Golden Corral Restaurant Development

(San Mateo Blvd. North of McLeod Rd.)

Traffic Impact Study

October 01, 2009

FINAL

FINAL

Signature Date

Presented to:

City of Albuquerque
Transportation Development Section

Prepared for:

Bohannan-Huston, Inc.
7500 Jefferson St. NE
Albuquerque, NM 87109

TERRY O. BROWN
NEW MEXICO
6407
LICENSED PROFESSIONAL ENGINEER

Terry O. Brown P.E.
P.O. Box 92051
Albuquerque, NM 87199
505 · 883 · 8807

Golden Corral Commercial Development
(San Mateo Blvd N. of McLeod Blvd)
Traffic Impact Study

Contents

Golden Corral Commercial Development
(San Mateo Blvd N. of McLeod Blvd)
Traffic Impact Study

Introduction

The purpose of this study is to evaluate the transportation conditions before and after implementation of the proposed Golden Corral Commercial Development and determine the impact of the development on the adjacent transportation system. The recommendations of this study will provide measures to mitigate the impact of the development of the site plan on critical intersections and street segments. This study is prepared to meet the requirements of the City of Albuquerque associated with its review of the Golden Corral Commercial Development as shown on the plan on Page A-2 in the Appendix of this report.

Study Procedures

A scoping meeting was held with City of Albuquerque Transportation staff members Tony Loyd and John Hartmann prior to beginning the study to discuss scope and methodology to be utilized within the proposed Golden Corral Commercial Development. Specific items included format, intersections to be studied, intersection analysis procedures, existing traffic counts, trip distribution methodology, and implementation year definition.

The basic procedure followed for this traffic impact study is outlined as follows:

- Calculate the generated trips for this proposed commercial development as defined on Page A-2 of the Appendix of this report and more specifically defined in the Trip Generation Table on Page A-4 of the Appendix of this report. The trips generated for the implementation year analyses (2012) will assume that 100% of the development has occurred. Trip Generation Rates will be calculated based on data and equations contained in the *ITE Trip Generation Manual* (8th Edition).
- Calculate trip distribution for the newly generated trips by this development. The new trips will be distributed based on a two-mile radius distribution of population, Appendix Pages A-9 thru A-14.
- Determine Trip Assignments for the newly generated trips based on the results of the Trip Distribution Analysis and logical routing to and from the new site, Appendix Pages A-15 thru A-16.
- Obtain AM Peak Hour and PM Peak Hour Turning Movement Volumes Traffic Counts for the intersections of McLeod Rd. / San Mateo Blvd., Osuna Rd. / San Mateo Blvd., Appendix Pages A-49 thru A-50.

- Determine Historic Growth Rates for background traffic volumes based on an analysis of the linear growth trend of recent AWDT Volumes obtained from 2003 thru 2007 MRCOG Traffic Flow Maps, Appendix Pages A-17 thru A-24.
- Determine the 2012 NO BUILD Volumes for each intersection to be analyzed by growing the background traffic growth from the year of the counts to 2012, Appendix Pages A-26 thru A-34.
- Add data from Trip Assignments Maps and Tables to the 2012 NO BUILD Volumes to obtain the 2012 BUILD Volumes for this project, Appendix Pages A-26 thru A-34.
- Provide signalized and / or unsignalized intersection analyses for the following intersections:

INTERSECTION	TYPE CONTROL	NO BUILD ANALYSIS	BUILD ANALYSIS
McLeod Rd. / San Mateo Blvd.	Traffic Signal	2012	2012
Osuna Rd. / San Mateo Blvd.	Traffic Signal	2012	2012
Driveway "A" / San Mateo Blvd.	Stop Sign	N/A	2012
Driveway "B" / San Mateo Blvd.	Stop Sign	N/A	2012

Intersection capacity analyses were performed in accordance with the procedures for signalized and unsignalized intersections utilized in the Synchro (Version 7, Build 765) Transportation System analysis software program as required by the New Mexico Department of Transportation and other local governments. Synchro software deviates from the 2000 Highway Capacity Manual methods in several areas. The results obtained using Synchro software are generally deemed by the reviewing agencies to be close to those based on the 2000 Highway Capacity Manual in most cases.

Intersections targeted for analysis in this study include McLeod Blvd / San Mateo Blvd, and Osuna Blvd / San Mateo Blvd. In addition, the proposed driveways for the site will be analyzed.

Description of Proposed Development

The subject area of land discussed in this report is bound on the east by San Mateo Blvd and is the old Rowlands Nursery site located north of McLeod Rd. See the site map on Page A-2 in the Appendix of this report. The total area encompassed by this project is approximately 6.2 acres. The project consists of commercial, warehouse and office uses. A vicinity map showing the location of the project is included on Page A-1 in the Appendix of this report.

The expected year of full implementation of the Golden Corral Commercial Development is 2012.

Access to this new development will be off of San Mateo Blvd utilizing the existing driveways.

San Mateo Blvd is classified as a Principal Arterial Roadway on the Long Range Roadway Plan for the Albuquerque Urban Area. San Mateo Blvd. is generally a six lane urban facility with raised medians. The posted speed limit along San Mateo Blvd in the vicinity of this project is 40 MPH.

Osuna Rd is classified as a Minor Arterial Roadway on the Long Range Roadway Plan for the Albuquerque Urban Area. It is generally a four lane urban facility without medians. The posted speed limit along Osuna Rd in the vicinity of this project is 30-35 MPH.

McLeod Rd is classified as a Collector Street on the Long Range Roadway Plan for the Albuquerque Urban Area. It is generally a four lane urban facility without medians. The posted speed limit along McLeod Rd in the vicinity of this project is 35 MPH.

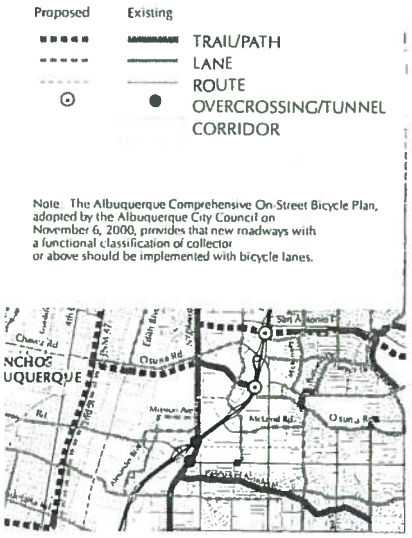
The Long Range Roadway Plan for the Albuquerque Urban Area Map is included in the report on Page A-4 of the Appendix.

Study Area Conditions

The Golden Corral Commercial Development is a proposed mixed use project to be built in the old Rowlands Nursery property on San Mateo Blvd. There are existing buildings on-site which will have to be removed and two existing driveways that will be utilized.

There are no proposed developments in the surrounding area that have been included in this study.

There are no programmed transportation improvements to the adjacent roadway system at this time. As shown by a portion of the Bikeway System Map below, there are some proposed bike trails and bike lanes for this area. Also, Sun Tran has a bus route - the San Mateo Route #140/141. It runs from the VA Hospital on Gibson Blvd to Osuna Rd on weekdays 6 AM -10 PM, Saturdays 6:30 AM – 9 PM and Sundays 8 AM – 5:30 PM (please see map below).



A pass-by trip allowance was calculated at 25%. See the Appendix (Page A – 4) for details.

Analysis of Existing Conditions

2007 Average Weekday Traffic Volumes (AWDT) for major streets in the site plan area are shown on Page A-3a of the Appendix.

Current turning movement volumes obtained during the AM and PM Peak Hours for this project were acquired from recent field counts conducted by the consulting engineer preparing the Traffic Impact Study.

The consulting engineer collected new traffic count data during 2009 for the following intersections:

San Mateo Blvd / McLeod Rd
San Mateo Blvd / Osuna Rd

Due to the nature of the request associated with this project, there is currently no analysis of existing conditions. Existing conditions for the adjacent transportation system are not pertinent to the application for site plan approval of this project. The implementation year analysis is only 3 years into the future and the growth rates on the transportation system are very small.

Implementation Year Traffic Analysis

Signalized and unsignalized intersection capacity analyses were conducted utilizing Synchro, version 7 (Build 765) computer modeling software. Synchro software deviates from the 2000 Highway Capacity Manual methods in several areas. The results obtained using Synchro software are generally deemed by the State to be close to those based on the 2000 Highway Capacity Manual in most cases.

Classification of levels-of-service and delay for signalized and unsignalized intersections will be made based on criteria established by the 2000 Highway Capacity Manual. The average control delay is calculated for each intersection and for each lane group of each leg of the intersection. The control delay then determines the level-of-service based on the following tables:

LEVEL-OF-SERVICE CRITERIA FOR SIGNALIZED INTERSECTIONS

Average Delay (secs)	Level-of-Service
≤ 10	A
> 10 and ≤ 20	B
> 20 and ≤ 35	C
> 35 and ≤ 55	D
> 55 and ≤ 80	E
> 80	F

LEVEL-OF-SERVICE CRITERIA FOR UNSIGNALIZED INTERSECTIONS

Average Delay (secs)	Level-of-Service
≤ 10	A
> 10 and ≤ 15	B
> 15 and ≤ 25	C
> 25 and ≤ 35	D
> 35 and ≤ 50	E
> 50	F

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

The trip generation rate for this project was calculated utilizing data from the Institute of Transportation Engineers' (ITE) Trip Generation Manual (8th Edition). The following table summarizes the results of that calculation:

San Mateo Commercial Development (San Mateo North of McLeod)

Trip Generation Data (ITE Trip Generation Manual - 8th Edition)

USE (ITE CODE)		24 HR VOL	A. M. PEAK HR.		P. M. PEAK HR.	
DESCRIPTION		*GROSS*	*ENTER*	*EXIT*	*ENTER*	*EXIT*
Summary Sheet	Units					
High Turnover (Sit-Down) Restaurant (932)	14.10	1,793	84	78	93	64
Fast Food Restaurant w/ Drive-Thru Window (934)	3.50	1,736	88	85	62	57
General Office Building (710) - Less than 51,000 S.F.	5.40	80	10	1	2	11
Warehousing (150)	21.60	132	28	7	6	17
Subtotal		**3,741**	**210**	**171**	**163**	**149**
Pass-Trip Reduction	25%		**(53)**	**(43)**	**(41)**	**(37)**
Net New Trips to Transportation System			**157**	**128**	**122**	**112**

A 25% pass-by trip reduction was applied to the raw trip generation rates since the land uses include a sit-down restaurant and a fast food restaurant.

The Trip Generation Table and the individual trip generation worksheets for each land use are also found on Pages A-4 thru A-8 in the Appendix of this report.

The targeted intersections for analysis in this study are:

2012 AM / PM Peak Hour NO BUILD and BUILD Conditions

1. San Mateo Blvd / McLeod Rd (Signalized)
2. San Mateo Blvd / Osuna Rd (Signalized)

Besides the intersections previously listed, two access driveways are targeted for analysis in this study. They are labeled as Driveways A & B. Driveway "A" is proposed to be a full access unsignalized intersection located at the south end of the project. There is an existing median break in San Mateo Blvd. for the proposed Driveway "A". Driveway "B" is proposed to be a right-in, right-out only unsignalized intersection located to the north of Driveway "A".

Following is a summary of the results of the Synchro Analysis for each of the intersections targeted for evaluation in this report:

Intersection #1 – McLeod Blvd / San Mateo Blvd - Pages A-35 thru A-39

The following table provides a summary of the Levels-of-Service / delays associated with each case analyzed in this study:

Intersection: **McLeod Rd. / San Mateo Blvd.**

		2012 AM Peak Hour			**2012 PM Peak Hour**		
		BASE GEOMETRY			BASE GEOMETRY		
		NO BUILD		BUILD	NO BUILD		BUILD
		Lanes	LOS-Delay	LOS-Delay	Lanes	LOS-Delay	LOS-Delay
EB	L	1	C - 23.2	C - 23.7	1	C - 25.1	C - 24.9
	T	1	C - 26.0	C - 26.2	1	D - 39.8	D - 41.6
	R	1	B - 15.0	B - 15.8	1	B - 16.7	C - 20.4
WB	L	1	C - 20.6	C - 20.9	1	C - 25.6	C - 26.0
	T	1	D - 40.4	D - 43.7	1	C - 33.8	C - 34.9
	R	>	D - 40.4	D - 43.7	>	C - 33.8	C - 34.9
NB	L	1	C - 22.7	C - 26.1	1	B - 14.6	B - 17.2
	T	3	B - 17.8	B - 18.2	3	C - 28.6	C - 23.2
	R	>	B - 17.8	B - 18.2	>	C - 28.6	C - 23.2
SB	L	1	A - 7.6	A - 6.4	1	A - 8.6	B - 17.2
	T	3	B - 19.2	B - 19.7	3	C - 20.4	B - 16.0
	R	>	B - 19.2	B - 19.7	>	C - 20.4	B - 16.0
Intersection:			***C - 21.4***	***C - 22.2***		***C - 25.1***	***C - 22.2***

The preceding table of results of the implementation year analysis of the signalized intersection of McLeod Rd. / San Mateo Blvd. demonstrates that the intersection is projected to operate at acceptable levels-of-service for all conditions analyzed, and that the proposed development of the Golden Corral Commercial Development will have minimal impact on the adjacent transportation system.

The following table summarizes the results of the queuing analysis at this intersection:

Queueing Analysis Summary Sheet

Project: San Mateo Commercial Development (San Mateo N. of McLeod)

Intersection: McLeod Rd / San Mateo Blvd

2012

Approach	Left Turns			Thru Movements			Right Turns		
Eastbound	# Lanes	Vol.	Length	# Lanes	Vol.	Length	# Lanes	Vol.	Length
Existing Lane Length	*1*	*85*	*200*	*1*	*69*	*Cont*	*1*	*88*	*350*
AM NO BUILD Queue	1	87	150	1	70	125	1	90	150
AM BUILD Queue	**1**	**87**	**150**	**1**	**70**	**125**	**1**	**90**	**150**
Existing Lane Length	*1*	*192*	*200*	*1*	*302*	*Cont*	*1*	*182*	*350*
PM NO BUILD Queue	1	196	300	1	308	425	1	186	275
PM BUILD Queue	**1**	**196**	**300**	**1**	**308**	**425**	**1**	**186**	**275**
Westbound	# Lanes	Vol.	Length	# Lanes	Vol.	Length	# Lanes	Vol.	Length
Existing Lane Length	*1*	*42*	*100*	*1*	*224*	*Cont*	*0*	*53*	*0*
AM NO BUILD Queue	1	43	100	1	227	300	0	54	100
AM BUILD Queue	**1**	**43**	**100**	**1**	**227**	**300**	**0**	**63**	**125**
Existing Lane Length	*1*	*47*	*100*	*1*	*114*	*Cont*	*0*	*46*	*0*
PM NO BUILD Queue	1	48	100	1	116	200	0	47	100
PM BUILD Queue	**1**	**48**	**100**	**1**	**116**	**200**	**0**	**54**	**100**
Northbound	# Lanes	Vol.	Length	# Lanes	Vol.	Length	# Lanes	Vol.	Length
Existing Lane Length	*1*	*154*	*75*	*3*	*688*	*Cont*	*0*	*27*	*0*
AM NO BUILD Queue	1	174	250	3	777	375	0	30	75
AM BUILD Queue	**1**	**174**	**250**	**3**	**890**	**425**	**0**	**30**	**75**
Existing Lane Length	*1*	*113*	*75*	*3*	*1,336*	*Cont*	*0*	*80*	*0*
PM NO BUILD Queue	1	128	200	3	1,508	725	0	90	150
PM BUILD Queue	**1**	**128**	**200**	**3**	**1,596**	**750**	**0**	**90**	**150**
Southbound	# Lanes	Vol.	Length	# Lanes	Vol.	Length	# Lanes	Vol.	Length
Existing Lane Length	*1*	*24*	*130*	*3*	*960*	*Cont*	*0*	*248*	*0*
AM NO BUILD Queue	1	24	50	3	972	450	0	251	325
AM BUILD Queue	**1**	**31**	**75**	**3**	**1,064**	**500**	**0**	**251**	**325**
Existing Lane Length	*1*	*104*	*130*	*3*	*1,180*	*Cont*	*0*	*168*	*0*
PM NO BUILD Queue	1	105	175	3	1,194	575	0	170	250
PM BUILD Queue	**1**	**111**	**200**	**3**	**1,274**	**625**	**0**	**170**	**250**

	AM	PM
Cycle Length:	120	130

NOTE: Queue lengths are in feet.

Intersection #2 – Osuna Blvd / San Mateo Blvd - Pages A-40 thru A-44

The following table provides a summary of the Levels-of-Service / delays associated with each case analyzed in this study:

Intersection: **Osuna Rd. / San Mateo Blvd.**

		2012 AM Peak Hour			2012 PM Peak Hour		
		BASE GEOMETRY			BASE GEOMETRY		
		NO BUILD		BUILD	NO BUILD		BUILD
		Lanes	LOS-Delay	LOS-Delay	Lanes	LOS-Delay	LOS-Delay
EB	L	1	C - 25.4	C - 26.4	1	C - 26.4	C - 27.8
	T	1	C - 32.9	C - 33.5	1	D - 47.0	D - 47.0
	R	1	C - 22.8	C - 23.2	1	C - 21.0	C - 22.4
WB	L	1	C - 22.7	C - 22.9	1	D - 39.3	D - 40.6
	T	1	C - 28.2	C - 27.3	1	C - 30.2	C - 28.7
	R	1	B - 19.7	B - 18.7	1	B - 18.1	B - 19.0
NB	L	1	B - 14.6	B - 13.2	1	B - 17.1	C - 20.5
	T	3	B - 14.5	B - 15.4	3	B - 16.0	B - 18.3
	R	>	B - 14.5	B - 15.4	>	B - 16.0	B - 18.3
SB	L	1	B - 15.0	B - 16.6	1	C - 30.4	D - 42.2
	T	3	B - 18.4	B - 19.1	3	B - 17.6	B - 17.5
	R	>	B - 18.4	B - 19.1	>	B - 17.6	B - 17.5
Intersection:			***B - 18.3***	***B - 18.8***		***C - 21.4***	***C - 23.3***

The preceding table of results of the implementation year analysis of the signalized intersection of Osuna Rd. / San Mateo Blvd. demonstrates that the intersection is projected to operate at acceptable levels-of-service for all conditions analyzed, and that the proposed development of the Golden Corral Commercial Development will have minimal impact on the adjacent transportation system.

The following table summarizes the results of the queuing analysis at this intersection:

Queueing Analysis Summary Sheet

Project: San Mateo Commercial Development (San Mateo N. of McLeod)

Intersection: Osuna Rd / San Mateo Blvd

2012

Approach	Left Turns			Thru Movements			Right Turns		
Eastbound	# Lanes	Vol.	Length	# Lanes	Vol.	Length	# Lanes	Vol.	Length
Existing Lane Length	*1*	*51*	*130*	*1*	*87*	*Cont*	*1*	*18*	*130*
AM NO BUILD Queue	1	52	100	1	88	150	1	18	50
AM BUILD Queue	**1**	**52**	**100**	**1**	**88**	**150**	**1**	**18**	**50**
Existing Lane Length	*1*	*179*	*130*	*1*	*265*	*Cont*	*1*	*65*	*130*
PM NO BUILD Queue	1	182	275	1	269	375	1	66	125
PM BUILD Queue	**1**	**182**	**275**	**1**	**269**	**375**	**1**	**66**	**125**
Westbound	# Lanes	Vol.	Length	# Lanes	Vol.	Length	# Lanes	Vol.	Length
Existing Lane Length	*1*	*176*	*190*	*1*	*74*	*Cont*	*1*	*356*	*175*
AM NO BUILD Queue	1	194	275	1	82	150	1	393	475
AM BUILD Queue	**1**	**214**	**300**	**1**	**82**	**150**	**1**	**393**	**475**
Existing Lane Length	*1*	*161*	*190*	*1*	*48*	*Cont*	*1*	*355*	*175*
PM NO BUILD Queue	1	178	275	1	53	100	1	392	525
PM BUILD Queue	**1**	**194**	**300**	**1**	**53**	**100**	**1**	**392**	**525**
Northbound	# Lanes	Vol.	Length	# Lanes	Vol.	Length	# Lanes	Vol.	Length
Existing Lane Length	*1*	*24*	*130*	*3*	*673*	*Cont*	*0*	*51*	*0*
AM NO BUILD Queue	1	24	50	3	681	350	0	52	100
AM BUILD Queue	**1**	**24**	**50**	**3**	**736**	**375**	**0**	**69**	**125**
Existing Lane Length	*1*	*75*	*130*	*3*	*1,307*	*Cont*	*0*	*148*	*0*
PM NO BUILD Queue	1	76	150	3	1,323	650	0	150	**225**
PM BUILD Queue	**1**	**76**	**150**	**3**	**1,371**	**650**	**0**	**164**	**250**
Southbound	# Lanes	Vol.	Length	# Lanes	Vol.	Length	# Lanes	Vol.	Length
Existing Lane Length	*1*	*245*	*130*	*3*	*1,024*	*Cont*	*0*	*16*	*0*
AM NO BUILD Queue	1	249	325	3	1,039	500	0	16	50
AM BUILD Queue	**1**	**249**	**325**	**3**	**1,106**	**525**	**0**	**16**	**50**
Existing Lane Length	*1*	*347*	*130*	*3*	*1,269*	*Cont*	*0*	*29*	*0*
PM NO BUILD Queue	1	352	475	3	1,288	**625**	0	29	75
PM BUILD Queue	**1**	**352**	**475**	**3**	**1,340**	**650**	**0**	**29**	**75**

	AM	PM
Cycle Length:	120	130

NOTE: Queue lengths are in feet.

Intersection #3 – Driveway 'A' / San Mateo Blvd - Pages A-45 thru A-46

Driveway 'A' is proposed as a full access driveway.

The following table provides a summary of the Levels-of-Service / delays associated with each case analyzed in this study:

	2012 BUILD	
	AM	PM
Driveway "A" / San Mateo		
Minor Street (Driveway "A")		
EB Left Turn	F – 81	F – 137
EB Right Turn	B – 13	B – 14
Major Street (San Mateo Blvd.)		
NB Left	C - 17	C - 20

The analysis in this report indicates that there will be long delays experienced for eastbound left turn traffic exiting the project during the AM and PM Peak Hour periods, much like most of the other existing driveways along this segment of San Mateo Blvd.

Intersection #4 – Driveway 'B' / San Mateo Blvd - Pages A-47 thru A-48

Driveway 'B' is proposed as a right-in, right-out only driveway.

The following table provides a summary of the Levels-of-Service / delays associated with each case analyzed in this study:

	2012 BUILD	
	AM	PM
Driveway "B" / San Mateo		
Minor Street (Driveway "A")		
EB Left Turn	N/A	N/A
EB Right Turn	B – 13	B – 14
Major Street (San Mateo Blvd.)		
NB Left	N/A	N/A

The analysis in this report indicates that there will be acceptable delays experienced for projected volumes of traffic at Driveway "B".

Access Design Specifications

Access issues along San Mateo Blvd. will be required to comply with the City of Albuquerque Development Process Manual (current edition). Therefore, a northbound left turn lane is warranted at Driveway "A". There is an existing northbound left turn lane on San Mateo Blvd. at Driveway "A" that is constructed to an approximate length of 100 feet plus transition which meets the minimum requirements of the Development Process Manual. The calculated northbound left turn queue length at Driveway "A" is approximately 40 feet long (see Pages A-45 and A-46 in Appendix). Also, a southbound right turn taper lane is warranted at both Driveways "A" and "B". The southbound right turn taper lanes should be constructed in accordance with City of Albuquerque Development Process Manual requirements to a length of 100 feet long unless significant field constraints preclude construction of the taper lanes to the recommended length.

