Terry O. Brown P.E.

Heritage Neighborhood Marketplace Development

(Ladera Dr. / Unser Blvd.)

Traffic Impact Study

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Presented to:

City of Albuquerque
Transportation Development Section
&
New Mexico Department of Transportation
District 3

Prepared for:

SunCal Companies
401 Coors Blvd. NW
Albuquerque, NM 87121

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

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TRAFFIC IMPACT STUDY

STUDY PURPOSE

This study is being conducted in conjunction with a request for approval of a retail commercial development plan such as the one shown in the Appendix (Page A-2) of this report. The purpose of this study is to identify the impact of the proposed Development on the adjacent transportation system, and to make recommendations to mitigate any significant adverse impact on the adjacent transportation system resulting from the implementation of the new development. This study is based on the assumption that the land uses and densities implemented in the development of the proposed site development plan will be similar to those defined in the table on Page A-5 in the Appendix of this report. Should the developer propose a combination of land uses and / or densities that would significantly increase the overall traffic generation for the Heritage Neighborhood Marketplace Development, an update to this study would be required reflecting the proposed new conditions.

STUDY PROCEDURES

A scoping meeting was held on Thursday, September 13, 2007 with City of Albuquerque Transportation Development staff (Tony Loyd and John Hartmann) prior to beginning the study to discuss scope and methodology to be utilized within the report. Specific items included format, intersections to be studied, intersection analysis procedures, existing traffic counts, trip distribution methodology, and implementation and horizon year definition. Additionally, the proposed scope of the study was reviewed with Tony Abbo, District 3 Traffic Engineer with the New Mexico Department of Transportation. He concurred with the scope of the study defined by the City of Albuquerque at the September 13 scoping meeting.

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

- Calculate the generated trips for this proposed retail commercial development consisting of approximately 212,000 S.F. of floor space as specifically defined in the Trip Generation Table on Page A-9 in the Appendix of this report. The trips generated for the implementation year analysis (2010) will assume that 100% of the development has occurred.
- Calculate trip distribution for the newly generated trips by this development. The new commercial trips will be distributed based on year 2010 population data within a two (2) mile radius of the project as shown on Page A-22 in the Appendix of this report. The new office trips will be distribution based on the year 2010 population data city wide inversely proportional to the distance of the data subarea from the project location.
- 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.

- Include the generated trips for the proposed Watershed Residential and Retail Development, Storm Cloud Subdivision, I-40 / Unser Commercial Development, and 98th / Unser Commercial Development in the 2010 NO BUILD Volumes for this project.
- Obtain recent AM Peak Hour and PM Peak Hour Turning Movement Volumes Traffic Counts for the intersections of Tierra Pintada Dr. / Unser Blvd., Ladera Dr. / Unser Blvd., I-40 N. Ramp / Unser Blvd., Los Volcanes Rd. / Unser Blvd., Ladera Dr. / Unser Blvd., I-40 S. Ramp / Unser Blvd., Ladera Dr. / Market Rd., and Ladera Dr. / Laurelwood Parkway.
- Calculate Historic Growth Rates for background traffic volumes based on the Mid-Region Council of Governments' forecast AM and PM Peak Hour period link volumes extracted from the Mid-Region Council of Governments' regional transportation model (2030 data set).
- Calculate background traffic growth from the year of the most recent traffic counts to the implementation year for this analysis (2010).
- Add trips generated from the proposed Watershed Residential and Retail Development, Storm Cloud Subdivision, I-40 / Unser Commercial Development, and 98th / Unser Commercial Developments to the background traffic volumes. The trips from these previously approved developments will be included in the 2010 NO BUILD Volumes for this study.
- Add data from Trip Assignments Maps and Tables to the 2010 NO BUILD Volumes to obtain 2010 BUILD Volumes for this project.
- Provide signalized and / or unsignalized intersection analyses for the following intersections:

	INTERSECTION	TYPE CONTROL	NO BUILD ANALYSIS	BUILD ANALYSIS
1	Tierra Pintada Dr. / Unser Blvd.	Traffic Signal	2010	2010
2	Ladera Dr. / Unser Blvd.	Traffic Signal	2010	2010
3	I-40 N. Ramp / Unser Blvd.	Traffic Signal	2010	2010
4	Los Volcanes Rd. / Unser Blvd.	Traffic Signal	2010	2010
5	Ladera Dr. / Ouray Rd.	Traffic Signal	2010	2010
6	I-40 S. Ramp / Unser Blvd.	Stop Sign	2010	2010
7	Ladera Dr. / Market Rd.	Stop Sign	2010	2010
8	Ladera Dr. / Laurelwood Parkway	Stop Sign	2010	2010
9	Ladera Dr. / Driveway "A"	Stop Sign	N//A	2010
10	Driveway "B" / Market Rd.	Stop Sign	N/A	2010
11	Hanover Rd. / Driveway "C"	Stop Sign	N/A	2010
12	Driveway "D" / Unser Blvd.*	Stop Sign	N/A	2010

* - Implementation of Driveway "D" will require approval from the Transportation Coordinating Committee at the Mid-Region Council of Governments and the Access Control Committee at the New Mexico Department of Transportation.

GENERAL AREA CHARACTERISTICS

This project is located at the southeast corner of Ladera Dr. / Unser Blvd. behind the existing gasoline station at the hard corner of the intersection. The surrounding area to the south, east, and west is primarily zoned for commercial and industrial park type of development. The property is bound on the north by Interstate 40. The Vicinity Map on Page A-1 of the Appendix shows the zoning of the surrounding properties in the area surrounding this site. The project is located in a mild to moderately active development area.

AREA STREET NETWORK

Access to this new site will be primarily via Unser Blvd., Ladera Dr., Market Rd., and Hanover Rd. There is a proposed full access point into this development from Unser Blvd. The Unser Blvd. access will require approval from the New Mexico Department of Transportation's Access Control Board and the Mid-Region Council of Governments' Transportation Coordinating Committee. Secondary access points are proposed on Ladera Dr., Market St., and Hanover Rd.

Unser Blvd. is classified as a Limited Access Principal Arterial roadway from Arenal Rd. to Montano Rd. on the Long Range Roadway System Map for the Albuquerque Metropolitan Planning Area. It is a four lane divided paved urban roadway with raised medians from Central Ave. to Montano Rd. The posted speed limit on Unser Blvd. near Ladera Dr. is 45 M.P.H.

Ladera Dr. is classified as a Minor Arterial Street on the Long Range Roadway Plan for the Albuquerque Metropolitan Area. It is generally a four lane divided roadway section constructed to urban standards in the vicinity of Unser Blvd. The posted speed limit on Ladera Dr. near Unser Blvd. is 40 M.P.H.

Los Volcanes Rd. is classified as a Collector Street on the Long Range Roadway System Map for the Albuquerque Metropolitan Planning Area. It is a paved urban roadway with curbs and gutters on both sides and no medians from Unser Blvd. to Coors Blvd. West of Unser Blvd., it is not classified.

Ouray Rd. is classified as a Collector Street on the Long Range Roadway System Map for the Albuquerque Metropolitan Planning Area. It is a paved urban roadway with curbs and gutters on both sides and no medians from Unser Blvd. to Coors Blvd. West of Unser Blvd., it is not classified.

Interstate 25 is a major east-west freeway running through the center of the City of Albuquerque. There are currently ramps connecting Interstate 25 with Unser Blvd. and with Coors Blvd.

Market St., Hanover Rd., and Laurelwood Parkway are not classified on the Long Range Roadway Plan for the Albuquerque Metropolitan Area.

EXISTING TRAFFIC VOLUMES

2006 Average Weekday Traffic Volumes (AWDT) for major streets in the site plan area are shown on Page A-8 in the Appendix.

AM and PM Peak Hour turning movement counts were obtained by field traffic counts taken recently for the following intersections:

98th St. / Unser Blvd. (June 13, 2007)
Ladera Dr. / Unser Blvd. (June 12, 2007)
I-40 N. Ramp / Unser Blvd. (May 22, 2007)
Los Volcanes Rd. / Unser Blvd. (May 23, 2007)
Ladera Dr. / Ouray Rd. (September 20, 2007)
I-40 S. Ramp / Unser Blvd. (May 21, 2007)
Ladera Dr. / Market St. (September 21, 2007)
Ladera Dr. / Laurelwood Parkway (September 19, 2007)

The counts are included near the end of the Appendix.

EXISTING (2007) LEVELS OF SERVICE

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

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

Level of Service D is generally considered acceptable in urban areas and is the desirable base condition for analysis in a traffic study.

This study performs analysis for the 2010 NO BUILD and 2010 BUILD Conditions associated with the development of the Heritage Neighborhood Marketplace.

EXISTING TRANSIT SERVICE

This area currently is serviced by City Bus Route 162 (Ventana Ranch / Unser Route) which services this area at approximate one hour intervals from 5:30 am to 8:30 am and from 4:45 pm to 6:45 pm on weekdays. No other bus service is available at this time.

PROPOSED DEVELOPMENT

The subject area of land discussed in this report is comprised of approximately 20 acres. See the conceptual site development plan on Page A-2 in the Appendix of this report to acquire more detailed information about the proposed development. This site plan is conceptual at this point in time and is subject to some changes as progress takes place in

the design process. The plan should, however, provide a reliable basis upon which to analyze the impact of the development on the adjacent transportation system and provide guidelines for mitigating the impact and establishing access criteria.

There is one proposed primary access point (driveway) along Unser Blvd. for the new site (See Site Map on Page A-2 of Appendix). The driveway on Unser Blvd. (Driveway "D") is intended to be full access driveway. Secondary access is proposed on Ladera Dr., Market St., and Hanover Rd. All driveways are initially proposed as full access intersections. Implementation of the driveway on Unser Blvd. (Driveway "D") will be required to be approved by the Transportation Coordinating Committee (T.C.C.) at the Mid-Region Council of Governments (M.R.C.O.G.) and the State Access Control Committee of the New Mexico Department of Transportation.

TRIP GENERATION

Projected trips were calculated from data in the Institute of Transportation Engineers Trip Generation report (7th Edition, 2003). Trips for the development were determined based on land uses defined on the Preliminary Site Plan on Page A-2 in the Appendix of this report.

The resulting number of trips generated for the proposed development (100%) are summarized in the following table:

Heritage Neighborhood Marketplace (Ladera / Unser)

Trip Generation Data

USE (ITE CODE) / DESCRIPTION		24 HR VOL	A. M. PEAK HR.		P. M. PEAK HR.	
		GROSS	ENTER	EXIT	ENTER	EXIT
Summary Sheet	Units					
Shopping Center (820)	103.10	6,927	97	62	308	333
Supermarket (850)	66.00	5,810	183	117	343	329
Fast Food Restaurant w/ Drive-Thru Window (934)	3.20	1,588	87	83	58	53
Fast Food Restaurant w/ Drive-Thru Window (934)	3.20	1,588	87	83	58	53
Drive-In Bank (912)	4	1,563	45	33	102	102
General Office Building (710)	33.00	568	68	9	20	96
Subtotal		**18,044**	**567**	**387**	**889**	**966**
Pass-by Trip Credit	30%				**(267)**	**(290)**
Net new Trips to System		**18,044**	**567**	**387**	**622**	**676**

* - All land uses are designated in Units of 1,000 S.F. of building area.

The Implementation Year Analysis (2010) for this study assumed a development of 100% of the project to be implemented. See Appendix Pages A-9 thru A-15 for more detailed information regarding trip generation rates (including Trip Generation Worksheets).

A 30% adjustment was made to the trip generation rates for PM Peak Hour Pass-by Trips for trips generated by this project.

TRIP DISTRIBUTION

Primary and Diverted Linked Trips:

Trips were distributed as follows:

Commercial Land Uses

Primary and diverted linked trips for the commercial land use development were distributed proportionally to the 2010 projected population of Data Analysis Subzones within a two mile radius of the proposed development. Population data for the years 2004 and 2030 were taken from the 2030 Socioeconomic Forecasts by Data Analysis Subzones for the MRCOG Region, S-07-01 (July, 2007), Appendix B and Appendix C, supplied by the Mid-Region Council of Governments (MRCOG). Population data from the years 2004 and 2030 was interpolated linearly to obtain 2010 population data to utilize for this analysis. Population Subzones were grouped based on the most likely major street(s) or route(s) to the subject development. The trip distribution worksheets and associated map of data analysis subzones is shown in the Appendix. The commercial Trip Distribution map can be found in the Appendix on Page A-23.

Office Land Uses

Primary and diverted linked trips for the office land use development were distributed proportionally to the 2010 projected population of Data Subareas citywide inversely proportional to the distance of the subarea from the project location. Population data for the years 2004 and 2030 were taken from the 2030 Socioeconomic Forecasts by Data Analysis Subzones for the MRCOG Region, S-07-01 (July, 2007), Appendix E and Appendix F, supplied by the Mid-Region Council of Governments (MRCOG). Population data from the years 2004 and 2030 was interpolated linearly to obtain 2010 population data to utilize for this analysis. Population Subareas were grouped based on the most likely major street(s) or route(s) to the subject development. The trip distribution worksheets and associated map of data analysis subzones is shown in the Appendix. The office Trip Distribution map can be found in the Appendix on Page A-33.

TRIP ASSIGNMENTS

Trip assignments for primary and diverted linked trips are first made on a percentage basis derived from data established in the trip distribution determination process and logical routing. Those percentages are then applied to the projected trips to determine individual traffic movements. Percentage trip assignments are shown on Pages A-24 thru A-25 (commercial uses) and on Pages 34 thru 35 (office uses) in the Appendix of this report.

BACKGROUND TRAFFIC GROWTH

Background traffic growth rates were considered for each individual approach to an intersection that was targeted for analysis based on data from the Mid-Region Council of Governments' Regional Transportation Model (2030 data set). Forecast AM and PM Peak Hour link volumes on major streets were extracted from the 2005 and 2030 volumes and utilized to establish a background traffic growth rate for projecting turning movements at the

intersections to be analyzed in this project. Since there are existing traffic count volumes at the intersections analyzed in this project, the link volumes based on the recent traffic counts were utilized instead of the MRCOG regional model link volumes. Utilizing the growth rates established in such a manner should result in forecast turning movement volumes that are consistent with the Mid-Region Council of Governments forecast link volumes.

PROJECTED PEAK HOUR TURNING MOVEMENTS FOR 2010 BUILDOUT

The calculated growth rates were applied to the most recent peak hour traffic counts (furnished by the City of Albuquerque and conducted for this study) and the trips from the approved *Southwest Mesa Subdivisions, Ladera Business Park, Vista Oriente Development, Storm Cloud Development, and I-40 / Unser Commercial Development* were added in to establish the 2010 background traffic volumes. To these volumes, the generated trips based on implementation of the proposed Heritage Neighborhood Marketplace Development Site Development Plan (100% development) were added to obtain 2010 BUILD volumes for the intersection analyses. See Appendix Pages A-41 thru A-71 for further information regarding 2010 turning movement counts.

INTERSECTION CAPACITY ANALYSIS

Intersection capacity analyses were performed in accordance with the procedures for signalized and unsignalized intersections utilized in the Synchro (Version 6, Build 614) Transportation System analysis software program. Synchro software deviates from the 2000 Highway Capacity Manual methods in several areas, but the results obtained using Synchro software are considered by the New Mexico Department of Transportation to be generally close to those based on the 2000 Highway Capacity Manual in most cases. For signalized intersections, the operational method of analysis was used for both the 2010 NO BUILD and BUILD conditions.

Capacity analyses were performed for the following traffic conditions.

2010 without development of the subject property (NO BUILD)
2010 with development as per the Conceptual Site Development Plan (BUILD)

Queuing analysis at signalized intersections is calculated based on Poisson's arrival method considering cycle length and peak hour volumes to achieve a 95% confidence level of maximum queue for the peak hour periods.

The results of the 2010 NO BUILD and 2010 BUILD capacity analyses are summarized in the following sections - *Results and Discussion of Intersection Capacity Analyses.*

RESULTS OF SIGNALIZED INTERSECTION CAPACITY ANALYSES

IMPLEMENTATION YEAR (2010)

1. Tierra Pintada Dr. / Unser Blvd. – A-72 thru A-80

The results of the implementation year analysis of the signalized intersection of Tierra Pintada Dr. / Unser Blvd. are summarized in the following tables:

Existing Geometry (Tierra Pintada Dr. / Unser Blvd.)

Approach	Left Turn Lanes	Thru/Lefts	Thru Lanes	Thru/Rights	Right Turn Lanes
EB Tierra Pintada Dr.	1	0	1	0	1
WB Tierra Pintada Dr.	1	0	1	0	1
NB Unser Blvd.	1	0	2	0	1
SB Unser Blvd.	1	0	2	0	1

Tierra Pintada Dr. / Unser Blvd.		AM Peak Hour		PM Peak Hour	
	2010	NO BUILD	BUILD	NO BUILD	BUILD
Existing Geometry		B – 15.2	B - 15.7	***C – 22.7***	***C – 30.4***

D - 39.7 - Bold Italicized Level-of-Service indicates that one or more individual turning movements is Level-of-Service E or worse.

The operation of the signalized intersection has been demonstrated to be acceptable for the projected 2010 BUILD conditions analyzed in this report. The westbound left turn movement during the PM Peak Hour period is "E" during the NO BUILD condition and "F" during the BUILD condition. The NO BUILD condition indicates that a permitted / protected left turn phase would be beneficial. However, analysis of the signalized intersection with the eastbound / westbound permitted / protected left turn yielded no significant improvement. Implementation of permitted / protected left turns in all four directions yields satisfactory results. (See analysis on Pages A-79 and A-80 in the Appendix of this report).

The following table summarizes the existing and calculated queuing at the signalized intersection:

Queueing Analysis Summary Sheet

Project: Heritage Neighborhood Center
Intersection: **Tierra Pintada Dr / Unser Blvd**

2010

Approach	Left Turns			Thru Movements			Right Turns		
Eastbound	# Lanes	Vol.	Length	# Lanes	Vol.	Length	# Lanes	Vol.	Length
Existing Lane Length	*1*	*34*	*250*	*1*	*3*	*Cont*	*1*	*195*	*250*
AM NO BUILD Queue	1	203	275	1	18	50	1	215	275
AM BUILD Queue	**1**	**203**	**275**	**1**	**18**	**50**	**1**	**249**	**300**
Existing Lane Length	*1*	*31*	*250*	*1*	*2*	*Cont*	*1*	*68*	*250*
PM NO BUILD Queue	1	151	225	1	30	75	1	114	**175**
PM BUILD Queue	**1**	**151**	**225**	**1**	**30**	**75**	**1**	**154**	**225**
Westbound	# Lanes	Vol.	Length	# Lanes	Vol.	Length	# Lanes	Vol.	Length
Existing Lane Length	*1*	*14*	*250*	*1*	*0*	*Cont*	*1*	*4*	*250*
AM NO BUILD Queue	1	106	150	1	12	50	1	28	75
AM BUILD Queue	**1**	**112**	**175**	**1**	**12**	**50**	**1**	**28**	**75**
Existing Lane Length	*1*	*65*	*250*	*1*	*1*	*Cont*	*1*	*24*	*250*
PM NO BUILD Queue	1	356	450	1	40	75	1	99	175
PM BUILD Queue	**1**	**362**	**450**	**1**	**40**	**75**	**1**	**99**	**175**
Northbound	# Lanes	Vol.	Length	# Lanes	Vol.	Length	# Lanes	Vol.	Length
Existing Lane Length	*1*	*28*	*350*	*2*	*631*	*Cont*	*1*	*15*	*250*
AM NO BUILD Queue	1	36	75	2	712	450	1	130	175
AM BUILD Queue	**1**	**61**	**100**	**2**	**751**	**475**	**1**	**134**	**200**
Existing Lane Length	*1*	*179*	*350*	*2*	*840*	*Cont*	*1*	*22*	*250*
PM NO BUILD Queue	1	213	**300**	2	962	**625**	1	226	**300**
PM BUILD Queue	**1**	**253**	**325**	**2**	**1,037**	**650**	**1**	**232**	**325**
Southbound	# Lanes	Vol.	Length	# Lanes	Vol.	Length	# Lanes	Vol.	Length
Existing Lane Length	*1*	*10*	*230*	*2*	*783*	*Cont*	*1*	*21*	*250*
AM NO BUILD Queue	1	49	100	2	954	575	1	50	100
AM BUILD Queue	**1**	**49**	**100**	**2**	**1,016**	**600**	**1**	**50**	**100**
Existing Lane Length	*1*	*28*	*230*	*2*	*770*	*Cont*	*1*	*47*	*250*
PM NO BUILD Queue	1	97	150	2	882	**575**	1	132	200
PM BUILD Queue	**1**	**97**	**150**	**2**	**945**	**600**	**1**	**132**	**200**

	AM	PM
Cycle Length:	**110**	**120**

NOTE: Queue lengths are in feet.

* - Queue Length of 1,001 indicates that the calculated queue > 1

The westbound left turn lane should be lengthened to a total length of 225 feet plus transition. However, at some time in the future, it appears that dual westbound left turn lanes may be implemented at this intersection, in which case the queue length for the westbound left turn lane will be reduced by almost 50%. Therefore, no recommendation is made.

2. Ladera Dr. /Unser Blvd. – A-81 thru A-87

The results of the implementation year analysis of the signalized intersection of Ladera Dr. / Unser Blvd. are summarized in the following tables:

Existing Geometry (Ladera Dr. / Unser Blvd.)

Approach	Left Turn Lanes	Thru/Lefts	Thru Lanes	Thru/Rights	Right Turn Lanes
EB Ladera Dr.	1	0	1	0	2
WB Ladera Dr.	2	0	0	1	0
NB Unser Blvd.	1	0	2	0	1
SB Unser Blvd.	1	0	1	1	0

* - Right Turn Lane by-passes the signal.

Ladera Dr. / Unser Blvd.		AM Peak Hour		PM Peak Hour	
	2010	NO BUILD	BUILD	NO BUILD	BUILD
Existing Geometry		***E – 65.0***	***E – 76.7***	***F - 185***	***F – 214***
Mitigated Geometry			***D - 43.3***		***D - 50.1***

D - 39.7 - Bold Italicized Level-of-Service indicates that one or more individual turning movements is Level-of-Service E or worse.

The operation of the signalized intersection has been demonstrated to be unacceptable for all projected conditions analyzed in this report. It is recommended that dual eastbound thru lanes, dual northbound left turn lanes, dual southbound left turn lanes, and a southbound right turn lane be constructed at this intersection to cause it to operate at LOS "D" for the projected 2010 Peak Hour volumes. The City of Albuquerque has plans to construct a westbound thru/right turn lane at the intersection in the near future.

The following table summarizes the existing and calculated queuing at the signalized intersection:

Queueing Analysis Summary Sheet

Project: Heritage Neighborhood Center
Intersection: **Ladera Dr / Unser Blvd**

2010

Approach	Left Turns			Thru Movements			Right Turns		
Eastbound	# Lanes	Vol.	Length	# Lanes	Vol.	Length	# Lanes	Vol.	Length
Existing Lane Length	*1*	*175*	*250*	*1*	*251*	*Cont*	*2*	*365*	*250*
AM NO BUILD Queue	1	199	250	1	446	500	2	557	375
AM BUILD Queue	**1**	**199**	**250**	**1**	**498**	**550**	**2**	**557**	**375**
Existing Lane Length	*1*	*140*	*250*	*1*	*182*	*Cont*	*2*	*138*	*250*
PM NO BUILD Queue	1	192	275	1	319	**400**	2	322	250
PM BUILD Queue	**1**	**192**	**275**	**1**	**381**	**475**	**2**	**322**	**250**
Westbound	# Lanes	Vol.	Length	# Lanes	Vol.	Length	# Lanes	Vol.	Length
Existing Lane Length	*2*	*317*	*250*	*1*	*105*	*Cont*	*0*	*44*	*0*
AM NO BUILD Queue	2	542	350	1	186	250	0	123	175
AM BUILD Queue	**2**	**686**	**425**	**1**	**196**	**250**	**0**	**140**	**200**
Existing Lane Length	*2*	*281*	*250*	*1*	*264*	*Cont*	*0*	*107*	*0*
PM NO BUILD Queue	2	594	**425**	1	480	575	0	249	**325**
PM BUILD Queue	**2**	**853**	**550**	**1**	**496**	**575**	**0**	**279**	**375**
Northbound	# Lanes	Vol.	Length	# Lanes	Vol.	Length	# Lanes	Vol.	Length
Existing Lane Length	*1*	*48*	*250*	*2*	*429*	*Cont*	*1*	*224*	*250*
AM NO BUILD Queue	1	134	200	2	653	425	1	376	425
AM BUILD Queue	**1**	**163**	**225**	**2**	**704**	**450**	**1**	**376**	**425**
Existing Lane Length	*1*	*288*	*250*	*2*	*860*	*Cont*	*1*	*372*	*250*
PM NO BUILD Queue	1	560	**650**	2	1,433	**875**	1	708	800
PM BUILD Queue	**1**	**607**	**700**	**2**	**1,524**	**1,001** *	**1**	**708**	**800**
Southbound	# Lanes	Vol.	Length	# Lanes	Vol.	Length	# Lanes	Vol.	Length
Existing Lane Length	*1*	*45*	*250*	*2*	*906*	*Cont*	*0*	*58*	*0*
AM NO BUILD Queue	1	99	150	2	1,279	725	0	105	150
AM BUILD Queue	**1**	**201**	**250**	**2**	**1,279**	**725**	**0**	**105**	**150**
Existing Lane Length	*1*	*94*	*250*	*2*	*547*	*Cont*	*0*	*184*	*0*
PM NO BUILD Queue	1	263	**350**	2	1,087	700	0	333	425
PM BUILD Queue	**1**	**372**	**450**	**2**	**1,087**	**700**	**0**	**333**	**425**

	AM	PM
Cycle Length:	110	120

NOTE: Queue lengths are in feet.

* - Queue Length of 1,001 indicates that the calculated queue > 1

The dual westbound left turn lane should be extended to a total length of 550 feet plus transition. Implementing this recommendation will require Driveway "A" to be restricted to a right-turn-in, right-turn-out only driveway. The northbound dual left turn lanes should be constructed to a total length of 425 feet plus transition (60% of 700 feet). The southbound dual left turn lanes should be constructed to a length of 275 feet (60% of 450) plus transition. The new southbound right turn lane should be constructed to a total length of 250 feet (50% of 425 feet) plus transition.

3. I-40 N. Ramp /Unser Blvd. – A-88 thru A-92

The results of the implementation year analysis of the signalized intersection of I-40 N. Ramp / Unser Blvd. are summarized in the following tables:

Existing Geometry (I-40 N. Ramp / Unser Blvd.)

Approach	Left Turn Lanes	Thru/Lefts	Thru Lanes	Thru/Rights	Right Turn Lanes
WB I-40 N. Ramp	1	1	0	0	1*
NB Unser Blvd.	1	0	2	0	0
SB Unser Blvd.	0	0	3	0	0

* - Right Turn Lane by-passes the signal.

I-40 N. Ramp / Unser Blvd.		AM Peak Hour		PM Peak Hour	
	2010	NO BUILD	BUILD	NO BUILD	BUILD
Existing Geometry		B – 11.4	B – 12.4	B - 13.3	B – 16.2

D - 39.7 - Bold Italicized Level-of-Service indicates that one or more individual turning movements is Level-of-Service E or worse.

The operation of the signalized intersection has been demonstrated to be acceptable for all projected conditions analyzed in this report. No recommendation for mitigation is made.

The following table summarizes the existing and calculated queuing at the signalized intersection:

Queueing Analysis Summary Sheet

Project: Heritage Neighborhood Center
Intersection: **I-40 N. ramp / Unser Blvd**

2010

Approach	Left Turns			Thru Movements			Right Turns		
Eastbound	# Lanes	Vol.	Length	# Lanes	Vol.	Length	# Lanes	Vol.	Length
Existing Lane Length	*0*	*0*	*0*	*0*	*0*	*Cont*	*0*	*0*	*0*
AM NO BUILD Queue	0	0	0	0	0	0	0	0	0
AM BUILD Queue	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
Existing Lane Length	*0*	*0*	*0*	*0*	*0*	*Cont*	*0*	*0*	*0*
PM NO BUILD Queue	0	0	0	0	0	0	0	0	0
PM BUILD Queue	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
Westbound	# Lanes	Vol.	Length	# Lanes	Vol.	Length	# Lanes	Vol.	Length
Existing Lane Length	*1*	*343*	*999*	*1*	*3*	*Cont*	*1*	*188*	*1,000*
AM NO BUILD Queue	1	438	500	1	3	0	1	222	275
AM BUILD Queue	**1**	**438**	**500**	**1**	**3**	**0**	**1**	**291**	**350**
Existing Lane Length	*1*	*626*	*999*	*1*	*0*	*Cont*	*1*	*771*	*1,000*
PM NO BUILD Queue	1	770	850	1	0	0	1	840	1,001
PM BUILD Queue	**1**	**770**	**850**	**1**	**0**	**0**	**1**	**905**	**1,001**
Northbound	# Lanes	Vol.	Length	# Lanes	Vol.	Length	# Lanes	Vol.	Length
Existing Lane Length	*1*	*24*	*350*	*2*	*687*	*Cont*	*0*	*0*	*0*
AM NO BUILD Queue	1	46	100	2	992	600	0	0	0
AM BUILD Queue	**1**	**46**	**100**	**2**	**1,138**	**675**	**0**	**0**	**0**
Existing Lane Length	*1*	*24*	*350*	*2*	*725*	*Cont*	*0*	*0*	*0*
PM NO BUILD Queue	1	75	125	2	1,319	825	0	0	0
PM BUILD Queue	**1**	**75**	**125**	**2**	**1,485**	**900**	**0**	**0**	**0**
Southbound	# Lanes	Vol.	Length	# Lanes	Vol.	Length	# Lanes	Vol.	Length
Existing Lane Length	*0*	*0*	*0*	*3*	*1,775*	*Cont*	*0*	*68*	*0*
AM NO BUILD Queue	0	0	0	3	2,281	875	0	76	125
AM BUILD Queue	**0**	**0**	**0**	**3**	**2,417**	**1,001** *	**0**	**83**	**125**
Existing Lane Length	*0*	*0*	*0*	*3*	*903*	*Cont*	*0*	*70*	*0*
PM NO BUILD Queue	0	0	0	3	1,559	700	0	108	175
PM BUILD Queue	**0**	**0**	**0**	**3**	**1,806**	**775**	**0**	**120**	**200**

	AM	PM
Cycle Length:	110	120

NOTE: Queue lengths are in feet.

* - Queue Length of 1,001 indicates that the calculated queue > 1

The westbound right turn movement and the southbound right turn movement are free right turns that by-pass the signal. No queuing is anticipated for those right turns.

4. Los Volcanes Rd. /Unser Blvd. – A-93 thru A-97

The results of the implementation year analysis of the signalized intersection of Los Volcanes Rd. / Unser Blvd. are summarized in the following tables:

Existing Geometry (Los Volcanes Rd. / Unser Blvd.)

Approach	Left Turn Lanes	Thru/Lefts	Thru Lanes	Thru/Rights	Right Turn Lanes
EB Los Volcanes Rd.	2	0	0	1	0
WB Los Volcanes Rd.	1	0	1	0	1
NB Unser Blvd.	1	0	2	0	1
SB Unser Blvd.	1	0	2	0	1

* - Right Turn Lane by-passes the signal.

This analysis assumes that the I-40 / Unser Commercial Development traffic will be generated and that the mitigated geometry will be in place as required by the developer of that project as follows:

I-40/Unser Development Mitigated Geometry (Los Volcanes Rd. / Unser Blvd.)

Approach	Left Turn Lanes	Thru/Lefts	Thru Lanes	Thru/Rights	Right Turn Lanes
EB Los Volcanes Rd.	2	0	0	1	0
WB Los Volcanes Rd.	2	0	0	1	0
NB Unser Blvd.	2	0	3	0	1
SB Unser Blvd.	2	0	2	0	1

* - Right Turn Lane by-passes the signal.

Los Volcanes Rd. / Unser Blvd.		AM Peak Hour		PM Peak Hour	
	2010	NO BUILD	BUILD	NO BUILD	BUILD
I-40/Unser Mitigated Geometry		C – 30.5	C – 31.2	***D – 38.1***	***D – 41.7***

D - 39.7 - Bold Italicized Level-of-Service indicates that one or more individual turning movements is Level-of-Service E or worse.

The operation of the signalized intersection has been demonstrated to be acceptable for all projected conditions analyzed in this report. No recommendation for mitigation is made.

The following table summarizes the existing and calculated queuing at the signalized intersection:

Queueing Analysis Summary Sheet

Project: Heritage Neighborhood Center (Ladera Dr / Unser Blvd)
Intersection: **Los Volcanes Rd / Unser Blvd**

2010

Approach	Left Turns			Thru Movements			Right Turns		
Eastbound	# Lanes	Vol.	Length	# Lanes	Vol.	Length	# Lanes	Vol.	Length
Existing Lane Length	*2*	*137*	*95*	*1*	*69*	*Cont*	*0*	*7*	*0*
AM NO BUILD Queue	2	137	125	1	74	125	0	7	25
AM BUILD Queue	**2**	**142**	**125**	**1**	**74**	**125**	**0**	**7**	**25**
Existing Lane Length	*2*	*54*	*95*	*1*	*15*	*Cont*	*0*	*4*	*0*
PM NO BUILD Queue	2	82	100	1	33	75	0	6	25
PM BUILD Queue	**2**	**87**	**100**	**1**	**33**	**75**	**0**	**6**	**25**
Westbound	# Lanes	Vol.	Length	# Lanes	Vol.	Length	# Lanes	Vol.	Length
Existing Lane Length	*2*	*95*	*Design*	*1*	*27*	*Cont*	*0*	*134*	*0*
AM NO BUILD Queue	2	297	225	1	31	75	0	219	275
AM BUILD Queue	**2**	**297**	**225**	**1**	**31**	**75**	**0**	**255**	**325**
Existing Lane Length	*2*	*73*	*Design*	*1*	*23*	*Cont*	*0*	*132*	*0*
PM NO BUILD Queue	2	736	500	1	33	75	0	459	**550**
PM BUILD Queue	**2**	**736**	**500**	**1**	**33**	**75**	**0**	**500**	**600**
Northbound	# Lanes	Vol.	Length	# Lanes	Vol.	Length	# Lanes	Vol.	Length
Existing Lane Length	*2*	*8*	*600*	*3*	*1,101*	*Cont*	*1*	*101*	*200*
AM NO BUILD Queue	2	8	25	3	1,192	500	1	279	350
AM BUILD Queue	**2**	**8**	**25**	**3**	**1,287**	**550**	**1**	**279**	**350**
Existing Lane Length	*2*	*10*	*600*	*3*	*793*	*Cont*	*1*	*120*	*200*
PM NO BUILD Queue	2	12	25	3	1,083	**500**	1	463	550
PM BUILD Queue	**2**	**12**	**25**	**3**	**1,190**	**550**	**1**	**463**	**550**
Southbound	# Lanes	Vol.	Length	# Lanes	Vol.	Length	# Lanes	Vol.	Length
Existing Lane Length	*2*	*260*	*Design*	*2*	*897*	*Cont*	*1*	*69*	*170*
AM NO BUILD Queue	2	490	325	2	976	575	1	75	125
AM BUILD Queue	**2**	**516**	**350**	**2**	**1,043**	**625**	**1**	**78**	**125**
Existing Lane Length	*2*	*108*	*Design*	*2*	*1,022*	*Cont*	*1*	*121*	*170*
PM NO BUILD Queue	2	609	**425**	2	894	**575**	1	127	200
PM BUILD Queue	**2**	**651**	**450**	**2**	**1,007**	**650**	**1**	**133**	**200**

	AM	PM
Cycle Length:	**110**	**120**

NOTE: Queue lengths are in feet.

* - Queue Length of 1,001 indicates that the calculated queue > 1

The dual westbound left turn lanes and the dual southbound left turn lanes will be constructed as per the design established by the developer of the I-40 / Unser Commercial Development and approved by the City of Albuquerque and the New Mexico Department of Transportation. The calculated length of the right turn lane can be reduced by 50% to account for right-turns-on-red and overlap phases.

Queueing Analysis Summary Sheet

Project: Heritage Neighborhood Center (Ladera Dr / Unser Blvd)
Intersection: **Ladera Dr / Ouray Rd**

2010

Approach	Left Turns			Thru Movements			Right Turns		
Eastbound	# Lanes	Vol.	Length	# Lanes	Vol.	Length	# Lanes	Vol.	Length
Existing Lane Length	*1*	*20*	*140*	*2*	*365*	*Cont*	*0*	*247*	*0*
AM NO BUILD Queue	1	20	50	2	365	250	0	247	300
AM BUILD Queue	**1**	**24**	**50**	**2**	**414**	**300**	**0**	**287**	**350**
Existing Lane Length	*1*	*19*	*140*	*2*	*271*	*Cont*	*0*	*200*	*0*
PM NO BUILD Queue	1	22	**50**	2	307	**250**	0	227	**300**
PM BUILD Queue	**1**	**27**	**75**	**2**	**400**	**300**	**0**	**292**	**375**
Westbound	# Lanes	Vol.	Length	# Lanes	Vol.	Length	# Lanes	Vol.	Length
Existing Lane Length	*1*	*3*	*100*	*2*	*145*	*Cont*	*1*	*20*	*100*
AM NO BUILD Queue	1	4	25	2	214	175	1	30	75
AM BUILD Queue	**1**	**4**	**25**	**2**	**291**	**225**	**1**	**30**	**75**
Existing Lane Length	*1*	*20*	*100*	*2*	*379*	*Cont*	*1*	*107*	*100*
PM NO BUILD Queue	1	23	50	2	427	**325**	1	121	200
PM BUILD Queue	**1**	**23**	**50**	**2**	**506**	**375**	**1**	**121**	**200**
Northbound	# Lanes	Vol.	Length	# Lanes	Vol.	Length	# Lanes	Vol.	Length
Existing Lane Length	*1*	*98*	*120*	*1*	*77*	*Cont*	*0*	*5*	*0*
AM NO BUILD Queue	1	101	150	1	79	125	0	5	25
AM BUILD Queue	**1**	**156**	**225**	**1**	**79**	**125**	**0**	**5**	**25**
Existing Lane Length	*1*	*293*	*120*	*1*	*233*	*Cont*	*0*	*16*	*0*
PM NO BUILD Queue	1	293	**375**	1	233	325	0	16	50
PM BUILD Queue	**1**	**358**	**450**	**1**	**233**	**325**	**0**	**16**	**50**
Southbound	# Lanes	Vol.	Length	# Lanes	Vol.	Length	# Lanes	Vol.	Length
Existing Lane Length	*1*	*89*	*100*	*1*	*191*	*Cont*	*1*	*13*	*80*
AM NO BUILD Queue	1	99	150	1	212	275	1	14	50
AM BUILD Queue	**1**	**99**	**150**	**1**	**212**	**275**	**1**	**19**	**50**
Existing Lane Length	*1*	*34*	*100*	*1*	*123*	*Cont*	*1*	*13*	*80*
PM NO BUILD Queue	1	36	75	1	131	200	1	14	50
PM BUILD Queue	**1**	**36**	**75**	**1**	**131**	**200**	**1**	**20**	**50**

	AM	PM
Cycle Length:	110	120

NOTE: Queue lengths are in feet.

* - Queue Length of 1,001 indicates that the calculated queue > 1

RESULTS OF UNSIGNALIZED INTERSECTION CAPACITY ANALYSES

IMPLEMENTATION YEAR (2010)

6. I-40 S. Ramp / Unser Blvd. – A-103 thru A-107

The results of the analysis of the unsignalized intersection of I-40 S. Ramp / Unser Blvd. are summarized in the following table:

	AM Peak Hour		PM Peak Hour	
2010	NO BUILD	BUILD	NO BUILD	BUILD
I-40 S. Ramp / Unser Blvd.				
Minor Street (I-40 S. Ramp)				
EB Left	F - 93	F - 168	F - 637	F - 999
EB Through	N/A	N/A	N/A	N/A
EB Right	Free	Free	Free	Free
Minor Street (I-40 S. Ramp)				
WB Left	N/A	N/A	N/A	N/A
WB Through	N/A	N/A	N/A	N/A
WB Right	N/A	N/A	N/A	N/A
Major Street (Unser Blvd.)				
NB Left	N/A	N/A	N/A	N/A
SB Left	N/A	N/A	N/A	N/A

The analysis of the unsignalized intersection of the I-40 South Ramp / Unser Blvd. will operate at unacceptable levels-of-service for the forecast 2010 NO BUILD and BUILD Conditions as an unsignalized intersection. The mathematical analysis of the intersection indicated excessively long delays would be encountered by the eastbound left turn traffic off of the ramp. However, the calculations do not take into account the fact that there is an existing traffic signal approximately 1,650 feet to the north of this intersection and approximately 2,100 feet south of the intersection. The two adjacent intersections will create gaps in northbound and southbound traffic on Unser Blvd. at the I-40 South Ramp, thus permitting eastbound side street traffic to turn out onto Unser Blvd. with greater ease than what the calculations seem to indicate. There are no further measures that can be taken at this time to improve the operation of the intersection.

Rectification of the long delays at the intersection of the I-40 S. Ramp / Unser Blvd. may involve construction of a new traffic signal at the ramp. Current volumes indicate that a traffic signal is marginally warranted at the intersection. Following is the Peak Hour Warrant Graph for this intersection considering the projected 2010 AM and PM Peak Hour volumes:

7. Ladera Dr. / Market St. - Pages A-108 thru A-112

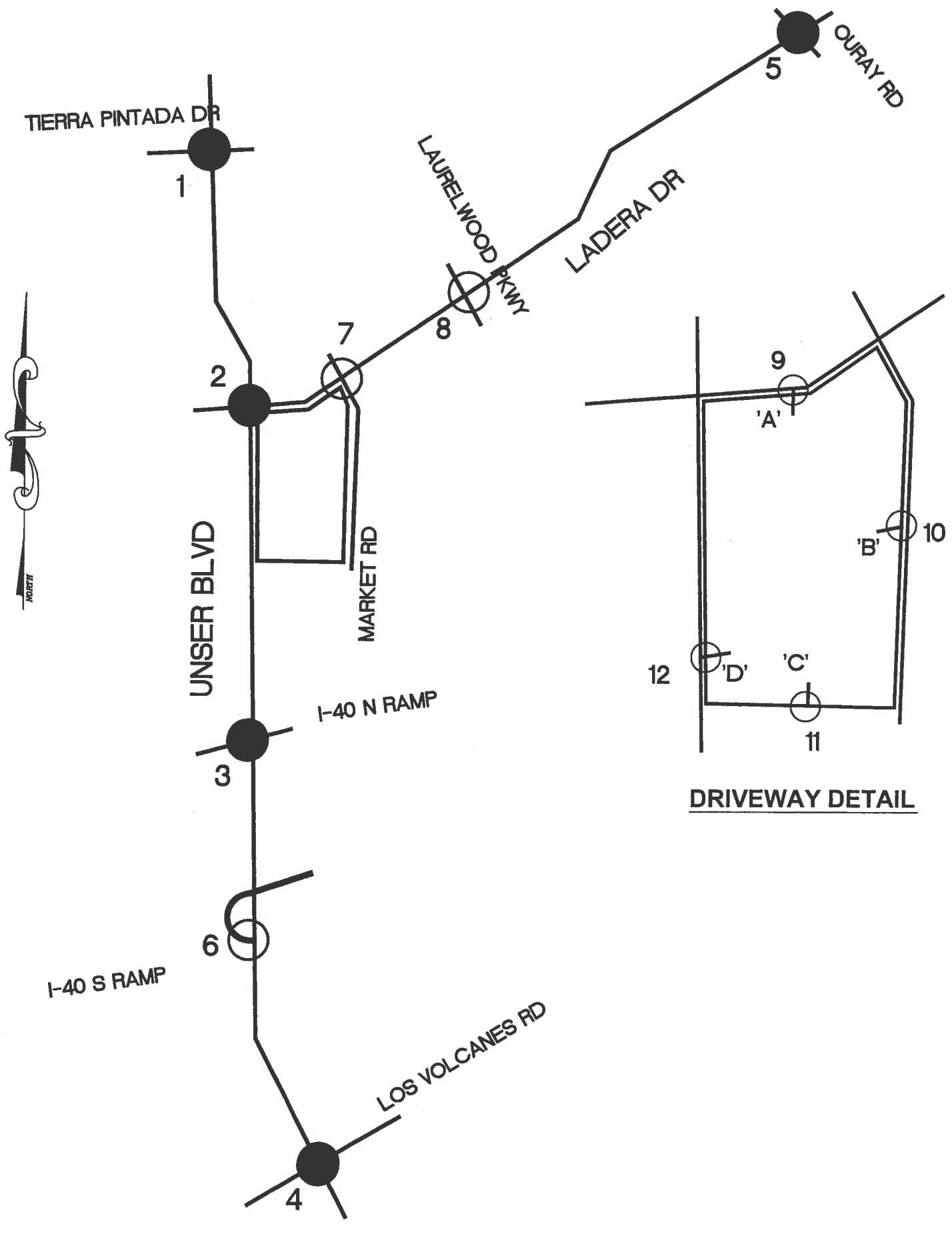
The results of the analysis of the unsignalized intersection of Ladera Dr. / Market St. are summarized in the following table:

		AM Peak Hour		PM Peak Hour	
	2010	NO BUILD	BUILD	NO BUILD	BUILD
Ladera Dr. / Market St.					
Minor Street (Market St.)					
NB Left		C - 19	F - 82	D - 26	F - 292
NB Thru		B - 11	B - 11	B - 12	B - 15
NB Right		B - 11	B - 11	B - 12	B - 15
Minor Street (Market St.)					
SB Left		C - 16	D - 31	C - 18	F - 121
SB Thru		C - 16	D - 31	C - 18	F - 121
SB Right		C - 16	D - 31	C - 18	F - 121
Major Street (Ladera Dr.)					
EB Left		A - 1	A - 1	A - 1	A - 9
WB Left		A - 9	B - 10	A - 10	B - 14

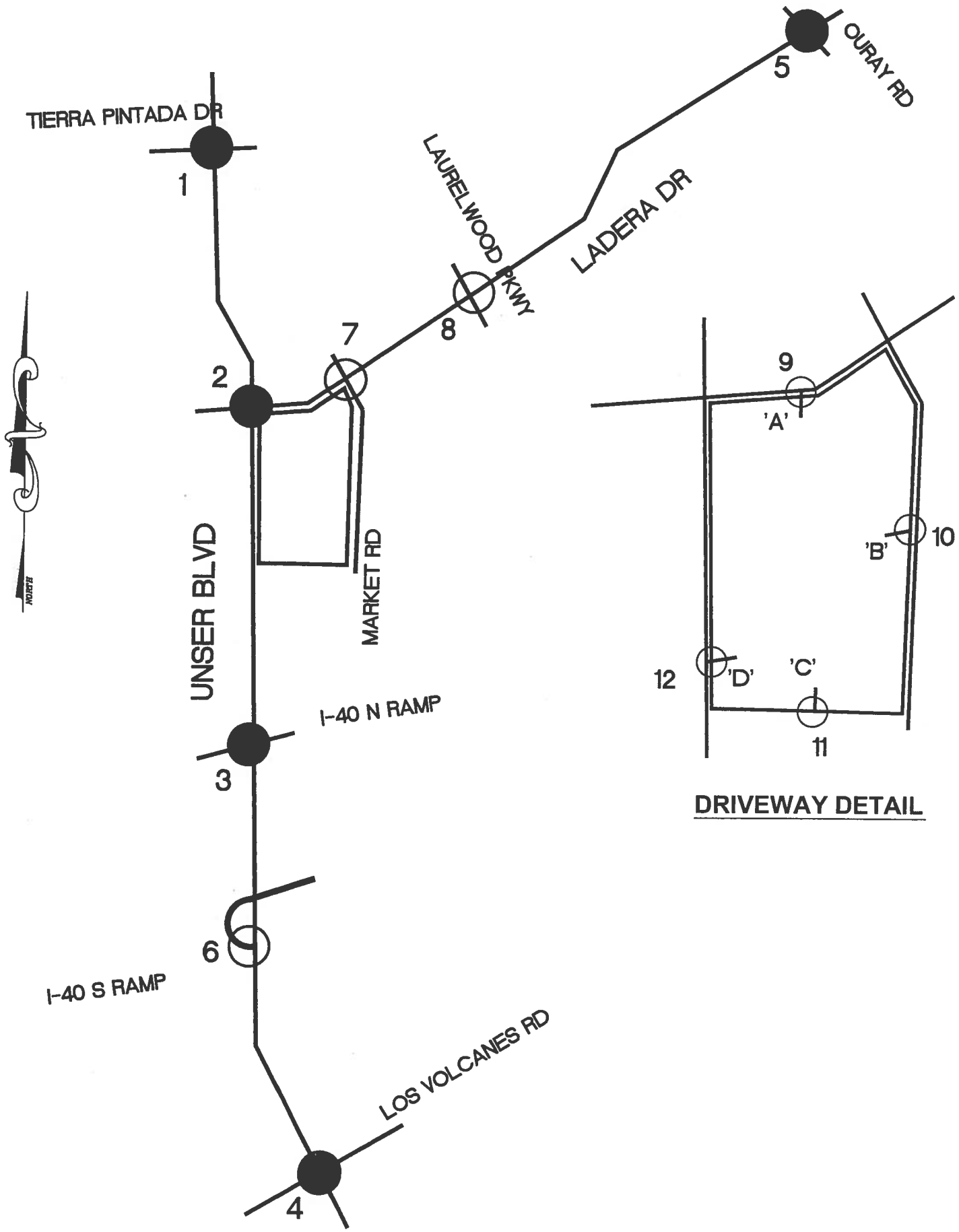
This analysis forecasts that the unsignalized intersection of Ladera Dr. / Market St. will experience long delays on the side street upon implementation of the proposed Heritage Neighborhood Marketplace. The intersection of Ladera Dr. / Market St. is probably too close to Unser Blvd. for consideration for a traffic signal. Market St. is approximately 750 feet east of Unser Blvd. (centerline to centerline).

The fact that there is an existing traffic signals to the west of the intersection of Market St. / Ladera Dr. will aid in creating gaps in the eastbound traffic on Ladera Dr. so as to facilitate the turning movements from the side streets onto the major street to some degree, but this report still forecasts long delays for the Market St. traffic at Ladera Dr. No recommendation for mitigation is made.

