 2	489		- 4		- 4	
Platoon blocked, %	1	1	1		-	
Mov Cap-1 Maneuver	72	*566		-		
Mov Cap-1 Maneuver	72	500				
		-			-	
Stage 1	441					-
Stage 2	489	-		-		-
Approach	EB	200	NB		SB	
HCM Control Delay, s	25.1		0.4		0	
			0.4		U	
HCM LOS	D					
Minor Lane/Major Mvm	t	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	7	743				
HCM Lane V/C Ratio		0.018				
		9.9				
HCM Long LOS						
HCM Lane LOS		A	Α	D		
HCM 95th %tile Q(veh)		0.1	-	0.4		-
Notes						

Intersection												
Int Delay, s/veh	1.6											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					4			414			4₽	7
Traffic Vol, veh/h	0	0	0	16	0	39	0	939	15	36	1191	45
Future Vol, veh/h	0	0	0	16	0	39	0	939	15	36	1191	45
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	Free
Storage Length	-	-	-	-	-	-	-	-	-	-	-	75
Veh in Median Storage,	# -	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	94	94	94	94	94	94	94	94	94	94	94	94
Heavy Vehicles, %	3	3	3	3	3	3	3	3	3	3	3	3
Mvmt Flow	0	0	0	17	0	41	0	999	16	38	1267	48
Major/Minor			ľ	Minor1		N	Major1		ľ	Major2		
Conflicting Flow All				1717	2350	508	1267	0	0	1015	0	0
Stage 1				1007	1007	-	-	-	-	-	-	-
Stage 2				710	1343	-	-	-	-	-	-	-
Critical Hdwy				6.86	6.56	6.96	4.16	-	-	4.16	-	-
Critical Hdwy Stg 1				5.86	5.56	-	-	-	-	-	-	-
Critical Hdwy Stg 2				5.86	5.56	-	-	-	-	-	-	-
Follow-up Hdwy				3.53	4.03	3.33	2.23	-	-	2.23	-	-
Pot Cap-1 Maneuver				80	35	507	539	-	-	673	-	0
Stage 1				312	314	-	-	-	-	-	-	0
Stage 2				446	217	-	-	-	-	-	-	0
Platoon blocked, %								-	-		-	
Mov Cap-1 Maneuver				65	0	507	539	-	-	673	-	-
Mov Cap-2 Maneuver				65	0	-	-	-	-	-	-	-
Stage 1				312	0	-	-	-	-	-	-	-
Stage 2				361	0	-	-	-	-	-	-	-
Approach				WB			NB			SB		
HCM Control Delay, s				36.9			0			1.3		
HCM LOS				E								
Minor Lane/Major Mvmt		NBL	NBT	NBRV	VBLn1	SBL	SBT					
Capacity (veh/h)		539	-	-	170	673						
HCM Lane V/C Ratio		-	-	-	0.344		-					
HCM Control Delay (s)		0	-	-	36.9	10.7	1					
HCM Lane LOS		A	-	-	E	В	Α					
HCM 95th %tile Q(veh)		0	-	-	1.4	0.2	-					