The existing driveways have access as follows: Driveway 'A' is a full access driveway and Driveway 'B' is a right-in, right-out only driveway. Proposed access is unchanged except that southbound right turn taper lanes are recommended. Also, the full access driveway (Driveway "A") should be constructed with two exiting lanes (one for left turn movements and one for right turn movements) and one entering lane.

Summary of Deficiencies, Anticipated Impacts, and Recommendations

The implementation of the proposed Golden Corral Commercial Development will not generate a large volume of new traffic on the adjacent transportation system and thus, will not have a significant impact at the intersections and roadways analyzed in this study.

Recommendations for improvements to the adjacent transportation system include the following:

All design and construction associated with this project shall maintain adequate sight distances at intersections and driveways to the extent possible.

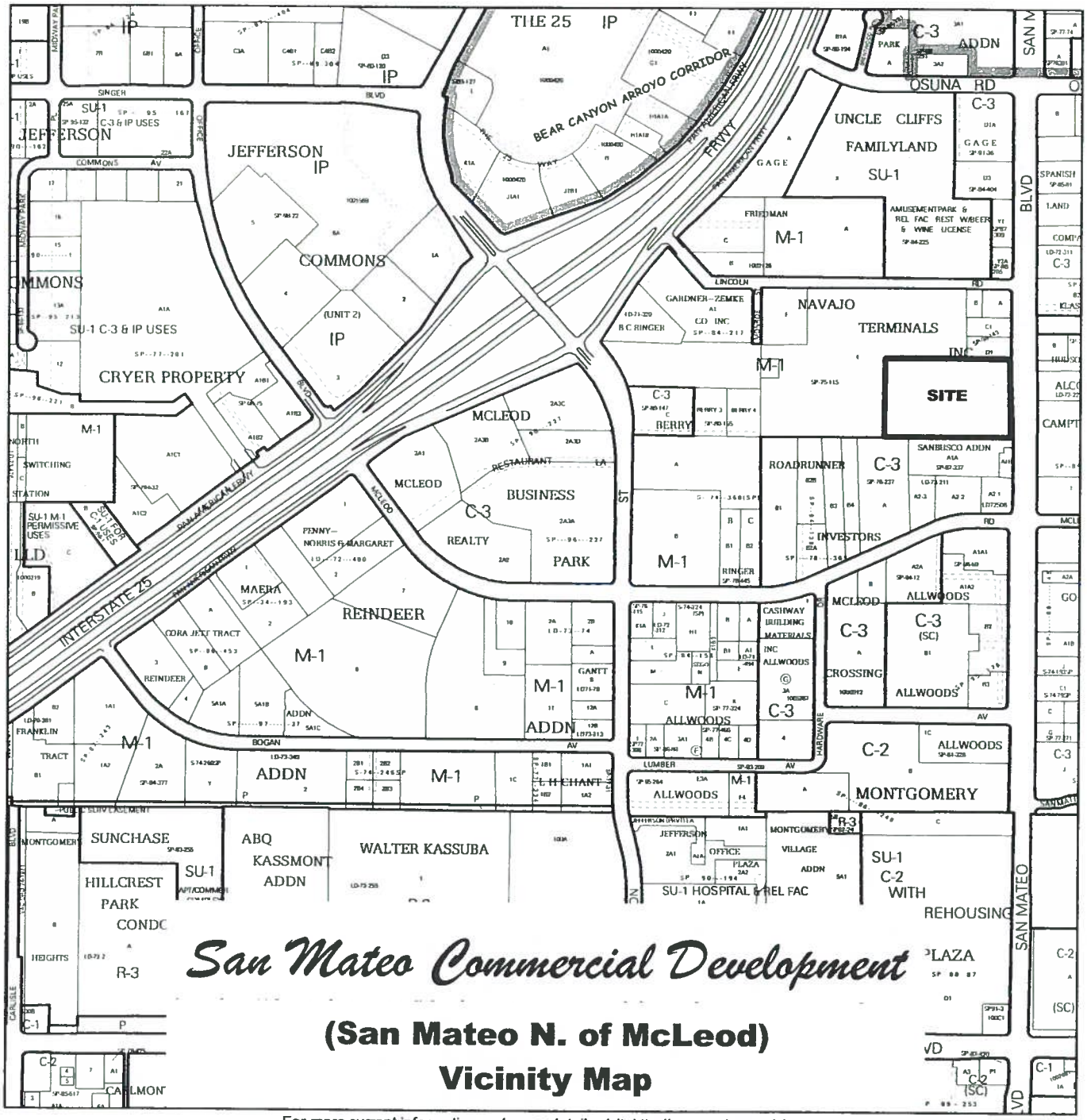
- All roadway / intersection design and construction shall meet the requirements of the City of Albuquerque.
- Driveway "A" is recommended to be designed and constructed as a full-access unsignalized intersection located at the south end of the project. It is recommended that Driveway "A" be constructed with two exiting lanes (one for left turns and one for right turns) and one entering lane. A northbound left turn lane is warranted on San Mateo Blvd. at Driveway "A". There is an existing northbound left turn lane on San Mateo Blvd. at Driveway "A" that is 100 feet long plus transition. The existing northbound left turn

lane meets minimum City of Albuquerque Development Process Manual requirements. Also, a southbound right turn deceleration taper lane is warranted on San Mateo Blvd. at Driveway "A". The southbound right turn deceleration taper lane should be constructed to a length of 100 feet long to meet the City of Albuquerque Development Process Manual minimum requirements.

- Driveway "B" is recommended to be designed and constructed as a right-in, right-out only unsignalized intersection located approximately as per the Site Plan on Page A-2 in the Appendix of this report. A southbound right turn deceleration taper lane is warranted on San Mateo Blvd. at Driveway "B". The southbound right turn deceleration taper lane should be constructed to a length of 100 feet long to meet the City of Albuquerque Development Process Manual minimum requirements.
- (NOTE: Field conditions may preclude construction of right turn taper lanes to the full recommended length or preclude them from being constructed at all.)

Appendix

APPENDIX



San Mateo Commercial Development

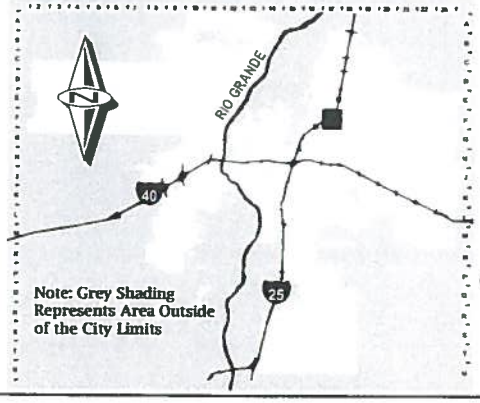
(San Mateo N. of McLeod)

Vicinity Map

For more current information and more details visit: http://www.cabq.gov/gis

Albuquerque Geographic Information System

Map amended through: 6/13/2008



Note: Grey Shading Represents Area Outside of the City Limits

Zone Atlas Page:

F-17-Z

Selected Symbols

- SECTOR PLANS
- Design Overlay Zones
- City Historic Zones
- H-1 Buffer Zone
- Petroglyph Mon.
- Escarpment
- 2 Mile Airport Zone
- Airport Noise Contours
- Wall Overlay Zone

0 750 1,500 Feet

END BLOCK RETAINING WALL (SEE DETAIL SH. 3)

PROPERTY LINE

END CONC. RETAINING WALL BEGIN BLOCK RETAINING WALL (SEE DETAIL SH. 3)

CARWASH

(660.00') 660.25'

PROP. BLOCK RETAINING WALL

ELECTRICAL TRANSFORMER

MEET & MATCH EX. SIDEWALK ELEVATION

MEET & MATCH EX. TOP OF CURB & GUTTER ELEVATIONS

REMOVE EXIST. CONC. DRIVE

CONST. 41 L.F. OF CONC. CURB & GUTTER

CONST. 38 L.F. OF 6' WIDE CONC. SIDEWALK PER CITY STD.'S

MEET & MATCH EX. TOP OF CURB & GUTTER ELEVATIONS

MEET & MATCH EX. SIDEWALK ELEVATION

MEET & MATCH EX. SIDEWALK ELEVATIONS

MEET & MATCH EX. T.C. & GUTTER ELEVATIONS

CONST. ACCESSIBLE RAMP W/ DETECTABLE WARNINGS

SAW CUT & REMOVE 90 L.F. OF EX. CURB & GUTTER

REMOVE EX. RETAINING WALL

REMOVE EX. RETAINING WALL

REMOVE & RELOCATE EX. SIGN

REMOVE 65 L.F. EX. CONC. SIDEWALK

CONST. ACCESSIBLE RAMP W/ DETECTABLE WARNINGS

MEET & MATCH EX. SIDEWALK ELEVATIONS

MEET & MATCH EX. T.C. & GUTTER ELEVATIONS

EX. 6' ± SIDEWALK

EX. BUS STOP

EX. BLOCK WALLS TO BE REMOVED

EX. STREET MEDIAN

EX. DRIVE

BEGIN CONC. RETAINING WALL (SEE DETAIL SH. 3)

EX. 6' ± SIDEWALK

BLDG. CORNER LOCATED FROM KNOWN POINT

CONST. CONC. SIDEWALK

BLDG. CORNER LOCATED FROM KNOWN POINT

PROP. COMPACTOR AREA & FENCE (SEE SH. 5)

TAPER CURB FROM 0 TO 6" IN 5'

FIRE LANE STRIPING

CONST. CONC. SIDEWALK

HVY. DUTY CONCRETE

GC10B-Pavilion - LEFT HAND

BUILDING AREA = 14,039 S.F.

CONST. ACCESSIBLE RAMP

CONST. DETECTABLE WARNINGS

CONST. ACCESSIBLE SIGNS (TYP. 8 PLACES)

CONST. WHEEL STOPS (TYP. 7 PLACES)

CONST. ACCESSIBLE RAMP W/ DETECTABLE WARNINGS

HVY. DUTY ASPHALT

CONST 6" DIA., 36" TALL STEEL BOLLARDS, EQUALLY SPACED

FIRE LANE STRIPING

CONST. ACCESSIBLE WARNINGS

NO CURB

FIRE LANE STRIPING

CONST. 6'W ACCESSIBLE AISLE W/ 4" YELLOW STRIPES, 2' C.C.

HVY. DUTY ASPHALT

CONST. BIKE RACKS BOTH WHEELS MUST BE ABLE TO LOCK (10 BICYCLES)

MOTORCYCLE SIGNS (TYP. 5 PLACES)

5 MOTORCYCLE SPACES

REFER TO MISC. DETAILS FOR ACCESSIBLE STRIPING DETAILS

STD. DUTY ASPHALT

PROP. SITE LIGHTING (TYP.) (SEE DETAIL THIS SHEET)

PROP. BLOCK RETAINING WALL (SEE DETAIL SH. 3)

BEGIN BLOCK RETAINING WALL (SEE DETAIL SH. 3)

TAPER CURB FROM 0 TO 6" IN 5'. MEET & MATCH EX. TOP PAVEMENT ELEVATIONS

ADJACENT PROPERTY OWNER WILL RE-STRIPE EXIST. PAVEMENT AND LEASE EXISTING PARKING SPACES.

MEET & MATCH EX. TOP PAVEMENT ELEVATIONS

Driveway "A"

Driveway "B"

Irrigation Pump

Control Valves

Box

24" RCP Rim 5217.9' Inv In 5214.

24" RCP Rim 5213.2' Inv In/Out 5209.10'

24" RCP Rim 5217.9' Inv In/Out 5211.1'

24" CMP Rim 5217.9' Inv In 5204.0'

TOP 5216.9' Inv 5213.5'

TOP 5217.0' Inv 5213.4'

San Mateo Blvd NE (150' R/W)

SCALE: 1" = 20'

N 89°46'20" W ~ 487.61'

PROPERTY LINE

N 00°13'40" E ~ 253.51'

PROPERTY LINE

S 00°14'57" W (S 00°04'00" W)

(660.00') 660.00'

N 89°46'20" W ~ 487.61'

PROPERTY LINE

PROJECT INFOMATION

ADDRESS:
5207 SAN MATEO BLVD.
ALBUQUERQUE, NEW MEXICO

LEGAL DESCRIPTION:
UNPLATTED

PLANNING INFORMATION:
ZONE ATLAS PAGE: F-17-Z
LAND USE ZONING: C3 HEAVY COMMERCIAL ZONE

PARKING SUMMARY:
REQUIRED:
RESTAURANT (1 SPACE PER 4 SEATS) 500/4 = 125
PROVIDED:
STANDARD SPACES: 192
HC SPACES: 8
TOTAL 200

BICYCLE PARKING (1 SPACE PER 20)
REQUIRED: 10 PROVIDED: 10

MOTORCYCLE PARKING:
REQUIRED: 5 PROVIDED: 5

PROJECT NUMBER:

APPLICATION NUMBER:

THIS PLAN IS CONSISTENT WITH THE SPECIFIC SITE DEVELOPMENT PLAN APPROVED BY THE ENVIRONMENTAL PLANNING COMMISSION (EPC) DATED _____, 2009 AND THE FINDINGS AND CONDITIONS IN THE OFFICIAL NOTIFICATION OF DECISION ARE SATISFIED.

IS AN INFRASTRUCTURE LIST REQUIRED? ( ) YES ( ) NO. IF YES, ENCH A SET OF APPROVED DRC PLANS WITH A WORK ORDER IS REQUIRED FOR ANY CONSTRUCTION WITHIN PUBLIC RIGHT-OF-WAY OR FOR CONSTRUCTION OF PUBLIC IMPROVEMENT.

DRB SITE DEVELOPMENT PLAN SIGNOFF APPROVAL:

TRAFFIC ENGINEERING, TRANSPORTATION DIVISION	DATE
ABCWUA	DATE
PARKS AND RECREATION DEPARTMENT	DATE
CITY ENGINEER	DATE
*ENVIRONMENTAL HEALTH DEPARTMENT (CONDITIONAL)	DATE
SOLID WASTE MANAGEMENT	DATE
DRB CHAIRPERSON, PLANNING DEPARTMENT	DATE

* ENVIRONMENTAL HEALTH IF NECESSARY

VICINITY MAP
F-17-Z

POLE HEIGHT = 25'

2'

NOTE:
NUMBER OF LIGHT FIXTURES ON POLE VARIES. SEE THIS SHEET FOR ACTUAL NUMBER OF FIXTURES ON EACH POLE.

LIGHT POLE DETAIL
NOT TO SCALE

(12) 7' PNM & Mountain States Telephone & Telegraph Co. Esmt.

PRELIMINARY NOT FOR CONSTRUCTION

NOT VALID FOR CONSTRUCTION UNLESS SIGNED IN THIS BLOCK

SITE PLAN

Golden Corral Restaurant

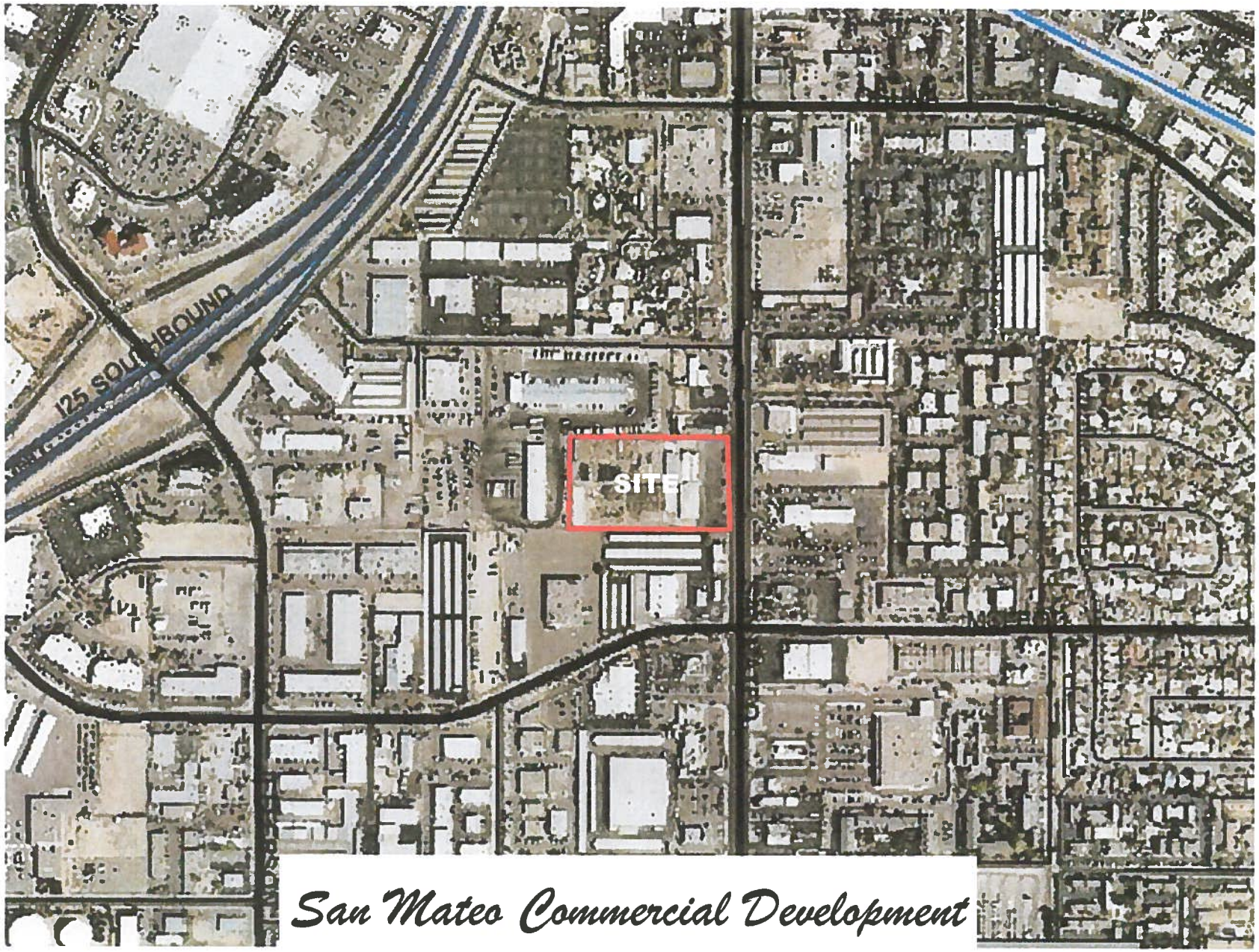
5207 SAN MATEO BLVD.
ALBUQUERQUE, NEW MEXICO

SMC Consulting Engineers, P.C.
815 West Main – Oklahoma City, OK 73106
PH: 405-232-7715 Fax: 405-232-7858
CERTIFICATE OF AUTHORIZATION NO. CA 484 EXP DEC. 2010

No.	Revision	By	Date

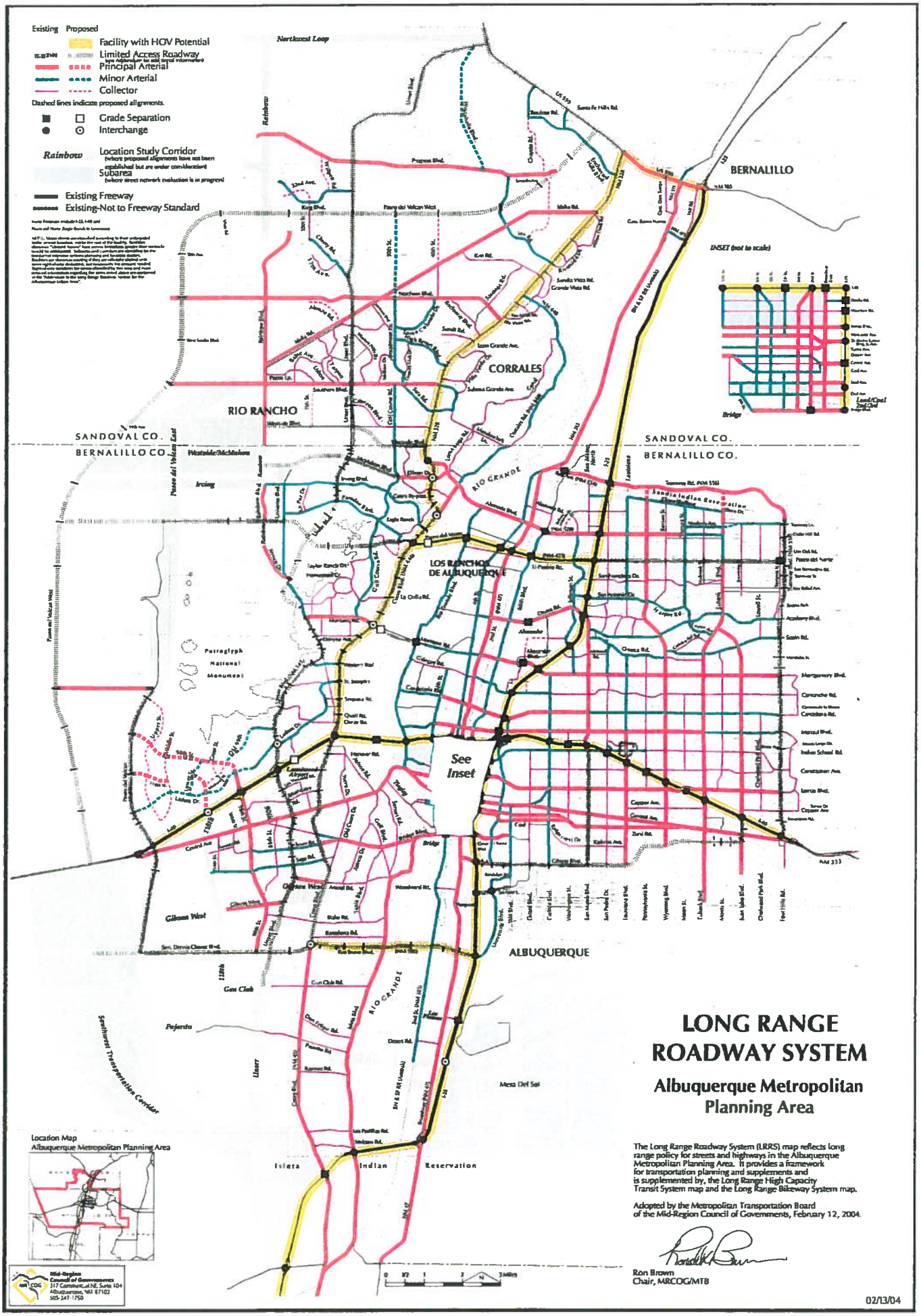
DATE: 7/2/09
SCALE: 1" = 20'
DRAWN BY: RWC
PROJECT NO.: 5008.00
ENGINEER: TERRENCE L. HAYNES, P.E. #13535
SHEET NO. 1

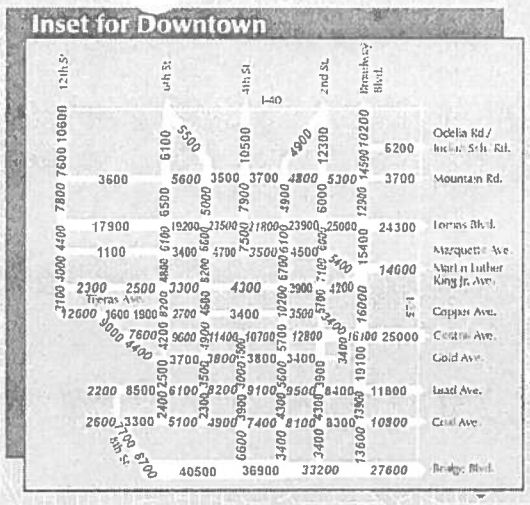
A-2

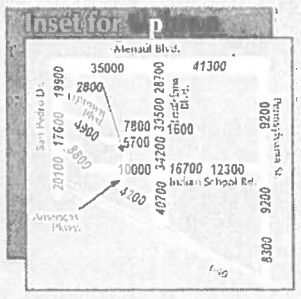


San Mateo Commercial Development

(San Mateo N. of McLeod)
Aerial Map


Existing Proposed
Facility with HOV Potential
Limited Access Roadway
Principal Arterial
Minor Arterial
Collector
Dashed lines indicate proposed alignments.
Grade Separation
Interchange
Rainbow
Location Study Corridor
(where proposed alignments have not been established but are under consideration)
Subarea
(where street network evaluation is in progress)
Existing Freeway
Existing-Not to Freeway Standard
Northwest Loop
BERNALILLO
INSET (not to scale)
CORRALES
RIO RANCHO
SANDOVAL CO.
BERNALILLO CO.
RIO GRANDE
LOS RANCHOS DE ALBUQUERQUE
See Inset
ALBUQUERQUE
Petroglyph National Monument
Gibson West
Isleta Indian Reservation
Mesa Del Sol
Southwest Transportation Corridor
Location Map
Albuquerque Metropolitan Planning Area
Mid-Region Council of Governments
317 Commercial NE, Suite 104
Albuquerque, NM 87102
505-247-1750
LONG RANGE ROADWAY SYSTEM
Albuquerque Metropolitan Planning Area
The Long Range Roadway System (LRRS) map reflects long range policy for streets and highways in the Albuquerque Metropolitan Planning Area. It provides a framework for transportation planning and supplements and is supplemented by, the Long Range High Capacity Transit System map and the Long Range Bikeway System map.
Adopted by the Metropolitan Transportation Board of the Mid-Region Council of Governments, February 12, 2004.
Ron Brown
Chair, MRCOG/MTB
02/13/04





Average Weekday Traffic Flows

0 - 900
1000 - 4900
5000 - 14900
15000 - 24900
25000 - 34900
35000 - 44900
45000 - 54900
55000 - 194900

Standard Data 9500 — Link Volume is based on traffic count data accepted by the NM Department of Transportation Traffic Monitoring System (TMS) as standard in accordance with the New Mexico State Traffic Monitoring Standards (NMSTMS).