Appendix

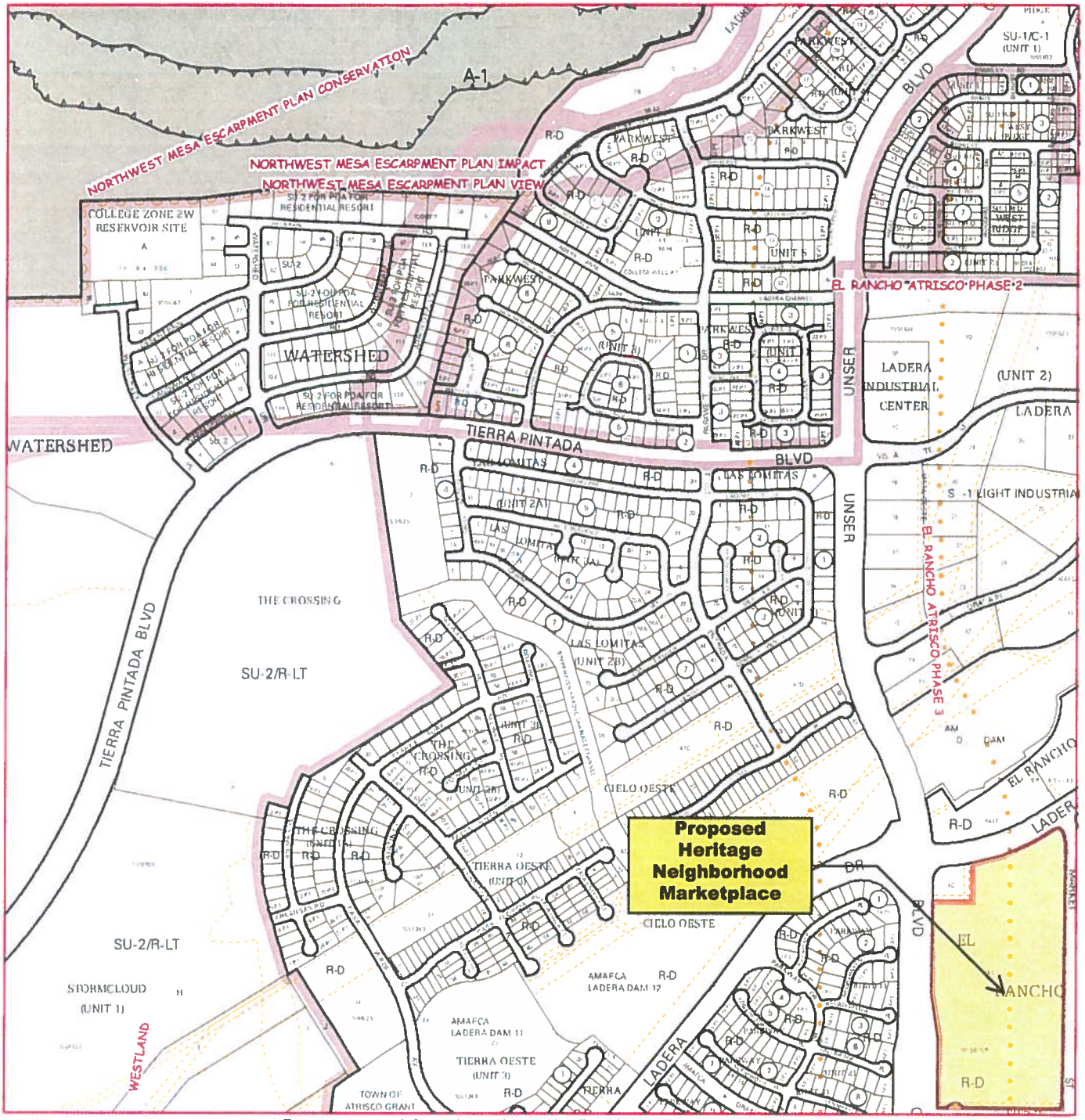


DRIVEWAY DETAIL



DRIVEWAY DETAIL

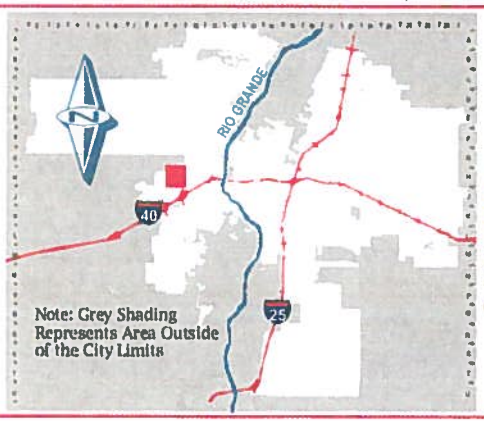
APPENDIX



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

CITY OF ALBUQUERQUE
AGIS
Albuquerque Geographic Information System

Map amended through: 9/5/2006



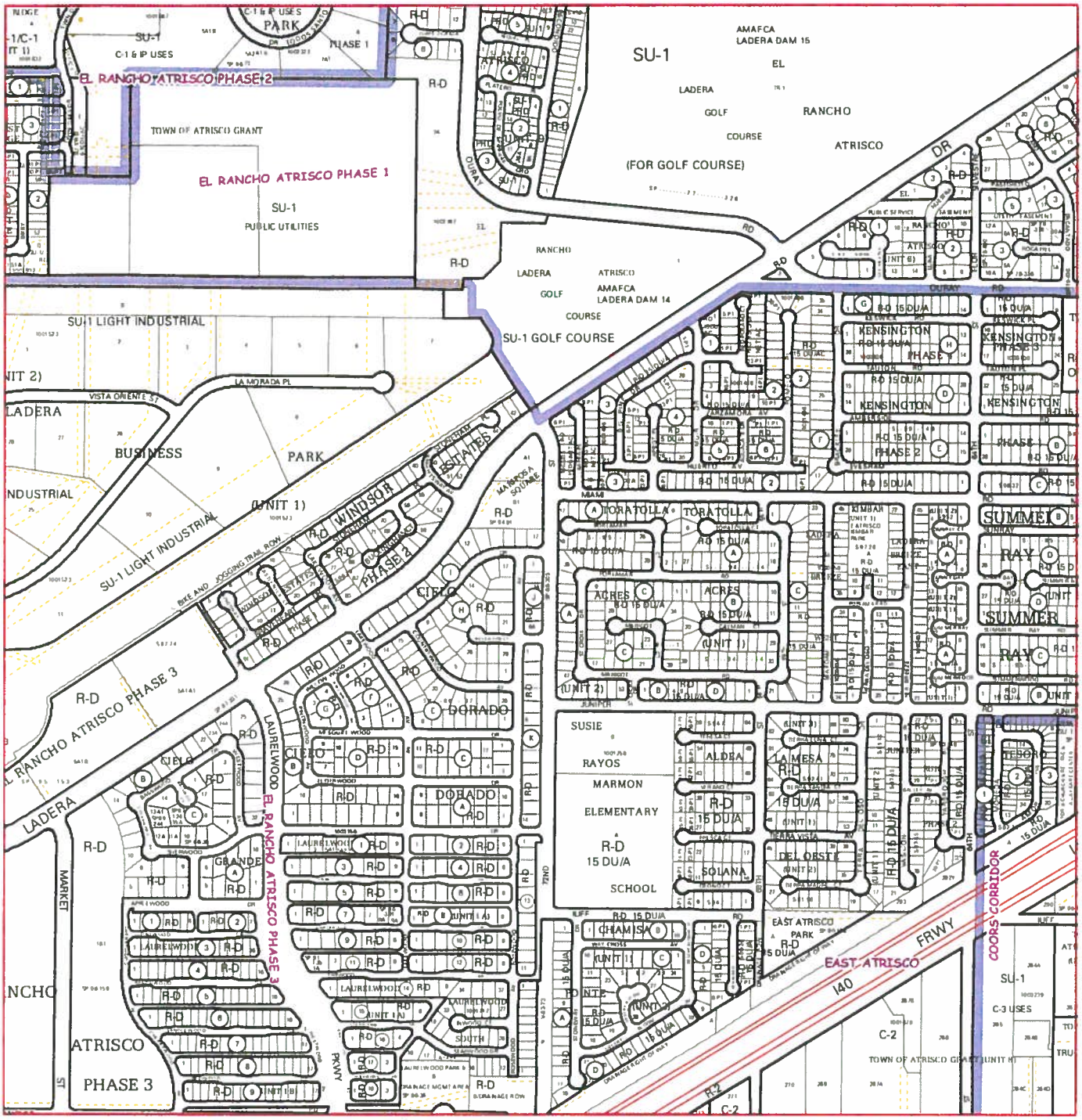
Zone Atlas Page:

H-09-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



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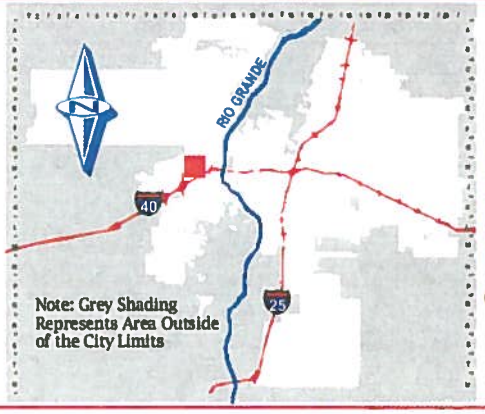
AGIS
Albuquerque Geographic Information System

Map amended through: 9/5/2006



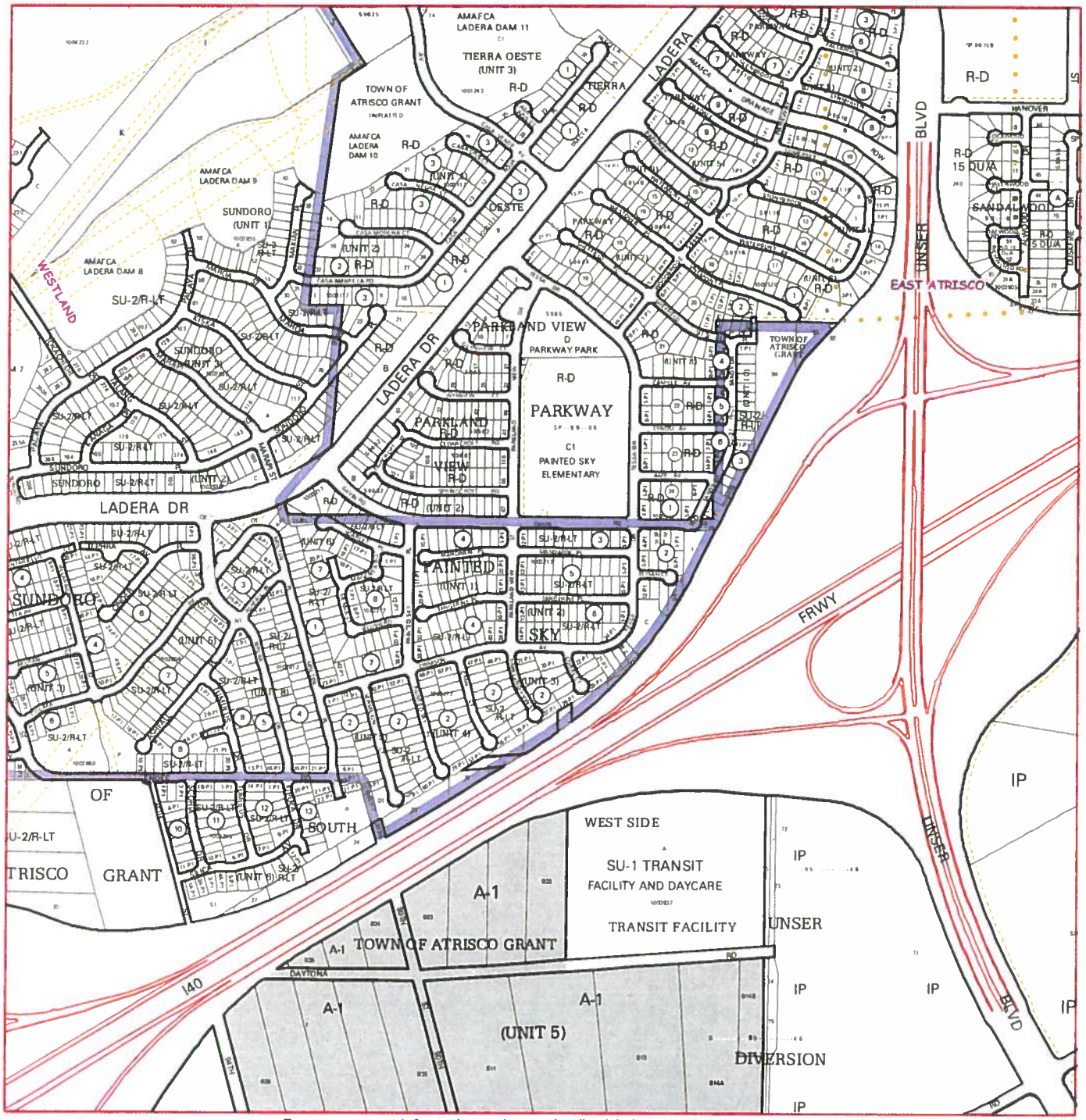
Zone Atlas Page:

H-10-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



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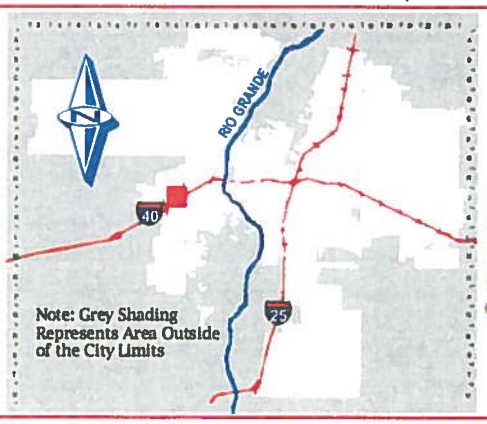
Albuquerque Geographic Information System

Map amended through: 9/5/2006



Zone Atlas Page:

J-09-Z

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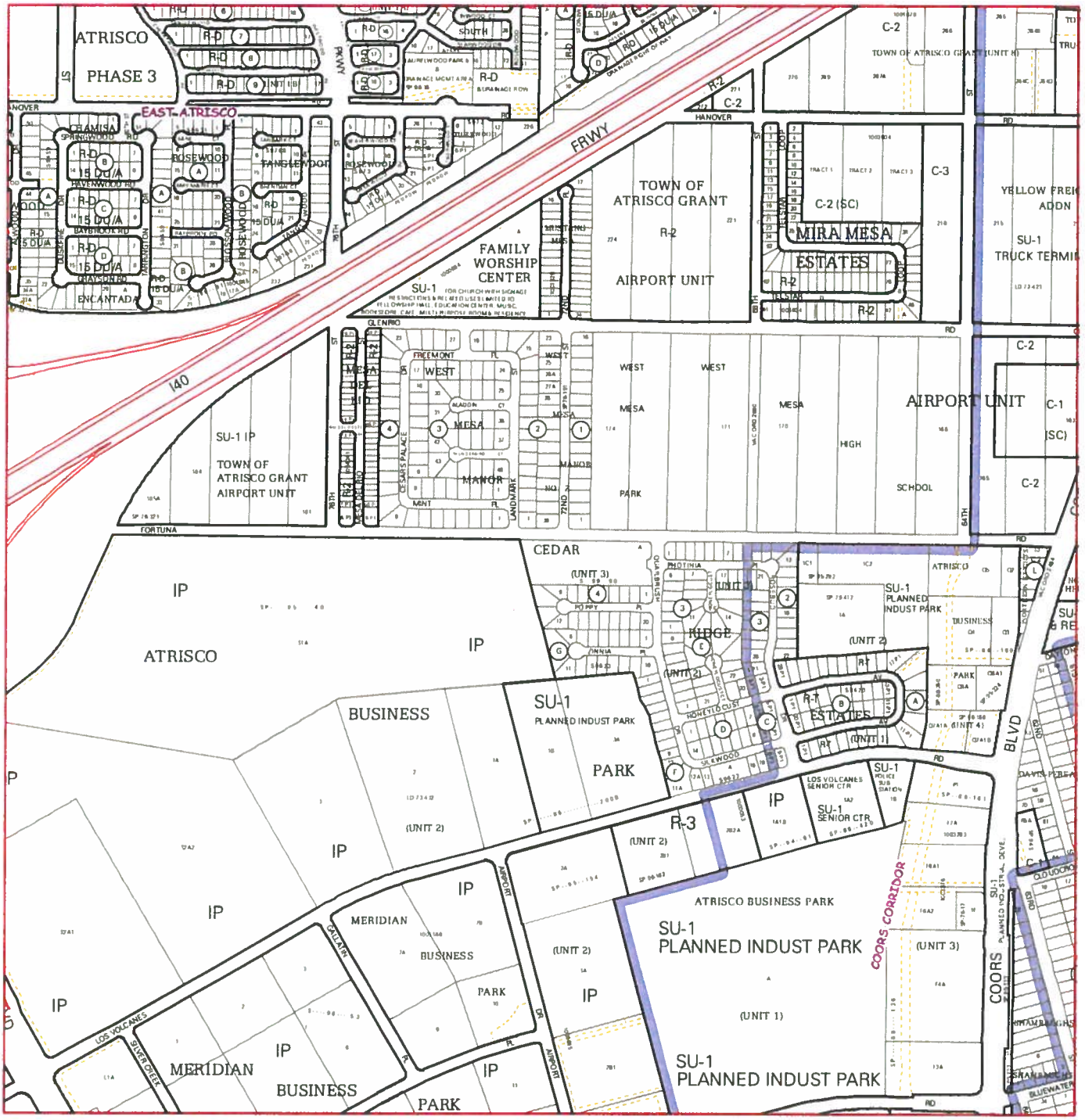
- Escarpment
- 2 Mile Airport Zone
- Airport Noise Contours
- Wall Overlay Zone

0 750 1,500 Feet



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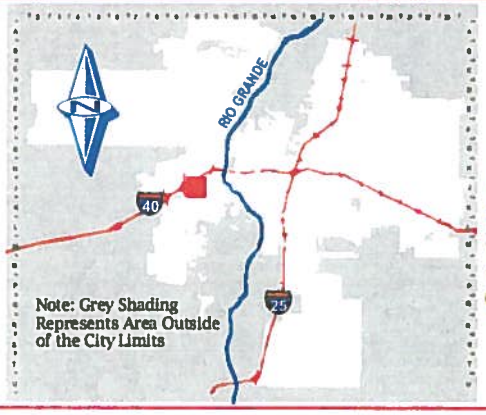
Albuquerque Geographic Information System

Map amended through: 9/5/2006



Zone Atlas Page:

J-10-Z

Selected Symbols

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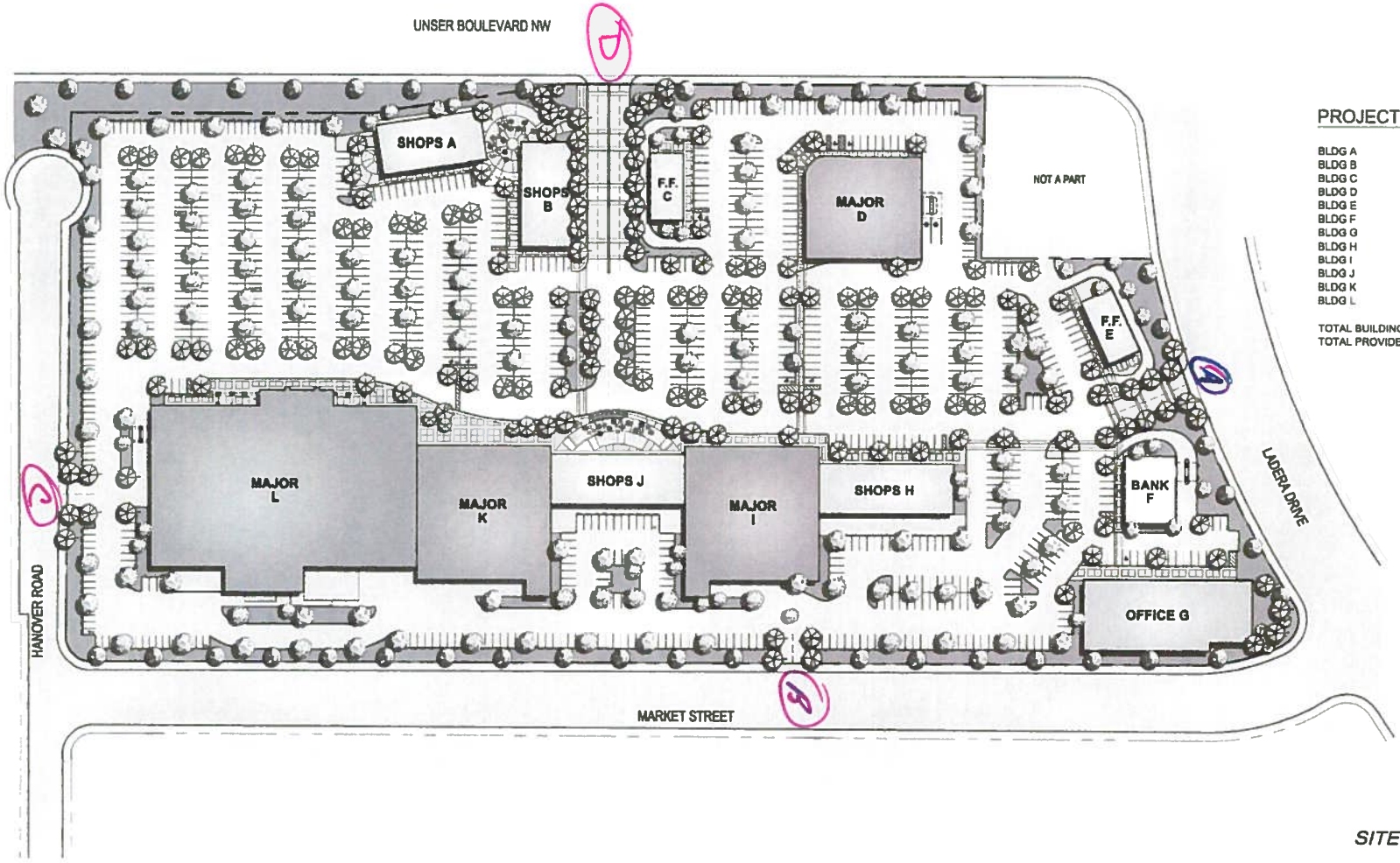
- H-1 Buffer Zone
- Petroglyph Mon.
- Escarpment
- 2 Mile Airport Zone
- Airport Noise Contours
- Wall Overlay Zone

0 750 1,500 Feet



PROJECT SUMMARY

BLDG A	7,500 SF
BLDG B	7,500 SF
BLDG C	3,200 SF
BLDG D	16,500 SF
BLDG E	3,200 SF
BLDG F	4,500 SF
BLDG G	33,000 SF
BLDG H	9,600 SF
BLDG I	26,200 SF
BLDG J	9,600 SF
BLDG K	26,200 SF
BLDG L	66,000 SF
TOTAL BUILDING AREA	213,000 SF
TOTAL PROVIDED PARKING	1,069 STALLS
	5 STALLS/ 1,000 SF

To Be Revised

SITE PLAN SCHEME 4

SCALE: 1" = 60'-0"
0 30' 60' 120'
N

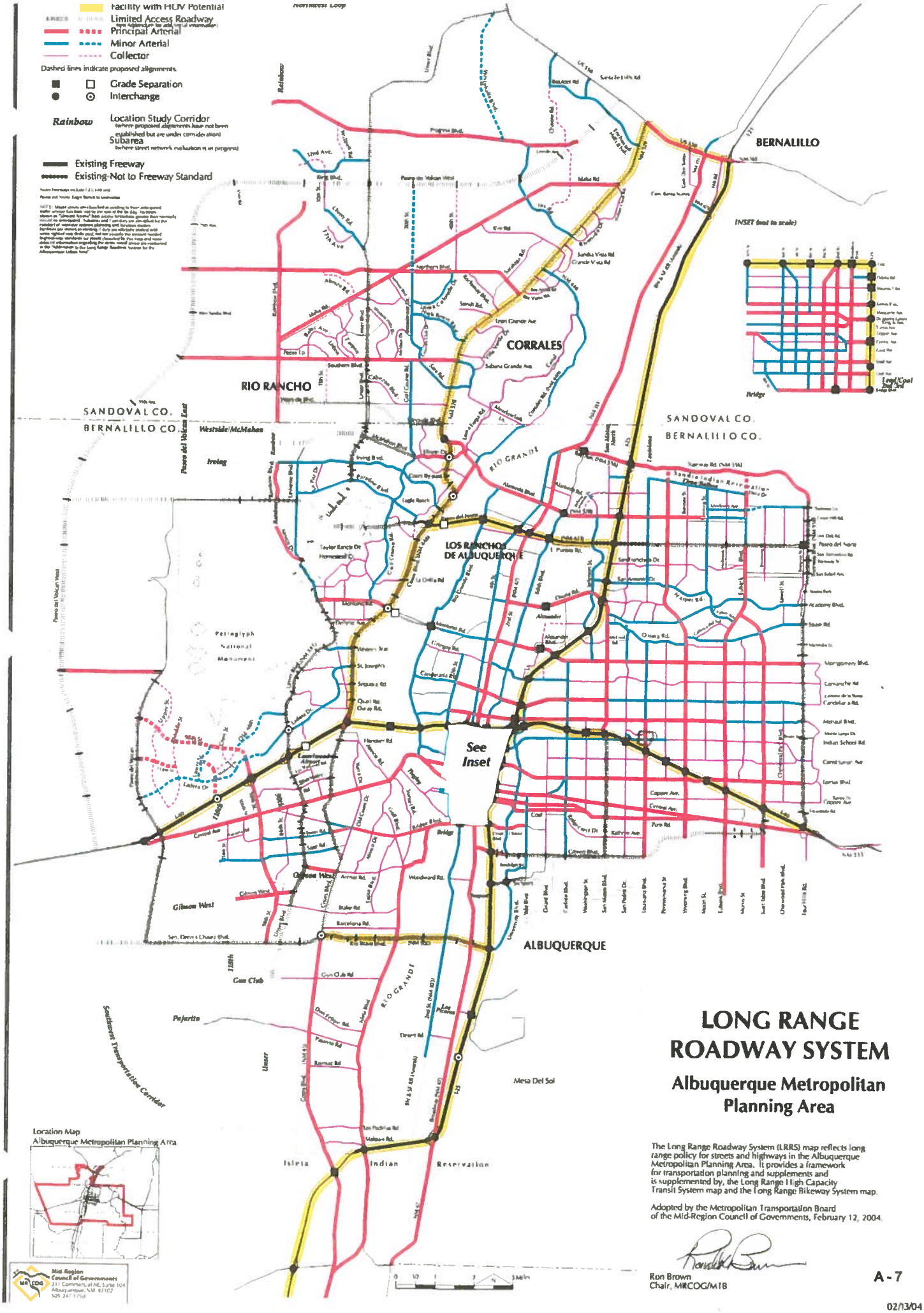
2007-101 07.16.07

HERITAGE NEIGHBORHOOD MARKETPLACE *ALBUQUERQUE, NM*

HERITAGE NEIGHBORHOOD LLC

ARCHITECTS ORANGE


Vista Oriente St.
Tierra Pintada
Unser Blvd.
Ladera Dr.
PROJECT
Unser Blvd.
Unser Blvd.
I-40



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

A-7

02/13/04

Inset for Downtown

Inset for Uptown

Inset for Los Lunas, Valencia County
Los Lunas is approximately 12 miles south of the I-25/NM 47 interchange.

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.

2006 Traffic Flows
for the Greater Albuquerque Area

Heritage Neighborhood Marketplace (Ladera / Unser)

Trip Generation Data

COMMENT	USE (ITE CODE) DESCRIPTION		24 HR VOL GROSS	A. M. PEAK HR. ENTER	A. M. PEAK HR. EXIT	P. M. PEAK HR. ENTER	P. M. PEAK HR. EXIT
	Summary Sheet	Units					
BLDGS A, B, D, H, I, J, K	Shopping Center (820)	103.10	6,927	97	62	308	333
Building L	Supermarket (850)	66.00	5,810	183	117	343	329
Building C	Fast Food Restaurant w/ Drive-Thru Window (934)	3.20	1,588	87	83	58	53
Building E	Fast Food Restaurant w/ Drive-Thru Window (934)	3.20	1,588	87	83	58	53
Building F	Drive-In Bank (912)	4	1,563	45	33	102	102
Building G	General Office Building (710)	33.00	568	68	9	20	96
	Subtotal		**18,044**	**567**	**387**	**889**	**966**
	Pass-by Trip Credit	30%				(267)	(290)
	Net new Trips to System		**18,044**	**567**	**387**	**622**	**676**

Heritage Neighborhood Marketplace (Ladera / Unser)
Trip Generation Data

USE (ITE CODE)		24 HOUR TWO-WAY VOLUME	A. M. PEAK HOUR		P. M. PEAK HOUR	
		GROSS	ENTER	EXIT	ENTER	EXIT
	Units					
Shopping Center (820)	*103.10*	6,927	97	62	308	333
	1,000 S.F.					

ITE Trip Generation Equations:

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

Ln(T) = *0.65* Ln(X) + *5.83*
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)

Ln(T) = *0.6* Ln(X) + *2.29*
61% Enter, *39%* Exit

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

Ln(T) = *0.66* Ln(X) + *3.403*
48% Enter, *52%* Exit

Comments:
BLDGS A, B, D, H, I, J, K

Based on ITE Trip Generation Manual - 7th Edition

Heritage Neighborhood Marketplace (Ladera / Unser)
Trip Generation Data

USE (ITE CODE)		24 HOUR TWO-WAY VOLUME	A.M. PEAK HOUR		P.M. PEAK HOUR	
		GROSS	ENTER	EXIT	ENTER	EXIT
	Units					
Supermarket (850)	***66.00***	5,810	183	117	343	329
	1,000 S.F.					

ITE Trip Generation Equations:

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

T = ***66.95*** **(X) +** ***1391.56***
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)

Ln(T) = ***1.7*** **Ln(X) +** ***-1.42***
61% Enter, ***39%*** Exit

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

Ln(T) = ***0.79*** **Ln(X) +** ***3.2***
51% Enter, ***49%*** Exit

Comments:
Building L

Based on ITE Trip Generation Manual - 7th Edition

Heritage Neighborhood Marketplace (Ladera / Unser)
Trip Generation Data

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)	*3.20*	1,588	87	83	58	53
	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 = *53.11* (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 = *34.64* (X) + *0*
52% Enter, *48%* Exit

Comments:
Building C

Based on ITE Trip Generation Manual - 7th Edition

Heritage Neighborhood Marketplace (Ladera / Unser)
Trip Generation Data

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)	***3.20***	1,588	87	83	58	53
	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 = ***53.11*** (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 = ***34.64*** (X) + ***0***
52% Enter, ***48%*** Exit

Comments:
Building E

Based on ITE Trip Generation Manual - 7th Edition

Heritage Neighborhood Marketplace (Ladera / Unser)
Trip Generation Data

USE (ITE CODE)		24 HOUR TWO-WAY VOLUME	A. M. PEAK HOUR		P. M. PEAK HOUR	
		GROSS	ENTER	EXIT	ENTER	EXIT
	Units					
Drive-In Bank (912)	*4*	1,563	45	33	102	102
	Drive-In Windows					

ITE Trip Generation Equations:

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

Ln(T) = *1.326* Ln(X) + *5.516*
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 = *19.38* (X) + *0*
58% Enter, *42%* 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 = *51.08* (X) + *0*
50% Enter, *50%* Exit

Comments:
Building F

Based on ITE Trip Generation Manual - 7th Edition

Heritage Neighborhood Marketplace (Ladera / Unser)
Trip Generation Data

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)	*33.00*	568	68	9	20	96
	1,000 S.F.					

ITE Trip Generation Equations:

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

Ln(T) = *0.77* Ln(X) + *3.65*
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)

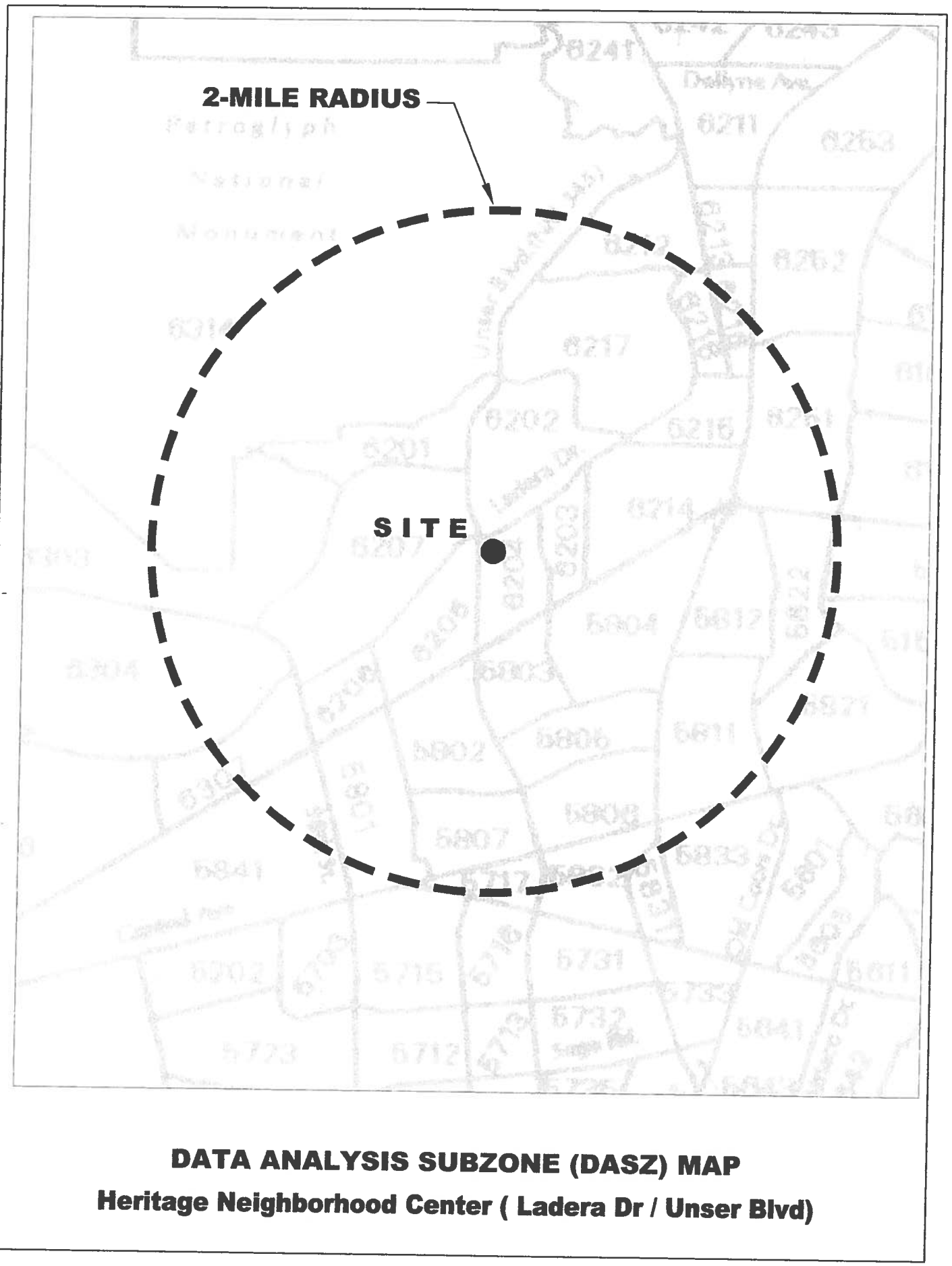
Ln(T) = *0.8* Ln(X) + *1.55*
88% Enter, *12%* Exit

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

T = *1.12* (X) + *78.81*
17% Enter, *83%* Exit

Comments:
Building G

Based on ITE Trip Generation Manual - 7th Edition



DATA ANALYSIS SUBZONE (DASZ) MAP

Heritage Neighborhood Center (Ladera Dr / Unser Blvd)

Trip Distribution Table

Heritage Neighborhood Center (Ladera Dr / Unser Blvd)

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

							(UN) Unser Blvd. North			(TE) Tierra Entada East			(MN) Market Rd North		
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	2010											
Boundary Specified on DASZ Map															
5717	90%	3	350	83	75	0.22%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
5801	95%	542	926	631	599	1.76%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
5802	100%	467	432	459	459	1.35%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
5803	100%	0	0	0	0	0.00%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
5804	100%	1983	2412	2,082	2,082	6.12%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
5805	100%	79	97	83	83	0.24%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
5806	100%	609	635	615	615	1.81%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
5807	100%	737	1424	896	896	2.63%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
5811	95%	3959	3816	3,926	3,730	10.96%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
5812	100%	2322	2177	2,289	2,289	6.73%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
5821	20%	1901	1916	1,904	381	1.12%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
5822	100%	998	1006	1,000	1,000	2.94%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
5832	50%	1214	1283	1,230	615	1.81%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
5841	10%	479	438	470	47	0.14%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
6201	100%	1158	1691	1,281	1,281	3.77%	25%	0.94%	320	0%	0.00%	0	0%	0.00%	0
6202	100%	910	1520	1,051	1,051	3.09%	30%	0.93%	315	30%	0.93%	315	5%	0.15%	53
6203	100%	870	835	862	862	2.53%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
6204	100%	1209	1357	1,243	1,243	3.65%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
6205	100%	1331	1312	1,327	1,327	3.90%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
6206	100%	0	854	197	197	0.58%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
6207	100%	1998	4709	2,624	2,624	7.71%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
6212	40%	1889	2225	1,967	787	2.31%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
6214	100%	3411	3331	3,393	3,393	9.97%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
6215	100%	1769	1673	1,747	1,747	5.14%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
6216	55%	333	400	348	191	0.56%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
6217	100%	2742	2653	2,721	2,721	8.00%	100%	8.00%	2,721	0%	0.00%	0	0%	0.00%	0
6218	100%	1758	1989	1,811	1,811	5.32%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
6251	60%	1893	1788	1,869	1,121	3.30%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
6303	50%	0	2684	619	310	0.91%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
6304	30%	0	4261	983	295	0.87%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
6307	55%	0	1460	337	185	0.54%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
6314	25%	2	0	2	1	0.00%	100%	0.00%	1	0%	0.00%	0	0%	0.00%	0
				40,050	34,018	100.00%			3,358			315			53
									9.87%			0.93%			0.15%

Trip Distribution Table

Heritage Neighborhood Center (Ladera Dr / Unser Blvd)

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

							(LN) Laurelwood Pky North			(ON) Quray Rd North			(LE) Ladera Dr 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	2010											
Boundary Specified on DASZ Map															
5717	90%	3	350	83	75	0.22%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
5801	95%	542	926	831	599	1.76%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
5802	100%	467	432	459	459	1.35%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
5803	100%	0	0	0	0	0.00%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
5804	100%	1983	2412	2,082	2,082	6.12%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
5805	100%	79	97	83	83	0.24%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
5806	100%	609	635	615	615	1.81%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
5807	100%	737	1424	896	896	2.63%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
5811	95%	3959	3816	3,926	3,730	10.96%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
5812	100%	2322	2177	2,289	2,289	6.73%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
5821	20%	1901	1916	1,904	381	1.12%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
5822	100%	998	1006	1,000	1,000	2.94%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
5832	50%	1214	1283	1,230	615	1.81%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
5841	10%	479	438	470	47	0.14%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
6201	100%	1158	1691	1,281	1,281	3.77%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
6202	100%	910	1520	1,051	1,051	3.09%	5%	0.15%	53	30%	0.93%	315	0%	0.00%	0
6203	100%	870	835	862	862	2.53%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
6204	100%	1209	1357	1,243	1,243	3.65%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
6205	100%	1331	1312	1,327	1,327	3.90%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
6206	100%	0	854	197	197	0.58%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
6207	100%	1998	4709	2,624	2,624	7.71%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
6212	40%	1889	2225	1,967	787	2.31%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
6214	100%	3411	3331	3,393	3,393	9.97%	0%	0.00%	0	0%	0.00%	0	100%	2.31%	787
6215	100%	1769	1673	1,747	1,747	5.14%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
6216	55%	333	400	348	191	0.56%	0%	0.00%	0	0%	0.00%	0	50%	2.57%	874
6217	100%	2742	2653	2,721	2,721	8.00%	0%	0.00%	0	0%	0.00%	0	100%	0.56%	191
6218	100%	1758	1989	1,811	1,811	5.32%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
6251	60%	1893	1788	1,869	1,121	3.30%	0%	0.00%	0	0%	0.00%	0	100%	5.32%	1,811
6303	50%	0	2684	619	310	0.91%	0%	0.00%	0	0%	0.00%	0	50%	1.65%	561
6304	30%	0	4261	983	295	0.87%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
6307	55%	0	1460	337	185	0.54%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
6314	25%	2	0	2	1	0.00%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
				40,050	34,018	100.00%			53			315			4,223
									0.15%			0.93%			12.41%

Trip Distribution Table

Heritage Neighborhood Center (Ladera Dr / Unser Blvd)

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

							(OS) Ouray Rd South			(LS) Laurelwood Pky South			(MS) Market Rd South		
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	2010											
Boundary Specified on DASZ Map															
5717	90%	3	350	83	75	0.22%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
5801	95%	542	926	631	599	1.76%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
5802	100%	467	432	459	459	1.35%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
5803	100%	0	0	0	0	0.00%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
5804	100%	1983	2412	2,082	2,082	6.12%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
5805	100%	79	97	83	83	0.24%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
5806	100%	609	635	615	615	1.81%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
5807	100%	737	1424	896	896	2.63%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
5811	95%	3959	3816	3,926	3,730	10.96%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
5812	100%	2322	2177	2,289	2,289	6.73%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
5821	20%	1901	1916	1,904	381	1.12%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
5822	100%	998	1006	1,000	1,000	2.94%	50%	1.47%	500	0%	0.00%	0	0%	0.00%	0
5832	50%	1214	1283	1,230	615	1.81%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
5841	10%	479	438	470	47	0.14%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
6201	100%	1158	1691	1,281	1,281	3.77%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
6202	100%	910	1520	1,051	1,051	3.09%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
6203	100%	870	835	862	862	2.53%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
6204	100%	1209	1357	1,243	1,243	3.65%	0%	0.00%	0	100%	2.53%	862	0%	0.00%	0
6205	100%	1331	1312	1,327	1,327	3.90%	0%	0.00%	0	50%	1.83%	622	50%	1.83%	622
6206	100%	0	854	197	197	0.58%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
6207	100%	1998	4709	2,624	2,624	7.71%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
6212	40%	1889	2225	1,967	787	2.31%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
6214	100%	3411	3331	3,393	3,393	9.97%	50%	4.99%	1,697	0%	0.00%	0	0%	0.00%	0
6215	100%	1769	1673	1,747	1,747	5.14%	50%	2.57%	874	0%	0.00%	0	0%	0.00%	0
6216	55%	333	400	348	191	0.56%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
6217	100%	2742	2653	2,721	2,721	8.00%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
6218	100%	1758	1989	1,811	1,811	5.32%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
6251	60%	1893	1788	1,869	1,121	3.30%	50%	1.65%	561	0%	0.00%	0	0%	0.00%	0
6303	50%	0	2684	619	310	0.91%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
6304	30%	0	4261	983	295	0.87%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
6307	55%	0	1460	337	185	0.54%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
6314	25%	2	0	2	1	0.00%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
				40,050	34,018	100.00%			3,631			1,484			622
									10.67%			4.36%			1.83%

Trip Distribution Table

Heritage Neighborhood Center (Ladera Dr / Unser Blvd)

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

							(IE) Interstate 40 East			(LVE) Los Volcanes Rd East			(US) Unser Blvd South		
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	2010											
Boundary Specified on DASZ Map															
5717	90%	3	350	83	75	0.22%	0%	0.00%	0	0%	0.00%	0	100%	0.22%	75
5801	95%	542	926	631	599	1.76%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
5802	100%	467	432	459	459	1.35%	0%	0.00%	0	0%	0.00%	0	35%	0.47%	161
5803	100%	0	0	0	0	0.00%	0%	0.00%	0	100%	0.00%	0	0%	0.00%	0
5804	100%	1983	2412	2,082	2,082	6.12%	35%	2.14%	729	0%	0.00%	0	65%	3.98%	1,353
5805	100%	79	97	83	83	0.24%	0%	0.00%	0	0%	0.00%	0	100%	0.24%	83
5806	100%	609	635	615	615	1.81%	0%	0.00%	0	0%	0.00%	0	100%	1.81%	615
5807	100%	737	1424	896	896	2.63%	0%	0.00%	0	0%	0.00%	0	100%	2.63%	896
5811	95%	3959	3816	3,926	3,730	10.96%	0%	0.00%	0	50%	5.48%	1,865	50%	5.48%	1,865
5812	100%	2322	2177	2,289	2,289	6.73%	80%	5.38%	1,831	20%	1.35%	458	0%	0.00%	0
5821	20%	1901	1916	1,904	381	1.12%	30%	0.34%	114	0%	0.00%	0	70%	0.78%	267
5822	100%	998	1006	1,000	1,000	2.94%	50%	1.47%	500	0%	0.00%	0	0%	0.00%	0
5832	50%	1214	1283	1,230	615	1.81%	0%	0.00%	0	0%	0.00%	0	100%	1.81%	615
5841	10%	479	438	470	47	0.14%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
6201	100%	1158	1691	1,281	1,281	3.77%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
6202	100%	910	1520	1,051	1,051	3.09%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
6203	100%	870	835	862	862	2.53%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
6204	100%	1209	1357	1,243	1,243	3.65%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
6205	100%	1331	1312	1,327	1,327	3.90%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
6206	100%	0	854	197	197	0.58%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
6207	100%	1998	4709	2,624	2,624	7.71%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
6212	40%	1889	2225	1,967	787	2.31%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
6214	100%	3411	3331	3,393	3,393	9.97%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
6215	100%	1769	1673	1,747	1,747	5.14%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
6216	55%	333	400	348	191	0.56%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
6217	100%	2742	2653	2,721	2,721	8.00%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
6218	100%	1758	1989	1,811	1,811	5.32%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
6251	60%	1893	1788	1,869	1,121	3.30%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
6303	50%	0	2684	619	310	0.91%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
6304	30%	0	4261	983	295	0.87%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
6307	55%	0	1460	337	185	0.54%	100%	0.54%	185	0%	0.00%	0	0%	0.00%	0
6314	25%	2	0	2	1	0.00%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
				40,050	34,018	100.00%			3,359			2,323			5,930
									9.87%			6.83%			17.43%

Trip Distribution Table

Heritage Neighborhood Center (Ladera Dr / Unser Blvd)

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

							(LVW) Los Volcanes Rd West			(IW) Interstate 40 West			(LW) Ladera Dr 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	2010											
Boundary Specified on DASZ Map															
5717	90%	3	350	83	75	0.22%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
5801	95%	542	926	631	599	1.76%	0%	0.00%	0	100%	1.76%	599	0%	0.00%	0
5802	100%	467	432	459	459	1.35%	65%	0.88%	298	0%	0.00%	0	0%	0.00%	0
5803	100%	0	0	0	0	0.00%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
5804	100%	1983	2412	2,082	2,082	6.12%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
5805	100%	79	97	83	83	0.24%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
5806	100%	609	635	615	615	1.81%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
5807	100%	737	1424	896	896	2.63%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
5811	95%	3959	3816	3,926	3,730	10.96%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
5812	100%	2322	2177	2,289	2,289	6.73%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
5821	20%	1901	1916	1,904	381	1.12%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
5822	100%	998	1006	1,000	1,000	2.94%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
5832	50%	1214	1283	1,230	615	1.81%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
5841	10%	479	438	470	47	0.14%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
6201	100%	1158	1691	1,281	1,281	3.77%	0%	0.00%	0	100%	0.14%	47	0%	0.00%	0
6202	100%	910	1520	1,051	1,051	3.09%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
6203	100%	870	835	862	862	2.53%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
6204	100%	1209	1357	1,243	1,243	3.65%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
6205	100%	1331	1312	1,327	1,327	3.90%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
6206	100%	0	854	197	197	0.58%	0%	0.00%	0	0%	0.00%	0	100%	3.90%	1,327
6207	100%	1998	4709	2,624	2,624	7.71%	0%	0.00%	0	0%	0.00%	0	100%	0.58%	197
6212	40%	1889	2225	1,967	787	2.31%	0%	0.00%	0	0%	0.00%	0	50%	3.86%	1,312
6214	100%	3411	3331	3,393	3,393	9.97%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
6215	100%	1769	1673	1,747	1,747	5.14%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
6216	55%	333	400	348	191	0.56%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
6217	100%	2742	2653	2,721	2,721	8.00%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
6218	100%	1758	1989	1,811	1,811	5.32%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
6251	60%	1893	1788	1,869	1,121	3.30%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
6303	50%	0	2684	619	310	0.91%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
6304	30%	0	4261	983	295	0.87%	0%	0.00%	0	0%	0.00%	0	100%	0.91%	310
6307	55%	0	1460	337	185	0.54%	0%	0.00%	0	0%	0.00%	0	100%	0.87%	295
6314	25%	2	0	2	1	0.00%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
				40,050	34,018	100.00%			298			646			3,441
									0.88%			1.90%			10.12%

Trip Distribution Table

Heritage Neighborhood Center (Ladera Dr / Unser Blvd)

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

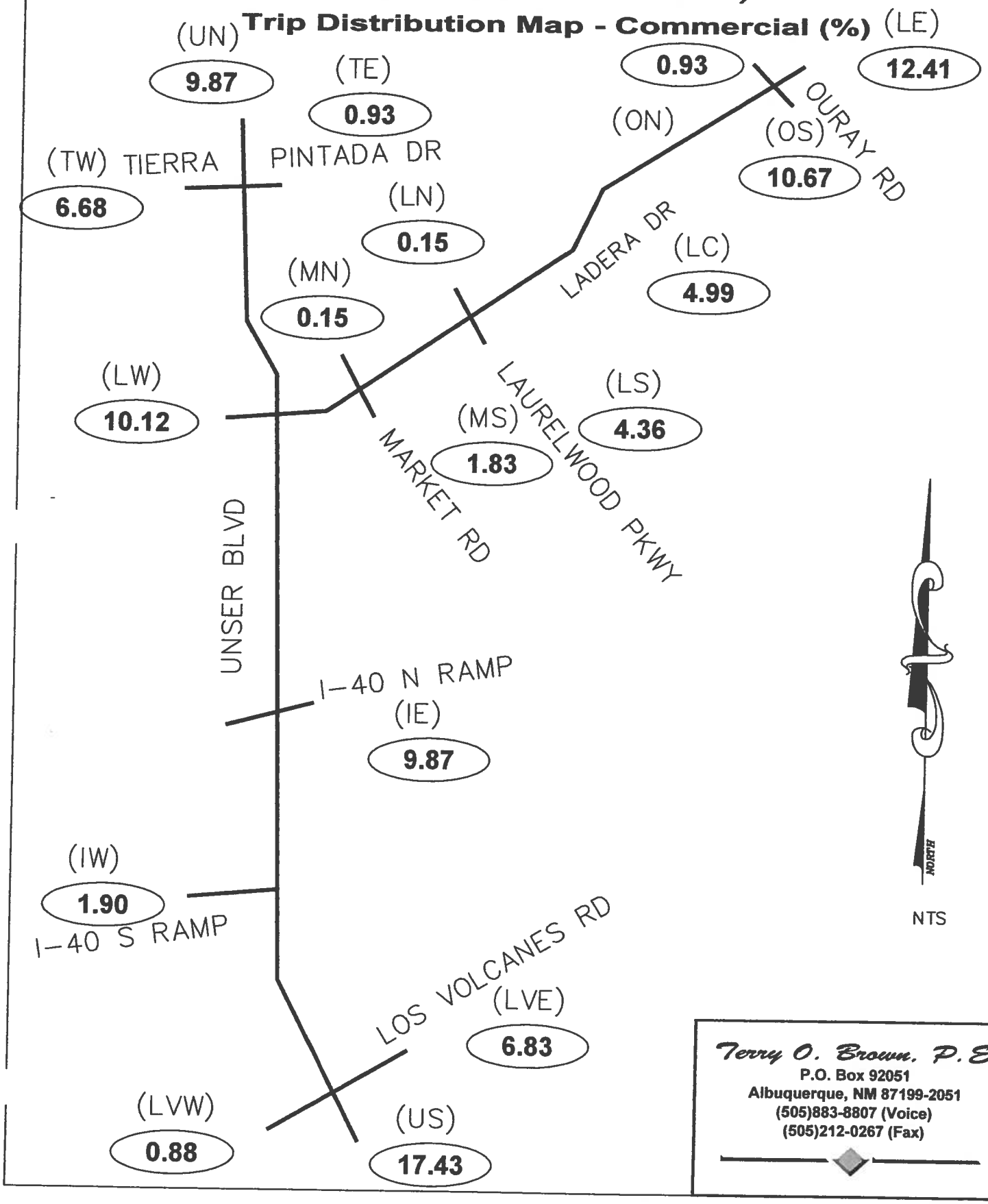
2004 and 2030 Data Taken from Mid-Region Council of Governments' 2030 Socioeconomic
2030 Socioeconomic Forecasts by Data Analysis Subzones for the Mid-Region of New Mexico