Second	Intersection								
ane Configurations	Int Delay, s/veh	12.6							
raffic Vol., veh/h  54  138  144  869  1113  111  onflicting Peds, #hr  0  0  0  0  0  0  0  0  0  0  0  0  0	Movement	EBL	EBR	NBL	NBT	SBT	SBR		
raffic Vol., veh/h  54  138  144  869  1113  111  onflicting Peds, #hr  0  0  0  0  0  0  0  0  0  0  0  0  0	Lane Configurations	W			414	<b>†</b> 1>			
uture Vol, veh/h  54  138  144  869  1113  11  onflicing Peds, #hr gr Control  Stop  T Channelized  None  None  T Channelized  None  None	Traffic Vol, veh/h		138	144			11		
onflicting Peds, #/hr	uture Vol, veh/h						11		
Stage   1   190   Stage   1   100   Stage   1	Conflicting Peds, #/hr		0	0	0	0	0		
T Channelized	Sign Control	Stop	Stop	Free	Free	Free	Free		
eh in Median Storage, # 0 0 0 0 - rade, % 0 0 0 0 - eask Hour Factor 94 94 94 94 94 94 94 94 eavy Vehicles, % 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3	RT Channelized		None	-	None	-	None		
eh in Median Storage, # 0 0 0 0 - rade, % 0 0 0 0 - eask Hour Factor 94 94 94 94 94 94 94 94 eavy Vehicles, % 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3	Storage Length	0	-	-	-	-	-		
rade, % 0 0 0 0 - eak Hour Factor 94 94 94 94 94 94 94 94 94 94 94 94 94		e,# 0	-	-	0	0	-		
eak Hour Factor 94 94 94 94 94 94 94 94 94 eary Vehicles, % 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3	Grade, %		-	-	0	0	-		
eavy Vehicles, % 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3	Peak Hour Factor		94	94			94		
Stage 1									
Algor/Minor   Minor2   Major1   Major2	Nymt Flow								
Onflicting Flow All 1958 598 1196 0 - 0  Stage 1 1190									
Onflicting Flow All 1958 598 1196 0 - 0  Stage 1 1190	/aior/Minor	Minor2	ı	Maior1	N	/laior2			
Stage 1							n		
Stage 2				1130					
ritical Hdwy Stg 1 5.86									
ritical Hdwy Stg 1					<u>-</u>				
ritical Hdwy Stg 2				4.10	-				
Sillow-up Hdwy   3.53   3.33   2.23   -   -   -   -   -   -   -   -   -				-					
ot Cap-1 Maneuver *102 *625 *935 Stage 1 *591									
Stage 1       *591       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -					-	-			
Stage 2	•			933	-	-			
Independent of the state of t				-	-				
lov Cap-1 Maneuver         *68         *625         *935         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         - </td <td></td> <td></td> <td></td> <td></td> <td>-</td> <td></td> <td></td> <td></td> <td></td>					-				
Stage 1									
Stage 1       *392       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -									
Stage 2         *416         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -			-		-				
pproach EB NB SB  CM Control Delay, s 140.2 2.4 0  CM LOS F   linor Lane/Major Mvmt NBL NBT EBLn1 SBT SBR  apacity (veh/h) *935 - 189  CM Lane V/C Ratio 0.164 - 1.081  CM Control Delay (s) 9.6 1.2 140.2  CM Lane LOS A A F  CM 95th %tile Q(veh) 0.6 - 9.8  otes	•		-		-		-		
CM Control Delay, s 140.2 2.4 0  CM LOS F    Innor Lane/Major Mvmt   NBL   NBT EBLn1   SBT   SBR     apacity (veh/h)   * 935   - 189   -   -     CM Lane V/C Ratio   0.164   - 1.081   -   -     CM Control Delay (s)   9.6   1.2   140.2   -   -     CM Lane LOS   A   A   F   -   -     CM 95th %tile Q(veh)   0.6   - 9.8   -   -     otes	Stage 2	410	-	-	<u>-</u>	-	-		
CM Control Delay, s 140.2 2.4 0  CM LOS F    Innor Lane/Major Mvmt   NBL   NBT EBLn1   SBT   SBR     apacity (veh/h)   * 935   - 189   -   -     CM Lane V/C Ratio   0.164   - 1.081   -   -     CM Control Delay (s)   9.6   1.2   140.2   -   -     CM Lane LOS   A   A   F   -   -     CM 95th %tile Q(veh)   0.6   - 9.8   -   -     otes									
CM LOS F	pproach								
Section   Sect				2.4		0			
apacity (veh/h) * 935 - 189  CM Lane V/C Ratio 0.164 - 1.081  CM Control Delay (s) 9.6 1.2 140.2  CM Lane LOS A A F  CM 95th %tile Q(veh) 0.6 - 9.8  otes	HCM LOS	F							
apacity (veh/h) * 935 - 189  CM Lane V/C Ratio 0.164 - 1.081  CM Control Delay (s) 9.6 1.2 140.2  CM Lane LOS A A F  CM 95th %tile Q(veh) 0.6 - 9.8  otes									
apacity (veh/h) * 935 - 189  CM Lane V/C Ratio 0.164 - 1.081  CM Control Delay (s) 9.6 1.2 140.2  CM Lane LOS A A F  CM 95th %tile Q(veh) 0.6 - 9.8  otes	Minor Lane/Major Myr	nt	NBL	NBT	EBLn1	SBT	SBR		
CM Lane V/C Ratio       0.164       - 1.081       -       -         CM Control Delay (s)       9.6       1.2       140.2       -       -         CM Lane LOS       A       A       F       -       -         CM 95th %tile Q(veh)       0.6       -       9.8       -       -         otes				-			-		
CM Control Delay (s) 9.6 1.2 140.2  CM Lane LOS A A F  CM 95th %tile Q(veh) 0.6 - 9.8  otes				_			-		
CM Lane LOS A A F CM 95th %tile Q(veh) 0.6 - 9.8 otes		)				_	_		
CM 95th %tile Q(veh) 0.6 - 9.8 otes		,				_	_		
otes		1)		-		_	-		
	,	<i>'</i>							
volume exceeds capacity \$: Delay exceeds 300s +: Computation Not Defined *: All major volume in platoon		'1	Φ.D.	1		10-		station Nat D. Co. 1	*. All
	: volume exceeds ca	pacity	\$: De	lay exc	eeds 30	JUS	+: Comp	outation Not Defined	*: All major volume in platoon

