Jefferson Plaza Office Development
(Jefferson Plaza West of Jefferson St.)

Traffic Impact Study

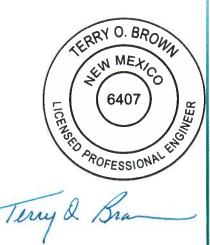
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Presented to:

City of Albuquerque Transportation Development Section

Prepared for:

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Jefferson Office Plaza (Jefferson Plaza west of Jefferson St) TRAFFIC IMPACT STUDY

STUDY PURPOSE

The study is being conducted in conjunction with a request for approval of an office development plan for the property located on the north side of Jefferson Plaza west of Jefferson St. The purpose of this study is to identify the impact of the Development on the adjacent transportation system, and to make recommendations to mitigate any significant adverse impact on the adjacent transportation system resulting from the implementation of the facility. This report is being prepared to meet the requirements of the City of Albuquerque Transportation Development Section in association with the development of the proposed project associated with this site plan. (see Appendix Page A-2).

STUDY PROCEDURES

A scoping meeting was held on April 26, 2007 with City of Albuquerque staff (Tony Loyd and John Hartmann) to discuss scope and methodology to be utilized within that report.

The basic procedure followed is described as follows:

- 1) Calculate the generated trips for the proposed office development consisting of a proposed 76,000 S.F. of general office space.
- Calculate trip distribution for the newly generated trips of this development. The new office trips will be distributed based on year 2009 citywide population. (See Pages A-7 thru A-11 in Appendix).
- 3) Determine Trip Assignments for the newly generated trips based on the results of the Trip Distribution Analysis and logical routing to and from the site. (See Pages A-12 thru A-13 in Appendix).
- 4) Obtain AM Peak Hour and PM Peak Hour turning movement traffic counts at the intersection Osuna Rd. / Jefferson St., Singer Rd / Jefferson St., and Jefferson Plaza / Jefferson St (See Pages A-60 thru A-67 in Appendix).
- 5) Calculate Historic Growth Rates for each of the approaches to the intersections targeted for analysis where the historic data was available. (See Pages A-14 thru A-22 in Appendix).
- 6) Determine 2009 NO BUILD intersection volumes by growing the data from the existing traffic counts at the calculated historic growth rate to the analysis year (2009), then add in traffic volumes generated by nearby recently approved undeveloped projects. (See Pages A-23 thru A-37 in Appendix).
- 7) Add in data from Trip Assignments Maps and Tables to the 2009 NO BUILD Volumes to obtain 2009 BUILD Volumes for this project. (See Pages A-23 thru A-37 in Appendix).

8) Provide signalized and unsignalized intersection analyses for the following intersections:

INTERSECTION	TYPE CONTROL	NO BUILD	BUILD
Osuna Rd. / Jefferson St.	Traffic Signal	2009	2009
Singer Rd / Jefferson St.	Traffic Signal	2009	2009
Jefferson Plaza / Jefferson St.	Stop Sign	2009	2009
Jefferson Plaza / Driveway "A"	Stop Sign	N/A	2009
Jefferson Plaza / Driveway "B"	Stop Sign	N/A	2009

PREVIOUS RELATED TRAFFIC IMPACT STUDIES

There was one previous related Traffic Impact Study to consider in this study: The Vista del Norte Commercial Development traffic was included in the projected 2009 background traffic volumes utilized in this study. However, it should be noted that the Vista del Norte Commercial Development proposal was denied at the City of Albuquerque Environmental Planning Commission on Thursday, June 14, 2007.

GENERAL AREA CHARACTERISTICS

Surrounding land uses consist of some commercial and mostly office uses. This project is located within a moderately active development area.

AREA STREET NETWORK

Osuna Rd. is classified as a Principal Arterial roadway on the Long Range Roadway Plan for the Albuquerque Metropolitan Area. It is currently a paved urban four-lane facility with raised medians and curbs and gutters on both sides of the street. The posted speed limit on Osuna Rd. from I-25 to 2nd St. is 45 M.P.H.

Jefferson St. is classified as a Minor Arterial roadway on the Long Range Roadway Plan for the Albuquerque Metropolitan Area. It is an urban four lane paved roadway from I-25 north to Alameda Blvd. with raised medians and curbs and gutters on both sides of the street. The posted speed limit on Jefferson St is 35 M.P.H.

Singer Rd. to the west of Jefferson St. is classified as a Collector street on the Long Range Roadway System Map for the Albuquerque Metropolitan Planning Area. It is a four-lane urban roadway with raised medians and curbs & gutters on both sides of the street. The posted speed limit on Singer Rd is 30 M.P.H.

FUTURE C.I.P. IMPROVEMENTS TO TRANSPORTATION SYSTEM

The City of Albuquerque has plans to widen Osuna Rd. from Edith Blvd. to Jefferson St. to provide three thru lanes eastbound and westbound. The project is targeted for construction in 2011. However, funding may limit the scope of what can be constructed at that time. The City of Albuquerque's Ten Year Plan designates \$300,000 for the year 2008 and \$3,000,000 for the year 2011.

EXISTING TRAFFIC VOLUMES

2005 Average Weekday Traffic Volumes (AWDT) for major streets in the site plan area are shown on Page A-3 in the Appendix.

Existing AM and PM peak hour turning movement counts for the years 2004 to 2005 were provided by the City of Albuquerque for the following intersections:

Osuna Rd. / Jefferson St. (2004) Singer Rd / Jefferson St. (2005)

The existing traffic counts are included Appendix Pages A-61 thru A-67.

Traffic volumes for the intersection of Jefferson Plaza / Jefferson St were recently counted by the consulting engineer performing this study.

EXISTING LEVELS OF SERVICE

The <u>Highway Capacity Manual</u> defines Level of Service (LOS) for signalized intersections in terms of average controlled delay per vehicle as follows:

LOSA	10.0" or less	Most Vehicles do not stop
LOS B	10.1 to 20.0"	Some Vehicles stop
LOSC	20.1 to 35.0"	Significant number of vehicles stop
LOS D	35.1 to 55.0"	Many vehicles stop.
LOSE	55.1 to 80.0"	Limit of acceptable delay.
LOSF	> 80.0"	Unacceptable delay.

Level of Service D is generally considered acceptable in urban areas and is the desirable base condition for analysis in a traffic study. In addition to consideration of the overall level-of-service of the signalized intersection, the levels-of-service of each individual movement should be considered also.

Existing levels-of-service were not provided in this study since the implementation year is only two years from now. The implementation year NO BUILD analysis should approximate the existing levels-of-service.

PROPOSED DEVELOPMENT

The development plan is a proposed 76,000 S.F. office development. The land uses utilized for this analysis should be representative of the type of uses that will result from the proposed development. Should the development occur in such a manner that the actual number of trips generated significantly exceed that projected in this study, the City of Albuquerque may require an updated Traffic Impact Study.

Access is provided into the proposed facility via two full access driveways onto Jefferson Plaza. The proposed driveways are designated as Driveway "A" and Driveway "B" in this study.

TRIP GENERATION

Projected trips were calculated from data in the Institute of Transportation Engineers <u>Trip Generation</u> report (7th Edition, 2003). Trips for the development were determined based on land uses projected to be associated with the zone change request for this property.

The resulting number of trips generated for the proposed development is summarized in the following tables:

Jefferson Office Plaza (Jefferson Plaza West of Jefferson St.) Trip Generation Data

USE (ITE CODE)	E (ITE CODE)		A. M. PEAK HOUR		P. M. PEAK HOUR	
		GROSS	ENTER	EXIT	ENTER	EXIT
	Units					
General Office Building (710)	76.00	1,080	133	18	28	136

(See Page A-6 in the Appendix of this report for Trip Generation Worksheets and Summary Table.)

TRIP DISTRIBUTION

Primary and Diverted Linked Trips:

Trips were distributed as follows:

Office Land Use

Primary and diverted linked trips for residential development have been distributed proportionally to the 2009 projected population of Subareas area wide. Population data for 2005 and 2009 were taken from the <u>2025 Socioeconomic Forecasts for Data Analysis Subzones for the Mid-Region of New Mexico</u>, S-03-01 (April, 2003), Appendix B, supplied by the Mid-Region Council of Governments (MRCOG). Employment Data was interpolated linearly to obtain 2009 values and adjusted for distance from the proposed new facility. The trip distribution worksheets and associated map of subareas are shown on Appendix Pages A -7 thru A -10.

TRIP ASSIGNMENT

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 are shown in the Appendix, Pages A -12 thru A -13. No pass-by trip reduction was applied to this development.

BACKGROUND TRAFFIC GROWTH

Background traffic growth rates were considered for each individual approach to an intersection that was targeted for analysis based on data from the 2001, 2002, 2003, 2004, and 2005 Traffic Flow maps prepared by the Mid-Region Council of Governments. Almost all of the Traffic Flow Data for the years 2001 thru 2005 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 growth rate for each approach if that calculated rate appeared feasible. However, there were some instances where the rate indicated a negative growth trend. In those cases, an appropriate growth rate from an adjacent segment of the same roadway was used or a shorter time span was used to determine the growth rate, or a generic 3% growth rate was utilized. Due to the potential for growth in the area, it was believed that a zero percent growth rate was inappropriate for this study. Additionally, if the R² value of the trend line was low, other means of establishing a probable growth rate from the data accumulated was considered. Historical Growth Rate Graphs with linear regression trendlines are shown on Appendix Pages A-14 thru A-21. Additionally, 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-23 thru A-34).

PROJECTED PEAK HOUR TURNING MOVEMENTS FOR 2009 BUILDOUT

The calculated annual growth rates were applied to the recent (2004 or 2005) peak hour traffic counts furnished by the City of Albuquerque or counted by the consultant to establish the 2009 background traffic volumes. To these volumes, the generated trips based on implementation of the proposed assumed land uses were added to obtain the 2009 BUILD volumes for the intersection analyses. See Appendix Pages A-23 thru A-34 for further information regarding turning movement counts for this project. 2009 NO BUILD Volumes Map, Trips Generated Map, and 2009 BUILD Volumes Map for this project are on Pages A-35 thru A-37 in the Appendix.

Two scenarios are evaluated in this study:

2009 NO BUILD Volumes 2009 BUILD Volumes

INTERSECTION CAPACITY ANALYSIS

Intersection capacity analyses were performed in accordance with the procedures for signalized and unsignalized intersections in the <u>Highway Capacity Manual</u>, Special Report 209, Transportation Research Board, 2000, using TEAPAC's Signal 2000 Software for signalized intersections and HiCAP Version 2 for unsignalized intersections. For signalized intersections, the operational method of analysis was used for 2009 conditions (NO BUILD and BUILD). In addition to utilizing the operational analysis for the intersections, the 1985 planning method may also be used to provide additional information at the intersection to help define critical lane volumes and to help analyze a solution.

Capacity analyses were performed for the following traffic conditions.

- ⇒ 2009 without development of the subject property (NO BUILD)
- ⇒ 2009 with development (BUILD)

The results of the 2009 NO BUILD and the 2009 BUILD capacity analyses are summarized in the following sections - Results and Discussion of Intersection Capacity Analyses.

RESULTS OF SIGNALIZED INTERSECTION CAPACITY ANALYSES

IMPLEMENTATION YEAR (2009)

Intersection #1 - Osuna Rd. / Jefferson St. - Pages A-38 thru A-44

The results of the 2009 implementation year analysis of the signalized intersection of Osuna Rd. / Jefferson St. are summarized in the following table:

Osuna Rd. / Jefferson St.	2009 N	o Build	2009 BUILD		
	A.M.	P.M.	A.M.	<u>P.M.</u>	
Existing Geometry	D - 45.8	F - 125	D - 48.2	F - 129	
Exist. Geom. – ADD EB.WB Thru, SB RT Lane		E - 67.5		E - 70.2	

D - 38.3 – Bold Italicized LOS / Delay designates that one or more turning movements operate at LOS "E" or worse.

Existing Geometry (Osuna Rd. / Jefferson St.)

James James Hall Formation Ct.										
Approach	Left Turn Lanes	Thru/Lefts	Thru Lanes	Thru/Rights	Right Turn Lanes					
EB Osuna Rd.	2	0	2	1	0					
WB Osuna Rd.	2	0	2	0	1					
NB Jefferson St.	1	0	2	0	1					
SB Jefferson St	1	0	1	1	0					

The intersection of Osuna Rd. / Jefferson St. is operating beyond capacity during the projected PM Peak Hour NO BUILD Conditions. Mitigation of the capacity shortfall at the intersection of Osuna Rd. / Jefferson St. consists of construction of a fourth eastbound thru lane on Osuna Rd., a third westbound thru lane on Osuna Rd., and a southbound right turn lane on Jefferson St. It is questionable whether or not sufficient right-of-way exists to construct this level of improvements. The City of Albuquerque should consider a minimum geometry similar to the one proposed for mitigation if at all possible as part of the Osuna widening project to provide capacity at the intersection in the future.

The trips generated by the proposed Jefferson Office Plaza comprises only about 1% of the overall 2009 projected BUILD traffic volumes at the intersection of Osuna Rd. / Edith Blvd.

The Queuing Analysis for this intersection results in the lanes length changes summarized in the following table:

Queueing Analysis Summary Sheet

Project:

Jefferson Office Plaza (Jefferson Plaza / Jefferson St)

Intersection:

Osuna Rd / Jefferson St

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Eastbound	-	eft Tu		Thru	Move	ements	Right Turn			
Approach	# Lanes	Vol.	Length (Ft.)	# Lanes	s Vol.	Length (Ft.)	# Lanes	Vol.	Lengtl (Ft.)	
Existing Lane Length	2	236	190	2	1,081	Cont	0	154	0	
AM NO BUILD Queue	2	299	200	2	1,355	700	0	186	225	
AM BUILD Queue	2	299	200	2	1,355	700	0	191	225	
Existing Lane Length	2	248	190	2	1,487	Cont	0	81	0	
PM NO BUILD Queue	2	331	275	2	1,907	>1,000	0	101	175	
PM BUILD Queue	2	331	275	2	1,907	>1,000	0	102	175	
Westbound Approach	# Lanes	Vol.	Length (Ft.)	# Lanes	Vol.	Length (Ft.)	# Lanes	Vol.	Length (Ft.)	
Existing Lane Length	2	182	190	2	921	Cont	0			
AM NO BUILD Queue	2	203	150	2	1,101	600	0	262 292	999 325	
AM BUILD Queue	2	213	150	2	1,101	600	0	292		
Existing Lane Length	2	88	190	2	1,016	Cont	0	201	325	
PM NO BUILD Queue	2	98	100	2	1,076	825	0	224	999	
PM BUILD Queue	2	100	125	2	1,256	825	0	224	325 325	
F Scott Care - Annual Scot					1,200	023		224	325	
Northbound Approach	# Lanes	Vol.	Length (Ft.)	# Lanes	Vol.	Length (Ft.)	# Lanes	Vol.	Length	
Existing Lane Length	1	122	150	2	227	Cont	# Lanes		(Ft.)	
AM NO BUILD Queue	1	161	200	2	296	200	1	<i>42</i> 55	150 100	
AM BUILD Queue	1	162	200	2	301	200	1	56	100	
Existing Lane Length	1	291	150	2	557	Cont	1	264	150	
PM NO BUILD Queue	1	384	500	2	727	525	1	345	475	
PM BUILD Queue	1	389	500	2	763	550	1	355	475	
propalation of the control probabilities was an intermediate and the control of t		1979 - Jahrels Jöhler Schaum aut auf Austria			100	Section and section and and		333	4/3	
Southbound			Length			Length			Length	
Approach	# Lanes	Vol.	(Ft.)	# Lanes	Vol.	(Ft.)	# Lanes	Vol.	(Ft.)	
Existing Lane Length	1	197	175	2	374	Cont	0	160	0	
AM NO BUILD Queue	1	227	275	2	430	275	0	204	250	
AM BUILD Queue	1	227	275	2	465	300	0	204	250	
Existing Lane Length	1	335	175	2	342	Cont	0	303	0	
PM NO BUILD Queue	1	385	500	2	393	325	0	381	500	
PM BUILD Queue	1	385	500	2	400	325	0	381	500	

 AM
 PM

 Cycle Length:
 100
 130

It is usually acceptable to divide the calculated right turn queue length by 2 to account for right turns on red and right turn overlaps.

Intersection #2 - Singer Rd / Jefferson St - Pages A-45 thru A-49

The results of the 2009 implementation year analysis of the signalized intersection of Singer Rd / Jefferson St are summarized in the following table:

Singer Rd / Jefferson St.	2009 No	Build	2009	BUILD
	A.M.	P.M.	A.M.	P.M.
Existing Geometry	C - 29.0	D - 45.2	C - 29.5	D - 49.7

D - 38.3 - Bold Italicized LOS / Delay designates that one or more turning movements operate at LOS "E" or worse.

Existing Geometry (Singer Rd / Jefferson St)

Approach	Left Turn Lanes	Thru/Lefts	Thru Lanes	Thru/Rights	Right Turn Lanes
EB Singer Rd	1	0	1	0	1
WB Singer Rd	2	0	1	1	'n
NB Jefferson St	1	0	2	Ů.	1
SB Jefferson St	1	0	1	1	0

The analysis of the intersection of Singer Rd / Jefferson St indicates that the intersection will operate at satisfactory levels-of-service for all conditions analyzed in this study, and that the implementation of the proposed Jefferson Office Plaza will have minimal impact on the signalized intersection.

The Queuing Analysis for this intersection results in the lanes length changes summarized in the following table:

Queueing Analysis Summary Sheet

Project:

Jefferson Office Plaza (Jefferson Plaza / Jefferson St)

Intersection:

Singer Blvd / Jefferson St

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Eastbound	<u> </u>	<u>eft Tu</u>			Thru Movements			Right Turns				
Approach	# Lanes	Vol.	Length (Ft.)		# Lanes	s Vol.	Length (Ft.)	# Lanes	Vol.	Length (Ft.)		
Existing Lane Length	1	145	175	7	1	28	Cont	1	201	999		
AM NO BUILD Queue	1	162	200	7	1	31	75	1	225	275		
AM BUILD Queue	1	163	200		1	31	75	1 1	225	275		
Existing Lane Length	1	212	175	7	1	63	Cont	1	428	999		
PM NO BUILD Queue	1	237	350	1	1	71	125	1	479	600		
PM BUILD Queue	1	237	350		1	71	125	1	479	600		
Westbound Approach	# Lanes	Vol.	Length (Ft.)		# Lanes	Vol.	Length (Ft.)	# Lanes	Vol.	Length (Ft.)		
Existing Lane Length	2	56	175		2	19	Cont	0	21	0		
AM NO BUILD Queue	2	63	75	1	2	21	25	0	24	50		
AM BUILD Queue	2	63	75	1	2	21	25	0	25	50		
Existing Lane Length	2	193	175	1	2	35	Cont	0	53			
PM NO BUILD Queue	2	216	200	1	2	39	50	0	59	0		
PM BUILD Queue	2	216	200		2	39	50	0	59 59	125		
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Northbound Approach	# Lanes	Vol.	Length (Ft.)		# Lanes	Vol.	Length (Ft.)	# Lanes	Vol.	Length (Ft.)		
Existing Lane Length	1	411	125		2	671	Cont	1	283	280		
AM NO BUILD Queue	1	421	450		2	687	400	1	290	325		
AM BUILD Queue	1	421	450		2	768	450	1	290	325		
Existing Lane Length	1	210	125		2	386	Cont	1	156	280		
PM NO BUILD Queue	1	215	325		2	395	325	1	160	250		
PM BUILD Queue	1	215	325		2	412	325	1	160	250		
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Southbound			Length		1		Length			Length		
	# Lanes	Vol.	(Ft.)		# Lanes	Vol.	(Ft.)	# Lanes	Vol.	(Ft.)		
Existing Lane Length	1	34	130		2	387	Cont	0	134	0		
AM NO BUILD Queue	1	44	75		2	495	300	0	172	225		
AM BUILD Queue	1	44	75		2	506	325	0	172	225		
Existing Lane Length	1	28	130		2	593	Cont	0	134	0		
PM NO BUILD Queue	1	36	75		2	759	550	0	172	275		
PM BUILD Queue	1	37	75		2	842	600	0	173	275		

AM PM Cycle Length: 100 130

It is usually acceptable to divide the calculated right turn queue length by 2 to account for right turns on red and right turn overlaps.

RESULTS OF UNSIGNALIZED INTERSECTION CAPACITY ANALYSES

IMPLEMENTATION YEAR (2009)

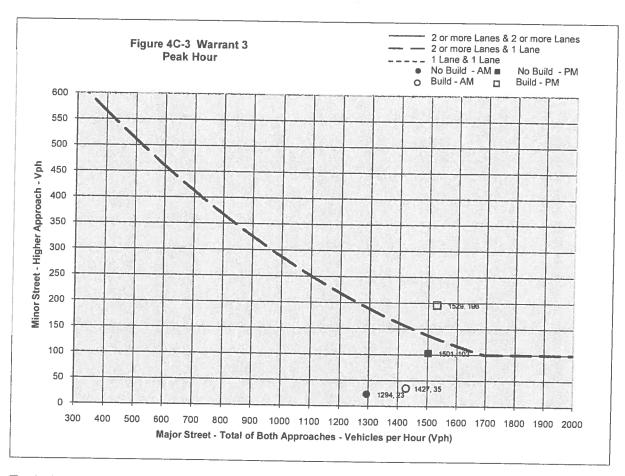
Intersection #3 - Jefferson Plaza / Jefferson St - Pages A-50 thru A-55

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

	2009 N	O BUILD	2009 BUILD w/Par		
	AM	PM	AM	PM	
Jefferson Plaza / Jefferson St.					
Minor Street (Jefferson Plaza)					
EB Left	C - 15.9	D - 27.5	C - 18.9	F - 86.4	
EB Thru	C - 15.9	D - 27.5	C - 18.9	F - 86.4	
EB Right	C - 15.9	D - 27.5	C - 18.9	F - 86.4	
Minor Street (Jefferson Plaza)					
WB Left	C - 19.3	C - 16.7	D - 26.3	C - 18.3	
WB Thru	C - 19.3	C - 16.7	D - 26.3	C - 18.3	
WB Right	C - 19.3	C - 16.7	D - 26.3	C - 18.3	
Major Street (Jefferson St)					
NB Left	A - 9.7	A - 9.3	B - 10.7	A - 9.5	
SB Left	A - 8.7	A - 9.8	A - 8.7	A - 9.8	

This analysis indicates that the intersection of Jefferson Plaza / Jefferson St. will operate at satisfactory levels-of-service for all conditions analyzed in this study except for the projected 2009 PM Peak Hour BUILD Condition. The long delays expected during the PM Peak Hour BUILD Conditions give cause to evaluate the intersection to see if the warrants are met for a traffic signal based on the Peak Hour Warrant Analysis in the Manual on Uniform Traffic Control Devices. The following graph demonstrates the projected 2009 NO BUILD and BUILD Volumes plotted on the Peak Hour Warrant graph utilizing a 50% reduction for the right turn movements:

Project Name		Analysis Year Traffic Volumes								
Jefferson Plaza Office Development	AM	Major	Minor	PM	Major	Minor				
Intersection Jefferson Plaza / Jefferson St. Analysis Year 2009	No Build	1294	23			103				
Number of Lanes Major St. 2 Minor St. 1	Build	1427	35	Build	1529	196				



Technically, the preceding graph demonstrates that there will be sufficient volume at the intersection to satisfy the Peak Hour Warrant criteria. However, with a projected delay on the side street of approximately 86 seconds, this study does not recommend a traffic signal at this location. The Peak Hour Warrant is primarily for side streets with excessive delays during the peak hour. This intersection is not characterized by excessive delays on the side street. There are likely other driveways on Jefferson St. in this area with long delays that do not have traffic signals.