Non-Standard Data 9500 — Link Volume is based either on traffic count data not in compliance with the NMSTMS or on professional judgement. NMDOT recommends that nonstandard data be used with caution.

0 1 2 3 4 Miles

Map prepared by the Mid-Region Council of Governments in cooperation with the New Mexico Department of Transportation, the local governments in the Albuquerque Metropolitan Planning Area, and the U.S. Department of Transportation, Federal Highway Administration.

2007 Traffic Flows
for the Greater Albuquerque Area

San Mateo Commercial Development (San Mateo North of McLeod)

Trip Generation Data (ITE Trip Generation Manual - 8th Edition)

USE (ITE CODE) / DESCRIPTION		24 HR VOL	A. M. PEAK HR.		P. M. PEAK HR.	
		GROSS	ENTER	EXIT	ENTER	EXIT
Summary Sheet	Units					
High Turnover (Sit-Down) Restaurant (932)	14.10	1,793	84	78	93	64
Fast Food Restaurant w/ Drive-Thru Window (934)	3.50	1,736	88	85	62	57
General Office Building (710) - Less than 51,000 S.F.	5.40	80	10	1	2	11
Warehousing (150)	21.60	132	28	7	6	17
Subtotal		**3,741**	**210**	**171**	**163**	**149**
Pass-Trip Reduction	25%		**(53)**	**(43)**	**(41)**	**(37)**
Net New Trips to Transportation System			**157**	**128**	**122**	**112**

San Mateo Commercial Development (San Mateo North of McLeod)

Trip Generation Data (ITE Trip Generation Manual - 8th Edition)

USE (ITE CODE)		24 HOUR TWO-WAY VOLUME	A. M. PEAK HOUR		P. M. PEAK HOUR	
		GROSS	ENTER	EXIT	ENTER	EXIT
	Units					
High Turnover (Sit-Down) Restaurant (932)	*14.10*	1,793	84	78	93	64
	1,000 S.F.					

ITE Trip Generation Equations:

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

T = *127.15* (X) + *0*
50% Enter, *50%* Exit

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

T = *11.52* (X) + *0*
52% Enter, *48%* Exit

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

T = *11.15* (X) + *0*
59% Enter, *41%* Exit

Comments:
Tract No.

Based on ITE Trip Generation Manual - 8th Edition

San Mateo Commercial Development (San Mateo North of McLeod)

Trip Generation Data (ITE Trip Generation Manual - 8th Edition)

USE (ITE CODE)		24 HOUR TWO-WAY VOLUME	A. M. PEAK HOUR		P. M. PEAK HOUR	
		GROSS	ENTER	EXIT	ENTER	EXIT
	Units					
Fast Food Restaurant w/ Drive-Thru Window (934)	*3.50* 1,000 S.F.	1,736	88	85	62	57

ITE Trip Generation Equations:

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

T = *496.12* (X) + *0*
50% Enter, *50%* Exit

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

T = *49.35* (X) + *0*
51% Enter, *49%* Exit

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

T = *33.84* (X) + *0*
52% Enter, *48%* Exit

Comments:
Tract No.

Based on ITE Trip Generation Manual - 8th Edition

San Mateo Commercial Development (San Mateo North of McLeod)

Trip Generation Data (ITE Trip Generation Manual - 8th Edition)

USE (ITE CODE)		24 HOUR TWO-WAY VOLUME	A. M. PEAK HOUR		P. M. PEAK HOUR	
		GROSS	ENTER	EXIT	ENTER	EXIT
	Units					
Fast Food Restaurant w/ Drive-Thru Window (934)	*0.00*	-	-	-	-	-
	1,000 S.F.					

ITE Trip Generation Equations:

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

T = *496.12* (X) + *0*

50% Enter, *50%* Exit

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

T = *49.35* (X) + *0*

51% Enter, *49%* Exit

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

T = *33.84* (X) + *0*

52% Enter, *48%* Exit

Comments:
Tract No.

Based on ITE Trip Generation Manual - 8th Edition

San Mateo Commercial Development (San Mateo North of McLeod)

Trip Generation Data (ITE Trip Generation Manual - 8th Edition)

USE (ITE CODE)		24 HOUR TWO-WAY VOLUME	A. M. PEAK HOUR		P. M. PEAK HOUR	
		GROSS	ENTER	EXIT	ENTER	EXIT
	Units					
General Office Building (710) - Less than 51,000 S.F.	*5.40*	80	10	1	2	11
	1,000 S.F.					

ITE Trip Generation Equations:

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

T = *14.729* (X) + *0*
50% Enter, *50%* Exit

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

T = *2.055* (X) + *0*
88% Enter, *12%* Exit

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

T = *2.369* (X) + *0*
17% Enter, *83%* Exit

Comments:
Tract No.

Based on ITE Trip Generation Manual - 8th Edition

DATA ANALYSIS SUBZONE (DASZ) MAP

San Mateo Commercial Dev. (San Mateo N. of McLeod)

Trip Distribution Table

San Mateo Commercial Dev. (San Mateo N. of McLeod)

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

2004 and 2030 Data Taken from Mid-Region Council of Governments' 2030 Socioeconomic
2030 Socioeconomic Forecasts by Data Analysis Subzones for the Mid-Region of New Mexico

							(SN) San Mateo Blvd North			(OE) Osuna Rd East			(ME) McLeod Rd East		
DASZ #	% Sub Area In Study	2004 Population	2030 Population	Interpolated Population for the Year	Population In Study	Percent Population	% Utilizing	% Population Utilizing	Population	% Utilizing	% Population Utilizing	Population	% Utilizing	% Population Utilizing	Population
		2004	2030	2012											
Boundary Specified on DASZ Map															
6051	15%	0	0	0	0	0.00%	100%	0.00%	0	0%	0.00%	0	0%	0.00%	0
6052	40%	0	0	0	0	0.00%	100%	0.00%	0	0%	0.00%	0	0%	0.00%	0
6053	80%	0	0	0	0	0.00%	100%	0.00%	0	0%	0.00%	0	0%	0.00%	0
6054	100%	2	0	1	1	0.00%	100%	0.00%	1	0%	0.00%	0	0%	0.00%	0
6055	100%	0	0	0	0	0.00%	100%	0.00%	0	0%	0.00%	0	0%	0.00%	0
6056	100%	0	0	0	0	0.00%	100%	0.00%	0	0%	0.00%	0	0%	0.00%	0
6057	100%	6	0	4	4	0.01%	100%	0.01%	4	0%	0.00%	0	0%	0.00%	0
6058	100%	56	68	60	60	0.12%	100%	0.12%	60	0%	0.00%	0	0%	0.00%	0
6062	85%	1338	1244	1,309	1,113	2.28%	50%	1.14%	557	0%	0.00%	0	0%	0.00%	0
6063	100%	0	0	0	0	0.00%	100%	0.00%	0	0%	0.00%	0	0%	0.00%	0
6064	100%	0	0	0	0	0.00%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
6075	25%	100	93	98	25	0.05%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
6076	80%	3	0	2	2	0.00%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
6083	40%	2263	2283	2,269	908	1.86%	100%	1.86%	908	0%	0.00%	0	0%	0.00%	0
6084	90%	2469	2547	2,493	2,244	4.60%	100%	4.60%	2,244	0%	0.00%	0	0%	0.00%	0
6091	100%	0	0	0	0	0.00%	100%	0.00%	0	0%	0.00%	0	0%	0.00%	0
6092	100%	0	0	0	0	0.00%	100%	0.00%	0	0%	0.00%	0	0%	0.00%	0
6093	100%	0	0	0	0	0.00%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
6094	100%	0	0	0	0	0.00%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
6095	100%	0	0	0	0	0.00%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
7003	5%	87	79	85	4	0.01%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
7011	15%	13	12	13	2	0.00%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
7012	95%	454	420	444	422	0.87%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
7013	100%	1084	1031	1,068	1,068	2.19%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
7014	95%	1946	1807	1,903	1,808	3.71%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
7021	100%	1282	1185	1,252	1,252	2.57%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
7022	100%	1690	1570	1,653	1,653	3.39%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
7031	100%	1956	1815	1,913	1,913	3.92%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
7032	100%	1648	1541	1,615	1,615	3.31%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
7042	50%	1110	1028	1,085	543	1.11%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
7043	80%	1467	1360	1,434	1,147	2.35%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0

Trip Distribution Table

San Mateo Commercial Dev. (San Mateo N. of McLeod)

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

2004 and 2030 Data Taken from Mid-Region Council of Governments' 2030 Socioeconomic
2030 Socioeconomic Forecasts by Data Analysis Subzones for the Mid-Region of New Mexico

							(SN) San Mateo Blvd North			(OE) Osuna Rd East			(ME) McLeod Rd East		
DASZ #	% Sub Area in Study	2004 Population	2030 Population	Interpolated Population for the Year	Population in Study	Percent Population	% Utilizing	% Population Utilizing	Population	% Utilizing	% Population Utilizing	Population	% Utilizing	% Population Utilizing	Population
		2004	2030	2012											
Boundary Specified on DASZ Map															
7051	100%	2889	2687	2,827	2,827	5.80%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
7052	100%	6	6	6	6	0.01%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
7053	100%	7	0	5	5	0.01%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
7101	100%	2109	1953	2,061	2,061	4.23%	0%	0.00%	0	50%	2.11%	1,031	50%	2.11%	1,031
7102	100%	484	447	473	473	0.97%	50%	0.49%	237	50%	0.49%	237	0%	0.00%	0
7103	100%	1166	1081	1,140	1,140	2.34%	0%	0.00%	0	100%	2.34%	1,140	0%	0.00%	0
7104	80%	1252	1154	1,222	978	2.01%	0%	0.00%	0	50%	1.00%	489	0%	0.00%	0
7105	100%	1898	1763	1,855	1,855	3.80%	0%	0.00%	0	50%	1.90%	928	0%	0.00%	0
7106	100%	1869	1731	1,827	1,827	3.75%	0%	0.00%	0	50%	1.87%	914	0%	0.00%	0
7107	100%	2225	2064	2,175	2,175	4.46%	0%	0.00%	0	0%	0.00%	0	50%	2.23%	1,088
7111	100%	1159	1073	1,133	1,133	2.32%	100%	2.32%	1,133	0%	0.00%	0	0%	0.00%	0
7112	45%	5	6	5	2	0.00%	100%	0.00%	2	0%	0.00%	0	0%	0.00%	0
7113	15%	884	826	866	130	0.27%	100%	0.27%	130	0%	0.00%	0	0%	0.00%	0
7115	50%	1513	1408	1,481	741	1.52%	100%	1.52%	741	0%	0.00%	0	0%	0.00%	0
7116	100%	1413	1496	1,439	1,439	2.95%	100%	2.95%	1,439	0%	0.00%	0	0%	0.00%	0
7126	20%	0	866	266	53	0.11%	100%	0.11%	53	0%	0.00%	0	0%	0.00%	0
7151	100%	1009	938	987	987	2.02%	100%	2.02%	987	0%	0.00%	0	0%	0.00%	0
7152	100%	1394	1292	1,363	1,363	2.80%	100%	2.80%	1,363	0%	0.00%	0	0%	0.00%	0
7153	100%	1395	1308	1,368	1,368	2.81%	100%	2.81%	1,368	0%	0.00%	0	0%	0.00%	0
7154	100%	1238	1141	1,208	1,208	2.48%	100%	2.48%	1,208	0%	0.00%	0	0%	0.00%	0
7155	100%	885	817	864	864	1.77%	100%	1.77%	864	0%	0.00%	0	0%	0.00%	0
7156	100%	1518	1502	1,513	1,513	3.10%	100%	3.10%	1,513	0%	0.00%	0	0%	0.00%	0
7157	100%	735	831	765	765	1.57%	100%	1.57%	765	0%	0.00%	0	0%	0.00%	0
7602	60%	1062	987	1,039	623	1.28%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
7603	30%	1221	1132	1,194	358	0.73%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
7611	100%	1854	1720	1,813	1,813	3.72%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
7612	100%	926	863	907	907	1.86%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
7621	100%	1297	1205	1,269	1,269	2.60%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
7622	100%	1012	942	990	990	2.03%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
7631	55%	1101	1018	1,075	591	1.21%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
7632	100%	859	802	841	841	1.72%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
7633	40%	1717	1604	1,682	673	1.38%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
				56,360	48,762	100.00%			15,576			4,737			2,118
									31.94%			9.71%			4.34%

Trip Distribution Table

San Mateo Commercial Dev. (San Mateo N. of McLeod)

Data Analysis Subzone Population Data for determination of Local Trip Distribution for Proposed **Retail Commercia**

2004 and 2030 Data Taken from Mid-Region Council of Governments' 2030 Socioeconomic
2030 Socioeconomic Forecasts by Data Analysis Subzones for the Mid-Region of New Mexico

							(SS) San Mateo Blvd South			(MW) McLeod Rd West			(OW) Osuna Rd West		
DASZ #	% Sub Area In Study	2004 Population	2030 Population	Interpolated Population for the Year	Population In Study	Percent Population	% Utilizing	% Population Utilizing	Population	% Utilizing	% Population Utilizing	Population	% Utilizing	% Population Utilizing	Population
		2004	2030	2012											
Boundary Specified on DASZ Map															
6051	15%	0	0	0	0	0.00%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
6052	40%	0	0	0	0	0.00%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
6053	80%	0	0	0	0	0.00%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
6054	100%	2	0	1	1	0.00%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
6055	100%	0	0	0	0	0.00%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
6056	100%	0	0	0	0	0.00%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
6057	100%	6	0	4	4	0.01%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
6058	100%	56	68	60	60	0.12%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
6062	85%	1338	1244	1,309	1,113	2.28%	50%	1.14%	557	0%	0.00%	0	0%	0.00%	0
6063	100%	0	0	0	0	0.00%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
6064	100%	0	0	0	0	0.00%	100%	0.00%	0	0%	0.00%	0	0%	0.00%	0
6075	25%	100	93	98	25	0.05%	100%	0.05%	25	0%	0.00%	0	0%	0.00%	0
6076	80%	3	0	2	2	0.00%	100%	0.00%	2	0%	0.00%	0	0%	0.00%	0
6083	40%	2263	2283	2,269	908	1.86%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
6084	90%	2469	2547	2,493	2,244	4.60%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
6091	100%	0	0	0	0	0.00%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
6092	100%	0	0	0	0	0.00%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
6093	100%	0	0	0	0	0.00%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
6094	100%	0	0	0	0	0.00%	0%	0.00%	0	100%	0.00%	0	0%	0.00%	0
6095	100%	0	0	0	0	0.00%	0%	0.00%	0	100%	0.00%	0	0%	0.00%	0
7003	5%	87	79	85	4	0.01%	100%	0.01%	4	0%	0.00%	0	0%	0.00%	0
7011	15%	13	12	13	2	0.00%	100%	0.00%	2	0%	0.00%	0	0%	0.00%	0
7012	95%	454	420	444	422	0.87%	100%	0.87%	422	0%	0.00%	0	0%	0.00%	0
7013	100%	1084	1031	1,068	1,068	2.19%	100%	2.19%	1,068	0%	0.00%	0	0%	0.00%	0
7014	95%	1946	1807	1,903	1,808	3.71%	100%	3.71%	1,808	0%	0.00%	0	0%	0.00%	0
7021	100%	1282	1185	1,252	1,252	2.57%	100%	2.57%	1,252	0%	0.00%	0	0%	0.00%	0
7022	100%	1690	1570	1,653	1,653	3.39%	100%	3.39%	1,653	0%	0.00%	0	0%	0.00%	0
7031	100%	1958	1815	1,913	1,913	3.92%	100%	3.92%	1,913	0%	0.00%	0	0%	0.00%	0
7032	100%	1648	1541	1,615	1,615	3.31%	100%	3.31%	1,615	0%	0.00%	0	0%	0.00%	0
7042	50%	1110	1028	1,085	543	1.11%	100%	1.11%	543	0%	0.00%	0	0%	0.00%	0
7043	80%	1467	1360	1,434	1,147	2.35%	100%	2.35%	1,147	0%	0.00%	0	0%	0.00%	0

Trip Distribution Table

San Mateo Commercial Dev. (San Mateo N. of McLeod)

Data Analysis Subzone Population Data for determination of Local Trip Distribution for Proposed **Retail Commercia**

2004 and 2030 Data Taken from Mid-Region Council of Governments' 2030 Socioeconomic
2030 Socioeconomic Forecasts by Data Analysis Subzones for the Mid-Region of New Mexico

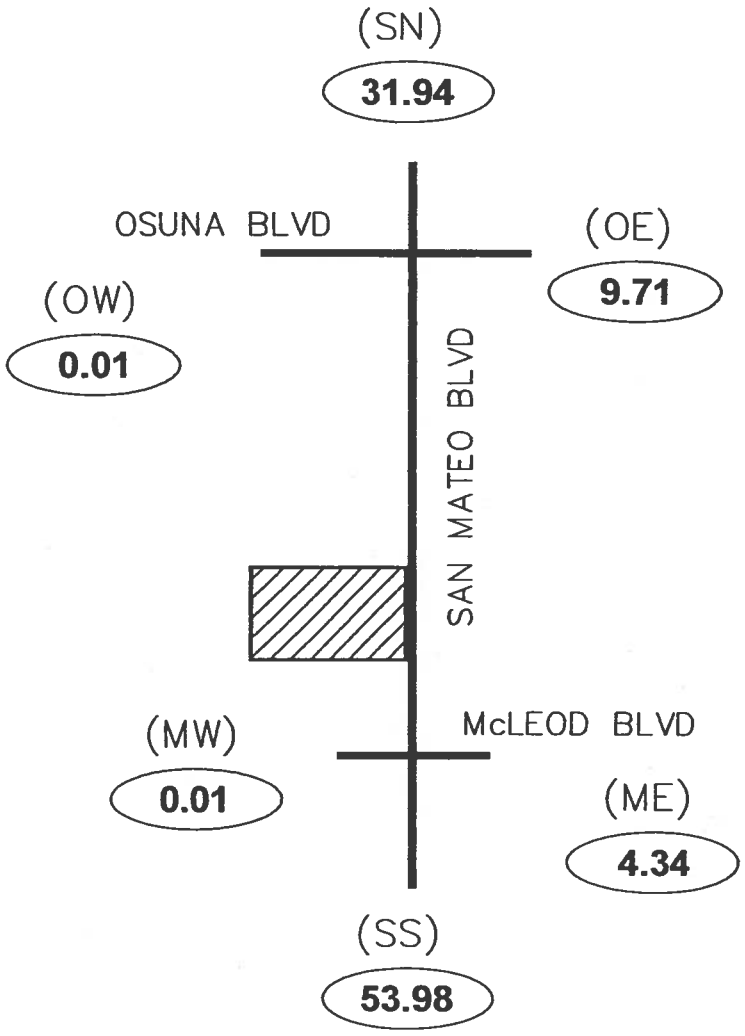
							(SS) San Mateo Blvd South			(MW) McLeod Rd West			(OW) Osuna Rd West		
DASZ #	% Sub Area in Study	2004 Population	2030 Population	Interpolated Population for the Year	Population In Study	Percent Population	% Utilizing	% Population Utilizing	Population	% Utilizing	% Population Utilizing	Population	% Utilizing	% Population Utilizing	Population
		2004	2030	2012											
Boundary Specified on DASZ Map															
7051	100%	2889	2687	2,827	2,827	5.80%	100%	5.80%	2,827	0%	0.00%	0	0%	0.00%	0
7052	100%	6	6	6	6	0.01%	0%	0.00%	0	50%	0.01%	3	50%	0.01%	3
7053	100%	7	0	5	5	0.01%	50%	0.01%	3	50%	0.01%	3	0%	0.00%	0
7101	100%	2109	1953	2,061	2,061	4.23%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
7102	100%	484	447	473	473	0.97%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
7103	100%	1166	1081	1,140	1,140	2.34%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
7104	80%	1252	1154	1,222	978	2.01%	50%	1.00%	489	0%	0.00%	0	0%	0.00%	0
7105	100%	1898	1763	1,855	1,855	3.80%	50%	1.90%	928	0%	0.00%	0	0%	0.00%	0
7106	100%	1869	1731	1,827	1,827	3.75%	50%	1.87%	914	0%	0.00%	0	0%	0.00%	0
7107	100%	2225	2084	2,175	2,175	4.46%	50%	2.23%	1,088	0%	0.00%	0	0%	0.00%	0
7111	100%	1159	1073	1,133	1,133	2.32%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
7112	45%	5	8	5	2	0.00%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
7113	15%	884	826	866	130	0.27%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
7115	50%	1513	1408	1,481	741	1.52%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
7116	100%	1413	1496	1,439	1,439	2.95%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
7126	20%	0	866	266	53	0.11%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
7151	100%	1009	938	987	987	2.02%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
7152	100%	1394	1292	1,363	1,363	2.80%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
7153	100%	1395	1308	1,368	1,368	2.81%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
7154	100%	1238	1141	1,208	1,208	2.48%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
7155	100%	885	817	864	864	1.77%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
7156	100%	1518	1502	1,513	1,513	3.10%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
7157	100%	735	831	765	765	1.57%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
7602	60%	1062	987	1,039	623	1.28%	100%	1.28%	623	0%	0.00%	0	0%	0.00%	0
7603	30%	1221	1132	1,194	358	0.73%	100%	0.73%	358	0%	0.00%	0	0%	0.00%	0
7611	100%	1854	1720	1,813	1,813	3.72%	100%	3.72%	1,813	0%	0.00%	0	0%	0.00%	0
7612	100%	926	863	907	907	1.86%	100%	1.86%	907	0%	0.00%	0	0%	0.00%	0
7621	100%	1297	1205	1,269	1,269	2.60%	100%	2.60%	1,269	0%	0.00%	0	0%	0.00%	0
7622	100%	1012	942	990	990	2.03%	100%	2.03%	990	0%	0.00%	0	0%	0.00%	0
7631	55%	1101	1018	1,075	591	1.21%	100%	1.21%	591	0%	0.00%	0	0%	0.00%	0
7632	100%	859	802	841	841	1.72%	100%	1.72%	841	0%	0.00%	0	0%	0.00%	0
7633	40%	1717	1604	1,682	673	1.38%	100%	1.38%	673	0%	0.00%	0	0%	0.00%	0
				56,360	48,762	100.00%			**26,323**			**6**			**3**
									53.98%			0.01%			0.01%

San Mateo Comm. Dev.