Traffic Count Data Sheet (Demand Adjusted)

	dea counts randi.	2018		E-W Street: N-S Street:		Singer Blvd. Jefferson St.	lvd. n St.	ě	200			ທີ	Speed Limit (Singer Blvd.)= Speed Limit (Jefferson St.)=	inger Blvd. efferson St	= =	35	MPH
				i				ubic	naz	7						10/31/10	
Begin	End		Eastbound	Eastbound (Singer Blvd.)	d.)	8	Westbound (Singer Blvd.	Singer Blv	(r)	ž	Northbound (Jefferson St.)	Jefferson S	it.)	So	Southbound (Jefferson St.)	Jefferson	St.)
Time	Time	_	-	œ	Pedestrians	_	_	ĸ	Pedestrians	-1	_	ď	Pedestrians	_	1	ď	Pedestrians
7:00 AM	7:15 AM	27	4	33	0	15	ð	ф	θ	85	400	7.5	θ	Ф	99	98	0
7:15 AM	7:30 AM	31	8	41	1	21	9	4	0	88	123	77	0	9	89	40	0
7:30 AM	7:45 AM	32	11	44	1	23	8	9	0	126	167	92	0	7	92	39	es
7:45 AM	8:00 AM	28	9	42	0	17	2	9	0	06	126	72	2	2	1.9	45	0
8:00 AM	8:15 AM	31	4	54	0	11	4	2	0	78	109	57	2	5	99	36	0
8:15 AM	8:30 AM	58	49	25	+	45	9	æ	θ	69	96	25	ch	ch	53	53	θ
8:30 AM	8:45 AM	36	6	48	θ	11	4	чр	θ	85	404	99	ch	CD.	29	58	θ
8:45 AM	9:00 AM	45	+	67	0	ż	†	ΥĐ	θ	34	54	54	ch	ch	99	40	θ
AM Peak Hour Volumes	r Volumes	122	29	181	2	72	20	21	0	382	525	298	4	20	261	160	3
Perc	Percent Approach	36.7%	8.7%	54.5%		63.7%	17.7%	18.6%		31.7%	43.6%	24.7%		4.5%	59.2%	36.3%	
									Intersection			4					
AM Peak Hour Factor	Factor		0.93				97.0		0.83		0.78				0.90		
Begin	End	i k	astbound	Eastbound (Singer Blvd.)	d.)	W	Westbound (Singer Blvd.	Singer Blv	d.)	No	Northbound (Jefferson St.)	Jefferson S	(£)	So	Southbound (Jefferson St.)	Jefferson	St.)
Time	Time	_T_	_	2	Pedestrians	7	_	œ	Pedestrians	7	_	œ	Pedestrians	1		œ	Pedestrians
4:00 PM	4:15 PM	40	42	22	+	44	9	Ф	θ	69	72	36	θ	4	92	30	θ
4:15 PM	4:30 PM	45	75	96	+	75	1	4D	θ	25	99	98	Ф	Ф	146	99	θ
4:30 PM	4:45 PM	53	6	104	4	54	3	7	0	45	80	38	1	1	125	33	0
4:45 PM	5:00 PM	61	13	113	0	88	14	15	-	49	64	40	-	es	156	36	0
5:00 PM	5:15 PM	53	10	93	0	09	9	8	0	59	78	44	0	5	151	32	0
5:15 PM	5:30 PM	47	2	140	1	80	20	14	0	37	48	33	3	9	195	31	0
5:30 PM	5:45 PM	22	9	37	θ	99	4	63	θ	54	54	56	θ	t	100	34	0
5:45 PM	6:00 PM	44	4	82	4	98	6	Ф	0	35	09	47	0	9	409	24	0
PM Peak Hour Volumes	r Volumes	214	37	450	2	282	43	44	1	190	270	155	5	15	627	132	0
Perc	Percent Approach	30.5%	5.3%	64.2%		76.4%	11.7%	11.9%		30.9%	43.9%	25.2%		1.9%	81.0%	17.1%	
									Intersection								
PM Peak Hour Factor	Factor		0.91				0.79		0.94		0.85				0.83		
AM Peak Hour Raw Count	Raw Count	121	29	180		99	18	19		374	515	293		20	261	160	
% Change		1%	%0	1%		11%	11%	11%		2%	2%	2%		%0	%0	%0	
AM Peak Hour Raw Count	r Raw Count	202	35	427		261	41	42		179	254	146		15	627	132	
% Change		%9	%9	2%		%8	2%	2%		%9	%9	%9		%0	%0	%0	