Intersection #4 - Jefferson Plaza / Driveway 'A' - Pages A-56 thru A-58

The results of the analysis of the unsignalized intersection of Jefferson Plaza / Driveway 'A'. are summarized in the following table:

	2009 BUILD w/Parl		
	AM	PM	
Jefferson Plaza / Driveway 'A'.			
Minor Street (Driveway 'A')			
SB Left	B - 10.5	B - 10.5	
SB Right	B - 10.5	B - 10.5	
Major Street (Jefferson Plaza)			
EB Left	A - 8.0	A - 7.3	

This analysis indicates that the intersection of Jefferson Plaza / Driveway 'A' will operate at satisfactory levels-of-service for the all conditions analyzed in this study.

Intersection #5 - Jefferson Plaza / Driveway "B" - Pages A-59 thru A-60a

The results of the analysis of the unsignalized intersection of Jefferson Plaza / Driveway "B" are summarized in the following table:

	2009 BUI	LD w/Park
	AM	PM
Jefferson Plaza / Driveway "B"		
Minor Street (Driveway "B")		
SB Left	A - 9.9	A - 9.7
SB Right	A - 9.9	A - 9.7
Major Street (Jefferson Plaza)		
EB Left	A - 7.7	A - 7.3

This analysis indicates that the intersection of Jefferson Plaza / Driveway 'B' will operate at satisfactory levels-of-service for the all conditions analyzed in this study.

It should be noted that Levels of Service (LOS) for unsignalized intersections cannot be compared directly with Levels of Service for signalized intersections. LOS for unsignalized intersections is based on reserve capacity, which is converted to generalized levels of delay; LOS for signalized intersections is based on actual delay in seconds.

LEVEL-OF-SERVICE CRITERIA FOR UNSIGNALIZED INTERSECTIONS

Average Delay	Level-of-Service
(secs)	
≤ 10	Α
> 10 and ≤ 15	В
> 15 and ≤ 25	С
> 25 and ≤ 35	D
> 35 and ≤ 50	Ε
> 50	F

Generally speaking, a Level-of-Service D or better is an acceptable parameter for design purposes.

CONCLUSIONS

This analysis was conducted using the following methodology: Trip Generation was established using the Institute of Transportation Engineers' (ITE's) Trip Generation Manual (7th Edition). Generated Trips were distributed proportionately based on the Population Data Analysis Subareas citywide. Growth rates of background traffic volumes were established from historical data from 2001 through 2005; and the intersection analyses were performed in accordance with the 2000 Highway Capacity Manual, Special Report 209. The Traffic Impact Study showed a moderate increase in traffic congestion for the adjacent transportation network based on 100% buildout of the proposed project.

There were some capacity shortfalls noted, especially at the intersection of Osuna Rd. / Jefferson St. that should be improved when the City constructs the Osuna Rd. widening project in 2011 to implement a third eastbound and a third westbound thru lane on Osuna Rd. from Edith Blvd. through Jefferson St. The City's improvement plan for the intersection of Osuna Rd. / Jefferson St. should meet the minimum recommendations of this study if at all possible.

In summary, the proposed 2009 development plan for the Jefferson Office Plaza facility at Jefferson Plaza / Jefferson St will present no significant adverse impact to the adjacent transportation system provided that the following recommendations are followed:

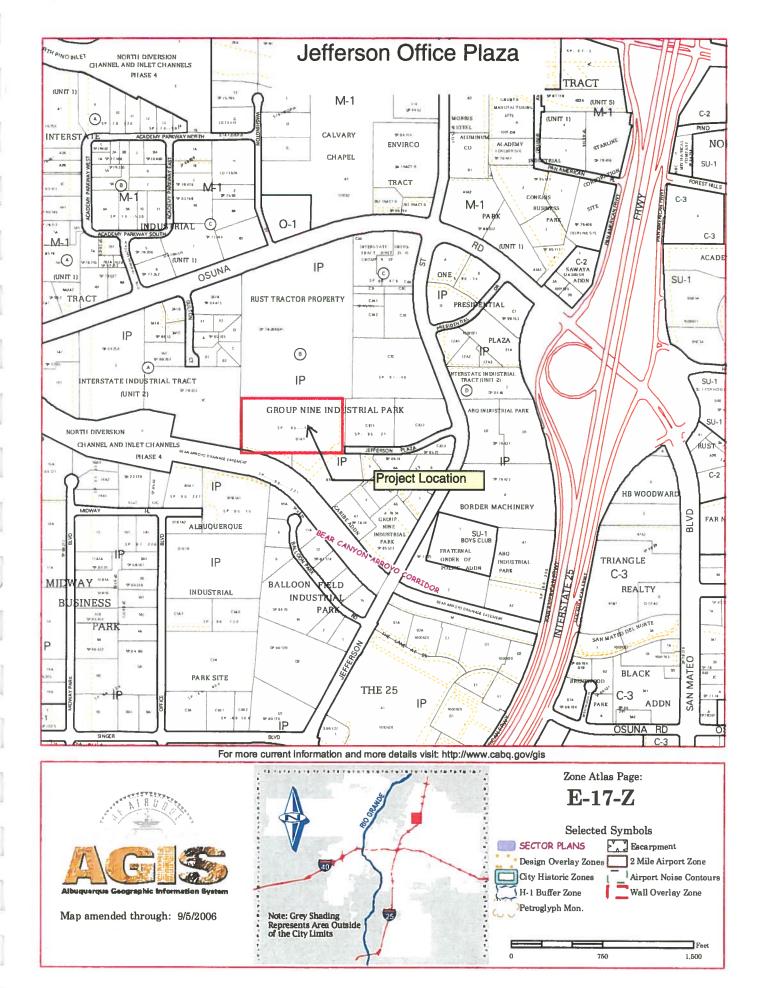
RECOMMENDATIONS

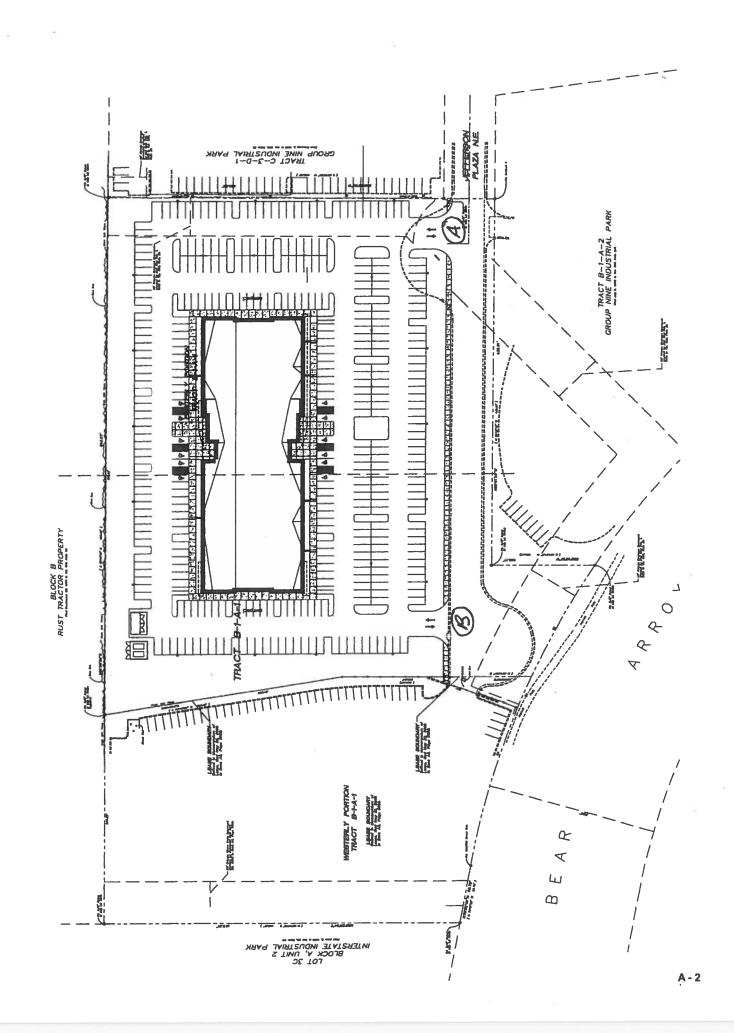
EROMIMPLEMENTATION YEAR GOOD ANALYSIS

- Design and construction of the proposed development should insure that adequate site distances are maintained to the extent possible at all proposed driveways and intersections, and at existing intersections contingent to this site.
- Osuna Rd. / Jefferson St. Construct a fourth eastbound thru lane on Osuna Rd. (to create a thru/right turn lane), a third westbound thru lane on Osuna Rd., and a southbound right turn lane on Jefferson St. (See discussion on Page 6). The trips generated by the proposed Jefferson Office Plaza comprises only about 1% of the overall 2009 projected BUILD traffic volumes at the intersection of Osuna Rd. / Jefferson St.
- Jefferson Plaza / Jefferson St. This study does not recommend that a traffic signal be constructed at the intersection of Jefferson Plaza / Jefferson St. However, to mitigate the moderately long delays anticipated for the eastbound traffic on Jefferson Plaza at Jefferson St., it is recommended that the eastbound approach be striped to incorporate an exclusive eastbound left turn lane and a thru / right turn lane if sufficient right-of-way exists. The eastbound left turn lane should be constructed to a length of 100 feet plus transition. The projected eastbound left turn queue length is less than 100 feet.
- Driveway "A" Driveway "A" is recommended to be a full access unsignalized driveway on Jefferson Plaza. Driveway "A" may be constructed with one exiting lane (for left turns and right turns) and one entering lane.
- Driveway "B" Driveway "B" is recommended to be a full access unsignalized driveway on Jefferson Plaza. Driveway "B" may be constructed with one exiting lane (for left turns and right turns) and one entering lane.
- All driveways should be constructed utilizing 25 feet curb returns or larger if needed to accommodate large delivery trucks.
- All driveways shall be designed and constructed to meet the City of Albuquerque Development Process Manual (D.P.M) standards.

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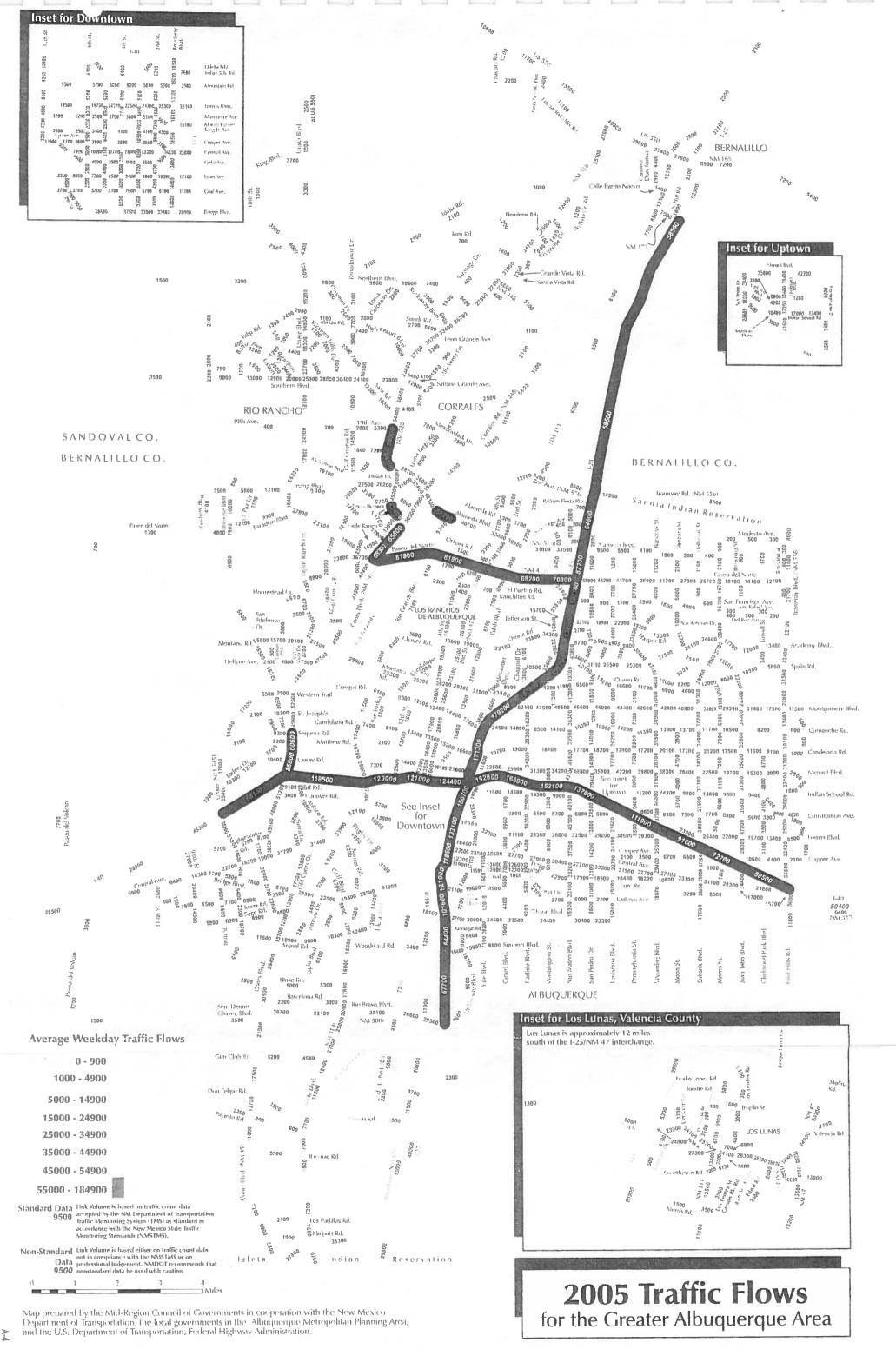


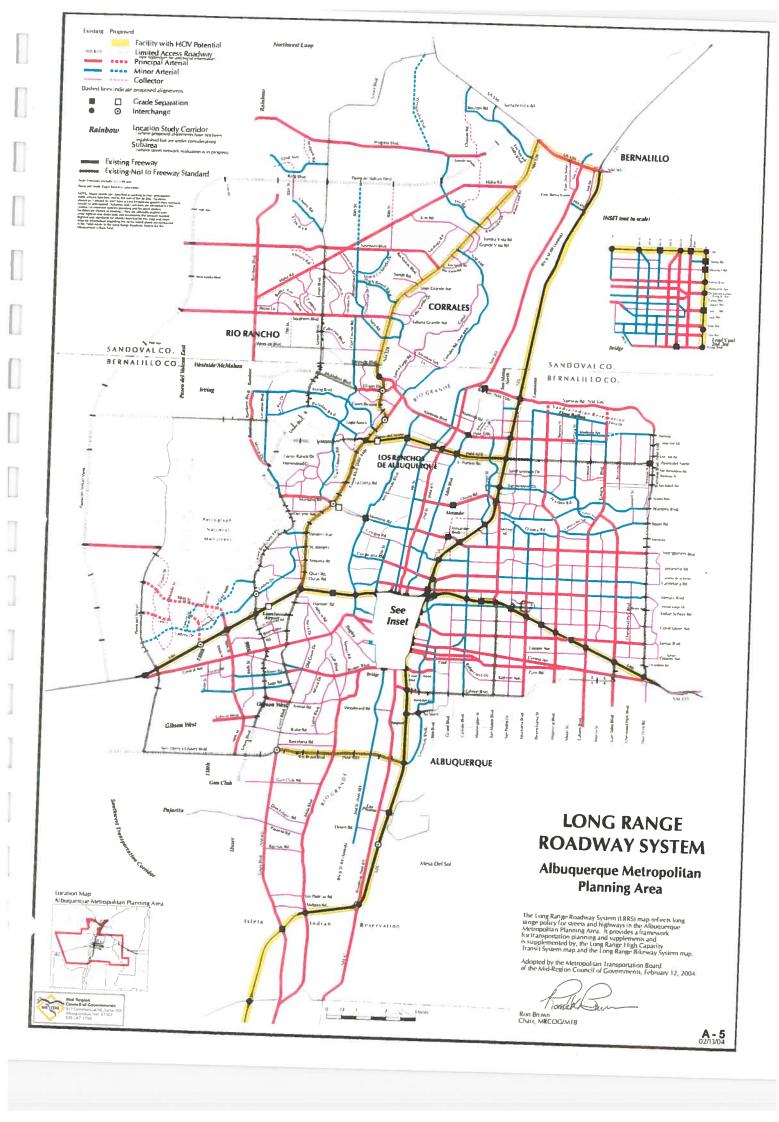




Jefferson Office Plaza

Jefferson Plaza / Jefferson St Aerial Photo





Jefferson Office Plaza (Jefferson Plaza West of Jefferson St.)

Trip Generation Data

PEAK EXIT M.d ENTER PEAK EXIT W.A ENTER VOLUME TWO-WAY 24 HOUR GROSS Units General Office Building (710) USE (ITE CODE)

8

18

133

1,080

76.00 1,000 S.F.

ITE Trip Generation Equations:

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

3.65 Exit 20% 0.77 Ln(X)+ Enter, Ln(T) = 50% E Average Vehicle Trip Ends on a Weekday, Peak Hour of Adjacent Street Traffic, One Hour Between 7am and 9am (A.M. PEAK HOUR)

0.8 Ln(X) + Ln(T) = 0, 88% Enter,

+ 1.55 12% Exit

83%

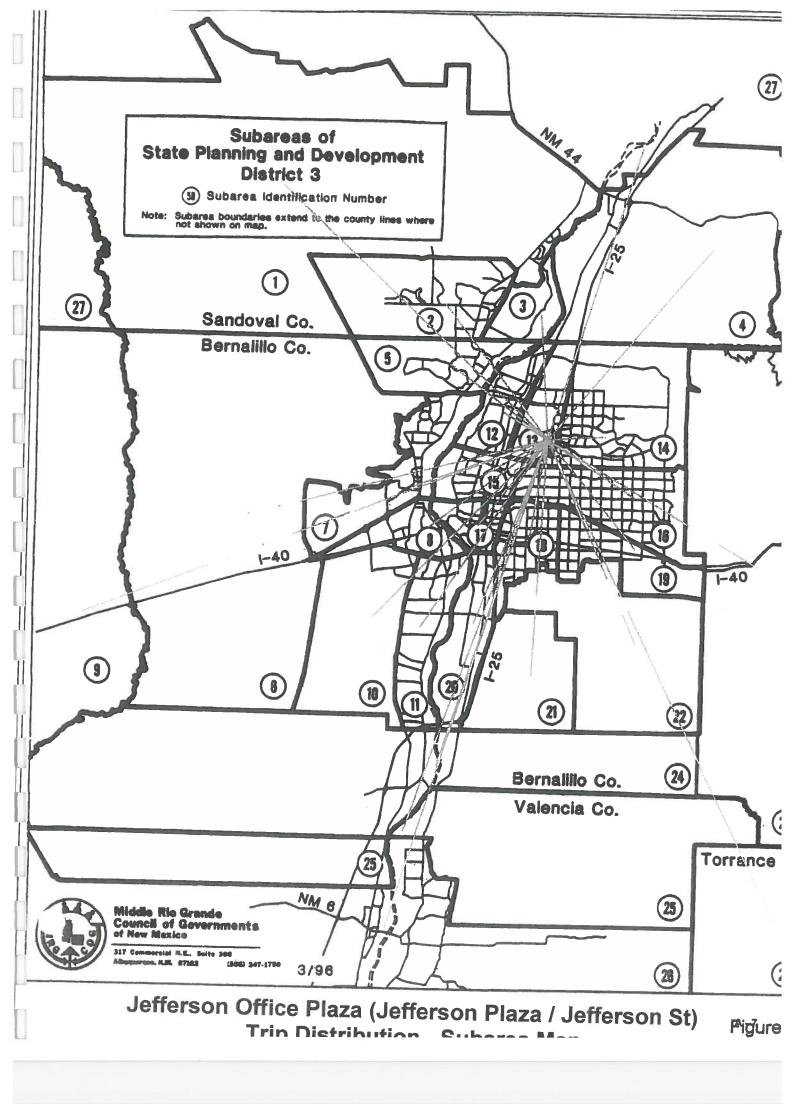
1.12 (X) +

17% Enter,

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

Comments:

Based on ITE Trip Generation Manual - 7th Edition



Trip Distribution Table

6/4/2007

Jefferson Office Plaza

Sub Area Population Data: For determination of Trip Distribution for Proposed Office Development

2000 and 2025 Deta Taken from Mid-Region Council of Governments' 2025 <u>Socioeconomic</u> 2025 Socioeconomic Forecests by Deta Anelvais Subzones for the Mit-Region of New Mexico (S.03-01)