DASZ #	% Sub Area in Study	2004 Population	2030 Population	Interpolated Population for the Year	Population in Study	Percent Population	(TW) Tierra Pintada West			(LC) Ladera Dr Central		
							% Utilizing	% Population Utilizing	Population	% Utilizing	% Population Utilizing	Population
		2004	2030	2010								
Boundary Specified on DASZ Map												
5717	90%	3	350	83	75	0.22%	0%	0.00%	0	0%	0.00%	0
5801	95%	542	926	631	599	1.76%	0%	0.00%	0	0%	0.00%	0
5802	100%	467	432	459	459	1.35%	0%	0.00%	0	0%	0.00%	0
5803	100%	0	0	0	0	0.00%	0%	0.00%	0	0%	0.00%	0
5804	100%	1983	2412	2,082	2,082	6.12%	0%	0.00%	0	0%	0.00%	0
5805	100%	79	97	83	83	0.24%	0%	0.00%	0	0%	0.00%	0
5806	100%	609	635	615	615	1.81%	0%	0.00%	0	0%	0.00%	0
5807	100%	737	1424	896	896	2.63%	0%	0.00%	0	0%	0.00%	0
5811	95%	3959	3816	3,926	3,730	10.96%	0%	0.00%	0	0%	0.00%	0
5812	100%	2322	2177	2,289	2,289	6.73%	0%	0.00%	0	0%	0.00%	0
5821	20%	1901	1916	1,904	381	1.12%	0%	0.00%	0	0%	0.00%	0
5822	100%	998	1006	1,000	1,000	2.94%	0%	0.00%	0	0%	0.00%	0
5832	50%	1214	1283	1,230	615	1.81%	0%	0.00%	0	0%	0.00%	0
5841	10%	479	438	470	47	0.14%	0%	0.00%	0	0%	0.00%	0
6201	100%	1158	1691	1,281	1,281	3.77%	75%	2.82%	961	0%	0.00%	0
6202	100%	910	1520	1,051	1,051	3.09%	0%	0.00%	0	0%	0.00%	0
6203	100%	870	835	862	862	2.53%	0%	0.00%	0	0%	0.00%	0
6204	100%	1209	1357	1,243	1,243	3.66%	0%	0.00%	0	0%	0.00%	0
6205	100%	1331	1312	1,327	1,327	3.90%	0%	0.00%	0	0%	0.00%	0
6206	100%	0	854	197	197	0.58%	0%	0.00%	0	0%	0.00%	0
6207	100%	1998	4709	2,624	2,624	7.71%	50%	3.86%	1,312	0%	0.00%	0
6212	40%	1889	2225	1,967	787	2.31%	0%	0.00%	0	0%	0.00%	0
6214	100%	3411	3331	3,393	3,393	9.97%	0%	0.00%	0	50%	4.99%	1,697
6215	100%	1769	1873	1,747	1,747	5.14%	0%	0.00%	0	0%	0.00%	0
6216	55%	333	400	348	191	0.56%	0%	0.00%	0	0%	0.00%	0
6217	100%	2742	2853	2,721	2,721	8.00%	0%	0.00%	0	0%	0.00%	0
6218	100%	1758	1989	1,811	1,811	5.32%	0%	0.00%	0	0%	0.00%	0
6251	60%	1893	1788	1,869	1,121	3.30%	0%	0.00%	0	0%	0.00%	0
6303	50%	0	2684	619	310	0.91%	0%	0.00%	0	0%	0.00%	0
6304	30%	0	4261	983	295	0.87%	0%	0.00%	0	0%	0.00%	0
6307	55%	0	1460	337	185	0.54%	0%	0.00%	0	0%	0.00%	0
6314	25%	2	0	2	1	0.00%	0%	0.00%	0	0%	0.00%	0
				40,050	34,018	100.00%			2,273			1,697
									6.68%			4.99%

Heritage Neighborhood Center

(Ladera Dr / Unser Blvd)

Trip Distribution Map - Commercial (%)



NTS

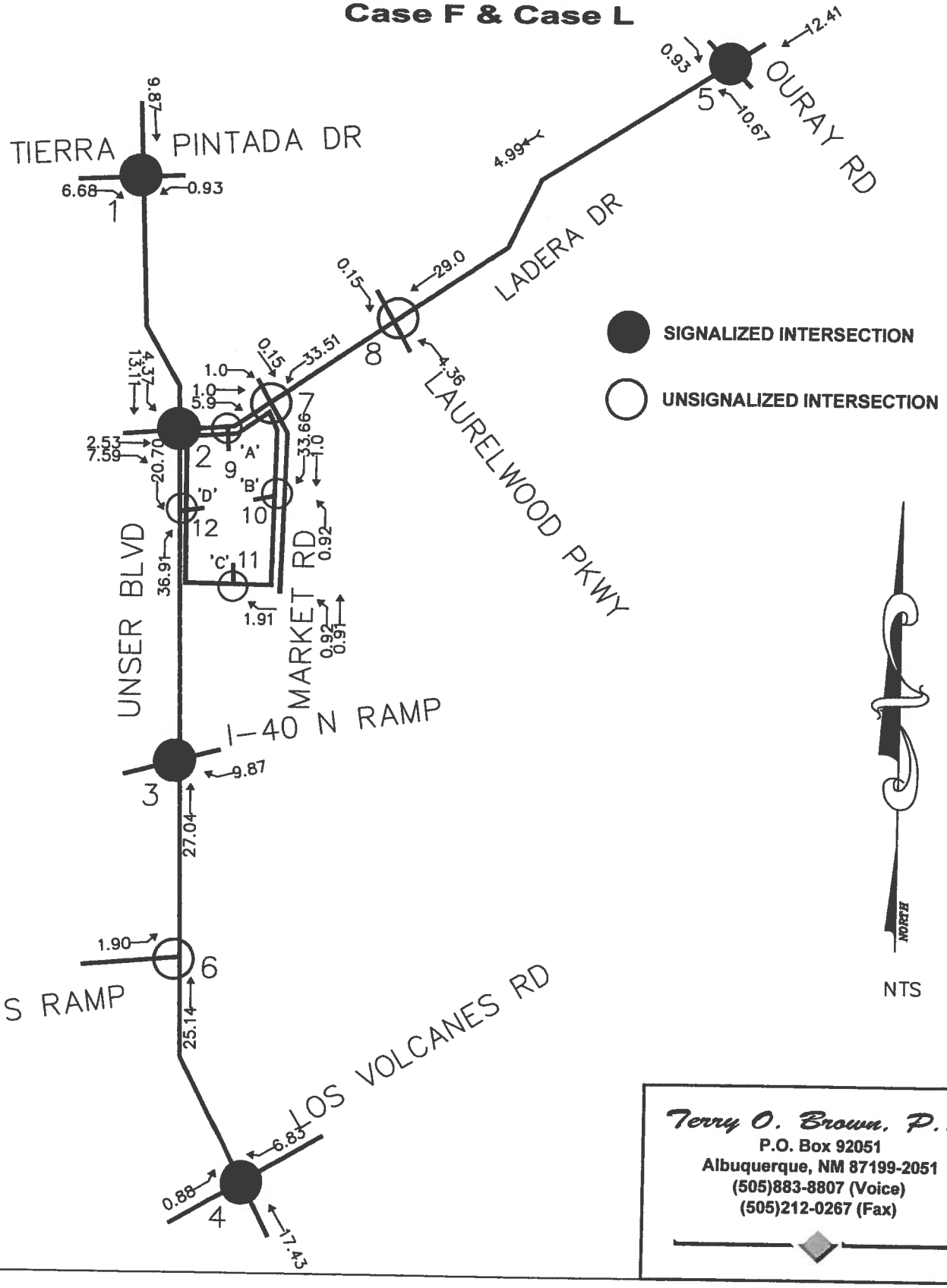
Terry O. Brown, P.E.
P.O. Box 92051
Albuquerque, NM 87199-2051
(505)883-8807 (Voice)
(505)212-0267 (Fax)

Heritage Neighborhood Center

(Ladera Dr / Unser Blvd)

Trip Assignments - Commercial (% Entering)

Case F & Case L



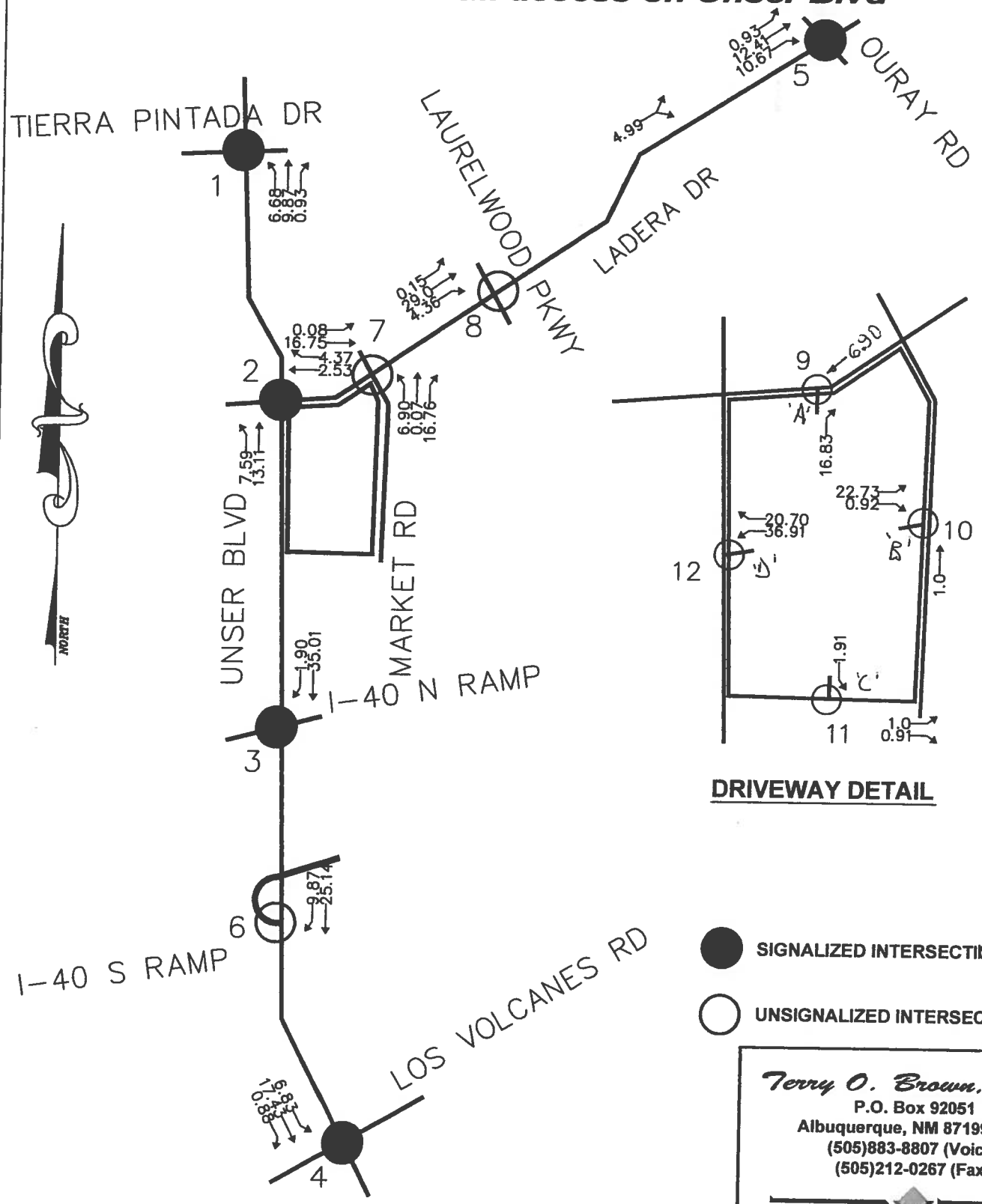
Terry O. Brown, P.E.
P.O. Box 92051
Albuquerque, NM 87199-2051
(505)883-8807 (Voice)
(505)212-0267 (Fax)

Heritage Neighborhood Center

(Ladera Dr / Unser Blvd)

Trip Assignments - Commercial (% Exiting)

Case F - Full access on Unser Blvd

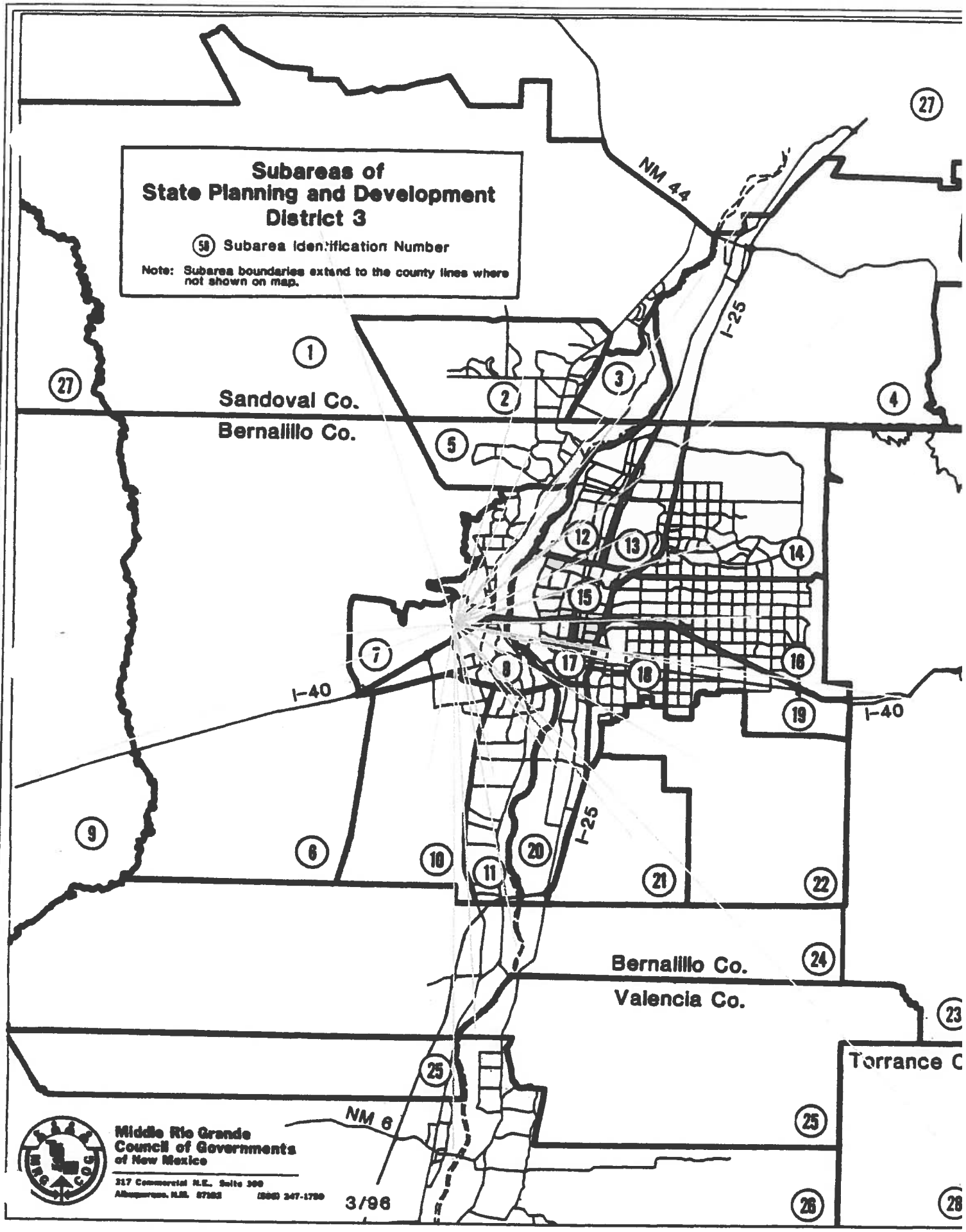


DRIVEWAY DETAIL

SIGNALIZED INTERSECTIONS

UNSIGNALIZED INTERSECTION

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



Heritage Neighborhood Center (Ladera Dr / Unser Blvd)
Trip Distribution - Subarea Map

Figure 4

Trip Distribution Table

Heritage Neighborhood Center

Sub Area Population Data:

For determination of Trip Distribution for Proposed **Office Development Trips**

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

									(UN) Unser Blvd North			(TE) Tierra Entada East			(MN) Market Rd North		
Sub Area I.D.#	% Sub Area in Study	2004 Population	2030 Population	Interpolated Population for the Year	Population in Study	Dist. (Mi.)	Population / Distance	% Population / Distance	% Utilizing	% Population / Dist. Utilizing	Population	% Utilizing	% Population / Dist. Utilizing	Population	% Utilizing	% Population / Dist. Utilizing	Population
		2004	2030	2010													
1	100%	26,972	39,738	29,918	2,010	20.77	97	0.08%	20%	0.02%	19	0%	0.00%	0	0%	0.00%	0
2	100%	39,348	40,610	39,639	29,918	12.80	2,338	2.00%	50%	1.00%	1,169	0%	0.00%	0	0%	0.00%	0
3	100%	7,865	8,728	8,064	8,064	14.94	540	0.46%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
4	100%	13,387	14,936	13,744	13,744	25.46	540	0.46%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
5	100%	35,968	44,203	37,868	37,868	9.38	4,037	3.45%	50%	1.73%	2,019	0%	0.00%	0	0%	0.00%	0
6	100%	2,784	3,950	3,053	3,053	8.78	348	0.30%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
7*	100%	48,565	59,615	51,115	51,115	1.01	50,861	43.52%	32%	13.89%	16,230	3%	1.29%	1,511	0%	0.04%	51
8	100%	27,546	28,553	27,778	27,778	2.88	9,642	8.25%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
9	100%	1,678	1,888	1,726	1,726	19.97	86	0.07%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
10	100%	39,532	4,822	31,522	31,522	7.44	4,239	3.63%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
11	100%	32,051	33,202	32,317	32,317	7.91	4,088	3.50%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
12	100%	16,144	16,146	16,144	16,144	8.98	1,798	1.54%	50%	0.77%	899	0%	0.00%	0	0%	0.00%	0
13	100%	8,715	10,146	9,045	9,045	10.18	888	0.76%	50%	0.38%	444	0%	0.00%	0	0%	0.00%	0
14	100%	93,104	94,279	93,375	93,375	14.00	6,668	5.71%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
15	100%	24,691	25,262	24,823	24,823	5.83	4,258	3.64%	33%	1.20%	1,405	0%	0.00%	0	0%	0.00%	0
16	100%	108,882	108,353	108,760	108,760	15.28	7,120	6.09%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
17	100%	20,920	21,196	20,984	20,984	5.70	3,685	3.15%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
18	100%	42,078	41,670	41,984	41,984	8.91	4,711	4.03%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
19	100%	59,027	58,888	58,995	58,995	15.54	3,795	3.25%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
20	100%	9,482	9,699	9,532	9,532	9.11	1,046	0.90%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
21	100%	6	6	6	6	13.87	0	0.00%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
22	100%	4,231	3,629	4,092	4,092	17.69	231	0.20%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
23	100%	18,140	20,390	18,659	18,659	23.18	805	0.69%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
24	100%	2,393	2,554	2,430	2,430	16.48	147	0.13%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
25	100%	1,009	1,062	1,021	1,021	20.23	50	0.04%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
26	100%	75,506	85,654	77,848	77,848	26.20	2,972	2.54%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
27	100%	20,955	22,276	21,260	21,260	19.97	1,065	0.91%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
28	100%	19,524	21,890	20,024	20,024	35.18	569	0.49%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
29	100%	11,360	13,771	11,916	11,916	46.90	254	0.22%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
		811,863	836,916	817,644	780,015		116,879	100.00%		18.98%	22,185		1.29%	1,511		0.04%	51
											18.98%			1.29%			0.04%

* - Subarea in which the site it located.

Trip Distribution Table

Heritage Neighborhood Center

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

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

								(LN) Lakewood Pkwy			(ON) Quay Rd North			(LE) Tierra Dr East		
Sub Area I.D.#	% Sub Area In Study	2004 Population	2030 Population	Interpolated Population for the Year	Population in Study	Dist. (Mi.)	Population / Distance	% Utilizing	% Population / Dist. Utilizing	Population	% Utilizing	% Population / Dist. Utilizing	Population	% Utilizing	% Population / Dist. Utilizing	Population
		2004	2030	2010												
1	100%	26,972	39,738	29,918	2,010	20.77	97	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
2	100%	39,348	40,610	39,639	29,918	12.80	2,338	0%	0.00%	0	0%	0.00%	0	50%	1.00%	1,169
3	100%	7,865	8,728	8,064	8,064	14.94	540	0%	0.00%	0	0%	0.00%	0	100%	0.46%	540
4	100%	13,387	14,936	13,744	13,744	25.46	540	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
5	100%	35,988	44,203	37,868	37,868	9.38	4,037	0%	0.00%	0	0%	0.00%	0	50%	1.73%	2,019
6	100%	2,784	3,950	3,053	3,053	8.78	348	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
7*	100%	48,565	59,615	51,115	51,115	1.01	50,861	0%	0.04%	51	1%	0.26%	300	37%	16.31%	19,063
8	100%	27,548	28,553	27,778	27,778	2.88	9,642	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
9	100%	1,678	1,888	1,726	1,726	19.97	86	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
10	100%	39,532	4,822	31,522	31,522	7.44	4,239	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
11	100%	32,051	33,202	32,317	32,317	7.91	4,088	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
12	100%	16,144	16,146	16,144	16,144	8.98	1,798	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
13	100%	8,715	10,146	9,045	9,045	10.18	888	0%	0.00%	0	0%	0.00%	0	50%	0.77%	899
14	100%	93,104	94,279	93,375	93,375	14.00	6,668	0%	0.00%	0	0%	0.00%	0	50%	0.38%	444
15	100%	24,691	25,262	24,823	24,823	5.83	4,258	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
16	100%	108,882	108,353	108,760	108,760	15.28	7,120	0%	0.00%	0	0%	0.00%	0	33%	1.20%	1,405
17	100%	20,920	21,196	20,984	20,984	5.70	3,685	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
18	100%	42,078	41,670	41,984	41,984	8.91	4,711	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
19	100%	59,027	58,888	58,995	58,995	15.54	3,795	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
20	100%	9,482	9,699	9,532	9,532	9.11	1,046	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
21	100%	6	6	6	6	13.87	0	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
22	100%	4,231	3,629	4,092	4,092	17.69	231	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
23	100%	18,140	20,390	18,659	18,659	23.18	805	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
24	100%	2,393	2,554	2,430	2,430	16.48	147	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
25	100%	1,009	1,062	1,021	1,021	20.23	50	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
26	100%	75,506	85,654	77,848	77,848	26.20	2,972	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
27	100%	20,955	22,276	21,260	21,260	19.97	1,065	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
28	100%	19,524	21,890	20,024	20,024	35.18	569	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
29	100%	11,360	13,771	11,916	11,916	46.90	254	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
		811,863	836,916	817,644	780,015		116,879		0.04%	51		0.26%	300		21.85%	25,538
										0.04%			0.26%			21.85%

* - Subarea in which the site it located.

Trip Distribution Table

Heritage Neighborhood Center

Sub Area Population Data:

For determination of Trip Distribution for Proposed **Office Development Trips**

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

								(OS) Ouray Rd South			(LS) Larkwood Pkwy South			(MS) Market Rd South		
Sub Area I.D.#	% Sub Area In Study	2004 Population	2030 Population	Interpolated Population for the Year	Population in Study	Dist. (Mi.)	Population / Distance	% Utilizing	% Population / Dist. Utilizing	Population	% Utilizing	% Population / Dist. Utilizing	Population	% Utilizing	% Population / Dist. Utilizing	Population
		2004	2030	2010												
1	100%	26,972	39,738	29,918	2,010	20.77	97	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
2	100%	39,348	40,610	39,639	29,918	12.80	2,338	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
3	100%	7,865	8,728	8,064	8,064	14.94	540	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
4	100%	13,387	14,936	13,744	13,744	25.46	540	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
5	100%	35,968	44,203	37,868	37,868	9.38	4,037	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
6	100%	2,784	3,950	3,053	3,053	8.78	348	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
7*	100%	48,565	59,615	51,115	51,115	1.01	50,861	7%	2.84%	3,316	3%	1.20%	1,404	1%	0.50%	590
8	100%	27,546	28,553	27,778	27,778	2.88	9,642	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
9	100%	1,678	1,888	1,726	1,726	19.97	86	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
10	100%	39,532	4,822	31,522	31,522	7.44	4,239	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
11	100%	32,051	33,202	32,317	32,317	7.91	4,088	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
12	100%	16,144	16,146	16,144	16,144	8.98	1,798	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
13	100%	8,715	10,146	9,045	9,045	10.18	888	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
14	100%	93,104	94,279	93,375	93,375	14.00	6,668	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
15	100%	24,891	25,262	24,823	24,823	5.83	4,258	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
16	100%	108,882	108,353	108,760	108,760	15.28	7,120	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
17	100%	20,920	21,196	20,984	20,984	5.70	3,685	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
18	100%	42,078	41,670	41,984	41,984	8.91	4,711	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
19	100%	59,027	58,888	58,995	58,995	15.54	3,795	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
20	100%	9,482	9,699	9,532	9,532	9.11	1,046	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
21	100%	6	6	6	6	13.87	0	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
22	100%	4,231	3,629	4,092	4,092	17.69	231	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
23	100%	18,140	20,390	18,659	18,659	23.18	805	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
24	100%	2,393	2,554	2,430	2,430	16.48	147	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
25	100%	1,009	1,082	1,021	1,021	20.23	50	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
26	100%	75,506	85,654	77,848	77,848	26.20	2,972	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
27	100%	20,955	22,276	21,260	21,260	19.97	1,065	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
28	100%	19,524	21,690	20,024	20,024	35.18	569	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
29	100%	11,360	13,771	11,916	11,916	46.90	254	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
		811,863	836,916	817,644	780,015		116,879		2.84%	3,316		1.20%	1,404		0.50%	590
										2.84%			1.20%			0.50%

* - Subarea in which the site it located.

Trip Distribution Table

Heritage Neighborhood Center

Sub Area Population Data:

For determination of Trip Distribution for Proposed **Office Development Trips**

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

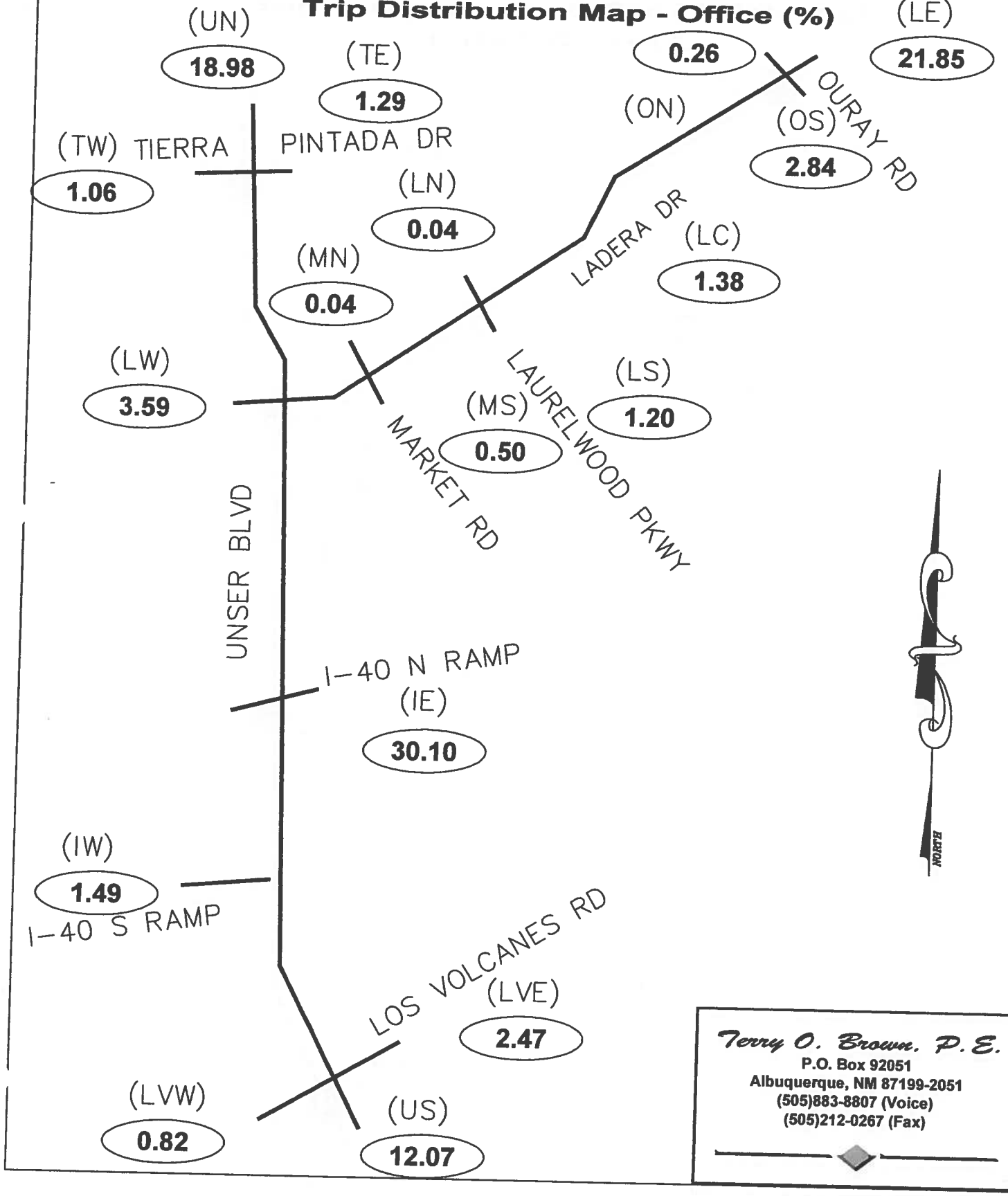
								(IE) Interstate 40 East			(LVE) Los Volcanes East			(US) Unser Blvd South		
Sub Area I.D.#	% Sub Area in Study	2004 Population	2030 Population	Interpolated Population for the Year	Population in Study	Dist. (Mi.)	Population / Distance	% Utilizing	% Population / Dist. Utilizing	Population	% Utilizing	% Population / Dist. Utilizing	Population	% Utilizing	% Population / Dist. Utilizing	Population
		2004	2030	2010												
1	100%	26,972	39,738	29,918	2,010	20.77	97	80%	0.07%	77	0%	0.00%	0	0%	0.00%	0
2	100%	39,348	40,610	39,639	29,918	12.80	2,338	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
3	100%	7,865	8,728	8,064	8,064	14.94	540	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
4	100%	13,387	14,936	13,744	13,744	25.46	540	100%	0.46%	540	0%	0.00%	0	0%	0.00%	0
5	100%	35,988	44,203	37,868	37,868	9.38	4,037	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
6	100%	2,784	3,950	3,053	3,053	8.78	348	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
7*	100%	48,565	59,615	51,115	51,115	1.01	50,861	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
8	100%	27,548	28,553	27,778	27,778	2.88	9,642	0%	0.00%	0	30%	2.47%	2,893	90%	4.95%	5,785
9	100%	1,678	1,888	1,726	1,726	19.97	86	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
10	100%	39,532	4,822	31,522	31,522	7.44	4,239	0%	0.00%	0	0%	0.00%	0	100%	3.63%	4,239
11	100%	32,051	33,202	32,317	32,317	7.91	4,088	0%	0.00%	0	0%	0.00%	0	100%	3.50%	4,088
12	100%	16,144	16,146	16,144	16,144	8.98	1,798	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
13	100%	8,715	10,146	9,045	9,045	10.18	888	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
14	100%	93,104	94,279	93,375	93,375	14.00	6,668	100%	5.71%	6,668	0%	0.00%	0	0%	0.00%	0
15	100%	24,691	25,262	24,823	24,823	5.83	4,258	34%	1.24%	1,448	0%	0.00%	0	0%	0.00%	0
16	100%	108,882	108,353	108,760	108,760	15.28	7,120	100%	6.09%	7,120	0%	0.00%	0	0%	0.00%	0
17	100%	20,920	21,196	20,984	20,984	5.70	3,685	100%	3.15%	3,685	0%	0.00%	0	0%	0.00%	0
18	100%	42,078	41,670	41,984	41,984	8.91	4,711	100%	4.03%	4,711	0%	0.00%	0	0%	0.00%	0
19	100%	59,027	58,888	58,995	58,995	15.54	3,795	100%	3.25%	3,795	0%	0.00%	0	0%	0.00%	0
20	100%	9,482	9,699	9,532	9,532	9.11	1,046	100%	0.90%	1,046	0%	0.00%	0	0%	0.00%	0
21	100%	6	6	6	6	13.87	0	100%	0.00%	0	0%	0.00%	0	0%	0.00%	0
22	100%	4,231	3,629	4,092	4,092	17.69	231	100%	0.20%	231	0%	0.00%	0	0%	0.00%	0
23	100%	18,140	20,390	18,659	18,659	23.18	805	100%	0.69%	805	0%	0.00%	0	0%	0.00%	0
24	100%	2,393	2,554	2,430	2,430	16.48	147	100%	0.13%	147	0%	0.00%	0	0%	0.00%	0
25	100%	1,009	1,062	1,021	1,021	20.23	50	100%	0.04%	50	0%	0.00%	0	0%	0.00%	0
26	100%	75,506	85,654	77,848	77,848	26.20	2,972	100%	2.54%	2,972	0%	0.00%	0	0%	0.00%	0
27	100%	20,955	22,276	21,260	21,260	19.97	1,065	100%	0.91%	1,065	0%	0.00%	0	0%	0.00%	0
28	100%	19,524	21,690	20,024	20,024	35.18	569	100%	0.49%	569	0%	0.00%	0	0%	0.00%	0
29	100%	11,360	13,771	11,916	11,916	46.90	254	100%	0.22%	254	0%	0.00%	0	0%	0.00%	0
		811,863	836,916	817,644	780,015		116,879		30.10%	35,185		2.47%	2,893		12.07%	14,111
										30.10%			2.47%			12.07%

* - Subarea in which the site it located.

Heritage Neighborhood Center

(Ladera Dr / Unser Blvd)

Trip Distribution Map - Office (%)



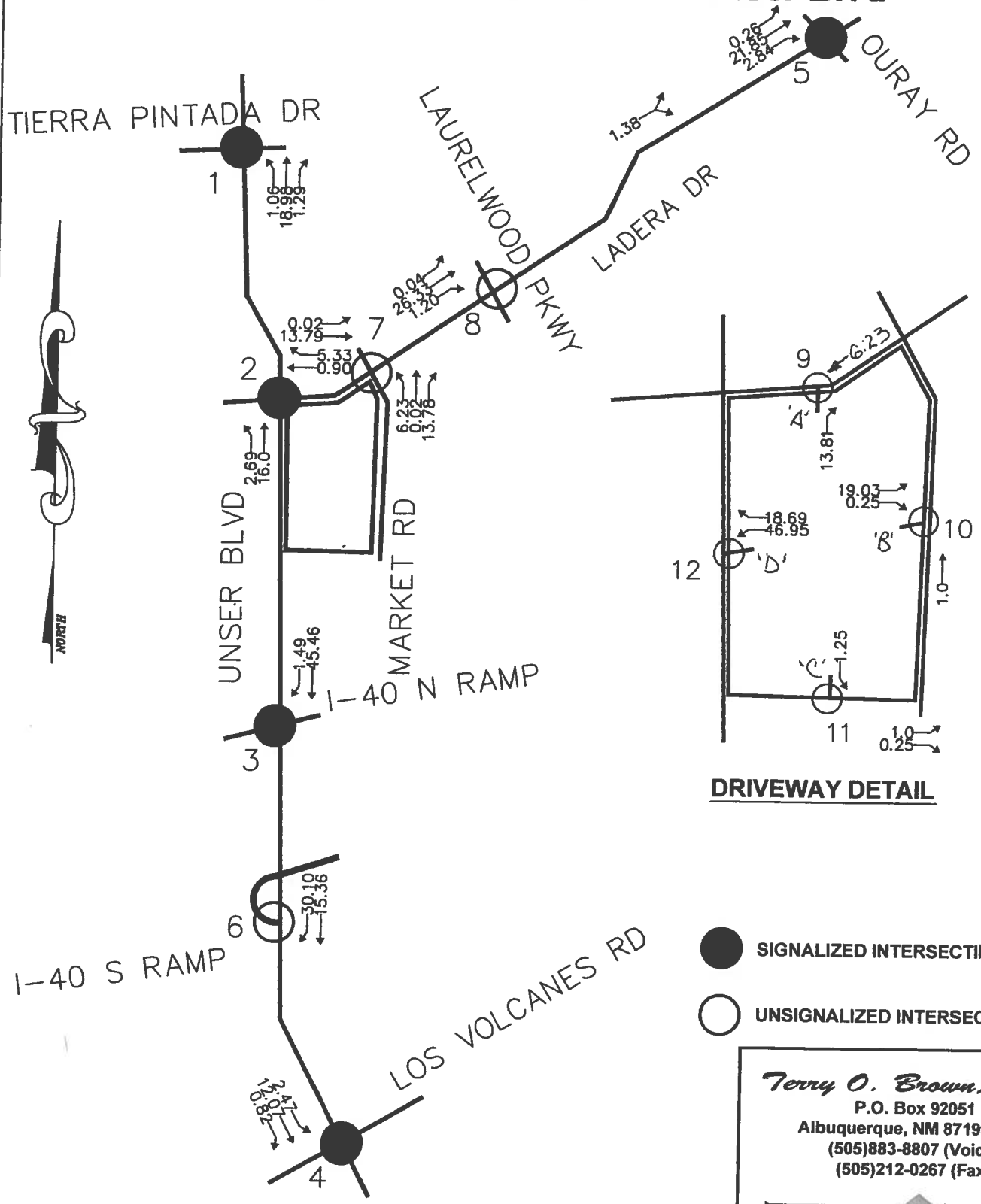
Terry O. Brown, P.E.
P.O. Box 92051
Albuquerque, NM 87199-2051
(505)883-8807 (Voice)
(505)212-0267 (Fax)

Heritage Neighborhood Center

(Ladera Dr / Unser Blvd)

Trip Assignments - Office (% Exiting)

Case F - Full access on Unser Blvd



DRIVEWAY DETAIL

● SIGNALIZED INTERSECTIONS

○ UNSIGNALIZED INTERSECTION

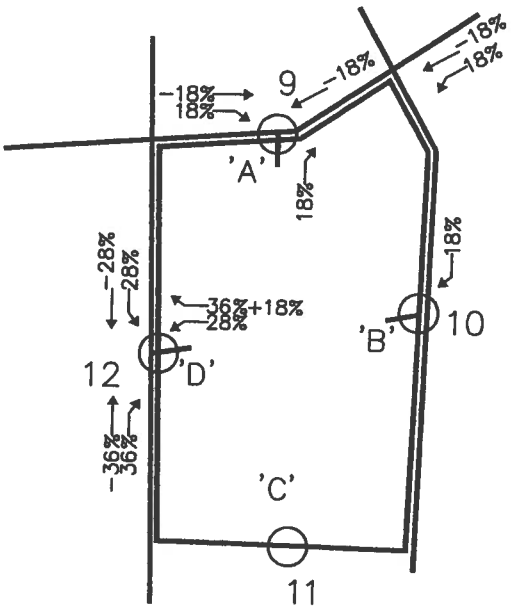
Terry O. Brown, P.E.
P.O. Box 92051
Albuquerque, NM 87199-2051
(505)883-8807 (Voice)
(505)212-0267 (Fax)

Heritage Neighborhood Center

(Ladera Dr / Unser Blvd)

Passby Trips

Case F - Full access on Unser Blvd



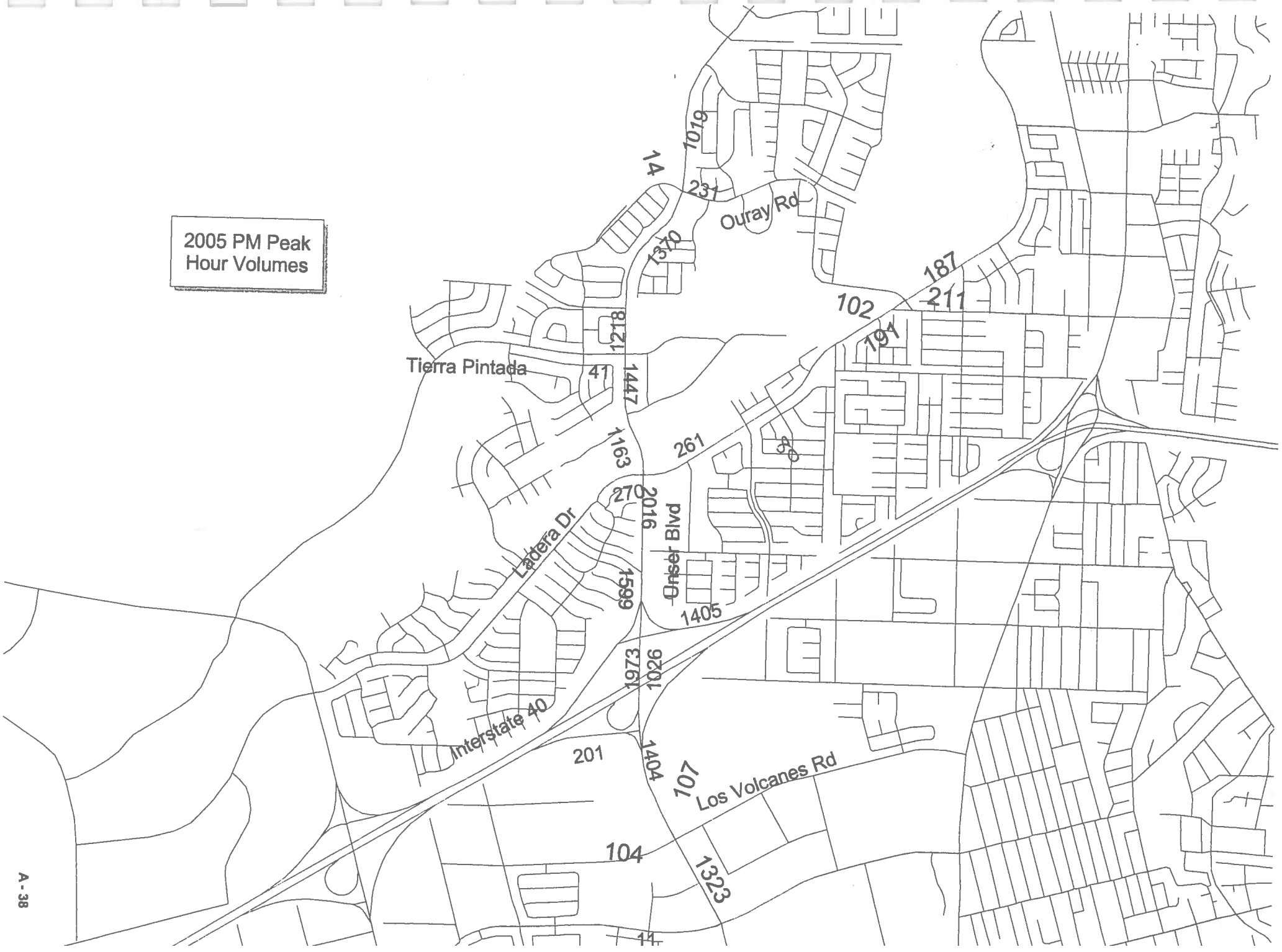
DRIVEWAY DETAIL

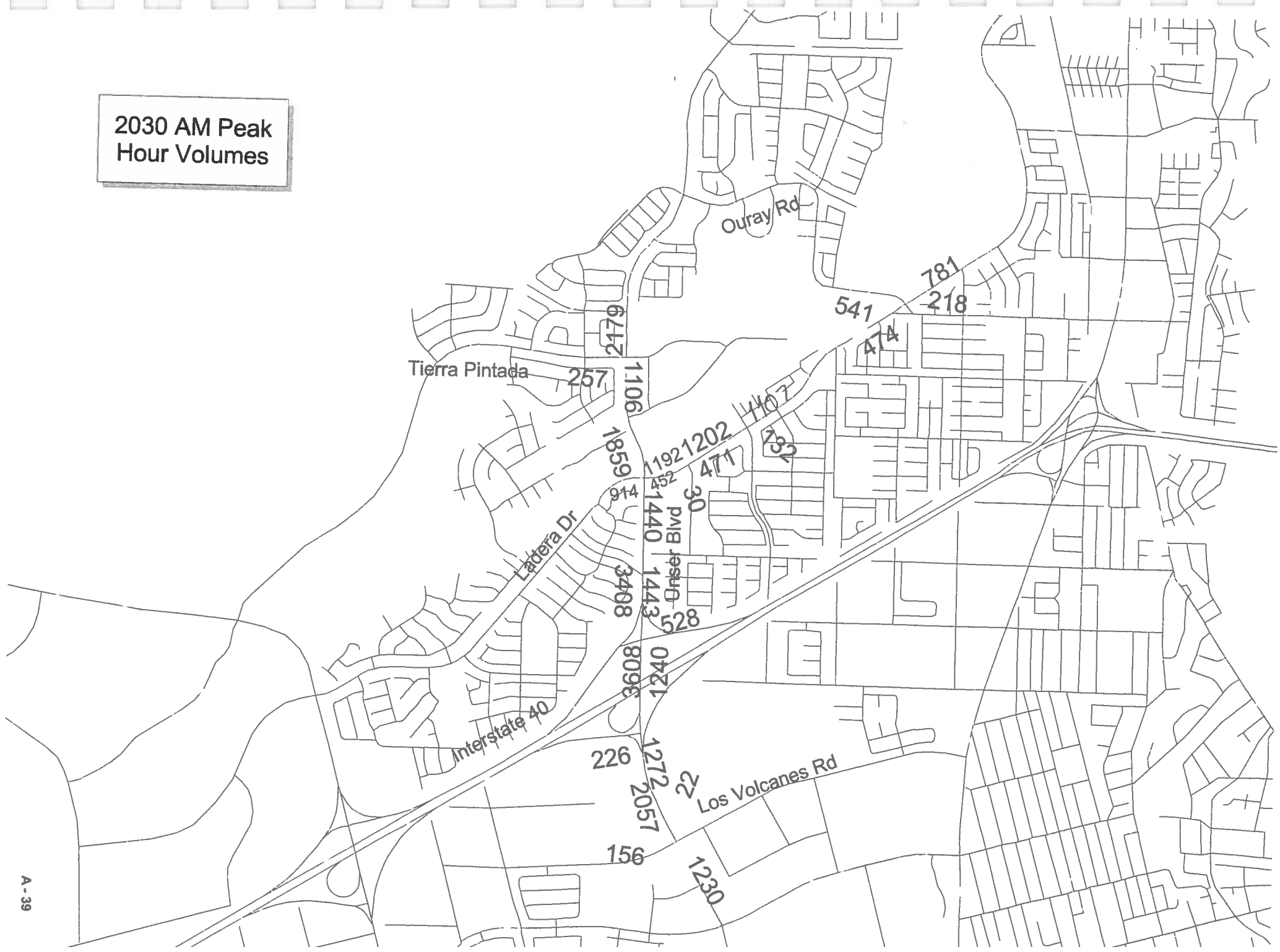
● SIGNALIZED INTERSECTIONS

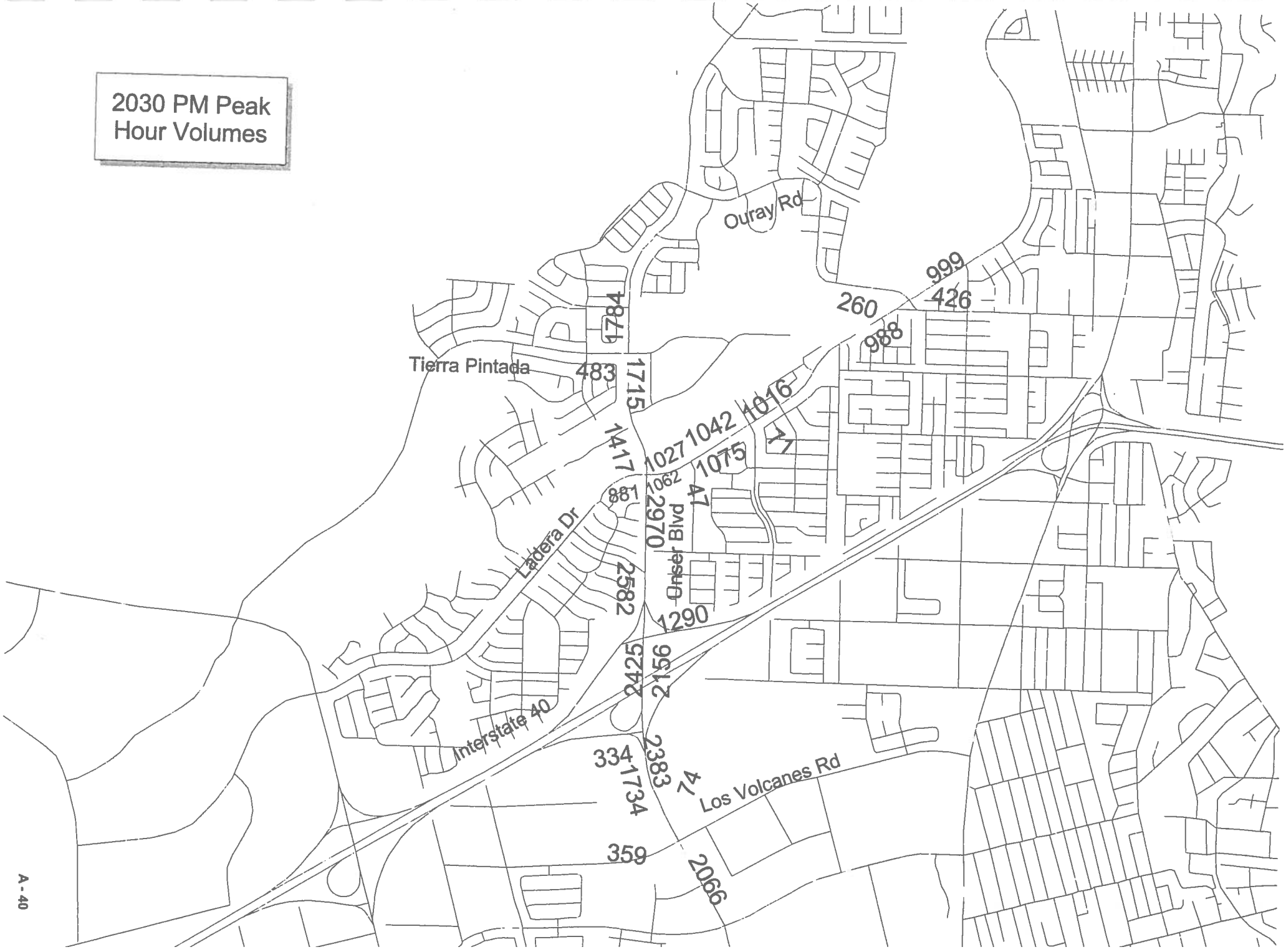
○ UNSIGNALIZED INTERSECTION

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


2005 AM Peak Hour Volumes
Ouray Rd
Unser Blvd
Los Volcanes Rd
Ladera Dr
Interstate 40
Tierra Pintada
130
151
218
94
242
154
1744
293
7
415
355
201
530
494
392
1226
805
35
1232
368
1545
1526
299
2230
1108
26
1112
94
79
46
228