Traffic Count Data Sheet (Demand Adjusted)

Year Counts Taken:	akell.	0107		N-S Street:		Jefferson St.	1.St.					S	Speed Limit (Jefferson St.)=	efferson St	===	32 8	MPH
								Signs	Signalized							11/1/18	
Begin	End	Ä	stbound (	Eastbound (I-25 E. Ramp)	(dt	We	Westbound (I-25 E. Ramp)	-25 E. Ram			Northbound (Jefferson St.)	efferson S	(£)	So	Southbound (Jefferson St.)	Jefferson	St.)
Time	Time	1		æ	Pedestrians	٦	T	×	Pedestrians	T	1	8	Pedestrians	7	I	ď	Pedestrian
7:00 AM	7:15 AM	463	19	46	в	в	8	в	θ	в	104	239	в	77	98	θ	θ
7:15 AM	7:30 AM	161	25	98	θ	в	8	8	0	θ	429	69	+	48	416	Ф	θ
7:30 AM	7:45 AM	189	64	36	0	0	0	0	0	0	170	54	0	23	126	0	0
7:45 AM	8:00 AM	215	98	45	-	0	0	0	0	0	246	53	0	35	132	0	-
8:00 AM	8:15 AM	184	64	49	0	0	0	0	0	0	133	51	1	21	94	0	0
8:15 AM	8:30 AM	172	90	47	0	0	0	0	0	0	133	45	0	22	112	0	0
8:30 AM	8:45 AM	159	86	55	в	в	θ	θ	θ	В	416	45	+	992	+118	Ф	8
8:45 AM	9:00 AM	131	99	4	Ф	θ	θ	Φ	θ	θ	442	98	θ	95	133	θ	8
AM Peak Hour Volumes	r Volumes	260	304	177	-	0	0	0	0	0	682	203	-	101	464	0	-
Perce	Percent Approach	61.2%	24.5%	14.3%		#DIV/0!	#DIV/0!	#DIV/0!		%0.0	77.1%	22.9%		17.9%	82.1%	960.0	
									Intersection			Ą					
AM Peak Hour Factor	actor		06.0				#DIV/0i		0.83		0.74				0.85		
Begin	End	Ü	) punoqts	Eastbound (I-25 E. Ramp)	(dı	We	Westbound (I-25 E. Ramp)	-25 E. Ram	(di	N	Northbound (Jefferson St.)	efferson S	£)	So	Southbound (Jefferson St.)	Jefferson	St.)
Time	Time	7	1		Pedestrians	7	-	W.	Pedestrians	7	T	æ	Pedestrians	7	_	œ	Pedestrian
4:00 PM	4:15 PM	438	445	89	θ	в	0	0	в	θ	105	52	в	525	185	θ	θ
4:15 PM	4:30 PM	123	170	09	0	0	0	0	0	0	121	85	0	75	193	0	0
4:30 PM	4:45 PM	113	156	54	0	0	0	0	0	0	129	96	0	20	240	0	0
4:45 PM	5:00 PM	138	150	46	0	0	0	0	0	0	113	06	0	63	219	0	1
5:00 PM	5:15 PM	106	178	48	0	0	0	0	0	0	119	85	0	93	283	0	1
5:15 PM	5:30 PM	406	€0₹	43	θ	в	в	θ	θ	в	144	98	0	29	<del>†9†</del>	θ	в
5:30 PM	5:45 PM	99	405	68	θ	в	в	в	θ	8	+0+	64	в	47	<del>169</del>	θ	θ
5:45 PM	6:00 PM	86	86	98	θ	в	в	θ	θ	θ	86	9%	θ	46	28	Ф	в
PM Peak Hour Volumes	r Volumes	480	654	208	0	0	0	0	0	0	482	356	0	301	935	0	2
Perce	Percent Approach	35.8%	48.7%	15.5%		#DIV/0!	#DIV/01	#DIV/0!		%0.0	57.5%	42.5%		24.4%	75.6%	%0.0	
									Intersection								
PM Peak Hour Factor	actor		0.95				#DIV/0!		0.94		0.93				0.82		
AM Peak Hour Raw Count	Raw Count	739	296	171	1	0	0	0	0	0	678	202	-	101	462	0	-
% Change		3%	3%	4%	%0	N/A	N/A	N/A	N/A	N/A	1%	%0	%0	%0	%0	N/A	%0
AM Peak Hour Raw Count	Raw Count	461	629	201	0	0	0	0	0	0	470	347	0	294	911	0	2
Or Change		-	-														