	-	Donitation	- chalanoi				0	0	0	710	000	2000	2,000	0 0	2/0	7,128	0	1,079	12,997	5,286	16,518	2,812	6,183	6.041	713	0	243	1,175	107	37	2.380		582	200	67.851	61.25%
(Sr)	Jefferson St South	% Population /	Dist. Utilizing		0.000	0.00%	8000	8000	0.00%	0.00%	5.10 A	2 5207	2000	0.00	4 000	1.02.70	0.00%	0.87%	11.73%	4.77%	14.91%	2.54%	5.58%	5.45%	0.84%	0.00%	0.22%	1.06%	0.10%	0.03%	2.15%	0.00%	0.52%	%00.0	61.25%	
	Je	% Utilizina			0.0	OF.5	300	5 0	360	90%	3035	2000	7.00	du.	:000	200	\$ 5°	0. 1	20.5	300%	100%	30.2	1%.06	5005	%0%	60.9	20.5	90.%	206	% O6	505	0%	%06	%0		
		Population			71	707	222	750	1.124	19	854	311	9	75	237		883	8	0	5 0	2	312	685	671	79	0	27	131	12	4	264	932	65	213	8,454	7.63%
(OE)	Osuna Kd East	% Population /	Dist Duitzing		0.06%	0.64%	0.20%	0.68%	1.01%	0.02%	0.59%	0.28%	0.01%	0.07%	0.21%	0.00%	0.80%	70000	8000	2000	2000	0.20%	0.62%	0.81%	0.07%	0.00%	0.02%	0.12%	0.01%	0.00%	0.24%	0.84%	0.08%	0.19%	7.63%	
		% Utilizing			50.2	20%	20%	80%	20%	10'Z.	10%	7.01	(0%)	10%	:00:	0.8	1766	0	OPS	(Jac)	1001	/604	100	100	20.	0.0	× 0	200	0.00	10.5	10.2	80%	10%	80%		
		Population			18	2,828	888	187	4,497	0	0	0	0	0	0	2,459	4,807	12.997	C	0	0	0	P	0	0	0		0		0	0 00	233	0	23	798,82	20.13%
(JN)		% Population / Dist. Utilizing	0		0.02%	2.55%	0.80%	0.17%	4.06%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	2.22%	4.34%	11.73%	0.00%	0.00%	0.00%	0.00%	%000	76000	0.00%	70000	2000	2000	2000	2000	226	2000	0.00%	0.00%	20.13%	
		% Utilizing			5.02	80.4	80.::	20."	30%	9,0	3.5	0.7,	2.5	2.0	35	200	49."	30.5	50	03.	.%.0	0.50	'/aU	il d	2.0	200	. O.C.	300	00	0.2	20%	Ċ	1000	100117		
		Population / Distance		70000	0.00%	2.1878	7.00.r	0.85%	5.07%	0.78%	20.80%	2.81%	0.00%	0.07%	2.14%	4.44%	8.86%	23.47%	4.77%	14.91%	2.82%	6.18%	8.06%	0.71%	%00.0	0.24%	1.18%	0.11%	0.04%	2.39%	1.05%	0 58%	0 2444	100 004		
		Population / % Population		00	2 20 20	2000	1,10	128	170'0	0 640	2 444	0,111	747	2 200	4,000	4,010	110,8	40,883	5,286	16,518	3,124	6,848	6,713	792	0	270	1,305	119	41	2,644	1,165	846	266	110.772		
		Dist. (Mi.)		22 74	10.52	7.71	- u	7.57	10.10	8 78	0.0	30.40	15.75	13 04	3 28	7	2 82	20.02	4.78	6.57	0.77	6.10	8.78	12.19	14.67	13.87	15.28	21.17	25.66	31.62	18.89	32.90	49.98			
	Population in	Study		2 009	37,185	8.555	14 A2A	42 5KB	3 717	57.405	28 352	1.846	11.784	32 972	18.148	D RRO	94 O44	25 4 40	20,148	106,80	141,141	41,752	58,916	9,656	9	3,749	19,940	2,522	1,051	83,624	22,012	21,257	13,289	793,557		
		Population for the Year	2009	37.185	40,358	8,555	14.628	42 558	3.717	57,405	28.352	1,846	11,784	32,972	18,148	9 BBO	94,044	25 4AB	400 450	24 444	141,141	70,114	38,918	909'8	9	3,748	19,940	2,522	1,051	83,624	22,012	21,257	13,289	831,905		
	2010	5	2010	39,738	40,610	8,728	14,936	44.203	3,950	59,615	28,553	1,888	4,822	33,202	16,148	10.148	94,279	25 282	108 353	21 186	44 870	000	000'00	RAD'A	0 000	3,629	085,02	400,7	1,002	80,654	22,276	21,690	13,771	836,916		.pe
	2005	8	2005	28,972	39,348	7,865	13,387	35,988	2,784	48,565	27,548	1,678	39,532	32,051	18,144	8,715	93,104	24.691	108 882	20.920	42 07B	50.027	0 402	704'0	0 00 7	4,431	2 202	4,000	200,-	000'0'	CCR'07	19,524	11,360	811,863	1 11 11 11	- Subarrea III Which the Site it located.
		Study		100%	× 003	%.001	100	1003	1003	100%	100%	::00::	3500	3001	100%	1001	100%	100%	100%	1003	1005	11 Nove.	3.003	600	100	101	1400	76001	1000	8300	300	000	100		in schiols th	III WINGS III
	Sub Area	#.O.I		-	2	8	4	ç	c	7	8	9	0,	=	12	13,	14	ŧc.	16	17	18	51	20	5	22	27	24	25	98	27	200	02/2	5		Cabaras	Palpono -

6/8/2007

Trip Distribution Table

Sub Area Population Data: For delarmination of Trip Distribution for Proposed Office Development

2000 and 2025 Data Takan from Mid-Region Council of Governmants' 2025 <u>Socioeconomic</u> 2025 Socioeconomic Forecasts by Data Analysis Subzonas for the Mid-Region of New Maxico

		į						(SW)			(MO)
	2005	2010	Interpolated	Donishalian i				Singer Bivd West	To .		Osuna Rd West
	n Population	8	Population for the Year	Study	Dist. (Mi.)	Population / Distance	% Utilizing	% Population / Dist. Utilizing	Population	% Utilizing	% Population /
- 1.	2005		2009					D			DISC UNICING
.0	26,972		37,185	2.009	22.71	0	7053				
2	39,348	40,610	40,358	37.185	10.52	3.6	UZA	0.00%	0	%0	0.00%
23	7,865	8,728	8,555	8.555	7 71		0.00	0.00%	0	0%0	0.00%
3	13,387	14,936	14,626	14.626	15.81	1,10	(V)	0.00%	0	%0	0.00%
33	35,968		42,556	42.558	7.57	100 A	0.0	0.00%	0	569	0.00%
%0	2,784		3,717	3.717	19 10		000	0.00%	0	340	0.00%
5	48,565	59,615	57,405	57.405	R 78	q	0.20	0.00%	0	%0	0.00%
9	27,546	1	28,352	28.352	0 4		0.70	0.00%	0	0%0	0.00%
ş: 0	1,678		1.846	1 848	00.00	ري .	0%	0.00%	0	500	%000
%00	39,532		11 784	1,040	30.4g		%0	%00.0	0	0%0	7000
96 Oc	32,051		32 972	22 070	10.70		%0	0.00%	0		0.00%
98	16.144	16.148	18 148	32,812	13.94	2,366	%0	0.00%	0		9000
550	8.715	10 148	0 0 0	10,146	3.28	4,918	97.9	%00.0	0		0.00%
0%2	93.104	04 270	9,000	098'8	1.01	9,811	8%9	0.53%	580		4 4004
9%.G	24.691	25 282	25 440	94,044	3.62	25,993	950	0.00%	2		624.7
36	108.882	108 353	100 450	20,148	4.78	5,286	%6	%00.0	0	200	0.00%
%00	20 920	21 108	100,408 144,400	108,459	6.57	16,518	%0	0.00%	0	200	0.00%
20	42.078	41 670	21,141	21,141	6.77	3,124	%0	0.00%	0	0/0	0.00%
10%	59.027	58 88	20,14	41,752	6.10	6,848	039	0.00%	0	200	0.00%
%0	9.482	9.899	0,910	36,916	8.78	6,713	%0	0.00%	0	300	0.00%
%0	60	8	000	oco'a	12.19	792	550	0.00%	c	/40	8 200
100%	4,231	3.629	3 749	2 740	14.67	0	%0	%00.0	0	200	0.00%
50.0	18,140	20.390	10 040	40,748	13.87	270	0.%	0.00%	0	760	9000
%0	2,393	2.554	2,572	048'81	87.01	1,305	6%0	0.00%	0	200	8 8
%	1.009	1.082	1,054	770'7	71.17	119	97.0	0.00%	0	320	8 900
250	75.508	85 854	1,00	100,1	25.66	41	330	0.00%	0	300	8000
%0	20.955	22,224	92,024	83,624	31.62	2,644	0.%	0.00%	0	0 0	0.00%
33	19.524	21 800	24.012	22,012	18.89	1,165	1760	0.00%	ō	000	0.00%
120	11 3An	40 774	107'17	21,257	32.90	646	950	0 00%		000	800.0
2	11,3001	13,7/1	13,289	13,289	49.98	266	760	8000	2 0	00	0.00%
	811,863	836,916	831,905	793,557		110 772	10711	0.00%	0	%0	%00.0
				-		71011		0.53%	589		2 BA02

1,570

Population

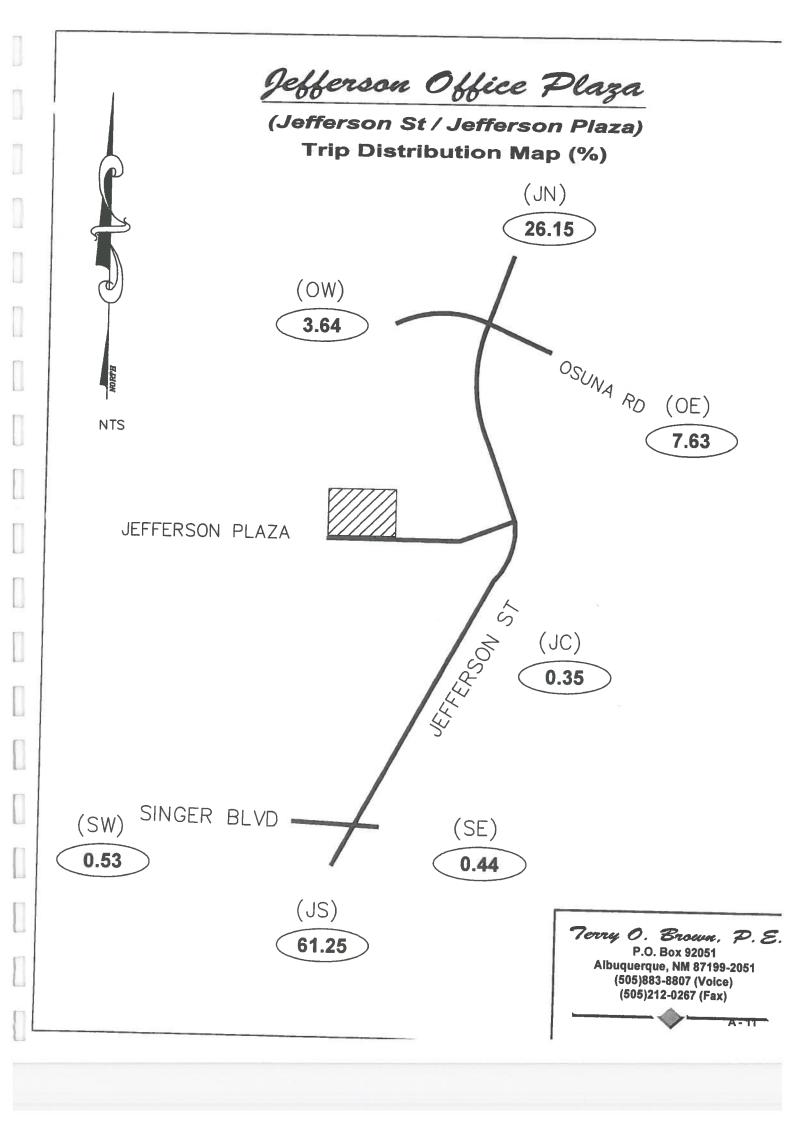
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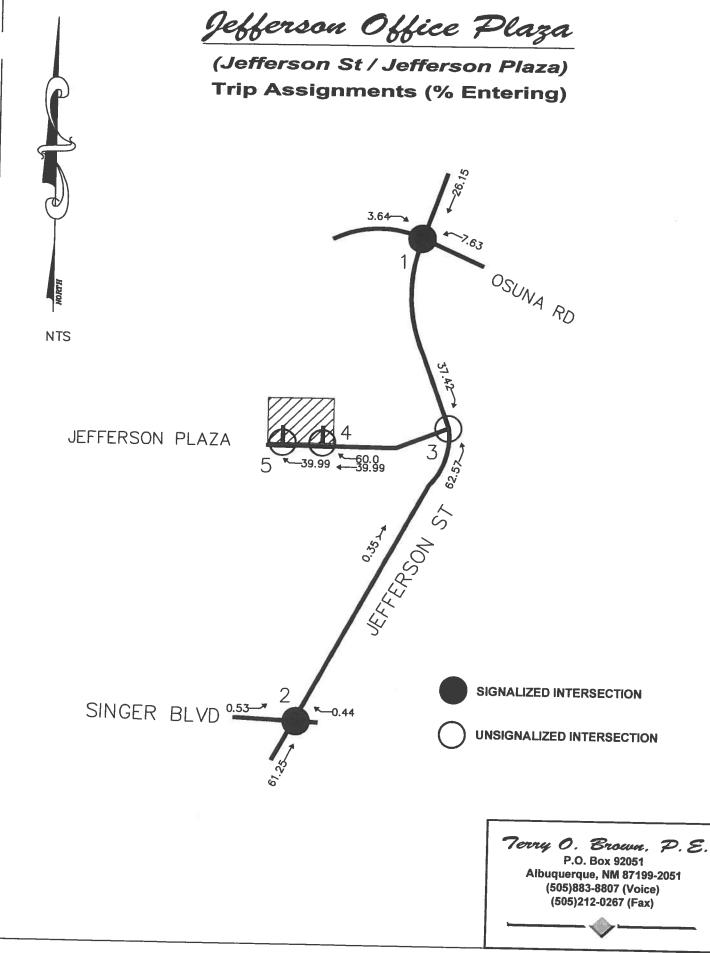
Trip Distribution Table

Sub Area Population Data: For delamination of Trip Distribution for Proposed Office Development

2000 and 2012 Data Taken from Mitd-Region Council of Governments' 2025. <u>Socioeconomic</u> 2025 <u>Socioeconomic Forecasts by Data Analysis Subzones for the Mid-Region of New Mexico (S-03-01)</u>

		Population		T	C				0					3	0	0	0	491	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		491	0.44%
	55 L	Popu																																		C
(SE)	Suiger Blvd East	Diet Heliming	DASE CUITZING		0.00%	0.00%	0.00%	0 00%	2,000 0	0.00%	0.00%	2000	70000	2000	2000	0.00%	0.00%	0.44%	0.00%	0.00%	0.00%	0.00%	0.00%	%00.0	%00.0	%00.0	%00.0	0.00%	%00.0	0.00%	0.00%	0.00%	0.00%	0.00%	0.44%	
		% Utilizing			1%0	%0	%0	%0	300	960	%0	200	0%	700	0,00	0.20	20	300	%0	960	0%	%0	6%	0%0	0.76	%0	ೆನಿ೦	240	0%0	0.7%	0%	900	20	0%		
100	3	Population			0	0	0	0	0	0	0	0	0	C	0	0	0 00	285	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	392	0.35%
(JC)	% Population /	Dist Utilizing			0.00%	%00.0	%00.0	0.00%	0.00%	0.00%	0.00%	%00.0	%00.0	0.00%	0.00%	7000	0.35%	2000	0.00%	8000	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	800.0	0.00%	0.00%	0.00%	0.35%	
	0/ 1 14/17-1-	M CUREING			0.0	250	9%	0.29	0%	6%	33.0	%0	6%	0%	750	2.0	40%	100	000	838	3 3	3 8	× 0	2.0	%0	800	2 6	0.00	3 3	2 2	8 C	0.75	30 30	0%0		
	Population /	Distance		6	000	3,333	טרד,ר	93/	5,621	195	6,540	3,111	61	747	2,386	4,918	9.811	25 993	5 288	46.549	2 426	8 840	0,040	700	787	270	1 305	440	77	2 844	4 405	1,100	280	440 440	77,011	
	Dist. (Mi.)	()		29.74	10 50	7 7 4	45.04	10:01	1.01	2 6	8,78	20.40	50.48 FF FF	10.70	13.94	3.28	1.01	3.62	4.78	6.57	8 77	6 10	8 7B	12 10	14.87	13.87	15.28	21 17	25.68	31.62	18 80	32 90	49 9R	2		
	Population in	Study		2 009	37 185	8 555	14 828	42 550	2 747	C7 40E	004,70	1 848	14 764	\$0,10	32,972	16,148	9,860	94,044	25,148	108,459	21.141	41.752	58,916	9.858	9	3.749	19.940	2.522	1.051	83.624	22.012	21.257	13.289	793.557		
	Interpolated Population for	the Year	2009	37.185	40.358	8.555	14 828	42 558	3 717	57 405	28 352	1 848	11 7R4	00000	32,972	10, 140	9,860	94,044	25,148	108,459	21,141	41,752	58,916	9,656	8	3,749	19,940	2,522	1,051	83,624	22,012	21,257	13,289	831,905		
	2010	- chalanoli	2010	39,738	40,610	8,728	14.936	44.203	3.950	59.815	28.553	1.888	4.822	33 202	16 148	20,140	10,146	8/7'56	25,262	108,353	21,196	41,670	58,888	9,699	8	3,629	20,390	2,554	1,062	85,654	22,276	21,690	13,771	836,916		d.
	2005 Population		2005	26,972	39,348	7,865	13,387	35,968	2,784	48,565	27.546	1,678	39,532	32.051	16 144	0 745	0,770	20.00	24,691	108,882	20,920	42,078	59,027	9,482	9	4,231	18,140	2,393	1,009	75,506	20,955	19,524	11,380	811,863		" - Subarea in which the site it located.
400		Study		10035	100°	100%	100%	100%	100%	100%	100%	100%	100%	%CO1	100%	S O.C.	/0000	2000	100%	2001	35001	300%	500.5	100%	100%	100%	100%	100%	300	3001	100%	%90:	106%			in which the
	Sub Area				E-J	cz	¥	r)	C	7	ຄ	C)	10		12	13.	P T		0.0		=	2	3	2,3	17/6	27	27 2	67	9	37	12	27.	58			- Subarea





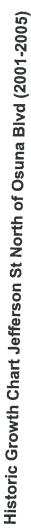
Jefferson Office Plaza (Jefferson St / Jefferson Plaza) **Trip Assignments (% Exiting)** OSUNA RD NTS 37.42— 62.57— JEFFERSON PLAZA SIGNALIZED INTERSECTION SINGER BLVD . UNSIGNALIZED INTERSECTION

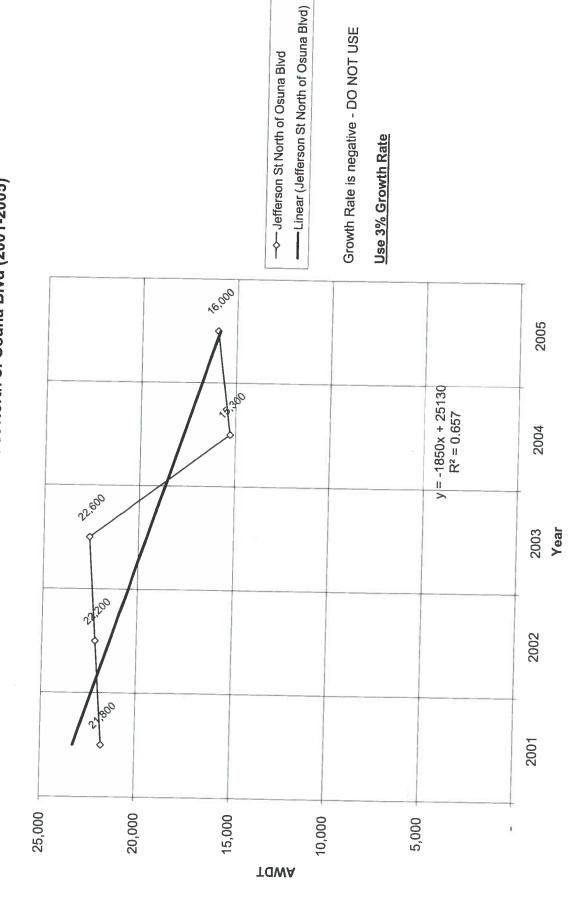
Terry O. Brown, P. S.P.O. Box 92051
Albuquerque, NM 87199-2051
(505)883-8807 (Voice)
(505)212-0267 (Fax)

Jefferson Office Plaza (Jefferson Plaza / Jefferson St)
Historic Growth Rate Table

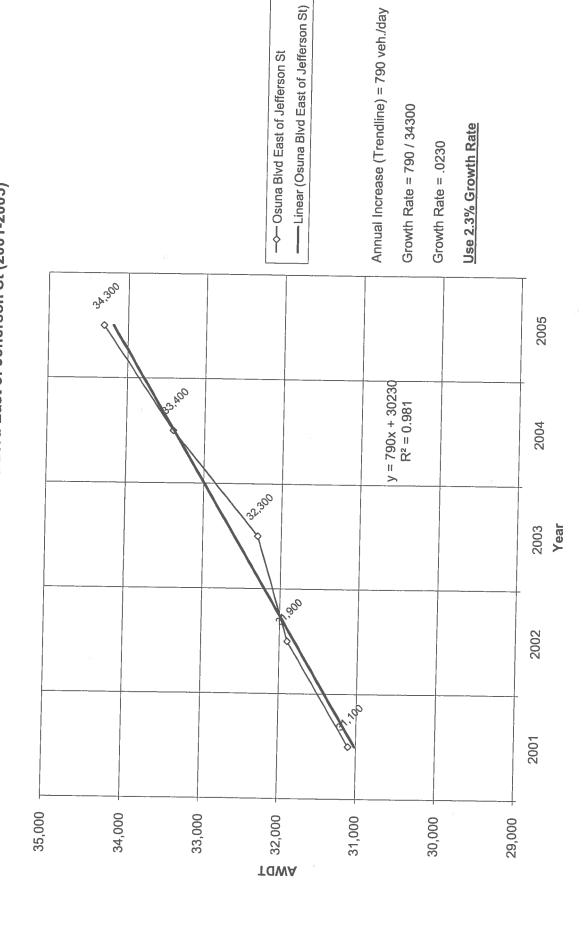
Traffic Flows from MRCOG Map					
2.2	2001	2002	2003	2004	2005
Jefferson St North of Osuna Blvd	21,800	22,200	22.600	15.300	16 000
Usuna Blvd East of Jefferson St	31,100	31,900	32,300	33 400	34 300
Jefferson St South of Osuna Blvd	16,100	15,000	15.200	15 700	22,200
Jefferson St North of Singer Rd	19.200	19.600	19 900	24 800	25,100
Singer Rd West of Jefferson St			10,200	10,600	23,600
Osuna Blvd West of Jefferson St	28 700	20 200	20,20	000,00	000,01
leffereon Ct Couth of Ciana	20,100	23,300	Z3,/UU	32,300	33,800
ומבוימוסו מו ממתון מו מווומבו עם	13,800	14,000	14.200	14.100	14 200