2005 PM Peak Hour Volumes
Tierra Pintada
Ouray Rd
Ladera Dr
Unser Blvd
Interstate 40
Los Volcanes Rd
14
1019
231
1370
1218
41
1447
1163
261
50
270
2016
1599
1405
1973
1026
201
1404
107
104
1323
187
211
102
191


2030 AM Peak Hour Volumes
Ouray Rd
781
218
541
474
2479
Tierra Pintada
257
1106
1859
1192
1202
107
132
471
452
914
30
1440
Ladera Dr
Unser Blvd
3408
1443
528
8093
1240
Interstate 40
226
1272
2057
22
Los Volcanes Rd
156
1230


2030 PM Peak Hour Volumes
Ouray Rd
Tierra Pintada
Ladera Dr
Unser Blvd
Interstate 40
Los Volcanes Rd
999
426
260
988
1784
483
1715
1016
1042
1027
1075
1417
881
1062
2970
2582
1290
2425
2156
2383
334
1734
359
2066
47

Heritage Neighborhood Center (Ladera Dr / Unser Blvd)

Projected Turning Movements SUMMARY

PROPOSED DEVELOPMENT (2010) - 100% Development

Case F - full access at Intersection 12

INTERSECTION: **Summary**

Tierra Pintada Dr / Unser Blvd

(1)

3.0% Truck

	0.81			0.75			0.97			0.94			PHF
	Eastbound (Tierra Pintada Dr)			Westbound (Tierra Pintada Dr)			Northbound (Unser Blvd)			Southbound (Unser Blvd)			
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
Existing (2007)	34	3	195	14	0	4	28	631	15	10	783	21	
2010 (NO BUILD - A.M.)	*203*	*18*	*215*	*106*	*12*	*28*	*36*	*712*	*130*	*49*	*954*	*50*	
2010 (BUILD - A.M.)	***203***	***18***	***249***	***112***	***12***	***28***	***61***	***751***	***134***	***49***	***1,016***	***50***	

	0.90			0.75			0.94			0.88			PHF
	Eastbound (Tierra Pintada Dr)			Westbound (Tierra Pintada Dr)			Northbound (Unser Blvd)			Southbound (Unser Blvd)			
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
Existing (2007)	31	2	68	65	1	24	179	840	22	28	770	47	
2010 (NO BUILD - P.M.)	*151*	*30*	*114*	*356*	*40*	*99*	*213*	*962*	*226*	*97*	*882*	*132*	
2010 (BUILD - P.M.)	***151***	***30***	***154***	***362***	***40***	***99***	***253***	***1,037***	***232***	***97***	***945***	***132***	

Ladera Dr / Unser Blvd

(2)

3.0% Truck

	0.87			0.79			0.85			0.89			PHF
	Eastbound (Ladera Dr)			Westbound (Ladera Dr)			Northbound (Unser Blvd)			Southbound (Unser Blvd)			
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
Existing (2007)	175	251	365	317	105	44	48	429	224	45	906	58	
2010 (NO BUILD - A.M.)	*199*	*446*	*557*	*542*	*186*	*123*	*134*	*653*	*376*	*99*	*1,279*	*105*	
2010 (BUILD - A.M.)	***199***	***460***	***597***	***542***	***196***	***140***	***163***	***704***	***376***	***125***	***1,355***	***105***	

	0.93			0.93			0.95			0.96			PHF
	Eastbound (Ladera Dr)			Westbound (Ladera Dr)			Northbound (Unser Blvd)			Southbound (Unser Blvd)			
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
Existing (2007)	140	182	138	281	264	107	288	860	372	94	547	184	
2010 (NO BUILD - P.M.)	*192*	*319*	*322*	*594*	*480*	*249*	*560*	*1,433*	*708*	*263*	*1,087*	*333*	
2010 (BUILD - P.M.)	***192***	***334***	***369***	***594***	***496***	***279***	***607***	***1,524***	***708***	***290***	***1,169***	***333***	

I-40 N. ramp / Unser Blvd

(3)

3.0% Truck

	0.85			0.91			0.97			0.89			PHF
	Eastbound (I-40 N. ramp)			Westbound (I-40 N. ramp)			Northbound (Unser Blvd)			Southbound (Unser Blvd)			
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
Existing (2007)	0	0	0	343	3	188	24	687	0	0	1,775	68	
2010 (NO BUILD - A.M.)	*0*	*0*	*0*	*438*	*3*	*222*	*46*	*992*	*0*	*0*	*2,281*	*76*	
2010 (BUILD - A.M.)	***0***	***0***	***0***	***438***	***3***	***291***	***46***	***1,138***	***0***	***0***	***2,417***	***83***	

	0.85			0.94			0.87			0.92			PHF
	Eastbound (I-40 N. ramp)			Westbound (I-40 N. ramp)			Northbound (Unser Blvd)			Southbound (Unser Blvd)			
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
Existing (2007)	0	0	0	626	0	771	24	725	0	0	903	70	
2010 (NO BUILD - P.M.)	*0*	*0*	*0*	*770*	*0*	*840*	*75*	*1,319*	*0*	*0*	*1,559*	*108*	
2010 (BUILD - P.M.)	***0***	***0***	***0***	***770***	***0***	***905***	***75***	***1,485***	***0***	***0***	***1,806***	***120***	

Los Volcanes Rd / Unser Blvd

(4)

3.0% Truck

	0.75			0.75			0.91			0.82			PHF
	Eastbound (Los Volcanes Rd)			Westbound (Los Volcanes Rd)			Northbound (Unser Blvd)			Southbound (Unser Blvd)			
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
Existing (2007)	137	69	7	95	27	134	8	1,101	101	260	897	69	
2010 (NO BUILD - A.M.)	*137*	*74*	*7*	*297*	*31*	*219*	*8*	*1,192*	*279*	*490*	*976*	*75*	
2010 (BUILD - A.M.)	***142***	***74***	***7***	***297***	***31***	***255***	***8***	***1,287***	***279***	***516***	***1,043***	***78***	

	0.83			0.92			0.85			0.89			PHF
	Eastbound (Los Volcanes Rd)			Westbound (Los Volcanes Rd)			Northbound (Unser Blvd)			Southbound (Unser Blvd)			
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
Existing (2007)	54	15	4	73	23	132	10	793	120	108	1,022	121	
2010 (NO BUILD - P.M.)	*82*	*33*	*6*	*736*	*33*	*459*	*12*	*1,083*	*463*	*609*	*894*	*127*	
2010 (BUILD - P.M.)	***87***	***33***	***6***	***736***	***33***	***500***	***12***	***1,190***	***463***	***651***	***1,007***	***133***	

Heritage Neighborhood Center (Ladera Dr / Unser Blvd)

Projected Turning Movements SUMMARY

PROPOSED DEVELOPMENT (2010) - 100% Development

Case F - full access at Intersection 12

INTERSECTION: **Summary**

Ladera Dr / Ouray Rd
(5)
3.0% Truck

	0.91			0.89			0.79			0.89		PHF
	Eastbound (Ladera Dr)			Westbound (Ladera Dr)			Northbound (Ouray Rd)			Southbound (Ouray Rd)		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing (2007)	20	365	247	3	145	20	98	77	5	89	191	13
2010 (NO BUILD - A.M.)	*20*	*365*	*247*	*4*	*214*	*30*	*101*	*79*	*5*	*99*	*212*	*14*
2010 (BUILD - A.M.)	***24***	***414***	***287***	***4***	***291***	***30***	***156***	***79***	***5***	***99***	***212***	***19***

	0.90			0.87			0.94			0.89		PHF
	Eastbound (Ladera Dr)			Westbound (Ladera Dr)			Northbound (Ouray Rd)			Southbound (Ouray Rd)		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing (2007)	19	271	200	20	379	107	293	233	16	34	123	13
2010 (NO BUILD - P.M.)	*22*	*307*	*227*	*23*	*427*	*121*	*293*	*233*	*16*	*36*	*131*	*14*
2010 (BUILD - P.M.)	***27***	***400***	***292***	***23***	***506***	***121***	***358***	***233***	***16***	***36***	***131***	***20***

I-40 S. ramp / Unser Blvd
(6)
3.0% Truck

	0.75			0.85			0.80			0.88		PHF
	Eastbound (I-40 S. ramp)			Westbound (I-40 S. ramp)			Northbound (Unser Blvd)			Southbound (Unser Blvd)		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing (2007)	31	0	9	0	0	0	3	535	580	4	821	740
2010 (NO BUILD - A.M.)	*50*	*0*	*41*	*0*	*0*	*0*	*3*	*804*	*660*	*5*	*1,329*	*883*
2010 (BUILD - A.M.)	***60***	***0***	***41***	***0***	***0***	***0***	***3***	***939***	***660***	***45***	***1,425***	***883***

	0.90			0.85			0.92			0.97		PHF
	Eastbound (I-40 S. ramp)			Westbound (I-40 S. ramp)			Northbound (Unser Blvd)			Southbound (Unser Blvd)		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing (2007)	69	0	21	0	0	0	0	641	364	0	1,162	308
2010 (NO BUILD - P.M.)	*94*	*0*	*77*	*0*	*0*	*0*	*0*	*1,335*	*576*	*0*	*1,908*	*344*
2010 (BUILD - P.M.)	***105***	***0***	***77***	***0***	***0***	***0***	***0***	***1,489***	***576***	***86***	***2,069***	***344***

Ladera Dr / Market Rd
(7)
3.0% Truck

	0.88			0.79			0.86			0.85		PHF
	Eastbound (Ladera Dr)			Westbound (Ladera Dr)			Northbound (Market Rd)			Southbound (Market Rd)		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing (2007)	0	425	28	14	365	0	113	0	72	0	0	0
2010 (NO BUILD - A.M.)	*0*	*425*	*28*	*15*	*398*	*0*	*113*	*0*	*72*	*0*	*0*	*0*
2010 (BUILD - A.M.)	***0***	***489***	***34***	***201***	***398***	***0***	***140***	***0***	***136***	***0***	***1***	***0***

	0.93			0.80			0.88			0.85		PHF
	Eastbound (Ladera Dr)			Westbound (Ladera Dr)			Northbound (Market Rd)			Southbound (Market Rd)		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing (2007)	0	513	156	48	463	0	83	0	36	0	0	0
2010 (NO BUILD - P.M.)	*0*	*559*	*170*	*52*	*505*	*0*	*83*	*0*	*36*	*0*	*0*	*0*
2010 (BUILD - P.M.)	***0***	***669***	***176***	***260***	***505***	***0***	***129***	***0***	***146***	***0***	***1***	***0***

Heritage Neighborhood Center (Ladera Dr / Unser Blvd)

Projected Turning Movements SUMMARY

PROPOSED DEVELOPMENT (2010) - 100% Development

Case F - full access at Intersection 12

INTERSECTION: **Summary**

Ladera Dr / Laurelwood Pkwy

(8)

3.0% Truck

	0.90			0.75			0.89			0.75		PHF
	Eastbound (Ladera Dr)			Westbound (Ladera Dr)			Northbound (Laurelwood Pkwy)			Southbound (Laurelwood Pkwy)		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing (2007)	1	490	28	5	255	0	78	0	65	5	0	8
2010 (NO BUILD - A.M.)	*1*	*490*	*28*	*7*	*363*	*0*	*78*	*0*	*65*	*5*	*0*	*8*
2010 (BUILD - A.M.)	***2***	***602***	***44***	***7***	***526***	***0***	***101***	***0***	***65***	***5***	***0***	***9***

	0.89			0.91			0.85			0.75		PHF
	Eastbound (Ladera Dr)			Westbound (Ladera Dr)			Northbound (Laurelwood Pkwy)			Southbound (Laurelwood Pkwy)		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing (2007)	9	422	86	76	546	9	37	0	34	1	0	3
2010 (NO BUILD - P.M.)	*10*	*481*	*98*	*82*	*589*	*10*	*37*	*0*	*34*	*1*	*0*	*3*
2010 (BUILD - P.M.)	***11***	***674***	***124***	***82***	***769***	***10***	***63***	***0***	***34***	***1***	***0***	***4***

Ladera Dr / Driveway 'A'

(9)

3.0% Truck

	0.79			0.79			0.85			0.85		PHF
	Eastbound (Ladera Dr)			Westbound (Ladera Dr)			Northbound (Driveway 'A')			Southbound (Driveway 'A')		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing (2007)	0	520	0	0	466	0	0	0	0	0	0	0
2010 (NO BUILD - A.M.)	*0*	*520*	*0*	*0*	*466*	*0*	*0*	*0*	*0*	*0*	*0*	*0*
2010 (BUILD - A.M.)	***0***	***526***	***33***	***0***	***493***	***0***	***0***	***0***	***65***	***0***	***0***	***0***

	0.93			0.93			0.85			0.85		PHF
	Eastbound (Ladera Dr)			Westbound (Ladera Dr)			Northbound (Driveway 'A')			Southbound (Driveway 'A')		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing (2007)	0	648	0	0	652	0	0	0	0	0	0	0
2010 (NO BUILD - P.M.)	*0*	*706*	*0*	*0*	*711*	*0*	*0*	*0*	*0*	*0*	*0*	*0*
2010 (BUILD - P.M.)	***0***	***664***	***85***	***0***	***709***	***0***	***0***	***0***	***163***	***0***	***0***	***0***

Driveway 'B' / Market Rd

(10)

3.0% Truck

	0.85			0.85			0.86			0.86		PHF
	Eastbound (Driveway 'B')			Westbound (Driveway 'B')			Northbound (Market Rd)			Southbound (Market Rd)		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing (2007)	0	0	0	0	0	0	0	185	0	0	42	0
2010 (NO BUILD - A.M.)	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*185*	*0*	*0*	*42*	*0*
2010 (BUILD - A.M.)	***88***	***0***	***3***	***0***	***0***	***0***	***5***	***189***	***0***	***0***	***48***	***187***

	0.85			0.85			0.88			0.88		PHF
	Eastbound (Driveway 'B')			Westbound (Driveway 'B')			Northbound (Market Rd)			Southbound (Market Rd)		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing (2007)	0	0	0	0	0	0	0	119	0	0	204	0
2010 (NO BUILD - P.M.)	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*119*	*0*	*0*	*204*	*0*
2010 (BUILD - P.M.)	***150***	***0***	***5***	***0***	***0***	***0***	***6***	***126***	***0***	***0***	***210***	***257***

Heritage Neighborhood Center (Ladera Dr / Unser Blvd)

Projected Turning Movements SUMMARY

PROPOSED DEVELOPMENT (2010) - 100% Development

Case F - full access at Intersection 12

INTERSECTION: **Summary**

Hanover Rd / Driveway 'C'
(11)
3.0% Truck

	0.85			0.85			0.85			0.85			PHF
	Eastbound (Hanover Rd)			Westbound (Hanover Rd)			Northbound (Driveway 'C')			Southbound (Driveway 'C')			
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
Existing (2007)	0	0	0	0	0	0	0	0	0	0	0	0	
2010 (NO BUILD - A.M.)	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	
2010 (BUILD - A.M.)	***0***	***0***	***0***	***0***	***0***	***11***	***0***	***0***	***0***	***7***	***0***	***0***	

	0.85			0.85			0.85			0.85			PHF
	Eastbound (Hanover Rd)			Westbound (Hanover Rd)			Northbound (Driveway 'C')			Southbound (Driveway 'C')			
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
Existing (2007)	0	0	0	0	0	0	0	0	0	0	0	0	
2010 (NO BUILD - P.M.)	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	
2010 (BUILD - P.M.)	***0***	***0***	***0***	***0***	***0***	***11***	***0***	***0***	***0***	***12***	***0***	***0***	

Driveway 'D' / Unser Blvd
(12)
3.0% Truck

	0.85			0.85			0.85			0.85			PHF
	Eastbound (Driveway 'D')			Westbound (Driveway 'D')			Northbound (Unser Blvd)			Southbound (Unser Blvd)			
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
Existing (2007)	0	0	0	0	0	0	0	701	0	0	1,588	0	
2010 (NO BUILD - A.M.)	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*797*	*0*	*0*	*1,806*	*0*	
2010 (BUILD - A.M.)	***0***	***0***	***0***	***144***	***0***	***80***	***0***	***797***	***216***	***116***	***1,806***	***0***	

	0.85			0.85			0.95			0.95			PHF
	Eastbound (Driveway 'D')			Westbound (Driveway 'D')			Northbound (Unser Blvd)			Southbound (Unser Blvd)			
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
Existing (2007)	0	0	0	0	0	0	0	1,520	0	0	966	0	
2010 (NO BUILD - P.M.)	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*1,709*	*0*	*0*	*1,086*	*0*	
2010 (BUILD - P.M.)	***0***	***0***	***0***	***340***	***0***	***295***	***0***	***1,613***	***327***	***204***	***1,011***	***0***	

Heritage Neighborhood Center (Ladera Dr / Unser Blvd)

Projected Turning Movements SUMMARY

PROPOSED DEVELOPMENT (2010) - 100% Development

Case F - full access at Intersection 12

INTERSECTION: **Summary**

Hanover Rd / Driveway 'C'
(11)
3.0% Truck

	0.85			0.85			0.85			0.85		PHF
	Eastbound (Hanover Rd)			Westbound (Hanover Rd)			Northbound (Driveway 'C')			Southbound (Driveway 'C')		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing (2007)	0	0	0	0	0	0	0	0	0	0	0	0
2010 (NO BUILD - A.M.)	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*
2010 (BUILD - A.M.)	***0***	***0***	***0***	***0***	***0***	***11***	***0***	***0***	***0***	***7***	***0***	***0***

	0.85			0.85			0.85			0.85		PHF
	Eastbound (Hanover Rd)			Westbound (Hanover Rd)			Northbound (Driveway 'C')			Southbound (Driveway 'C')		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing (2007)	0	0	0	0	0	0	0	0	0	0	0	0
2010 (NO BUILD - P.M.)	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*
2010 (BUILD - P.M.)	***0***	***0***	***0***	***0***	***0***	***11***	***0***	***0***	***0***	***12***	***0***	***0***

Driveway 'D' / Unser Blvd
(12)
3.0% Truck

	0.85			0.85			0.85			0.85		PHF
	Eastbound (Driveway 'D')			Westbound (Driveway 'D')			Northbound (Unser Blvd)			Southbound (Unser Blvd)		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing (2007)	0	0	0	0	0	0	0	701	0	0	1,588	0
2010 (NO BUILD - A.M.)	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*797*	*0*	*0*	*1,806*	*0*
2010 (BUILD - A.M.)	***0***	***0***	***0***	***144***	***0***	***80***	***0***	***797***	***216***	***116***	***1,806***	***0***

	0.85			0.85			0.95			0.95		PHF
	Eastbound (Driveway 'D')			Westbound (Driveway 'D')			Northbound (Unser Blvd)			Southbound (Unser Blvd)		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing (2007)	0	0	0	0	0	0	0	1,520	0	0	966	0
2010 (NO BUILD - P.M.)	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*1,709*	*0*	*0*	*1,086*	*0*
2010 (BUILD - P.M.)	***0***	***0***	***0***	***340***	***0***	***295***	***0***	***1,613***	***327***	***204***	***1,011***	***0***

Heritage Neighborhood Center (Ladera Dr / Unser Blvd)

Projected Turning Movements Worksheet

Tierra Pintada Dr / Unser Blvd

INTERSECTION: E-W Street: **Tierra Pintada Dr** (1)
N-S Street: **Unser Blvd**

Year of Existing Counts 2007
Implementation Year **2010**

Growth Rates	0.47%			0.00%			2.79%			7.29%		
	Eastbound (Tierra Pintada Dr)			Westbound (Tierra Pintada Dr)			Northbound (Unser Blvd)			Southbound (Unser Blvd)		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing Volumes	34	3	195	14	0	4	28	631	15	10	783	21
Background Traffic Growth	0	0	3	0	0	0	2	53	1	2	171	5
Subtotal	34	3	198	14	0	4	30	684	16	12	954	26
Watershed Residential & Retail	78	0	17	0	0	0	6	0	0	0	0	24
Storm Cloud	87	0	0	0	0	0	0	0	0	0	0	0
98th / Unser Development	4	15	0	92	12	24	0	28	114	37	0	0
Subtotal (NO BUILD - A.M.)	***203***	***18***	***215***	***106***	***12***	***28***	***36***	***712***	***130***	***49***	***954***	***50***
Percent Commercial Trips Generated(Entering)	*0.00%*	*0.00%*	*6.68%*	*0.93%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*9.87%*	*0.00%*
Percent Commercial Trips Generated(Exiting)	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*6.68%*	*9.87%*	*0.93%*	*0.00%*	*0.00%*	*0.00%*
Percent Office Trips Generated(Entering)	*0.00%*	*0.00%*	*1.06%*	*1.29%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*18.98%*	*0.00%*
Percent Office Trips Generated(Exiting)	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*1.06%*	*18.98%*	*1.29%*	*0.00%*	*0.00%*	*0.00%*
Total Trips Generated	0	0	34	6	0	0	25	39	4	0	62	0
Total AM Peak Hour BUILD Volumes	**203**	**18**	**249**	**112**	**12**	**28**	**61**	**751**	**134**	**49**	**1,016**	**50**

	16.44%			0.00%			2.82%			4.83%		
	Eastbound (Tierra Pintada Dr)			Westbound (Tierra Pintada Dr)			Northbound (Unser Blvd)			Southbound (Unser Blvd)		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing Volumes	31	2	68	65	1	24	179	840	22	28	770	47
Background Traffic Growth	15	1	34	0	0	0	15	71	2	4	112	7
Subtotal	46	3	102	65	1	24	194	911	24	32	882	54
Watershed Residential & Retail	44	0	12	0	0	0	19	0	0	0	0	78
Storm Cloud	54	0	0	0	0	0	0	0	0	0	0	0
98th / Unser Development	7	27	0	291	39	75	0	51	202	65	0	0
Subtotal (NO BUILD - P.M.)	***151***	***30***	***114***	***356***	***40***	***99***	***213***	***962***	***226***	***97***	***882***	***132***
Percent Commercial Trips Generated(Entering)	*0.00%*	*0.00%*	*6.68%*	*0.93%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*9.87%*	*0.00%*
Percent Commercial Trips Generated(Exiting)	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*6.68%*	*9.87%*	*0.93%*	*0.00%*	*0.00%*	*0.00%*
Percent Office Trips Generated(Entering)	*0.00%*	*0.00%*	*1.06%*	*1.29%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*18.98%*	*0.00%*
Percent Office Trips Generated(Exiting)	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*1.06%*	*18.98%*	*1.29%*	*0.00%*	*0.00%*	*0.00%*
Total Trips Generated	0	0	40	6	0	0	40	75	6	0	63	0
Total PM Peak Hour BUILD Volumes	**151**	**30**	**154**	**362**	**40**	**99**	**253**	**1,037**	**232**	**97**	**945**	**132**

	Entering	Exiting		
Number of Commercial Trips Generated	**499**	**378**	A.M.	100% Commercial Development
	602	**580**	P.M.	
Number of Office Trips Generated	**68**	**9**	A.M.	100% Office Development
	20	**96**	P.M.	

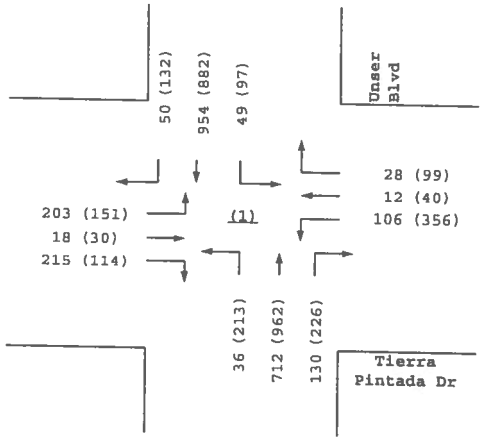
	Eastbound (Tierra Pintada Dr)			Westbound (Tierra Pintada Dr)			Northbound (Unser Blvd)			Southbound (Unser Blvd)		
2007 AM Peak Hr. Volumes	34	3	195	14	0	4	28	631	15	10	783	21
2007 PM Peak Hr. Volumes	31	2	68	65	1	24	179	840	22	28	770	47

MRCOG Forecast Volumes Worksheet

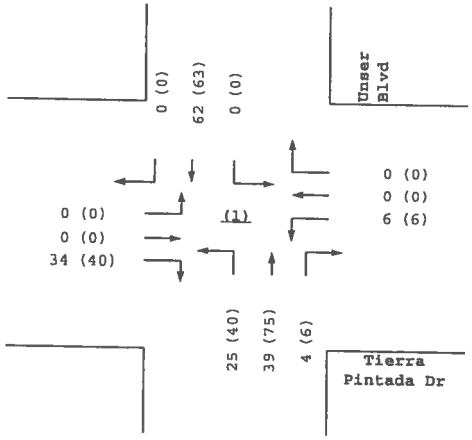
Based on 2007 Traffic Count				
2007 AM Link Volume	232	18	674	814
2007 PM Link Volume	101	90	1,041	845
Based on MRCOG Model (2030 Data Set)				
2005 AM Link Volume	**46**	**0**	**368**	**1545**
2005 PM Link Volume	**41**	**0**	**1447**	**1218**
2030 AM Link Volume	257	0	1106	2179
2030 PM Link Volume	483	0	1715	1784

Growth Rate to Apply to Existing Counts to Match 2030 Forecasts				
2007-2030 AM Growth Rates	**0.47%**	**-4.35%**	**2.79%**	**7.29%**
2007-2030 PM Growth Rates	**16.44%**	**-4.35%**	**2.82%**	**4.83%**
Growth Rate to Apply to 2005 Model Volumes to Match 2030 Forecasts				
2005-2030 AM Growth Rates	18.35%	#DIV/0!	8.02%	1.64%
2005-2030 PM Growth Rates	43.12%	#DIV/0!	0.74%	1.86%

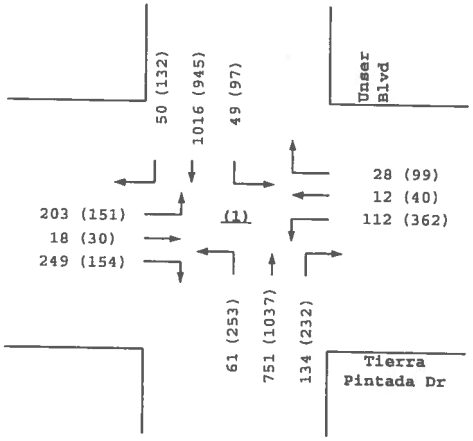
2010
NO BUILD



Trips



2010
BUILD



Tierra Pintada Dr / Unser Blvd

Heritage Neighborhood Center (Ladera Dr / Unser Blvd)

Projected Turning Movements Worksheet

Ladera Dr / Unser Blvd

INTERSECTION: E-W Street: Ladera Dr (2)
N-S Street: Unser Blvd

Year of Existing Counts: 2007
Implementation Year: 2010

Growth Rates	0.68%			6.77%			4.58%			3.66%		
	Eastbound (Ladera Dr)			Westbound (Ladera Dr)			Northbound (Unser Blvd)			Southbound (Unser Blvd)		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing Volumes	175	251	365	317	105	44	48	429	224	45	906	58
Background Traffic Growth	4	5	7	64	21	9	7	59	31	5	100	6
Subtotal	179	256	372	381	126	53	55	488	255	50	1,006	64
I-40 / Unser Development	0	0	43	161	0	0	32	32	121	0	42	0
Ladera Business Park	0	0	0	0	0	3	0	28	0	5	47	0
Previous Development from below	20	190	142	0	60	67	47	105	0	44	184	41
Subtotal (NO BUILD - A.M.)	***199***	***446***	***557***	***542***	***186***	***123***	***134***	***653***	***376***	***99***	***1,279***	***105***
Percent Commercial Trips Generated(Entering)	*0.00%*	*2.53%*	*7.59%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*4.37%*	*13.11%*	*0.00%*
Percent Commercial Trips Generated(Exiting)	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*2.53%*	*4.37%*	*7.59%*	*13.11%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*
Percent Office Trips Generated(Entering)	*0.00%*	*0.90%*	*2.69%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*5.33%*	*16.00%*	*0.00%*
Percent Office Trips Generated(Exiting)	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.90%*	*5.33%*	*2.69%*	*16.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*
Total Trips Generated	0	14	40	0	10	17	29	51	0	26	76	0
Total AM Peak Hour BUILD Volumes	**199**	**460**	**597**	**542**	**196**	**140**	**163**	**704**	**376**	**125**	**1,355**	**105**

	3.98%			2.50%			4.15%			3.12%		
	Eastbound (Ladera Dr)			Westbound (Ladera Dr)			Northbound (Unser Blvd)			Southbound (Unser Blvd)		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing Volumes	140	182	138	281	264	107	288	860	372	94	547	184
Background Traffic Growth	17	22	16	21	20	8	36	107	46	9	51	17
Subtotal	157	204	154	302	284	115	324	967	418	103	598	201
I-40 / Unser Development	0	0	78	292	0	0	77	77	290	0	77	0
Ladera Business Park	0	0	0	0	0	14	0	123	0	23	204	0
Previous Development from below	35	115	90	0	196	120	159	266	0	137	208	132
Subtotal (NO BUILD - P.M.)	***192***	***319***	***322***	***594***	***480***	***249***	***580***	***1,433***	***708***	***263***	***1,087***	***333***
Percent Commercial Trips Generated(Entering)	*0.00%*	*2.53%*	*7.59%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*4.37%*	*13.11%*	*0.00%*
Percent Commercial Trips Generated(Exiting)	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*2.53%*	*4.37%*	*7.59%*	*13.11%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*
Percent Office Trips Generated(Entering)	*0.00%*	*0.90%*	*2.69%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*5.33%*	*16.00%*	*0.00%*
Percent Office Trips Generated(Exiting)	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.90%*	*5.33%*	*2.69%*	*16.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*
Total Trips Generated	0	15	47	0	16	30	47	91	0	27	82	0
Total PM Peak Hour BUILD Volumes	**192**	**334**	**369**	**594**	**496**	**279**	**607**	**1,524**	**708**	**290**	**1,169**	**333**

	Entering	Exiting		
Number of Commercial Trips Generated	499	378	A.M.	100% Commercial Development
	602	580	P.M.	
Number of Office Trips Generated	68	9	A.M.	100% Office Development
	20	96	P.M.	

	Eastbound (Ladera Dr)			Westbound (Ladera Dr)			Northbound (Unser Blvd)			Southbound (Unser Blvd)		
2007 AM Peak Hr. Volumes	175	251	365	317	105	44	48	429	224	45	906	58
2007 PM Peak Hr. Volumes	140	182	138	281	264	107	288	860	372	94	547	184

Previous Developments - AM Peak Hour Volumes

	Eastbound (Ladera Dr)			Westbound (Ladera Dr)			Northbound (Unser Blvd)			Southbound (Unser Blvd)		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Watershed Residential & Retail	0	78	0	0	24	0	0	6	0	0	17	0
Storm Cloud Dev. w/ others	0	112	142	0	36	0	47	44	0	0	131	28
98th / Unser Development	20	0	0	0	0	67	0	55	0	44	36	13
Subtotal	20	190	142	0	60	67	47	105	0	44	184	41

Previous Developments - PM Peak Hour Volumes

	Eastbound (Ladera Dr)			Westbound (Ladera Dr)			Northbound (Unser Blvd)			Southbound (Unser Blvd)		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Watershed Residential & Retail	0	44	0	0	78	0	0	19	0	0	12	0
Storm Cloud Dev. w/ others	0	71	90	0	118	0	159	149	0	0	83	91
98th / Unser Development	35	0	0	0	0	120	0	98	0	137	113	41
Subtotal	35	115	90	0	196	120	159	266	0	137	208	132

MRCOG Forecast Volumes Worksheet

Based on 2007 Traffic Count				
2007 AM Link Volume	791	466	701	1,009
2007 PM Link Volume	460	652	1,520	825
Based on MRCOG Model (2030 Data Set)				
2005 AM Link Volume	299	355	530	1526
2005 PM Link Volume	270	261	2016	1163
2030 AM Link Volume	914	1192	1440	1859
2030 PM Link Volume	881	1027	2970	1417

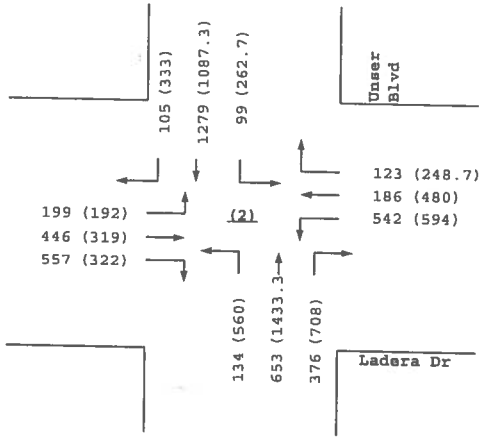
Growth Rate to Apply to Existing Counts to Match 2030 Forecasts

2007-2030 AM Growth Rates	0.68%	6.77%	4.58%	3.66%
2007-2030 PM Growth Rates	3.98%	2.50%	4.15%	3.12%

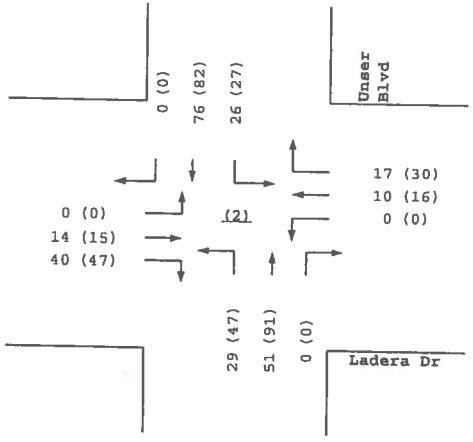
Growth Rate to Apply to 2005 Model Volumes to Match 2025 Forecasts

2005-2030 AM Growth Rates	8.23%	9.43%	6.87%	0.87%
2005-2030 PM Growth Rates	9.05%	11.74%	1.89%	0.87%

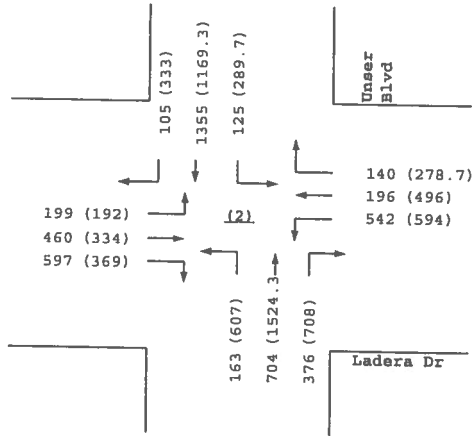
2010
NO BUILD



Trips



2010
BUILD



Ladera Dr / Unser Blvd

Heritage Neighborhood Center (Ladera Dr / Unser Blvd)

Projected Turning Movements Worksheet

I-40 N. ramp / Unser Blvd

INTERSECTION: E-W Street: I-40 N. ramp (3)
N-S Street: Unser Blvd

Year of Existing Counts: 2007
Implementation Year: 2010

Growth Rates	0.00%			0.00%			3.23%			3.69%		
	Eastbound (I-40 N. ramp)			Westbound (I-40 N. ramp)			Northbound (Unser Blvd)			Southbound (Unser Blvd)		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing Volumes	0	0	0	343	3	188	24	687	0	0	1,775	68
Background Traffic Growth	0	0	0	0	0	0	2	67	0	0	197	8
Subtotal	0	0	0	343	3	188	26	754	0	0	1,972	76
I-40 / Unser Development	0	0	0	28	0	0	20	186	0	0	246	0
Southwest Mesa Subdivisions	0	0	0	67	0	0	0	26	0	0	10	0
Previous Development from below	0	0	0	0	0	34	0	26	0	0	53	0
Subtotal (NO BUILD - A.M.)	***0***	***0***	***0***	***438***	***3***	***222***	***46***	***992***	***0***	***0***	***2,281***	***76***
Percent Commercial Trips Generated(Entering)	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*9.87%*	*0.00%*	*27.04%*	*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%*	*0.00%*	*35.01%*	*1.90%*
Percent Office Trips Generated(Entering)	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*30.10%*	*0.00%*	*16.85%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*
Percent Office Trips Generated(Exiting)	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*45.46%*	*1.49%*
Total Trips Generated	0	0	0	0	0	69	0	146	0	0	136	7
Total AM Peak Hour BUILD Volumes	**0**	**0**	**0**	**438**	**3**	**291**	**46**	**1,138**	**0**	**0**	**2,417**	**83**

	0.00%			0.00%			3.00%			3.00%		
	Eastbound (I-40 N. ramp)			Westbound (I-40 N. ramp)			Northbound (Unser Blvd)			Southbound (Unser Blvd)		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing Volumes	0	0	0	626	0	771	24	725	0	0	903	70
Background Traffic Growth	0	0	0	0	0	0	2	65	0	0	81	6
Subtotal	0	0	0	626	0	771	26	790	0	0	984	76
I-40 / Unser Development	0	0	0	51	0	0	49	445	0	0	447	0
Southwest Mesa Subdivisions	0	0	0	93	0	0	0	38	0	0	6	31
Previous Development from below	0	0	0	0	0	69	0	46	0	0	122	1
Subtotal (NO BUILD - P.M.)	***0***	***0***	***0***	***770***	***0***	***840***	***75***	***1,319***	***0***	***0***	***1,559***	***108***
Percent Commercial Trips Generated(Entering)	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*9.87%*	*0.00%*	*27.04%*	*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%*	*0.00%*	*35.01%*	*1.90%*
Percent Office Trips Generated(Entering)	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*30.10%*	*0.00%*	*16.85%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*
Percent Office Trips Generated(Exiting)	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*45.46%*	*1.49%*
Total Trips Generated	0	0	0	0	0	65	0	166	0	0	247	12
Total PM Peak Hour BUILD Volumes	**0**	**0**	**0**	**770**	**0**	**905**	**75**	**1,485**	**0**	**0**	**1,806**	**120**

	Entering	Exiting		
Number of Commercial Trips Generated	499	378	A.M.	100% Commercial Development
	602	580	P.M.	
Number of Office Trips Generated	68	9	A.M.	100% Office Development
	20	96	P.M.	

	Eastbound (I-40 N. ramp)			Westbound (I-40 N. ramp)			Northbound (Unser Blvd)			Southbound (Unser Blvd)		
2007 AM Peak Hr. Volumes	0	0	0	343	3	188	24	687	0	0	1,775	68
2007 PM Peak Hr. Volumes	0	0	0	626	0	771	24	725	0	0	903	70

Previous Developments - AM Peak Hour Volumes

	Eastbound (I-40 N. ramp)			Westbound (I-40 N. ramp)			Northbound (Unser Blvd)			Southbound (Unser Blvd)		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Watershed Residential	0	0	0	0	0	5	0	0	0	0	17	0
98th / Unser Development	0	0	0	0	0	29	0	26	0	0	36	0
Subtotal	0	0	0	0	0	34	0	26	0	0	53	0

Previous Developments - PM Peak Hour Volumes

	Eastbound (I-40 N. ramp)			Westbound (I-40 N. ramp)			Northbound (Unser Blvd)			Southbound (Unser Blvd)		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Watershed Residential	0	0	0	0	0	17	0	0	0	0	10	0
98th / Unser Development	0	0	0	0	0	52	0	46	0	0	112	1
Subtotal	0	0	0	0	0	69	0	46	0	0	122	1

MRCOG Forecast Volumes Worksheet

Based on 2007 Traffic Count				
2007 AM Link Volume	0	534	711	1,843
2007 PM Link Volume	0	1,397	749	973
Based on MRCOG Model (2030 Data Set)				
2005 AM Link Volume	**0**	**494**	**392**	**2230**
2005 PM Link Volume	**0**	**1405**	**1026**	**1599**
2030 AM Link Volume	0	528	1240	3408
2030 PM Link Volume	0	1290	2156	2582
Growth Rate to Apply to Existing Counts to Match 2030 Forecasts				
2007-2030 AM Growth Rates	#DIV/0!	-0.05%	3.23%	3.69%
2007-2030 PM Growth Rates	#DIV/0!	-0.33%	8.17%	7.19%
Growth Rate to Apply to 2005 Model Volumes to Match 2025 Forecasts				
2005-2030 AM Growth Rates	#DIV/0!	0.28%	8.65%	2.11%
2005-2030 PM Growth Rates	#DIV/0!	-0.33%	4.41%	2.46%

Heritage Neighborhood Center (Ladera Dr / Unser Blvd)

Projected Turning Movements Worksheet

Los Volcanes Rd / Unser Blvd

INTERSECTION: E-W Street: **Los Volcanes Rd** (4)
N-S Street: **Unser Blvd**

Year of Existing Counts 2007
Implementation Year **2010**

Growth Rates	0.00%			0.00%			0.07%			2.95%		
	Eastbound (Los Volcanes Rd)			Westbound (Los Volcanes Rd)			Northbound (Unser Blvd)			Southbound (Unser Blvd)		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing Volumes	137	69	7	95	27	134	8	1,101	101	260	897	69
Background Traffic Growth	0	0	0	0	0	0	0	2	0	23	79	6
Subtotal	137	69	7	95	27	134	8	1,103	101	283	976	75
I-40 / Unser Commercial Trips	0	5	0	202	4	85	0	89	178	207	0	0
Subtotal (NO BUILD - A.M.)	***137***	***74***	***7***	***297***	***31***	***219***	***8***	***1,192***	***279***	***490***	***976***	***75***
Percent Commercial Trips Generated(Entering)	*0.88%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*6.83%*	*0.00%*	*17.43%*	*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%*	*6.83%*	*17.43%*	*0.88%*
Percent Office Trips Generated(Entering)	*0.82%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*2.47%*	*0.00%*	*12.07%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*
Percent Office Trips Generated(Exiting)	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*2.47%*	*12.07%*	*0.82%*
Total Trips Generated	5	0	0	0	0	36	0	95	0	26	67	3
Total AM Peak Hour BUILD Volumes	**142**	**74**	**7**	**297**	**31**	**255**	**8**	**1,287**	**279**	**516**	**1,043**	**78**

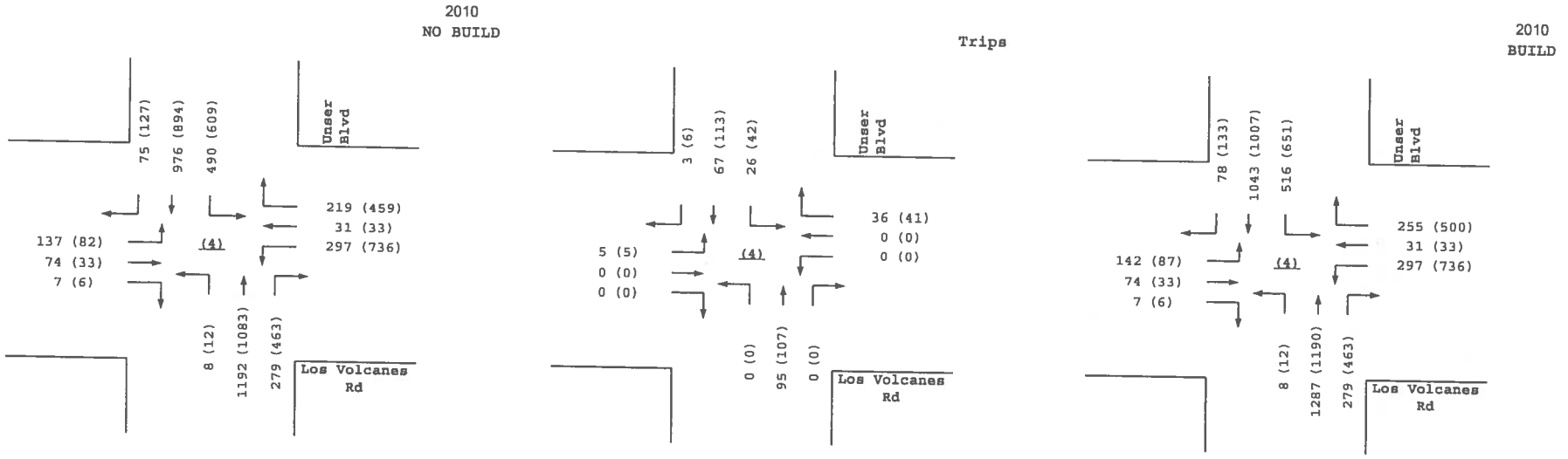
	17.03%			0.00%			5.38%			1.68%		
	Eastbound (Los Volcanes Rd)			Westbound (Los Volcanes Rd)			Northbound (Unser Blvd)			Southbound (Unser Blvd)		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing Volumes	54	15	4	73	23	132	10	793	120	108	1,022	121
Background Traffic Growth	28	8	2	0	0	0	2	128	19	5	51	6
Subtotal	82	23	6	73	23	132	12	921	139	113	1,073	127
I-40 / Unser Commercial Trips	0	10	0	663	10	327	0	162	324	496	*-179*	0
Subtotal (NO BUILD - P.M.)	***82***	***33***	***6***	***736***	***33***	***459***	***12***	***1,083***	***463***	***609***	***894***	***127***
Percent Commercial Trips Generated(Entering)	*0.88%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*6.83%*	*0.00%*	*17.43%*	*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%*	*6.83%*	*17.43%*	*0.88%*
Percent Office Trips Generated(Entering)	*0.82%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*2.47%*	*0.00%*	*12.07%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*
Percent Office Trips Generated(Exiting)	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*2.47%*	*12.07%*	*0.82%*
Total Trips Generated	5	0	0	0	0	41	0	107	0	42	113	6
Total PM Peak Hour BUILD Volumes	**87**	**33**	**6**	**736**	**33**	**500**	**12**	**1,190**	**463**	**651**	**1,007**	**133**

	Entering	Exiting		
Number of Commercial Trips Generated	**499**	**378**	A.M.	100% Commercial Development
	602	**580**	P.M.	
Number of Office Trips Generated	**68**	**9**	A.M.	100% Office Development
	20	**96**	P.M.	

	Eastbound (Los Volcanes Rd)			Westbound (Los Volcanes Rd)			Northbound (Unser Blvd)			Southbound (Unser Blvd)		
2007 AM Peak Hr. Volumes	137	69	7	95	27	134	8	1,101	101	260	897	69
2007 PM Peak Hr. Volumes	54	15	4	73	23	132	10	793	120	108	1,022	121

MRCOG Forecast Volumes Worksheet

Based on 2007 Traffic Count				
2007 AM Link Volume	213	256	1,210	1,226
2007 PM Link Volume	73	228	923	1,251
Based on MRCOG Model (2030 Data Set)				
2005 AM Link Volume	79	35	1232	1112
2005 PM Link Volume	104	107	1323	1404
2030 AM Link Volume	156	22	1230	2057
2030 PM Link Volume	359	74	2066	1734
Growth Rate to Apply to Existing Counts to Match 2030 Forecasts				
2007-2030 AM Growth Rates	**-1.16%**	**-3.97%**	**0.07%**	**2.95%**
2007-2030 PM Growth Rates	**17.03%**	**-2.94%**	**5.38%**	**1.68%**
Growth Rate to Apply to 2005 Model Volumes to Match 2030 Forecasts				
2005-2030 AM Growth Rates	3.90%	-1.49%	-0.01%	3.40%
2005-2030 PM Growth Rates	9.81%	-1.23%	2.25%	0.94%



Los Volcanes Rd / Unser Blvd

Heritage Neighborhood Center (Ladera Dr / Unser Blvd)

Projected Turning Movements Worksheet

I-40 S. ramp / Unser Blvd

INTERSECTION: E-W Street: I-40 S. ramp (6)
N-S Street: Unser Blvd

Year of Existing Counts: 2007
Implementation Year: 2010

Growth Rates	20.22%			0.00%			0.60%			5.68%		
	Eastbound (I-40 S. ramp)			Westbound (I-40 S. ramp)			Northbound (Unser Blvd)			Southbound (Unser Blvd)		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing Volumes	31	0	9	0	0	0	3	535	580	4	821	740
Background Traffic Growth	19	0	5	0	0	0	0	10	10	1	140	126
Subtotal	50	0	14	0	0	0	3	545	590	5	961	866
I-40 / Unser Development	0	0	27	0	0	0	0	207	21	0	274	0
Southwest Mesa Subdivisions	0	0	0	0	0	0	0	26	49	0	77	0
Previous Development from below	0	0	0	0	0	0	0	26	0	0	17	17
Subtotal (NO BUILD - A.M.)	***50***	***0***	***41***	***0***	***0***	***0***	***3***	***804***	***660***	***5***	***1,329***	***883***
Percent Commercial Trips Generated(Entering)	*1.90%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*25.14%*	*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%*	*9.87%*	*25.14%*	*0.00%*
Percent Office Trips Generated(Entering)	*1.49%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*15.36%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*
Percent Office Trips Generated(Exiting)	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*30.10%*	*15.36%*	*0.00%*
Total Trips Generated	10	0	0	0	0	0	0	135	0	40	96	0
Total AM Peak Hour BUILD Volumes	**60**	**0**	**41**	**0**	**0**	**0**	**3**	**939**	**660**	**45**	**1,425**	**883**

	11.79%			0.00%			5.96%			2.82%		
	Eastbound (I-40 S. ramp)			Westbound (I-40 S. ramp)			Northbound (Unser Blvd)			Southbound (Unser Blvd)		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing Volumes	69	0	21	0	0	0	0	641	364	0	1,162	308
Background Traffic Growth	24	0	7	0	0	0	0	115	65	0	98	26
Subtotal	93	0	28	0	0	0	0	756	429	0	1,260	334
I-40 / Unser Development	0	0	49	0	0	0	0	496	51	0	498	0
Southwest Mesa Subdivisions	0	0	0	0	0	0	0	38	96	0	98	0
Previous Development from below	1	0	0	0	0	0	0	45	0	0	52	10
Subtotal (NO BUILD - P.M.)	***94***	***0***	***77***	***0***	***0***	***0***	***0***	***1,335***	***576***	***0***	***1,908***	***344***
Percent Commercial Trips Generated(Entering)	*1.90%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*25.14%*	*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%*	*9.87%*	*25.14%*	*0.00%*
Percent Office Trips Generated(Entering)	*1.49%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*15.36%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*
Percent Office Trips Generated(Exiting)	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*30.10%*	*15.36%*	*0.00%*
Total Trips Generated	11	0	0	0	0	0	0	154	0	86	161	0
Total PM Peak Hour BUILD Volumes	**105**	**0**	**77**	**0**	**0**	**0**	**0**	**1,489**	**576**	**86**	**2,069**	**344**

	Entering	Exiting		
Number of Commercial Trips Generated	499	378	A.M.	100% Commercial Development
	602	580	P.M.	
Number of Office Trips Generated	68	9	A.M.	100% Office Development
	20	96	P.M.	