Traffic Count Data Sheet (Demand Adjusted)

				N-S Street:		Jefferson St.	St.					S	Speed Limit (Jefferson St.)=	efferson St	<u> </u>	35	MPH
								Signs	Signalized							11/1/18	
Begin	End	E	) punoqtsi	Eastbound (I-25 W. Ramp)	l (du	We	Westbound (I-25 W. Ramp)	-25 W. Ran			Northbound (Jefferson St.)	efferson S	(r)	So	Southbound (Jefferson St.)	Jefferson	St.)
Time	Time	7	I	R	Pedestrians	7	_	R	Pedestrians	٦	1	R	Pedestrians	7	T	8	Pedestrian
7:00 AM	7:15 AM	в	θ	θ	0	62	37	53	Ð	92	176	Ф	ch	θ	29	98	7
7:15 AM	7:30 AM	Ф	θ	θ	θ	99	4	58:	θ	49	535	θ	+	θ	89	结	θ
7:30 AM	7:45 AM	0	0	0	0	73	74	40	0	53	279	0	-	0	79	74	0
7:45 AM	8:00 AM	0	0	0	0	72	115	33	0	83	366	0	0	0	88	61	0
8:00 AM	8:15 AM	0	0	0	0	62	85	27	0	17	290	0	1	0	29	53	0
8:15 AM	8:30 AM	0	0	0	0	51	49	40	0	64	229	0	1	0	80	47	0
8:30 AM	8:45 AM	θ	θ	θ	8	52	88	97	8	77	<del>192</del>	в	7	в	99	69	Ф
8:45 AM	9:00 AM	θ	θ	θ	θ	92	99	43	0	25	891	в	+	θ	27	23	+
AM Peak Hour Volumes	Volumes	0	0	0	0	258	323	140	0	277	1164	0	es	0	315	235	0
Percen	Percent Approach	#DIV/IO#	#DIV/0i	#DIV/0!		35.8%	44.8%	19.4%		19.2%	80.8%	%0.0		0.0%	57.3%	42.7%	
									Intersection			Ą					
AM Peak Hour Factor	ctor		#D///0!				0.82		0.83		0.80				0.90		
Begin	End		stbound (	Eastbound (I-25 W. Ramp)	(du	We	Westbound (I-25 W. Ramp	25 W. Ran	(dı	No	Northbound (Jefferson St.	efferson S	t.	So	Southbound (Jefferson St.	Jefferson	St.)
Time	Time	1	_	~	Pedestrians	7	_		Pedestrians	1	_	2	Pedestrians	1	1	œ	Pedestriar
4:00 PM	4:15 PM	Ф	θ	θ	0	89	25	95	θ	405	148	Э	0	в	+43	455	*
4:15 PM	4:30 PM	θ	θ	θ	θ	96	±0±	25	θ	98	136	в	θ	в	490	446	в
4:30 PM	4:45 PM	0	0	0	0	65	91	28	0	88	150	0	0	0	195	141	-
4:45 PM	5:00 PM	0	0	0	0	96	111	19	0	91	142	0	0	0	212	169	0
5:00 PM	5:15 PM	0	0	0	0	100	149	0	0	100	149	0	0	0	235	149	1
5:15 PM	5:30 PM	0	0	0	0	101	140	0	0	103	143	0	0	0	211	156	0
5:30 PM	5:45 PM	Ф	θ	Ф	8	#	132	Φ	θ	110	132	в	Ф	θ	456	111	Ф
5:45 PM	6:00 PM	θ	θ	8	8	84	98	θ	θ	98	94	в	6	в	62	66	θ
PM Peak Hour Volumes	Volumes	0	0	0	0	362	491	47	0	383	584	0	0	0	853	615	2
Percen	Percent Approach	#DIV/0!	#DIV/0!	#DIV/0!		40.2%	24.6%	5.2%		39.6%	60.4%	%0.0		%0.0	58.1%	41.9%	
									Intersection								
PM Peak Hour Factor	ctor		#DI///01				0.90		0.95		76:0				96.0		
AM Peak Hour Raw Count	Raw Count	0	0	0	0	252	315	137	0	277	1162	0	m	0	315	235	0
% Change		N/A	N/A	N/A	N/A	2%	3%	2%	N/A	%0	%0	N/A	%0	N/A	%0	%0	NA
AM Peak Hour Raw Count	Raw Count	0	0	0	0	397	519	19	0	396	555	0	0	0	787	571	-
% Change		N/A	N/A	N/A	N/A	%6-	-5%	147%	N/A	-3%	2%	N/A	N/A	N/A	%8	%8	100%