(San Mateo N. of McLeod)

Trip Distribution Map (%)

NTS



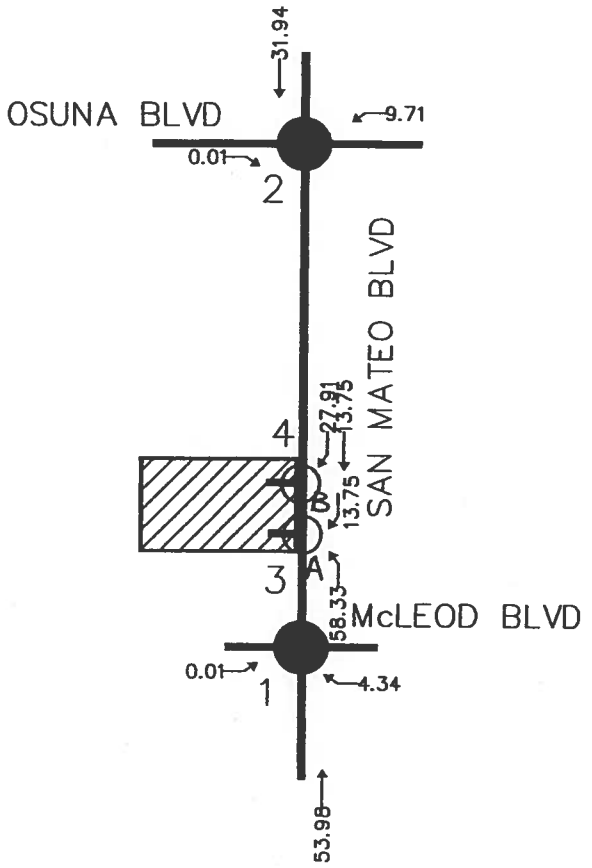
Terry O. Brown, P.E.
P.O. Box 92051
Albuquerque, NM 87199-2051
(505)883-8807 (Voice)
(505)212-0267 (Fax)

San Mateo Comm. Dev.

(San Mateo N. of McLeod)

Trip Assignments (% Entering)

NTS



SIGNALIZED INTERSECTION

UNSIGNALIZED INTERSECTION

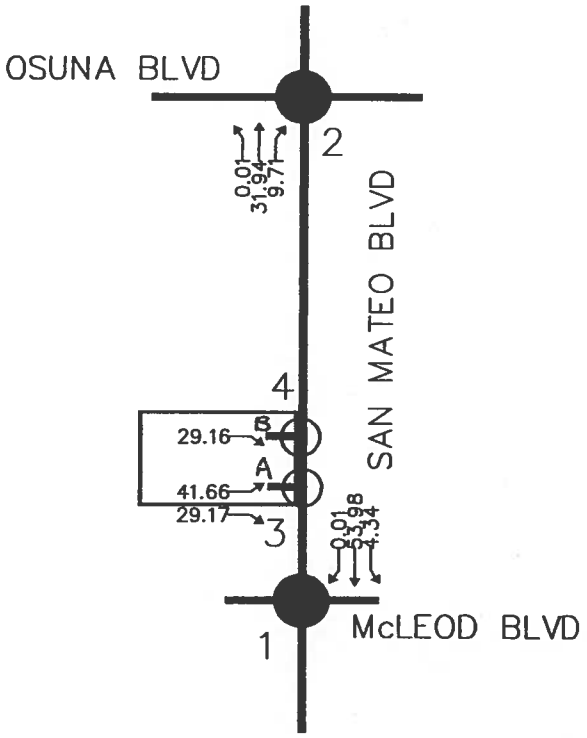
Terry O. Brown, P.E.
P.O. Box 92051
Albuquerque, NM 87199-2051
(505)883-8807 (Voice)
(505)212-0267 (Fax)

San Mateo Comm. Dev.

(San Mateo N. of McLeod)

Trip Assignments (% Exiting)

NTS



SIGNALIZED INTERSECTION

UNSIGNALIZED INTERSECTION

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

San Mateo Commercial Development (San Mateo N. of McLeod)

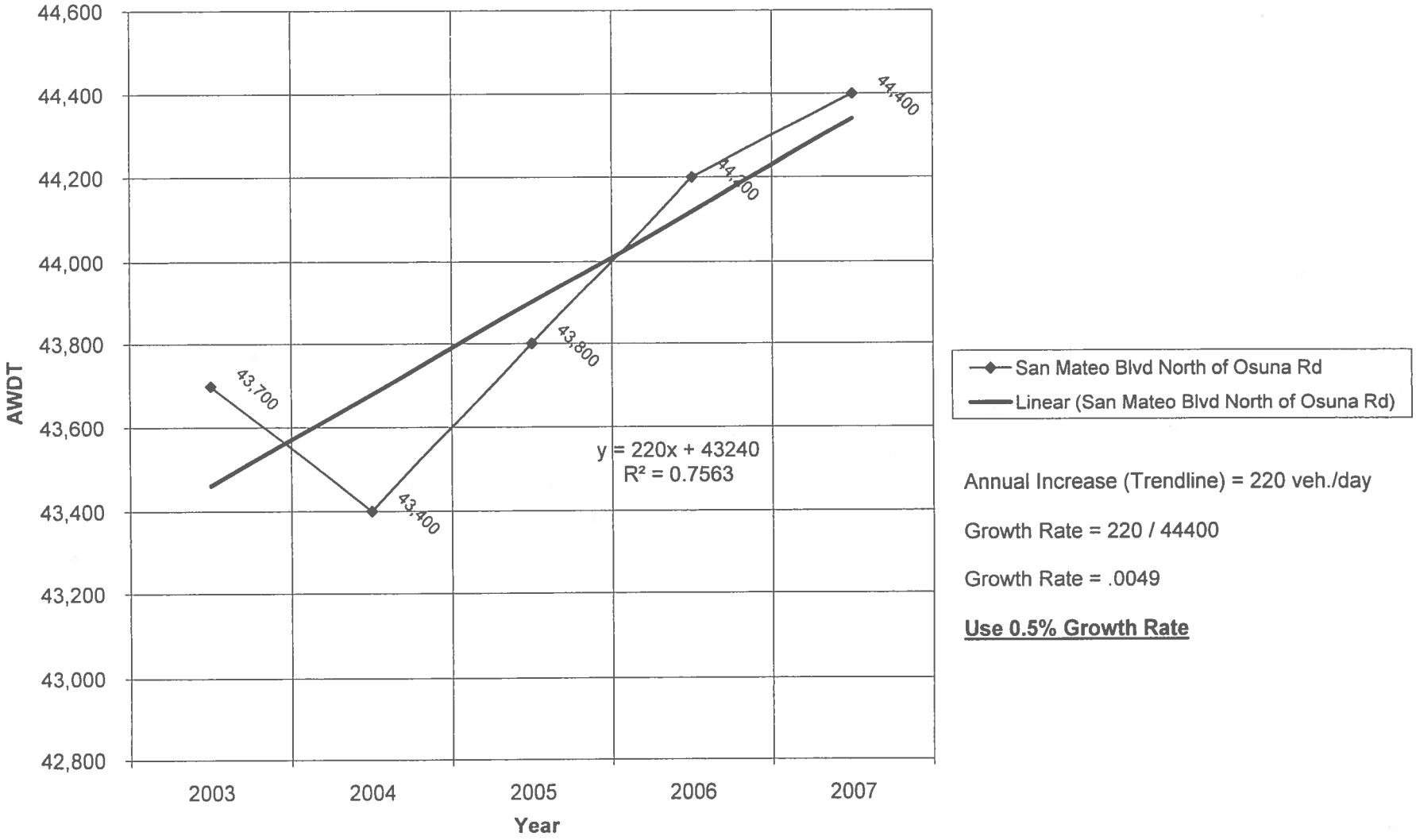
Historic Growth Rate Table

Traffic Flows from MRCOG Map

	2003	2004	2005	2006	2007
San Mateo Blvd North of Osuna Rd	43,700	43,400	43,800	44,200	44,400
Osuna Rd East of San Mateo Blvd	18,500	21,900	22,100	22,200	22,300
San Mateo Blvd btwn Osuna & McLeod	39,300	39,000	39,300	39,600	39,800
McLeod Rd East of San Mateo Blvd	6,500	6,500	6,500	6,600	6,600
San Mateo Blvd South of McLeod Rd	40,900	40,600	41,200	47,500	47,700
McLeod Rd West of San Mateo Blvd	11,900	11,800	11,900	12,000	12,200

SM_Growth.xls

Historic Growth Chart San Mateo Blvd North of Osuna Rd (2003-2007)



Annual Increase (Trendline) = 220 veh./day

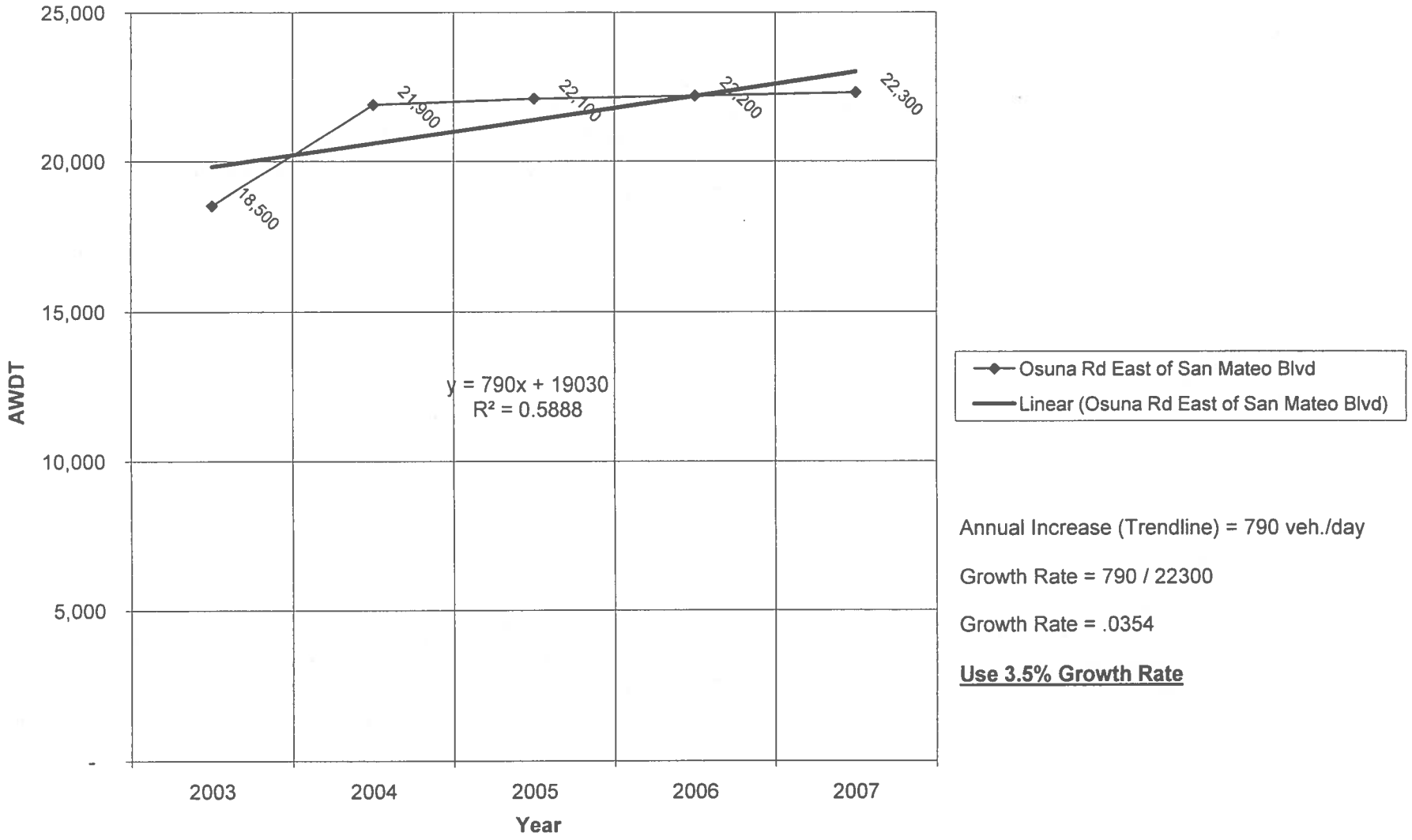
Growth Rate = 220 / 44400

Growth Rate = .0049

Use 0.5% Growth Rate

SM_Growth.xls

Historic Growth Chart Osuna Rd East of San Mateo Blvd (2003-2007)



Annual Increase (Trendline) = 790 veh./day

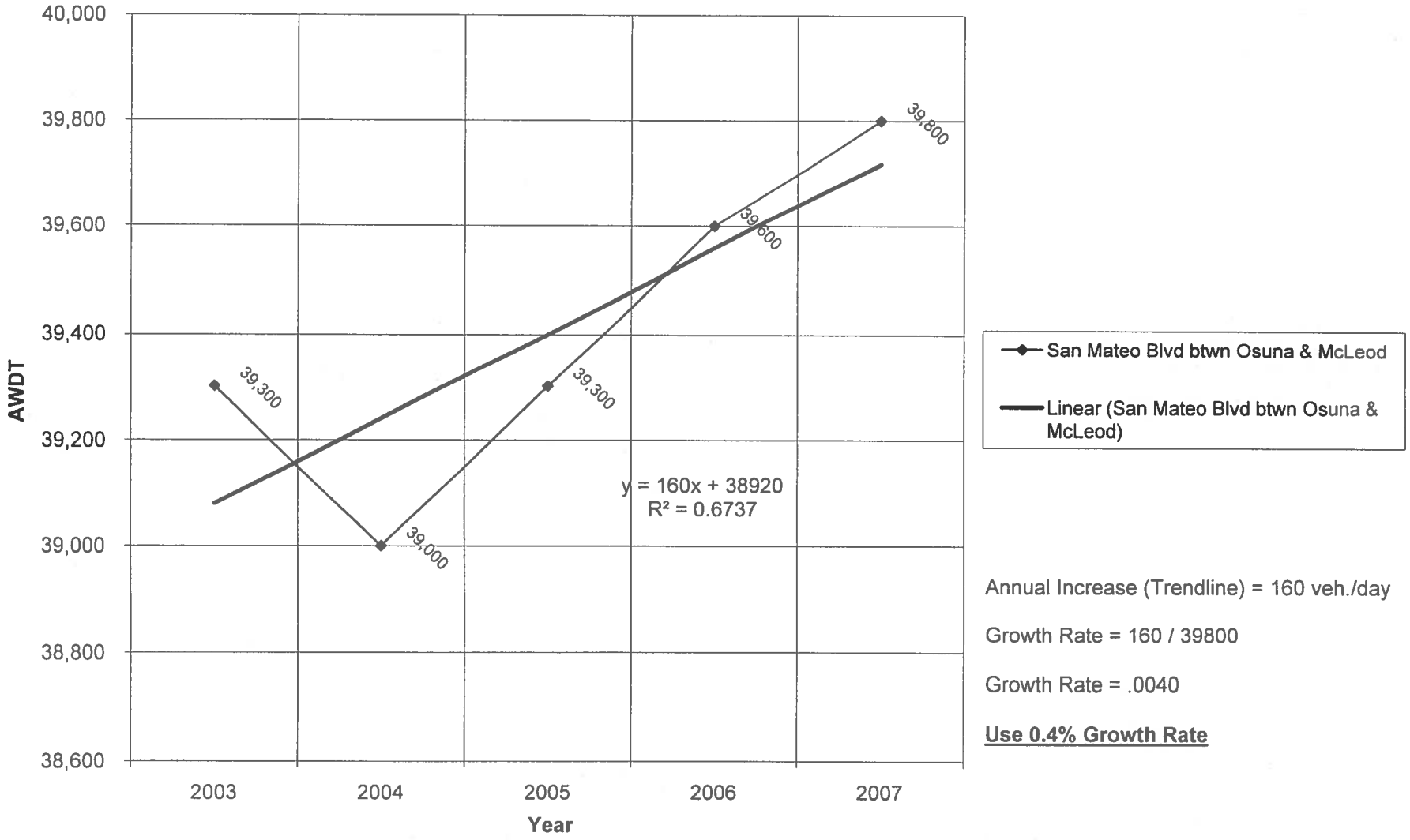
Growth Rate = 790 / 22300

Growth Rate = .0354

Use 3.5% Growth Rate

SM_Growth.xls

Historic Growth Chart San Mateo Blvd btwn Osuna & McLeod (2003-2007)



Annual Increase (Trendline) = 160 veh./day

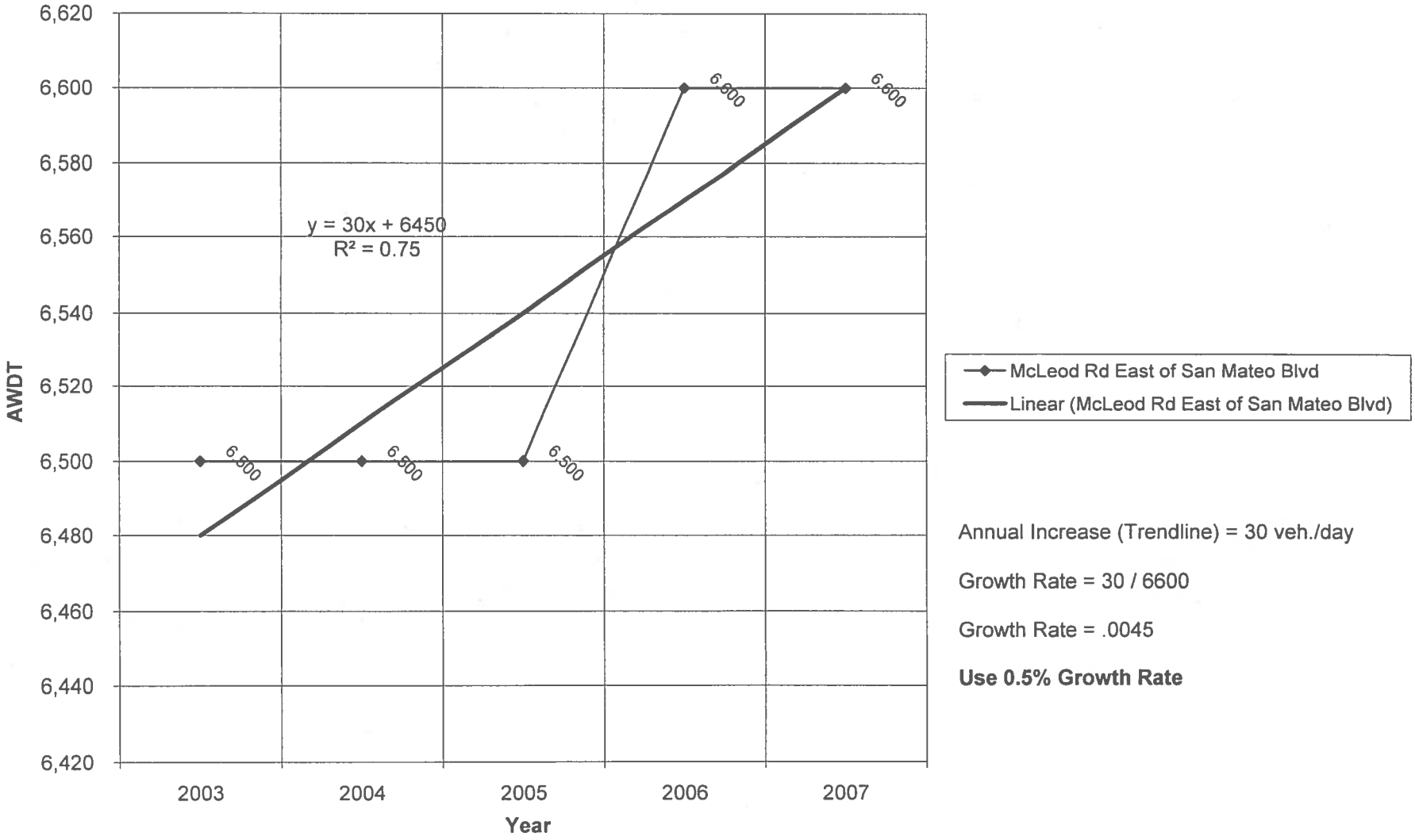
Growth Rate = 160 / 39800

Growth Rate = .0040

Use 0.4% Growth Rate

SM_Growth.xls

Historic Growth Chart McLeod Rd East of San Mateo Blvd (2003-2007)



Annual Increase (Trendline) = 30 veh./day

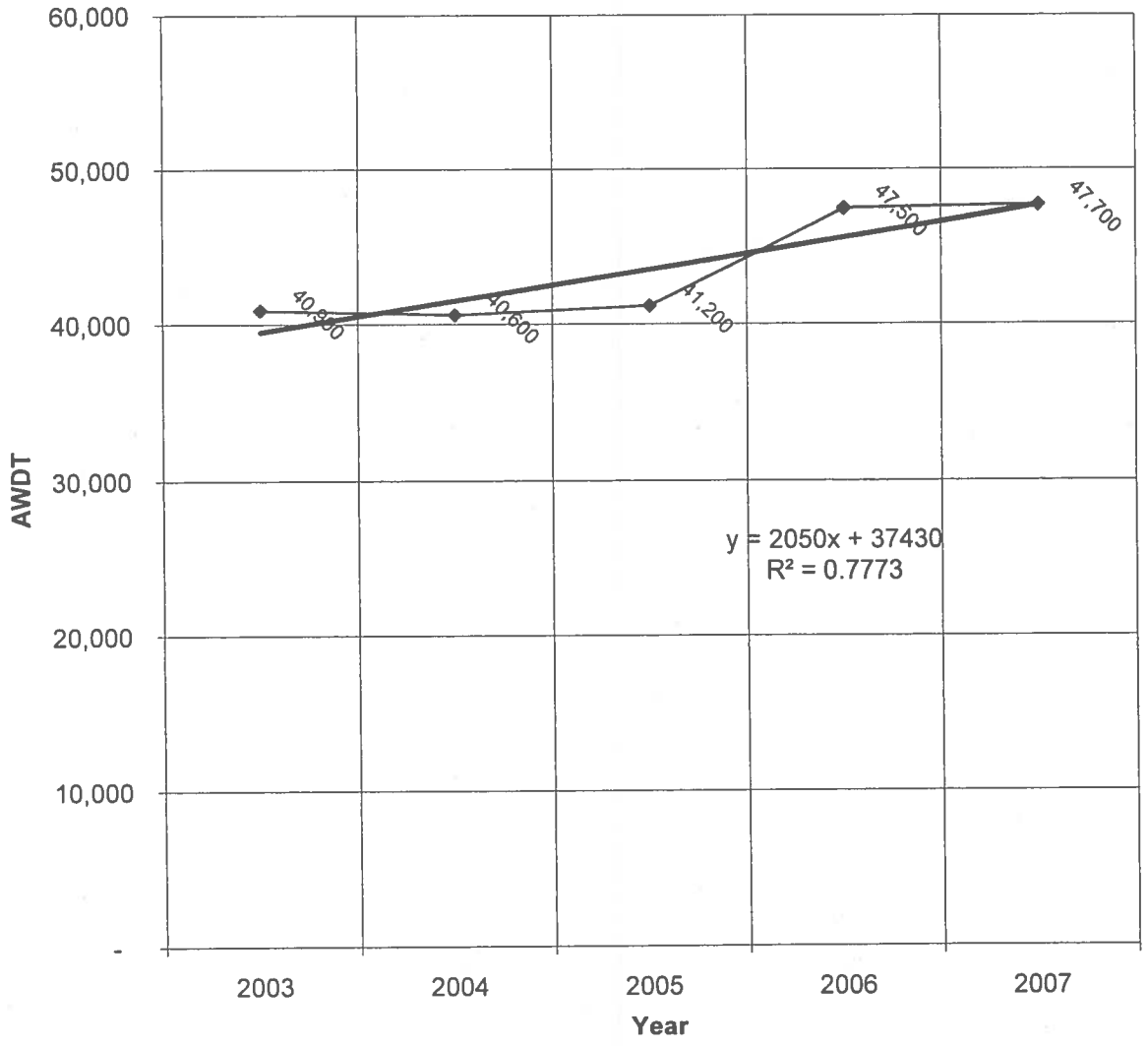
Growth Rate = 30 / 6600

Growth Rate = .0045

Use 0.5% Growth Rate

SM_Growth.xls

Historic Growth Chart San Mateo Blvd South of McLeod Rd (2003-2007)