Jefferson_PLaza_Growth.xls

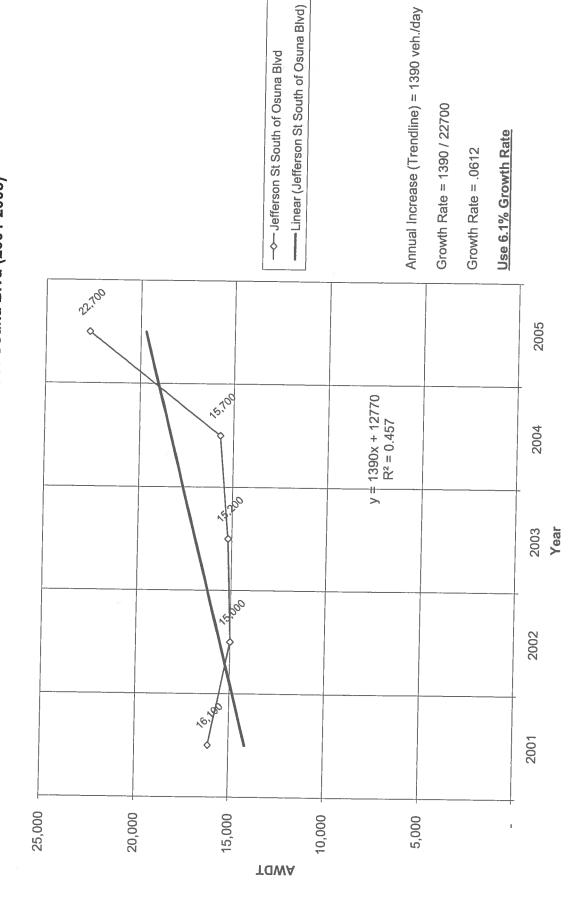




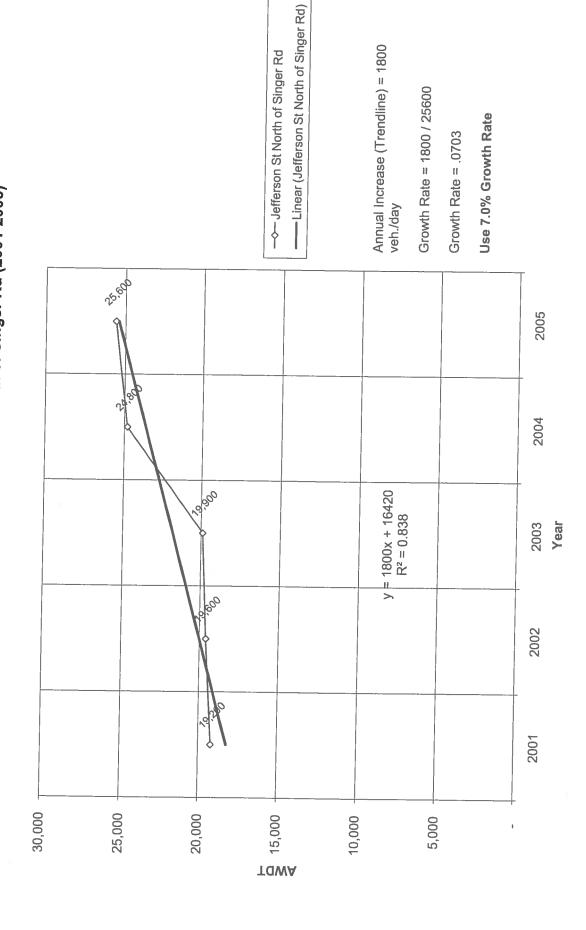
Historic Growth Chart Osuna Blvd East of Jefferson St (2001-2005)



Historic Growth Chart Jefferson St South of Osuna Blvd (2001-2005)

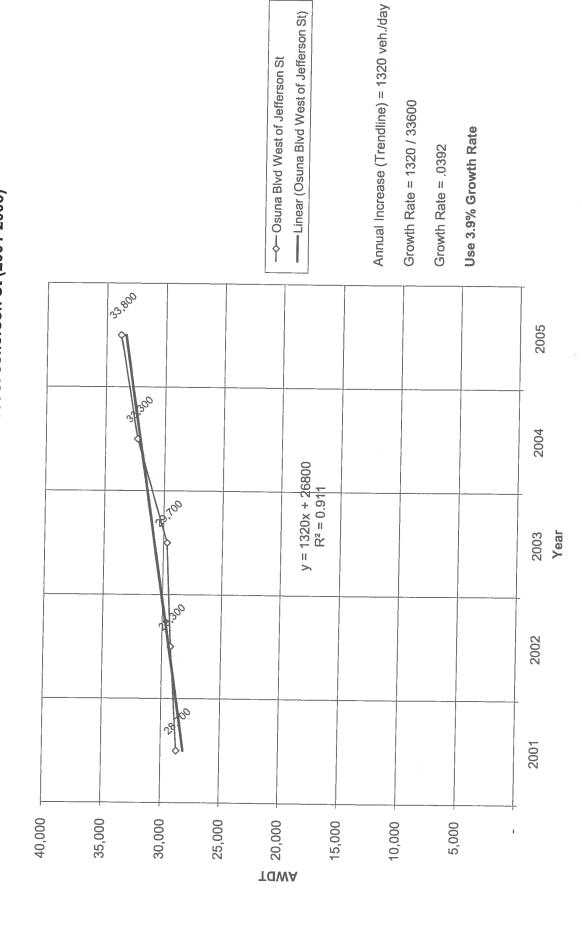


Historic Growth Chart Jefferson St North of Singer Rd (2001-2005)

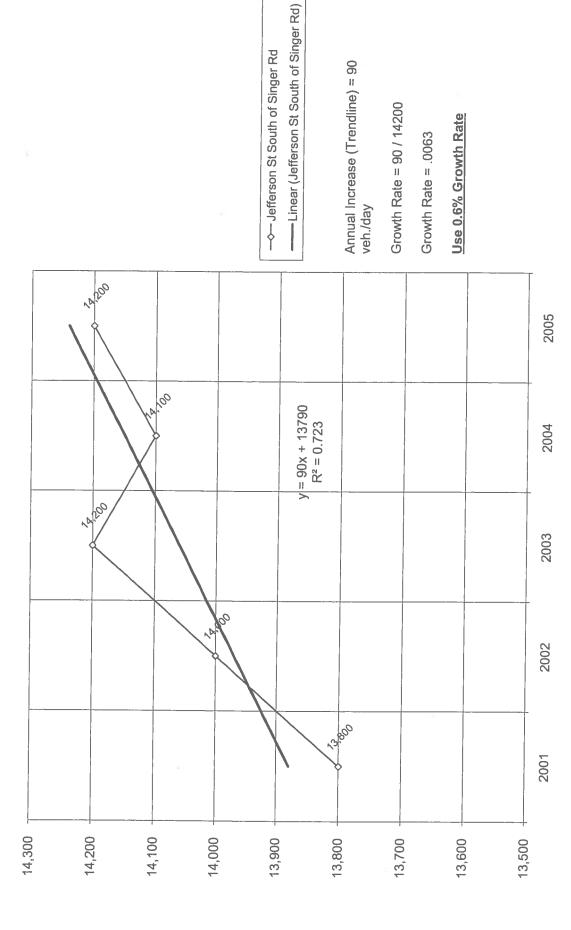


Jefferson_PLaza_Growth.xls

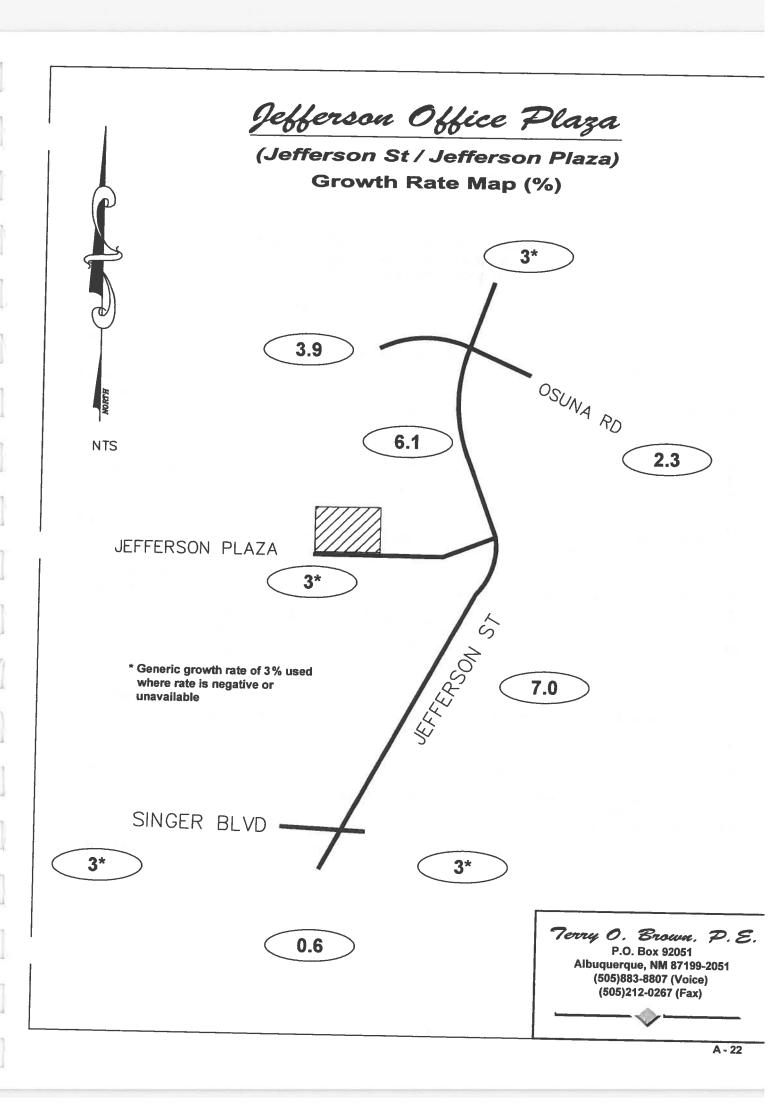
Historic Growth Chart Osuna Blvd West of Jefferson St (2001-2005)



Historic Growth Chart Jefferson St South of Singer Rd (2001-2005)



Jefferson_PLaza_Growth.xls



Jefferson Office Plaza (Jefferson Plaza / Jefferson St) Projected Turning Movements SUMMARY PROPOSED DEVELOPMENT (2009) - 100% Development

INTERSECTION: Summary Jefferson Plaza / Driveway 'A' 0.88 0.88 0.85 0.85 PHF Westbound (Jefferson Plaza) Left Thru Right Eastbound (Jefferson Plaza) Northbound (Driveway 'A') Southbound (Driveway 'A') 3.0% Truck Left Thru Right Right Thru Left Thru Right Existing (2007) 28 0 153 0 0 Ð 2009 (NO BUILD - A.M.) 0 30 n 0 162 0 0 0 0 0 0 2009 (BUILD - A.M.) 0 37 0 0 215 80 0 0 0 11 0 0.97 0.97 0.85 Eastbound (Jefferson Plaza) PHF Westbound (Jefferson Plaza) Northbound (Driveway 'A') Southbound (Driveway 'A') Left Thru Right Thru Right Left Left Thru Right Existing (2007) 0 122 0 0 23 0 0 0 2009 (NO BUILD - P.M.) 0 129 0 0 24 0 0 0 0 0 0 0 2009 (BUILD - P.M.) 0 183 0 0 35 17 0 0 0 82 0 0 Jefferson Plaza / Driveway 'B' 0.88 0.88 0.85 0.85 (5) Eastbound (Jefferson Plaza) Westbound (Jefferson Plaza) Northbound (Driveway 'B') Southbound (Driveway 'B') 3.0% Truck Thru Right Thru Right Left Thru Right Thru Existing (2007) 28 0 153 0 0 ō 2009 (NO BUILD - A.M.) 0 30 0 0 162 0 0 0 0 0 0 0 2009 (BUILD - A.M.) 0 30 0 0 162 53 0 0 0 7 0 0 0.97 0.97 0.85 0.85 PHF Eastbound (Jefferson Plaza) Westbound (Jefferson Plaza) Northbound (Driveway 'B')
Left Thru Right Southbound (Driveway 'B') Right Thru Left Thru Right Left Right Thru Existing (2007) 0 0 23 0 0 0 0 Ō 2009 (NO BUILD - P.M.) 0 129 0 0 24 0 0 0 0 0 0 0 2009 (BUILD - P.M.) 0 129 0 0 24 11 0 0 0 54 0 0

0

0

0

0

Osuna Rd / Jefferson St

INTERSECTION:

E-W Street: Osuna Rd

(1)

Year of Existing Counts

2004

N-S Street: Jefferson St

Implementation Year

2009 Growth Rates

Existing Volumes Background Traffic Growth Subtotal Vista del Norte Comm. Dev.

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

Total AM Peak Hour BUILD Volumes

	3.90%			2.30%			6.10%			3.00%	
	ound (Osur	ia Rd) : · ·	Westl	ound (Osu	na Rd)	Northb	ound (Jeffe	rson St)	Southb		son St)
Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
236	1,081	154	182	921	262	122	227	42	197	374	
<u>46</u> 1	<u>211</u>	<u>30</u>	21	106	30	37	69	13	30	56	24
282	1,292	184	203	1,027	292	159	296	55			184
17	<u>63</u>	2	0	74	0	2	0	0	0	0	20
299	1,355	186	203	1,101	292	161	296	55	227	430 i	204
	0.00%	3.64%	7.63%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	26 15%	0.00%
0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	3.64%	26.15%	7.63%			0.00%
0	0	5	10	0	0	1	5	1	0		0.00%
299	1,355	191	213	1,101	292	162	301	56	227	465	204
	236 46 282 17 299 0.00% 0.00%	Eastbound (Osur Left Left Thru 236 1,081 46 211 282 1,292 17 63 299 1,355 0.00% 0.00% 0.00% 0.00% 0 0	Eastbound (Osuna Rd) Left Thru Right 236 1,081 154 46 211 30 282 1,292 184 17 63 2 299 1,355 186 0.00% 0.00% 3,64% 0.00% 0.00% 0.00% 0 0 0 0 0 5	Eastbound (Osuna Rd) West Left Thru Right Left 236 1,081 154 182 46 211 30 21 282 1,292 184 203 17 633 2 0 299 1,355 186 203 0.00% 0.00% 3.64% 7.63% 0.00% 0.00% 0.00% 0.00% 0 0 0 5 10	Eastbound (Osuna Rd): Westbound (Osuna Rd): Left Thru Right Left Thru 236 1,081 154 182 921 46 211 30 21 106 282 1,292 184 203 1,027 17 63 2 0 74 299 1,355 186 203 1,101 0.00% 0.00% 3,64% 7,63% 0.00% 0.00% 0.00% 0.00% 0.00% 0 0 0 5 10 0	Eastbound (Osuna Rd) Westbound (Osuna Rd) Left Thru Right Left Thru Right 236 1,081 154 182 921 262 46 211 30 21 106 30 282 1,292 184 203 1,027 292 17 63 2 0 74 0 299 1,355 186 203 1,101 292 0.00% 0.00% 3,64% 7,63% 0.00% 0.00% 0.00% 0.00% 0.00% 0.00% 0.00% 0.00% 0 0 0 5 10 0 0	Eastbound (Osuna Rd) Westbound (Osuna Rd) Northbuster Left Thru Right Left Thru Right Left 236 1,081 154 182 921 262 122 46 211 30 21 106 30 37 282 1,292 184 203 1,027 292 159 17 63 2 0 0 74 0 2 299 1,355 186 203 1,101 292 161 0.00% 0.00% 3.64% 7.63% 0.00% 0.00% 0.00% 0.00% 0.00% 0.00% 0.00% 0.00% 0.00% 3.64% 0 0 0 5 10 0 0 0 1	Eastbound (Osuna Rd) Westbound (Osuna Rd) Northbound (Jeffe Left Thru Northbound (Jeffe Rd) Left Thru Right Left Thru Right Right Left Thru Right Left Thru 236 1,081 154 182 921 262 122 227 46 211 30 21 106 30 37 69 282 1,292 184 203 1,027 292 159 296 17 63 2 0 74 0 2 0 299 1,355 186 203 1,101 292 161 296 0.00% 0.00% 3,64% 7,63% 0.00% 0.00% 0.00% 0.00% 0.00% 0.00% 0.00% 0.00% 0.00% 0.00% 0.00% 3,64% 26.15% 0 0 0 5 10 0 0 0 1 5	Eastbound (Osura Rd) Westbound (Osura Rd) Northbound (Jefferson St) Left Thru Right Left Thru Right 236 1,081 154 182 921 262 122 227 42 46 211 30 21 106 30 37 69 13 282 1,292 184 203 1,027 292 159 296 55 17 63 2 0 74 0 2 0 0 299 1,355 186 203 1,101 292 161 296 55 0.00% 0.00% 3,64% 7,63% 0.00%	Eastbound (Osura Rd) Westbound (Osura Rd) Northbound (Jefferson St) Southbound	Eastbound (Osuna Rd) Westbound (Osuna Rd) Northbound (Jefferson St) Southbound (Jefferson St) Left Thru Right Left Thru Right </td

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

	ound (Osun		Westl	ound (Osur	na Rd)	Northb	ound (Jeffer	son St)	Southb	ound (Jeffer	son St)
Left	Thru	Right	Left	Thru!	Right	Left	Thru	Right	Left	Thru I	Right
248	1,487	81	88	1,016	201	291	557	264	3351	342	303
48	<u>290</u>	<u>16</u>	<u>10</u>	117	<u>23</u>	89	170	81	50	51	45
296	1,777	97	98	1,133	224	380	727	345	385	393	348
35	130	4	0	123	0	4	0	0	01	01	33
331	1,907	101	98	1,256	224	384	727	345	385	393	381
0.00%	0.00%	3.64%	7.63%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	26.15%	0.00%
0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	3.64%	26.15%	7.63%	0.00%	0.00%	0.00%
0!	0	1	2	0	0	5	36	10	0	7	0.00,0
331	1,907	102	100	1,256	224	389	763	355	385	400	381

Number of Commercial Trips Generated

Exiting Entering A.M. P.M. 18

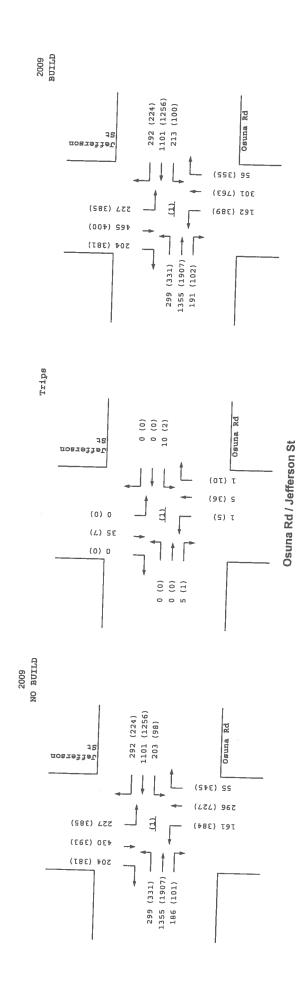
136

28

100% Commercial Development

2007 AM Peak Hr. Volumes 2007 PM Peak Hr. Volumes

C	1/0	A)									
	Eastbound (Osuna Rd)			und (Osuna	Rd)	Northbour	id (Jeffersoi	n St)	Southbour	nd (Jeffer	son St)
264	1207	172	195	985	280	144	269	501	215	408	174
277	1,661	90	94	1,086	215	344	659	312	365	373	330



6/20/2007

Singer Blvd / Jefferson St

INTERSECTION:

E-W Street: Singer Blvd N-S Street:

(2)

Year of Existing Counts

2005

Implementation Year

2009

Jefferson St

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

8		3.00%			3.00%			0.60%			7.00%	
		ound (Singe		Westbo	ound (Singer	Blvd)	Northbo	und (Jeffer:	on St)	Southbo	ound (Jeffer	son St)
	Left	Thru	Right	Left	Thru 1	Right	Left	Thru	Right	Left	Thru	Right
	145	28	201	56	19;	21	411	671	283	341	387	134
İ	17	3	24	7	2	3	10	16	7	10	108	38
	162	31	225	63	21	24	421	687	290	44	495	172
-	0.53%	0.00%	0.00%	0.00%	0.00%	0.44%	0.00%	61.25%	0.00%	0.00%	0.00%	0.00%
1	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.44%	61.25%	0.53%
L	1	0	0	01	10	1	0	81	0	0	11	0
s	163	31	225	63	21;	25	421	768	290	44	506	172

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

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

Total PM Peak Hour BUILD Volumes

	Eastbo	ound (Singer	Blvd)	Westbo	ound (Singe	r Blvd)	Northbi	ound (Jeffer	son St)	Southh	ound (Jeffer	enn Stl
	Left I	Thru (Right	Left ;	Thru	Right	Left	Thru !	Right	Left	Thru	Right
	212	63	428	193	35!	53	210	386	156	28	5931	134
Į	25	8	<u>51</u>	23	4	6	<u>5</u>	9	4	8	166	38
ĺ	237	71	479	216	39	59	215	395	160	36	759	172
	0.53%	0.00%	0.00%	0.00%	0.00%	0.44%	0.00%	61.25%	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%	0.44%	61.25%	0.53%
-	01	0	0	01	0	0	0	17	0	1	83	1
s	237	71	479	216	39	59	215	412	160	37	842	173

Number of Commercial Trips Generated

Entering Exiting 133 18

136

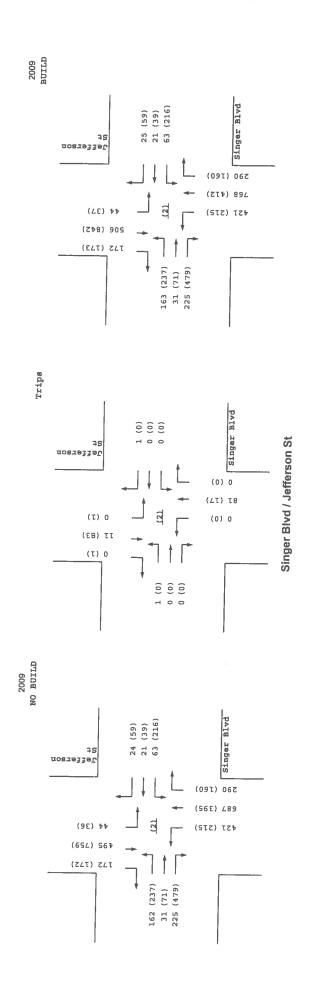
P.M.