# **Traffic Count Data Sheet**

Year Counts Taken:	aken:	2018		E-W Street: N-S Street:		McLeod Blvd. Jefferson St.	Blvd.					S S	Speed Limit (McLeod Blvd.)= Speed Limit (Jefferson St.)=	cLeod Blvo efferson St.	<u>" "</u>	32	MPH
								Sign	Signalized							11/1/18	
Begin	End	Ü	Eastbound (McLeod Blvd.)	McLeod Bl	lvd.)	We	Westbound (McLeod Blvd.)	IcLeod B	lvd.)	N	Northbound (Jefferson St.)	Jefferson S	it.)	So	Southbound (Jefferson St.)	Jefferson	St.)
Time	Time	1	T	×	Pedestrians	1	_	œ	Pedestrians	7	1	R	Pedestrians	1	F	æ	Pedestrians
7:00 AM	7:15 AM	9	9	7	0	19	6	72	0	3	98	9	-	09	84	2	0
7:15 AM	7:30 AM	2	15	es	0	24	3	77	0	4	103	6	0	44	26	4	0
7:30 AM	7:45 AM	2	15	9	0	27	11	123	0	00	147	6	0	47	109	12	0
7:45 AM	8:00 AM	0	10	-	0	18	9	95	0	2	106	-	0	54	82	4	0
8:00 AM	8:15 AM	ch	6	7	θ	56	OD	96	в	+	624	ch	в	43	85	94	θ
8:15 AM	8:30 AM	4	ch	+	1 8	572	ch	925	8	ch	925	9	Ф	64	77	c/D	Ф
8:30 AM	8:45 AM	ch	CD	7	1 8	56	9	99	÷	4	9%	94	ch	54	26	σþ	Φ
8:45 AM	9:00 AM	OD	OD	+	θ	#	ф	99	Φ	op	27	40	Ф	83	84	9	Φ
AM Peak Hour Volumes	r Volumes	10	46	17	0	88	59	367	0	17	442	25	-	202	372	25	0
% of Total Traffic		%9.0	2.8%	1.0%		5.4%	1.8%	22.3%		1.0%	26.9%	1.5%		12.5%	22.6%	1.5%	
% Directional			4.4%				29.5%		Intersection		29.5%				36.6%		
AM Peak Hour Factor	actor		0.79				0.75		0.80		0.74				0.90		
Begin	End		Eastbound (McLeod Blvd.)	McLeod Bl	vd.)	We	Westbound (McLeod Blvd.)	cLeod Bi	lvd.)	Z	Northbound (Jefferson St.)	Jefferson S	£)	Sol	Southbound (Jefferson St.)	Jefferson	St.)
Time	Time	٦	_	R	Pedestrians	7	1	R	Pedestrians	7	1	R	Pedestrians	7	T	æ	Pedestrians
4:00 PM	4:15 PM	op	#	9	Ф	강	4	629	Ф	+	404	#	Ф	65	439	9	θ
4:15 PM	4:30 PM	7	18	11	0	28	9	92	0	3	111	37	0	103	163	1	0
4:30 PM	4:45 PM	3	14	2	0	22	1	98	0	2	112	20	0	101	140	2	0
4:45 PM	5:00 PM	2	16	9	0	21	4	91	0	2	113	59	0	113	178	4	1
5:00 PM	5:15 PM	-	18	3	0	31	1	74	0	0	132	20	0	84	145	1	0
5:15 PM	5:30 PM	+	9	ch	1 6	18	7	52	] 6	θ	62	#	θ	83	112	θ	θ
5:30 PM	5:45 PM	4	9	+	8	56	9	69	θ	cb.	#	#	8	#9	49	OD	θ
5:45 PM	6:00 PM	+	2	Ð	θ	#	θ	54	c _l	8	99	Ф	8	99	62	ςþ	θ
PM Peak Hour Volumes	r Volumes	13	99	25	0	102	12	327	0	10	468	106	0	401	626	00	-
% of Total Traffic		%9.0	3.0%	1.2%		4.7%	%9.0	15.1%		0.5%	21.6%	4.9%		18.5%	28.9%	0.4%	
% Directional			4.8%				20.4%		Intersection		27.0%				47.8%		
DM Book Hour Eactor	- Julius		0.79				900		0.03		0.06				000		