Annual Increase (Trendline) = 2050 veh./day

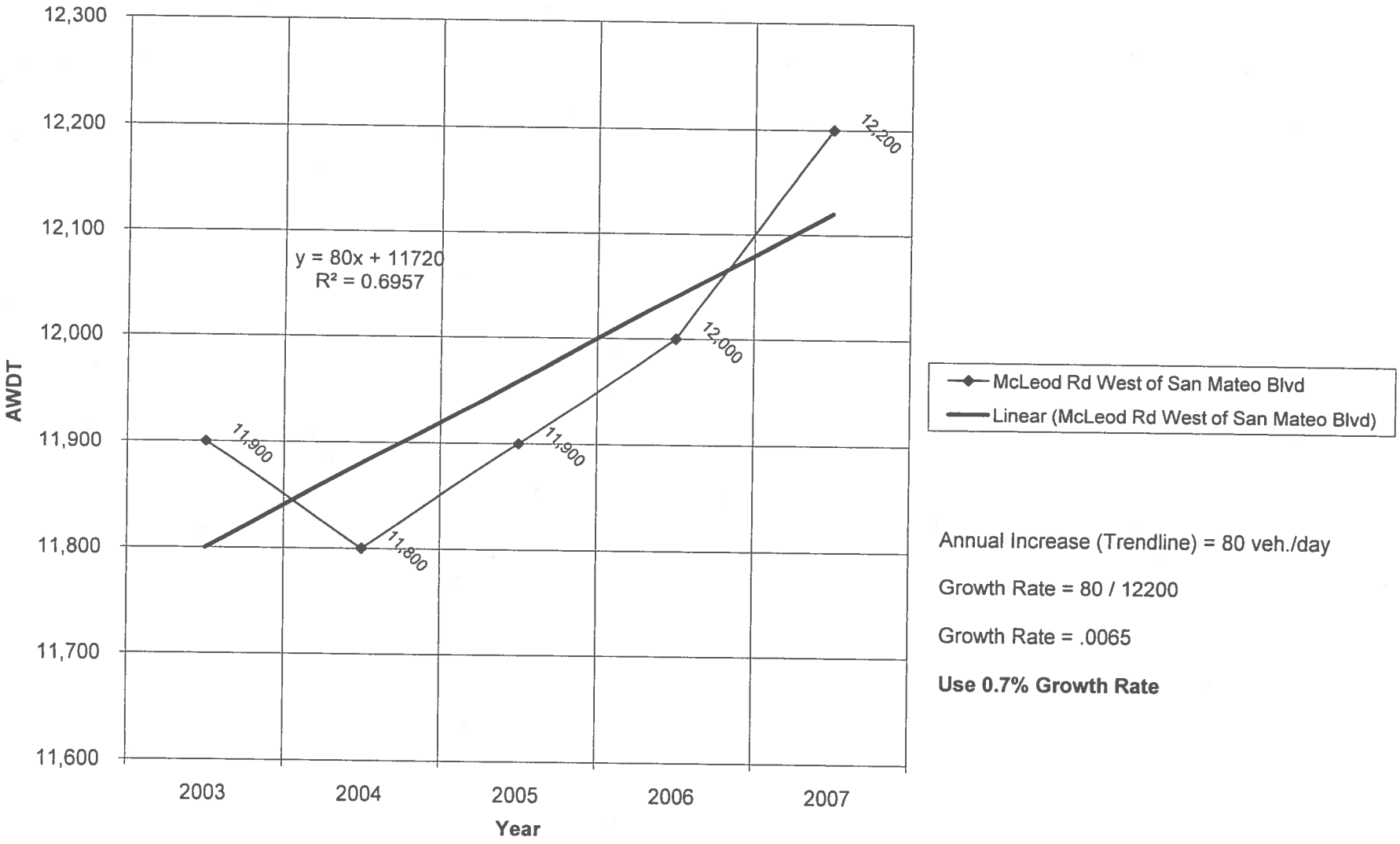
Growth Rate = 2050 / 47700

Growth Rate = .0429

Use 4.3% Growth Rate

SM_Growth.xls

Historic Growth Chart McLeod Rd West of San Mateo Blvd (2003-2007)



Annual Increase (Trendline) = 80 veh./day

Growth Rate = 80 / 12200

Growth Rate = .0065

Use 0.7% Growth Rate

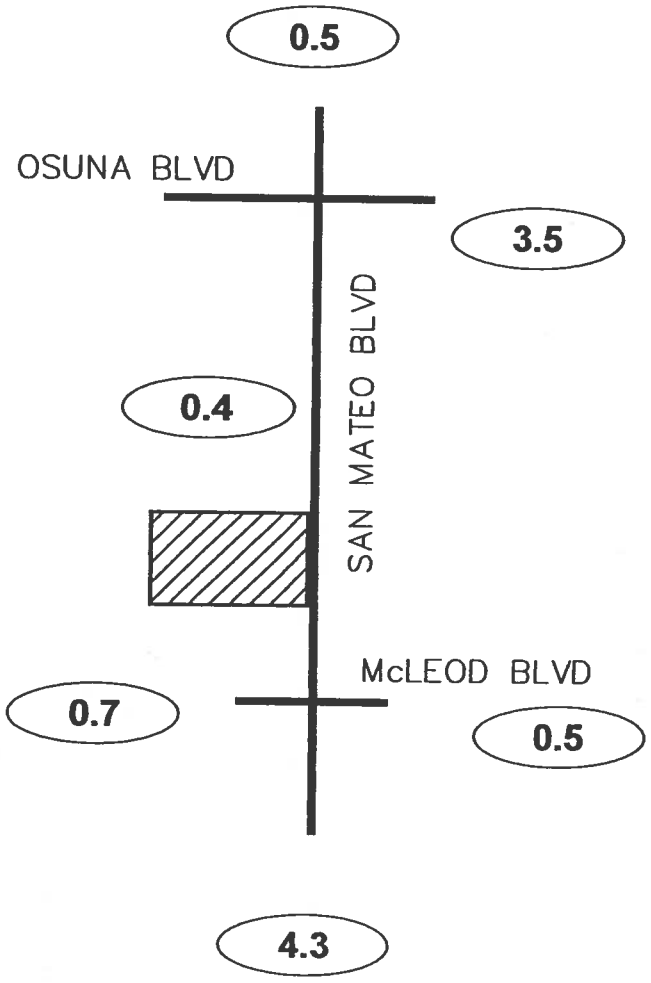
SM_Growth.xls

San Mateo Commercial Dev.

(San Mateo N. of McLeod)

Growth Rate Map (%)

NTS

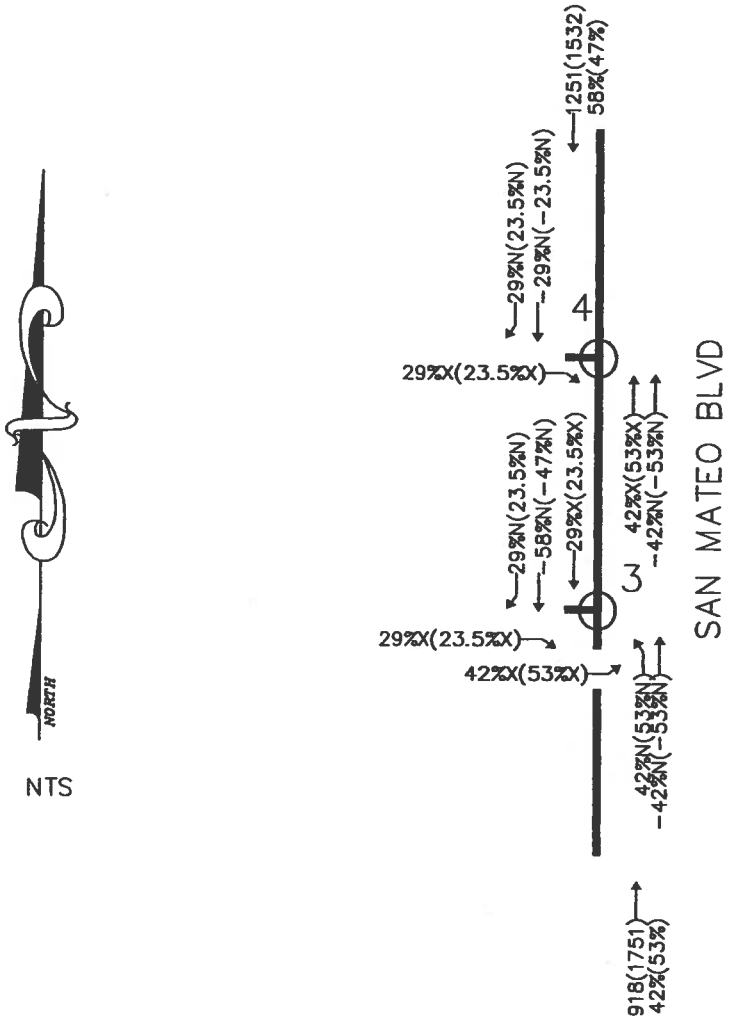


Terry O. Brown, P.E.
P.O. Box 92051
Albuquerque, NM 87199-2051
(505)883-8807 (Voice)
(505)212-0267 (Fax)

San Mateo Commercial Dev.

(San Mateo N. of McLeod)

Pass-by Trips AM(PM)



SIGNALIZED INTERSECTION

UNSIGNALIZED INTERSECTION

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

San Mateo Commercial Development (San Mateo N. of McLeod)

Projected Turning Movements SUMMARY

PROPOSED DEVELOPMENT (2012) - 100% Development

INTERSECTION: **Summary**

McLeod Rd / San Mateo Blvd

(1)

3.0% Truck

	0.93			0.75			0.79			0.84			PHF
	Eastbound (McLeod Rd)			Westbound (McLeod Rd)			Northbound (San Mateo Blvd)			Southbound (San Mateo Blvd)			
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
Existing (2009)	85	69	88	42	224	53	154	688	27	24	960	248	
2012 (NO BUILD - A.M.)	*87*	*70*	*90*	*43*	*227*	*54*	*174*	*777*	*30*	*24*	*972*	*251*	
2012 (BUILD - A.M.)	***87***	***70***	***90***	***43***	***227***	***61***	***174***	***862***	***30***	***30***	***1,041***	***251***	

	0.87			0.85			0.91			0.88			PHF
	Eastbound (McLeod Rd)			Westbound (McLeod Rd)			Northbound (San Mateo Blvd)			Southbound (San Mateo Blvd)			
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
Existing (2009)	192	302	182	47	114	46	113	1,336	80	104	1,180	168	
2012 (NO BUILD - P.M.)	*196*	*308*	*186*	*48*	*116*	*47*	*128*	*1,508*	*90*	*105*	*1,194*	*170*	
2012 (BUILD - P.M.)	***196***	***308***	***186***	***48***	***116***	***52***	***128***	***1,574***	***90***	***110***	***1,254***	***170***	

Osuna Rd / San Mateo Blvd

(2)

3.0% Truck

	0.93			0.79			0.79			0.86			PHF
	Eastbound (Osuna Rd)			Westbound (Osuna Rd)			Northbound (San Mateo Blvd)			Southbound (San Mateo Blvd)			
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
Existing (2009)	51	87	18	176	74	356	24	673	51	245	1,024	16	
2012 (NO BUILD - A.M.)	*52*	*88*	*18*	*194*	*82*	*393*	*24*	*681*	*52*	*249*	*1,039*	*16*	
2012 (BUILD - A.M.)	***52***	***88***	***18***	***209***	***82***	***393***	***24***	***722***	***64***	***249***	***1,089***	***16***	

	0.93			0.92			0.94			0.92			PHF
	Eastbound (Osuna Rd)			Westbound (Osuna Rd)			Northbound (San Mateo Blvd)			Southbound (San Mateo Blvd)			
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
Existing (2009)	179	265	65	161	48	355	75	1,307	148	347	1,269	29	
2012 (NO BUILD - P.M.)	*182*	*269*	*66*	*178*	*53*	*392*	*76*	*1,323*	*150*	*352*	*1,288*	*29*	
2012 (BUILD - P.M.)	***182***	***269***	***66***	***190***	***53***	***392***	***76***	***1,359***	***161***	***352***	***1,327***	***29***	

Driveway 'A' / San Mateo Blvd

(3)

3.0% Truck

	0.85			0.85			0.84			0.84			PHF
	Eastbound (Driveway 'A')			Westbound (Driveway 'A')			Northbound (San Mateo Blvd)			Southbound (San Mateo Blvd)			
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
Existing (2009)	0	0	0	0	0	0	0	826	0	0	1,232	0	
2012 (NO BUILD - A.M.)	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*836*	*0*	*0*	*1,247*	*0*	
2012 (BUILD - A.M.)	***71***	***0***	***49***	***0***	***0***	***0***	***114***	***814***	***0***	***0***	***1,228***	***37***	

	0.85			0.85			0.88			0.88			PHF
	Eastbound (Driveway 'A')			Westbound (Driveway 'A')			Northbound (San Mateo Blvd)			Southbound (San Mateo Blvd)			
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
Existing (2009)	0	0	0	0	0	0	0	1,574	0	0	1,452	0	
2012 (NO BUILD - P.M.)	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*1,593*	*0*	*0*	*1,469*	*0*	
2012 (BUILD - P.M.)	***67***	***0***	***42***	***0***	***0***	***0***	***93***	***1,571***	***0***	***0***	***1,459***	***27***	

Driveway 'B' / San Mateo Blvd

(4)

3.0% Truck

	0.85			0.85			0.84			0.84			PHF
	Eastbound (Driveway 'B')			Westbound (Driveway 'B')			Northbound (San Mateo Blvd)			Southbound (San Mateo Blvd)			
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
Existing (2009)	0	0	0	0	0	0	0	826	0	0	1,232	0	
2012 (NO BUILD - A.M.)	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*836*	*0*	*0*	*1,247*	*0*	
2012 (BUILD - A.M.)	***0***	***0***	***49***	***0***	***0***	***0***	***0***	***832***	***0***	***0***	***1,254***	***59***	

	0.85			0.85			0.88			0.88			PHF
	Eastbound (Driveway 'B')			Westbound (Driveway 'B')			Northbound (San Mateo Blvd)			Southbound (San Mateo Blvd)			
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
Existing (2009)	0	0	0	0	0	0	0	1,574	0	0	1,452	0	
2012 (NO BUILD - P.M.)	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*1,593*	*0*	*0*	*1,469*	*0*	
2012 (BUILD - P.M.)	***0***	***0***	***42***	***0***	***0***	***0***	***0***	***1,591***	***0***	***0***	***1,476***	***44***	

San Mateo Commercial Development (San Mateo N. of McLeod)

Projected Turning Movements Worksheet

McLeod Rd / San Mateo Blvd

INTERSECTION: E-W Street: **McLeod Rd** (1)

N-S Street: **San Mateo Blvd**

Year of Existing Counts: 2009

Implementation Year: **2012**

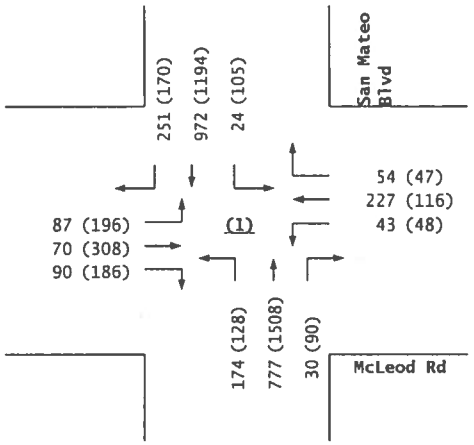
Growth Rates	0.70%			0.50%			4.30%			0.40%		
	Eastbound (McLeod Rd)			Westbound (McLeod Rd)			Northbound (San Mateo Blvd)			Southbound (San Mateo Blvd)		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing Volumes	85	69	88	42	224	53	154	688	27	24	960	248
Background Traffic Growth	2	1	2	1	3	1	20	89	3	0	12	3
Subtotal (NO BUILD - A.M.)	***87***	***70***	***90***	***43***	***227***	***54***	***174***	***777***	***30***	***24***	***972***	***251***
Percent Commercial Trips Generated(Entering)	*0.01%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*4.34%*	*0.00%*	*53.98%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*
Percent Commercial Trips Generated(Exiting)	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*4.34%*	*53.98%*	*0.01%*
Total Trips Generated	0	0	0	0	0	7	0	85	0	6	69	0
Total AM Peak Hour BUILD Volumes	**87**	**70**	**90**	**43**	**227**	**61**	**174**	**862**	**30**	**30**	**1,041**	**251**

	Eastbound (McLeod Rd)			Westbound (McLeod Rd)			Northbound (San Mateo Blvd)			Southbound (San Mateo Blvd)		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing Volumes	192	302	182	47	114	46	113	1,336	80	104	1,180	168
Background Traffic Growth	4	6	4	1	2	1	15	172	10	1	14	2
Subtotal (NO BUILD - P.M.)	***196***	***308***	***186***	***48***	***116***	***47***	***128***	***1,508***	***90***	***105***	***1,194***	***170***
Percent Commercial Trips Generated(Entering)	*0.01%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*4.34%*	*0.00%*	*53.98%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*
Percent Commercial Trips Generated(Exiting)	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*4.34%*	*53.98%*	*0.01%*
Total Trips Generated	0	0	0	0	0	5	0	66	0	5	60	0
Total PM Peak Hour BUILD Volumes	**196**	**308**	**186**	**48**	**116**	**52**	**128**	**1,574**	**90**	**110**	**1,254**	**170**

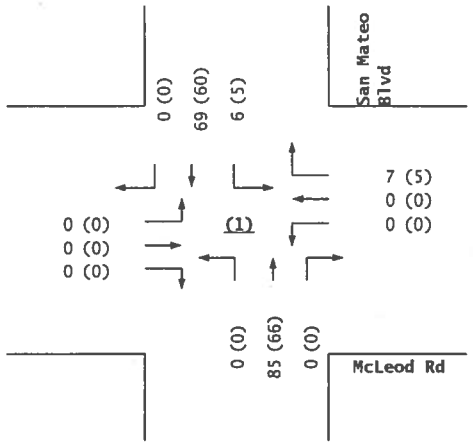
Number of Commercial Trips Generated	Entering	Exiting		
	157	**128**	A.M.	100% Commercial Development
	122	**112**	P.M.	

	Eastbound (McLeod Rd)			Westbound (McLeod Rd)			Northbound (San Mateo Blvd)			Southbound (San Mateo Blvd)		
2009 AM Peak Hr. Volumes	85	69	88	42	224	53	154	688	27	24	960	248
2009 PM Peak Hr. Volumes	192	302	182	47	114	46	113	1,336	80	104	1,180	168

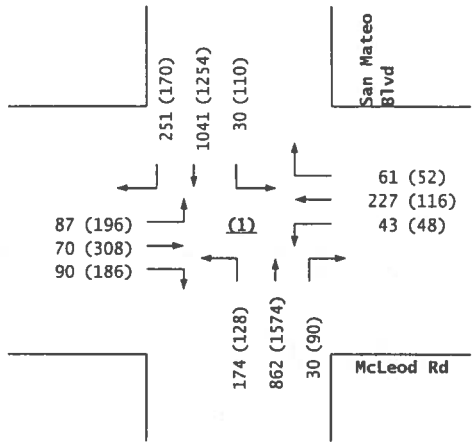
2012
NO BUILD



Trips



2012
BUILD



McLeod Rd / San Mateo Blvd

San Mateo Commercial Development (San Mateo N. of McLeod)

Projected Turning Movements Worksheet

Osuna Rd / San Mateo Blvd

INTERSECTION: E-W Street: **Osuna Rd** (2)

N-S Street: **San Mateo Blvd**

Year of Existing Counts 2009

Implementation Year **2012**

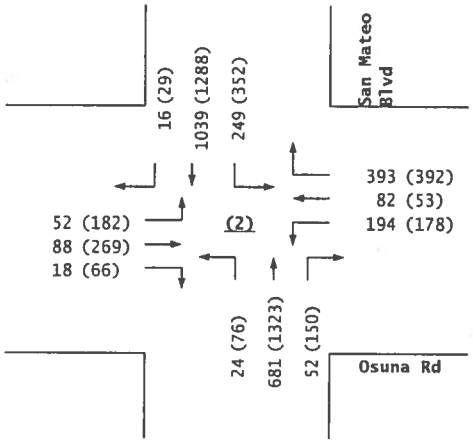
Growth Rates	0.50%			3.50%			0.40%			0.50%		
	Eastbound (Osuna Rd)			Westbound (Osuna Rd)			Northbound (San Mateo Blvd)			Southbound (San Mateo Blvd)		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing Volumes	51	87	18	176	74	356	24	673	51	245	1,024	16
Background Traffic Growth	1	1	0	18	8	37	0	8	1	4	15	0
Subtotal (NO BUILD - A.M.)	***52***	***88***	***18***	***194***	***82***	***393***	***24***	***681***	***52***	***249***	***1,039***	***16***
Percent Commercial Trips Generated(Entering)	*0.00%*	*0.00%*	*0.01%*	*9.71%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*31.94%*	*0.00%*
Percent Commercial Trips Generated(Exiting)	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.01%*	*31.94%*	*9.71%*	*0.00%*	*0.00%*	*0.00%*
Total Trips Generated	0	0	0	15	0	0	0	41	12	0	50	0
Total AM Peak Hour BUILD Volumes	**52**	**88**	**18**	**209**	**82**	**393**	**24**	**722**	**64**	**249**	**1,089**	**16**

	Eastbound (Osuna Rd)			Westbound (Osuna Rd)			Northbound (San Mateo Blvd)			Southbound (San Mateo Blvd)		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing Volumes	179	265	65	161	48	355	75	1,307	148	347	1,269	29
Background Traffic Growth	3	4	1	17	5	37	1	16	2	5	19	0
Subtotal (NO BUILD - P.M.)	***182***	***269***	***66***	***178***	***53***	***392***	***76***	***1,323***	***150***	***352***	***1,288***	***29***
Percent Commercial Trips Generated(Entering)	*0.00%*	*0.00%*	*0.01%*	*9.71%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*31.94%*	*0.00%*
Percent Commercial Trips Generated(Exiting)	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.01%*	*31.94%*	*9.71%*	*0.00%*	*0.00%*	*0.00%*
Total Trips Generated	0	0	0	12	0	0	0	36	11	0	39	0
Total PM Peak Hour BUILD Volumes	**182**	**269**	**66**	**190**	**53**	**392**	**76**	**1,359**	**161**	**352**	**1,327**	**29**

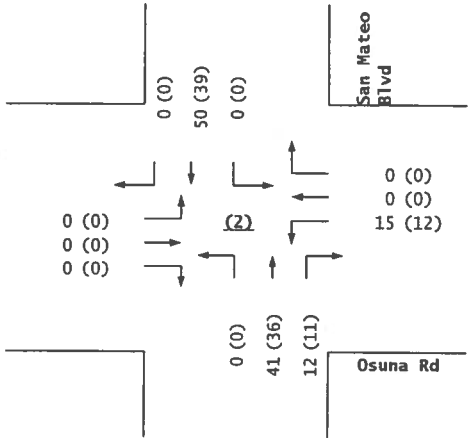
	Entering	Exiting		
Number of Commercial Trips Generated	**157**	**128**	A.M.	100% Commercial Development
	122	**112**	P.M.	