28

100% Commercial Development

2007 AM Peak Hr. Volumes 2007 PM Peak Hr. Volumes

	Eastbound	l (Singer	Blvd)	Westboun	d (Singer Bl	lvd)	Northbour	id (Jeffersoi	ı St)	Southbou	nd (Jeffers	on St)
L	1341 301 213		213	59	20	22	416	679	286	39	441	153
L	225	67	454	205	37	56	213	391	158	32	676	153



Jefferson Plaza / Jefferson St

3.00%

INTERSECTION:

E-W Street: Jefferson Plaza

Year of Existing Counts

N-S Street: 2007

Implementation Year

2009

Jefferson St

3.00%

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

,		3.00%			3.00%			7.00%			6.10%	
ļ		nd (Jefferso	on Plaza)	Westbou	nd (Jefferso	on Plaza)	Northbe	ound (Jeffer	son St)	Southb	ound (Jeffer	enn Stl
	Left	Thru	Right	Left	Thru	Right	Left	Thru (Right	Left	Thru	Right
	14	0	14	2	7!	4	62	468	9	61	515	84
ļ	1	<u>0</u>	1	<u>0</u>	0	0	9	66	1	1	63	10
1	15	0	15	2	7	4	71	534	10	71	578	94
	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	62.57%	0.00%	0.00%	0.00%	0.00%	37.42%
	37.42%	0.00%	62.57%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
1	7	0	11	0	01	0	83	0	0	0	0	50
١	22	0	26	2	7	4	154	534	10	7	578	144
											0,0	177

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

	Eastbou	nd (Jefferso	n Plaza)	Westbou	nd (Jefferso	n Plaza)	Northbo	ound (Jeffe	rson St)	Southb	ound (Jeffer	112 nos
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
İ	72	Oi	50	71	11	9	9	650	1 (1)	101		right
	4	0	3	0	0	1	1	01	1	10	641	13
Ì	76		53	¥ 7	<u> </u>			31			<u>/81</u>	
- 1		U		/	7	10	10	741	5	11	719	15
ļ	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	62.57%	0.00%	0.00%	0.00%	0.00%	37.42%
-	37.42%	0.00%	62.57%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
-	51	01	85	0)	0	0	18	0	0	0	0	10
95	127	10	138	7	1	10	28	741	5	11	719	25
-										**!	710	23

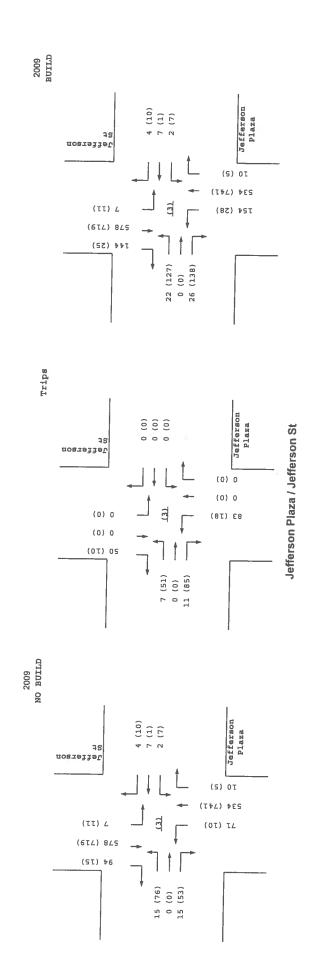
Number of Commercial Trips Generated

Entering Exiting 18 A.M. 28 136 P.M.

100% Commercial Development

2007 AM Peak Hr. Volumes 2007 PM Peak Hr. Volumes

Į	Eastboun	d (Jefferso	n Plaza)	Westbour	id (Jefferson	Plaza)	Northbou	and (Jeffers	on St)	Southbox	und (Jeffers	on St)
I	14	0	14	2	7	41	62	468	9	6	515	84
į	72	10	50	7!	1i	9!	91	650	4	10	641	13



Jefferson Plaza / Driveway 'A'

INTERSECTION:

E-W Street: Jefferson Plaza N-S Street:

Driveway 'A'

Year of Existing Counts

Implementation Year

2007

2009

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

	3.00%			3.00%			3.00%			3.00%	
Eastbou	nd (Jefferso	n Plaza)	Westbou	ind (Jefferso	n Plaza)	Northbo	ound (Drive	way 'A')	Southbo	ound (Drivey	vay 'A')
Left	Thru	Right	Left	Thru i	Right	Left	Thru	Right	Left	Thru I	Right
0	28	0	0	153	0	0	0	O	0	0	0
0	<u>2</u>	<u>0</u>	0	9	0	0	0	0	Q	0	0
0	30	0	0	162	0	0	0	0	0	0	0
0.00%	0.00%	0.00%	0.00%	39.99%	60.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
0.00%	39.99%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	60.00%	0.00%	0.00%
0	7	0	0	531	80	0	0	0	11	0	0
0	37	0	0	215	80	0;	0	0	11	0	0

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

Eastbou	nd (Jefferso	n Plaza)	Westbou	nd (Jefferso	n Plaza)	Northbo	und (Drivey	vay 'A')	Southb	ound (Drives	way 'A')
Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left !	Thru	Right
0	122	0	0	23	0	0 i	0	0	0	0	0
<u>0</u>	7	<u>0</u>	0	1	0	0	0	0	0	0	0
0	129	0	0	24	0	0	0	0	0	0	0
0.00%	0.00%	0.00%	0.00%	39.99%	60.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
0.00%	39.99%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	60.00%	0.00%	0.00%
0	54	0	0	11	17	01	0	0	82	0	0
0	183	0	0	35	17	0	0	0	82	0	0

Number of Commercial Trips Generated

Entering Exiting

133 28

18 A.M. 136 P.M. 100% Commercial Development

2007 AM Peak Hr. Volumes 2007 PM Peak Hr. Volumes

Eastbound	(Jeffersoi	n Piaza)	Westbou	nd (Jeffers	on Plaza)	Northbo	ound (Drivew	ay 'A')	Southb		way 'A')
0	28	01	0	153	0	0	0	0	0	0	0
01	122	0	0	23	0	0	0	0	0	n	0

Jefferson Plaza / Driveway 'B'

3.00%

INTERSECTION:

E-W Street: Jefferson Plaza N-S Street:

Year of Existing Counts

Implementation Year

2007

Driveway 'B'

3.00%

2009 **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

	nd (Jefferso	on Plaza) · ·	Westbou	ınd (Jefferso	n Plaza)	Northbo	und (Driver	way 'B')	Southb	ound (Drive	way 'R')
Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
0	28	0	0	153	0	0	0	0	DI	0	T CIGITE
<u>0</u>	2	0	0	9!	0	0	0	0	0	0	0
0	30	0	0	162	0	0	0	0	0	0	
0.00%	0.00%	0.00%	0.00%	0.00%	39.99%	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%	0.00%	39,99%	0.00%	0.00%
0	0	0	0	0	53	0	0	0	7	0.0075	0.0078
0	30	0	01	162	53	0	0	0	7	0	0
											U)

3.00%

3.00%

Existing Volumes

Background Traffic Growth

Subtotal (NO BUILD - P.M.)

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

Total Trips Generated

Total PM Peak Hour BUILD Volumes

	Eastbou	nd (Jefferso	n Plaza)	Westbou	ind (Jefferso	n Plaza).	Northbo	ound (Drivew	rav 'B')	Southh	ound (Drive	way 'B')
Į	Left	Thru	Right	Left	Thru	Right	Left I	Thru	Right	Left	Thru	Right
	01	122	0	0	23	0	0	0i	0	0	0	n
	0	7	0	<u>0</u>	1	0	0	0	0	0	0	0
1	0	129	0	0	24	0	0	0	0	0	0	<u>×</u>
	0.00%	0.00%	0.00%	0.00%	0.00%	39.99%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
1	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	39.99%	0.00%	0.00%
	01	0	0	0	0	11	0	0	0	54	0	0.00%
L	0	129	0	0	24	11	0	0	0	54	0	0

Number of Commercial Trips Generated

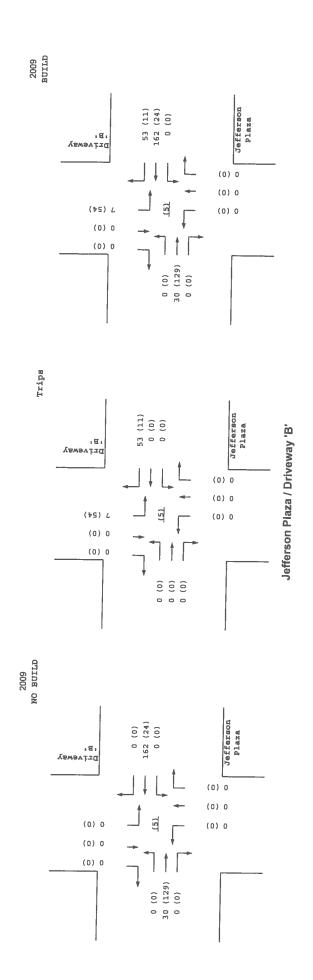
Entering Exiting 133 18

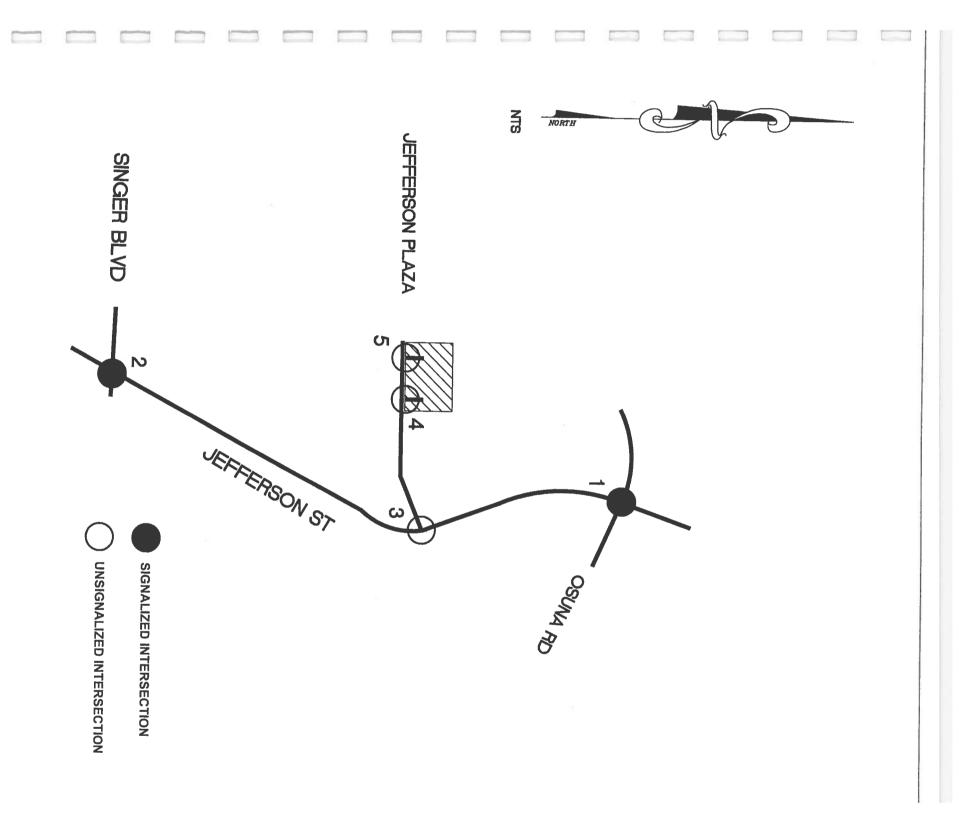
A.M.

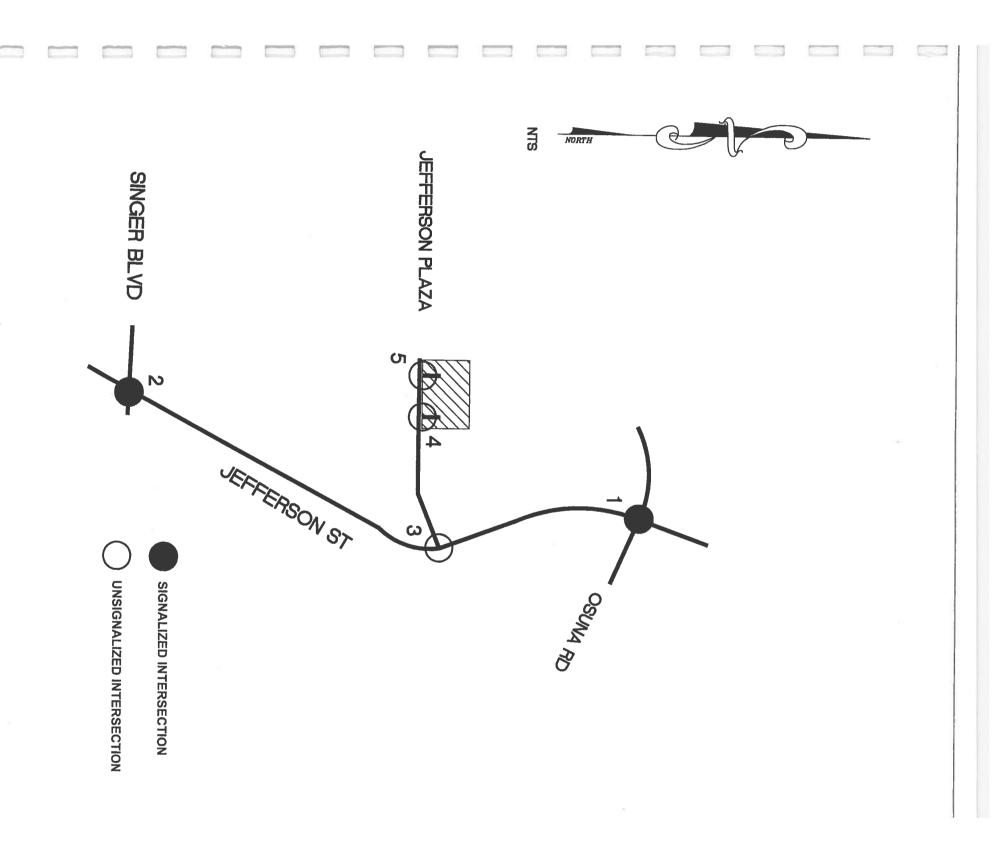
28 136 P.M. 100% Commercial Development

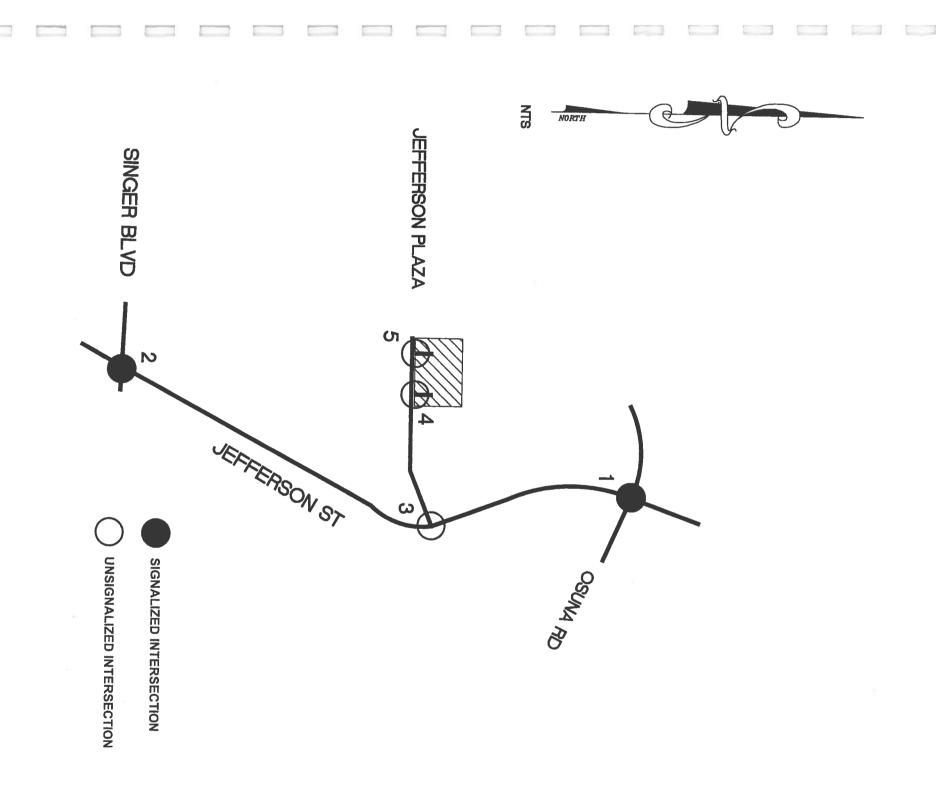
2007 AM Peak Hr. Volumes 2007 PM Peak Hr. Volumes

Eastbound	(Jefferso	on Plaza) - [Westboun	d (Jefferson	Plaza)	Northboun	d (Driveway '	B')	Southbound	d /Drivowow '	מין
0	28		0	Oi	153	01	01	01	0	O O O O O O O O O O O O O O O O O O O	Ol	<u> </u>
0	122		0	0	231	0	0	01	- 01	0	- 0	









Analysis of Intersection #1

Osuna Rd / Jefferson St

Level of Service D Queue Model 1 Ped= 0.0 sec = 0.0% 545 320 49 188 252 281 952 154 250 ο <u>τ</u> ₽ J S ۵ m∪p ლ Ç Ā ۵ ۾ ۵ 16.9 53.0 42.9 53.6 18.2 32.5 54.0 HCM Delay 45.8 54.2 37.7 45.1 47.1 45.8 0.923 0.094 0.392 0.859 0.436 0.985 0.556 0.970 ٧/د Y=20.0 sec = 20.0% Control Delay G/C=0.366 G= 36.6" Y+R= 5.0" Off=58.4% SIGNAL2000/TEAPAC[Ver 2.80.00] - Capacity Analysis Summary Phase 4 Adj 728 336 1266 233 1751 340 925 177 Service Rate @D (vph) @E Jefferson Office Plaza (Jefferson Plaza / Jefferson St) Analysis of Osuna Blvd / Jefferson St. - [1_ANX.FOR] 2009 AM Peak NOBUJLD Conditions 789 641 829 200 1806 770 1285 407 G/C=0.123 G= 12.3" Y+R= 5.0" Off=41.1% Phase ' 735 G = 80.0 sec = 80.0%617 776 179 1806 344 763 1277 344 Intersection Averages for Int # 1 - V/C 0.849 (Critical V/C 0.942) g/C Used G/C=0.236 G= 23.6" Y+R= 5.0" 0.236 Off=12.5% 0.409 0.236 0.075 0.491 0.366 0.123 0.366 Phase 2 Redd 0.234 0.064 0.114 0.074 0.247 0.363 0.090 0.353 G/C=0.075 G= 7.5" Y+R= 5.0" Off= 0.0% Phase 1 Width/ Lanes 24/2 12/1 12/1 24/2 12/1 12/1 24/2 24/2 36/3 C=100 sec SB Approach Approach WB Approach EB Approach Group RT+TH LT RT+TH LT Sq 44 LD/LD √ b 선독보 무무너 NB N VOLUMES ──→ WIDTHS LANES SEQUENCE 44
PERMSV YYYY
OVERLP YYYY
LEADLAG LD LD 06/21/07 片 3.0 .88 .88 2.0 2.0 2.0 Area Location Type: NONCBD 0.0 Phase 6 3.0 .88 .88 2.0 2.0 田上 00000 G= Y+R= R 3.0 Key: 0.0 3.0 .91 .91 2.0 2.0 5 Phasing: Phase G= (Y+R= (3.0 .91 A 2.0 2.0 3.0 008000 용도 Ν 12.0 24.0 24.0 G= 36.6" Y+R= 5.0" Phase 4 SIGNAL 2000/TEAPAC[Ver 2.80.00] - HCM Input Worksheet 1101 292 203 55 12.0 1 5 3.0 2.0 2.0 3.0 Jefferson Office Plaza (Jefferson Plaza / Jefferson St. Analysis of Osuna Blvd / Jefferson St. - [1_ANX.FOR] 2009 AM Peak NOBUILD Conditions N H 3.0 2.0 2.0 3 008000 296 24.0 2 12.3" Phase 3 3.0 .87 2.0 2.0 RT G= 1. Y+R= 227 12.0 161 12.0 5 3.0 .87 A 2.0 2.0 2.0 G= 23.6" Y+R= 5.0" Phase 2 430 24.0 2 出品 3.0 .87 .87 2.0 2.0 000000 F 0.0 N ٣ 0 7.5" 1 24.0 36.0 0.0 Heavy veh, %HV Pk-hr fact, PHF Pretimed or Act Phase Ped vol, vped Bike vol, vbic Parking locatns Park mnvrs, Nm Bus stops, NB Grade, %G G= Y+R= Intersection # Strtup lost, 11 Ext eff grn, e Arrival typ, AT 299 1355 186 Sq 44 LD/LD C = 100" North

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244

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06/21/07

Y=20.0 sec = 18.2% SIGNAL2000/TEAPAC[Ver 2.80.00] - Capacity Analysis Summary Jefferson Office Plaza (Jefferson Plaza / Jefferson St) Analysis of Osuna Bivd / Jefferson St. • [1\_ABX.FOR] 2009 AM Peak BUILD Conditions Service Rate @D (vph) @E 772 1292 402 1815 831 654 870 198 G/C=0.124 G= 13.6" Y+R= 5.0" Off=41.8% Phase : G = 90.0 sec = 81.8%762 623 800 175 758 1268 324 1809 324 Intersection Averages for Int # 1 - V/C 0.846 (Critical V/C 0.939) G/C=0.248 G= 27.3" Y+R= 5.0" Used Off=12.4% 0.248 0.248 0.079 0.492 0.368 0.124 0.368 Phase 2 2/6 Read 0.250 0.072 0.123 0.081 0.359 0.252 0.367 0.100 G/C=0.079 G= 8.7" Y+R= 5.0" Off= 0.0% Width/ Lanes Phase 24/2 C=110 sec 12/1 24/2 12/1 12/1 24/2 24/2 36/3 SB Approach Approach WB Approach EB Approach RT+TH LT Lane Group RT+TH LT 유투다 Sq 44 LD/LD North 무무그 **←** 8 06/21/07 19:59:11 WIDTHS SEQUENCE 44
PERMSV YYYY
OVERLP YYYY
LEADLAG LD LD VOLUMES ---5 3.0 .88 .88 2.0 2.0 Area Location Type: NONCBD 0.0" Phase 6 SEQUENCE PERMSV Y OVERLP Y 田干 3.0 .88 .88 2.0 2.0 000000 G= (Y+R= ( RT 3.0 .88 .88 2.0 2.0 Key: 0.0" 片 3.0 .91 2.0 2.0 3.3 Phasing: Phase G= Y+R= 罗王 3.0 2.0 2.0 3 008000 174 2 N 12.0 24.0 24.0 G= 40.5" Y+R= 5.0" R 3.0 Phase 4 SIGNAL2000/TEAPAC[Ver 2.80.00] - HCM Input Worksheet 1101 292 213 56 12.0 占 3.0 .87 .87 2.0 2.0 Jefferson Office Plaza (Jefferson Plaza / Jefferson St. Analysis of Osuna Blvd / Jefferson St. - [1\_ABX.FOR] 2009 AM Peak BUILD Conditions MB H 3.0 2.0 2.0 3.0 00000 301 24.0 2 G= 13.6" Y+R= 5.0" Phase 2.0 2.0 3 RT 3.0 227 12.0 162 12.0 5 3.0 .87 .87 2.0 2.0 27.3" Phase 2 465 24.0 2 2.0 3.0 路돈 3.0 008000 G= 2 Y+R= 2.0 2.0 3.0 R 0.0 m 0 8.7" 24.0 36.0 0.0 Heavy veh, %HV Pk-hr fact, PHF Pretimed or Act Strtup lost, 11 Ext eff grn, e Arrival typ, AT Phase Bike vol, vbic Parking locatus Park mnvrs, Nm Bus stops, NB Grade, %G G= Y+R= Intersection # Ped vol, vped 1355 299 191 C=110" Sq 44 LD/LD North