# **Traffic Count Data Sheet**

Year Counts Taken:	aken:	2018		E-W Street:	71	Outback Drive	Drive					S. C	Speed Limit (Outback Drive)=	utback Driv	=(a)=	25	MPH
				N-S Street:		Jerrerson St.	in St.	Unsig	Unsignalized			n	Speed Limit (Jefferson St.)=	errerson S	<u></u>	11/1/18	H N
Begin	End	Ea	Eastbound (Outback Drive)	Outback D	lrive)	We	Westbound (C	(Outback Drive)	rive)	Z	Northbound (Jefferson	Jefferson (	St.)	S	Southbound (Jefferson St.	Jefferson	St.)
Time	Time	٦	_	W.	Pedestrians	7	1	×	Pedestrians	٦	T	R	Pedestrians	7	_	æ	Pedestrians
7:00 AM	7:15 AM	4	θ	θ	Φ	Ф	Ф	θ	Θ	+	466	Φ	Φ	в	156	θ	θ
7:15 AM	7:30 AM	θ	в	в	θ.	θ	в	θ	0	в	185	θ	+	в	137	θ	θ
7:30 AM	7:45 AM	0	0	0	0	0	0	0	0	2	268	0	0	0	185	0	0
7:45 AM	8:00 AM	,	0	0	0	0	0	0	0	1	251	0	0	0	153	က	0
8:00 AM	8:15 AM	0	0	2	0	0	0	0	0	0	186	0	0	0	135	2	0
8:15 AM	8:30 AM	0	0	0	0	0	0	0	0	3	168	0	1	0	143	7	0
8:30 AM	8:45 AM	+	θ	+	θ	θ	8	в	0	Ф	454	θ	в	Ф	164	4	Ф
8:45 AM	9:00 AM	+	θ	θ	0	θ	θ	θ	0	в	141	в	θ	θ	154	4	θ
AM Peak Hour Volumes	. Volumes	-	0	2	0	0	0	0	0	9	873	0	1	0	616	12	0
% of Total Traffic		0.1%	0.0%	0.1%		%0.0	0.0%	0.0%		0.4%	57.8%	9,000		0.0%	40.8%	0.8%	
% Directional			0.2%				%0.0		Intersection		58.2%				41.6%		
AM Peak Hour Factor	actor		0.38						0.83		0.81				0.85		
Begin	End	Ea	Eastbound (Outback Drive)	Outback D	rive)	We	Westbound (Outback Drive)	Jutback Di	rive)	Z	Northbound (Jefferson St.	Jefferson (	3t.)	So	Southbound (Jefferson St.)	Jefferson	St.)
Time	Time	1	1	œ	Pedestrians	1	1	œ	Pedestrians	1	T	œ	Pedestrians	1	H	œ	Pedestrians
4:00 PM	4:15 PM	op	Ф	ch	θ	θ	Φ	Ф	0	7	186	Ф	в	Φ	264	ch	Ф
4:15 PM	4:30 PM	1	0	0	0	0	0	0	0	2	199	0	0	0	229	4	0
4:30 PM	4:45 PM	-1	0	2	0	0	0	0	0	4	208	0	0	0	265	2	0
4:45 PM	5:00 PM	1	0	8	0	0	0	0	0	3	202	0	0	0	267	6	2
5:00 PM	5:15 PM	1	0	3	0	0	0	0	0	1	211	0	0	0	266	10	0
5:15 PM	5:30 PM	CD	в	7	θ	в	в	θ	θ	в	181	в	θ	в	510	ob	Ф
5:30 PM	5:45 PM	CD.	θ	4	0	θ	в	θ	0	в	147	в	6	Ф	132	77	в
5:45 PM	6:00 PM	CD.	в	+	6	в	в	θ	6	+	456	в	6	Ф	+5+	OD	в
PM Peak Hour Volumes	. Volumes	4	0	13	0	0	0	0	0	10	820	0	0	0	1027	28	2
% of Total Traffic		0.2%	0.0%	0.7%		%0.0	%0.0	%0.0		0.5%	43.1%	%0.0		0.0%	54.0%	1.5%	
% Directional			0.9%				%0.0		Intersection		43.6%				55.5%		
PM Peak Hour Factor	actor		72.0						0.07		200				000		