	Eastbound (Osuna Rd)			Westbound (Osuna Rd)			Northbound (San Mateo Blvd)			Southbound (San Mateo Blvd)		
2009 AM Peak Hr. Volumes	51	87	18	176	74	356	24	673	51	245	1,024	16
2009 PM Peak Hr. Volumes	179	265	65	161	48	355	75	1,307	148	347	1,269	29

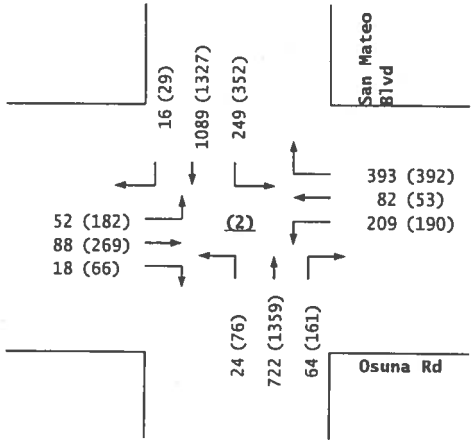
2012
NO BUILD



Trips



2012
BUILD



Osuna Rd / San Mateo Blvd

San Mateo Commercial Development (San Mateo N. of McLeod)

Projected Turning Movements Worksheet

Driveway 'A' / San Mateo Blvd

INTERSECTION: E-W Street: Driveway 'A' (3)

N-S Street: San Mateo Blvd

Year of Existing Counts 2009

Implementation Year **2012**

Growth Rates	0.40%			0.40%			0.40%			0.40%		
	Eastbound (Driveway 'A')			Westbound (Driveway 'A')			Northbound (San Mateo Blvd)			Southbound (San Mateo Blvd)		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing Volumes	0	0	0	0	0	0	0	826	0	0	1,232	0
Background Traffic Growth	0	0	0	0	0	0	0	10	0	0	15	0
Subtotal (NO BUILD - A.M.)	***0***	***0***	***0***	***0***	***0***	***0***	***0***	***836***	***0***	***0***	***1,247***	***0***
Percent Commercial Trips Generated(Entering)	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*58.33%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*13.75%*
Percent Commercial Trips Generated(Exiting)	*41.66%*	*0.00%*	*29.17%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*
Total Trips Generated	53	0	37	0	0	0	92	0	0	0	0	22
Subtotal AM Pk Hr. BUILD Volumes	**53**	**0**	**37**	**0**	**0**	**0**	**92**	**836**	**0**	**0**	**1,247**	**22**
Pass-by Trip Adjustments	*18*	*0*	*12*	*0*	*0*	*0*	*22*	*-22*	*0*	*0*	*-19*	*15*
Total AM Peak Hour BUILD Volumes	**71**	**0**	**49**	**0**	**0**	**0**	**114**	**814**	**0**	**0**	**1,228**	**37**

	Eastbound (Driveway 'A')			Westbound (Driveway 'A')			Northbound (San Mateo Blvd)			Southbound (San Mateo Blvd)		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing Volumes	0	0	0	0	0	0	0	1,574	0	0	1,452	0
Background Traffic Growth	0	0	0	0	0	0	0	19	0	0	17	0
Subtotal (NO BUILD - P.M.)	***0***	***0***	***0***	***0***	***0***	***0***	***0***	***1,593***	***0***	***0***	***1,469***	***0***
Percent Commercial Trips Generated(Entering)	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*58.33%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*13.75%*
Percent Commercial Trips Generated(Exiting)	*41.66%*	*0.00%*	*29.17%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*
Total Trips Generated	47	0	33	0	0	0	71	0	0	0	0	17
Subtotal PM Pk Hr. BUILD Volumes	**47**	**0**	**33**	**0**	**0**	**0**	**71**	**1,593**	**0**	**0**	**1,469**	**17**
Pass-by Trip Adjustments	*20*	*0*	*9*	*0*	*0*	*0*	*22*	*-22*	*0*	*0*	*-10*	*10*
Total PM Peak Hour BUILD Volumes	**67**	**0**	**42**	**0**	**0**	**0**	**93**	**1,571**	**0**	**0**	**1,459**	**27**

	Entering	Exiting		
Number of Commercial Trips Generated	**157**	**128**	A.M.	100% Commercial Development
	122	**112**	P.M.	

	Eastbound (Driveway 'A')			Westbound (Driveway 'A')			Northbound (San Mateo Blvd)			Southbound (San Mateo Blvd)		
2009 AM Peak Hr. Volumes	0	0	0	0	0	0	0	826	0	0	1,232	0
2009 PM Peak Hr. Volumes	0	0	0	0	0	0	0	1,574	0	0	1,452	0

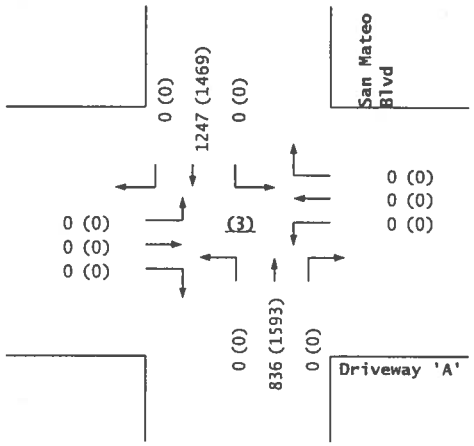
Pass-by Trip Calculations:

AM Pass-by Trips	*Eastbound (Driveway 'A')*			*Westbound (Driveway 'A')*			*Northbound (San Mateo Blvd)*			*Southbound (San Mateo Blvd)*		
Percent Entering	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*42.00%*	*-42.00%*	*0.00%*	*0.00%*	*-58.00%*	*29.00%*
Volume Entering	*0*	*0*	*0*	*0*	*0*	*0*	*22*	*-22*	*0*	*0*	*-31*	*15*
Percent Exiting	*42.00%*	*0.00%*	*29.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*29.00%*	*0.00%*
Volume Exiting	*18*	*0*	*12*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*12*	*0*
Net AM Passby Trips	***18***	***0***	***12***	***0***	***0***	***0***	***22***	***-22***	***0***	***0***	***-19***	***15***

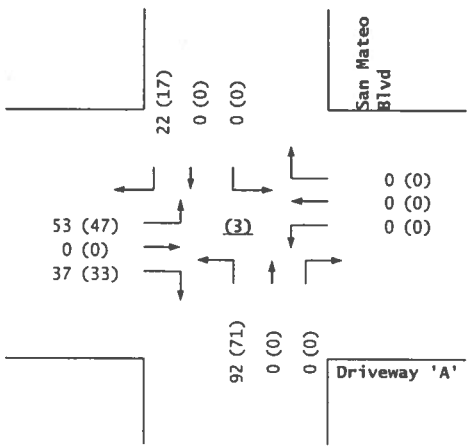
PM Pass-by Trips	*Eastbound (Driveway 'A')*			*Westbound (Driveway 'A')*			*Northbound (San Mateo Blvd)*			*Southbound (San Mateo Blvd)*		
Percent Entering	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*53.00%*	*-53.00%*	*0.00%*	*0.00%*	*-47.00%*	*23.50%*
Volume Entering	*0*	*0*	*0*	*0*	*0*	*0*	*22*	*-22*	*0*	*0*	*-19*	*10*
Percent Exiting	*53.00%*	*0.00%*	*23.50%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*23.50%*	*0.00%*
Volume Exiting	*20*	*0*	*9*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*9*	*0*
Net PM Passby Trips	***20***	***0***	***9***	***0***	***0***	***0***	***22***	***-22***	***0***	***0***	***-10***	***10***

	Entering	*Exiting*	
Pass-by Trips	***53***	***43***	*AM*
	41	***37***	*PM*

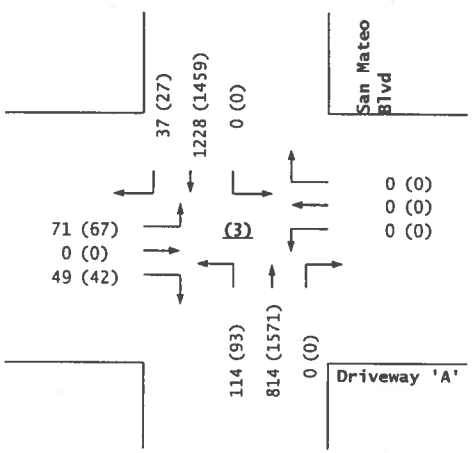
2012
NO BUILD



Trips



2012
BUILD



Driveway 'A' / San Mateo Blvd

San Mateo Commercial Development (San Mateo N. of McLeod)

Projected Turning Movements Worksheet

Driveway 'B' / San Mateo Blvd

INTERSECTION: E-W Street: Driveway 'B' (4)

N-S Street: San Mateo Blvd

Year of Existing Counts 2009

Implementation Year **2012**

Growth Rates	0.40%			0.40%			0.40%			0.40%		
	Eastbound (Driveway 'B')			Westbound (Driveway 'B')			Northbound (San Mateo Blvd)			Southbound (San Mateo Blvd)		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing Volumes	0	0	0	0	0	0	0	826	0	0	1,232	0
Background Traffic Growth	0	0	0	0	0	0	0	10	0	0	15	0
Subtotal (NO BUILD - A.M.)	***0***	***0***	***0***	***0***	***0***	***0***	***0***	***836***	***0***	***0***	***1,247***	***0***
Percent Commercial Trips Generated(Entering)	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*13.75%*	*27.91%*
Percent Commercial Trips Generated(Exiting)	*0.00%*	*0.00%*	*29.16%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*
Total Trips Generated	0	0	37	0	0	0	0	0	0	0	22	44
Subtotal AM Pk Hr. BUILD Volumes	**0**	**0**	**37**	**0**	**0**	**0**	**0**	**836**	**0**	**0**	**1,269**	**44**
Pass-by Trip Adjustments	*0*	*0*	*12*	*0*	*0*	*0*	*0*	*-4*	*0*	*0*	*-15*	*15*
Total AM Peak Hour BUILD Volumes	**0**	**0**	**49**	**0**	**0**	**0**	**0**	**832**	**0**	**0**	**1,254**	**59**

	Eastbound (Driveway 'B')			Westbound (Driveway 'B')			Northbound (San Mateo Blvd)			Southbound (San Mateo Blvd)		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing Volumes	0	0	0	0	0	0	0	1,574	0	0	1,452	0
Background Traffic Growth	0	0	0	0	0	0	0	19	0	0	17	0
Subtotal (NO BUILD - P.M.)	***0***	***0***	***0***	***0***	***0***	***0***	***0***	***1,593***	***0***	***0***	***1,469***	***0***
Percent Commercial Trips Generated(Entering)	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*13.75%*	*27.91%*
Percent Commercial Trips Generated(Exiting)	*0.00%*	*0.00%*	*29.16%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*
Total Trips Generated	0	0	33	0	0	0	0	0	0	0	17	34
Subtotal PM Pk Hr. BUILD Volumes	**0**	**0**	**33**	**0**	**0**	**0**	**0**	**1,593**	**0**	**0**	**1,486**	**34**
Pass-by Trip Adjustments	*0*	*0*	*9*	*0*	*0*	*0*	*0*	*-2*	*0*	*0*	*-10*	*10*
Total PM Peak Hour BUILD Volumes	**0**	**0**	**42**	**0**	**0**	**0**	**0**	**1,591**	**0**	**0**	**1,476**	**44**

	Entering	Exiting		
Number of Commercial Trips Generated	**157**	**128**	A.M.	100% Commercial Development
	122	**112**	P.M.	

	Eastbound (Driveway 'B')			Westbound (Driveway 'B')			Northbound (San Mateo Blvd)			Southbound (San Mateo Blvd)		
2009 AM Peak Hr. Volumes	0	0	0	0	0	0	0	826	0	0	1,232	0
2009 PM Peak Hr. Volumes	0	0	0	0	0	0	0	1,574	0	0	1,452	0

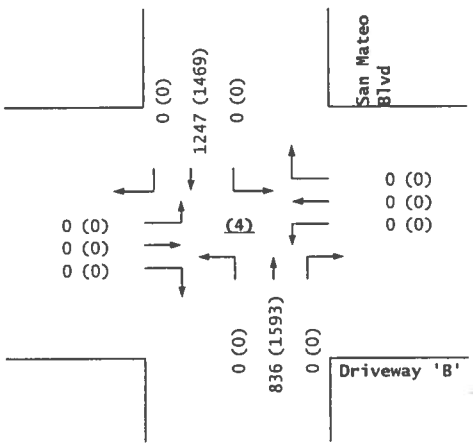
Pass-by Trip Calculations:

AM Pass-by Trips	***Eastbound (Driveway 'B')***			***Westbound (Driveway 'B')***			***Northbound (San Mateo Blvd)***			***Southbound (San Mateo Blvd)***		
Percent Entering	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*-42.00%*	*0.00%*	*0.00%*	*-29.00%*	*29.00%*
Volume Entering	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*-22*	*0*	*0*	*-15*	*15*
Percent Exiting	*0.00%*	*0.00%*	*29.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*42.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*
Volume Exiting	*0*	*0*	*12*	*0*	*0*	*0*	*0*	*18*	*0*	*0*	*0*	*0*
Net AM Passby Trips	***0***	***0***	***12***	***0***	***0***	***0***	***0***	***-4***	***0***	***0***	***-15***	***15***

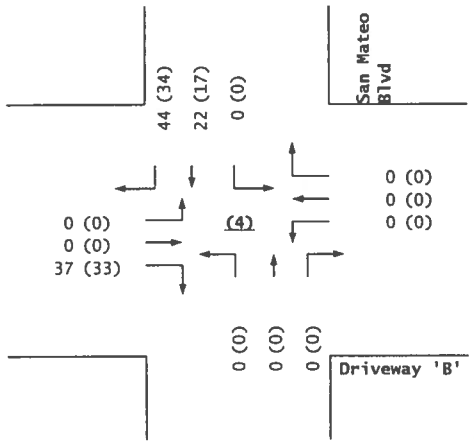
PM Pass-by Trips	***Eastbound (Driveway 'B')***			***Westbound (Driveway 'B')***			***Northbound (San Mateo Blvd)***			***Southbound (San Mateo Blvd)***		
Percent Entering	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*-53.00%*	*0.00%*	*0.00%*	*-23.50%*	*23.50%*
Volume Entering	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*-22*	*0*	*0*	*-10*	*10*
Percent Exiting	*0.00%*	*0.00%*	*23.50%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*53.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*
Volume Exiting	*0*	*0*	*9*	*0*	*0*	*0*	*0*	*20*	*0*	*0*	*0*	*0*
Net PM Passby Trips	***0***	***0***	***9***	***0***	***0***	***0***	***0***	***-2***	***0***	***0***	***-10***	***10***

	Entering	*Exiting*	
Pass-by Trips	***53***	***43***	*AM*
	41	***37***	*PM*

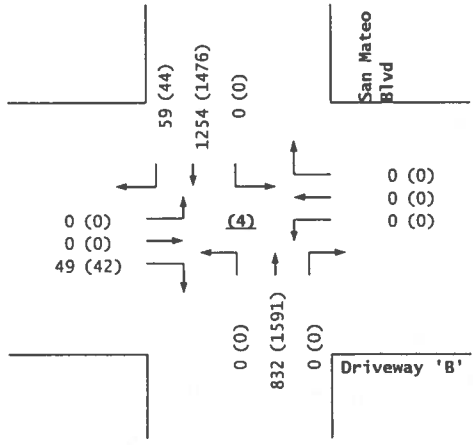
2012
NO BUILD



Trips



2012
BUILD



Driveway 'B' / San Mateo Blvd

Timings
1: McLeod Rd & San Mateo Blvd

Terry O. Brown, P.E.
7/1/2009 - Synchro 7

Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations									
Volume (vph)	87	70	90	43	227	174	777	24	972
Turn Type	pm+pt		pt+ov	pm+pt		pm+pt		pm+pt	
Protected Phases	7	4	45	3	8	5	2	1	6
Permitted Phases	4			8		2		6	
Detector Phase	7	4	45	3	8	5	2	1	6
Switch Phase									
Minimum Initial (s)	5.0	5.0		5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	10.0	21.0		10.0	21.0	10.0	21.0	10.0	21.0
Total Split (s)	10.0	28.0	45.0	10.0	28.0	17.0	42.0	10.0	35.0
Total Split (%)	11.1%	31.1%	50.0%	11.1%	31.1%	18.9%	46.7%	11.1%	38.9%
Yellow Time (s)	4.0	4.0		4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	1.0	1.0		1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Lead/Lag	Lead	Lag		Lead	Lag	Lead	Lag	Lead	Lag
Lead-Lag Optimize?									
Recall Mode	Min	Min		Min	Min	Min	C-Min	Min	C-Min
Act Effct Green (s)	30.5	23.2	38.8	30.3	23.1	50.4	40.3	42.2	35.0
Actuated g/C Ratio	0.34	0.26	0.43	0.34	0.26	0.56	0.45	0.47	0.39
v/c Ratio	0.40	0.16	0.13	0.12	0.80	0.67	0.45	0.09	0.75
Control Delay	23.4	25.9	3.5	18.4	43.8	27.1	18.2	6.4	19.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	23.4	25.9	3.5	18.4	43.8	27.1	18.2	6.4	19.0
LOS	C	C	A	B	D	C	B	A	B
Approach Delay		16.8			40.4		19.7		18.8
Approach LOS		B			D		B		B

Intersection Summary

Cycle Length: 90
Actuated Cycle Length: 90
Offset: 50 (56%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green
Natural Cycle: 65
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.80
Intersection Signal Delay: 21.7 Intersection LOS: C
Intersection Capacity Utilization 67.4% ICU Level of Service C
Analysis Period (min) 15

Splits and Phases: 1: McLeod Rd & San Mateo Blvd

HCM Signalized Intersection Capacity Analysis
1: McLeod Rd & San Mateo Blvd

Terry O. Brown, P.E.
7/1/2009 - Synchro 7

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	87	70	90	43	227	54	174	777	30	24	972	251
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	3.0	3.0	3.0	3.0	3.0		3.0	3.0		3.0	3.0	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00		1.00	0.91		1.00	0.91	
Frt	1.00	1.00	0.85	1.00	0.97		1.00	0.99		1.00	0.97	
Flt Protected	0.95	1.00	1.00	0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1752	1845	1568	1752	1792		1752	5008		1752	4881	
Flt Permitted	0.20	1.00	1.00	0.71	1.00		0.11	1.00		0.23	1.00	
Satd. Flow (perm)	364	1845	1568	1308	1792		194	5008		429	4881	
Peak-hour factor, PHF	0.93	0.93	0.93	0.75	0.75	0.75	0.79	0.79	0.79	0.84	0.84	0.84
Adj. Flow (vph)	94	75	97	57	303	72	220	984	38	29	1157	299
RTOR Reduction (vph)	0	0	55	0	10	0	0	4	0	0	48	0
Lane Group Flow (vph)	94	75	42	57	365	0	220	1018	0	29	1408	0
Turn Type	pm+pt		pt+ov	pm+pt			pm+pt			pm+pt		
Protected Phases	7	4	45	3	8		5	2		1	6	
Permitted Phases	4			8			2			6		
Actuated Green, G (s)	26.5	21.2	36.8	26.3	21.1		48.6	38.4		38.2	33.0	
Effective Green, g (s)	30.5	23.2	38.8	30.3	23.1		50.6	40.4		42.2	35.0	
Actuated g/C Ratio	0.34	0.26	0.43	0.34	0.26		0.56	0.45		0.47	0.39	
Clearance Time (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)	236	476	676	475	460		327	2248		307	1898	
v/s Ratio Prot	c0.03	0.04	0.03	0.01	c0.20		c0.09	0.20		0.01	c0.29	
v/s Ratio Perm	0.10			0.03			0.28			0.04		
v/c Ratio	0.40	0.16	0.06	0.12	0.79		0.67	0.45		0.09	0.74	
Uniform Delay, d1	22.1	25.8	15.0	20.5	31.2		17.4	17.2		13.0	23.6	
Progression Factor	1.00	1.00	1.00	1.00	1.00		1.00	1.00		0.58	0.71	
Incremental Delay, d2	1.1	0.2	0.0	0.1	9.2		5.4	0.7		0.1	2.3	
Delay (s)	23.2	26.0	15.0	20.6	40.4		22.7	17.8		7.6	19.2	
Level of Service	C	C	B	C	D		C	B		A	B	
Approach Delay (s)		21.0			37.8			18.7			19.0	
Approach LOS		C			D			B			B	

Intersection Summary

HCM Average Control Delay	21.4	HCM Level of Service	C		
HCM Volume to Capacity ratio	0.71				
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	12.0		
Intersection Capacity Utilization	67.4%	ICU Level of Service	C		
Analysis Period (min)	15				

c Critical Lane Group

Timings
1: McLeod Rd & San Mateo Blvd

Terry O. Brown, P.E.
7/1/2009 - Synchro 7

Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations									
Volume (vph)	87	70	90	43	227	174	862	30	1041
Turn Type	pm+pt		pt+ov	pm+pt		pm+pt		pm+pt	
Protected Phases	7	4	45	3	8	5	2	1	6
Permitted Phases	4			8		2		6	
Detector Phase	7	4	45	3	8	5	2	1	6
Switch Phase									
Minimum Initial (s)	5.0	5.0		5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	10.0	21.0		10.0	21.0	10.0	21.0	10.0	21.0
Total Split (s)	10.0	27.0	42.0	10.0	27.0	15.0	43.0	10.0	38.0
Total Split (%)	11.1%	30.0%	46.7%	11.1%	30.0%	16.7%	47.8%	11.1%	42.2%
Yellow Time (s)	4.0	4.0		4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	1.0	1.0		1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Lead/Lag	Lead	Lag		Lead	Lag	Lead	Lag	Lead	Lag
Lead-Lag Optimize?									
Recall Mode	Min	Min		Min	Min	Min	C-Min	Min	C-Min
Act Effct Green (s)	30.1	22.9	37.4	29.9	22.7	50.9	40.7	43.7	36.4
Actuated g/C Ratio	0.33	0.25	0.42	0.33	0.25	0.57	0.45	0.49	0.40
v/c Ratio	0.42	0.16	0.14	0.12	0.83	0.72	0.50	0.13	0.76
Control Delay	24.7	26.5	3.9	19.0	47.0	30.9	18.4	5.6	19.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	24.7	26.5	3.9	19.0	47.0	30.9	18.4	5.6	19.3
LOS	C	C	A	B	D	C	B	A	B
Approach Delay		17.7			43.4		20.4		19.0
Approach LOS		B			D		C		B