Queue Model 1

... v

HCM Delay

V/C

Adj

Ped= 0.0 sec = 0.0%

G/C=0.368 G= 40.5" Y+R= 5.0" Off=58.7%

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56.2 36.1

0.924

768 261

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51.1

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55 206 277

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19.5 34.6 57.8

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62 331 178

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40.2

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18.4 54.6 47.6

0.435 0.980 0.582

336 1266 245

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0.968

1757 340

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50.0 48.4

06/21/07 19:59:11

Level of Service D

Control Delay 48.2

Phase 4

Level of Service F G= 40.4" Y+R= 5.0" Off=65.1% G/C=0.311 G= 40.4" Ped=  $0.0 \sec = 0.0\%$ ± ± ± 1 u s # # <u>ш</u> <u>ш</u> G/C=0.021 G= 2.7" Y+R= 5.0" Off=59.2% 162.8 101.9 57.9 1111.7 108.0 144.3 14.0 171.4 95.1 118.5 123.8 HCM Delay 119.2 S Phase Control Delay 125.2 1.228 0.272 1.265 0.824 0.849 1.090 1.0811.158 1.057Y=30.0 sec = 23.1%V/C G/C=0.038 G= 5.0" Y+R= 5.0" Off=51.5% SIGNAL2000/TEAPAC[Ver 2.80.00] - Capacity Analysis Summary Phase 4 Adj Volume 979 383 808 427 246 1380 108 2136 Service Rate @D (vph) @E Jefferson Office Plaza (Jefferson Plaza / Jefferson St) Analysis of Osuna Blvd / Jefferson St. - [1\_PNX.FOR] 2009 PM Peak NOBUILD Conditions 795 903 1091 96 437 729 390 1845 292 G/C=0.211 G= 27.4" Y+R= 5.0" Off=26.5% Phase 3 G=100.0 sec = 76.9% 673 896 999 1 1793 372 594 346 Intersection Averages for Int # 1 - V/C 1.114 (Critical V/C 1.260) G/C=-.004 G= -0.5" Y+R= 5.0" Off=23.1% Used 0.245 0.288 0.211 0.193 0.576 0.311 0.038 0.370 Phase 2 J/6 Redd 0.327 0.294 0.264 0.240 0.216 0.405 0.099 0.431 G/C=0.193 G= 25.0" Y+R= 5.0" Off= 0.0% Width/ Lanes Phase 1 24/2 C=130 sec 12/1 24/2 12/1 36/3 12/1 24/2 24/2 SB Approach NB Approach Approach EB Approach RT+TH LT Lane RT+TH 5 유부다 24 56 LD/LD North 무류다 **←** MB VOLUMES —→
WIDTHS
LANES 06/21/07 20:04:48 56 YYYY YYYY YYYY 5 3.0 .94 2.0 2.0 3.0 Area Location Type: NONCBD G= 40.4" Y+R= 5.0" Phase 6 SEQUENCE PERMSV Y OVERLP Y LEADLAG 3.0 .94 2.0 2.0 00000 田干 3.0 46: 94 2.0 3.0 3.0 RT Key: 2.7" 3.0 .90 2.0 2.0 3.0 Phasing: Phase G= Y+R= 3.0 2.0 3.0 3.0 008000 罗王 ~ 2 24.0 12.0 24.0 RT 3.0 5.0" Phase 4 SIGNAL2000/TEAPAC[Ver 2.80.00] - HCM Input Worksheet G= Y+R= 224 1256 98 345 12.0 5 3.0 .91 .91 2.0 2.0 Jefferson Office Plaza (Jefferson Plaza / Jefferson St) Analysis of Osuna Blvd / Jefferson St. - [1\_PNX.FOR] 2009 PM Peak NOBUILD Conditions ₽F 3.0 .91 2.0 2.0 3 00000 727 24.0 2 G= 27.4" Y+R= 5.0" Phase RT 385 12.0 384 12.0 占 3.0 .79 2.0 2.0 3.3 -0.5" Phase 2 393 24.0 2 忠두 3.0 .79 2.0 2.0 00000 G= Y+R= F 381 2 m 0 G= 25.0" Y+R= 5.0" 24.0 36.0 0.0 Phase Pk-hr fact, PHF Pretimed or Act Strtup lost, 11 Ext eff grn, e Arrival typ, AT Ped vol, vped Bike vol, vbic Parking locatus Park mnvrs, Nm Bus stops, NB Grade, %G Heavy veh, %HV Intersection # 1907 331 101

Queue Model 1

44

1234

244

621 896 891

224

208 1745 115

4

1670

06/21/07 20:04:48

Phase 6

C=130

Sq 56 LD/LD

Control Delay 67.5 Y=25.0 sec = 19.2%G/C=0.025 G= 3.3" Y+R= 5.0" Off=63.7% SIGNAL2000/TEAPAC[Ver 2.80.00] - Capacity Analysis Summary Phase 4 Adj Jefferson Office Plaza (Jefferson Plaza / Jefferson St) Analysis of Osuna Blvd / Jefferson St. - [1\_PN\_M.FOR] 2009 PM Peak NOBUILD Cond-Add EB/WB Thru, SB RT Lanes 246 1380 108 2136 352 482 497 487 383 808 427 Service Rate @D (vph) @E 563 759 520 884 1312 96 2160 452 759 571 G/C=0.038 G= 5.0" Y+R= 5.0" G= 5.0" Y+R= 5.0" Off=56.0% Phase 3 G=105.0 sec = 80.8%873 1180 500 626 469 387 626 542 2080 Intersection Averages for Int # 1 - V/C 0.924 (Critical V/C 1.031) G/C=0.219 G= 28.4" Y+R= 5.0" Off=30.3% Used 0.359 0.219 0.264 0.296 0.219 0.264 0.325 0.564 0.261 0.038 2 Phase 2/6 Read 0.349 0.187 0.275 0.216 0.296 0.099 0.332 0.264 0.199 G/C=0.264 G= 34.3" Y+R= 5.0" Off= 0.0% Width/ Lanes C=130 sec 12/1 24/2 12/1 12/1 24/2 12/1 12/1 36/3 24/2 Phase 48/4 24/2 SB Approach NB Approach WB Approach EB Approach RT+TH LT Lane 무보다 무무다 FH Sq 46 LD/LD North  $\leftarrow$ SEQUENCE 46
PERMSV YYYY
OVERLP YYYY
LEADLAG LD LD VOLUMES —→
WIDTHS
LANES 06/21/07 20:09:41 3.0 .94 2.0 2.0 3.0 7 Area Location Type: NONCBD Phase 6 田干 3.0 2.0 2.0 3.0 000000 G= Y+R= R 3.0 .94 2.0 2.0 Key: 33.9" 3.0 .90 2.0 2.0 3.0 Phasing: Phase G= 33 Y+R= 5 里里 9.0 2:0 3:0 008000 m N 36.0 12.0 24.0 3.3" F 3.0 .90 .90 2.0 2.0 Phase 4 Jefferson Office Plaza (Jefferson Plaza / Jefferson St) Analysis of Osuna Blvd / Jefferson St. - [1\_PN\_M-FOR] 2009 PM Peak NOBUILD Cond-Add EB/WB Thru, SB RT Lanes SIGNAL 2000/TEAPAC[Ver 2,80.00] - HCM Input Worksheet G= Y+R= 224 1256 345 12.0 98 占 3.0 .91 A 2.0 2.0 2.0 ₩ H 3.0 .91 .91 2.0 2.0 000000 727 24.0 2 5.0" Phase 3 F 3.0 G= Y+R≕ 385 12.0 384 12.0 5 3.0 .79 2.0 2.0 3 28.4" 393 24.0 2 Phase ? 용본 2.0 2.0 000000 G= 2 Y+R= 3.0 2.0 A 3.0 A 占 381 12.0 2 4 0 G= 34.3" Y+R= 5.0" 24.0 48.0 0.0 Phase Pretimed or Act Strtup lost, 11 Ext eff grn, e Arrival typ, AT Heavy veh, %HV Bike vol, vbic Parking locatns Park mnvrs, Nm Intersection # Pk-hr fact, PHF Bus stops, NB Grade, %G Ped vol, vped

331 1907 101 Queue Model 1

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HCM Delay

V/C

Ped= 0.0 sec = 0.0%

G/C=0.261 G= 33.9" Y+R= 5.0" Off=70.0%

EEE

750 397 812

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50.9 48.1 62.0

0.856 0.647 0.937

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53.6

224

607 857 561

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54.3 97.8 27.7

0.825 1.052 0.748

69.0

EEE

214 998 115

# # #

14.8 87.7 95.1

0.278 1.052 0.824

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77.8

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1052 391 ++

60.4

0.989 1.011

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67.4

06/21/07 20:09:41

Level of Service E+

Phase 5

C=130"

North

Sq 46 LD/LD

SIGNAL2000/TEAPAC[Ver 2.80.00] - Capacity Analysis Summary Jefferson Office Plaza (Jefferson Plaza / Jefferson St.) Analysis of Osuna Btvd / Jefferson St. - [1\_PBX.FOR] 2009 PM Peak BUILD Conditions Service Rate @D (vph) @E G/C=0.214 G= 27.8" Y+R= 5.0" Off=26.4% G=100.0 sec = 76.9% Intersection Averages for Int # 1 - V/C.1.124 (Critical V/C 1.279) G/C= -.007 G= -0.9" Y+R= 5.0" Off=23.2% 0.245 g/C Reqd Used Phase 2 0.291 0.214 0.194 0.573 0.309 0.038 0.368 0.329 0.300 0.273 0.243 0.216 0.405 0.100 0.431 G/C=0.194 G= 25.2" Y+R= 5.0" Off= 0.0% Width/ Lanes 24/2 Phase 12/1 24/2 12/1 12/1 24/2 24/2 C=130 sec 36/3 SB Approach NB Approach WB Approach EB Approach RT+TH LT Lane Group RT+TH LT 근목덮 Sq 56 LD/LD 무도그 North <del>-</del> VOLUMES ——

WIDTHS

LANES SEQUENCE 56
PERMSV YYYY
OVERLP YYYY
LEADLAG LD LD 06/21/07 20:13:02 5 3.0 .94 2.0 2.0 3.3 Area Location Type: NONCBD 40.2" Phase 6 田下 3.0 2.0 2.0 3.3 00000 G= 4 Y+R= R 3.0 2.0 2.0 3.3 Key: 5.0" ╘ 3.0 2.0 3.0 3.0 Phasing: Phase G= Y+R= 罗王 3.0 2.0 A 3.0 3.0 00000  $\vdash$ 2 N 24.0 24.0 12.0 5.0" 占 .90 2.0 2.0 3.0 Phase 4 SIGNAL2000/TEAPAC[Ver 2.80.00] - HCM Input Worksheet G= Y+R= 224 1256 355 12.0 1 100 ᆸ 3.0 .91 2.0 2.0 Jefferson Office Plaza (Jefferson Plaza / Jefferson St.) Analysis of Osuna Blvd / Jefferson St. - [1\_PBX.FOR] 2009 PM Peak BUILD Conditions WB 3.0 .91 2.0 2.0 00000 763 24.0 2 G= 27.8" Y+R= 5.0" Phase 3 RT 3.0 .91 A 2.0 2.0 3.0 385 12.0 389 12.0 占 3.0 .79 2.0 2.0 3.3 -0.9" 2 400 24.0 2 않두 3.0 7.9 2.0 2.0 3.3 00000 Phase G= . Y+R= 占 2.0 2.0 2.0 3.3 381 m 0 25.2" 24.0 36.0 0.0 Phase Pk-hr fact, PHF Pretimed or Act Strup lost, 11 Ext eff grn, e Arrival typ, AT Ped vol, vped Bike vol, vblc Parking locatns Park mnvrs, Nm Heavy veh, %HV G= 2 Y+R= Intersection # Bus stops, NB 331 1907 102 Grade, %G 24 56 LD/LD C=130"North

Queue Model 1

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HCM

V/C

Ad) Volume

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676 400

145.8 166.2 **EEE** 

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59.4 125.0 110.3

0.864 1.128 1.088

394 848 432

743 742 392

378 607 348

105.7

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210 1757 118

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14.2 174.6 98.1

0.274 1.272 0.840

246 1380 110

898 1085 96

992

147.0

44

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121.2

1.164

G/C=0.309 G= 40.2" Y+R= 5.0" Off=65.2%

G/C=0.021 G= 2.7" G= 2.7" Y+R= 5.0" Off=59.3%

G/C=0.038 G= 5.0" Y+R= 5.0" Off=51.6%

Ped = 0.0 sec = 0.0%

Y=30.0 sec = 23.1%

06/21/07 20:13:02

Level of Service F

Control Delay 128.8

Phase 6

S Phase !

Phase 4

Phase 3

2138 1837 1783

Analysis of Intersection #2

Singer Rd / Jefferson St

Ped= 0.0 sec = 0.0% 49.8 HCM Delay 31.1 16.8 29.9 23.8 25.0 50.8 42.3 25.4 47.0 Control Delay 29.0 0.405 0.614 0.746 0.664 0.288 0.452 0.328 0.641 Y=20.0 sec = 18.2% V/C G/C=0.064 G= 7.1" Y+R= 5.0" Off=89.0% SIGNAL2000/TEAPAC[Ver 2.80.00] - Capacity Analysis Summary Phase 4 Adj 803 326 772 473 8 8 281 39 202 Jefferson Office Plaza (Jefferson Plaza / Jefferson St) Analysis of Singer Rd / Jefferson St - [2\_ANX.FOR] 2009 AM Peak NOBUILD Conditions Service Rate @D (vph) @E 1209 805 1258 634 180 351 G/C=0.110 G= 12.1" Y+R= 5.0" Off=73.5% 621 95 301 Phase 3 G = 90.0 sec = 81.8%1180 796 1230 618 126 276 586 65 258 Intersection Averages for Int # 2 - V/C 0.583 (Critical V/C 0.780) g/C Used G/C=0.358 G≈ 39.4" Y+R≈ 5.0" Off=33.2% 0.358 0.513 0.358 0.286 0.064 0.396 0.064 0.110 Phase 2 Redd 0.258 0.247 0.240 0.206 0.038 0.220 0.046 0.079 G/C=0.286 G= 31.5" Y+R= 5.0" Off= 0.0% Phase 1 Width/ Lanes 24/2 12/1 24/2 12/1 24/2 C=110 sec 12/1 Approach NB Approach WB Approach Approach Lane RT+7H LT RT+TH Sq 44 LD/LD 주보다 너耳덮 North 占 4 SB 8 VOLUMES —→
 WIDTHS
 LANES 06/21/07 20:28:12 SEQUENCE 44
PERMSV YYYY
OVERLP YYYY
LEADLAG LD LD 占 3.0 .80 2.0 2.0 Area Location Type: NONCBD 0.0" Phase 6 田干 3.0 2.0 2.0 3.3 008000 G= / R 3.0 .80 2.0 2.0 Key: G= 0.0" Y+R= 0.0" Phase 5 占 3.0 .89 2.0 2.0 3.3 Phasing: 罗王 3.0 .89 2.0 2.0 3.0 000000 0 7 7 24.0 24.0 0.0 7.1" 5.0" R Phase 4 SIGNAL 2000/TEAPAC[Ver 2.80.00] - HCM Input Worksheet G= Y+R= 290 12.0 1 24 21 63 Н 3.0 .75 .75 2.0 2.0 Jefferson Office Plaza (Jefferson Plaza / Jefferson St) Analysis of Singer Rd / Jefferson St. - [2\_ANX.FOR] 2009 AM Peak NOBUJLD Conditions ₩ H 3.0 7.5 2.0 2.0 3.3 008000 G= 12.1" Y+R= 5.0" 687 24.0 2 Phase 3 RT 3.0 .75 2.0 2.0 3.0 44 421 12.0 ᆸ 3.0 .83 .83 2.0 2.0 G= 39.4" Y+R= 5.0"

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3.0 .83 2.0 2.0 3.3

Pk-hr fact, PHF Pretimed or Act Strtup lost, 11 Ext eff grn, e Arrival typ, AT

Heavy veh, %HV

Queue Model 1

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283 461 451

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Phase 2

Phase 1

Sq 44 LD/LD

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Park mnvrs, Nm Bus stops, NB Grade, %G

Parking locatns Ped vol, vped Bike vol, vbic

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06/21/07 20:28:12

Level of Service C

495 24.0

0.0

Intersection #

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12.0

12.0 12.0

162 31 225 G= 31.5" Y+R= 5.0"

C=110"

North

Level of Service D Ped=  $0.0 \sec = 0.0\%$ ္ပ္ ₽ 甲の草 υţi ۵ p טר ۵ 54.8 31.3 24.7 54.9 15.4 16.7 28.4 56.8 30.9 33.9 49.7 HCM Delay 45.2 0.232 0.375 0.884 0.154 0.7830.955 0.193 0.5860.964 \/C Y=20.0 sec = 18.2%Control Delay G/C=0.267 G= 29.4" Y+R= 5.0" Off=68.7% SIGNAL2000/TEAPAC[Ver 2.80.00] - Capacity Analysis Summary Adj Phase 4 539 95 316 1083 131 288 176 434 236 1124 456 Service Rate @D (vph) @E 757 1156 261 853 345 669 492 539 Jefferson Office Plaza (Jefferson Plaza / Jefferson St.) Analysis of Singer Rd / Jefferson St. - [2\_PNX.FOR] 2009 PM Peak NOBUILD Conditions G/C=0.108 G= 11.9" Y+R= 5.0" Off=53.4% Phase 3 G = 90.0 sec = 81.8%1084 436 741 1117 234 790 640 433 509 Intersection Averages for Int # 2 - V/C 0.732 (Critical V/C 0.964) G/C=0.329 G= 36.2" Y+R= 5.0" Off=15.9% 0.426 0.267 0.108 0.329 0.483 0.329 0.114 0.267 Used Phase 2 g/C Reqd 0.329 0.154 0.151 0.116 0.067 0.426 0.085 0.009 G/C=0.114 G= 12.5" Y+R= 5.0" Off= 0.0% Width/ Lanes 24/2 24/2 24/2 12/1 24/2 12/1 12/1 12/1 12/1 C=110 sec Phase Approach WB Approach SB Approach NB Approach RT+TH LT Lane Group RT+TH 유표다 무무다 占 Sq 44 LD/LD North 8 VOLUMES —

WIDTHS

LANES SEQUENCE 44
PERMSV YYYY
OVERLP YYYY
LEADLAG LD LD 06/21/07 20:30:28 占 3.0 .75 2.0 2.0 3.3 0.0" Area Location Type: NONCBD Phase 6 3.0 .75 .75 2.0 2.0 3.3 000000 유 G= Y+R= 3.0 .75 A 2.0 2.0 R 0.0" Key: Phase 5 3.0 .91 2.0 2.0 3.3 5 Phasing: G= Y+R= 3.0 .91 2.0 2.0 3 000000 罗王 0 2 2 G= 29.4" Y+R= 5.0" 24.0 24.0 0.0 3.0 .91 2.0 2.0 3.3 F Phase 4 SIGNAL 2000/TEAPAC[Ver 2.80.00] - HCM Input Worksheet 160 12.0 1 216 29 39 3.0 .75 .75 2.0 2.0 3.0 占 Jefferson Office Plaza (Jefferson Plaza / Jefferson St) Analysis of Singer Rd / Jefferson St. - [2\_PNX.FOR] 2009 PM Peak NOBUILD Conditions 3.0 .75 2.0 2.0 000000 ₽₽ G= 11.9" Y+R= 5.0" 395 24.0 2 Phase 3 3.0 .75 .75 2.0 2.0 3  $\mathbb{F}$ 36 215 12.0 1 片 3.0 .86 2.0 2.0 G= 36.2" Y+R= 5.0" 759 24.0 2 Phase 000000 3.0 .86 2.0 2.0 몽王

2.0 2.0 3

3.0 Ъ

> Heavy veh, %HV Pretimed or Act Pk-hr fact, PHF Strtup lost, 11 Ext eff grn, e Arrival typ, AT Ped vol, vped Bike vol, vbic

0.0

Intersection # 2 -

12.0 12.0 12.0

237 71 479

Queue Model 1

44

33

REE

147 246 352

06/21/07 20:30:28

12.5"

G= 12 Y+R= 1

C=110"

North  $\leftarrow$ 

Phase 1

Sq 44 LD/LD

Parking locatus Park mnvrs, Nm Bus stops, NB Grade, %G

444

938 106 346

年出

230

Level of Service D Ped= 0.0 sec = 0.0%υţ 盐 ## w Ç ţ <u>ψ</u> υ ψ N L U ۵ Ω 61.7 16.1 27.2 63.0 53.6 61.8 31.9 26.3 31.4 HCM Delay 60.1 48.4 Control Delay 49,7 0.998 0.228 0.373 0.908 0.157 0.828 0.980 0.198 0.608٧/د Y=20.0 sec = 18.2% G/C=0.261 G= 28.7" Y+R= 5.0" Off=69.4% SIGNAL2000/TEAPAC[Ver 2.80.00] - Capacity Analysis Summary Phase 4 Ad) Volume 1180 176 453 236 639 95 316 131 288 Service Rate @D (vph) @E Jefferson Office Plaza (Jefferson Plaza / Jefferson St.) Analysis of Singer Rd / Jefferson St. - [2\_PBX.FOR] 2009 AM Peak BUILD Conditions 773 1213 253 1182 457 832 324 652 479 520 G/C=0.102 G= 11.2" Y+R= 5.0" Off=54.6% Phase : 1148 759 1180 227 621 420 488 G = 90.0 sec = 81.8%767 251 Intersection Averages for Int # 2 - V/C 0.759 (Critical V/C 0.989) G/C=0.345 G= 38.0" Y+R= 5.0" Off=15.5% Used 0.345 0.493 0.345 0.110 0.261 0.416 0.261 0.102 Phase 2 O/6 Redd 0.354 0.067 0.154 0.156 0.116 0.426 0.085 0.015 G/C=0.110 G= 12.1" Y+R= 5.0" Off= 0.0% Phase 1 Width/ Lanes 24/2 24/2 24/2 C=110 sec 12/1 24/2 12/1 12/1 12/1 12/1 SB Approach NB Approach WB Approach EB Approach RT+TH LT Lane Group RT+TH 전보다 Ļ 디王겊 Sq 44 LD/LD North  $\leftarrow$ VOLUMES ——
WIDTHS
LANES 06/21/07 20:23:06 SEQUENCE 44
PERMSV YYYY
OVERLP YYYY
LEADLAG LD LD 5 3.0 .75 2.0 2.0 3.0 Area Location Type: NONCBD 0.0" Phase 6 3.0 .75 2.0 2.0 出出 008000 G= Y+R= R 3.0 .75 .75 2.0 2.0 Key: 0.0 Phase 5 Ь 3.0 .91 2.0 2.0 3.0 Phasing: G= ( Y+R= ( 뫋 3.0 .91 A 2.0 2.0 3.3 008000 0 ~ N 24.0 24.0 0.0 G= 28.7" Y+R= 5.0" R 3.0 .91 2.0 2.0 3.0 Phase 4 SIGNAL 2000/TEAPAC[Ver 2.80.00] - HCM Input Worksheet 29 39 216 160 12.0 ₽ 3.0 .75 2.0 2.0 Jefferson Office Plaza (Jefferson Plaza / Jefferson St.) Analysis of Singer Rd / Jefferson St - [2\_PBX.FOR] 2009 AM Peak BUILD Conditions ₩ H 3.0 .75 .75 2.0 2.0 3.3 00000 11.2" 412 24.0 2 Phase 3 RT G= 1) Y+R= ! 215 12.0 占 3.0 .86 2.0 2.0 3.3 G= 38.0" Y+R= 5.0" N 842 24.0 Phase B I 3.0 .86 2.0 2.0 3.3 00000