	Eastbound (I-40 S. ramp)			Westbound (I-40 S. ramp)			Northbound (Unser Blvd)			Southbound (Unser Blvd)		
2007 AM Peak Hr. Volumes	31	0	9	0	0	0	3	535	580	4	821	740
2007 PM Peak Hr. Volumes	69	0	21	0	0	0	0	641	364	0	1,162	308

Previous Developments - AM Peak Hour Volumes

	Eastbound (I-40 S. ramp)			Westbound (I-40 S. ramp)			Northbound (Unser Blvd)			Southbound (Unser Blvd)		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Watershed Residential	0	0	0	0	0	0	0	0	0	0	0	17
98th / Unser Development	0	0	0	0	0	0	0	26	0	0	17	0
Subtotal	0	0	0	0	0	0	0	26	0	0	17	17

Previous Developments - PM Peak Hour Volumes

	Eastbound (I-40 S. ramp)			Westbound (I-40 S. ramp)			Northbound (Unser Blvd)			Southbound (Unser Blvd)		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Watershed Residential	0	0	0	0	0	0	0	0	0	0	0	10
98th / Unser Development	1	0	0	0	0	0	0	45	0	0	52	0
Subtotal	1	0	0	0	0	0	0	45	0	0	52	10

MRCOG Forecast Volumes Worksheet

Based on 2007 Traffic Count				
2007 AM Link Volume	40	0	1,118	1,565
2007 PM Link Volume	90	0	1,005	1,470
Based on MRCOG Model (2030 Data Set)				
2005 AM Link Volume	26	0	1226	1108
2005 PM Link Volume	201	0	1404	1973
2030 AM Link Volume	226	0	1272	3508
2030 PM Link Volume	334	0	2383	2425

Growth Rate to Apply to Existing Counts to Match 2030 Forecasts

2007-2030 AM Growth Rates	20.22%	#DIV/0!	0.60%	5.68%
2007-2030 PM Growth Rates	11.79%	#DIV/0!	5.96%	2.82%

Growth Rate to Apply to 2005 Model Volumes to Match 2025 Forecasts

2005-2030 AM Growth Rates	30.77%	#DIV/0!	0.15%	9.03%
2005-2030 PM Growth Rates	2.65%	#DIV/0!	2.79%	0.92%

Heritage Neighborhood Center (Ladera Dr / Unser Blvd)

Projected Turning Movements Worksheet

Ladera Dr / Ouray Rd

INTERSECTION: E-W Street: **Ladera Dr** (5)

N-S Street: **Ouray Rd**

Year of Existing Counts 2007

Implementation Year 2010

Growth Rates

	Eastbound (Ladera Dr) 0.00%			Westbound (Ladera Dr) 15.86%			Northbound (Ouray Rd) 0.92%			Southbound (Ouray Rd) 3.68%		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing Volumes	20	365	247	3	145	20	98	77	5	89	191	13
Background Traffic Growth	0	0	0	1	69	10	3	2	0	10	21	1
Subtotal (NO BUILD - A.M.)	***20***	***365***	***247***	***4***	***214***	***30***	***101***	***79***	***5***	***99***	***212***	***14***
Percent Commercial Trips Generated(Entering)	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*12.41%*	*0.00%*	*10.67%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.93%*
Percent Commercial Trips Generated(Exiting)	*0.93%*	*12.41%*	*10.67%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*
Percent Office Trips Generated(Entering)	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*21.85%*	*0.00%*	*2.84%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.26%*
Percent Office Trips Generated(Exiting)	*0.26%*	*21.85%*	*2.84%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*
Total Trips Generated	4	49	40	0	77	0	55	0	0	0	0	5
Total AM Peak Hour BUILD Volumes	**24**	**414**	**287**	**4**	**291**	**30**	**156**	**79**	**5**	**99**	**212**	**19**

	Eastbound (Ladera Dr) 4.42%			Westbound (Ladera Dr) 4.24%			Northbound (Ouray Rd) 0.00%			Southbound (Ouray Rd) 2.30%		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing Volumes	19	271	200	20	379	107	293	233	16	34	123	13
Background Traffic Growth	3	36	27	3	48	14	0	0	0	2	8	1
Subtotal (NO BUILD - P.M.)	***22***	***307***	***227***	***23***	***427***	***121***	***293***	***233***	***16***	***36***	***131***	***14***
Percent Commercial Trips Generated(Entering)	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*12.41%*	*0.00%*	*10.67%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.93%*
Percent Commercial Trips Generated(Exiting)	*0.93%*	*12.41%*	*10.67%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*
Percent Office Trips Generated(Entering)	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*21.85%*	*0.00%*	*2.84%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.26%*
Percent Office Trips Generated(Exiting)	*0.26%*	*21.85%*	*2.84%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*
Total Trips Generated	5	93	65	0	79	0	65	0	0	0	0	6
Total PM Peak Hour BUILD Volumes	**27**	**400**	**292**	**23**	**506**	**121**	**358**	**233**	**16**	**36**	**131**	**20**

	Entering	Exiting		
Number of Commercial Trips Generated	**499**	**378**	A.M.	100% Commercial Development
	602	**580**	P.M.	
Number of Office Trips Generated	**68**	**9**	A.M.	100% Office Development
	20	**96**	P.M.	

	Eastbound (Ladera Dr)			Westbound (Ladera Dr)			Northbound (Ouray Rd)			Southbound (Ouray Rd)		
2007 AM Peak Hr. Volumes	20	365	247	3	145	20	98	77	5	89	191	13
2007 PM Peak Hr. Volumes	19	271	200	20	379	107	293	233	16	34	123	13

MRCOG Forecast Volumes Worksheet

Based on 2007 Traffic Count				
2007 AM Link Volume	632	168	180	293
2007 PM Link Volume	490	506	542	170
Based on MRCOG Model (2030 Data Set)				
2005 AM Link Volume	94	130	151	218
2005 PM Link Volume	191	187	211	102
2030 AM Link Volume	474	781	218	541
2030 PM Link Volume	988	999	426	260
Growth Rate to Apply to Existing Counts to Match 2030 Forecasts				
2007-2030 AM Growth Rates	-1.09%	15.86%	0.92%	3.68%
2007-2030 PM Growth Rates	4.42%	4.24%	-0.93%	2.30%
Growth Rate to Apply to 2005 Model Volumes to Match 2030 Forecasts				
2005-2030 AM Growth Rates	16.17%	20.03%	1.77%	5.93%
2005-2030 PM Growth Rates	16.69%	17.37%	4.08%	6.20%

Heritage Neighborhood Center (Ladera Dr / Unser Blvd)

Projected Turning Movements Worksheet

I-40 S. ramp / Unser Blvd

INTERSECTION: E-W Street: I-40 S. ramp (6)
N-S Street: Unser Blvd

Year of Existing Counts: 2007
Implementation Year: 2010

Growth Rates	20.22%			0.00%			0.60%			5.68%		
	Eastbound (I-40 S. ramp)			Westbound (I-40 S. ramp)			Northbound (Unser Blvd)			Southbound (Unser Blvd)		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing Volumes	31	0	9	0	0	0	3	535	580	4	821	740
Background Traffic Growth	19	0	5	0	0	0	0	10	10	1	140	126
Subtotal	50	0	14	0	0	0	3	545	590	5	961	866
I-40 / Unser Development	0	0	27	0	0	0	0	207	21	0	274	0
Southwest Mesa Subdivisions	0	0	0	0	0	0	0	26	49	0	77	0
Previous Development from below	0	0	0	0	0	0	0	26	0	0	17	17
Subtotal (NO BUILD - A.M.)	***50***	***0***	***41***	***0***	***0***	***0***	***3***	***804***	***660***	***5***	***1,329***	***883***
Percent Commercial Trips Generated(Entering)	*1.90%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*25.14%*	*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%*	*9.87%*	*25.14%*	*0.00%*
Percent Office Trips Generated(Entering)	*1.49%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*15.36%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*
Percent Office Trips Generated(Exiting)	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*30.10%*	*15.36%*	*0.00%*
Total Trips Generated	10	0	0	0	0	0	0	135	0	40	96	0
Total AM Peak Hour BUILD Volumes	**60**	**0**	**41**	**0**	**0**	**0**	**3**	**939**	**660**	**45**	**1,425**	**883**

	11.79%			0.00%			5.96%			2.82%		
	Eastbound (I-40 S. ramp)			Westbound (I-40 S. ramp)			Northbound (Unser Blvd)			Southbound (Unser Blvd)		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing Volumes	69	0	21	0	0	0	0	641	364	0	1,162	308
Background Traffic Growth	24	0	7	0	0	0	0	115	65	0	98	26
Subtotal	93	0	28	0	0	0	0	756	429	0	1,260	334
I-40 / Unser Development	0	0	49	0	0	0	0	496	51	0	498	0
Southwest Mesa Subdivisions	0	0	0	0	0	0	0	38	96	0	98	0
Previous Development from below	1	0	0	0	0	0	0	45	0	0	52	10
Subtotal (NO BUILD - P.M.)	***94***	***0***	***77***	***0***	***0***	***0***	***0***	***1,335***	***576***	***0***	***1,908***	***344***
Percent Commercial Trips Generated(Entering)	*1.90%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*25.14%*	*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%*	*9.87%*	*25.14%*	*0.00%*
Percent Office Trips Generated(Entering)	*1.49%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*15.36%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*
Percent Office Trips Generated(Exiting)	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*30.10%*	*15.36%*	*0.00%*
Total Trips Generated	11	0	0	0	0	0	0	154	0	86	161	0
Total PM Peak Hour BUILD Volumes	**105**	**0**	**77**	**0**	**0**	**0**	**0**	**1,489**	**576**	**86**	**2,069**	**344**

	Entering	Exiting		
Number of Commercial Trips Generated	499	378	A.M.	100% Commercial Development
	602	580	P.M.	
Number of Office Trips Generated	68	9	A.M.	100% Office Development
	20	96	P.M.	

	Eastbound (I-40 S. ramp)			Westbound (I-40 S. ramp)			Northbound (Unser Blvd)			Southbound (Unser Blvd)		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
2007 AM Peak Hr. Volumes	31	0	9	0	0	0	3	535	580	4	821	740
2007 PM Peak Hr. Volumes	69	0	21	0	0	0	0	641	364	0	1,162	308

Previous Developments - AM Peak Hour Volumes

	Eastbound (I-40 S. ramp)			Westbound (I-40 S. ramp)			Northbound (Unser Blvd)			Southbound (Unser Blvd)		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Watershed Residential	0	0	0	0	0	0	0	0	0	0	0	17
98th / Unser Development	0	0	0	0	0	0	0	26	0	0	17	0
Subtotal	0	0	0	0	0	0	0	26	0	0	17	17

Previous Developments - PM Peak Hour Volumes

	Eastbound (I-40 S. ramp)			Westbound (I-40 S. ramp)			Northbound (Unser Blvd)			Southbound (Unser Blvd)		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Watershed Residential	0	0	0	0	0	0	0	0	0	0	0	10
98th / Unser Development	1	0	0	0	0	0	0	45	0	0	52	0
Subtotal	1	0	0	0	0	0	0	45	0	0	52	10

MRCOG Forecast Volumes Worksheet

Based on 2007 Traffic Count				
2007 AM Link Volume	40	0	1,118	1,565
2007 PM Link Volume	90	0	1,005	1,470
Based on MRCOG Model (2030 Data Set)				
2005 AM Link Volume	26	0	1226	1108
2005 PM Link Volume	201	0	1404	1973
2030 AM Link Volume	226	0	1272	3608
2030 PM Link Volume	334	0	2383	2425

Growth Rate to Apply to Existing Counts to Match 2030 Forecasts

2007-2030 AM Growth Rates	20.22%	#DIV/0!	0.60%	5.68%
2007-2030 PM Growth Rates	11.79%	#DIV/0!	5.96%	2.82%

Growth Rate to Apply to 2005 Model Volumes to Match 2025 Forecasts

2005-2030 AM Growth Rates	30.77%	#DIV/0!	0.15%	9.03%
2005-2030 PM Growth Rates	2.65%	#DIV/0!	2.79%	0.92%

Heritage Neighborhood Center (Ladera Dr / Unser Blvd)

Projected Turning Movements Worksheet

Ladera Dr / Ouray Rd

INTERSECTION: E-W Street: **Ladera Dr** (5)

N-S Street: **Ouray Rd**

Year of Existing Counts: **2007**

Implementation Year: **2010**

Growth Rates	0.00%			15.86%			0.92%			3.68%		
	Eastbound (Ladera Dr)			Westbound (Ladera Dr)			Northbound (Ouray Rd)			Southbound (Ouray Rd)		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing Volumes	20	365	247	3	145	20	98	77	5	89	191	13
Background Traffic Growth	0	0	0	1	69	10	3	2	0	10	21	1
Subtotal (NO BUILD - A.M.)	***20***	***365***	***247***	***4***	***214***	***30***	***101***	***79***	***5***	***99***	***212***	***14***
Percent Commercial Trips Generated(Entering)	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*12.41%*	*0.00%*	*10.67%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.93%*
Percent Commercial Trips Generated(Exiting)	*0.93%*	*12.41%*	*10.67%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*
Percent Office Trips Generated(Entering)	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*21.85%*	*0.00%*	*2.84%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.26%*
Percent Office Trips Generated(Exiting)	*0.26%*	*21.85%*	*2.84%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*
Total Trips Generated	4	49	40	0	77	0	55	0	0	0	0	5
Total AM Peak Hour BUILD Volumes	**24**	**414**	**287**	**4**	**291**	**30**	**156**	**79**	**5**	**99**	**212**	**19**

	4.42%			4.24%			0.00%			2.30%		
	Eastbound (Ladera Dr)			Westbound (Ladera Dr)			Northbound (Ouray Rd)			Southbound (Ouray Rd)		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing Volumes	19	271	200	20	379	107	293	233	16	34	123	13
Background Traffic Growth	3	36	27	3	48	14	0	0	0	2	8	1
Subtotal (NO BUILD - P.M.)	***22***	***307***	***227***	***23***	***427***	***121***	***293***	***233***	***16***	***36***	***131***	***14***
Percent Commercial Trips Generated(Entering)	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*12.41%*	*0.00%*	*10.67%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.93%*
Percent Commercial Trips Generated(Exiting)	*0.93%*	*12.41%*	*10.67%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*
Percent Office Trips Generated(Entering)	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*21.85%*	*0.00%*	*2.84%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.26%*
Percent Office Trips Generated(Exiting)	*0.26%*	*21.85%*	*2.84%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*
Total Trips Generated	5	93	65	0	79	0	65	0	0	0	0	6
Total PM Peak Hour BUILD Volumes	**27**	**400**	**292**	**23**	**506**	**121**	**358**	**233**	**16**	**36**	**131**	**20**

	Entering	Exiting		
Number of Commercial Trips Generated	**499**	**378**	A.M.	100% Commercial Development
	602	**580**	P.M.	
Number of Office Trips Generated	**68**	**9**	A.M.	100% Office Development
	20	**96**	P.M.	

	Eastbound (Ladera Dr)			Westbound (Ladera Dr)			Northbound (Ouray Rd)			Southbound (Ouray Rd)		
2007 AM Peak Hr. Volumes	20	365	247	3	145	20	98	77	5	89	191	13
2007 PM Peak Hr. Volumes	19	271	200	20	379	107	293	233	16	34	123	13

MRCOG Forecast Volumes Worksheet

Based on 2007 Traffic Count				
2007 AM Link Volume	632	168	180	293
2007 PM Link Volume	490	506	542	170
Based on MRCOG Model (2030 Data Set)				
2005 AM Link Volume	94	130	151	218
2005 PM Link Volume	191	187	211	102
2030 AM Link Volume	474	781	218	541
2030 PM Link Volume	988	999	426	260
Growth Rate to Apply to Existing Counts to Match 2030 Forecasts				
2007-2030 AM Growth Rates	-1.09%	15.86%	0.92%	3.68%
2007-2030 PM Growth Rates	4.42%	4.24%	-0.93%	2.30%
Growth Rate to Apply to 2005 Model Volumes to Match 2030 Forecasts				
2005-2030 AM Growth Rates	16.17%	20.03%	1.77%	5.93%
2005-2030 PM Growth Rates	16.69%	17.37%	4.08%	6.20%

Heritage Neighborhood Center (Ladera Dr / Unser Blvd)

Projected Turning Movements Worksheet

I-40 S. ramp / Unser Blvd

INTERSECTION: E-W Street: I-40 S. ramp (6)
N-S Street: Unser Blvd

Year of Existing Counts 2007
Implementation Year 2010

Growth Rates	20.22%			0.00%			0.60%			5.68%		
	Eastbound (I-40 S. ramp)			Westbound (I-40 S. ramp)			Northbound (Unser Blvd)			Southbound (Unser Blvd)		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing Volumes	31	0	9	0	0	0	3	535	580	4	821	740
Background Traffic Growth	19	0	5	0	0	0	0	10	10	1	140	126
Subtotal	50	0	14	0	0	0	3	545	590	5	961	866
I-40 / Unser Development	0	0	27	0	0	0	0	207	21	0	274	0
Southwest Mesa Subdivisions	0	0	0	0	0	0	0	26	49	0	77	0
Previous Development from below	0	0	0	0	0	0	0	26	0	0	17	17
Subtotal (NO BUILD - A.M.)	***50***	***0***	***41***	***0***	***0***	***0***	***3***	***804***	***660***	***5***	***1,329***	***883***
Percent Commercial Trips Generated(Entering)	*1.90%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*25.14%*	*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%*	*9.87%*	*25.14%*	*0.00%*
Percent Office Trips Generated(Entering)	*1.49%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*15.36%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*
Percent Office Trips Generated(Exiting)	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*30.10%*	*15.36%*	*0.00%*
Total Trips Generated	10	0	0	0	0	0	0	135	0	40	96	0
Total AM Peak Hour BUILD Volumes	**60**	**0**	**41**	**0**	**0**	**0**	**3**	**939**	**660**	**45**	**1,425**	**883**

	11.79%			0.00%			5.96%			2.82%		
	Eastbound (I-40 S. ramp)			Westbound (I-40 S. ramp)			Northbound (Unser Blvd)			Southbound (Unser Blvd)		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing Volumes	69	0	21	0	0	0	0	641	364	0	1,162	308
Background Traffic Growth	24	0	7	0	0	0	0	115	65	0	98	26
Subtotal	93	0	28	0	0	0	0	756	429	0	1,260	334
I-40 / Unser Development	0	0	49	0	0	0	0	496	51	0	498	0
Southwest Mesa Subdivisions	0	0	0	0	0	0	0	38	96	0	98	0
Previous Development from below	1	0	0	0	0	0	0	45	0	0	52	10
Subtotal (NO BUILD - P.M.)	***94***	***0***	***77***	***0***	***0***	***0***	***0***	***1,335***	***576***	***0***	***1,908***	***344***
Percent Commercial Trips Generated(Entering)	*1.90%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*25.14%*	*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%*	*9.87%*	*25.14%*	*0.00%*
Percent Office Trips Generated(Entering)	*1.49%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*15.36%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*
Percent Office Trips Generated(Exiting)	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*30.10%*	*15.36%*	*0.00%*
Total Trips Generated	11	0	0	0	0	0	0	154	0	86	161	0
Total PM Peak Hour BUILD Volumes	**105**	**0**	**77**	**0**	**0**	**0**	**0**	**1,489**	**576**	**86**	**2,069**	**344**

	Entering	Exiting		
Number of Commercial Trips Generated	499	378	A.M.	100% Commercial Development
	602	580	P.M.	
Number of Office Trips Generated	68	9	A.M.	100% Office Development
	20	96	P.M.	

	Eastbound (I-40 S. ramp)			Westbound (I-40 S. ramp)			Northbound (Unser Blvd)			Southbound (Unser Blvd)		
2007 AM Peak Hr. Volumes	31	0	9	0	0	0	3	535	580	4	821	740
2007 PM Peak Hr. Volumes	69	0	21	0	0	0	0	641	364	0	1,162	308

Previous Developments - AM Peak Hour Volumes

	Eastbound (I-40 S. ramp)			Westbound (I-40 S. ramp)			Northbound (Unser Blvd)			Southbound (Unser Blvd)		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Watershed Residential	0	0	0	0	0	0	0	0	0	0	0	17
98th / Unser Development	0	0	0	0	0	0	0	26	0	0	17	0
Subtotal	0	0	0	0	0	0	0	26	0	0	17	17

Previous Developments - PM Peak Hour Volumes

	Eastbound (I-40 S. ramp)			Westbound (I-40 S. ramp)			Northbound (Unser Blvd)			Southbound (Unser Blvd)		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Watershed Residential	0	0	0	0	0	0	0	0	0	0	0	10
98th / Unser Development	1	0	0	0	0	0	0	45	0	0	52	0
Subtotal	1	0	0	0	0	0	0	45	0	0	52	10

MRCOG Forecast Volumes Worksheet

Based on 2007 Traffic Count				
2007 AM Link Volume	40	0	1,118	1,565
2007 PM Link Volume	90	0	1,005	1,470
Based on MRCOG Model (2030 Data Set)				
2005 AM Link Volume	26	0	1226	1108
2005 PM Link Volume	201	0	1404	1973
2030 AM Link Volume	226	0	1272	3608
2030 PM Link Volume	334	0	2383	2425

Growth Rate to Apply to Existing Counts to Match 2030 Forecasts

2007-2030 AM Growth Rates	20.22%	#DIV/0!	0.60%	5.68%
2007-2030 PM Growth Rates	11.79%	#DIV/0!	5.96%	2.82%

Growth Rate to Apply to 2005 Model Volumes to Match 2025 Forecasts

2005-2030 AM Growth Rates	30.77%	#DIV/0!	0.15%	9.03%
2005-2030 PM Growth Rates	2.65%	#DIV/0!	2.79%	0.92%

Heritage Neighborhood Center (Ladera Dr / Unser Blvd)

Projected Turning Movements Worksheet

I-40 S. ramp / Unser Blvd

INTERSECTION: E-W Street: I-40 S. ramp (6)
N-S Street: Unser Blvd

Year of Existing Counts 2007
Implementation Year 2010

Growth Rates: 20.22% | 0.00% | 0.60% | 5.68%

	Eastbound (I-40 S. ramp)			Westbound (I-40 S. ramp)			Northbound (Unser Blvd)			Southbound (Unser Blvd)		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing Volumes	31	0	9	0	0	0	3	535	580	4	821	740
Background Traffic Growth	19	0	5	0	0	0	0	10	10	1	140	126
Subtotal	50	0	14	0	0	0	3	545	590	5	961	866
I-40 / Unser Development	0	0	27	0	0	0	0	207	21	0	274	0
Southwest Mesa Subdivisions	0	0	0	0	0	0	0	26	49	0	77	0
Previous Development from below	0	0	0	0	0	0	0	26	0	0	17	17
Subtotal (NO BUILD - A.M.)	***50***	***0***	***41***	***0***	***0***	***0***	***3***	***804***	***660***	***5***	***1,329***	***883***
Percent Commercial Trips Generated(Entering)	*1.90%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*25.14%*	*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%*	*9.87%*	*25.14%*	*0.00%*
Percent Office Trips Generated(Entering)	*1.49%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*15.36%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*
Percent Office Trips Generated(Exiting)	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*30.10%*	*15.36%*	*0.00%*
Total Trips Generated	10	0	0	0	0	0	0	135	0	40	96	0
Total AM Peak Hour BUILD Volumes	**60**	**0**	**41**	**0**	**0**	**0**	**3**	**939**	**660**	**45**	**1,425**	**883**

Growth Rates: 11.79% | 0.00% | 5.96% | 2.82%

	Eastbound (I-40 S. ramp)			Westbound (I-40 S. ramp)			Northbound (Unser Blvd)			Southbound (Unser Blvd)		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing Volumes	69	0	21	0	0	0	0	641	364	0	1,162	308
Background Traffic Growth	24	0	7	0	0	0	0	115	65	0	98	26
Subtotal	93	0	28	0	0	0	0	756	429	0	1,260	334
I-40 / Unser Development	0	0	49	0	0	0	0	496	51	0	498	0
Southwest Mesa Subdivisions	0	0	0	0	0	0	0	38	96	0	98	0
Previous Development from below	1	0	0	0	0	0	0	45	0	0	52	10
Subtotal (NO BUILD - P.M.)	***94***	***0***	***77***	***0***	***0***	***0***	***0***	***1,335***	***576***	***0***	***1,908***	***344***
Percent Commercial Trips Generated(Entering)	*1.90%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*25.14%*	*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%*	*9.87%*	*25.14%*	*0.00%*
Percent Office Trips Generated(Entering)	*1.49%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*15.36%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*
Percent Office Trips Generated(Exiting)	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*30.10%*	*15.36%*	*0.00%*
Total Trips Generated	11	0	0	0	0	0	0	154	0	86	161	0
Total PM Peak Hour BUILD Volumes	**105**	**0**	**77**	**0**	**0**	**0**	**0**	**1,489**	**576**	**86**	**2,069**	**344**

	Entering	Exiting		
Number of Commercial Trips Generated	499	378	A.M.	100% Commercial Development
	602	580	P.M.	
Number of Office Trips Generated	68	9	A.M.	100% Office Development
	20	96	P.M.	

	Eastbound (I-40 S. ramp)			Westbound (I-40 S. ramp)			Northbound (Unser Blvd)			Southbound (Unser Blvd)		
2007 AM Peak Hr. Volumes	31	0	9	0	0	0	3	535	580	4	821	740
2007 PM Peak Hr. Volumes	69	0	21	0	0	0	0	641	364	0	1,162	308

Previous Developments - AM Peak Hour Volumes

	Eastbound (I-40 S. ramp)			Westbound (I-40 S. ramp)			Northbound (Unser Blvd)			Southbound (Unser Blvd)		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Watershed Residential	0	0	0	0	0	0	0	0	0	0	0	17
98th / Unser Development	0	0	0	0	0	0	0	26	0	0	17	0
Subtotal	0	0	0	0	0	0	0	26	0	0	17	17

Previous Developments - PM Peak Hour Volumes

	Eastbound (I-40 S. ramp)			Westbound (I-40 S. ramp)			Northbound (Unser Blvd)			Southbound (Unser Blvd)		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Watershed Residential	0	0	0	0	0	0	0	0	0	0	0	10
98th / Unser Development	1	0	0	0	0	0	0	45	0	0	52	0
Subtotal	1	0	0	0	0	0	0	45	0	0	52	10

MRCOG Forecast Volumes Worksheet

Based on 2007 Traffic Count				
2007 AM Link Volume	40	0	1,118	1,565
2007 PM Link Volume	90	0	1,005	1,470
Based on MRCOG Model (2030 Data Set)				
2005 AM Link Volume	26	0	1226	1108
2005 PM Link Volume	201	0	1404	1973
2030 AM Link Volume	226	0	1272	3608
2030 PM Link Volume	334	0	2383	2425

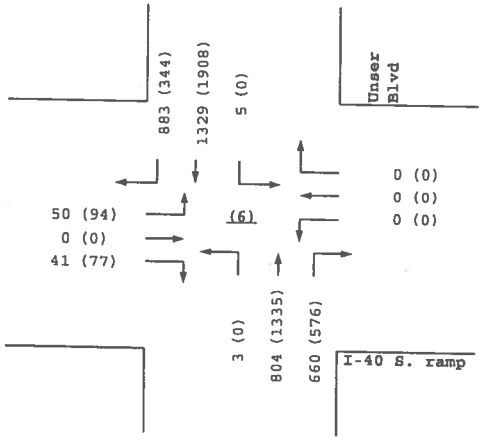
Growth Rate to Apply to Existing Counts to Match 2030 Forecasts

2007-2030 AM Growth Rates	20.22%	#DIV/0!	0.60%	5.68%
2007-2030 PM Growth Rates	11.79%	#DIV/0!	5.96%	2.82%

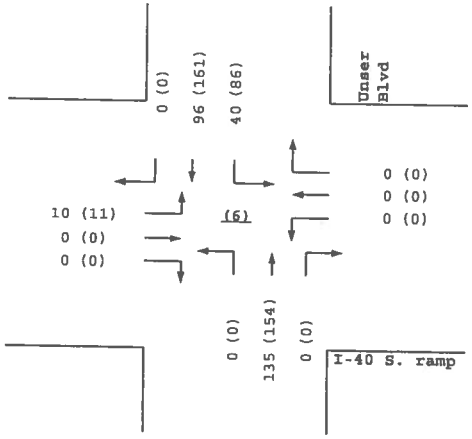
Growth Rate to Apply to 2005 Model Volumes to Match 2025 Forecasts

2005-2030 AM Growth Rates	30.77%	#DIV/0!	0.15%	9.03%
2005-2030 PM Growth Rates	2.65%	#DIV/0!	2.79%	0.92%

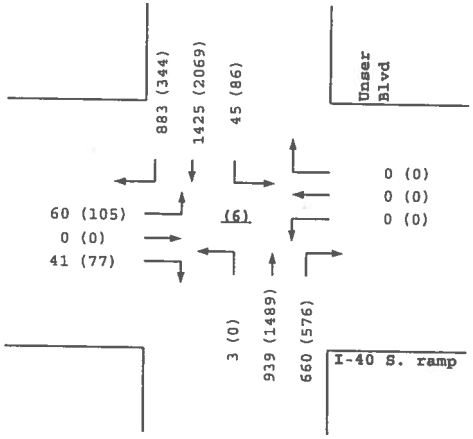
2010
NO BUILD



Trips



2010
BUILD



I-40 S. ramp / Unser Blvd

Heritage Neighborhood Center (Ladera Dr / Unser Blvd)

Projected Turning Movements Worksheet

Ladera Dr / Market Rd

INTERSECTION: E-W Street: **Ladera Dr** (7)

N-S Street: **Market Rd**

Year of Existing Counts: 2007

Implementation Year: **2010**

Growth Rates

	0.00%			3.00%			0.00%			0.00%		
	Eastbound (Ladera Dr)			Westbound (Ladera Dr)			Northbound (Market Rd)			Southbound (Market Rd)		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing Volumes	0	425	28	14	365	0	113	0	72	0	0	0
Background Traffic Growth	0	0	0	1	33	0	0	0	0	0	0	0
Subtotal (NO BUILD - A.M.)	***0***	***425***	***28***	***15***	***398***	***0***	***113***	***0***	***72***	***0***	***0***	***0***
Percent Commercial Trips Generated(Entering)	*0.00%*	*0.00%*	*1.00%*	*33.51%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.15%*	*0.00%*
Percent Commercial Trips Generated(Exiting)	*0.08%*	*16.75%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*6.90%*	*0.07%*	*16.76%*	*0.00%*	*0.00%*	*0.00%*
Percent Office Trips Generated(Entering)	*0.00%*	*0.00%*	*1.00%*	*27.57%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.04%*	*0.00%*
Percent Office Trips Generated(Exiting)	*0.02%*	*13.79%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*6.23%*	*0.02%*	*13.78%*	*0.00%*	*0.00%*	*0.00%*
Total Trips Generated	0	64	6	186	0	0	27	0	64	0	1	0
Total AM Peak Hour BUILD Volumes	**0**	**489**	**34**	**201**	**398**	**0**	**140**	**0**	**136**	**0**	**1**	**0**

	3.00%			3.00%			0.00%			0.00%		
	Eastbound (Ladera Dr)			Westbound (Ladera Dr)			Northbound (Market Rd)			Southbound (Market Rd)		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing Volumes	0	513	156	48	463	0	83	0	36	0	0	0
Background Traffic Growth	0	46	14	4	42	0	0	0	0	0	0	0
Subtotal (NO BUILD - P.M.)	***0***	***559***	***170***	***52***	***505***	***0***	***83***	***0***	***36***	***0***	***0***	***0***
Percent Commercial Trips Generated(Entering)	*0.00%*	*0.00%*	*1.00%*	*33.51%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.15%*	*0.00%*
Percent Commercial Trips Generated(Exiting)	*0.08%*	*16.75%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*6.90%*	*0.07%*	*16.76%*	*0.00%*	*0.00%*	*0.00%*
Percent Office Trips Generated(Entering)	*0.00%*	*0.00%*	*1.00%*	*27.57%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.04%*	*0.00%*
Percent Office Trips Generated(Exiting)	*0.02%*	*13.79%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*6.23%*	*0.02%*	*13.78%*	*0.00%*	*0.00%*	*0.00%*
Total Trips Generated	0	110	6	208	0	0	46	0	110	0	1	0
Total PM Peak Hour BUILD Volumes	**0**	**669**	**176**	**260**	**505**	**0**	**129**	**0**	**146**	**0**	**1**	**0**

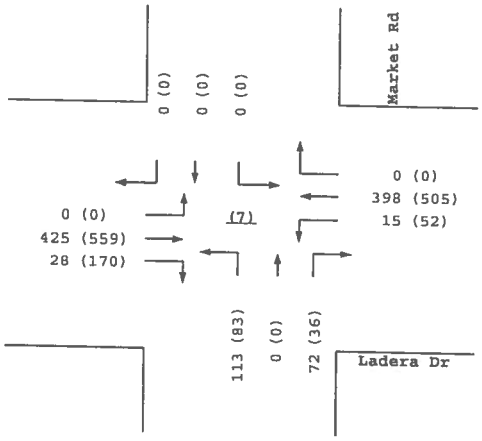
	Entering	Exiting		
Number of Commercial Trips Generated	499	378	A.M.	100% Commercial Development
	602	580	P.M.	
Number of Office Trips Generated	68	9	A.M.	100% Office Development
	20	96	P.M.	

	Eastbound (Ladera Dr)			Westbound (Ladera Dr)			Northbound (Market Rd)			Southbound (Market Rd)		
2007 AM Peak Hr. Volumes	0	425	28	14	365	0	113	0	72	0	0	0
2007 PM Peak Hr. Volumes	0	513	156	48	463	0	83	0	36	0	0	0

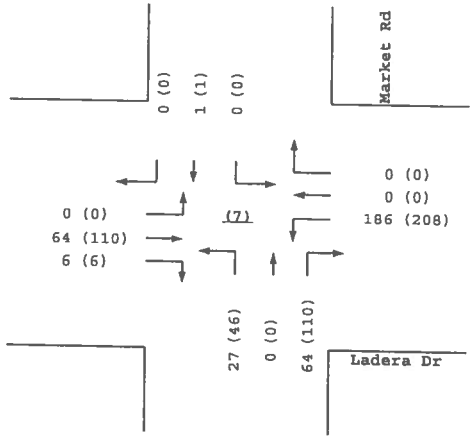
MRCOG Forecast Volumes Worksheet

Based on 2007 Traffic Count				
2007 AM Link Volume	453	379	185	0
2007 PM Link Volume	669	511	119	0
Based on MRCOG Model (2030 Data Set)				
2005 AM Link Volume	355	355	0	0
2005 PM Link Volume	261	261	0	0
2030 AM Link Volume	452	1202	30	0
2030 PM Link Volume	1062	1042	47	0
Growth Rate to Apply to Existing Counts to Match 2030 Forecasts				
2007-2030 AM Growth Rates	-0.01%	9.44%	-3.64%	#DIV/0!
2007-2030 PM Growth Rates	2.55%	4.52%	-2.63%	#DIV/0!
Growth Rate to Apply to 2005 Model Volumes to Match 2030 Forecasts				
2005-2030 AM Growth Rates	1.09%	9.54%	#DIV/0!	#DIV/0!
2005-2030 PM Growth Rates	12.28%	11.97%	#DIV/0!	#DIV/0!

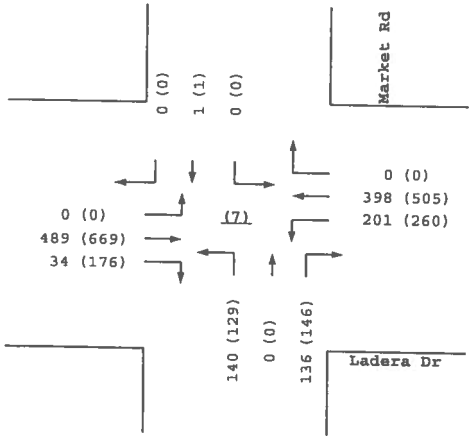
2010
NO BUILD



Trips



2010
BUILD



Ladera Dr / Market Rd

Heritage Neighborhood Center (Ladera Dr / Unser Blvd)

Projected Turning Movements Worksheet

Ladera Dr / Laurelwood Pkwy

INTERSECTION: E-W Street: **Ladera Dr** (8)

N-S Street: **Laurelwood Pkwy**

Year of Existing Counts 2007

Implementation Year **2010**

Growth Rates	0.00%			14.16%			0.00%			0.00%		
	Eastbound (Ladera Dr)			Westbound (Ladera Dr)			Northbound (Laurelwood Pkwy)			Southbound (Laurelwood Pkwy)		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing Volumes	1	490	28	5	255	0	78	0	65	5	0	8
Background Traffic Growth	0	0	0	2	108	0	0	0	0	0	0	0
Subtotal (NO BUILD - A.M.)	***1***	***490***	***28***	***7***	***363***	***0***	***78***	***0***	***65***	***5***	***0***	***8***
Percent Commercial Trips Generated(Entering)	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*29.00%*	*0.00%*	*4.36%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.15%*
Percent Commercial Trips Generated(Exiting)	*0.15%*	*29.00%*	*4.36%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*
Percent Office Trips Generated(Entering)	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*26.33%*	*0.00%*	*1.20%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.04%*
Percent Office Trips Generated(Exiting)	*0.04%*	*26.33%*	*1.20%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*
Total Trips Generated	1	112	16	0	163	0	23	0	0	0	0	1
Total AM Peak Hour BUILD Volumes	**2**	**602**	**44**	**7**	**526**	**0**	**101**	**0**	**65**	**5**	**0**	**9**

	4.69%			2.65%			0.00%			0.00%		
	Eastbound (Ladera Dr)			Westbound (Ladera Dr)			Northbound (Laurelwood Pkwy)			Southbound (Laurelwood Pkwy)		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing Volumes	9	422	86	76	546	9	37	0	34	1	0	3
Background Traffic Growth	1	59	12	6	43	1	0	0	0	0	0	0
Subtotal (NO BUILD - P.M.)	***10***	***481***	***98***	***82***	***589***	***10***	***37***	***0***	***34***	***1***	***0***	***3***
Percent Commercial Trips Generated(Entering)	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*29.00%*	*0.00%*	*4.36%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.15%*
Percent Commercial Trips Generated(Exiting)	*0.15%*	*29.00%*	*4.36%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*
Percent Office Trips Generated(Entering)	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*26.33%*	*0.00%*	*1.20%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.04%*
Percent Office Trips Generated(Exiting)	*0.04%*	*26.33%*	*1.20%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*
Total Trips Generated	1	193	26	0	180	0	26	0	0	0	0	1
Total PM Peak Hour BUILD Volumes	**11**	**674**	**124**	**82**	**769**	**10**	**63**	**0**	**34**	**1**	**0**	**4**

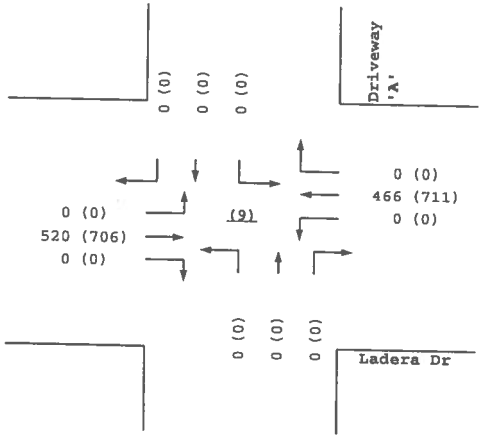
	Entering	Exiting		
Number of Commercial Trips Generated	499	378	A.M.	100% Commercial Development
	602	580	P.M.	
Number of Office Trips Generated	68	9	A.M.	100% Office Development
	20	96	P.M.	

	Eastbound (Ladera Dr)			Westbound (Ladera Dr)			Northbound (Laurelwood Pkwy)			Southbound (Laurelwood Pkwy)		
2007 AM Peak Hr. Volumes	1	490	28	5	255	0	78	0	65	5	0	8
2007 PM Peak Hr. Volumes	9	422	86	76	546	9	37	0	34	1	0	3

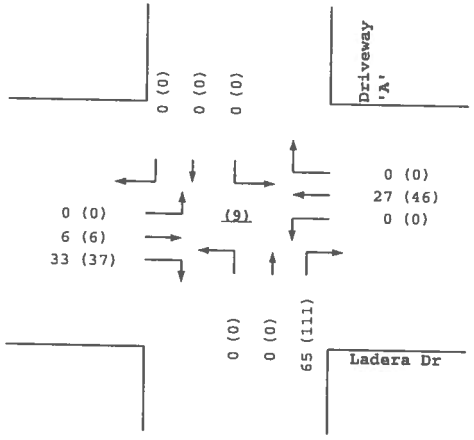
MRCOG Forecast Volumes Worksheet

Based on 2007 Traffic Count				
2007 AM Link Volume	519	260	143	13
2007 PM Link Volume	517	631	71	4
Based on MRCOG Model (2030 Data Set)				
2005 AM Link Volume	**355**	**355**	**154**	**0**
2005 PM Link Volume	**261**	**261**	**80**	**0**
2030 AM Link Volume	471	1107	132	0
2030 PM Link Volume	1075	1016	71	0
Growth Rate to Apply to Existing Counts to Match 2030 Forecasts				
2007-2030 AM Growth Rates	**-0.40%**	**14.16%**	**-0.33%**	**-4.35%**
2007-2030 PM Growth Rates	**4.69%**	**2.65%**	**0.00%**	**-4.35%**
Growth Rate to Apply to 2005 Model Volumes to Match 2030 Forecasts				
2005-2030 AM Growth Rates	1.31%	8.47%	-0.57%	#DIV/0!
2005-2030 PM Growth Rates	12.48%	11.57%	-0.45%	#DIV/0!

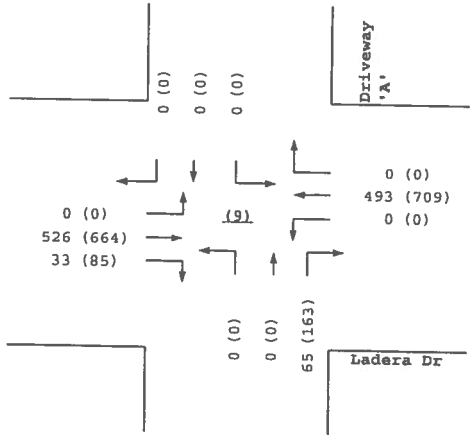
2010
NO BUILD



Trips



2010
BUILD



Ladera Dr / Driveway 'A'

Heritage Neighborhood Center (Ladera Dr / Unser Blvd)

Projected Turning Movements Worksheet

Driveway 'B' / Market Rd

INTERSECTION: E-W Street: **Driveway 'B'** (10)

N-S Street: **Market Rd**

Year of Existing Counts 2007

Implementation Year **2010**

Growth Rates 0.00% 0.00% 0.00% 0.00%

	Eastbound (Driveway 'B')			Westbound (Driveway 'B')			Northbound (Market Rd)			Southbound (Market Rd)		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing Volumes	0	0	0	0	0	0	0	185	0	0	42	0
Background Traffic Growth	0	0	0	0	0	0	0	0	0	0	0	0
Subtotal (NO BUILD - A.M.)	***0***	***0***	***0***	***0***	***0***	***0***	***0***	***185***	***0***	***0***	***42***	***0***
Percent Commercial Trips Generated(Entering)	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	***0.92%***	*0.00%*	*0.00%*	*0.00%*	***1.00%***	***33.66%***
Percent Commercial Trips Generated(Exiting)	***22.73%***	*0.00%*	***0.92%***	*0.00%*	*0.00%*	*0.00%*	*0.00%*	***1.00%***	*0.00%*	*0.00%*	*0.00%*	*0.00%*
Percent Office Trips Generated(Entering)	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	***0.25%***	*0.00%*	*0.00%*	*0.00%*	***1.00%***	***27.61%***
Percent Office Trips Generated(Exiting)	***19.03%***	*0.00%*	***0.25%***	*0.00%*	*0.00%*	*0.00%*	*0.00%*	***1.00%***	*0.00%*	*0.00%*	*0.00%*	*0.00%*
Total Trips Generated	88	0	3	0	0	0	5	4	0	0	6	187
Total AM Peak Hour BUILD Volumes	**88**	**0**	**3**	**0**	**0**	**0**	**5**	**189**	**0**	**0**	**48**	**187**

	Eastbound (Driveway 'B')			Westbound (Driveway 'B')			Northbound (Market Rd)			Southbound (Market Rd)		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing Volumes	0	0	0	0	0	0	0	119	0	0	204	0
Background Traffic Growth	0	0	0	0	0	0	0	0	0	0	0	0
Subtotal (NO BUILD - P.M.)	***0***	***0***	***0***	***0***	***0***	***0***	***0***	***119***	***0***	***0***	***204***	***0***
Percent Commercial Trips Generated(Entering)	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	***0.92%***	*0.00%*	*0.00%*	*0.00%*	***1.00%***	***33.66%***
Percent Commercial Trips Generated(Exiting)	***22.73%***	*0.00%*	***0.92%***	*0.00%*	*0.00%*	*0.00%*	*0.00%*	***1.00%***	*0.00%*	*0.00%*	*0.00%*	*0.00%*
Percent Office Trips Generated(Entering)	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	***0.25%***	*0.00%*	*0.00%*	*0.00%*	***1.00%***	***27.61%***
Percent Office Trips Generated(Exiting)	***19.03%***	*0.00%*	***0.25%***	*0.00%*	*0.00%*	*0.00%*	*0.00%*	***1.00%***	*0.00%*	*0.00%*	*0.00%*	*0.00%*
Total Trips Generated	150	0	5	0	0	0	6	7	0	0	6	209
Total PM Peak Hour BUILD Volumes	**150**	**0**	**5**	**0**	**0**	**0**	**6**	**126**	**0**	**0**	**210**	**257**

	Entering	Exiting		
Number of Commercial Trips Generated	499	378	A.M.	100% Commercial Development
	602	580	P.M.	
Number of Office Trips Generated	68	9	A.M.	100% Office Development
	20	96	P.M.	

	Eastbound (Driveway 'B')			Westbound (Driveway 'B')			Northbound (Market Rd)			Southbound (Market Rd)		
2007 AM Peak Hr. Volumes	0	0	0	0	0	0	0	185	0	0	42	0
2007 PM Peak Hr. Volumes	0	0	0	0	0	0	0	119	0	0	204	0

Heritage Neighborhood Center (Ladera Dr / Unser Blvd)

Projected Turning Movements Worksheet

Driveway 'D' / Unser Blvd

INTERSECTION: E-W Street: **Driveway 'D'** (12)

N-S Street: **Unser Blvd**

Year of Existing Counts: 2007

Implementation Year: **2010**

Growth Rates

	0.00%			0.00%			4.58%			4.58%		
	Eastbound (Driveway 'D')			Westbound (Driveway 'D')			Northbound (Unser Blvd)			Southbound (Unser Blvd)		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing Volumes	0	0	0	0	0	0	0	701	0	0	1,588	0
Background Traffic Growth	0	0	0	0	0	0	0	96	0	0	218	0
Subtotal (NO BUILD - A.M.)	***0***	***0***	***0***	***0***	***0***	***0***	***0***	***797***	***0***	***0***	***1,806***	***0***
Percent Commercial Trips Generated(Entering)	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*36.91%*	*20.70%*	*0.00%*	*0.00%*
Percent Commercial Trips Generated(Exiting)	*0.00%*	*0.00%*	*0.00%*	*36.91%*	*0.00%*	*20.70%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*
Percent Office Trips Generated(Entering)	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*46.95%*	*18.69%*	*0.00%*	*0.00%*
Percent Office Trips Generated(Exiting)	*0.00%*	*0.00%*	*0.00%*	*46.95%*	*0.00%*	*18.69%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*
Total Trips Generated	0	0	0	144	0	80	0	0	216	116	0	0
Total AM Peak Hour BUILD Volumes	**0**	**0**	**0**	**144**	**0**	**80**	**0**	**797**	**216**	**116**	**1,806**	**0**

	0.00%			0.00%			4.15%			4.15%		
	Eastbound (Driveway 'D')			Westbound (Driveway 'D')			Northbound (Unser Blvd)			Southbound (Unser Blvd)		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing Volumes	0	0	0	0	0	0	0	1,520	0	0	966	0
Background Traffic Growth	0	0	0	0	0	0	0	189	0	0	120	0
Subtotal (NO BUILD - P.M.)	***0***	***0***	***0***	***0***	***0***	***0***	***0***	***1,709***	***0***	***0***	***1,086***	***0***
Percent Commercial Trips Generated(Entering)	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*36.91%*	*20.70%*	*0.00%*	*0.00%*
Percent Commercial Trips Generated(Exiting)	*0.00%*	*0.00%*	*0.00%*	*36.91%*	*0.00%*	*20.70%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*
Percent Office Trips Generated(Entering)	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*46.95%*	*18.69%*	*0.00%*	*0.00%*
Percent Office Trips Generated(Exiting)	*0.00%*	*0.00%*	*0.00%*	*46.95%*	*0.00%*	*18.69%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*
Total Trips Generated	0	0	0	259	0	138	0	0	231	129	0	0
Subtotal PM Pk Hr. BUILD Volumes	**0**	**0**	**0**	**259**	**0**	**138**	**0**	**1,709**	**231**	**129**	**1,086**	**0**
Pass-by Trip Adjustments	*0*	*0*	*0*	*81*	*0*	*157*	*0*	*-96*	*96*	*75*	*-75*	*0*
Total PM Peak Hour BUILD Volumes	**0**	**0**	**0**	**340**	**0**	**295**	**0**	**1,613**	**327**	**204**	**1,011**	**0**

	Entering	Exiting		
Number of Commercial Trips Generated	499	378	A.M.	100% Commercial Development
	602	580	P.M.	
Number of Office Trips Generated	68	9	A.M.	100% Office Development
	20	96	P.M.	