Intersection Summary

Cycle Length: 90
Actuated Cycle Length: 90
Offset: 54 (60%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green
Natural Cycle: 65
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.83
Intersection Signal Delay: 22.4 — Intersection LOS: C
Intersection Capacity Utilization 69.2% — ICU Level of Service C
Analysis Period (min) 15

Splits and Phases: 1: McLeod Rd & San Mateo Blvd

HCM Signalized Intersection Capacity Analysis
1: McLeod Rd & San Mateo Blvd

Terry O. Brown, P.E.
7/1/2009 - Synchro 7

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	87	70	90	43	227	61	174	862	30	30	1041	251
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	3.0	3.0	3.0	3.0	3.0		3.0	3.0		3.0	3.0	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00		1.00	0.91		1.00	0.91	
Frt	1.00	1.00	0.85	1.00	0.97		1.00	0.99		1.00	0.97	
Flt Protected	0.95	1.00	1.00	0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1752	1845	1568	1752	1786		1752	5010		1752	4889	
Flt Permitted	0.17	1.00	1.00	0.71	1.00		0.10	1.00		0.19	1.00	
Satd. Flow (perm)	322	1845	1568	1306	1786		187	5010		352	4889	
Peak-hour factor, PHF	0.93	0.93	0.93	0.75	0.75	0.75	0.79	0.79	0.79	0.84	0.84	0.84
Adj. Flow (vph)	94	75	97	57	303	81	220	1091	38	36	1239	299
RTOR Reduction (vph)	0	0	57	0	11	0	0	4	0	0	44	0
Lane Group Flow (vph)	94	75	40	57	373	0	220	1125	0	36	1494	0
Turn Type	pm+pt		pt+ov	pm+pt			pm+pt			pm+pt		
Protected Phases	7	4	45	3	8		5	2		1	6	
Permitted Phases	4			8			2			6		
Actuated Green, G (s)	26.2	20.9	35.5	25.8	20.7		48.3	38.7		39.7	34.4	
Effective Green, g (s)	30.2	22.9	37.5	29.8	22.7		51.0	40.7		43.7	36.4	
Actuated g/C Ratio	0.34	0.25	0.42	0.33	0.25		0.57	0.45		0.49	0.40	
Clearance Time (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)	224	469	653	468	450		308	2266		284	1977	
v/s Ratio Prot	c0.03	0.04	0.03	0.01	c0.21		c0.09	0.22		0.01	0.31	
v/s Ratio Perm	0.11			0.03			c0.31			0.05		
v/c Ratio	0.42	0.16	0.06	0.12	0.83		0.71	0.50		0.13	0.76	
Uniform Delay, d1	22.5	26.1	15.7	20.8	31.8		18.4	17.4		12.5	23.0	
Progression Factor	1.00	1.00	1.00	1.00	1.00		1.00	1.00		0.49	0.75	
Incremental Delay, d2	1.3	0.2	0.0	0.1	11.9		7.6	0.8		0.2	2.4	
Delay (s)	23.7	26.2	15.8	20.9	43.7		26.1	18.2		6.4	19.7	
Level of Service	C	C	B	C	D		C	B		A	B	
Approach Delay (s)		21.5			40.8			19.5			19.4	
Approach LOS		C			D			B			B	

Intersection Summary

HCM Average Control Delay	22.2	HCM Level of Service		C	
HCM Volume to Capacity ratio	0.72				
Actuated Cycle Length (s)	90.0	Sum of lost time (s)		9.0	
Intersection Capacity Utilization	69.2%	ICU Level of Service		C	
Analysis Period (min)	15				

c Critical Lane Group

Timings
1: McLeod Rd & San Mateo Blvd

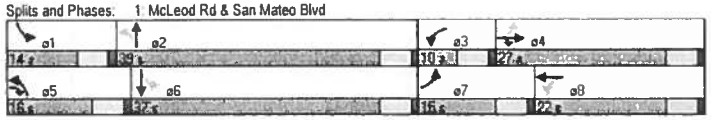
Terry O. Brown, P.E.
7/1/2009 - Synchro 7

Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations									
Volume (vph)	196	308	186	48	116	128	1508	105	1194
Turn Type	pm+pt		pt+ov	pm+pt		pm+pt		pm+pt	
Protected Phases	7	4	45	3	8	5	2	1	6
Permitted Phases	4			8		2		6	
Detector Phase	7	4	45	3	8	5	2	1	6
Switch Phase									
Minimum Initial (s)	5.0	5.0		5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	10.0	21.0		10.0	21.0	10.0	21.0	10.0	21.0
Total Split (s)	15.0	27.0	43.0	10.0	22.0	16.0	39.0	14.0	37.0
Total Split (%)	16.7%	30.0%	47.8%	11.1%	24.4%	17.8%	43.3%	15.6%	41.1%
Yellow Time (s)	4.0	4.0		4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	1.0	1.0		1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Lead/Lag	Lead	Lag		Lead	Lag	Lead	Lag	Lead	Lag
Lead-Lag Optimize?									
Recall Mode	Min	Min		Min	Min	C-Min	Min	C-Min	Min
Act Effct Green (s)	32.2	22.1	38.4	24.5	17.4	49.7	36.4	47.8	35.5
Actuated g/C Ratio	0.36	0.25	0.43	0.27	0.19	0.55	0.40	0.53	0.39
v/c Ratio	0.58	0.78	0.30	0.24	0.53	0.41	0.87	0.37	0.79
Control Delay	27.6	44.3	10.2	21.3	34.5	14.8	30.1	8.6	21.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	27.6	44.3	10.2	21.3	34.5	14.8	30.1	8.6	21.2
LOS	C	D	B	C	C	B	C	A	C
Approach Delay		30.4			31.5		29.0		20.3
Approach LOS		C			C		C		C

Intersection Summary

Cycle Length: 90
Actuated Cycle Length: 90
Offset: 42 (47%), Referenced to phase 1:SBL and 5:NBL, Start of Green
Natural Cycle: 70
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.87
Intersection Signal Delay: 26.2 — Intersection LOS: C
Intersection Capacity Utilization 70.7% — ICU Level of Service C
Analysis Period (min) 15

Splits and Phases: 1: McLeod Rd & San Mateo Blvd



HCM Signalized Intersection Capacity Analysis
1: McLeod Rd & San Mateo Blvd

Terry O. Brown, P.E.
7/1/2009 - Synchro 7

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	196	308	186	48	116	47	128	1508	90	105	1194	170
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	3.0	3.0	3.0	3.0	3.0		3.0	3.0		3.0	3.0	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00		1.00	0.91		1.00	0.91	
Frt	1.00	1.00	0.85	1.00	0.96		1.00	0.99		1.00	0.98	
Flt Protected	0.95	1.00	1.00	0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1752	1845	1568	1752	1765		1752	4993		1752	4942	
Flt Permitted	0.37	1.00	1.00	0.27	1.00		0.11	1.00		0.11	1.00	
Satd. Flow (perm)	679	1845	1568	501	1765		202	4993		208	4942	
Peak-hour factor, PHF	0.87	0.87	0.87	0.85	0.85	0.85	0.91	0.91	0.91	0.88	0.88	0.88
Adj. Flow (vph)	225	354	214	56	136	55	141	1657	99	119	1357	193
RTOR Reduction (vph)	0	0	54	0	17	0	0	7	0	0	20	0
Lane Group Flow (vph)	225	354	160	56	174	0	141	1749	0	119	1530	0
Turn Type	pm+pt		pt+ov	pm+pt			pm+pt			pm+pt		
Protected Phases	7	4	45	3	8		5	2		1	6	
Permitted Phases	4			8			2			6		
Actuated Green, G (s)	30.1	20.2	36.4	20.5	15.4		45.7	34.5		43.7	33.5	
Effective Green, g (s)	32.3	22.2	38.4	24.5	17.4		49.7	36.5		47.7	35.5	
Actuated g/C Ratio	0.36	0.25	0.43	0.27	0.19		0.55	0.41		0.53	0.39	
Clearance Time (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)	386	455	669	235	341		339	2025		320	1949	
v/s Ratio Prot	c0.08	c0.19	0.10	0.02	0.10		c0.06	c0.35		0.05	0.31	
v/s Ratio Perm	0.13			0.05			0.17			0.15		
v/c Ratio	0.58	0.78	0.24	0.24	0.51		0.42	0.86		0.37	0.79	
Uniform Delay, d1	21.7	31.6	16.5	25.1	32.5		13.8	24.5		15.0	23.9	
Progression Factor	1.00	1.00	1.00	1.00	1.00		1.00	1.00		0.53	0.78	
Incremental Delay, d2	2.2	8.2	0.2	0.5	1.3		0.8	4.1		0.6	1.8	
Delay (s)	24.0	39.8	16.7	25.6	33.8		14.6	28.6		8.6	20.4	
Level of Service	C	D	B	C	C		B	C		A	C	
Approach Delay (s)		29.1			31.9			27.5			19.5	
Approach LOS		C			C			C			B	

Intersection Summary

HCM Average Control Delay	25.1	HCM Level of Service		C	
HCM Volume to Capacity ratio	0.74				
Actuated Cycle Length (s)	90.0	Sum of lost time (s)		9.0	
Intersection Capacity Utilization	70.7%	ICU Level of Service		C	
Analysis Period (min)	15				

c Critical Lane Group

Queueing Analysis Summary Sheet

Project: San Mateo Commercial Development (San Mateo N. of McLeod)
Intersection: **McLeod Rd / San Mateo Blvd**

2012

Approach	Left Turns			Thru Movements			Right Turns		
Eastbound	# Lanes	Vol.	Length	# Lanes	Vol.	Length	# Lanes	Vol.	Length
Existing Lane Length	*1*	*85*	*200*	*1*	*69*	*Cont*	*1*	*88*	*350*
AM NO BUILD Queue	1	87	150	1	70	125	1	90	150
AM BUILD Queue	**1**	**87**	**150**	**1**	**70**	**125**	**1**	**90**	**150**
Existing Lane Length	*1*	*192*	*200*	*1*	*302*	*Cont*	*1*	*182*	*350*
PM NO BUILD Queue	1	196	300	1	308	425	1	186	275
PM BUILD Queue	**1**	**196**	**300**	**1**	**308**	**425**	**1**	**186**	**275**
Westbound	# Lanes	Vol.	Length	# Lanes	Vol.	Length	# Lanes	Vol.	Length
Existing Lane Length	*1*	*42*	*100*	*1*	*224*	*Cont*	*0*	*53*	*0*
AM NO BUILD Queue	1	43	100	1	227	300	0	54	100
AM BUILD Queue	**1**	**43**	**100**	**1**	**227**	**300**	**0**	**63**	**125**
Existing Lane Length	*1*	*47*	*100*	*1*	*114*	*Cont*	*0*	*46*	*0*
PM NO BUILD Queue	1	48	100	1	116	200	0	47	100
PM BUILD Queue	**1**	**48**	**100**	**1**	**116**	**200**	**0**	**54**	**100**
Northbound	# Lanes	Vol.	Length	# Lanes	Vol.	Length	# Lanes	Vol.	Length
Existing Lane Length	*1*	*154*	*75*	*3*	*688*	*Cont*	*0*	*27*	*0*
AM NO BUILD Queue	1	174	250	3	777	375	0	30	75
AM BUILD Queue	**1**	**174**	**250**	**3**	**890**	**425**	**0**	**30**	**75**
Existing Lane Length	*1*	*113*	*75*	*3*	*1,336*	*Cont*	*0*	*80*	*0*
PM NO BUILD Queue	1	128	200	3	1,508	**725**	0	90	150
PM BUILD Queue	**1**	**128**	**200**	**3**	**1,596**	**750**	**0**	**90**	**150**
Southbound	# Lanes	Vol.	Length	# Lanes	Vol.	Length	# Lanes	Vol.	Length
Existing Lane Length	*1*	*24*	*130*	*3*	*960*	*Cont*	*0*	*248*	*0*
AM NO BUILD Queue	1	24	50	3	972	450	0	251	325
AM BUILD Queue	**1**	**31**	**75**	**3**	**1,064**	**500**	**0**	**251**	**325**
Existing Lane Length	*1*	*104*	*130*	*3*	*1,180*	*Cont*	*0*	*168*	*0*
PM NO BUILD Queue	1	105	**175**	3	1,194	**575**	0	170	250
PM BUILD Queue	**1**	**111**	**200**	**3**	**1,274**	**625**	**0**	**170**	**250**

	AM	PM
Cycle Length:	120	130

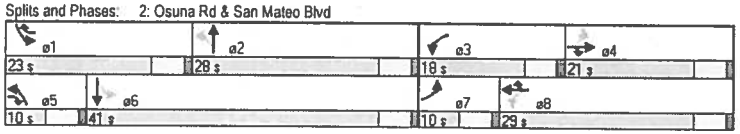
NOTE: Queue lengths are in feet.

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT
Lane Configurations										
Volume (vph)	52	88	18	209	82	393	24	722	249	1089
Turn Type	pm+pt		pt+ov	pm+pt		pt+ov	pm+pt		pm+pt	
Protected Phases	7	4	4 5	3	8	8 1	5	2	1	6
Permitted Phases	4			8			2		6	
Detector Phase	7	4	4 5	3	8	8 1	5	2	1	6
Switch Phase										
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	5.0	5.0	5.0
Minimum Split (s)	10.0	21.0		10.0	21.0		10.0	21.0	10.0	21.0
Total Split (s)	10.0	21.0	31.0	18.0	29.0	52.0	10.0	28.0	23.0	41.0
Total Split (%)	11.1%	23.3%	34.4%	20.0%	32.2%	57.8%	11.1%	31.1%	25.6%	45.6%
Yellow Time (s)	4.0	4.0		4.0	4.0		4.0	4.0	4.0	4.0
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0	1.0	1.0
Lost Time Adjust (s)	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Lead/Lag	Lead	Lag		Lead	Lag		Lead	Lag	Lead	Lag
Lead-Lag Optimize?										
Recall Mode	Min	Min		Min	Min		Min	C-Min	Min	C-Min
Act Effct Green (s)	22.6	15.0	25.6	32.8	22.2	41.8	39.2	31.6	51.2	40.7
Actuated g/C Ratio	0.25	0.17	0.28	0.36	0.25	0.46	0.44	0.35	0.57	0.45
v/c Ratio	0.16	0.31	0.04	0.55	0.23	0.61	0.12	0.57	0.67	0.56
Control Delay	19.2	34.7	9.8	25.4	27.1	14.6	10.8	16.3	21.7	19.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	19.2	34.7	9.8	25.4	27.1	14.6	10.8	16.3	21.7	19.9
LOS	B	C	A	C	C	B	B	B	C	B
Approach Delay		26.8			19.4			16.1		20.2
Approach LOS		C			B			B		C

Intersection Summary

Cycle Length: 90
Actuated Cycle Length: 90
Offset: 12 (13%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green
Natural Cycle: 65
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.67
Intersection Signal Delay: 19.2 — Intersection LOS: B
Intersection Capacity Utilization 57.4% — ICU Level of Service B
Analysis Period (min) 15

Splits and Phases: 2: Osuna Rd & San Mateo Blvd



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	52	88	18	209	82	393	24	722	64	249	1089	16
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.91		1.00	0.91	
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	0.99		1.00	1.00	
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1752	1845	1568	1752	1845	1568	1752	4974		1752	5025	
Flt Permitted	0.69	1.00	1.00	0.53	1.00	1.00	0.17	1.00		0.16	1.00	
Satd. Flow (perm)	1272	1845	1568	985	1845	1568	312	4974		292	5025	
Peak-hour factor, PHF	0.93	0.93	0.93	0.79	0.79	0.79	0.79	0.79	0.79	0.86	0.86	0.86
Adj. Flow (vph)	56	95	19	265	104	497	30	914	81	290	1266	19
RTOR Reduction (vph)	0	0	14	0	0	81	0	10	0	0	2	0
Lane Group Flow (vph)	56	95	5	265	104	416	30	985	0	290	1283	0
Turn Type	pm+pt		pt+ov	pm+pt		pt+ov	pm+pt			pm+pt		
Protected Phases	7	4	4 5	3	8	8 1	5	2		1	6	
Permitted Phases	4			8			2			6		
Actuated Green, G (s)	18.5	13.0	23.5	30.7	20.2	39.8	35.2	29.7		49.3	38.8	
Effective Green, g (s)	22.5	15.0	25.5	32.7	22.2	41.8	39.2	31.7		51.3	40.8	
Actuated g/C Ratio	0.25	0.17	0.28	0.36	0.25	0.46	0.44	0.35		0.57	0.45	
Clearance Time (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)	358	308	444	483	455	728	256	1752		436	2278	
v/s Ratio Prot	0.01	0.05	0.00	c0.09	0.06	c0.27	0.01	0.20		c0.12	0.26	
v/s Ratio Perm	0.03			0.11			0.04			c0.26		
v/c Ratio	0.16	0.31	0.01	0.55	0.23	0.57	0.12	0.56		0.67	0.56	
Uniform Delay, d1	26.1	32.9	23.2	21.6	27.1	17.6	14.8	23.5		12.8	18.1	
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	0.88	0.60		1.00	1.00	
Incremental Delay, d2	0.2	0.6	0.0	1.3	0.3	1.1	0.2	1.2		3.8	1.0	
Delay (s)	26.4	33.5	23.2	22.9	27.3	18.7	13.2	15.4		16.6	19.1	
Level of Service	C	C	C	C	C	B	B	B		B	B	
Approach Delay (s)		30.0			21.0			15.4			18.6	
Approach LOS		C			C			B			B	

Intersection Summary

HCM Average Control Delay	18.8	HCM Level of Service		B	
HCM Volume to Capacity ratio	0.61				
Actuated Cycle Length (s)	90.0	Sum of lost time (s)		3.0	
Intersection Capacity Utilization	57.4%	ICU Level of Service		B	
Analysis Period (min)	15				
c Critical Lane Group					

Timings
2: Osuna Rd & San Mateo Blvd

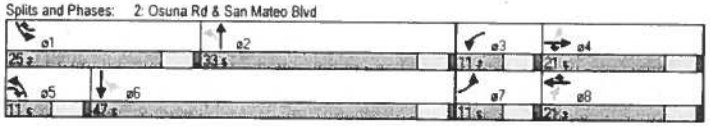
Terry O. Brown, P.E.
7/1/2009 - Synchro 7

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT
Lane Configurations										
Volume (vph)	182	269	66	178	53	392	76	1323	352	1288
Turn Type	pm+pt		pt+ov	pm+pt		pt+ov	pm+pt		pm+pt	
Protected Phases	7	4	4 5	3	8	8 1	5	2	1	6
Permitted Phases	4			8			2		6	
Detector Phase	7	4	4 5	3	8	8 1	5	2	1	6
Switch Phase										
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	5.0	5.0	5.0
Minimum Split (s)	10.0	21.0		10.0	21.0		10.0	21.0	10.0	21.0
Total Split (s)	11.0	21.0	32.0	11.0	21.0	46.0	11.0	33.0	25.0	47.0
Total Split (%)	12.2%	23.3%	35.6%	12.2%	23.3%	51.1%	12.2%	36.7%	27.8%	52.2%
Yellow Time (s)	4.0	4.0		4.0	4.0		4.0	4.0	4.0	4.0
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0	1.0	1.0
Lost Time Adjust (s)	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Lead/Lag	Lead	Lag		Lead	Lag		Lead	Lag	Lead	Lag
Lead-Lag Optimize?										
Recall Mode	Min	Min		Min	Min		C-Min	Min	C-Min	Min
Act Effct Green (s)	25.9	17.5	29.4	26.3	17.7	41.5	39.9	31.0	54.9	42.9
Actuated g/C Ratio	0.29	0.19	0.33	0.29	0.20	0.46	0.44	0.34	0.61	0.48
v/c Ratio	0.46	0.81	0.13	0.77	0.16	0.56	0.30	0.91	0.78	0.60
Control Delay	28.0	53.2	11.5	46.8	31.2	17.5	12.9	18.0	31.9	18.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	28.0	53.2	11.5	46.8	31.2	17.5	12.9	18.0	31.9	18.2
LOS	C	D	B	D	C	B	B	B	C	B
Approach Delay		39.0			27.0			17.7		21.1
Approach LOS		D			C			B		C

Intersection Summary

Cycle Length: 90
Actuated Cycle Length: 90
Offset: 76 (84%), Referenced to phase 1:SBL and 5:NBL, Start of Green
Natural Cycle: 80
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.91
Intersection Signal Delay: 22.9 — Intersection LOS: C
Intersection Capacity Utilization 85.8% — ICU Level of Service E
Analysis Period (min) 15

Splits and Phases: 2: Osuna Rd & San Mateo Blvd



HCM Signalized Intersection Capacity Analysis
2: Osuna Rd & San Mateo Blvd

Terry O. Brown, P.E.
7/1/2009 - Synchro 7

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	182	269	66	178	53	392	76	1323	150	352	1288	29
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.91		1.00	0.91	
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	0.98		1.00	1.00	
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1752	1845	1568	1752	1845	1568	1752	4959		1752	5019	
Flt Permitted	0.72	1.00	1.00	0.23	1.00	1.00	0.15	1.00		0.12	1.00	
Satd. Flow (perm)	1327	1845	1568	417	1845	1568	275	4959		217	5019	
Peak-hour factor, PHF	0.93	0.93	0.93	0.92	0.92	0.92	0.94	0.94	0.94	0.92	0.92	0.92
Adj. Flow (vph)	196	289	71	193	58	426	81	1407	160	383	1400	32
RTOR Reduction (vph)	0	0	29	0	0	38	0	15	0	0	3	0
Lane Group Flow (vph)	196	289	42	193	58	388	81	1552	0	383	1429	0
Turn Type	pm+pt		pt+ov	pm+pt		pt+ov	pm+pt			pm+pt		
Protected Phases	7	4	4 5	3	8	8 1	5	2		1	6	
Permitted Phases	4			8			2			6		
Actuated Green, G (s)	22.0	15.5	27.4	22.4	15.7	39.5	35.9	29.0		52.8	40.9	
Effective Green, g (s)	26.0	17.5	29.4	26.4	17.7	41.5	39.9	31.0		54.8	42.9	
Actuated g/C Ratio	0.29	0.19	0.33	0.29	0.20	0.46	0.44	0.34		0.61	0.48	
Clearance Time (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)	423	359	512	251	363	723	268	1708		487	2392	
v/s Ratio Prot	0.04	c0.16	0.03	c0.07	0.03	0.25	0.03	c0.31		c0.18	0.28	
v/s Ratio Perm	0.09			0.15			0.10			0.30		
v/c Ratio	0.46	0.81	0.08	0.77	0.16	0.54	0.30	0.91		0.79	0.60	
Uniform Delay, d1	25.6	34.6	21.0	26.1	30.0	17.4	14.8	28.1		22.3	17.2	
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.13	0.41		1.00	1.00	
Incremental Delay, d2	0.8	12.3	0.1	13.2	0.2	0.8	0.3	4.3		8.2	0.4	
Delay (s)	26.4	47.0	21.0	39.3	30.2	18.1	17.1	16.0		30.4	17.6	
Level of Service	C	D	C	D	C	B	B	B		C	B	
Approach Delay (s)		36.4			25.2			16.0			20.3	
Approach LOS		D			C			B			C	

Intersection Summary

HCM Average Control Delay	21.4	HCM Level of Service		C	
HCM Volume to Capacity ratio	0.84				
Actuated Cycle Length (s)	90.0	Sum of lost time (s)		12.0	
Intersection Capacity Utilization	85.8%	ICU Level of Service		E	
Analysis Period (min)	15				

c Critical Lane Group

Timings
2: Osuna Rd & San Mateo Blvd

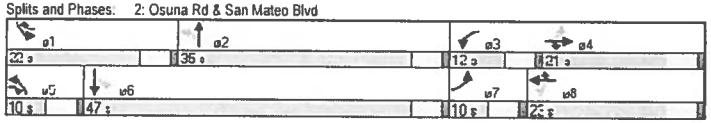
Terry O. Brown, P.E.
7/1/2009 - Synchro 7