For more detailed information visit www.myabqride.com or call 243-7433 (243-RIDE)

## SCOPE OF TRAFFIC IMPACT STUDY (TIS)

TO:	Terry Brown
MEETI	ING DATE: August 28, 2018
ATTEN	NDEES: Consultant Team; COA Transportation Development Review; NMDOT
PROJE	ECT: C-Store I-25 and Jefferson St., Zone Atlas # F-17
REQU	ESTED CITY ACTION: Zone Change Site Development Plan
_	Subdivision X Building Permit Sector Plan Sector Plan Amendmen
_	_ Curb Cut Permit Conditional Use Annexation Site Plan Amendment
	CIATED APPLICATION: New 14 pump (future 28 pump) gas convenience market at SV of I-25 and Jefferson St.
The Tr	E OF REPORT: raffic Impact Study should follow the standard report format, which is outlined in the DPM llowing supplemental information is provided for the preparation of this specific study.
1,	Trip Generation - Use Trip Generation Manual, 10th Edition.  Local data may be used for certain land use types as determined by staff.  Consultant to provide.
2.	Appropriate study area: Signalized Intersections; a. I-25 and Jefferson ramps (all) b. Jefferson and Mcleod c. Jefferson and Singer
	Unsignalized Intersections; a. Jefferson and Mclane (private road south of site)
	Driveway Intersections: all site drives.
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.
Typ sta tak	Type of intersection progression and factors to be used.  De III arrival type (see "2016 Highway Capacity Manual" or equivalent as approved by aff). Unless otherwise justified, peak hour factors and % heavy commercial should be seen directly from the MRCOG turning movement data provided or as calculated from the trent count data by consultant.

5. Boundaries of area to be used for trip distribution.

## 1.5 mile radius - commercial;

6. Basis for trip distribution.

Residential – Use inverse relationship based upon distance and employment. Use employment data from 2040 Socioeconomic Forecasts, MRCOG – See MRCOG website for most current data.

Office/Industrial - Use inverse relationship based upon distance and population. Use population data from 2040 Socioeçonomic Forecasts, MRCOG — See MRCOG website for most current data.

Commercial - Use relationship based upon population. Use population data from 2040 Socioeconomic Forecasts, MRCOG — See MRCOG website for most current data. Take into account pass-by trip, but include strong explanation of reasoning.

Residential - Ts = (Tt) (Se/D) / (Se/D)Ts = Development to Individual Subarea Trips

Tt = Total Trips

Se = Subarea Employment

D = Distance from Development to Subarea

Office/Industrial - Ts = (Tt) (Sp / D) / (Sp / D)

Ts = Development to Individual Subarea Trips

Tt = Total Trips

Sp = Subarea Population

D = Distance from Development to Subarea

Commercial -

Ts = (Tt)(Sp)/(Sp)

Ts = Development to Individual Subarea Trips

Tt = Total Trips

Sp = Subarea Population

- 7. Traffic Assignment. Logical routing on the major street system.
- Method of intersection capacity analysis planning or operational (see "2016 Highway Capacity Manual" or equivalent [i.e. HCS, Synchro, Teapac, etc.] as approved by staff). Must use latest version of design software and/or current edition of design manual. Implementation Year:
- Traffic conditions for analysis:
  - a. Existing analysis __ yes _X no year ();
  - b. Phase implementation year(s) without proposed development 2019
  - c. Phase implementation year(s) with proposed development 2019
  - d. Project completion year without proposed development 2029
  - e. Project completion year with proposed development 2029
  - f. Other -

10.	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%.
11.	Items to be included in the study: a. Intersection analysis.

- Signal progression An analysis is required if the driveway analysis indicates a traffic signal is possibly warranted. Analysis Method:
- 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 and visibility.
- f. Transportation system impacts.
- g. Other mitigating measures.
- h. Accident analyses __ yes X_ no; Location(s):
- Weaving analyses __yes X_ no; Location(s):
- 12. 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 924-3633.

		8/31/18	
Erne	est Armijo, P.E.	Date	
Seni	ior Engineer for		
	sportation Development Section		
	A CONTRACTOR OF THE PROPERTY OF THE PARTY OF		
	via: email		