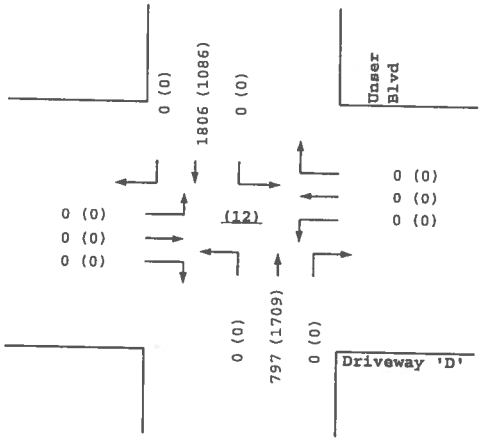
	Eastbound (Driveway 'D')			Westbound (Driveway 'D')			Northbound (Unser Blvd)			Southbound (Unser Blvd)		
2007 AM Peak Hr. Volumes	0	0	0	0	0	0	0	701	0	0	1,588	0
2007 PM Peak Hr. Volumes	0	0	0	0	0	0	0	1,520	0	0	966	0

Pass-by Trip Calculations:

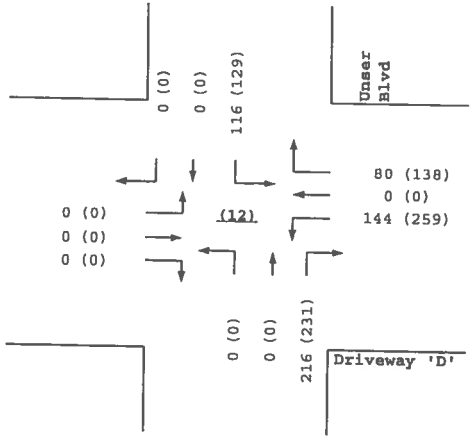
PM Pass-by Trips	***Eastbound (Driveway 'D')***			***Westbound (Driveway 'D')***			***Northbound (Unser Blvd)***			***Southbound (Unser Blvd)***		
Percent Entering	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*-36.00%*	*36.00%*	*28.00%*	*-28.00%*	*0.00%*
Volume Entering	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*-96*	*96*	*75*	*-75*	*0*
Percent Exiting	*0.00%*	*0.00%*	*0.00%*	*28.00%*	*0.00%*	*54.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*
Volume Exiting	*0*	*0*	*0*	*81*	*0*	*157*	*0*	*0*	*0*	*0*	*0*	*0*
Net PM Passby Trips	***0***	***0***	***0***	***81***	***0***	***157***	***0***	***-96***	***96***	***75***	***-75***	***0***

	Entering	Exiting	
Pass-by Trips	*0*	*0*	*AM*
	267	*290*	*PM*

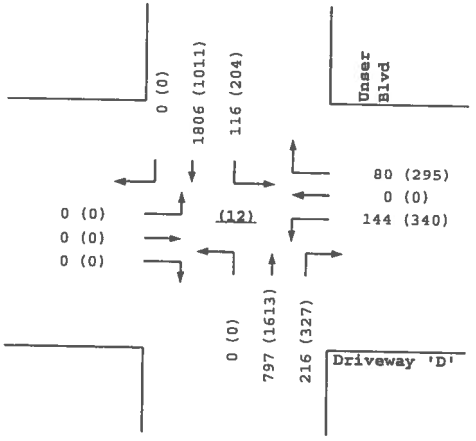
2010
NO BUILD



Trips



2010
BUILD



Driveway 'D' / Unser Blvd

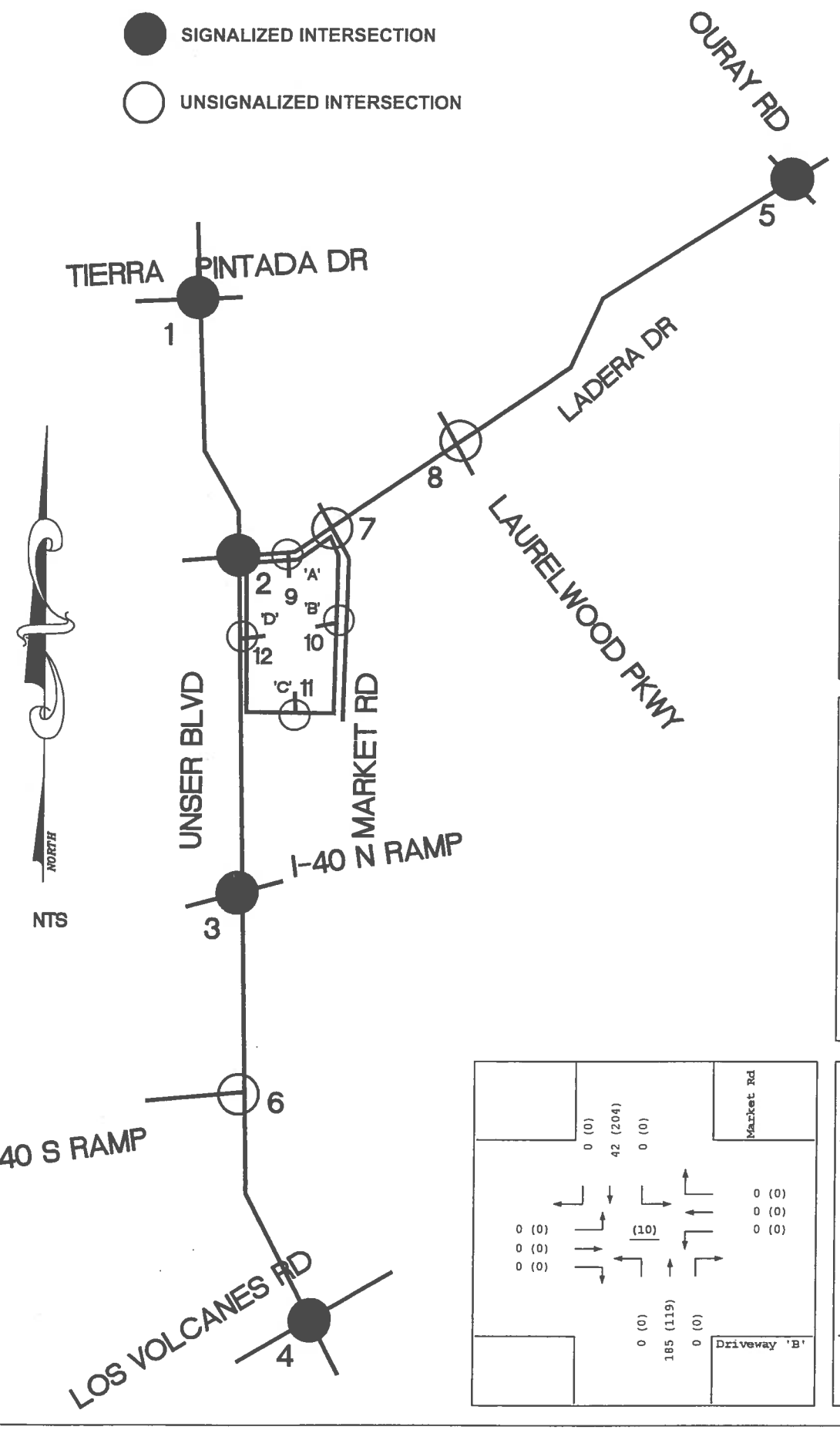
Heritage Neighborhood Center

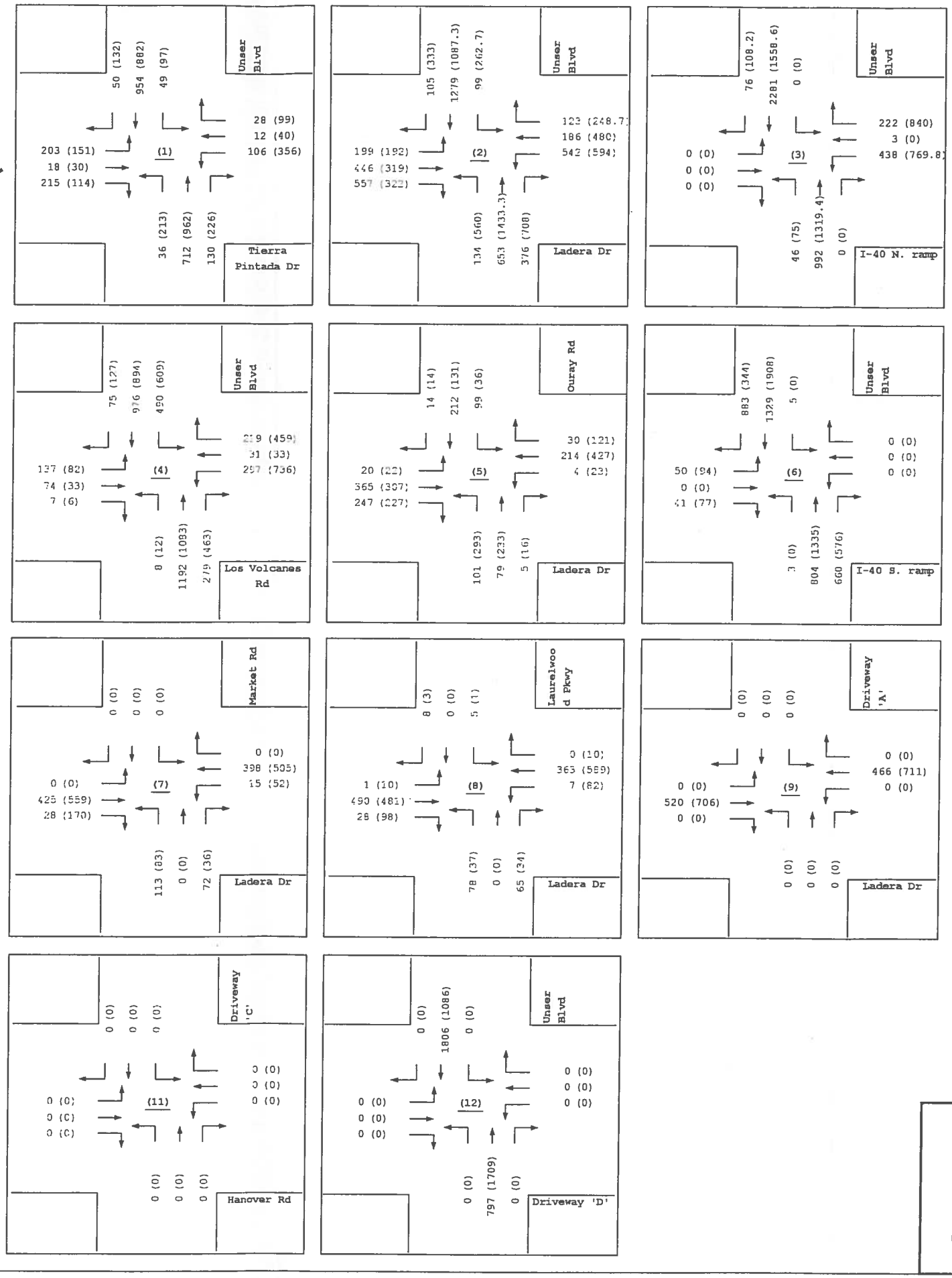
(Ladera Dr / Unser Blvd)

2010 NO BUILD Volumes - AM(PM)

SIGNALIZED INTERSECTION

UNSIGNALIZED INTERSECTION



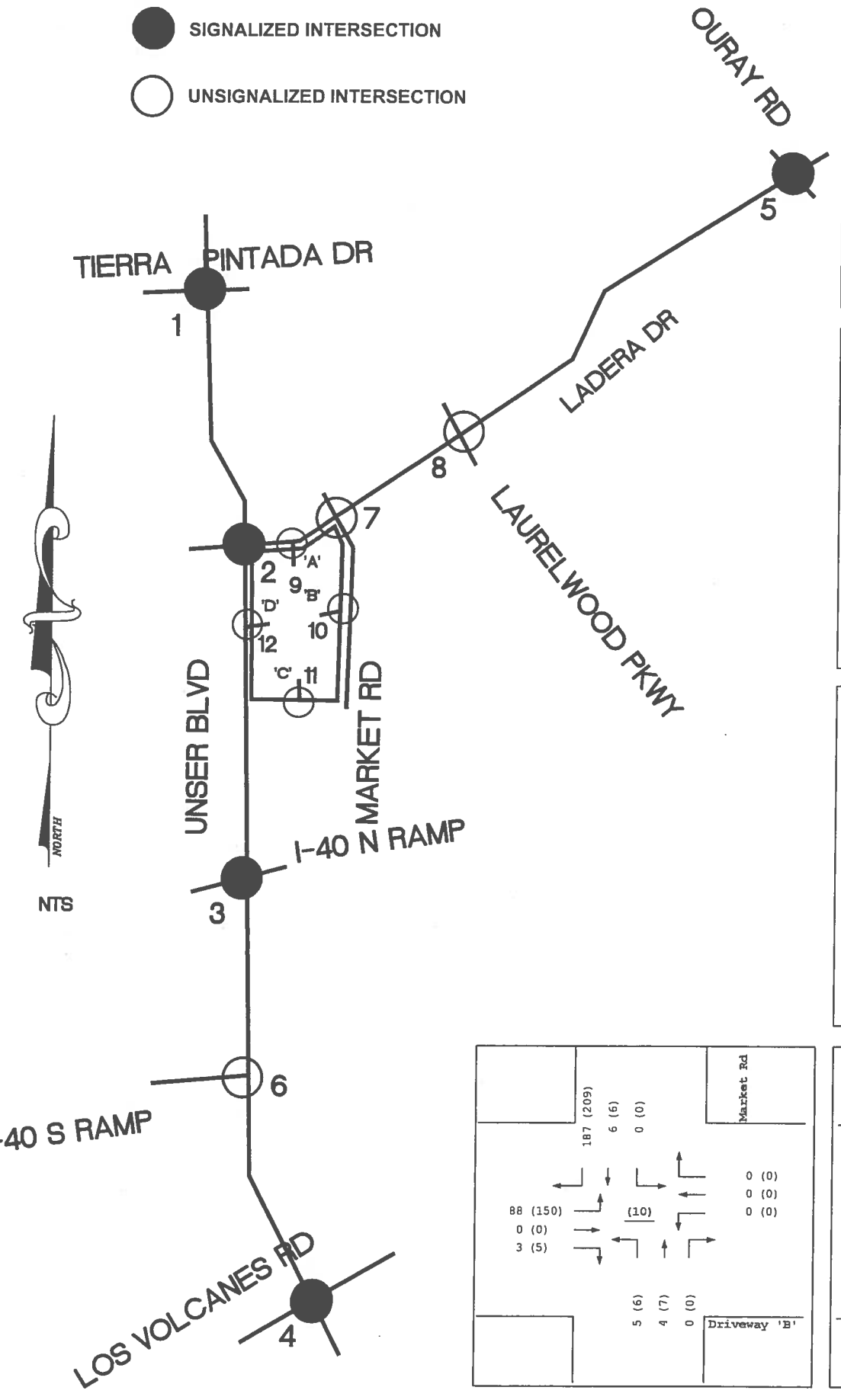


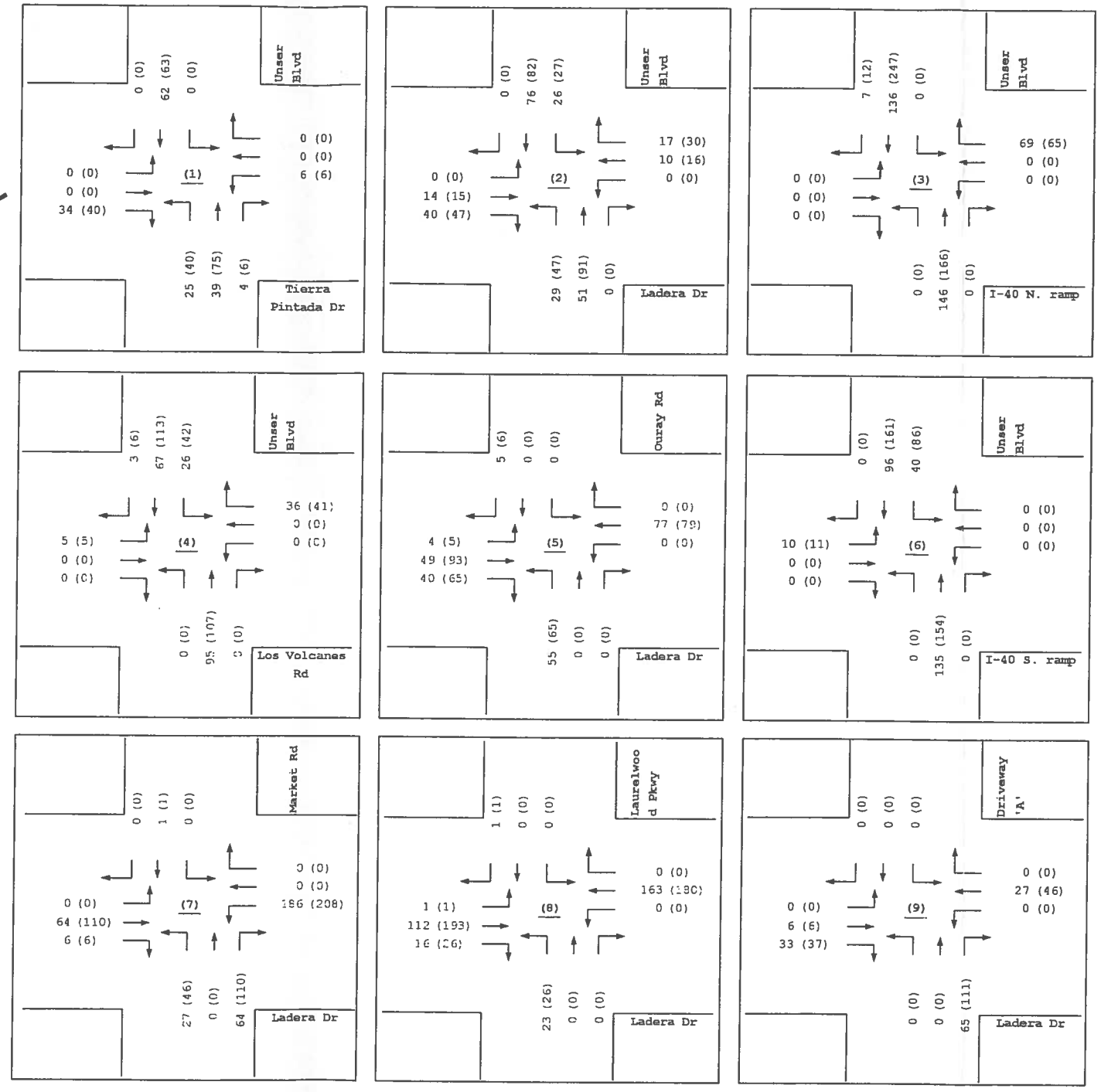
Terry O. Brown, P.E.
P.O. Box 92051
Albuquerque, NM 87199-2051
(505)883-8807 (Voice)

Heritage Neighborhood Center

(Ladera Dr / Unser Blvd)

Trips Generated Volumes - AM(PM)



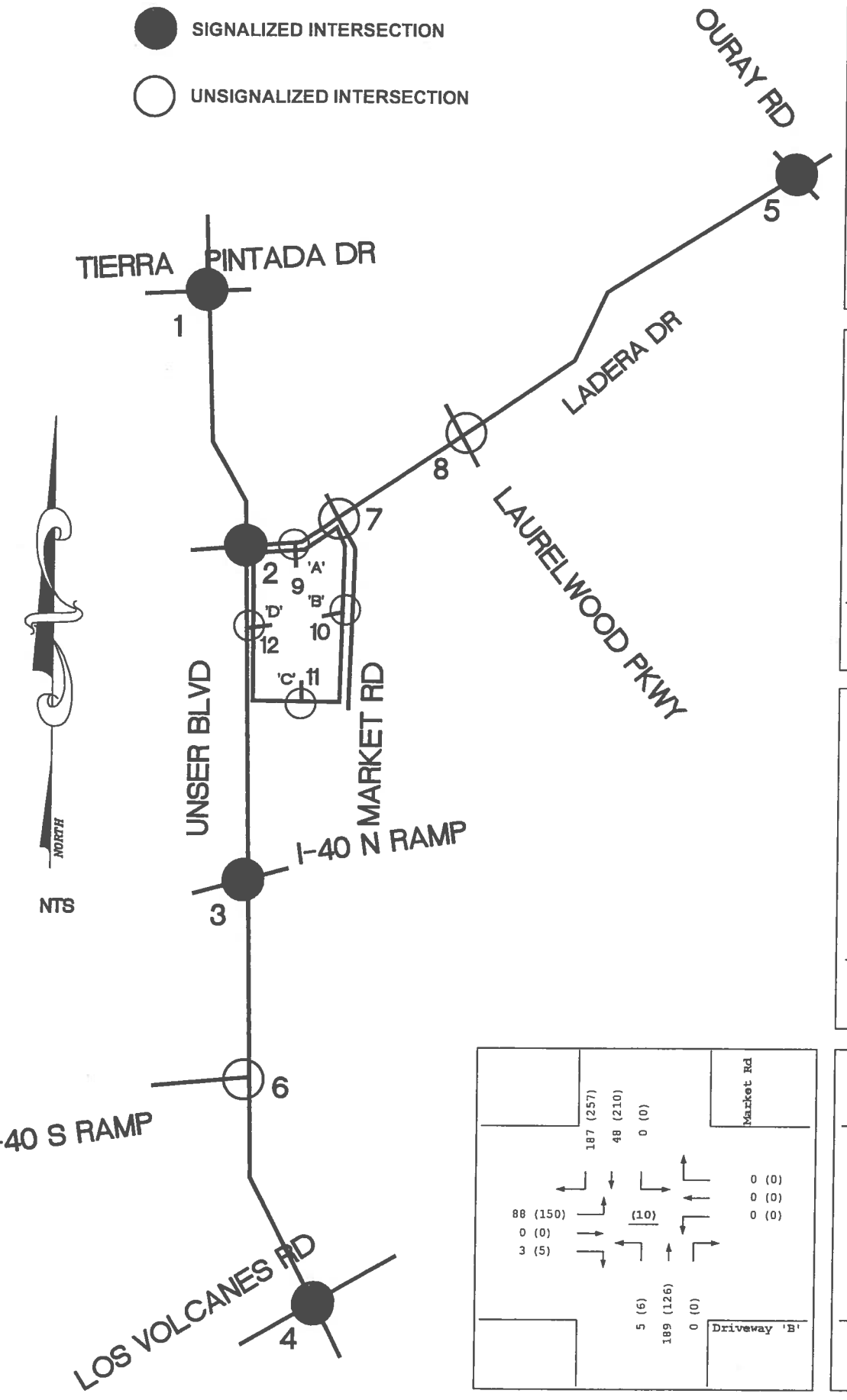


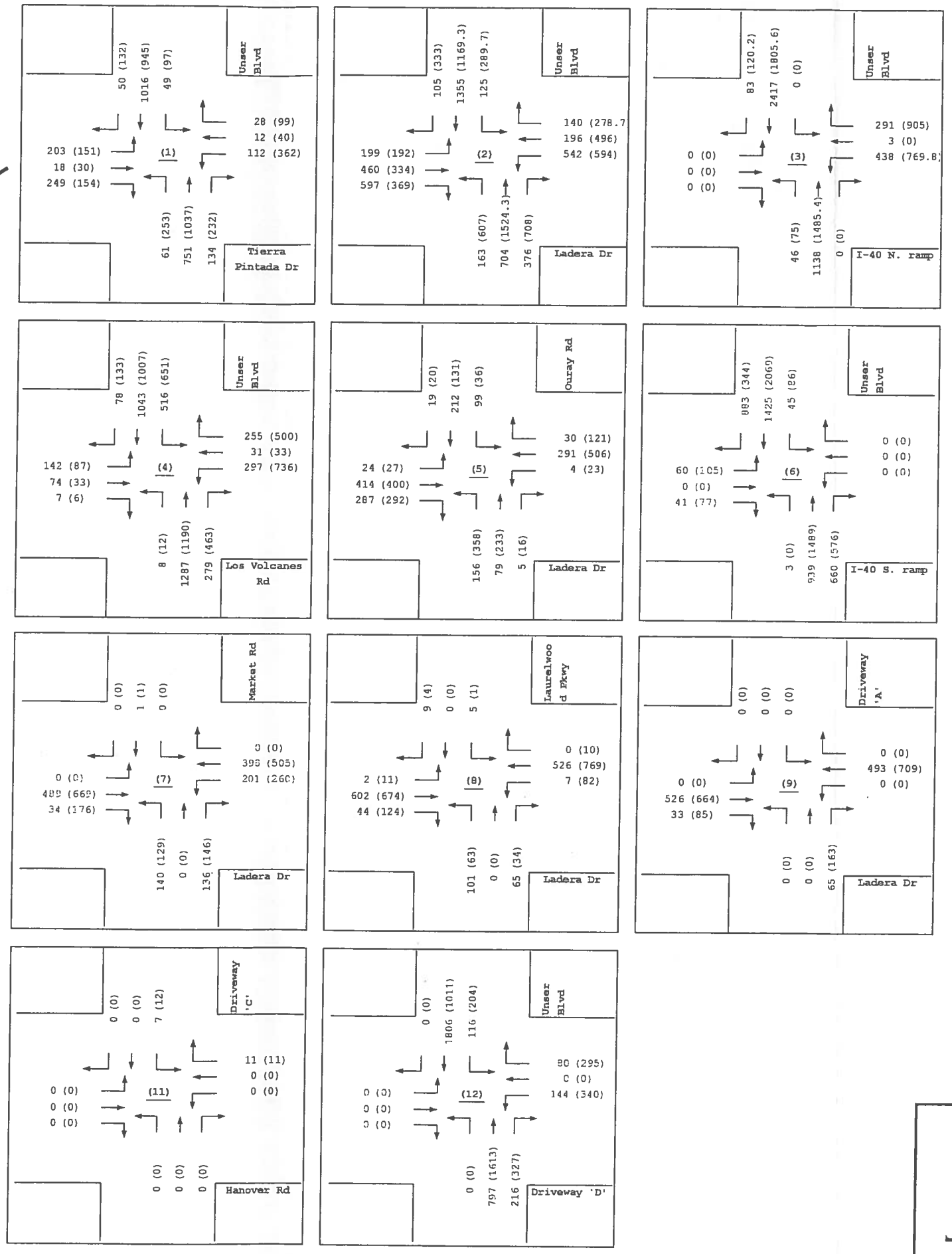
Terry O. Brown, P.E.
P.O. Box 92051
Albuquerque, NM 87199-2051
(505)883-8807 (Voice)

Heritage Neighborhood Center

(Ladera Dr / Unser Blvd)

2010 BUILD Volumes - AM(PM)





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

Analysis of Intersection #1

Tierra Pintada Dr / Unser Blvd

Timings
1: Tierra Pintada Dr & Unser Blvd

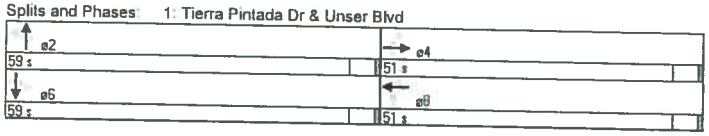
Terry O. Brown, P.E.
10/30/2007

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	203	18	215	106	12	28	36	715	130	49	954	50
Turn Type	Perm		Perm	Perm		Perm	Perm		Perm	Perm		Perm
Protected Phases		4			8			2			6	
Permitted Phases	4		4	8		8	2		2	6		6
Detector Phases	4	4	4	8	8	8	2	2	2	6	6	6
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	21.0	21.0	21.0	21.0	21.0	21.0	21.0	21.0	21.0	21.0	21.0	21.0
Total Split (s)	51.0	51.0	51.0	51.0	51.0	51.0	59.0	59.0	59.0	59.0	59.0	59.0
Total Split (%)	46.4%	46.4%	46.4%	46.4%	46.4%	46.4%	53.6%	53.6%	53.6%	53.6%	53.6%	53.6%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	Min	Min	Min	Min	Min	Min	C-Max	C-Max	C-Max	C-Max	C-Max	C-Max
Act Effct Green (s)	25.7	25.7	25.7	25.7	25.7	25.7	78.3	78.3	78.3	78.3	78.3	78.3
Actuated g/C Ratio	0.23	0.23	0.23	0.23	0.23	0.23	0.71	0.71	0.71	0.71	0.71	0.71
v/c Ratio	0.78	0.05	0.62	0.44	0.04	0.09	0.15	0.30	0.12	0.14	0.41	0.05
Control Delay	55.5	29.3	31.9	38.8	28.8	9.3	6.5	4.7	0.8	7.9	7.9	2.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	55.5	29.3	31.9	38.8	28.8	9.3	6.5	4.7	0.8	7.9	7.9	2.2
LOS	E	C	C	D	C	A	A	A	A	A	A	A
Approach Delay		42.8			32.3			4.2			7.6	
Approach LOS		D			C			A			A	

Intersection Summary

Cycle Length: 110
Actuated Cycle Length: 110
Offset: 90 (82%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green
Natural Cycle: 45
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.78
Intersection Signal Delay: 15.1 — Intersection LOS: B
Intersection Capacity Utilization 58.5% — ICU Level of Service B
Analysis Period (min) 15

Splits and Phases: 1: Tierra Pintada Dr & Unser Blvd



HCM Signalized Intersection Capacity Analysis
1: Tierra Pintada Dr & Unser Blvd

Terry O. Brown, P.E.
10/30/2007

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
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	3.0	3.0
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	1.00	1.00	0.95	1.00
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1752	1845	1568	1752	1845	1568	1752	3505	1568	1752	3505	1568
Flt Permitted	0.75	1.00	1.00	0.74	1.00	1.00	0.24	1.00	1.00	0.34	1.00	1.00
Satd. Flow (perm)	1378	1845	1568	1371	1845	1568	452	3505	1568	636	3505	1568
Volume (vph)	203	18	215	106	12	28	36	715	130	49	954	50
Peak-hour factor, PHF	0.81	0.81	0.81	0.75	0.75	0.75	0.97	0.97	0.97	0.94	0.94	0.94
Adj. Flow (vph)	251	22	265	141	16	37	37	737	134	52	1015	53
RTOR Reduction (vph)	0	0	59	0	0	28	0	0	39	0	0	15
Lane Group Flow (vph)	251	22	206	141	16	9	37	737	95	52	1015	38
Turn Type	Perm		Perm	Perm		Perm	Perm		Perm	Perm		Perm
Protected Phases		4			8			2			6	
Permitted Phases	4		4	8		8	2		2	6		6
Actuated Green, G (s)	23.7	23.7	23.7	23.7	23.7	23.7	76.3	76.3	76.3	76.3	76.3	76.3
Effective Green, g (s)	25.7	25.7	25.7	25.7	25.7	25.7	78.3	78.3	78.3	78.3	78.3	78.3
Actuated g/C Ratio	0.23	0.23	0.23	0.23	0.23	0.23	0.71	0.71	0.71	0.71	0.71	0.71
Clearance Time (s)	5.0	5.0	5.0	5.0	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	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	322	431	366	320	431	366	322	2495	1116	453	2495	1116
v/s Ratio Prot		0.01			0.01			0.21			c0.29	
v/s Ratio Perm	c0.18		0.13	0.10		0.01	0.08		0.06	0.08		0.02
v/c Ratio	0.78	0.05	0.56	0.44	0.04	0.02	0.11	0.30	0.09	0.11	0.41	0.03
Uniform Delay, d1	39.5	32.7	37.2	36.0	32.6	32.5	5.0	5.8	4.9	5.0	6.4	4.7
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	0.70	0.67	0.46	1.00	1.00	1.00
Incremental Delay, d2	11.3	0.0	2.0	1.0	0.0	0.0	0.6	0.3	0.1	0.5	0.5	0.1
Delay (s)	50.8	32.7	39.2	37.0	32.6	32.5	4.1	4.2	2.4	5.5	6.9	4.7
Level of Service	D	C	D	D	C	C	A	A	A	A	A	A
Approach Delay (s)		44.3			35.8			3.9			6.8	
Approach LOS		D			D			A			A	

Intersection Summary

HCM Average Control Delay	15.2	HCM Level of Service	B
HCM Volume to Capacity ratio	0.50		
Actuated Cycle Length (s)	110.0	Sum of lost time (s)	6.0
Intersection Capacity Utilization	58.5%	ICU Level of Service	B
Analysis Period (min)	15		

c Critical Lane Group

Timings
1: Tierra Pintada Dr & Unser Blvd

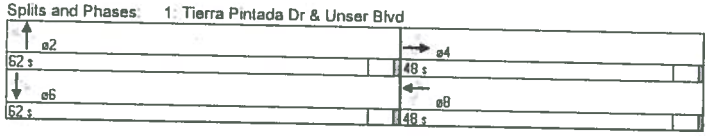
Terry O. Brown, P.E.
10/30/2007

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	203	18	249	112	12	28	61	751	134	49	1016	50
Turn Type	Perm		Perm	Perm		Perm	Perm		Perm	Perm		Perm
Protected Phases		4			8			2			6	
Permitted Phases	4		4	8		8	2		2	6		6
Detector Phases	4	4	4	8	8	8	2	2	2	6	6	6
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	21.0	21.0	21.0	21.0	21.0	21.0	21.0	21.0	21.0	21.0	21.0	21.0
Total Split (s)	48.0	48.0	48.0	48.0	48.0	48.0	62.0	62.0	62.0	62.0	62.0	62.0
Total Split (%)	43.6%	43.6%	43.6%	43.6%	43.6%	43.6%	56.4%	56.4%	56.4%	56.4%	56.4%	56.4%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	Min	Min	Min	Min	Min	Min	C-Max	C-Max	C-Max	C-Max	C-Max	C-Max
Act Effct Green (s)	26.1	26.1	26.1	26.1	26.1	26.1	77.9	77.9	77.9	77.9	77.9	77.9
Actuated g/C Ratio	0.24	0.24	0.24	0.24	0.24	0.24	0.71	0.71	0.71	0.71	0.71	0.71
v/c Ratio	0.77	0.05	0.72	0.46	0.04	0.09	0.28	0.31	0.12	0.14	0.44	0.05
Control Delay	53.9	28.8	37.6	38.9	28.3	9.1	8.8	5.2	0.9	8.3	8.4	2.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	53.9	28.8	37.6	38.9	28.3	9.1	8.8	5.2	0.9	8.3	8.4	2.3
LOS	D	C	D	D	C	A	A	A	A	A	A	A
Approach Delay		44.3			32.6			4.8			8.1	
Approach LOS		D			C			A			A	

Intersection Summary

Cycle Length: 110
Actuated Cycle Length: 110
Offset: 79 (72%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green
Natural Cycle: 50
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.77
Intersection Signal Delay: 15.8 — Intersection LOS: B
Intersection Capacity Utilization 60.2% — ICU Level of Service B
Analysis Period (min) 15

Splits and Phases: 1: Tierra Pintada Dr & Unser Blvd



HCM Signalized Intersection Capacity Analysis
1: Tierra Pintada Dr & Unser Blvd

Terry O. Brown, P.E.
10/30/2007

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
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	3.0	3.0
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	1.00	1.00	0.95	1.00
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1752	1845	1568	1752	1845	1568	1752	3505	1568	1752	3505	1568
Flt Permitted	0.75	1.00	1.00	0.74	1.00	1.00	0.22	1.00	1.00	0.33	1.00	1.00
Satd. Flow (perm)	1378	1845	1568	1371	1845	1568	414	3505	1568	607	3505	1568
Volume (vph)	203	18	249	112	12	28	61	751	134	49	1016	50
Peak-hour factor, PHF	0.81	0.81	0.81	0.75	0.75	0.75	0.97	0.97	0.97	0.94	0.94	0.94
Adj. Flow (vph)	251	22	307	149	16	37	63	774	138	52	1081	53
RTOR Reduction (vph)	0	0	56	0	0	28	0	0	40	0	0	15
Lane Group Flow (vph)	251	22	251	149	16	9	63	774	98	52	1081	38
Turn Type	Perm		Perm	Perm		Perm	Perm		Perm	Perm		Perm
Protected Phases		4			8			2			6	
Permitted Phases	4		4	8		8	2		2	6		6
Actuated Green, G (s)	24.1	24.1	24.1	24.1	24.1	24.1	75.9	75.9	75.9	75.9	75.9	75.9
Effective Green, g (s)	26.1	26.1	26.1	26.1	26.1	26.1	77.9	77.9	77.9	77.9	77.9	77.9
Actuated g/C Ratio	0.24	0.24	0.24	0.24	0.24	0.24	0.71	0.71	0.71	0.71	0.71	0.71
Clearance Time (s)	5.0	5.0	5.0	5.0	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	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	327	438	372	325	438	372	293	2482	1110	430	2482	1110
v/s Ratio Prot		0.01			0.01			0.22			c0.31	
v/s Ratio Perm	c0.18		0.16	0.11		0.01	0.15		0.06	0.09		0.02
v/c Ratio	0.77	0.05	0.67	0.46	0.04	0.02	0.22	0.31	0.09	0.12	0.44	0.03
Uniform Delay, d1	39.1	32.4	38.1	35.9	32.3	32.2	5.5	6.0	5.0	5.1	6.8	4.8
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	0.69	0.70	0.50	1.00	1.00	1.00
Incremental Delay, d2	10.3	0.0	4.8	1.0	0.0	0.0	1.4	0.3	0.1	0.6	0.6	0.1
Delay (s)	49.4	32.4	42.8	36.9	32.3	32.2	5.2	4.5	2.6	5.7	7.3	4.9
Level of Service	D	C	D	D	C	C	A	A	A	A	A	A
Approach Delay (s)		45.3			35.7			4.3			7.1	
Approach LOS		D			D			A			A	

Intersection Summary

HCM Average Control Delay	15.7	HCM Level of Service	B
HCM Volume to Capacity ratio	0.52		
Actuated Cycle Length (s)	110.0	Sum of lost time (s)	6.0
Intersection Capacity Utilization	60.2%	ICU Level of Service	B
Analysis Period (min)	15		

c Critical Lane Group

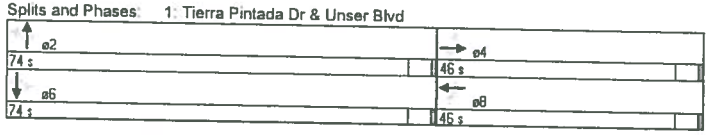
Timings
1: Tierra Pintada Dr & Unser Blvd

Terry O. Brown, P.E.
10/30/2007

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	151	30	114	356	40	99	213	962	226	97	882	132
Turn Type	Perm		Perm	Perm		Perm	Perm		Perm	Perm		Perm
Protected Phases		4			8			2			6	
Permitted Phases	4		4	8		8	2		2	6		6
Detector Phases	4	4	4	8	8	8	2	2	2	6	6	6
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	21.0	21.0	21.0	21.0	21.0	21.0	21.0	21.0	21.0	21.0	21.0	21.0
Total Split (s)	46.0	46.0	46.0	46.0	46.0	46.0	74.0	74.0	74.0	74.0	74.0	74.0
Total Split (%)	38.3%	38.3%	38.3%	38.3%	38.3%	38.3%	61.7%	61.7%	61.7%	61.7%	61.7%	61.7%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	Min	Min	Min	Min	Min	Min	C-Max	C-Max	C-Max	C-Max	C-Max	C-Max
Act Effct Green (s)	43.0	43.0	43.0	43.0	43.0	43.0	71.0	71.0	71.0	71.0	71.0	71.0
Actuated g/C Ratio	0.36	0.36	0.36	0.36	0.36	0.36	0.59	0.59	0.59	0.59	0.59	0.59
v/c Ratio	0.35	0.05	0.20	0.98	0.08	0.21	0.97	0.49	0.23	0.48	0.48	0.15
Control Delay	30.9	25.6	6.6	73.9	26.0	7.7	47.4	8.1	0.5	22.9	15.0	2.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	30.9	25.6	6.6	73.9	26.0	7.7	47.4	8.1	0.5	22.9	15.0	2.0
LOS	C	C	A	E	C	A	D	A	A	C	B	A
Approach Delay		21.0			56.8			12.9			14.1	
Approach LOS		C			E			B			B	

Intersection Summary
Cycle Length: 120
Actuated Cycle Length: 120
Offset: 29 (24%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green
Natural Cycle: 65
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.98
Intersection Signal Delay: 21.8 Intersection LOS: C
Intersection Capacity Utilization 72.6% ICU Level of Service C
Analysis Period (min) 15

Splits and Phases: 1: Tierra Pintada Dr & Unser Blvd



HCM Signalized Intersection Capacity Analysis
1: Tierra Pintada Dr & Unser Blvd

Terry O. Brown, P.E.
10/30/2007

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
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	3.0	3.0
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	1.00	1.00	0.95	1.00
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1752	1845	1568	1752	1845	1568	1752	3505	1568	1752	3505	1568
Flt Permitted	0.72	1.00	1.00	0.74	1.00	1.00	0.22	1.00	1.00	0.21	1.00	1.00
Satd. Flow (perm)	1333	1845	1568	1357	1845	1568	399	3505	1568	386	3505	1568
Volume (vph)	151	30	114	356	40	99	213	962	226	97	882	132
Peak-hour factor, PHF	0.90	0.90	0.90	0.75	0.75	0.75	0.94	0.94	0.94	0.88	0.88	0.88
Adj. Flow (vph)	168	33	127	475	53	132	227	1023	240	110	1002	150
RTOR Reduction (vph)	0	0	74	0	0	71	0	0	98	0	0	61
Lane Group Flow (vph)	168	33	53	475	53	61	227	1023	142	110	1002	89
Turn Type	Perm		Perm	Perm		Perm	Perm		Perm	Perm		Perm
Protected Phases		4			8			2			6	
Permitted Phases	4		4	8		8	2		2	6		6
Actuated Green, G (s)	41.0	41.0	41.0	41.0	41.0	41.0	69.0	69.0	69.0	69.0	69.0	69.0
Effective Green, g (s)	43.0	43.0	43.0	43.0	43.0	43.0	71.0	71.0	71.0	71.0	71.0	71.0
Actuated g/C Ratio	0.36	0.36	0.36	0.36	0.36	0.36	0.59	0.59	0.59	0.59	0.59	0.59
Clearance Time (s)	5.0	5.0	5.0	5.0	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	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	478	661	562	486	661	562	236	2074	928	228	2074	928
v/s Ratio Prot		0.02			0.03			0.29			0.29	
v/s Ratio Perm	0.13		0.03	c0.35		0.04	c0.57		0.09	0.28		0.06
v/c Ratio	0.35	0.05	0.09	0.98	0.08	0.11	0.96	0.49	0.15	0.48	0.48	0.10
Uniform Delay, d1	28.3	25.2	25.6	38.0	25.4	25.7	23.2	14.1	11.0	14.0	14.0	10.6
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	0.51	0.54	0.18	1.00	1.00	1.00
Incremental Delay, d2	0.4	0.0	0.1	34.6	0.1	0.1	29.7	0.4	0.1	7.1	0.8	0.2
Delay (s)	28.7	25.2	25.6	72.6	25.5	25.8	41.5	8.0	2.1	21.1	14.8	10.8
Level of Service	C	C	C	E	C	C	D	A	A	C	B	B
Approach Delay (s)		27.2			59.5			12.2			14.9	
Approach LOS		C			E			B			B	

Intersection Summary

HCM Average Control Delay	22.7	HCM Level of Service	C
HCM Volume to Capacity ratio	0.97		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	6.0
Intersection Capacity Utilization	72.6%	ICU Level of Service	C
Analysis Period (min)	15		

c Critical Lane Group

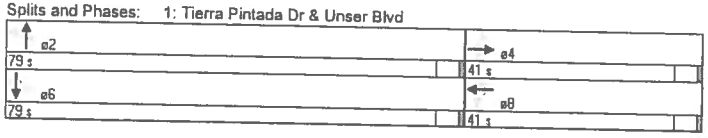
Timings
1: Tierra Pintada Dr & Unser Blvd

Terry O. Brown, P.E.
10/30/2007

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	151	30	154	362	40	99	253	1037	232	97	945	132
Turn Type	Perm		Perm	Perm		Perm	Perm		Perm	Perm		Perm
Protected Phases		4			8			2			6	
Permitted Phases	4		4	8		8	2		2	6		6
Detector Phases	4	4	4	8	8	8	2	2	2	6	6	6
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	21.0	21.0	21.0	21.0	21.0	21.0	21.0	21.0	21.0	21.0	21.0	21.0
Total Split (s)	41.0	41.0	41.0	41.0	41.0	41.0	79.0	79.0	79.0	79.0	79.0	79.0
Total Split (%)	34.2%	34.2%	34.2%	34.2%	34.2%	34.2%	65.8%	65.8%	65.8%	65.8%	65.8%	65.8%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	Min	Min	Min	Min	Min	Min	C-Max	C-Max	C-Max	C-Max	C-Max	C-Max
Act Effct Green (s)	38.0	38.0	38.0	38.0	38.0	38.0	76.0	76.0	76.0	76.0	76.0	76.0
Actuated g/C Ratio	0.32	0.32	0.32	0.32	0.32	0.32	0.63	0.63	0.63	0.63	0.63	0.63
v/c Ratio	0.40	0.06	0.30	1.12	0.09	0.23	1.12	0.50	0.23	0.48	0.48	0.14
Control Delay	35.6	29.0	12.4	120.0	29.5	9.2	87.1	6.3	0.2	20.0	12.5	1.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	35.6	29.0	12.4	120.0	29.5	9.2	87.1	6.3	0.2	20.0	12.5	1.7
LOS	D	C	B	F	C	A	F	A	A	C	B	A
Approach Delay		24.3			90.9			18.8			11.9	
Approach LOS		C			F			B			B	

Intersection Summary
Cycle Length: 120
Actuated Cycle Length: 120
Offset: 22 (18%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green
Natural Cycle: 70
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 1.12
Intersection Signal Delay: 29.1 Intersection LOS: C
Intersection Capacity Utilization 76.9% ICU Level of Service D
Analysis Period (min) 15

Splits and Phases: 1: Tierra Pintada Dr & Unser Blvd



HCM Signalized Intersection Capacity Analysis
1: Tierra Pintada Dr & Unser Blvd

Terry O. Brown, P.E.
10/30/2007

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
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	3.0	3.0
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	1.00	1.00	0.95	1.00
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1752	1845	1568	1752	1845	1568	1752	3505	1568	1752	3505	1568
Flt Permitted	0.72	1.00	1.00	0.74	1.00	1.00	0.21	1.00	1.00	0.20	1.00	1.00
Satd. Flow (perm)	1333	1845	1568	1357	1845	1568	380	3505	1568	364	3505	1568
Volume (vph)	151	30	154	362	40	99	253	1037	232	97	945	132
Peak-hour factor, PHF	0.90	0.90	0.90	0.75	0.75	0.75	0.94	0.94	0.94	0.88	0.88	0.88
Adj. Flow (vph)	168	33	171	483	53	132	269	1103	247	110	1074	150
RTOR Reduction (vph)	0	0	79	0	0	74	0	0	91	0	0	55
Lane Group Flow (vph)	168	33	92	483	53	58	269	1103	156	110	1074	95
Turn Type	Perm		Perm	Perm		Perm	Perm		Perm	Perm		Perm
Protected Phases		4			8			2			6	
Permitted Phases	4		4	8		8	2		2	6		6
Actuated Green, G (s)	36.0	36.0	36.0	36.0	36.0	36.0	74.0	74.0	74.0	74.0	74.0	74.0
Effective Green, g (s)	38.0	38.0	38.0	38.0	38.0	38.0	76.0	76.0	76.0	76.0	76.0	76.0
Actuated g/C Ratio	0.32	0.32	0.32	0.32	0.32	0.32	0.63	0.63	0.63	0.63	0.63	0.63
Clearance Time (s)	5.0	5.0	5.0	5.0	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	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	422	584	497	430	584	497	241	2220	993	231	2220	993
v/s Ratio Prot		0.02			0.03			0.31			0.31	
v/s Ratio Perm	0.13		0.06	c0.36		0.04	c0.71		0.10	0.30		0.06
v/c Ratio	0.40	0.06	0.18	1.12	0.09	0.12	1.12	0.50	0.16	0.48	0.48	0.10
Uniform Delay, d1	32.1	28.5	29.8	41.0	28.8	29.1	22.0	11.8	9.0	11.6	11.6	8.6
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	0.51	0.51	0.07	1.00	1.00	1.00
Incremental Delay, d2	0.6	0.0	0.2	81.4	0.1	0.1	69.7	0.3	0.1	6.9	0.8	0.2
Delay (s)	32.7	28.6	29.9	122.4	28.9	29.2	80.9	6.2	0.7	18.4	12.4	8.8
Level of Service	C	C	C	F	C	C	F	A	A	B	B	A
Approach Delay (s)		31.1			86.6			17.8			12.5	
Approach LOS		C			F			B			B	