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT
Lane Configurations										
Volume (vph)	182	269	66	190	53	392	76	1359	352	1327
Turn Type	pm+pt		pt+ov	pm+pt		pt+ov	pm+pt		pm+pt	
Protected Phases	7	4	4 5	3	8	8 1	5	2	1	6
Permitted Phases	4			8			2		6	
Detector Phase	7	4	4 5	3	8	8 1	5	2	1	6
Switch Phase										
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	5.0	5.0	5.0
Minimum Split (s)	10.0	21.0		10.0	21.0		10.0	21.0	10.0	21.0
Total Split (s)	10.0	21.0	31.0	12.0	23.0	45.0	10.0	35.0	22.0	47.0
Total Split (%)	11.1%	23.3%	34.4%	13.3%	25.6%	50.0%	11.1%	38.9%	24.4%	52.2%
Yellow Time (s)	4.0	4.0		4.0	4.0		4.0	4.0	4.0	4.0
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0	1.0	1.0
Lost Time Adjust (s)	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Lead/Lag	Lead	Lag		Lead	Lag		Lead	Lag	Lead	Lag
Lead-Lag Optimize?										
Recall Mode	Min	Min		Min	Min		Min	C-Min	Min	C-Min
Act Effct Green (s)	24.6	17.5	27.6	28.6	19.5	40.6	40.4	33.3	54.4	44.3
Actuated g/C Ratio	0.27	0.19	0.31	0.32	0.22	0.45	0.45	0.37	0.60	0.49
v/c Ratio	0.50	0.81	0.14	0.80	0.15	0.58	0.35	0.88	0.88	0.60
Control Delay	28.8	53.2	13.2	48.0	29.3	19.1	16.4	19.1	44.2	17.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	28.8	53.2	13.2	48.0	29.3	19.1	16.4	19.1	44.2	17.7
LOS	C	D	B	D	C	B	B	B	D	B
Approach Delay		39.5			28.6			19.0		23.1
Approach LOS		D			C			B		C

Intersection Summary

Cycle Length: 90
Actuated Cycle Length: 90
Offset: 8 (9%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green
Natural Cycle: 80
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.88
Intersection Signal Delay: 24.4 — Intersection LOS: C
Intersection Capacity Utilization 87.4% — ICU Level of Service E
Analysis Period (min) 15

Splits and Phases: 2: Osuna Rd & San Mateo Blvd



HCM Signalized Intersection Capacity Analysis
2: Osuna Rd & San Mateo Blvd

Terry O. Brown, P.E.
7/1/2009 - Synchro 7

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	182	269	66	190	53	392	76	1359	181	352	1327	29
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.91		1.00	0.91	
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	0.98		1.00	1.00	
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1752	1845	1568	1752	1845	1568	1752	4956		1752	5020	
Flt Permitted	0.72	1.00	1.00	0.21	1.00	1.00	0.14	1.00		0.11	1.00	
Satd. Flow (perm)	1327	1845	1568	378	1845	1568	257	4956		204	5020	
Peak-hour factor, PHF	0.93	0.93	0.93	0.92	0.92	0.92	0.94	0.94	0.94	0.92	0.92	0.92
Adj. Flow (vph)	196	289	71	207	58	426	81	1446	171	383	1442	32
RTOR Reduction (vph)	0	0	26	0	0	30	0	16	0	0	3	0
Lane Group Flow (vph)	196	289	45	207	58	396	81	1601	0	383	1471	0
Turn Type	pm+pt		pt+ov	pm+pt		pt+ov	pm+pt			pm+pt		
Protected Phases	7	4	4 5	3	8	8 1	5	2		1	6	
Permitted Phases	4			8			2			6		
Actuated Green, G (s)	20.6	15.5	25.6	24.6	17.5	38.7	36.3	31.2		52.4	42.3	
Effective Green, g (s)	24.6	17.5	27.6	28.6	19.5	40.7	40.3	33.2		54.4	44.3	
Actuated g/C Ratio	0.27	0.19	0.31	0.32	0.22	0.45	0.45	0.37		0.60	0.49	
Clearance Time (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)	396	359	481	259	400	709	233	1828		436	2471	
v/s Ratio Prot	0.04	0.16	0.03	c0.08	0.03	0.25	0.03	0.32		c0.18	0.29	
v/s Ratio Perm	0.10			c0.17			0.13			c0.35		
v/c Ratio	0.49	0.81	0.09	0.80	0.14	0.56	0.35	0.88		0.88	0.60	
Uniform Delay, d1	26.8	34.6	22.3	24.9	28.5	18.1	14.6	26.5		24.4	16.4	
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.36	0.53		1.00	1.00	
Incremental Delay, d2	1.0	12.3	0.1	15.7	0.2	1.0	0.6	4.3		17.8	1.1	
Delay (s)	27.8	47.0	22.4	40.6	28.7	19.0	20.5	18.3		42.2	17.5	
Level of Service	C	D	C	D	C	B	C	B		D	B	
Approach Delay (s)		37.0			26.3			18.4			22.6	
Approach LOS		D			C			B			C	

Intersection Summary

HCM Average Control Delay	23.3	HCM Level of Service		C	
HCM Volume to Capacity ratio	0.87				
Actuated Cycle Length (s)	90.0	Sum of lost time (s)		9.0	
Intersection Capacity Utilization	87.4%	ICU Level of Service		E	
Analysis Period (min)	15				

c Critical Lane Group

Queueing Analysis Summary Sheet

Project: San Mateo Commercial Development (San Mateo N. of McLeod)
Intersection: **Osuna Rd / San Mateo Blvd**

2012

Approach	Left Turns			Thru Movements			Right Turns		
Eastbound	# Lanes	Vol.	Length	# Lanes	Vol.	Length	# Lanes	Vol.	Length
Existing Lane Length	*1*	*51*	*130*	*1*	*87*	*Cont*	*1*	*18*	*130*
AM NO BUILD Queue	1	52	100	1	88	150	1	18	50
AM BUILD Queue	**1**	**52**	**100**	**1**	**88**	**150**	**1**	**18**	**50**
Existing Lane Length	*1*	*179*	*130*	*1*	*265*	*Cont*	*1*	*65*	*130*
PM NO BUILD Queue	1	182	275	1	269	375	1	66	125
PM BUILD Queue	**1**	**182**	**275**	**1**	**269**	**375**	**1**	**66**	**125**
Westbound	# Lanes	Vol.	Length	# Lanes	Vol.	Length	# Lanes	Vol.	Length
Existing Lane Length	*1*	*176*	*190*	*1*	*74*	*Cont*	*1*	*356*	*175*
AM NO BUILD Queue	1	194	275	1	82	150	1	393	475
AM BUILD Queue	**1**	**214**	**300**	**1**	**82**	**150**	**1**	**393**	**475**
Existing Lane Length	*1*	*161*	*190*	*1*	*48*	*Cont*	*1*	*355*	*175*
PM NO BUILD Queue	1	178	**275**	1	53	100	1	392	525
PM BUILD Queue	**1**	**194**	**300**	**1**	**53**	**100**	**1**	**392**	**525**
Northbound	# Lanes	Vol.	Length	# Lanes	Vol.	Length	# Lanes	Vol.	Length
Existing Lane Length	*1*	*24*	*130*	*3*	*673*	*Cont*	*0*	*51*	*0*
AM NO BUILD Queue	1	24	50	3	681	350	0	52	100
AM BUILD Queue	**1**	**24**	**50**	**3**	**736**	**375**	**0**	**69**	**125**
Existing Lane Length	*1*	*75*	*130*	*3*	*1,307*	*Cont*	*0*	*148*	*0*
PM NO BUILD Queue	1	76	150	3	1,323	650	0	150	**225**
PM BUILD Queue	**1**	**76**	**150**	**3**	**1,371**	**650**	**0**	**164**	**250**
Southbound	# Lanes	Vol.	Length	# Lanes	Vol.	Length	# Lanes	Vol.	Length
Existing Lane Length	*1*	*245*	*130*	*3*	*1,024*	*Cont*	*0*	*16*	*0*
AM NO BUILD Queue	1	249	325	3	1,039	500	0	16	50
AM BUILD Queue	**1**	**249**	**325**	**3**	**1,106**	**525**	**0**	**16**	**50**
Existing Lane Length	*1*	*347*	*130*	*3*	*1,269*	*Cont*	*0*	*29*	*0*
PM NO BUILD Queue	1	352	475	3	1,288	**625**	0	29	75
PM BUILD Queue	**1**	**352**	**475**	**3**	**1,340**	**650**	**0**	**29**	**75**

	AM	PM
Cycle Length:	120	130

NOTE: Queue lengths are in feet.

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (veh/h)	71	49	114	814	1228	37
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.85	0.85	0.84	0.84	0.84	0.84
Hourly flow rate (vph)	84	58	136	969	1462	44
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type				Raised	Raised	
Median storage veh)				1	1	
Upstream signal (ft)				529		
pX, platoon unblocked	0.89					
vC, conflicting volume	2078	509	1506			
vC1, stage 1 conf vol	1484					
vC2, stage 2 conf vol	594					
vCu, unblocked vol	1772	509	1506			
tC, single (s)	6.9	7.0	4.2			
tC, 2 stage (s)	5.9					
tF (s)	3.5	3.3	2.2			
p0 queue free %	38	89	69			
cM capacity (veh/h)	134	506	436			

Direction, Lane #	EB 1	EB 2	NB 1	NB 2	NB 3	NB 4	SB 1	SB 2	SB 3
Volume Total	84	58	136	323	323	323	585	585	336
Volume Left	84	0	136	0	0	0	0	0	0
Volume Right	0	58	0	0	0	0	0	0	44
cSH	134	506	436	1700	1700	1700	1700	1700	1700
Volume to Capacity	0.62	0.11	0.31	0.19	0.19	0.19	0.34	0.34	0.20
Queue Length 95th (ft)	81	10	33	0	0	0	0	0	0
Control Delay (s)	68.0	13.0	17.0	0.0	0.0	0.0	0.0	0.0	0.0
Lane LOS	F	B	C						
Approach Delay (s)	45.6		2.1				0.0		
Approach LOS	E								

Intersection Summary			
Average Delay	3.2		
Intersection Capacity Utilization	44.8%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (veh/h)	82	52	117	1571	1459	32
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.85	0.85	0.88	0.88	0.88	0.88
Hourly flow rate (vph)	96	61	133	1785	1658	36
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type				Raised	Raised	
Median storage veh)				1	1	
Upstream signal (ft)				529		
pX, platoon unblocked	0.71					
vC, conflicting volume	2537	571	1694			
vC1, stage 1 conf vol	1676					
vC2, stage 2 conf vol	861					
vCu, unblocked vol	1728	571	1694			
tC, single (s)	6.9	7.0	4.2			
tC, 2 stage (s)	5.9					
tF (s)	3.5	3.3	2.2			
p0 queue free %	9	87	64			
cM capacity (veh/h)	106	462	368			

Direction, Lane #	EB 1	EB 2	NB 1	NB 2	NB 3	NB 4	SB 1	SB 2	SB 3
Volume Total	96	61	133	595	595	595	663	663	368
Volume Left	96	0	133	0	0	0	0	0	0
Volume Right	0	61	0	0	0	0	0	0	36
cSH	106	462	368	1700	1700	1700	1700	1700	1700
Volume to Capacity	0.91	0.13	0.36	0.35	0.35	0.35	0.39	0.39	0.22
Queue Length 95th (ft)	136	11	40	0	0	0	0	0	0
Control Delay (s)	137.0	14.0	20.2	0.0	0.0	0.0	0.0	0.0	0.0
Lane LOS	F	B	C						
Approach Delay (s)	89.2		1.4				0.0		
Approach LOS	F								

Intersection Summary			
Average Delay	4.4		
Intersection Capacity Utilization	49.9%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (veh/h)	0	49	0	832	1254	59
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.85	0.85	0.88	0.88	0.88	0.88
Hourly flow rate (vph)	0	58	0	945	1425	67
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type				Raised	Raised	
Median storage veh)				1	1	
Upstream signal (ft)				789		
pX, platoon unblocked	0.95					
vC, conflicting volume	1774	509	1492			
vC1, stage 1 conf vol	1459					
vC2, stage 2 conf vol	315					
vCu, unblocked vol	1623	509	1492			
tC, single (s)	6.9	7.0	4.2			
tC, 2 stage (s)	5.9					
tF (s)	3.5	3.3	2.2			
p0 queue free %	100	89	100			
cM capacity (veh/h)	154	507	441			

Direction, Lane #	EB 1	NB 1	NB 2	NB 3	SB 1	SB 2	SB 3
Volume Total	58	315	315	315	570	570	352
Volume Left	0	0	0	0	0	0	0
Volume Right	58	0	0	0	0	0	67
cSH	507	1700	1700	1700	1700	1700	1700
Volume to Capacity	0.11	0.19	0.19	0.19	0.34	0.34	0.21
Queue Length 95th (ft)	10	0	0	0	0	0	0
Control Delay (s)	13.0	0.0	0.0	0.0	0.0	0.0	0.0
Lane LOS	B						
Approach Delay (s)	13.0	0.0			0.0		
Approach LOS	B						

Intersection Summary			
Average Delay	0.3		
Intersection Capacity Utilization	35.5%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (veh/h)	0	52	0	1591	1481	55
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.85	0.85	0.88	0.88	0.88	0.88
Hourly flow rate (vph)	0	61	0	1808	1683	62
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type				None	None	
Median storage veh)						
Upstream signal (ft)				789		
pX, platoon unblocked	0.73					
vC, conflicting volume	2317	592	1745			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	1527	592	1745			
tC, single (s)	6.9	7.0	4.2			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	100	86	100			
cM capacity (veh/h)	79	447	351			

Direction, Lane #	EB 1	NB 1	NB 2	NB 3	SB 1	SB 2	SB 3
Volume Total	61	603	603	603	673	673	399
Volume Left	0	0	0	0	0	0	0
Volume Right	61	0	0	0	0	0	62
cSH	447	1700	1700	1700	1700	1700	1700
Volume to Capacity	0.14	0.35	0.35	0.35	0.40	0.40	0.23
Queue Length 95th (ft)	12	0	0	0	0	0	0
Control Delay (s)	14.3	0.0	0.0	0.0	0.0	0.0	0.0
Lane LOS	B						
Approach Delay (s)	14.3	0.0			0.0		
Approach LOS	B						

Intersection Summary				
Average Delay	0.2			
Intersection Capacity Utilization	39.8%	ICU Level of Service		A
Analysis Period (min)	15			

Traffic Count Data Sheet

Year Counts Taken: **2009**

E-W Street **McLeod Rd**
N-S Street: **San Mateo Blvd**

Speed Limit (McLeod Rd)= **35** MPH
Speed Limit (San Mateo Blvd)= **40** MPH
Date of Count: **6/9/09**

Begin Time	End Time	Eastbound (McLeod Rd)			Westbound (McLeod Rd)			Northbound (San Mateo Blvd)			Southbound (San Mateo Blvd)		
		L	T	R	L	T	R	L	T	R	L	T	R
7:00 AM	7:15 AM	~~16~~	~~15~~	~~10~~	~~5~~	~~34~~	~~4~~	~~26~~	~~107~~	~~2~~	~~5~~	~~140~~	~~28~~
7:15 AM	7:30 AM	~~19~~	~~6~~	~~17~~	~~15~~	~~61~~	~~13~~	~~24~~	~~120~~	~~3~~	~~8~~	~~168~~	~~41~~
7:30 AM	7:45 AM	~~12~~	~~13~~	~~12~~	~~9~~	~~64~~	~~11~~	~~43~~	~~146~~	~~4~~	~~10~~	~~206~~	~~73~~
7:45 AM	8:00 AM	**19**	**18**	**23**	**12**	**85**	**15**	**54**	**212**	**8**	**6**	**275**	**84**
8:00 AM	8:15 AM	**24**	**17**	**18**	**11**	**56**	**12**	**45**	**167**	**6**	**5**	**224**	**60**
8:15 AM	8:30 AM	**24**	**14**	**20**	**6**	**45**	**8**	**31**	**156**	**5**	**9**	**231**	**51**
8:30 AM	8:45 AM	**18**	**20**	**27**	**13**	**38**	**18**	**24**	**153**	**8**	**4**	**230**	**53**
8:45 AM	9:00 AM	~~32~~	~~14~~	~~37~~	~~12~~	~~44~~	~~14~~	~~20~~	~~155~~	~~11~~	~~8~~	~~207~~	~~46~~
AM Peak Hour Volumes		**85**	**69**	**88**	**42**	**224**	**53**	**154**	**688**	**27**	**24**	**960**	**248**
% of Total Traffic		3.2%	2.6%	3.3%	1.6%	8.4%	2.0%	5.8%	25.8%	1.0%	0.9%	36.1%	9.3%
% Directional			9.1%			12.0%			32.6%			46.3%	
AM Peak Hour Factor			*0.93*			*0.71*			*0.79*			*0.84*	

Begin Time	End Time	Eastbound (McLeod Rd)			Westbound (McLeod Rd)			Northbound (San Mateo Blvd)			Southbound (San Mateo Blvd)		
		L	T	R	L	T	R	L	T	R	L	T	R
4:00 PM	4:15 PM	~~46~~	~~55~~	~~43~~	~~3~~	~~28~~	~~14~~	~~30~~	~~254~~	~~19~~	~~15~~	~~234~~	~~44~~
4:15 PM	4:30 PM	~~42~~	~~44~~	~~47~~	~~9~~	~~32~~	~~7~~	~~20~~	~~301~~	~~12~~	~~14~~	~~314~~	~~48~~
4:30 PM	4:45 PM	~~39~~	~~80~~	~~38~~	~~8~~	~~27~~	~~11~~	~~42~~	~~309~~	~~17~~	~~21~~	~~248~~	~~37~~
4:45 PM	5:00 PM	**42**	**48**	**45**	**14**	**32**	**7**	**36**	**327**	**14**	**20**	**282**	**41**
5:00 PM	5:15 PM	**66**	**83**	**46**	**11**	**26**	**12**	**27**	**317**	**27**	**30**	**281**	**41**
5:15 PM	5:30 PM	**40**	**86**	**43**	**12**	**36**	**13**	**28**	**367**	**23**	**31**	**342**	**40**
5:30 PM	5:45 PM	**44**	**85**	**48**	**10**	**20**	**14**	**22**	**325**	**16**	**23**	**275**	**46**
5:45 PM	6:00 PM	~~28~~	~~45~~	~~34~~	~~9~~	~~44~~	~~6~~	~~21~~	~~320~~	~~19~~	~~16~~	~~245~~	~~45~~
PM Peak Hour Volumes		**192**	**302**	**182**	**47**	**114**	**46**	**113**	**1336**	**80**	**104**	**1180**	**168**
% of Total Traffic		5.0%	7.8%	4.7%	1.2%	3.0%	1.2%	2.9%	34.6%	2.1%	2.7%	30.5%	4.3%
% Directional			17.5%			5.4%			39.6%			37.6%	
PM Peak Hour Factor			*0.87*			*0.85*			*0.91*			*0.88*	

Traffic Count Data Sheet

Year Counts Taken: **2009**

E-W Street **Osuna Blvd**

N-S Street: **San Mateo Blvd**

Speed Limit (Osuna Blvd)= **35** MPH

Speed Limit (San Mateo Blvd)= **40** MPH

Date of Count: **6/11/09**

Begin Time	End Time	Eastbound (Osuna Blvd)			Westbound (Osuna Blvd)			Northbound (San Mateo Blvd)			Southbound (San Mateo Blvd)		
		L	T	R	L	T	R	L	T	R	L	T	R
7:00 AM	7:15 AM	~~5~~	~~14~~	~~0~~	~~25~~	~~5~~	~~55~~	~~0~~	~~107~~	~~7~~	~~40~~	~~149~~	~~0~~
7:15 AM	7:30 AM	~~7~~	~~14~~	~~2~~	~~33~~	~~7~~	~~76~~	~~3~~	~~140~~	~~9~~	~~66~~	~~203~~	~~4~~
7:30 AM	7:45 AM	**13**	**24**	**1**	**44**	**11**	**96**	**3**	**131**	**12**	**65**	**262**	**3**
7:45 AM	8:00 AM	**13**	**21**	**3**	**49**	**35**	**107**	**10**	**213**	**13**	**74**	**295**	**6**
8:00 AM	8:15 AM	**13**	**25**	**4**	**47**	**18**	**78**	**3**	**169**	**9**	**51**	**256**	**2**
8:15 AM	8:30 AM	**12**	**17**	**10**	**36**	**10**	**75**	**8**	**160**	**17**	**55**	**211**	**5**
8:30 AM	8:45 AM	~~12~~	~~22~~	~~4~~	~~28~~	~~6~~	~~71~~	~~3~~	~~150~~	~~10~~	~~63~~	~~203~~	~~5~~
8:45 AM	9:00 AM	~~14~~	~~25~~	~~5~~	~~40~~	~~12~~	~~66~~	~~9~~	~~169~~	~~22~~	~~66~~	~~251~~	~~2~~
AM Peak Hour Volumes		**51**	**87**	**18**	**176**	**74**	**356**	**24**	**673**	**51**	**245**	**1024**	**16**
% of Total Traffic		1.8%	3.1%	0.6%	6.3%	2.6%	12.7%	0.9%	24.1%	1.8%	8.8%	36.6%	0.6%
% Directional			5.6%			21.7%			26.8%			46.0%	
AM Peak Hour Factor			*0.93*			*0.79*			*0.79*			*0.86*	

Begin Time	End Time	Eastbound (Osuna Blvd)			Westbound (Osuna Blvd)			Northbound (San Mateo Blvd)			Southbound (San Mateo Blvd)		
		L	T	R	L	T	R	L	T	R	L	T	R
4:00 PM	4:15 PM	~~54~~	~~48~~	~~56~~	~~42~~	~~22~~	~~62~~	~~16~~	~~272~~	~~30~~	~~48~~	~~296~~	~~9~~
4:15 PM	4:30 PM	~~41~~	~~49~~	~~28~~	~~37~~	~~10~~	~~65~~	~~16~~	~~342~~	~~36~~	~~58~~	~~320~~	~~8~~
4:30 PM	4:45 PM	~~42~~	~~66~~	~~14~~	~~47~~	~~16~~	~~84~~	~~12~~	~~288~~	~~33~~	~~66~~	~~293~~	~~9~~
4:45 PM	5:00 PM	**37**	**51**	**22**	**43**	**13**	**70**	**26**	**333**	**43**	**74**	**304**	**6**
5:00 PM	5:15 PM	**48**	**74**	**11**	**50**	**9**	**77**	**11**	**318**	**36**	**80**	**337**	**12**
5:15 PM	5:30 PM	**50**	**67**	**20**	**30**	**16**	**108**	**25**	**345**	**36**	**103**	**337**	**5**
5:30 PM	5:45 PM	**44**	**73**	**12**	**38**	**10**	**100**	**13**	**311**	**33**	**90**	**291**	**6**
5:45 PM	6:00 PM	~~35~~	~~51~~	~~12~~	~~44~~	~~15~~	~~91~~	~~15~~	~~337~~	~~34~~	~~69~~	~~256~~	~~5~~
PM Peak Hour Volumes		**179**	**265**	**65**	**161**	**48**	**355**	**75**	**1307**	**148**	**347**	**1269**	**29**
% of Total Traffic		4.2%	6.2%	1.5%	3.8%	1.1%	8.4%	1.8%	30.8%	3.5%	8.2%	29.9%	0.7%
% Directional			12.0%			13.3%			36.0%			38.7%	
PM Peak Hour Factor			*0.93*			*0.92*			*0.94*			*0.92*	