R 3.0

Pk-hr fact, PHF Pretimed or Act Strtup lost, 11 Ext eff grn, e Arrival typ, AT

Ped vol, vped Bike vol, vbic Parking locatns Park mnvrs, Nm Bus stops, NB Grade, %G

Heavy veh, %HV

173 0.0

Intersection #

-

12.0 12.0 12.0

237 71 479 Queue Model 1

22

34

244

145 251 365

44

77

444

978 107 355

06/21/07 20:23:06

G= 12.1" Y+R= 5.0"

C=110"

North 4

Phase 1

Sq 44 LD/LD

Analysis of Intersection #3

Jefferson Plaza / Jefferson St

#### **CHAPTER 17 - TWSC - UNSIGNALIZED INTERSECTIONS WORKSHEET Analysis Summary** General Information Site Information Analyst Nancy Jurisdiction/Date City of ABQ 6/13/2007 Agency or Company Terry Brown, P.E. Major Street Jefferson St Analysis Period/Year AM Peak Hour 2009 Jefferson Plaza Minor Street Comment 2009 AM Peak NOBUILD Conditions Input Data Lane Configuration NB SB WB EB Lane 1 (curb) TR R **LTR** LTR Lane 2 Т T Lane 3 T L Lane 4 L Lane 5 NB SB WB EB Movement 1 (LT) 2 (TH) 3 (RT) 4 (LT) 5 (TH) 6 (RT) 7 (LT) 8 (TH) 9 (RT) 10 (LT) 11 (TH) 12 (RT) Volume (veh/h) 71 534 10 7 578 94 2 7 4 15 1 15 PHF 0.91 0.91 0.91 0.88 0.88 0.88 0.75 0.75 0.75 0.75 0.75 0.75 Percent of heavy vehicles, HV 3 3 3 3 3 3 3 3 3 3 3 3 Flow rate 78 587 11 657 107 3 9 5 20 20 Flare storage (# of vehs) Median storage (# of vehs) 1 1 Signal upstream of Movement 2 ft Movement 5 Length of study period (h) 0.25 **Output Data** Lane Movement Flow Rate Capacity v/c Queue Length Control Delay LOS Approach (veh/h) (veh/h) (veh) (s) Delay and LOS 1 LTR 17 269 0.063 0 19.3 С 19.3 WB 2 3 С **LTR** 1 41 372 0.110 0 15.9 С 15.9 EB 2 3 C NB 1 78 838 0.093 0 9.7 Α (4) SB 8 968 0.008 0 8.7 Α HiCAP TM2.0.0.1 ©Catalina Engineering, Inc. 3 - 3\_09ANX

| 1               | Anal   | lysis Sum       | mary                 |        |                  |         |        |            |                |              |          |                                        |         |                           |                           |
|-----------------|--------|-----------------|----------------------|--------|------------------|---------|--------|------------|----------------|--------------|----------|----------------------------------------|---------|---------------------------|---------------------------|
| (               | ene    | eral Inform     | ation                |        |                  |         |        | Site       | Informa        | tion         |          |                                        |         |                           |                           |
| A               | nalys  | t               | Nancy                | 11 8   | 0,90             |         |        | Jurisdi    | iction/Date    | City         | of ABQ   |                                        |         | 6/                        | 13/200                    |
| A               | gency  | or Company      | Terry B              | own, P | .E.              |         | _      | Major      |                |              | rson St  |                                        |         | <u>0/</u>                 | 13/200                    |
| A               | nalysi | is Period/Year  | AM Pea               | k Hour |                  | 2009    | )      | Minor      |                |              | rson Pla |                                        |         |                           |                           |
| С               | omm    | ent             | 2009 AM              | / Peak | BUILD            | Conditi | ions   |            |                |              |          |                                        |         |                           |                           |
| lı              | put    | Data            |                      |        |                  |         |        |            |                |              |          |                                        |         |                           |                           |
| La              | ne Co  | onfiguration    |                      | T      | NB               |         | T      | SB         |                | I            | WB       |                                        |         | ED                        |                           |
| La              | ne 1   | (curb)          | 100000               |        | TR               |         | 1      | R          | ***********    |              | LTR      | 00 C 0 C 0 C 0 C 0 C 0 C 0 C 0 C 0 C 0 |         |                           | 11.00                     |
| La              | ne 2   |                 |                      |        | Т                |         |        | Т          |                |              | LIIV     |                                        | -       | LIK                       |                           |
| La              | ne 3   |                 |                      |        | L                |         | >=>=   | T          |                | in a         |          |                                        |         |                           |                           |
| La              | ne 4   |                 |                      |        |                  |         |        | L          |                | ====         |          |                                        |         | EB<br>0 (LT) 11 (TH) 12 ( |                           |
| La              | ne 5   |                 |                      |        |                  |         |        |            |                |              |          |                                        |         | EB                        |                           |
| 1.0             |        |                 |                      |        | NB               |         |        | SB         |                |              | WB       |                                        |         | EB                        |                           |
| _               | oveme  |                 |                      | 1 (LT) | 2 (TH)           | 3 (RT)  | 4 (LT) | 5 (TH)     | 6 (RT)         | 7 (LT)       | 8 (TH)   | 9 (RT)                                 | 10 (LT) | 11 (TH)                   | (TH) 12 (RT<br>1 26       |
|                 |        | (veh/h)         |                      | 154    | 534              | 10      | 7      | 578        | 144            | 2            | 7        | 4                                      | 22      | 1                         | EB<br>(TH) 12 (R)<br>1 26 |
| PH              | -      |                 |                      | 0.91   | 0.91             | 0.91    | 0.88   | 0.88       | 0.88           | 0.75         | 0.75     | 0.75                                   | 0.75    | 0.75                      |                           |
| Pe              | rcent  | of heavy vehic  | les, HV              | 3      | 3                | 3       | 3      | 3          | 3              | 3            | 3        | 3                                      | 3       | 3                         | 3                         |
| Flo             | w rate | e               |                      | 169    | 587              | 11      | 8      | 657        | 164            | 3            | 9        | 5                                      | 29      | 1                         | 35                        |
| Fla             | re sto | rage (# of veh  | s)                   |        |                  |         |        |            |                |              |          |                                        | 2.0     | •                         | 33                        |
| Me              | dian : | storage (# of v | ehs)                 |        |                  |         |        |            |                | 1            |          |                                        | 1       |                           |                           |
| Sig             | nal u  | pstream of Mo   | vement 2             |        | ft               |         | Mov    | ement 5    |                | f            | 1        |                                        |         |                           |                           |
| Ler             | gth o  | f study period  | (h) _                | 0.25   |                  |         |        |            |                |              |          |                                        |         |                           |                           |
| Ou              | tpu    | t Data          |                      |        |                  |         |        |            |                |              |          |                                        |         |                           |                           |
|                 | Lane   | Movement        | Flow Rate<br>(veh/h) |        | pacity<br>reh/h) | V       | /c     |            | Length<br>veh) | Contro<br>(s |          | LO                                     | S       | Appro<br>Delay ar         |                           |
|                 | 1      | LTR             | 17                   |        | 186              | 0.0     | 091    |            | 0              | 26.          | 3        |                                        |         |                           |                           |
| VB              | 2      |                 |                      |        |                  |         |        |            |                |              |          |                                        |         | 26.                       | 3                         |
|                 | 3      |                 |                      |        |                  |         |        |            |                |              |          |                                        |         | D                         |                           |
|                 | 1      | LTR             | 65                   | 3      | 323              | 0.2     | 201    |            | 1              | 18.          | 9        | С                                      |         |                           | _                         |
| В               | 2      |                 |                      |        |                  |         |        |            |                |              |          |                                        |         | 18.                       | 9                         |
| 1               | 3      |                 |                      |        |                  |         |        |            | -              |              | -+       |                                        |         | С                         |                           |
| NE              | 1      | (1)             | 169                  | ,      | 98               | 0.0     | 140    | 21 - 31-11 |                | en Hereit    |          |                                        |         |                           | *                         |
|                 | -      |                 |                      |        |                  | 0.2     |        | 1          |                | 10.          | 7        | В                                      |         |                           |                           |
| SB<br>CA<br>ata |        | (4)             | 8                    | 9      | 68               | 0.0     | 08     | 0          | )              | 8.7          | . [      | Α                                      |         |                           | - 8                       |

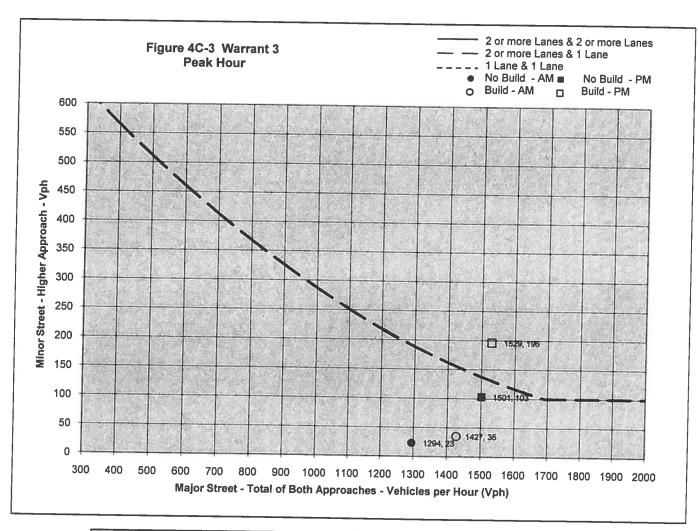
#### **CHAPTER 17 - TWSC - UNSIGNALIZED INTERSECTIONS WORKSHEET Analysis Summary** General Information Site Information Jurisdiction/Date City of ABQ Nancy 6/13/2007 **Analyst** Terry Brown, P.E. Jefferson St Agency or Company Major Street Jefferson Plaza 2009 PM Peak Hour **Analysis Period/Year** Minor Street 2009 PM Peak NOBUILD Conditions Comment Input Data **Lane Configuration** NB WB EΒ SB TR Lane 1 (curb) R **LTR** LTR Т Т Lane 2 Т Lane 3 L Lane 4 L Lane 5 NB SB **WB** EB 9 (RT) 10 (LT) 11 (TH) 12 (RT) 1 (LT) 2 (TH) Movement 3 (RT) 4 (LT) 5 (TH) 6 (RT) 7 (LT) 8 (TH) Volume (veh/h) 10 741 7 5 1 76 1 11 719 15 10 53 PHF 0.86 0.86 0.86 0.97 0.97 0.97 0.75 0.75 0.75 0.75 0.75 0.75 Percent of heavy vehicles, HV 3 3 3 3 3 3 3 3 3 3 3 3 Flow rate 12 862 6 71 11 741 15 9 1 13 101 1 Flare storage (# of vehs) Median storage (# of vehs) 1 1 Signal upstream of Movement 2 ft ft Movement 5 Length of study period (h) 0.25 **Output Data** Lane Movement Flow Rate LOS Capacity v/c Queue Length **Control Delay** Approach (veh/h) (veh/h) Delay and LOS (veh) (s) **LTR** 23 331 0.069 0 16.7 С 1 16.7 WB 2 С 3 **LTR** 173 D 1 329 0.526 3 27.5 27.5 EB 2 D 3 NB (1) 12 843 0.014 0 9.3 Α (4) 11 SB 766 0.015 0 9.8 Α **HiCAP** ™2.0.0.1 ©Catalina Engineering, Inc. 3 - 3\_09PNX

#### **CHAPTER 17 - TWSC - UNSIGNALIZED INTERSECTIONS WORKSHEET Analysis Summary** General Information Site Information Analyst Nancy Jurisdiction/Date City of ABQ 6/13/2007 Agency or Company Terry Brown, P.E. Jefferson St **Major Street** Analysis Period/Year PM Peak Hour 2009 Minor Street Jefferson Plaza Comment 2009 PM Peak BUILD Conditions Input Data Lane Configuration NB SB WB ΕB Lane 1 (curb) TR R LTR LTR Lane 2 Т Т Lane 3 T L Lane 4 L Lane 5 NB SB WB EB Movement 1 (LT) 2 (TH) 3 (RT) 4 (LT) 5 (TH) 6 (RT) 9 (RT) 10 (LT) 11 (TH) 12 (RT) 7 (LT) 8 (TH) Volume (veh/h) 28 741 5 11 719 25 7 1 10 127 138 PHF 0.86 0.86 0.86 0.97 0.97 0.97 0.75 0.75 0.75 0.75 0.75 0.75 Percent of heavy vehicles, HV 3 3 3 3 3 3 3 3 3 3 3 3 Flow rate 33 862 6 11 741 26 9 13 169 1 184 Flare storage (# of vehs) Median storage (# of vehs) 1 1 Signal upstream of Movement 2 ft Movement 5 ft 0.25 Length of study period (h) **Output Data** Lane Movement Flow Rate Capacity v/c Queue Length **Control Delay** LOS Approach (veh/h) (veh/h) (veh) (s) Delay and LOS **LTR** 1 23 294 0.078 0 18.3 С 18.3 WB 2 3 С 1 **LTR** 354 350 1.012 12 86.4 F 86.4 EB 2 F 3 NB (1) 33 836 0.039 0 9.5 Α (4) SB 11 766 0.015 0 9.8 Α **HiCAP** ™2.0.0.1 ©Catalina Engineering, Inc. 3 - 3\_09PBX

Project Name
Jefferson Plaza Office Development
Intersection
Jefferson Plaza / Jefferson St.
Analysis Year
2009

Major St. 2
Minor St. 1

**Analysis Year Traffic Volumes** AM Major Minor PM Major Minor No Build 1294 23 No Build 1501 103 Build 1427 35 Build 1529 196



| Comments - |  |  |  |
|------------|--|--|--|
|            |  |  |  |
|            |  |  |  |
|            |  |  |  |
|            |  |  |  |
|            |  |  |  |

Analysis of Intersection #4

Jefferson Plaza / Driveway 'A'

| 1    | Anai    | ysis Sum         | mary              |        |                  |                                         |          |          |            |              |             |          |         |                   |       |
|------|---------|------------------|-------------------|--------|------------------|-----------------------------------------|----------|----------|------------|--------------|-------------|----------|---------|-------------------|-------|
| (    | 3ene    | ral Informa      | tion              |        |                  | -                                       |          | Site     | Informa    | tion         |             | <u> </u> |         |                   |       |
| A    | nalyst  |                  | Nancy             |        |                  |                                         |          | Jurisdi  | ction/Date | City o       | f ABQ       |          |         | 6/1               | 3/20  |
| A    | gency   | or Company       | Terry Br          | own, P | .E               |                                         |          | Major :  |            |              | son Pla     | aza      |         |                   |       |
| A    | nalysi  | s Period/Year    | AM Pea            | k Hour |                  | 2009                                    | )        | Minor    | Street     | Drive        | way 'A'     |          |         |                   |       |
| С    | omme    | ent              | 2009 AN           | / Peak | BUILD            | Conditi                                 | ons      |          |            |              |             |          |         |                   | 11    |
| li   | nput    | Data             |                   |        |                  | <u> </u>                                |          |          |            | *****        | <del></del> |          |         |                   |       |
| Lá   | ane Co  | nfiguration      |                   |        | EB               |                                         |          | WB       |            |              | NB          |          |         | SB                |       |
| La   | me 1 (  | curb)            |                   |        | LT               |                                         |          | TR       |            |              |             |          | lanca_o | LR                |       |
| La   | ne 2    |                  |                   | = ==   |                  | 102 25                                  |          |          |            |              |             |          |         |                   |       |
| La   | пе 3    |                  |                   |        |                  |                                         |          |          |            |              |             |          |         |                   |       |
|      | ne 4    |                  |                   |        |                  |                                         |          |          |            |              |             |          |         |                   | -     |
| La   | ne 5    |                  |                   | 1      |                  |                                         |          |          |            |              |             |          |         |                   |       |
| B.A. | oveme   |                  | <del></del>       | 1 (IT) | EB               | 0.47                                    |          | WB       |            |              | NB          |          |         | SB                |       |
|      |         |                  |                   | 1 (LT) | 2 (TH)           | 3 (RT)                                  | 4 (LT)   | 5 (TH)   | 6 (RT)     | 7 (LT)       | 8 (TH)      | 9 (RT)   | 10 (LT) | 11 (TH)           | 12 (F |
|      |         | (veh/h)          |                   | 1      | 37               |                                         |          | 215      | 80         |              |             |          | 11      |                   | 1     |
| PH   |         |                  |                   | 0.88   | 0.88             |                                         |          | 0.88     | 0.88       |              |             |          | 0.85    |                   | 0.8   |
| Pe   | rcent   | of heavy vehic   | les, HV           | 3      | 3                |                                         |          | 3        | 3          |              | -           |          | 3       |                   | 3     |
| Flo  | ow rate | )                |                   | 1      | 42               |                                         |          | 244      | 91         |              |             |          | 13      |                   | 1     |
| Fla  | re sto  | rage (# of veh   | 5)                |        | 17               |                                         |          |          |            |              |             |          |         |                   |       |
| Me   | edian s | itorage (# of vi | ehs)              |        |                  |                                         |          |          |            |              |             |          |         |                   |       |
| Sig  | jnal uj | ostream of Mo    | vement 2 _        |        | ft               |                                         | Mov      | ement 5  |            | fi           |             |          |         |                   |       |
| Lei  | ngth o  | f study period   | (h) _             | 0.25   |                  |                                         |          |          |            |              |             |          |         |                   |       |
| Ot   | utput   | Data             |                   |        |                  |                                         |          |          |            |              |             |          |         |                   |       |
|      | Lane    | Movement         | Flow Rate (veh/h) |        | pacity<br>veh/h) | V                                       | /c       |          | Length (   | Contro<br>(s |             | LO       | S       | Appro<br>Delay ar |       |
|      | 1       |                  |                   |        |                  | dia dia dia dia dia dia dia dia dia dia | <u>`</u> |          |            |              |             |          |         |                   |       |
| VВ   | 2       |                  |                   |        |                  |                                         |          |          | E          |              |             |          |         |                   |       |
|      | 3       |                  |                   |        |                  |                                         |          |          | -          |              |             |          |         |                   |       |
|      | 1       | LR               | 14                | -      | 664              | 0.0                                     | 021      |          | 0          | 10.          | F           | В        | -       |                   |       |
| SB   | 2       |                  |                   |        |                  | 0.0                                     | 72 T     | <u> </u> |            | 10.          | J           |          |         | 10.               | 5     |
|      |         |                  |                   |        |                  |                                         |          |          |            |              |             |          |         | -                 |       |
|      | 3       | . v. 1.2222 11   |                   |        |                  |                                         |          |          |            |              |             |          |         | В                 |       |
| EE   | 3       | 1                | 1                 | 1:     | 218              | 0.0                                     | 01       | C        | )          | 8.0          | )           | Α        |         |                   |       |
| WI   | в       | (4)              |                   |        |                  |                                         |          |          |            |              |             |          |         |                   |       |

#### **CHAPTER 17 - TWSC - UNSIGNALIZED INTERSECTIONS WORKSHEET Analysis Summary** General Information Site Information Nancy Analyst Jurisdiction/Date City of ABQ 6/13/2007 Terry Brown, P.E. Agency or Company **Major Street** Jefferson Plaza Analysis Period/Year PM Peak Hour 2009 Driveway 'A' Minor Street Comment 2009 PM Peak BUILD Conditions Input Data Lane Configuration EB WB NB SB Lane 1 (curb) LT TR LR Lane 2 Lane 3 Lane 4 Lane 5 EB WB NB SB Movement 2 (TH) 1 (LT) 3 (RT) 4 (LT) 5 (TH) 6 (RT) 7 (LT) 8 (TH) 9 (RT) 10 (LT) 11 (TH) 12 (RT) Volume (veh/h) 1 183 35 17 82 1 PHF 0.97 0.97 0.97 0.97 0.85 0.85 Percent of heavy vehicles, HV 3 3 3 3 3 3 Flow rate 1 189 36 18 96 1 Flare storage (# of vehs) Median storage (# of vehs) Signal upstream of Movement 2 ft Movement 5 ft 0.25 Length of study period (h) **Output Data** Lane Movement Flow Rate Capacity v/c Queue Length **Control Delay** LOS Approach (veh/h) (veh/h) (veh) (s) Delay and LOS 1 NB 2 3 LR 1 97 752 0.129 0 10.5 В 10.5 SB 2 3 В EB (1) 1 1545 0.001 0 7.3 Α WB (4) **HiCAP** ™2.0.0.1 ©Catalina Engineering, Inc. 4 - 4\_09PBX

A - 58

Analysis of Intersection #5

Jefferson Plaza / Driveway 'B'