Intersection Summary

HCM Average Control Delay	30.4	HCM Level of Service	C
HCM Volume to Capacity ratio	1.12		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	6.0
Intersection Capacity Utilization	76.9%	ICU Level of Service	D
Analysis Period (min)	15		

c Critical Lane Group

Timings
1: Tierra Pintada Dr & Unser Blvd

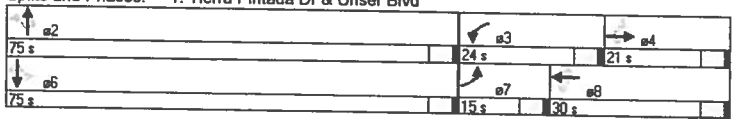
Terry O. Brown, P.E.
10/30/2007

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	151	30	114	356	40	99	213	962	226	97	882	132
Turn Type	pm+pt		Perm	pm+pt		Perm	Perm		Perm	Perm		Perm
Protected Phases	7	4		3	8			2			6	
Permitted Phases	4		4	8		8	2		2	6		6
Detector Phases	7	4	4	3	8	8	2	2	2	6	6	6
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	10.0	21.0	21.0	10.0	21.0	21.0	21.0	21.0	21.0	21.0	21.0	21.0
Total Split (s)	15.0	21.0	21.0	24.0	30.0	30.0	75.0	75.0	75.0	75.0	75.0	75.0
Total Split (%)	12.5%	17.5%	17.5%	20.0%	25.0%	25.0%	62.5%	62.5%	62.5%	62.5%	62.5%	62.5%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag						
Lead-Lag Optimize?												
Recall Mode	Min	Min	Min	Min	Min	Min	C-Max	C-Max	C-Max	C-Max	C-Max	C-Max
Act Effct Green (s)	21.9	10.0	10.0	34.0	19.1	19.1	80.0	80.0	80.0	80.0	80.0	80.0
Actuated g/C Ratio	0.18	0.08	0.08	0.28	0.16	0.16	0.67	0.67	0.67	0.67	0.67	0.67
v/c Ratio	0.59	0.21	0.52	1.10	0.18	0.37	0.84	0.44	0.21	0.42	0.43	0.14
Control Delay	43.8	53.5	18.2	111.9	44.4	10.1	23.9	5.5	0.4	16.1	10.3	1.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	43.8	53.5	18.2	111.9	44.4	10.1	23.9	5.5	0.4	16.1	10.3	1.6
LOS	D	D	B	F	D	B	C	A	A	B	B	A
Approach Delay		34.9			86.1			7.5			9.8	
Approach LOS		C			F			A			A	

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 120
Offset: 29 (24%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green
Natural Cycle: 90
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 1.10
Intersection Signal Delay: 24.5 — Intersection LOS: C
Intersection Capacity Utilization 72.6% — ICU Level of Service C
Analysis Period (min) 15

Splits and Phases: 1: Tierra Pintada Dr & Unser Blvd



HCM Signalized Intersection Capacity Analysis
1: Tierra Pintada Dr & Unser Blvd

Terry O. Brown, P.E.
10/30/2007

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
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	3.0	3.0
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	1.00	1.00	0.95	1.00
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1752	1845	1568	1752	1845	1568	1752	3505	1568	1752	3505	1568
Flt Permitted	0.72	1.00	1.00	0.57	1.00	1.00	0.24	1.00	1.00	0.23	1.00	1.00
Satd. Flow (perm)	1333	1845	1568	1044	1845	1568	438	3505	1568	426	3505	1568
Volume (vph)	151	30	114	356	40	99	213	962	226	97	882	132
Peak-hour factor, PHF	0.90	0.90	0.90	0.75	0.75	0.75	0.94	0.94	0.94	0.88	0.88	0.88
Adj. Flow (vph)	168	33	127	475	53	132	227	1023	240	110	1002	150
RTOR Reduction (vph)	0	0	111	0	0	111	0	0	80	0	0	50
Lane Group Flow (vph)	168	33	16	475	53	21	227	1023	160	110	1002	100
Turn Type	pm+pt		Perm	pm+pt		Perm	Perm		Perm	Perm		Perm
Protected Phases	7	4		3	8			2			6	
Permitted Phases	4		4	8		8	2		2	6		6
Actuated Green, G (s)	17.9	8.0	8.0	32.0	17.1	17.1	78.0	78.0	78.0	78.0	78.0	78.0
Effective Green, g (s)	21.9	10.0	10.0	34.0	19.1	19.1	80.0	80.0	80.0	80.0	80.0	80.0
Actuated g/C Ratio	0.18	0.08	0.08	0.28	0.16	0.16	0.67	0.67	0.67	0.67	0.67	0.67
Clearance Time (s)	5.0	5.0	5.0	5.0	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	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	285	154	131	420	294	250	292	2337	1045	284	2337	1045
v/s Ratio Prot	0.06	0.02		c0.20	0.03			0.29			0.29	
v/s Ratio Perm	0.05		0.01	c0.12		0.01	c0.52		0.10	0.26		0.06
v/c Ratio	0.59	0.21	0.12	1.13	0.18	0.08	0.78	0.44	0.15	0.39	0.43	0.10
Uniform Delay, d1	44.4	51.3	50.9	41.5	43.7	43.0	13.8	9.4	7.4	9.0	9.3	7.1
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	0.45	0.53	0.19	1.00	1.00	1.00
Incremental Delay, d2	3.1	0.7	0.4	84.7	0.3	0.1	8.4	0.3	0.1	4.0	0.6	0.2
Delay (s)	47.5	52.0	51.4	126.2	44.0	43.1	14.6	5.3	1.6	12.9	9.9	7.3
Level of Service	D	D	D	F	D	D	B	A	A	B	A	A
Approach Delay (s)		49.4			103.0			6.1			9.9	
Approach LOS		D			F			A			A	

Intersection Summary

HCM Average Control Delay	28.3	HCM Level of Service	C
HCM Volume to Capacity ratio	0.88		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	6.0
Intersection Capacity Utilization	72.6%	ICU Level of Service	C
Analysis Period (min)	15		

c Critical Lane Group

Timings
1: Tierra Pintada Dr & Unser Blvd

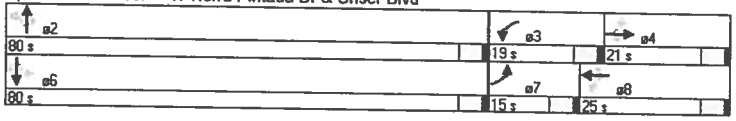
Terry O. Brown, P.E.
10/30/2007

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	151	30	154	362	40	99	253	1037	232	97	945	132
Turn Type	pm+pt		Perm	pm+pt		Perm	Perm		Perm	Perm		Perm
Protected Phases	7	4		3	8			2			6	
Permitted Phases	4		4	8		8	2		2	6		6
Detector Phases	7	4	4	3	8	8	2	2	2	6	6	6
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	10.0	21.0	21.0	10.0	21.0	21.0	21.0	21.0	21.0	21.0	21.0	21.0
Total Split (s)	15.0	21.0	21.0	19.0	25.0	25.0	80.0	80.0	80.0	80.0	80.0	80.0
Total Split (%)	12.5%	17.5%	17.5%	15.8%	20.8%	20.8%	66.7%	66.7%	66.7%	66.7%	66.7%	66.7%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag						
Lead-Lag Optimize?												
Recall Mode	Min	Min	Min	Min	Min	Min	C-Max	C-Max	C-Max	C-Max	C-Max	C-Max
Act Effct Green (s)	24.1	12.2	12.2	31.2	16.2	16.2	82.8	82.8	82.8	82.8	82.8	82.8
Actuated g/C Ratio	0.20	0.10	0.10	0.26	0.14	0.14	0.69	0.69	0.69	0.69	0.69	0.69
v/c Ratio	0.54	0.18	0.65	1.27	0.21	0.40	1.01	0.46	0.21	0.43	0.44	0.13
Control Delay	43.0	49.3	30.1	176.8	46.5	11.1	48.9	4.6	0.2	15.9	9.5	1.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	43.0	49.3	30.1	176.8	46.5	11.1	48.9	4.6	0.2	15.9	9.5	1.5
LOS	D	D	C	F	D	B	D	A	A	B	A	A
Approach Delay		37.6			133.7			11.3			9.1	
Approach LOS		D			F			B			A	

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 120
Offset: 22 (18%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green
Natural Cycle: 120
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 1.27
Intersection Signal Delay: 33.5 Intersection LOS: C
Intersection Capacity Utilization 76.9% ICU Level of Service D
Analysis Period (min) 15

Splits and Phases: 1: Tierra Pintada Dr & Unser Blvd



HCM Signalized Intersection Capacity Analysis
1: Tierra Pintada Dr & Unser Blvd

Terry O. Brown, P.E.
10/30/2007

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
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	3.0	3.0
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	1.00	1.00	0.95	1.00
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1752	1845	1568	1752	1845	1568	1752	3505	1568	1752	3505	1568
Flt Permitted	0.72	1.00	1.00	0.59	1.00	1.00	0.22	1.00	1.00	0.21	1.00	1.00
Satd. Flow (perm)	1333	1845	1568	1089	1845	1568	408	3505	1568	392	3505	1568
Volume (vph)	151	30	154	362	40	99	253	1037	232	97	945	132
Peak-hour factor, PHF	0.90	0.90	0.90	0.75	0.75	0.75	0.94	0.94	0.94	0.88	0.88	0.88
Adj. Flow (vph)	168	33	171	483	53	132	269	1103	247	110	1074	150
RTOR Reduction (vph)	0	0	103	0	0	114	0	0	77	0	0	47
Lane Group Flow (vph)	168	33	68	483	53	18	269	1103	170	110	1074	104
Turn Type	pm+pt		Perm	pm+pt		Perm	Perm		Perm	Perm		Perm
Protected Phases	7	4		3	8			2			6	
Permitted Phases	4		4	8		8	2		2	6		6
Actuated Green, G (s)	20.1	10.2	10.2	28.3	14.3	14.3	80.8	80.8	80.8	80.8	80.8	80.8
Effective Green, g (s)	24.1	12.2	12.2	31.2	16.3	16.3	82.8	82.8	82.8	82.8	82.8	82.8
Actuated g/C Ratio	0.20	0.10	0.10	0.26	0.14	0.14	0.69	0.69	0.69	0.69	0.69	0.69
Clearance Time (s)	5.0	5.0	5.0	5.0	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	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	309	188	159	372	251	213	282	2418	1082	270	2418	1082
v/s Ratio Prot	0.05	0.02		c0.17	0.03			0.31			0.31	
v/s Ratio Perm	0.06		0.04	c0.16		0.01	c0.66		0.11	0.28		0.07
v/c Ratio	0.54	0.18	0.43	1.30	0.21	0.08	0.95	0.46	0.16	0.41	0.44	0.10
Uniform Delay, d1	42.4	49.3	50.6	43.2	46.1	45.3	16.9	8.4	6.5	8.0	8.3	6.2
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	0.46	0.49	0.07	1.00	1.00	1.00
Incremental Delay, d2	2.0	0.4	1.8	152.8	0.4	0.2	21.2	0.2	0.1	4.5	0.6	0.2
Delay (s)	44.3	49.7	52.4	195.9	46.6	45.5	28.9	4.3	0.5	12.5	8.9	6.3
Level of Service	D	D	D	F	D	D	C	A	A	B	A	A
Approach Delay (s)		48.5			154.4			7.8			8.9	
Approach LOS		D			F			A			A	

Intersection Summary

HCM Average Control Delay	36.5	HCM Level of Service	D
HCM Volume to Capacity ratio	1.05		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	6.0
Intersection Capacity Utilization	76.9%	ICU Level of Service	D
Analysis Period (min)	15		

c Critical Lane Group

Timings
1: Tierra Pintada Dr & Unser Blvd

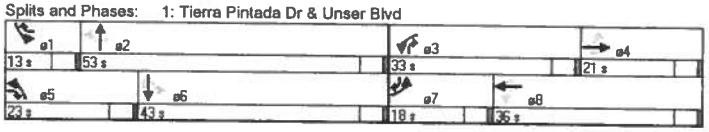
Terry O. Brown, P.E.
10/30/2007

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	151	30	154	362	40	99	253	1037	232	97	945	132
Turn Type	pm+pt		pm+ov	pm+pt		pm+ov	pm+pt		pm+ov	pm+pt		pm+ov
Protected Phases	7	4	5	3	8	1	5	2	3	1	6	7
Permitted Phases	4		4	8		8	2		2	6		6
Detector Phases	7	4	5	3	8	1	5	2	3	1	6	7
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	10.0	21.0	10.0	10.0	21.0	10.0	10.0	21.0	10.0	10.0	21.0	10.0
Total Split (s)	18.0	21.0	23.0	33.0	36.0	13.0	23.0	53.0	33.0	13.0	43.0	18.0
Total Split (%)	15.0%	17.5%	19.2%	27.5%	30.0%	10.8%	19.2%	44.2%	27.5%	10.8%	35.8%	15.0%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lead/Lag	Lead	Lag	Lead	Lead	Lag	Lead	Lead	Lag	Lead	Lead	Lag	Lead
Lead-Lag Optimize?												
Recall Mode	Min	Min	None	Min	Min	None	None	C-Max	Min	None	C-Max	Min
Act Effct Green (s)	23.6	9.6	33.1	42.1	25.1	39.1	71.9	57.9	90.3	59.5	48.4	65.4
Actuated g/C Ratio	0.20	0.08	0.28	0.35	0.21	0.33	0.60	0.48	0.75	0.50	0.40	0.54
v/c Ratio	0.54	0.22	0.35	0.87	0.14	0.22	0.72	0.65	0.20	0.43	0.76	0.16
Control Delay	36.0	54.7	18.5	52.8	39.3	6.0	34.1	27.1	0.2	18.9	36.5	3.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	36.0	54.7	18.5	52.8	39.3	6.0	34.1	27.1	0.2	18.9	36.5	3.0
LOS	D	D	B	D	D	A	C	C	A	B	D	A
Approach Delay		29.6			42.5			24.2			31.3	
Approach LOS		C			D			C			C	

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 120
Offset: 22 (18%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green
Natural Cycle: 75
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.87
Intersection Signal Delay: 30.1 — Intersection LOS: C
Intersection Capacity Utilization 76.9% — ICU Level of Service D
Analysis Period (min) 15

Splits and Phases: 1: Tierra Pintada Dr & Unser Blvd



HCM Signalized Intersection Capacity Analysis
1: Tierra Pintada Dr & Unser Blvd

Terry O. Brown, P.E.
10/30/2007

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
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	3.0	3.0
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	1.00	1.00	0.95	1.00
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1752	1845	1568	1752	1845	1568	1752	3505	1568	1752	3505	1568
Flt Permitted	0.72	1.00	1.00	0.56	1.00	1.00	0.10	1.00	1.00	0.17	1.00	1.00
Satd. Flow (perm)	1333	1845	1568	1034	1845	1568	178	3505	1568	307	3505	1568
Volume (vph)	151	30	154	362	40	99	253	1037	232	97	945	132
Peak-hour factor, PHF	0.90	0.90	0.90	0.75	0.75	0.75	0.94	0.94	0.94	0.88	0.88	0.88
Adj. Flow (vph)	168	33	171	483	53	132	269	1103	247	110	1074	150
RTOR Reduction (vph)	0	0	61	0	0	88	0	0	67	0	0	72
Lane Group Flow (vph)	168	33	110	483	53	44	269	1103	180	110	1074	78
Turn Type	pm+pt		pm+ov	pm+pt		pm+ov	pm+pt		pm+ov	pm+pt		pm+ov
Protected Phases	7	4	5	3	8	1	5	2	3	1	6	7
Permitted Phases	4		4	8		8	2		2	6		6
Actuated Green, G (s)	19.6	7.6	26.1	40.1	23.1	32.2	69.9	55.8	83.3	55.5	46.4	58.4
Effective Green, g (s)	23.6	9.6	30.1	42.1	25.1	36.2	71.9	57.8	87.3	59.5	48.4	62.4
Actuated g/C Ratio	0.20	0.08	0.25	0.35	0.21	0.30	0.60	0.48	0.73	0.50	0.40	0.52
Clearance Time (s)	5.0	5.0	5.0	5.0	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	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	311	148	433	539	386	512	376	1688	1180	286	1414	855
v/s Ratio Prot	0.06	0.02	0.04	c0.22	0.03	0.01	c0.12	0.31	0.04	0.04	c0.31	0.01
v/s Ratio Perm	0.04		0.03	c0.09		0.02	0.31		0.08	0.15		0.04
v/c Ratio	0.54	0.22	0.25	0.90	0.14	0.09	0.72	0.65	0.15	0.38	0.76	0.09
Uniform Delay, d1	42.8	51.7	36.0	35.0	38.6	30.0	28.2	23.5	5.0	17.9	30.8	14.5
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.23	1.07	0.16	1.00	1.00	1.00
Incremental Delay, d2	1.9	0.8	0.3	17.3	0.2	0.1	2.1	0.6	0.0	0.9	3.9	0.0
Delay (s)	44.7	52.5	36.3	52.3	38.8	30.1	36.9	25.9	0.8	18.7	34.7	14.6
Level of Service	D	D	D	D	D	C	D	C	A	B	C	B
Approach Delay (s)		41.5			46.8			23.9			31.1	
Approach LOS		D			D			C			C	

Intersection Summary

HCM Average Control Delay	31.8	HCM Level of Service	C
HCM Volume to Capacity ratio	0.80		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	9.0
Intersection Capacity Utilization	76.9%	ICU Level of Service	D
Analysis Period (min)	15		

c Critical Lane Group

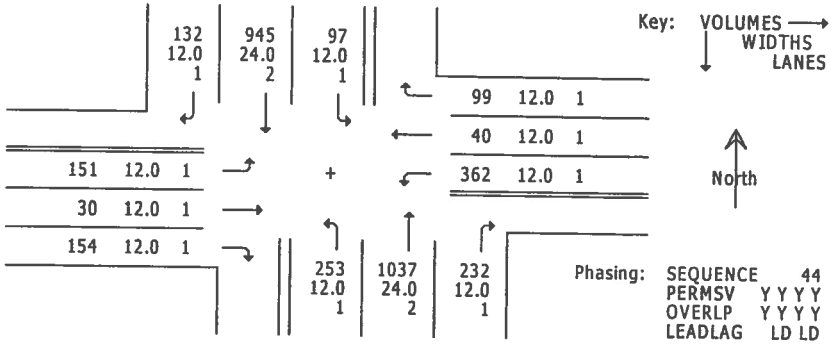
Heritage Neighborhood Marketplace (Ladera / Unser)
Analysis of Tierra Pintada / Unser Blvd.
2010 PM Peak Hour BUILD - Mitigated

10/30/07
21:06:56

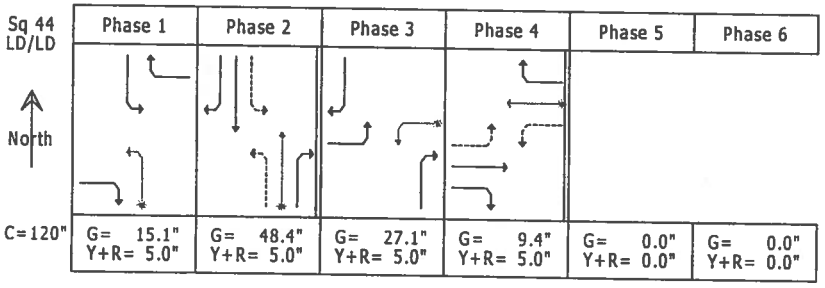
SIGNAL2000/TEAPAC[Ver 2.80.00] - HCM Input Worksheet

Intersection # 1 -

Area Location Type: NONCBD



	SB RT	SB TH	SB LT	WB RT	WB TH	WB LT	NB RT	NB TH	NB LT	EB RT	EB TH	EB LT
Heavy veh, %HV	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Pk-hr fact, PHF	.88	.88	.88	.75	.75	.75	.94	.94	.94	.90	.90	.90
Pretimed or Act	A	A	A	A	A	A	A	A	A	A	A	A
Strtup lost, l1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Ext eff grn, e	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Arrival typ, AT	3	3	3	3	3	3	3	3	3	3	3	3
Ped vol, vped		0			0			0			0	
Bike vol, vbic		0			0			0			0	
Parking locatns		NO			NO			NO			NO	
Park mnvrs, Nm		0			0			0			0	
Bus stops, NB		0			0			0			0	
Grade, %G		.0			.0			.0			.0	

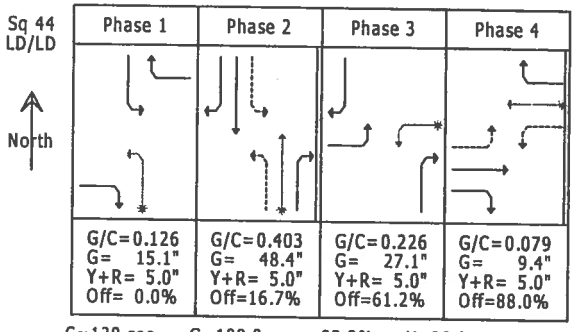


Heritage Neighborhood Marketplace (Ladera / Unser)
Analysis of Tierra Pintada / Unser Blvd.
2010 PM Peak Hour BUILD - Mitigated

10/30/07
21:06:56

SIGNAL2000/TEAPAC[Ver 2.80.00] - Capacity Analysis Summary

Intersection Averages for Int # 1 -
V/C 0.668 (Critical V/C 0.847) Control Delay 35.1 Level of Service D+



C=120 sec G=100.0 sec = 83.3% Y=20.0 sec = 16.7% Ped= 0.0 sec = 0.0%

Lane Group	Width/ Lanes	q/C Reqd	q/C Used	Service Rate @C (vph)	Service Rate @E	Adj Volume	v/c	HCM Delay	LOS	Queue Model 1
SB Approach								29.1	C	
RT	12/1	0.279	0.670	999	1051	150	0.143	7.3	A	102 ft
TH	24/2	0.391	0.403	1135	1415	1074	0.759	33.3	C	794 ft
LT	12/1	0.047	0.126	217	292	110	0.369	18.8	B	115 ft
NB Approach								33.3	C	
RT	12/1	0.308	0.670	999	1051	247	0.235	7.9	A	177 ft
TH	24/2	0.397	0.403	1135	1415	1103	0.780	34.0	*C	826 ft
LT	12/1	0.159	0.126	229	302	269	0.879	53.8	*D	459 ft
WB Approach								50.8	D	
RT	12/1	0.273	0.246	37	371	132	0.342	37.8	D+	195 ft
TH	12/1	0.249	0.079	1	116	53	0.366	54.0	*D	95 ft
LT	12/1	0.282	0.226	352	536	483	0.901	54.0	*D	815 ft
EB Approach								35.6	D+	
RT	12/1	0.285	0.246	37	371	171	0.443	39.1	D+	257 ft
TH	12/1	0.244	0.079	1	116	33	0.228	52.7	D	58 ft
LT	12/1	0.161	0.226	342	519	168	0.324	28.8	C	220 ft

Analysis of Intersection #2

Ladera Dr / Unser Blvd

Timings
2: Ladera Dr & Unser Blvd

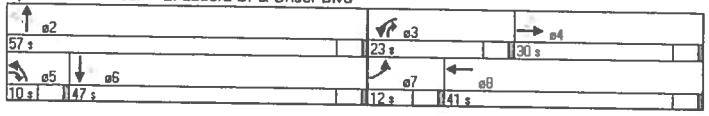
Terry O. Brown, P.E.
10/30/2007

Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBL	SBT
Lane Configurations										
Volume (vph)	199	446	557	542	186	134	653	376	99	1279
Turn Type	pm+pt		pm+ov	Prot		pm+pt		pm+ov	Perm	
Protected Phases	7	4	5	3	8	5	2	3		6
Permitted Phases	4		4			2		2	6	
Detector Phases	7	4	5	3	8	5	2	3	6	6
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	10.0	21.0	10.0	10.0	21.0	10.0	21.0	10.0	21.0	21.0
Total Split (s)	12.0	30.0	10.0	23.0	41.0	10.0	57.0	23.0	47.0	47.0
Total Split (%)	10.9%	27.3%	9.1%	20.9%	37.3%	9.1%	51.8%	20.9%	42.7%	42.7%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lead/Lag	Lead	Lag	Lead	Lead	Lag	Lead		Lead	Lag	Lag
Lead-Lag Optimize?										
Recall Mode	Min	Min	Min	Min	Min	Min	C-Max	Min	C-Max	C-Max
Act Effct Green (s)	36.0	27.0	37.0	20.0	38.0	54.0	54.0	77.0	44.0	44.0
Actuated g/C Ratio	0.33	0.25	0.34	0.18	0.35	0.49	0.49	0.70	0.40	0.40
v/c Ratio	0.69	1.13	0.68	1.11	0.63	0.88	0.45	0.40	0.45	1.12
Control Delay	34.5	122.7	35.2	110.3	32.9	72.1	8.6	4.8	26.2	91.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	34.5	122.7	35.2	110.3	32.9	72.1	8.6	4.8	26.2	91.0
LOS	C	F	D	F	C	E	A	A	C	F
Approach Delay		67.6			82.2		14.7			86.7
Approach LOS		E			F		B			F

Intersection Summary

Cycle Length: 110
Actuated Cycle Length: 110
Offset: 90 (82%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green
Natural Cycle: 120
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 1.13
Intersection Signal Delay: 63.1 — Intersection LOS: E
Intersection Capacity Utilization 98.4% — ICU Level of Service F
Analysis Period (min) 15

Splits and Phases: 2: Ladera Dr & Unser Blvd



HCM Signalized Intersection Capacity Analysis
2: Ladera Dr & Unser Blvd

Terry O. Brown, P.E.
10/30/2007

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
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	0.88	0.97	1.00		1.00	0.95	1.00	1.00	0.95	
Frt	1.00	1.00	0.85	1.00	0.94		1.00	1.00	0.85	1.00	0.99	
Flt Protected	0.95	1.00	1.00	0.95	1.00		0.95	1.00	1.00	0.95	1.00	
Satd. Flow (prot)	1752	1845	2760	3400	1734		1752	3505	1568	1752	3465	
Flt Permitted	0.41	1.00	1.00	0.95	1.00		0.09	1.00	1.00	0.33	1.00	
Satd. Flow (perm)	762	1845	2760	3400	1734		157	3505	1568	616	3465	
Volume (vph)	199	446	557	542	186	123	134	653	376	99	1279	105
Peak-hour factor, PHF	0.87	0.87	0.87	0.79	0.79	0.79	0.85	0.85	0.85	0.89	0.89	0.89
Adj. Flow (vph)	229	513	640	686	235	156	158	768	442	111	1437	118
RTOR Reduction (vph)	0	0	9	0	22	0	0	0	22	0	5	0
Lane Group Flow (vph)	229	513	631	686	369	0	158	768	420	111	1550	0
Turn Type	pm+pt		pm+ov	Prot			pm+pt		pm+ov	Perm		
Protected Phases	7	4	5	3	8		5	2	3		6	
Permitted Phases	4		4				2		2	6		
Actuated Green, G (s)	32.0	25.0	30.0	18.0	36.0		52.0	52.0	70.0	42.0	42.0	
Effective Green, g (s)	36.0	27.0	34.0	20.0	38.0		54.0	54.0	74.0	44.0	44.0	
Actuated g/C Ratio	0.33	0.25	0.31	0.18	0.35		0.49	0.49	0.67	0.40	0.40	
Clearance Time (s)	5.0	5.0	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	3.0	3.0	
Lane Grp Cap (vph)	330	453	928	618	599		179	1721	1098	246	1386	
v/s Ratio Prot	0.06	c0.28	c0.04	c0.20	0.21		0.06	0.22	0.07		c0.45	
v/s Ratio Perm	0.17		0.19				0.38		0.20	0.18		
v/c Ratio	0.69	1.13	0.68	1.11	0.62		0.88	0.45	0.38	0.45	1.12	
Uniform Delay, d1	30.0	41.5	33.2	45.0	29.9		53.0	18.3	7.9	24.2	33.0	
Progression Factor	1.00	1.00	1.00	0.94	1.00		1.53	0.42	0.65	0.81	0.86	
Incremental Delay, d2	6.2	83.8	2.0	70.2	1.9		35.3	0.8	0.2	5.5	62.9	
Delay (s)	36.2	125.3	35.2	112.5	32.0		116.5	8.5	5.4	25.0	91.3	
Level of Service	D	F	D	F	C		F	A	A	C	F	
Approach Delay (s)		68.8			83.3			19.9			86.9	
Approach LOS		E			F			B			F	

Intersection Summary

HCM Average Control Delay	65.0	HCM Level of Service	E
HCM Volume to Capacity ratio	1.07		
Actuated Cycle Length (s)	110.0	Sum of lost time (s)	9.0
Intersection Capacity Utilization	98.4%	ICU Level of Service	F
Analysis Period (min)	15		

c Critical Lane Group

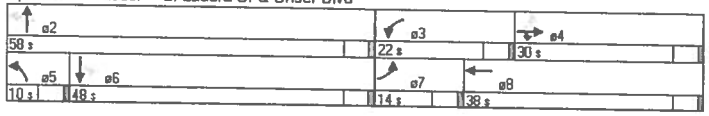
Timings
2: Ladera Dr & Unser Blvd

Terry O. Brown, P.E.
10/30/2007

Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBL	SBT
Lane Configurations										
Volume (vph)	199	460	597	542	196	163	704	376	125	1355
Turn Type	pm+pt		Prot	Prot		pm+pt		Perm	Perm	
Protected Phases	7	4	4	3	8	5	2			6
Permitted Phases	4					2		2	6	
Detector Phases	7	4	4	3	8	5	2	2	6	6
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	10.0	21.0	21.0	10.0	21.0	10.0	21.0	21.0	21.0	21.0
Total Split (s)	14.0	30.0	30.0	22.0	38.0	10.0	58.0	58.0	48.0	48.0
Total Split (%)	12.7%	27.3%	27.3%	20.0%	34.5%	9.1%	52.7%	52.7%	43.6%	43.6%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lead			Lag	Lag
Lead-Lag Optimize?										
Recall Mode	Min	Min	Min	Min	Min	Min	C-Max	C-Max	C-Max	C-Max
Act Effct Green (s)	38.0	27.0	27.0	19.0	35.0	55.0	55.0	55.0	45.0	45.0
Actuated g/C Ratio	0.35	0.25	0.25	0.17	0.32	0.50	0.50	0.50	0.41	0.41
v/c Ratio	0.76	1.17	0.85	1.17	0.74	1.08	0.47	0.45	0.61	1.15
Control Delay	38.7	135.1	41.0	132.6	40.4	119.6	12.0	2.1	32.8	104.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	38.7	135.1	41.0	132.6	40.4	119.6	12.0	2.1	32.8	104.7
LOS	D	F	D	F	D	F	B	A	C	F
Approach Delay		75.1			97.3		23.1			99.1
Approach LOS		E			F		C			F

Intersection Summary
Cycle Length: 110
Actuated Cycle Length: 110
Offset: 84 (76%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green
Natural Cycle: 120
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 1.17
Intersection Signal Delay: 73.6 Intersection LOS: E
Intersection Capacity Utilization 102.8% ICU Level of Service G
Analysis Period (min) 15

Splits and Phases: 2: Ladera Dr & Unser Blvd



HCM Signalized Intersection Capacity Analysis
2: Ladera Dr & Unser Blvd

Terry O. Brown, P.E.
10/30/2007

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
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	0.88	0.97	1.00		1.00	0.95	1.00	1.00	0.95	
Frt	1.00	1.00	0.85	1.00	0.94		1.00	1.00	0.85	1.00	0.99	
Flt Protected	0.95	1.00	1.00	0.95	1.00		0.95	1.00	1.00	0.95	1.00	
Satd. Flow (prot)	1752	1845	2760	3400	1729		1752	3505	1568	1752	3467	
Flt Permitted	0.28	1.00	1.00	0.95	1.00		0.08	1.00	1.00	0.31	1.00	
Satd. Flow (perm)	521	1845	2760	3400	1729		154	3505	1568	563	3467	
Volume (vph)	199	460	597	542	196	140	163	704	376	125	1355	105
Peak-hour factor, PHF	0.87	0.87	0.87	0.79	0.79	0.79	0.85	0.85	0.85	0.89	0.89	0.89
Adj. Flow (vph)	229	529	686	686	248	177	192	828	442	140	1522	118
RTOR Reduction (vph)	0	0	128	0	23	0	0	0	198	0	5	0
Lane Group Flow (vph)	229	529	558	686	402	0	192	828	245	140	1635	0
Turn Type	pm+pt		Prot	Prot			pm+pt		Perm	Perm		
Protected Phases	7	4	4	3	8		5	2			6	
Permitted Phases	4						2		2	6		
Actuated Green, G (s)	34.0	25.0	25.0	17.0	33.0		53.0	53.0	53.0	43.0	43.0	
Effective Green, g (s)	38.0	27.0	27.0	19.0	35.0		55.0	55.0	55.0	45.0	45.0	
Actuated g/C Ratio	0.35	0.25	0.25	0.17	0.32		0.50	0.50	0.50	0.41	0.41	
Clearance Time (s)	5.0	5.0	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	3.0	3.0	
Lane Grp Cap (vph)	303	453	677	587	550		179	1753	784	230	1418	
v/s Ratio Prot	0.08	c0.29	0.20	c0.20	0.23		c0.07	0.24			c0.47	
v/s Ratio Perm	0.19						0.47		0.16	0.25		
v/c Ratio	0.76	1.17	0.82	1.17	0.73		1.07	0.47	0.31	0.61	1.15	
Uniform Delay, d1	28.0	41.5	39.3	45.5	33.3		53.7	18.0	16.3	25.6	32.5	
Progression Factor	1.00	1.00	1.00	0.96	1.02		1.39	0.61	0.27	0.80	0.87	
Incremental Delay, d2	10.3	97.0	8.0	93.2	5.0		87.2	0.9	1.0	10.6	76.7	
Delay (s)	38.3	138.5	47.3	136.6	39.0		162.1	11.9	5.4	31.2	105.0	
Level of Service	D	F	D	F	D		F	B	A	C	F	
Approach Delay (s)		79.3			99.3			29.6			99.2	
Approach LOS		E			F			C			F	

Intersection Summary

HCM Average Control Delay	76.7	HCM Level of Service	E
HCM Volume to Capacity ratio	1.15		
Actuated Cycle Length (s)	110.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	102.8%	ICU Level of Service	G
Analysis Period (min)	15		

c Critical Lane Group

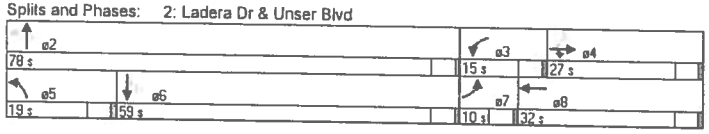
Timings
2: Ladera Dr & Unser Blvd

Terry O. Brown, P.E.
10/30/2007

Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBL	SBT
Lane Configurations										
Volume (vph)	192	334	369	594	496	607	1524	708	290	1169
Turn Type	pm+pt		Prot	Prot		pm+pt		Perm	Perm	
Protected Phases	7	4	4	3	8	5	2			6
Permitted Phases	4					2		2	6	
Detector Phases	7	4	4	3	8	5	2	2	6	6
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	10.0	21.0	21.0	10.0	21.0	10.0	21.0	21.0	21.0	21.0
Total Split (s)	10.0	27.0	27.0	15.0	32.0	19.0	78.0	78.0	59.0	59.0
Total Split (%)	8.3%	22.5%	22.5%	12.5%	26.7%	15.8%	65.0%	65.0%	49.2%	49.2%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lead			Lag	Lag
Lead-Lag Optimize?										
Recall Mode	Min	Min	Min	Min	Min	Min	C-Max	C-Max	C-Max	C-Max
Act Effct Green (s)	31.0	24.0	24.0	12.0	29.0	75.0	75.0	75.0	56.0	56.0
Actuated g/C Ratio	0.26	0.20	0.20	0.10	0.24	0.62	0.62	0.62	0.47	0.47
v/c Ratio	1.26	0.97	0.46	1.88	1.90	2.17	0.73	0.69	3.28	0.98
Control Delay	187.0	88.7	5.7	436.7	440.6	558.7	13.2	7.8	1064.1	37.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	187.0	88.7	5.7	436.7	440.6	558.7	13.2	7.8	1064.1	37.0
LOS	F	F	A	F	F	F	B	A	F	D
Approach Delay		75.5			438.9		128.5			203.1
Approach LOS		E			F		F			F

Intersection Summary
Cycle Length: 120
Actuated Cycle Length: 120
Offset: 25 (21%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green
Natural Cycle: 75
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 3.28
Intersection Signal Delay: 203.3 Intersection LOS: F
Intersection Capacity Utilization 143.7% ICU Level of Service H
Analysis Period (min) 15

Splits and Phases: 2: Ladera Dr & Unser Blvd



HCM Signalized Intersection Capacity Analysis
2: Ladera Dr & Unser Blvd

Terry O. Brown, P.E.
10/30/2007

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
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	0.88	0.97	1.00		1.00	0.95	1.00	1.00	0.95	
Frt	1.00	1.00	0.85	1.00	0.95		1.00	1.00	0.85	1.00	0.97	
Flt Protected	0.95	1.00	1.00	0.95	1.00		0.95	1.00	1.00	0.95	1.00	
Satd. Flow (prot)	1752	1845	2760	3400	1745		1752	3505	1568	1752	3388	
Flt Permitted	0.17	1.00	1.00	0.95	1.00		0.07	1.00	1.00	0.11	1.00	
Satd. Flow (perm)	307	1845	2760	3400	1745		125	3505	1568	197	3388	
Volume (vph)	192	334	369	594	496	279	607	1524	708	290	1169	333
Peak-hour factor, PHF	0.93	0.93	0.93	0.93	0.93	0.93	0.95	0.95	0.95	0.96	0.96	0.96
Adj. Flow (vph)	206	359	397	639	533	300	639	1604	745	302	1218	347
RTOR Reduction (vph)	0	0	318	0	17	0	0	0	107	0	22	0
Lane Group Flow (vph)	206	359	79	639	816	0	639	1604	639	302	1543	0
Turn Type	pm+pt		Prot	Prot			pm+pt		Perm	Perm		
Protected Phases	7	4	4	3	8		5	2			6	
Permitted Phases	4						2		2	6		
Actuated Green, G (s)	27.0	22.0	22.0	10.0	27.0		73.0	73.0	73.0	54.0	54.0	
Effective Green, g (s)	31.0	24.0	24.0	12.0	29.0		75.0	75.0	75.0	56.0	56.0	
Actuated g/C Ratio	0.26	0.20	0.20	0.10	0.24		0.62	0.62	0.62	0.47	0.47	
Clearance Time (s)	5.0	5.0	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	3.0	3.0	
Lane Grp Cap (vph)	164	369	552	340	422		295	2191	980	92	1581	
v/s Ratio Prot	0.07	0.19	0.03	c0.19	c0.47		c0.29	0.46			0.46	
v/s Ratio Perm	0.25						1.06		0.41	c1.54		
v/c Ratio	1.26	0.97	0.14	1.88	1.93		2.17	0.73	0.65	3.28	0.98	
Uniform Delay, d1	58.7	47.7	39.5	54.0	45.5		40.4	15.6	14.2	32.0	31.3	
Progression Factor	1.00	1.00	1.00	0.99	0.96		1.16	0.70	0.51	0.70	0.68	
Incremental Delay, d2	155.2	39.4	0.1	406.6	429.0		535.1	2.1	3.1	1049.4	15.4	
Delay (s)	213.9	87.1	39.7	460.1	472.7		582.1	13.0	10.5	1071.7	36.6	
Level of Service	F	F	D	F	F		F	B	B	F	D	
Approach Delay (s)		94.7			467.3			134.0			204.0	
Approach LOS		F			F			F			F	

Intersection Summary

HCM Average Control Delay	214.1	HCM Level of Service	F
HCM Volume to Capacity ratio	2.64		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	9.0
Intersection Capacity Utilization	143.7%	ICU Level of Service	H
Analysis Period (min)	15		

c Critical Lane Group

Timings
2: Ladera Dr & Unser Blvd

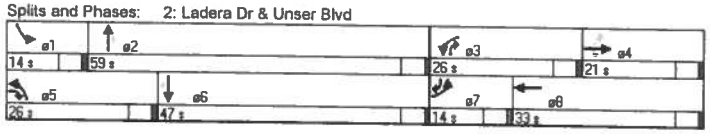
Terry O. Brown, P.E.
10/30/2007

Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations											
Volume (vph)	192	334	369	594	496	607	1524	708	290	1169	333
Turn Type	pm+pt		pm+ov	Prot		Prot		pm+ov	Prot		pm+ov
Protected Phases	7	4	5	3	8	5	2	3	1	6	7
Permitted Phases	4		4					2			6
Detector Phases	7	4	5	3	8	5	2	3	1	6	7
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	10.0	21.0	10.0	10.0	21.0	10.0	21.0	10.0	10.0	21.0	10.0
Total Split (s)	14.0	21.0	26.0	26.0	33.0	26.0	59.0	26.0	14.0	47.0	14.0
Total Split (%)	11.7%	17.5%	21.7%	21.7%	27.5%	21.7%	49.2%	21.7%	11.7%	39.2%	11.7%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lead/Lag	Lead	Lag	Lead	Lead	Lag	Lead	Lag	Lead	Lead	Lag	Lead
Lead-Lag Optimize?											
Recall Mode	Min	Min	Min	Min	Min	Min	C-Max	Min	Min	C-Max	Min
Act Effct Green (s)	28.8	17.8	44.0	23.0	29.8	23.2	56.0	82.0	11.2	44.0	58.0
Actuated g/C Ratio	0.24	0.15	0.37	0.19	0.25	0.19	0.47	0.68	0.09	0.37	0.48
v/c Ratio	0.93	0.69	0.39	0.98	0.94	0.97	0.98	0.69	0.95	0.95	0.44
Control Delay	77.1	56.1	27.9	79.1	55.9	81.5	41.1	13.6	81.8	50.8	18.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	77.1	56.1	27.9	79.1	55.9	81.5	41.1	13.6	81.8	50.8	18.4
LOS	E	E	C	E	E	F	D	B	F	D	B
Approach Delay		48.9			66.0		42.9			49.8	
Approach LOS		D			E		D			D	

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 120
Offset: 25 (21%), Referenced to phase 2:NBT and 6:SBT, Start of Green
Natural Cycle: 110
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.98
Intersection Signal Delay: 50.1 — Intersection LOS: D
Intersection Capacity Utilization 97.0% — ICU Level of Service F
Analysis Period (min) 15

Splits and Phases: 2: Ladera Dr & Unser Blvd



HCM Signalized Intersection Capacity Analysis
2: Ladera Dr & Unser Blvd

Terry O. Brown, P.E.
10/30/2007

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
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	3.0
Lane Util. Factor	1.00	0.95	0.88	0.97	0.95		0.97	0.95	1.00	0.97	0.95	1.00
Frt	1.00	1.00	0.85	1.00	0.95		1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1752	3505	2760	3400	3316		3400	3505	1568	3400	3505	1568
Flt Permitted	0.22	1.00	1.00	0.95	1.00		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)	415	3505	2760	3400	3316		3400	3505	1568	3400	3505	1568
Volume (vph)	192	334	369	594	496	279	607	1524	708	290	1169	333
Peak-hour factor, PHF	0.93	0.93	0.93	0.93	0.93	0.93	0.95	0.95	0.95	0.96	0.96	0.96
Adj. Flow (vph)	206	359	397	639	533	300	639	1604	745	302	1218	347
RTOR Reduction (vph)	0	0	13	0	65	0	0	0	11	0	0	23
Lane Group Flow (vph)	206	359	384	639	768	0	639	1604	734	302	1218	324
Turn Type	pm+pt		pm+ov	Prot			Prot		pm+ov	Prot		pm+ov
Protected Phases	7	4	5	3	8		5	2	3	1	6	7
Permitted Phases	4		4						2			6
Actuated Green, G (s)	24.8	15.8	37.0	21.0	27.8		21.2	54.0	75.0	9.2	42.0	51.0
Effective Green, g (s)	28.8	17.8	41.0	23.0	29.8		23.2	56.0	79.0	11.2	44.0	55.0
Actuated g/C Ratio	0.24	0.15	0.34	0.19	0.25		0.19	0.47	0.66	0.09	0.37	0.46
Clearance Time (s)	5.0	5.0	5.0	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	3.0	3.0	3.0
Lane Grp Cap (vph)	222	520	1012	652	823		657	1636	1071	317	1285	758
v/s Ratio Prot	0.08	0.10	0.07	c0.19	c0.23		c0.19	c0.46	0.13	0.09	0.35	0.04
v/s Ratio Perm	0.14		0.07						0.34			0.17
v/c Ratio	0.93	0.69	0.38	0.98	0.93		0.97	0.98	0.69	0.95	0.95	0.43
Uniform Delay, d1	41.3	48.5	29.9	48.3	44.1		48.1	31.5	12.8	54.1	36.9	21.9
Progression Factor	1.00	1.00	1.00	1.00	0.95		1.12	0.73	0.90	0.91	1.05	0.95
Incremental Delay, d2	40.5	3.9	0.2	29.9	17.0		27.1	17.4	1.7	30.2	11.8	0.3
Delay (s)	81.8	52.4	30.1	78.2	58.8		80.9	40.2	13.2	79.3	50.5	21.0
Level of Service	F	D	C	E	E		F	D	B	E	D	C
Approach Delay (s)		49.5			67.2			42.2			49.6	
Approach LOS		D			E			D			D	

Intersection Summary

HCM Average Control Delay	50.1	HCM Level of Service	D
HCM Volume to Capacity ratio	0.96		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	6.0
Intersection Capacity Utilization	97.0%	ICU Level of Service	F
Analysis Period (min)	15		

c Critical Lane Group

Analysis of Intersection #3

I-40 North ramp / Unser Blvd

Timings
3: I-40 North ramp & Unser Blvd

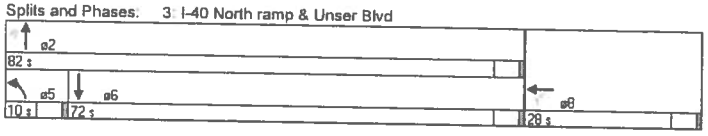
Terry O. Brown, P.E.
10/30/2007

Lane Group	WBL	WBT	WBR	NBL	NBT	SBT
Lane Configurations						
Volume (vph)	438	3	222	46	992	2281
Turn Type	Perm		Free	pm+pt		
Protected Phases		8		5	2	6
Permitted Phases	8		Free	2		
Detector Phases	8	8		5	2	6
Minimum Initial (s)	5.0	5.0		5.0	5.0	5.0
Minimum Split (s)	21.0	21.0		10.0	21.0	21.0
Total Split (s)	28.0	28.0	0.0	10.0	82.0	72.0
Total Split (%)	25.5%	25.5%	0.0%	9.1%	74.5%	65.5%
Yellow Time (s)	4.0	4.0		4.0	4.0	4.0
All-Red Time (s)	1.0	1.0		1.0	1.0	1.0
Lead/Lag				Lead		Lag
Lead-Lag Optimize?						
Recall Mode	Min	Min		Min	C-Max	C-Max
Act Effct Green (s)	21.6	21.6	110.0	82.4	82.4	72.1
Actuated g/C Ratio	0.20	0.20	1.00	0.75	0.75	0.66
v/c Ratio	0.74	0.74	0.16	0.25	0.39	0.81
Control Delay	55.2	55.4	0.2	18.9	1.8	8.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	55.2	55.4	0.2	18.9	1.8	8.8
LOS	E	E	A	B	A	A
Approach Delay		36.8			2.6	8.8
Approach LOS		D			A	A

Intersection Summary

Cycle Length: 110
Actuated Cycle Length: 110
Offset: 20 (18%), Referenced to phase 2:NBTL and 6:SBT, Start of Green
Natural Cycle: 75
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.81
Intersection Signal Delay: 11.9 — Intersection LOS: B
Intersection Capacity Utilization 72.1% — ICU Level of Service C
Analysis Period (min) 15

Splits and Phases: 3: I-40 North ramp & Unser Blvd



HCM Signalized Intersection Capacity Analysis
3: I-40 North ramp & Unser Blvd

Terry O. Brown, P.E.
10/30/2007

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
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	
Lane Util. Factor				0.95	0.95	1.00	1.00	0.95			0.91	
Frt				1.00	1.00	0.85	1.00	1.00			1.00	
Flt Protected				0.95	0.95	1.00	0.95	1.00			1.00	
Satd. Flow (prot)				1665	1670	1568	1752	3505			5012	
Flt Permitted				0.95	0.95	1.00	0.05	1.00			1.00	
Satd. Flow (perm)				1665	1670	1568	98	3505			5012	
Volume (vph)	0	0	0	438	3	222	46	992	0	0	2281	76
Peak-hour factor, PHF	0.85	0.85	0.85	0.91	0.91	0.91	0.97	0.97	0.97	0.89	0.89	0.89
Adj. Flow (vph)	0	0	0	481	3	244	47	1023	0	0	2563	85
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	3	0
Lane Group Flow (vph)	0	0	0	241	243	244	47	1023	0	0	2645	0
Turn Type				Perm		Free	pm+pt					
Protected Phases					8		5	2			6	
Permitted Phases				8		Free	2					
Actuated Green, G (s)				19.6	19.6	110.0	80.4	80.4			70.1	
Effective Green, g (s)				21.6	21.6	110.0	82.4	82.4			72.1	
Actuated g/C Ratio				0.20	0.20	1.00	0.75	0.75			0.66	
Clearance Time (s)				5.0	5.0		5.0	5.0			5.0	
Vehicle Extension (s)				3.0	3.0		3.0	3.0			3.0	
Lane Grp Cap (vph)				327	328	1568	183	2626			3285	
v/s Ratio Prot							0.02	c0.29			c0.53	
v/s Ratio Perm				0.14	0.15	0.16	0.17					
v/c Ratio				0.74	0.74	0.16	0.26	0.39			0.81	
Uniform Delay, d1				41.5	41.6	0.0	14.7	4.9			13.8	
Progression Factor				1.00	1.00	1.00	3.84	0.28			0.59	
Incremental Delay, d2				8.4	8.7	0.2	0.6	0.3			0.2	
Delay (s)				49.9	50.3	0.2	56.9	1.7			8.3	
Level of Service				D	D	A	E	A			A	
Approach Delay (s)		0.0			33.4			4.1			8.3	
Approach LOS		A			C			A			A	

Intersection Summary

HCM Average Control Delay	11.4	HCM Level of Service	B
HCM Volume to Capacity ratio	0.76		
Actuated Cycle Length (s)	110.0	Sum of lost time (s)	9.0
Intersection Capacity Utilization	72.1%	ICU Level of Service	C
Analysis Period (min)	15		

c Critical Lane Group

Timings
3: I-40 North ramp & Unser Blvd

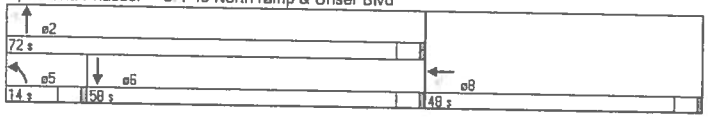
Terry O. Brown, P.E.
10/30/2007

Lane Group	WBL	WBT	WBR	NBL	NBT	SBT
Lane Configurations						
Volume (vph)	770	0	840	75	1319	1559
Turn Type	Perm		Free	pm+pt		
Protected Phases		8		5	2	6
Permitted Phases	8		Free	2		
Detector Phases	8	8		5	2	6
Minimum Initial (s)	5.0	5.0		5.0	5.0	5.0
Minimum Split (s)	21.0	21.0		10.0	21.0	21.0
Total Split (s)	48.0	48.0	0.0	14.0	72.0	58.0
Total Split (%)	40.0%	40.0%	0.0%	11.7%	60.0%	48.3%
Yellow Time (s)	4.0	4.0		4.0	4.0	4.0
All-Red Time (s)	1.0	1.0		1.0	1.0	1.0
Lead/Lag				Lead		Lag
Lead-Lag Optimize?						
Recall Mode	Min	Min		Min	C-Max	C-Max
Act Effct Green (s)	35.8	35.8	120.0	78.2	78.2	65.6
Actuated g/C Ratio	0.30	0.30	1.00	0.65	0.65	0.55
v/c Ratio	0.82	0.82	0.57	0.41	0.66	0.66
Control Delay	52.7	52.5	1.5	32.9	8.1	7.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	52.7	52.5	1.5	32.9	8.1	7.0
LOS	D	D	A	C	A	A
Approach Delay		26.0			9.4	7.0
Approach LOS		C			A	A