## **CHAPTER 17 - TWSC - UNSIGNALIZED INTERSECTIONS WORKSHEET**

## **Analysis Summary**

| (               | Gene    | ral Inform     | ation             |        |                   |         |               | Site    | Informa    | tion   |          |        |                |                   |        |
|-----------------|---------|----------------|-------------------|--------|-------------------|---------|---------------|---------|------------|--------|----------|--------|----------------|-------------------|--------|
| 1               | Analys  | 1              | Nancy             |        |                   |         |               | Jurisdi | ction/Date | City o | of ABQ   |        |                | 6/1               | 3/200  |
| ļ               | \gency  | or Company     | Terry Br          | own, P | .E.               |         |               | Major   | Street     | Jeffer | rson Pla | aza    |                |                   |        |
| F               | \nalysi | s Period/Year  | AM Pea            | k Hour |                   | 2009    | )             | Minor   | Street     | Drive  | way 'B'  |        |                |                   |        |
| (               | Commo   | ent            | 2009 AN           | / Peak | BUILD             | Conditi | ons           |         |            |        |          |        |                |                   |        |
| 1               | nput    | Data           |                   |        |                   |         |               |         |            |        |          |        |                |                   |        |
| L               | ane Co  | onfiguration   |                   |        | EB                |         |               | WB      |            |        | NB       |        | 9              | SB                |        |
| Li              | ane 1   | (curb)         |                   | -      | LT                |         | de vide comme | TR      |            |        |          |        |                | LR                |        |
| <sub>e</sub> Li | ane 2   |                |                   |        |                   | •       |               |         |            |        |          |        |                |                   |        |
| Li              | ene 3   |                |                   |        |                   |         |               |         |            |        |          |        |                |                   |        |
| La              | ne 4    |                |                   |        |                   |         |               |         |            |        |          |        |                |                   |        |
| La              | ine 5   |                |                   |        |                   |         |               |         |            | 1.00   |          |        |                |                   |        |
| _               |         |                |                   | -      | EB                |         |               | WB      |            |        | NB       |        |                | SB                |        |
| _               | loveme  |                | L.                | 1 (LT) | 2 (TH)            | 3 (RT)  | 4 (LT)        | 5 (TH)  | 6 (RT)     | 7 (LT) | 8 (TH)   | 9 (RT) | 10 (LT)        | 11 (TH)           | 12 (R  |
|                 |         | (veh/h)        |                   | 1 .    | 30                | 1       |               | 162     | 53         |        |          |        | 7              |                   | 1      |
| Pl              | HF      |                |                   | 0.88   | 0.88              |         |               | 0.88    | 0.88       |        |          |        | 0.85           |                   | 0.85   |
| Pe              | ercent  | of heavy vehic | cles, HV          | 3      | 3                 |         |               | 3       | 3          |        |          |        | 3              |                   | 3      |
| Fle             | ow rate | 9              |                   | 1      | 34                |         |               | 184     | 60         |        |          |        | 8              |                   | 1      |
| Fla             | are sto | rage (# of vel | ıs)               |        |                   |         |               |         |            |        |          |        |                |                   |        |
| M               | edian s | storage (# of  | rehs)             |        | 7                 |         |               |         |            |        |          |        | 1              |                   |        |
| Si              | gnal u  | pstream of Mo  | ovement 2         |        | ft                |         | Mov           | ement 5 |            | f      |          |        |                |                   |        |
| Le              | ngth o  | f study period | l (h) _           | 0.25   | <u> </u>          |         |               |         |            | ·      | •        |        |                |                   |        |
| 0               | utpu    | t Data         |                   |        |                   |         |               |         |            |        |          |        |                |                   |        |
|                 | Lane    | Movement       | Flow Rate (veh/h) |        | apacity<br>veh/h) | V       | /c            |         | Length     | Contro | l Delay  | LO     | s              | Appro<br>Delay ar |        |
|                 | 1       |                |                   |        |                   |         |               |         |            |        | 1        |        |                | Delay at          | iu LUS |
| ۱B              | 2       |                |                   |        |                   |         |               |         |            |        |          |        |                |                   |        |
|                 | 3       | 19             |                   |        |                   | 1       | ***           |         |            |        |          |        |                |                   |        |
|                 | 1       | LR             | 9                 | -      | 744               |         |               |         |            |        | _        |        |                |                   |        |
| יםי             |         |                |                   |        | 744               | 0.0     | )12           |         | 0          | 9.9    | 9        | Α      |                | 9.9               | 9      |
| B               | 2       |                |                   |        |                   |         |               |         |            |        |          |        |                |                   |        |
|                 | 3       | =(0.000        |                   | 2.10   |                   |         |               |         |            |        |          |        |                | Α                 |        |
| E               | 3       | 1              | 1                 | 1      | 316               | 0.0     | 01            | (       | )          | 7.7    | 7        | Α      | and a separate |                   |        |
| W               | В       | (4)            |                   |        |                   |         |               |         |            |        |          | - •    |                |                   |        |

5\_09ABX 1 of 1

#### **CHAPTER 17 - TWSC - UNSIGNALIZED INTERSECTIONS WORKSHEET Analysis Summary** General Information Site Information Nancy Analyst Jurisdiction/Date City of ABQ 6/13/2007 Agency or Company Terry Brown, P.E. **Major Street** Jefferson Plaza Analysis Period/Year PM Peak Hour 2009 Driveway 'B' Minor Street Comment 2009 PM Peak BUILD Conditions Input Data Lane Configuration EB WB NB SB Lane 1 (curb) LT TR LR Lane 2 Lane 3 Lane 4 Lane 5 EB WB NB SB Movement 1 (LT) 2 (TH) 3 (RT) 4 (LT) 5 (TH) 6 (RT) 7 (LT) 8 (TH) 9 (RT) 10 (LT) 11 (TH) 12 (RT) Volume (veh/h) 1 129 24 11 54 1 PHF 0.97 0.97 0.97 0.97 0.85 0.85 Percent of heavy vehicles, HV 3 3 3 3 3 3 Flow rate 1 133 25 11 64 1 Flare storage (# of vehs) Median storage (# of vehs) Signal upstream of Movement 2 ft Movement 5 ft Length of study period (h) 0.25 **Output Data** Lane Movement Flow Rate Capacity v/c Queue Length Control Delay LOS Approach (veh/h) (veh/h) (veh) (s) Delay and LOS 1 NB 2 3 LR 1 65 825 0.079 0 9.7 Α 9.7 SB 2 3 EB (1)1 1568 0.001 0 7.3 Α (4) WB **HiCAP** ™2.0.0.1 ©Catalina Engineering, Inc.

A-600

5 - 5 09PBX

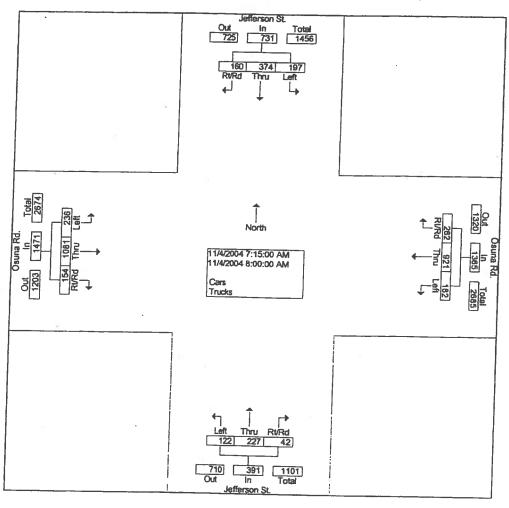
## Mid-Region Council of Governments Intersection Turning Movement Analysis

File Name: Osuna Rd. and Jefferson St

Site Code : 00025373 Start Date : 11/04/2004

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|                |          |         | rom No                                  | orth |               |       |      | Osuna<br>From E |      |               |           |      | effersor |     |               |       |      | Osuna<br>rom W |     |       | ]     |
|----------------|----------|---------|-----------------------------------------|------|---------------|-------|------|-----------------|------|---------------|-----------|------|----------|-----|---------------|-------|------|----------------|-----|-------|-------|
| Start Time     | Left     | Thru    | Right                                   | RUR  | App.<br>Total | Left  | Thru | Right           | Ri/R | App.<br>Total | Left      | Thru | Right    | RVR | App.<br>Total | Left  | Thru | Right          | RVR | App.  | int   |
| Peak Hour From | 06:45 to | 09:30 - | Peak 1                                  | of 1 |               |       |      |                 |      |               |           |      |          | 0   | I Dian        |       |      |                | _ d | Total | Tota  |
| Intersection   | 07:15    |         |                                         | -, - |               | 1     |      |                 |      |               | 1         |      |          |     |               | ŧ     |      |                |     |       |       |
| Volume         | 197      | 374     | 157                                     | 3    | 731           | 182   | 921  | 251             | 11   | 1365          | 1122      | 227  | 30       | 12  | 391           | 236   | 4004 | 4.47           | _   | 224.1 |       |
| Percent        | 26.9     | 51.2    | 21.5                                    | 0.4  |               | 13.3  | 67.5 | 18.4            | 0.8  |               | 31.2      | 58.1 | 7.7      | 3.1 | 391           |       | 1081 | 147            | . 7 | 1471  | 3958  |
| Volume         | 197      | 374     | 157                                     | 3    | 731           | 182   | 921  | 251             | 11   | 1365          | 122       | 227  |          |     | 204           | 16.0  | 73.5 | 10.0           | 0.5 |       |       |
| Volume         | 58       | 105     | 47                                      | 1    | 211           | - 53  | 264  | 74              |      |               |           |      | 30       | 12  | 391           | 236   | 1081 | 147            | 7   | 1471  | 3958  |
| Peak Factor    |          |         |                                         | ,    |               |       | 204  | 17              | U    | 391           | <b>34</b> | 61   | 9        | 4   | 108           | 91    | 285  | 41             | 1   | 418   | 1128  |
| High Int.      | 07:45    |         |                                         |      |               | 07:45 |      |                 |      |               |           |      |          |     |               |       |      |                |     | ì     | 0.877 |
| Volume         | 58       | 105     | 47                                      | 1    | 211           | 53    | 264  | 74              | 0    | 204           | 07:45     |      |          |     |               | 07:45 |      |                |     |       |       |
| Peak Factor    |          |         | • • • • • • • • • • • • • • • • • • • • | •    | 0.866         |       | 204  | 1-4             | ·    | 391<br>0.873  | 34        | 61   | 9        | 4   | 108           | 91    | 285  | 41             | 1   | 418   |       |
|                |          |         |                                         |      | 1.500         |       |      |                 |      | 0.073         |           |      |          |     | 0.905         |       |      |                |     | 0.880 |       |

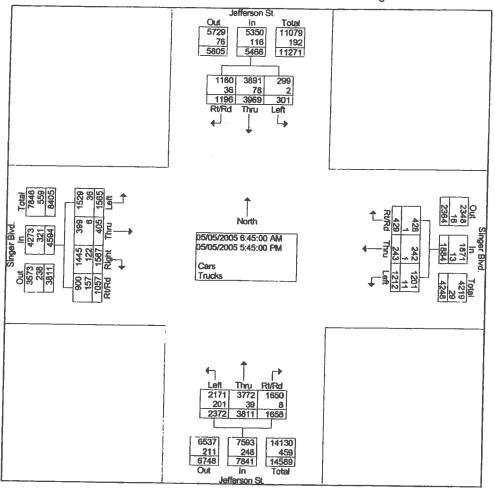


# Mid-Region Council of Governments IntersectionTurning Movement Analysis

File Name: Singer Blvd. and Jefferson St.

Site Code : 00025880 Start Date : 05/05/2005

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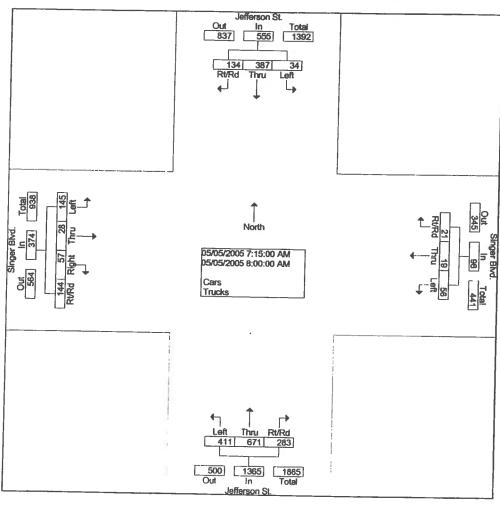
# Mid-Region Council of Governments macreection Furning Movement Analysis

File Name: Singer Blvd. and Jefferson St

Site Code : 00025880 Start Date : 05/05/2005

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|                     | -           |         | ffersor | orth      |               |       |      | inger E<br>rom E |     |               |       |      | effersor |     |               |             |           | inger E |      | -     | ]     |
|---------------------|-------------|---------|---------|-----------|---------------|-------|------|------------------|-----|---------------|-------|------|----------|-----|---------------|-------------|-----------|---------|------|-------|-------|
| Start Time          | Left        | Thru    | Right   | Rt/R<br>d | App.<br>Total | Left  | Thru | Right            | RUR | App.<br>Total | Left  | Thru | Right    | RVR | App.<br>Total | Left        | Thru      | Right   | Rt/R | App.  | Int   |
| Peak Hour Front     | 06:45 to    | 09:30 - | Peak 1  | of 1      |               |       |      |                  |     | 1000          |       |      |          |     | TULE          |             |           |         | d    | Total | Total |
| Intersection        | 07:15       |         |         |           |               | 1     |      |                  |     |               | ı     |      |          |     |               | ,           |           |         |      |       |       |
| Volume              | 34          | 387     | 121     | 13        | 555           | 56    | 19   | 21               | 0   | 96            | 411   | 671  | 282      |     | 1365          | 445         |           |         |      |       | J     |
| Percent             | 6.1         | 69.7    | 21.8    | 2.3       |               | 58.3  | 19.8 | 21.9             | 0.0 | 30            | 30.1  | 49.2 | 20.7     | 0.1 | 1300          | 145<br>38.8 | 28<br>7.5 | 57      | 144  | 374   | 2390  |
| Volume              | 34          | 387     | 121     | 13        | 555           | 56    | 19   | 21               | 0   | 96            | 411   | 671  | 282      | 0.7 | 4205          |             |           | 15.2    | 38.5 |       |       |
| Volume              | 14          | 107     | 39      | 8         | 168           | 9     | 0    | -3               | ő   | 21            | 108   | 189  |          | 1   | 1365          | 145         | 28        | 57      | 144  | 374   | 2390  |
| Peak Factor         |             |         |         |           |               |       |      | 3                | v   | 21            | 108   | 199  | 87       | 0   | 384           | 41          | 10        | 20      | 46   | 117   | 690   |
| High Int.<br>Volume | 07:45<br>14 | 407     | -       | _         |               | 08:00 |      |                  |     |               | 07:45 |      |          |     |               | 07:45       |           |         |      |       | 0.866 |
| Peak Factor         | 14          | 107     | 39      | 8         | 168           | 23    | 8    | 8                | 0   | 39<br>0.615   | 108   | 189  | 87       | 0   | 384           | 41          | 10        | 20      | 46   | 117   | 1     |
|                     |             |         |         |           |               |       |      |                  |     | 0.015         |       |      |          |     | 0.889         |             |           |         |      | 0.799 |       |



## Signalized Intersection Information Sheet

|        | Intersection:                                                                                          | Jeffer                                                                                                                                | son Plaza / Jefl                                                                      | erson St                                                                        |                                           |
|--------|--------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|---------------------------------------------------------------------------------|-------------------------------------------|
|        | Speed Limi                                                                                             | it - E-W Street:                                                                                                                      | 25 M.P.H.                                                                             | -                                                                               | Date:                                     |
|        |                                                                                                        | it - N-S Street:                                                                                                                      | 35 M.P.H.                                                                             |                                                                                 | 6/12/2007                                 |
|        | Type of Inter                                                                                          | rsection Control                                                                                                                      | Signalized                                                                            |                                                                                 |                                           |
|        | Foot Day 1.4                                                                                           |                                                                                                                                       |                                                                                       |                                                                                 |                                           |
|        | East Bound A                                                                                           |                                                                                                                                       |                                                                                       | son Plaza                                                                       |                                           |
|        | Left Turn Lanes                                                                                        | Thru / Lefts                                                                                                                          | Thru Lanes                                                                            | Thru / Rights                                                                   | Right Turn Lanes                          |
|        |                                                                                                        |                                                                                                                                       | 1                                                                                     |                                                                                 |                                           |
| _ength | 0                                                                                                      |                                                                                                                                       |                                                                                       |                                                                                 | 0                                         |
|        |                                                                                                        | Left Turn Arrow?                                                                                                                      | Thru Green                                                                            | Right Turn Arrow?                                                               |                                           |
|        |                                                                                                        | NO                                                                                                                                    | NO NO                                                                                 | NO                                                                              |                                           |
|        |                                                                                                        | ght turn slip laned th                                                                                                                | at by-passes the                                                                      | e traffic signal?                                                               | NO                                        |
|        | West Bound A                                                                                           | ***************************************                                                                                               | Jeffer                                                                                | son Plaza                                                                       |                                           |
|        | Left Turn Lanes                                                                                        | Thru / Lefts                                                                                                                          | Thru Lanes                                                                            | Thru / Rights                                                                   | Right Turn Lanes                          |
|        |                                                                                                        |                                                                                                                                       |                                                                                       | -                                                                               | -                                         |
| ength. | 0                                                                                                      |                                                                                                                                       |                                                                                       |                                                                                 | 0                                         |
|        |                                                                                                        | Left Turn Arrow?                                                                                                                      | Thru Green                                                                            | Right Turn Arrow?                                                               |                                           |
|        |                                                                                                        | NO                                                                                                                                    | NO                                                                                    | l NO                                                                            |                                           |
|        |                                                                                                        |                                                                                                                                       |                                                                                       |                                                                                 |                                           |
|        | Is there a rig                                                                                         | ght turn slip laned tha                                                                                                               | at by-passes the                                                                      | traffic signal?                                                                 | NO<br>NO                                  |
|        | North Bound A                                                                                          |                                                                                                                                       |                                                                                       | _                                                                               | NO<br>NO                                  |
|        |                                                                                                        |                                                                                                                                       |                                                                                       | rson St                                                                         |                                           |
|        | North Bound A                                                                                          | pproach:                                                                                                                              | Jeffe                                                                                 | _                                                                               | NO Right Turn Lanes                       |
| ength  | North Bound A                                                                                          | pproach:                                                                                                                              | Jeffe                                                                                 | rson St                                                                         | Right Turn Lanes                          |
| ength  | North Bound A  Left Turn Lanes                                                                         | pproach:                                                                                                                              | Jeffe<br>Thru Lanes                                                                   | rson St<br>Thru / Rights                                                        |                                           |
| ngth   | North Bound A  Left Turn Lanes                                                                         | pproach:<br>Thru / Lefts                                                                                                              | Jeffe<br>Thru Lanes<br>!<br>Thru Green                                                | Thru / Rights Right Turn Arrow?                                                 | Right Turn Lanes                          |
| ength  | North Bound A  Left Turn Lanes  0                                                                      | pproach: Thru / Lefts  Left Turn Arrow?                                                                                               | Jeffe Thru Lanes    Thru Green                                                        | Thru / Rights   Right Turn Arrow?                                               | Right Turn Lanes                          |
| ength  | North Bound A  Left Turn Lanes  0                                                                      | pproach: Thru / Lefts  Left Turn Arrow?                                                                                               | Jeffe Thru Lanes    Thru Green                                                        | Thru / Rights   Right Turn Arrow?                                               | Right Turn Lanes                          |
| ength  | North Bound A Left Turn Lanes  0 Is there a rig                                                        | pproach: Thru / Lefts  Left Turn Arrow?  NO  ht turn slip laned tha                                                                   | Jeffe Thru Lanes    Thru Green NO at by-passes the                                    | Thru / Rights   Right Turn Arrow?                                               | Right Turn Lanes                          |
|        | North Bound A Left Turn Lanes  0 Is there a rig                                                        | pproach: Thru / Lefts  Left Turn Arrow? NO ht turn slip laned tha                                                                     | Jeffe Thru Lanes    Thru Green NO at by-passes the                                    | Right Turn Arrow?   NO traffic signal?                                          | Right Turn Lanes  - 0                     |
|        | North Bound A Left Turn Lanes  0 Is there a rig                                                        | pproach: Thru / Lefts  Left Turn Arrow?  NO  ht turn slip laned tha                                                                   | Jeffe Thru Lanes    Thru Green NO at by-passes the                                    | Right Turn Arrow?                                                               | Right Turn Lanes  0  NO  Right Turn Lanes |
|        | North Bound A Left Turn Lanes  0 Is there a rig                                                        | pproach: Thru / Lefts  Left Turn Arrow?  NO  ht turn slip laned tha                                                                   | Jeffe Thru Lanes  Thru Green  NO  at by-passes the  Jeffer Thru Lanes                 | Right Turn Arrow?   NO traffic signal?                                          | Right Turn Lanes  0  NO  Right Turn Lanes |
|        | North Bound A Left Turn Lanes  0 Is there a rig South Bound A Left Turn Lanes                          | pproach: Thru / Lefts  Left Turn Arrow? NO ht turn slip laned tha pproach: Thru / Lefts                                               | Jeffe Thru Lanes  Thru Green  NO  at by-passes the  Jeffer Thru Lanes                 | Right Turn Arrow? NO traffic signal? rson St Thru / Rights                      | Right Turn Lanes  0  NO  Right Turn Lanes |
|        | North Bound A Left Turn Lanes  0 Is there a rig South Bound A Left Turn Lanes                          | pproach: Thru / Lefts  Left Turn Arrow?  NO  ht turn slip laned tha                                                                   | Jeffe Thru Lanes    Thru Green NO at by-passes the  Jeffer Thru Lanes 2 Thru Green    | Right Turn Arrow? NO traffic signal? rson St Thru / Rights Right Turn Arrow?    | Right Turn Lanes  0  NO  Right Turn Lanes |
|        | North Bound A Left Turn Lanes  0 Is there a rig South Bound A Left Turn Lanes                          | pproach: Thru / Lefts  Left Turn Arrow? NO ht turn slip laned tha  pproach: Thru / Lefts  Left Turn Arrow? NO                         | Jeffe Thru Lanes    Thru Green NO at by-passes the  Jeffer Thru Lanes 2 Thru Green NO | Right Turn Arrow? NO traffic signal? rson St Thru / Rights Right Turn Arrow? NO | Right Turn Lanes  0  NO  Right Turn Lanes |
|        | North Bound A Left Turn Lanes  0 Is there a rig South Bound A Left Turn Lanes                          | pproach: Thru / Lefts  Left Turn Arrow? NO ht turn slip laned tha pproach: Thru / Lefts  Left Turn Arrow?                             | Jeffe Thru Lanes    Thru Green NO at by-passes the  Jeffer Thru Lanes 2 Thru Green NO | Right Turn Arrow? NO traffic signal? rson St Thru / Rights Right Turn Arrow? NO | Right Turn Lanes  0  NO  Right Turn Lanes |
| ength  | North Bound A  Left Turn Lanes  0  Is there a rig  South Bound A  Left Turn Lanes  0  Is there a right | pproach: Thru / Lefts  Left Turn Arrow? NO ht turn slip laned that pproach: Thru / Lefts  Left Turn Arrow? NO ht turn slip laned that | Jeffe Thru Lanes    Thru Green NO at by-passes the  Jeffer Thru Lanes 2 Thru Green NO | Right Turn Arrow? NO traffic signal? rson St Thru / Rights Right Turn Arrow? NO | Right Turn Lanes  0  NO  Right Turn Lanes |
| ngth   | North Bound A Left Turn Lanes  0 Is there a rig South Bound A Left Turn Lanes                          | pproach: Thru / Lefts  Left Turn Arrow? NO ht turn slip laned that pproach: Thru / Lefts  Left Turn Arrow? NO ht turn slip laned that | Jeffe Thru Lanes    Thru Green NO at by-passes the  Jeffer Thru Lanes 2 Thru Green NO | Right Turn Arrow? NO traffic signal? rson St Thru / Rights Right Turn Arrow? NO | Right Turn Lanes  0  NO  Right Turn Lanes |