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 120
Offset: 100 (83%), Referenced to phase 2:NBTL and 6:SBT, Start of Green
Natural Cycle: 60
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.82
Intersection Signal Delay: 14.1 — Intersection LOS: B
Intersection Capacity Utilization 118.6% — ICU Level of Service H
Analysis Period (min) 15

Splits and Phases: 3: I-40 North ramp & Unser Blvd



HCM Signalized Intersection Capacity Analysis
3: I-40 North ramp & Unser Blvd

Terry O. Brown, P.E.
10/30/2007

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
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	
Lane Util. Factor				0.95	0.95	1.00	1.00	0.95			0.91	
Frt				1.00	1.00	0.85	1.00	1.00			0.99	
Flt Protected				0.95	0.95	1.00	0.95	1.00			1.00	
Satd. Flow (prot)				1665	1665	1568	1752	3505			4987	
Flt Permitted				0.95	0.95	1.00	0.06	1.00			1.00	
Satd. Flow (perm)				1665	1665	1568	115	3505			4987	
Volume (vph)	0	0	0	770	0	840	75	1319	0	0	1559	108
Peak-hour factor, PHF	0.85	0.85	0.85	0.94	0.94	0.94	0.87	0.87	0.87	0.92	0.92	0.92
Adj. Flow (vph)	0	0	0	819	0	894	86	1516	0	0	1695	117
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	5	0
Lane Group Flow (vph)	0	0	0	410	409	894	86	1516	0	0	1807	0
Turn Type				Perm		Free	pm+pt					
Protected Phases					8		5	2			6	
Permitted Phases				8		Free	2					
Actuated Green, G (s)				33.8	33.8	120.0	76.2	76.2			63.7	
Effective Green, g (s)				35.8	35.8	120.0	78.2	78.2			65.7	
Actuated g/C Ratio				0.30	0.30	1.00	0.65	0.65			0.55	
Clearance Time (s)				5.0	5.0		5.0	5.0			5.0	
Vehicle Extension (s)				3.0	3.0		3.0	3.0			3.0	
Lane Grp Cap (vph)				497	497	1568	205	2284			2730	
v/s Ratio Prot							0.03	c0.43			0.36	
v/s Ratio Perm				c0.25	0.25	c0.57	0.24					
v/c Ratio				0.82	0.82	0.57	0.42	0.66			0.66	
Uniform Delay, d1				39.2	39.2	0.0	14.7	12.8			19.3	
Progression Factor				1.00	1.00	1.00	2.48	0.49			0.33	
Incremental Delay, d2				10.7	10.6	1.5	0.9	1.0			0.1	
Delay (s)				49.9	49.7	1.5	37.3	7.3			6.5	
Level of Service				D	D	A	D	A			A	
Approach Delay (s)		0.0			24.6			8.9			6.5	
Approach LOS		A			C			A			A	

Intersection Summary

HCM Average Control Delay	13.3	HCM Level of Service	B
HCM Volume to Capacity ratio	0.70		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	3.0
Intersection Capacity Utilization	118.6%	ICU Level of Service	H
Analysis Period (min)	15		

c Critical Lane Group

Timings
3: I-40 North ramp & Unser Blvd

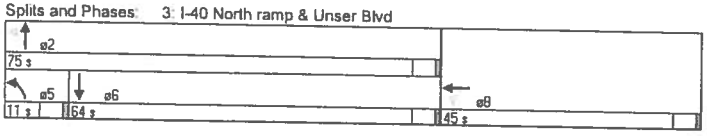
Terry O. Brown, P.E.
10/30/2007

Lane Group	WBL	WBT	WBR	NBL	NBT	SBT
Lane Configurations						
Volume (vph)	770	0	905	75	1485	1806
Turn Type	Perm		Free	pm+pt		
Protected Phases		8		5	2	6
Permitted Phases	8		Free	2		
Detector Phases	8	8		5	2	6
Minimum Initial (s)	5.0	5.0		5.0	5.0	5.0
Minimum Split (s)	21.0	21.0		10.0	21.0	21.0
Total Split (s)	45.0	45.0	0.0	11.0	75.0	64.0
Total Split (%)	37.5%	37.5%	0.0%	9.2%	62.5%	53.3%
Yellow Time (s)	4.0	4.0		4.0	4.0	4.0
All-Red Time (s)	1.0	1.0		1.0	1.0	1.0
Lead/Lag				Lead		Lag
Lead-Lag Optimize?						
Recall Mode	Min	Min		Min	C-Max	C-Max
Act Effct Green (s)	35.5	35.5	120.0	78.5	78.5	67.2
Actuated g/C Ratio	0.30	0.30	1.00	0.65	0.65	0.56
v/c Ratio	0.83	0.83	0.61	0.46	0.74	0.75
Control Delay	54.0	53.8	1.8	35.5	9.8	15.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	54.0	53.8	1.8	35.5	9.8	15.0
LOS	D	D	A	D	A	B
Approach Delay		25.8			11.0	15.0
Approach LOS		C			B	B

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 120
Offset: 86 (72%), Referenced to phase 2:NBTL and 6:SBT, Start of Green
Natural Cycle: 65
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.83
Intersection Signal Delay: 17.1 — Intersection LOS: B
Intersection Capacity Utilization 127.9% — ICU Level of Service H
Analysis Period (min) 15

Splits and Phases: 3: I-40 North ramp & Unser Blvd



HCM Signalized Intersection Capacity Analysis
3: I-40 North ramp & Unser Blvd

Terry O. Brown, P.E.
10/30/2007

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
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	
Lane Util. Factor				0.95	0.95	1.00	1.00	0.95			0.91	
Frt				1.00	1.00	0.85	1.00	1.00			0.99	
Flt Protected				0.95	0.95	1.00	0.95	1.00			1.00	
Satd. Flow (prot)				1665	1665	1568	1752	3505			4989	
Flt Permitted				0.95	0.95	1.00	0.06	1.00			1.00	
Satd. Flow (perm)				1665	1665	1568	105	3505			4989	
Volume (vph)	0	0	0	770	0	905	75	1485	0	0	1806	120
Peak-hour factor, PHF	0.85	0.85	0.85	0.94	0.94	0.94	0.87	0.87	0.87	0.92	0.92	0.92
Adj. Flow (vph)	0	0	0	819	0	963	86	1707	0	0	1963	130
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	5	0
Lane Group Flow (vph)	0	0	0	410	409	963	86	1707	0	0	2088	0
Turn Type				Perm		Free	pm+pt					
Protected Phases					8		5	2			6	
Permitted Phases				8		Free	2					
Actuated Green, G (s)				33.5	33.5	120.0	76.5	76.5			65.2	
Effective Green, g (s)				35.5	35.5	120.0	78.5	78.5			67.2	
Actuated g/C Ratio				0.30	0.30	1.00	0.65	0.65			0.56	
Clearance Time (s)				5.0	5.0		5.0	5.0			5.0	
Vehicle Extension (s)				3.0	3.0		3.0	3.0			3.0	
Lane Grp Cap (vph)				493	493	1568	183	2293			2794	
v/s Ratio Prot							0.03	c0.49			0.42	
v/s Ratio Perm				c0.25	0.25	c0.61	0.28					
v/c Ratio				0.83	0.83	0.61	0.47	0.74			0.75	
Uniform Delay, d1				39.5	39.4	0.0	17.6	14.0			20.0	
Progression Factor				1.00	1.00	1.00	2.40	0.55			0.63	
Incremental Delay, d2				11.4	11.1	1.8	1.1	1.3			1.5	
Delay (s)				50.9	50.5	1.8	43.2	8.9			14.2	
Level of Service				D	D	A	D	A			B	
Approach Delay (s)		0.0			24.3			10.6			14.2	
Approach LOS		A			C			B			B	

Intersection Summary

HCM Average Control Delay	16.2	HCM Level of Service	B
HCM Volume to Capacity ratio	0.76		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	3.0
Intersection Capacity Utilization	127.9%	ICU Level of Service	H
Analysis Period (min)	15		

c Critical Lane Group

Analysis of Intersection #4

Los Volcanes Rd / Unser Blvd

Timings
4: Los Volcanes Rd & Unser Blvd

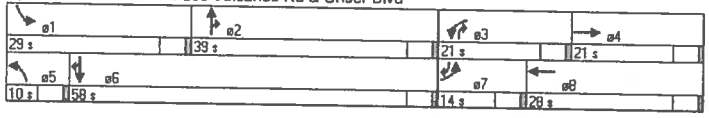
Terry O. Brown, P.E.
10/30/2007

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations										
Volume (vph)	137	74	297	31	8	1192	279	490	976	75
Turn Type	Prot		Prot		Prot		pt+ov	Prot		pt+ov
Protected Phases	7	4	3	8	5	2	2 3	1	6	6 7
Permitted Phases										
Detector Phases	7	4	3	8	5	2	2 3	1	6	6 7
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)	14.0	21.0	21.0	28.0	10.0	39.0	60.0	29.0	58.0	72.0
Total Split (%)	12.7%	19.1%	19.1%	25.5%	9.1%	35.5%	54.5%	26.4%	52.7%	65.5%
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	
Lead/Lag	Lead	Lag	Lead	Lag	Lead	Lag		Lead	Lag	
Lead-Lag Optimize?										
Recall Mode	Min	Min	Min	Min	Min	C-Max		Min	C-Max	
Act Effct Green (s)	10.8	13.4	17.4	20.0	7.5	42.2	62.6	25.0	59.6	73.4
Actuated g/C Ratio	0.10	0.12	0.16	0.18	0.07	0.38	0.57	0.23	0.54	0.67
v/c Ratio	0.55	0.48	0.74	0.63	0.04	0.68	0.31	0.77	0.63	0.08
Control Delay	53.8	49.6	53.0	12.6	48.5	31.7	4.1	51.1	15.9	0.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	53.8	49.6	53.0	12.6	48.5	31.7	4.1	51.1	15.9	0.6
LOS	D	D	D	B	D	C	A	D	B	A
Approach Delay		52.3		34.5		26.6			26.4	
Approach LOS		D		C		C			C	

Intersection Summary

Cycle Length: 110
Actuated Cycle Length: 110
Offset: 96 (87%), Referenced to phase 2:NBT and 6:SBT, Start of Green
Natural Cycle: 80
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.77
Intersection Signal Delay: 29.4 Intersection LOS: C
Intersection Capacity Utilization 69.7% ICU Level of Service C
Analysis Period (min) 15

Splits and Phases: 4: Los Volcanes Rd & Unser Blvd



HCM Signalized Intersection Capacity Analysis
4: Los Volcanes Rd & Unser Blvd

Terry O. Brown, P.E.
10/30/2007

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
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	0.97	1.00		0.97	1.00		0.97	0.91	1.00	0.97	0.95	1.00
Frt	1.00	0.99		1.00	0.87		1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	3400	1822		3400	1602		3400	5036	1568	3400	3505	1568
Flt Permitted	0.95	1.00		0.95	1.00		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)	3400	1822		3400	1602		3400	5036	1568	3400	3505	1568
Volume (vph)	137	74	7	297	31	219	8	1192	279	490	976	75
Peak-hour factor, PHF	0.75	0.75	0.75	0.75	0.75	0.75	0.91	0.91	0.91	0.82	0.82	0.82
Adj. Flow (vph)	183	99	9	396	41	292	9	1310	307	598	1190	91
RTOR Reduction (vph)	0	4	0	0	239	0	0	0	107	0	0	30
Lane Group Flow (vph)	183	104	0	396	94	0	9	1310	200	598	1190	61
Turn Type	Prot			Prot			Prot		pt+ov	Prot		pt+ov
Protected Phases	7	4		3	8		5	2	2 3	1	6	6 7
Permitted Phases												
Actuated Green, G (s)	8.8	11.4		15.4	18.0		5.5	40.2	60.6	23.0	57.7	71.5
Effective Green, g (s)	10.8	13.4		17.4	20.0		7.5	42.2	62.6	25.0	59.7	73.5
Actuated g/C Ratio	0.10	0.12		0.16	0.18		0.07	0.38	0.57	0.23	0.54	0.67
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)	334	222		538	291		232	1932	892	773	1902	1048
v/s Ratio Prot	0.05	c0.06		c0.12	0.06		0.00	c0.26	0.13	c0.18	0.34	0.04
v/s Ratio Perm												
v/c Ratio	0.55	0.47		0.74	0.32		0.04	0.68	0.22	0.77	0.63	0.06
Uniform Delay, d1	47.3	45.0		44.1	39.1		47.9	28.2	11.7	39.8	17.4	6.3
Progression Factor	1.00	1.00		1.00	1.00		1.00	1.00	1.00	1.14	0.80	0.26
Incremental Delay, d2	1.8	1.6		5.2	0.6		0.1	1.9	0.1	3.8	1.2	0.0
Delay (s)	49.1	46.6		49.3	39.8		48.0	30.2	11.8	49.1	15.1	1.7
Level of Service	D	D		D	D		D	C	B	D	B	A
Approach Delay (s)		48.2			45.0			26.8			25.3	
Approach LOS		D			D			C			C	

Intersection Summary

HCM Average Control Delay	30.5	HCM Level of Service	C
HCM Volume to Capacity ratio	0.68		
Actuated Cycle Length (s)	110.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	69.7%	ICU Level of Service	C
Analysis Period (min)	15		

c Critical Lane Group

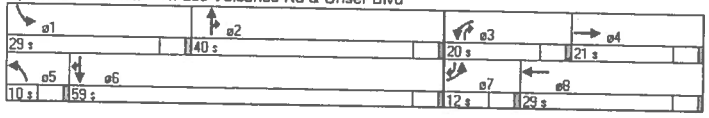
Timings
4: Los Volcanes Rd & Unser Blvd

Terry O. Brown, P.E.
10/30/2007

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations										
Volume (vph)	142	74	297	31	8	1287	279	516	1043	78
Turn Type	Prot		Prot		Prot		pt+ov	Prot		pt+ov
Protected Phases	7	4	3	8	5	2	2 3	1	6	6 7
Permitted Phases										
Detector Phases	7	4	3	8	5	2	2 3	1	6	6 7
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)	12.0	21.0	20.0	29.0	10.0	40.0	60.0	29.0	59.0	71.0
Total Split (%)	10.9%	19.1%	18.2%	26.4%	9.1%	36.4%	54.5%	26.4%	53.6%	64.5%
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	
Lead/Lag	Lead	Lag	Lead	Lag	Lead	Lag		Lead	Lag	
Lead-Lag Optimize?										
Recall Mode	Min	Min	Min	Min	Min	C-Max		Min	C-Max	
Act Effct Green (s)	9.0	13.4	16.7	21.1	7.5	42.2	61.8	25.7	60.4	72.4
Actuated g/C Ratio	0.08	0.12	0.15	0.19	0.07	0.38	0.56	0.23	0.55	0.66
v/c Ratio	0.68	0.48	0.77	0.66	0.04	0.73	0.31	0.79	0.66	0.09
Control Delay	62.2	49.6	55.7	12.1	48.5	32.9	4.3	50.7	15.8	0.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	62.2	49.6	55.7	12.1	48.5	32.9	4.3	50.7	15.8	0.5
LOS	E	D	E	B	D	C	A	D	B	A
Approach Delay		57.6		34.3		27.9			26.1	
Approach LOS		E		C		C			C	

Intersection Summary
Cycle Length: 110
Actuated Cycle Length: 110
Offset: 90 (82%), Referenced to phase 2:NBT and 6:SBT, Start of Green
Natural Cycle: 90
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.79
Intersection Signal Delay: 30.0 Intersection LOS: C
Intersection Capacity Utilization 74.5% ICU Level of Service D
Analysis Period (min) 15

Splits and Phases: 4: Los Volcanes Rd & Unser Blvd



HCM Signalized Intersection Capacity Analysis
4: Los Volcanes Rd & Unser Blvd

Terry O. Brown, P.E.
10/30/2007

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
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	0.97	1.00		0.97	1.00		0.97	0.91	1.00	0.97	0.95	1.00
Frt	1.00	0.99		1.00	0.87		1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	3400	1822		3400	1598		3400	5036	1568	3400	3505	1568
Flt Permitted	0.95	1.00		0.95	1.00		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)	3400	1822		3400	1598		3400	5036	1568	3400	3505	1568
Volume (vph)	142	74	7	297	31	255	8	1287	279	516	1043	78
Peak-hour factor, PHF	0.75	0.75	0.75	0.75	0.75	0.75	0.91	0.91	0.91	0.82	0.82	0.82
Adj. Flow (vph)	189	99	9	396	41	340	9	1414	307	629	1272	95
RTOR Reduction (vph)	0	4	0	0	275	0	0	0	107	0	0	32
Lane Group Flow (vph)	189	104	0	396	106	0	9	1414	200	629	1272	63
Turn Type	Prot			Prot			Prot		pt+ov	Prot		pt+ov
Protected Phases	7	4		3	8		5	2	2 3	1	6	6 7
Permitted Phases												
Actuated Green, G (s)	7.0	11.4		14.7	19.1		5.5	40.2	59.9	23.7	58.4	70.4
Effective Green, g (s)	9.0	13.4		16.7	21.1		7.5	42.2	61.9	25.7	60.4	72.4
Actuated g/C Ratio	0.08	0.12		0.15	0.19		0.07	0.38	0.56	0.23	0.55	0.66
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)	278	222		516	307		232	1932	882	794	1925	1032
v/s Ratio Prot	0.06	c0.06		c0.12	0.07		0.00	c0.28	0.13	c0.19	0.36	0.04
v/s Ratio Perm												
v/c Ratio	0.68	0.47		0.77	0.35		0.04	0.73	0.23	0.79	0.66	0.06
Uniform Delay, d1	49.1	45.0		44.8	38.5		47.9	29.1	12.1	39.6	17.6	6.7
Progression Factor	1.00	1.00		1.00	1.00		1.00	1.00	1.00	1.13	0.78	0.20
Incremental Delay, d2	6.5	1.6		6.7	0.7		0.1	2.5	0.1	4.0	1.3	0.0
Delay (s)	55.6	46.6		51.5	39.2		48.0	31.5	12.2	48.8	15.1	1.3
Level of Service	E	D		D	D		D	C	B	D	B	A
Approach Delay (s)		52.3			45.5			28.2			25.0	
Approach LOS		D			D			C			C	

Intersection Summary

HCM Average Control Delay	31.2	HCM Level of Service	C
HCM Volume to Capacity ratio	0.72		
Actuated Cycle Length (s)	110.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	74.5%	ICU Level of Service	D
Analysis Period (min)	15		

c Critical Lane Group

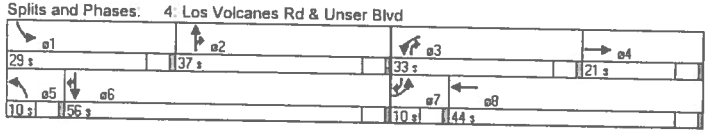
Timings
4: Los Volcanes Rd & Unser Blvd

Terry O. Brown, P.E.
10/30/2007

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations										
Volume (vph)	82	33	736	33	12	1083	463	609	894	127
Turn Type	Prot		Prot		Prot		pt+ov	Prot		pt+ov
Protected Phases	7	4	3	8	5	2	2 3	1	6	6 7
Permitted Phases										
Detector Phases	7	4	3	8	5	2	2 3	1	6	6 7
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	33.0	44.0	10.0	37.0	70.0	29.0	56.0	66.0
Total Split (%)	8.3%	17.5%	27.5%	36.7%	8.3%	30.8%	58.3%	24.2%	46.7%	55.0%
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	
Lead/Lag	Lead	Lag	Lead	Lag	Lead	Lag		Lead	Lag	
Lead-Lag Optimize?										
Recall Mode	Min	Min	Min	Min	Min	C-Max		Min	C-Max	
Act Effct Green (s)	7.0	10.5	30.0	33.5	8.0	36.3	69.3	31.2	59.5	69.5
Actuated g/C Ratio	0.06	0.09	0.25	0.28	0.07	0.30	0.58	0.26	0.50	0.58
v/c Ratio	0.50	0.29	0.94	0.75	0.06	0.84	0.51	0.77	0.58	0.15
Control Delay	63.9	49.4	64.0	17.6	52.8	45.5	6.7	48.9	18.1	2.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	63.9	49.4	64.0	17.6	52.8	45.5	6.7	48.9	18.1	2.3
LOS	E	D	E	B	D	D	A	D	B	A
Approach Delay		59.2		45.4		34.0			28.4	
Approach LOS		E		D		C			C	

Intersection Summary
Cycle Length: 120
Actuated Cycle Length: 120
Offset: 51 (43%), Referenced to phase 2:NBT and 6:SBT, Start of Green
Natural Cycle: 100
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.94
Intersection Signal Delay: 35.7 — Intersection LOS: D
Intersection Capacity Utilization 83.4% — ICU Level of Service E
Analysis Period (min) 15

Splits and Phases: 4: Los Volcanes Rd & Unser Blvd



HCM Signalized Intersection Capacity Analysis
4: Los Volcanes Rd & Unser Blvd

Terry O. Brown, P.E.
10/30/2007

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
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	0.97	1.00		0.97	1.00		0.97	0.91	1.00	0.97	0.95	1.00
Frt	1.00	0.98		1.00	0.86		1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	3400	1803		3400	1587		3400	5036	1568	3400	3505	1568
Flt Permitted	0.95	1.00		0.95	1.00		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)	3400	1803		3400	1587		3400	5036	1568	3400	3505	1568
Volume (vph)	82	33	6	736	33	459	12	1083	463	609	894	127
Peak-hour factor, PHF	0.83	0.83	0.83	0.92	0.92	0.92	0.85	0.85	0.85	0.89	0.89	0.89
Adj. Flow (vph)	99	40	7	800	36	499	14	1274	545	684	1004	143
RTOR Reduction (vph)	0	5	0	0	275	0	0	0	153	0	0	60
Lane Group Flow (vph)	99	42	0	800	260	0	14	1274	392	684	1004	83
Turn Type	Prot			Prot			Prot		pt+ov	Prot		pt+ov
Protected Phases	7	4		3	8		5	2	2 3	1	6	6 7
Permitted Phases												
Actuated Green, G (s)	5.0	8.5		28.0	31.5		6.0	34.3	67.3	29.2	57.5	67.5
Effective Green, g (s)	7.0	10.5		30.0	33.5		8.0	36.3	69.3	31.2	59.5	69.5
Actuated g/C Ratio	0.06	0.09		0.25	0.28		0.07	0.30	0.58	0.26	0.50	0.58
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)	198	158		850	443		227	1523	906	884	1738	908
v/s Ratio Prot	0.03	0.02		c0.24	c0.16		0.00	c0.25	0.25	c0.20	0.29	0.05
v/s Ratio Perm												
v/c Ratio	0.50	0.26		0.94	0.59		0.06	0.84	0.43	0.77	0.58	0.09
Uniform Delay, d1	54.8	51.1		44.1	37.3		52.5	39.1	14.3	41.1	21.4	11.2
Progression Factor	1.00	1.00		1.00	1.00		1.00	1.00	1.00	1.07	0.77	0.98
Incremental Delay, d2	2.0	0.9		18.2	2.0		0.1	5.6	0.3	3.0	1.0	0.0
Delay (s)	56.8	52.0		62.3	39.3		52.6	44.7	14.6	46.9	17.5	11.0
Level of Service	E	D		E	D		D	D	B	D	B	B
Approach Delay (s)		55.3			53.1			35.8			28.0	
Approach LOS		E			D			D			C	

Intersection Summary

HCM Average Control Delay	38.1	HCM Level of Service	D
HCM Volume to Capacity ratio	0.81		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	9.0
Intersection Capacity Utilization	83.4%	ICU Level of Service	E
Analysis Period (min)	15		

c Critical Lane Group

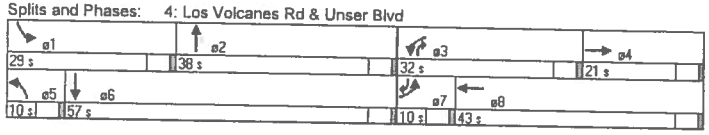
Timings
4: Los Volcanes Rd & Unser Blvd

Terry O. Brown, P.E.
10/30/2007

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations										
Volume (vph)	87	33	736	33	12	1190	463	651	1007	133
Turn Type	Prot		Prot		Prot		pm+ov	Prot		pm+ov
Protected Phases	7	4	3	8	5	2	3	1	6	7
Permitted Phases							2			6
Detector Phases	7	4	3	8	5	2	3	1	6	7
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	10.0	21.0	10.0	21.0	10.0	21.0	10.0	10.0	21.0	10.0
Total Split (s)	10.0	21.0	32.0	43.0	10.0	38.0	32.0	29.0	57.0	10.0
Total Split (%)	8.3%	17.5%	26.7%	35.8%	8.3%	31.7%	26.7%	24.2%	47.5%	8.3%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lead/Lag	Lead	Lag	Lead	Lag	Lead	Lag	Lead	Lead	Lag	Lead
Lead-Lag Optimize?										
Recall Mode	Min	Min	Min	Min	Min	C-Max	Min	Min	C-Max	Min
Act Effct Green (s)	7.0	11.3	29.0	33.3	7.7	35.7	67.7	32.0	60.0	70.0
Actuated g/C Ratio	0.06	0.09	0.24	0.28	0.06	0.30	0.56	0.27	0.50	0.58
v/c Ratio	0.53	0.27	0.97	0.82	0.06	0.93	0.52	0.81	0.64	0.15
Control Delay	65.1	47.5	71.0	23.8	53.7	53.6	6.9	49.7	17.7	1.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	65.1	47.5	71.0	23.8	53.7	53.6	6.9	49.7	17.7	1.5
LOS	E	D	E	C	D	D	A	D	B	A
Approach Delay		59.6		51.2		40.6			28.1	
Approach LOS		E		D		D			C	

Intersection Summary
Cycle Length: 120
Actuated Cycle Length: 120
Offset: 40 (33%), Referenced to phase 2:NBT and 6:SBT, Start of Green
Natural Cycle: 110
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.97
Intersection Signal Delay: 39.2 Intersection LOS: D
Intersection Capacity Utilization 88.8% ICU Level of Service E
Analysis Period (min) 15

Splits and Phases: 4: Los Volcanes Rd & Unser Blvd



HCM Signalized Intersection Capacity Analysis
4: Los Volcanes Rd & Unser Blvd

Terry O. Brown, P.E.
10/30/2007

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
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	0.97	1.00		0.97	1.00		0.97	0.91	1.00	0.97	0.95	1.00
Frt	1.00	0.98		1.00	0.86		1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	3400	1803		3400	1585		3400	5036	1568	3400	3505	1568
Flt Permitted	0.95	1.00		0.95	1.00		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)	3400	1803		3400	1585		3400	5036	1568	3400	3505	1568
Volume (vph)	87	33	6	736	33	500	12	1190	463	651	1007	133
Peak-hour factor, PHF	0.83	0.83	0.83	0.92	0.92	0.92	0.85	0.85	0.85	0.89	0.89	0.89
Adj. Flow (vph)	105	40	7	800	36	543	14	1400	545	731	1131	149
RTOR Reduction (vph)	0	5	0	0	269	0	0	0	166	0	0	66
Lane Group Flow (vph)	105	42	0	800	310	0	14	1400	379	731	1131	83
Turn Type	Prot			Prot			Prot		pm+ov	Prot		pm+ov
Protected Phases	7	4		3	8		5	2	3	1	6	7
Permitted Phases									2			6
Actuated Green, G (s)	5.0	9.3		27.0	31.3		5.7	33.7	60.7	30.0	58.0	63.0
Effective Green, g (s)	7.0	11.3		29.0	33.3		7.7	35.7	64.7	32.0	60.0	67.0
Actuated g/C Ratio	0.06	0.09		0.24	0.28		0.06	0.30	0.54	0.27	0.50	0.56
Clearance Time (s)	5.0	5.0		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	3.0	3.0
Lane Grp Cap (vph)	198	170		822	440		218	1498	885	907	1753	915
v/s Ratio Prot	0.03	0.02		c0.24	c0.20		0.00	c0.28	0.10	c0.22	0.32	0.01
v/s Ratio Perm									0.14			0.05
v/c Ratio	0.53	0.24		0.97	0.70		0.06	0.93	0.43	0.81	0.65	0.09
Uniform Delay, d1	54.9	50.4		45.1	38.9		52.8	41.0	16.6	41.1	22.1	12.3
Progression Factor	1.00	1.00		1.00	1.00		1.00	1.00	1.00	1.08	0.72	0.61
Incremental Delay, d2	2.7	0.8		24.8	5.0		0.1	12.2	0.3	3.3	1.1	0.0
Delay (s)	57.6	51.1		69.9	44.0		52.9	53.2	16.9	47.6	17.0	7.5
Level of Service	E	D		E	D		D	D	B	D	B	A
Approach Delay (s)		55.6			59.0			43.1			27.4	
Approach LOS		E			E			D			C	

Intersection Summary

HCM Average Control Delay	41.7	HCM Level of Service	D
HCM Volume to Capacity ratio	0.87		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	9.0
Intersection Capacity Utilization	88.8%	ICU Level of Service	E
Analysis Period (min)	15		

c Critical Lane Group

Analysis of Intersection #5

Ladera Dr / Ouray Rd

Timings
5: Ladera Dr & Ouray Rd

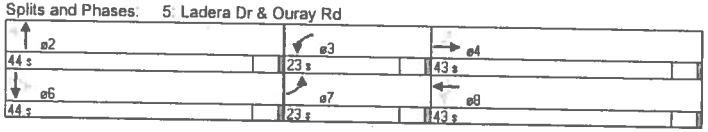
Terry O. Brown, P.E.
10/30/2007

Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Configurations										
Volume (vph)	20	365	4	214	30	101	79	99	212	14
Turn Type	pm+pt		pm+pt		Perm	Perm		Perm		Perm
Protected Phases	7	4	3	8			2		6	
Permitted Phases	4		8		8	2		6		6
Detector Phases	7	4	3	8	8	2	2	6	6	6
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	10.0	21.0	10.0	21.0	21.0	21.0	21.0	21.0	21.0	21.0
Total Split (s)	23.0	43.0	23.0	43.0	43.0	44.0	44.0	44.0	44.0	44.0
Total Split (%)	20.9%	39.1%	20.9%	39.1%	39.1%	40.0%	40.0%	40.0%	40.0%	40.0%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lead/Lag	Lead	Lag	Lead	Lag	Lag					
Lead-Lag Optimize?										
Recall Mode	Min	C-Max	Min	C-Max	C-Max	Min	Min	Min	Min	Min
Act Effct Green (s)	79.4	71.7	79.2	71.6	71.6	21.7	21.7	21.7	21.7	21.7
Actuated g/C Ratio	0.72	0.65	0.72	0.65	0.65	0.20	0.20	0.20	0.20	0.20
v/c Ratio	0.03	0.30	0.01	0.11	0.03	0.71	0.29	0.46	0.65	0.05
Control Delay	2.8	3.3	5.5	8.4	3.5	60.6	36.6	43.5	48.4	13.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	2.8	3.3	5.5	8.4	3.5	60.6	36.6	43.5	48.4	13.6
LOS	A	A	A	A	A	E	D	D	D	B
Approach Delay		3.3		7.7			49.7		45.4	
Approach LOS		A		A			D		D	

Intersection Summary

Cycle Length: 110
Actuated Cycle Length: 110
Offset: 75 (68%), Referenced to phase 4:EBTL and 8:WBTL, Start of Green
Natural Cycle: 55
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.71
Intersection Signal Delay: 20.8 — Intersection LOS: C
Intersection Capacity Utilization 44.8% — ICU Level of Service A
Analysis Period (min) 15

Splits and Phases: 5: Ladera Dr & Ouray Rd



HCM Signalized Intersection Capacity Analysis
5: Ladera Dr & Ouray Rd

Terry O. Brown, P.E.
10/30/2007

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
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	0.95		1.00	0.95	1.00	1.00	1.00		1.00	1.00	1.00
Frt	1.00	0.94		1.00	1.00	0.85	1.00	0.99		1.00	1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00	1.00	0.95	1.00		0.95	1.00	1.00
Satd. Flow (prot)	1752	3293		1752	3505	1568	1752	1829		1752	1845	1568
Flt Permitted	0.60	1.00		0.36	1.00	1.00	0.32	1.00		0.61	1.00	1.00
Satd. Flow (perm)	1110	3293		667	3505	1568	584	1829		1122	1845	1568
Volume (vph)	20	365	247	4	214	30	101	79	5	99	212	14
Peak-hour factor, PHF	0.91	0.91	0.91	0.89	0.89	0.89	0.79	0.79	0.79	0.89	0.89	0.89
Adj. Flow (vph)	22	401	271	4	240	34	128	100	6	111	238	16
RTOR Reduction (vph)	0	58	0	0	0	12	0	2	0	0	0	13
Lane Group Flow (vph)	22	614	0	4	240	22	128	104	0	111	238	3
Turn Type	pm+pt			pm+pt		Perm	Perm			Perm		Perm
Protected Phases	7	4		3	8			2			6	
Permitted Phases	4			8		8	2			6		6
Actuated Green, G (s)	75.4	69.7		75.2	69.6	69.6	19.7	19.7		19.7	19.7	19.7
Effective Green, g (s)	79.4	71.7		79.2	71.6	71.6	21.7	21.7		21.7	21.7	21.7
Actuated g/C Ratio	0.72	0.65		0.72	0.65	0.65	0.20	0.20		0.20	0.20	0.20
Clearance Time (s)	5.0	5.0		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	3.0	3.0
Lane Grp Cap (vph)	846	2146		555	2281	1021	115	361		221	364	309
v/s Ratio Prot	c0.00	c0.19		0.00	0.07			0.06			0.13	
v/s Ratio Perm	0.02			0.00		0.01	c0.22			0.10		0.00
v/c Ratio	0.03	0.29		0.01	0.11	0.02	1.11	0.29		0.50	0.65	0.01
Uniform Delay, d1	4.3	8.2		4.5	7.2	6.8	44.2	37.6		39.3	40.7	35.5
Progression Factor	0.52	0.44		1.00	1.00	1.00	1.00	1.00		1.00	1.00	1.00
Incremental Delay, d2	0.0	0.3		0.0	0.1	0.0	117.6	0.4		1.8	4.2	0.0
Delay (s)	2.3	3.9		4.5	7.3	6.8	161.7	38.0		41.1	44.9	35.5
Level of Service	A	A		A	A	A	F	D		D	D	D
Approach Delay (s)		3.8			7.2			105.7			43.3	
Approach LOS		A			A			F			D	

Intersection Summary

HCM Average Control Delay	28.8	HCM Level of Service	C
HCM Volume to Capacity ratio	0.43		
Actuated Cycle Length (s)	110.0	Sum of lost time, (s)	6.0
Intersection Capacity Utilization	44.8%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

Timings
5: Ladera Dr & Ouray Rd

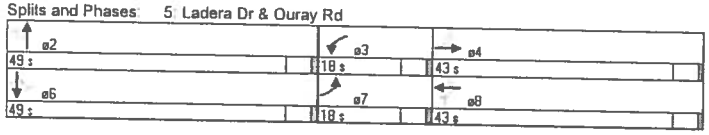
Terry O. Brown, P.E.
10/30/2007

Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Configurations										
Volume (vph)	24	414	4	291	30	156	79	99	212	19
Turn Type	pm+pt		pm+pt		Perm	Perm		Perm		Perm
Protected Phases	7	4	3	8			2		6	
Permitted Phases	4		8		8	2		6		6
Detector Phases	7	4	3	8	8	2	2	6	6	6
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	10.0	21.0	10.0	21.0	21.0	21.0	21.0	21.0	21.0	21.0
Total Split (s)	18.0	43.0	18.0	43.0	43.0	49.0	49.0	49.0	49.0	49.0
Total Split (%)	16.4%	39.1%	16.4%	39.1%	39.1%	44.5%	44.5%	44.5%	44.5%	44.5%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lead/Lag	Lead	Lag	Lead	Lag	Lag					
Lead-Lag Optimize?										
Recall Mode	Min	C-Max	Min	C-Max	C-Max	Min	Min	Min	Min	Min
Act Effct Green (s)	73.2	65.2	72.6	65.0	65.0	28.1	28.1	28.1	28.1	28.1
Actuated g/C Ratio	0.67	0.59	0.66	0.59	0.59	0.26	0.26	0.26	0.26	0.26
v/c Ratio	0.04	0.38	0.01	0.16	0.04	0.80	0.23	0.35	0.51	0.05
Control Delay	6.0	7.0	8.5	12.0	5.0	60.3	30.0	34.2	37.2	10.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	6.0	7.0	8.5	12.0	5.0	60.3	30.0	34.2	37.2	10.0
LOS	A	A	A	B	A	E	C	C	D	A
Approach Delay		6.9		11.3			49.7		34.7	
Approach LOS		A		B			D		C	

Intersection Summary

Cycle Length: 110
Actuated Cycle Length: 110
Offset: 56 (51%), Referenced to phase 4:EBTL and 8:WBTL, Start of Green
Natural Cycle: 55
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.80
Intersection Signal Delay: 20.5 — Intersection LOS: C
Intersection Capacity Utilization 50.4% — ICU Level of Service A
Analysis Period (min) 15

Splits and Phases: 5: Ladera Dr & Ouray Rd



HCM Signalized Intersection Capacity Analysis
5: Ladera Dr & Ouray Rd

Terry O. Brown, P.E.
10/30/2007

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
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	0.95		1.00	0.95	1.00	1.00	1.00		1.00	1.00	1.00
Frt	1.00	0.94		1.00	1.00	0.85	1.00	0.99		1.00	1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00	1.00	0.95	1.00		0.95	1.00	1.00
Satd. Flow (prot)	1752	3290		1752	3505	1568	1752	1829		1752	1845	1568
Flt Permitted	0.54	1.00		0.31	1.00	1.00	0.40	1.00		0.64	1.00	1.00
Satd. Flow (perm)	990	3290		565	3505	1568	746	1829		1174	1845	1568
Volume (vph)	24	414	287	4	291	30	156	79	5	99	212	19
Peak-hour factor, PHF	0.91	0.91	0.91	0.89	0.89	0.89	0.79	0.79	0.79	0.89	0.89	0.89
Adj. Flow (vph)	26	455	315	4	327	34	197	100	6	111	238	21
RTOR Reduction (vph)	0	72	0	0	0	14	0	2	0	0	0	16
Lane Group Flow (vph)	26	698	0	4	327	20	197	104	0	111	238	5
Turn Type	pm+pt			pm+pt		Perm	Perm			Perm		Perm
Protected Phases	7	4		3	8			2			6	
Permitted Phases	4			8		8	2			6		6
Actuated Green, G (s)	69.2	63.3		68.6	63.0	63.0	26.1	26.1		26.1	26.1	26.1
Effective Green, g (s)	73.2	65.3		72.6	65.0	65.0	28.1	28.1		28.1	28.1	28.1
Actuated g/C Ratio	0.67	0.59		0.66	0.59	0.59	0.26	0.26		0.26	0.26	0.26
Clearance Time (s)	5.0	5.0		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	3.0	3.0
Lane Grp Cap (vph)	714	1953		455	2071	927	191	467		300	471	401
v/s Ratio Prot	c0.00	c0.21		0.00	0.09			0.06			0.13	
v/s Ratio Perm	0.02			0.01		0.01	c0.26			0.09		0.00
v/c Ratio	0.04	0.36		0.01	0.16	0.02	1.03	0.22		0.37	0.51	0.01
Uniform Delay, d1	6.3	11.5		6.8	10.2	9.3	40.9	32.3		33.7	35.0	30.6
Progression Factor	0.75	0.65		1.00	1.00	1.00	1.00	1.00		1.00	1.00	1.00
Incremental Delay, d2	0.0	0.5		0.0	0.2	0.0	73.6	0.2		0.8	0.9	0.0
Delay (s)	4.7	7.9		6.8	10.3	9.4	114.5	32.6		34.4	35.9	30.6
Level of Service	A	A		A	B	A	F	C		C	D	C
Approach Delay (s)		7.8			10.2			85.9			35.1	
Approach LOS		A			B			F			D	

Intersection Summary

HCM Average Control Delay	26.7	HCM Level of Service	C
HCM Volume to Capacity ratio	0.51		
Actuated Cycle Length (s)	110.0	Sum of lost time (s)	6.0
Intersection Capacity Utilization	50.4%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

Timings
5: Ladera Dr & Ouray Rd

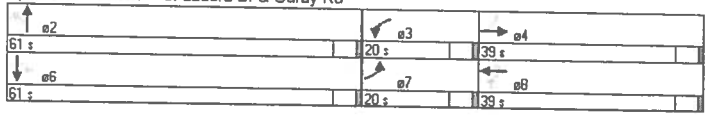
Terry O. Brown, P.E.
10/30/2007

Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Configurations										
Volume (vph)	22	307	23	427	121	293	233	36	131	14
Turn Type	pm+pt		pm+pt		Perm	Perm		Perm		Perm
Protected Phases	7	4	3	8			2		6	
Permitted Phases	4		8		8	2		6		6
Detector Phases	7	4	3	8	8	2	2	6	6	6
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	10.0	21.0	10.0	21.0	21.0	21.0	21.0	21.0	21.0	21.0
Total Split (s)	20.0	39.0	20.0	39.0	39.0	61.0	61.0	61.0	61.0	61.0
Total Split (%)	16.7%	32.5%	16.7%	32.5%	32.5%	50.8%	50.8%	50.8%	50.8%	50.8%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lead/Lag	Lead	Lag	Lead	Lag	Lag					
Lead-Lag Optimize?										
Recall Mode	Min	C-Max	Min	C-Max	C-Max	Min	Min	Min	Min	Min
Act Effct Green (s)	73.9	65.7	74.1	65.8	65.8	37.0	37.0	37.0	37.0	37.0
Actuated g/C Ratio	0.62	0.55	0.62	0.55	0.55	0.31	0.31	0.31	0.31	0.31
v/c Ratio	0.05	0.32	0.07	0.26	0.15	0.86	0.47	0.14	0.26	0.03
Control Delay	8.2	9.0	11.4	16.5	3.6	60.8	34.2	27.0	30.1	9.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	8.2	9.0	11.4	16.5	3.6	60.8	34.2	27.0	30.1	9.6
LOS	A	A	B	B	A	E	C	C	C	A
Approach Delay		9.0		13.5			48.6		27.9	
Approach LOS		A		B			D		C	

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 120
Offset: 27 (23%), Referenced to phase 4:EBTL and 8:WBTL, Start of Green
Natural Cycle: 55
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.86
Intersection Signal Delay: 23.4 — Intersection LOS: C
Intersection Capacity Utilization 52.2% — ICU Level of Service A
Analysis Period (min) 15

Splits and Phases: 5: Ladera Dr & Ouray Rd



HCM Signalized Intersection Capacity Analysis
5: Ladera Dr & Ouray Rd

Terry O. Brown, P.E.
10/30/2007

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
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	0.95		1.00	0.95	1.00	1.00	1.00		1.00	1.00	1.00
Frt	1.00	0.94		1.00	1.00	0.85	1.00	0.99		1.00	1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00	1.00	0.95	1.00		0.95	1.00	1.00
Satd. Flow (prot)	1752	3281		1752	3505	1568	1752	1827		1752	1845	1568
Flt Permitted	0.43	1.00		0.37	1.00	1.00	0.58	1.00		0.41	1.00	1.00
Satd. Flow (perm)	793	3281		688	3505	1568	1079	1827		763	1845	1568
Volume (vph)	22	307	227	23	427	121	293	233	16	36	131	14
Peak-hour factor, PHF	0.90	0.90	0.90	0.87	0.87	0.87	0.94	0.94	0.94	0.89	0.89	0.89
Adj. Flow (vph)	24	341	252	26	491	139	312	248	17	40	147	16
RTOR Reduction (vph)	0	72	0	0	0	63	0	3	0	0	0	11
Lane Group Flow (vph)	24	521	0	26	491	76	312	262	0	40	147	5
Turn Type	pm+pt			pm+pt		Perm	Perm			Perm		Perm
Protected Phases	7	4		3	8			2			6	
Permitted Phases	4			8		8	2			6		6
Actuated Green, G (s)	69.9	63.7		70.1	63.8	63.8	35.0	35.0		35.0	35.0	35.0
Effective Green, g (s)	73.9	65.7		74.1	65.8	65.8	37.0	37.0		37.0	37.0	37.0
Actuated g/C Ratio	0.62	0.55		0.62	0.55	0.55	0.31	0.31		0.31	0.31	0.31
Clearance Time (s)	5.0	5.0		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	3.0	3.0
Lane Grp Cap (vph)	554	1796		498	1922	860	333	563		235	569	483
v/s Ratio Prot	0.00	c0.16		c0.00	0.14			0.14			0.08	
v/s Ratio Perm	0.02			0.03		0.05	c0.29			0.05		0.00
v/c Ratio	0.04	0.29		0.05	0.26	0.09	0.94	0.47		0.17	0.26	0.01
Uniform Delay, d1	9.1	14.6		9.2	14.2	12.9	40.4	33.5		30.3	31.2	28.8
Progression Factor	0.73	0.73		1.00	1.00	1.00	1.00	1.00		1.00	1.00	1.00
Incremental Delay, d2	0.0	0.2		0.0	0.3	0.2	33.0	0.6		0.3	0.2	0.0
Delay (s)	6.7	10.8		9.3	14.6	13.1	73.3	34.1		30.6	31.4	28.8
Level of Service	A	B		A	B	B	E	C		C	C	C
Approach Delay (s)		10.6			14.0			55.3			31.1	
Approach LOS		B			B			E			C	

Intersection Summary

HCM Average Control Delay	26.3	HCM Level of Service	C
HCM Volume to Capacity ratio	0.49		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	9.0
Intersection Capacity Utilization	52.2%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

Timings
5: Ladera Dr & Ouray Rd

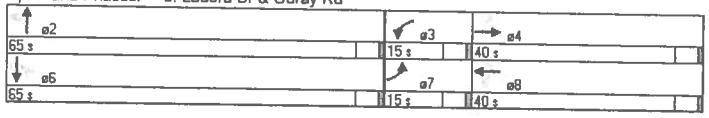
Terry O. Brown, P.E.
10/30/2007

Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Configurations										
Volume (vph)	27	400	23	506	121	358	233	36	131	20
Turn Type	pm+pt		pm+pt		Perm	Perm		Perm		Perm
Protected Phases	7	4	3	8			2		6	
Permitted Phases	4		8		8	2		6		6
Detector Phases	7	4	3	8	8	2	2	6	6	6
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	10.0	21.0	10.0	21.0	21.0	21.0	21.0	21.0	21.0	21.0
Total Split (s)	15.0	40.0	15.0	40.0	40.0	65.0	65.0	65.0	65.0	65.0
Total Split (%)	12.5%	33.3%	12.5%	33.3%	33.3%	54.2%	54.2%	54.2%	54.2%	54.2%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lead/Lag	Lead	Lag	Lead	Lag	Lag					
Lead-Lag Optimize?										
Recall Mode	Min	C-Max	Min	C-Max	C-Max	Min	Min	Min	Min	Min
Act Effct Green (s)	67.4	59.0	67.4	59.0	59.0	43.6	43.6	43.6	43.6	43.6
Actuated g/C Ratio	0.56	0.49	0.56	0.49	0.49	0.36	0.36	0.36	0.36	0.36
v/c Ratio	0.08	0.45	0.10	0.34	0.17	0.89	0.40	0.11	0.22	0.04
Control Delay	12.2	15.0	15.2	21.5	4.5	57.5	28.1	22.1	25.0	6.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	12.2	15.0	15.2	21.5	4.5	57.5	28.1	22.1	25.0	6.8
LOS	B	B	B	C	A	E	C	C	C	A
Approach Delay		14.9		18.2			45.4		22.5	
Approach LOS		B		B			D		C	

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 120
Offset: 7 (6%), Referenced to phase 4:EBTL and 8:WBTL, Start of Green
Natural Cycle: 60
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.89
Intersection Signal Delay: 24.8 — Intersection LOS: C
Intersection Capacity Utilization 59.2% — ICU Level of Service B
Analysis Period (min) 15

Splits and Phases: 5: Ladera Dr & Ouray Rd



HCM Signalized Intersection Capacity Analysis
5: Ladera Dr & Ouray Rd

Terry O. Brown, P.E.
10/30/2007

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
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	0.95		1.00	0.95	1.00	1.00	1.00		1.00	1.00	1.00
Frt	1.00	0.94		1.00	1.00	0.85	1.00	0.99		1.00	1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00	1.00	0.95	1.00		0.95	1.00	1.00
Satd. Flow (prot)	1752	3283		1752	3505	1568	1752	1827		1752	1845	1568
Flt Permitted	0.36	1.00		0.27	1.00	1.00	0.61	1.00		0.46	1.00	1.00
Satd. Flow (perm)	669	3283		500	3505	1568	1117	1827		842	1845	1568
Volume (vph)	27	400	292	23	506	121	358	233	16	36	131	20
Peak-hour factor, PHF	0.90	0.90	0.90	0.87	0.87	0.87	0.94	0.94	0.94	0.89	0.89	0.89
Adj. Flow (vph)	30	444	324	26	582	139	381	248	17	40	147	22
RTOR Reduction (vph)	0	81	0	0	0	71	0	3	0	0	0	14
Lane Group Flow (vph)	30	687	0	26	582	68	381	262	0	40	147	8
Turn Type	pm+pt			pm+pt		Perm	Perm			Perm		Perm
Protected Phases	7	4		3	8			2			6	
Permitted Phases	4			8		8	2			6		6
Actuated Green, G (s)	63.4	57.0		63.4	57.0	57.0	41.6	41.6		41.6	41.6	41.6
Effective Green, g (s)	67.4	59.0		67.4	59.0	59.0	43.6	43.6		43.6	43.6	43.6
Actuated g/C Ratio	0.56	0.49		0.56	0.49	0.49	0.36	0.36		0.36	0.36	0.36
Clearance Time (s)	5.0	5.0		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	3.0	3.0
Lane Grp Cap (vph)	452	1614		368	1723	771	406	664		306	670	570
v/s Ratio Prot	0.00	c0.21		c0.00	0.17			0.14			0.08	
v/s Ratio Perm	0.03			0.03		0.04	c0.34			0.05		0.01
v/c Ratio	0.07	0.43		0.07	0.34	0.09	0.94	0.40		0.13	0.22	0.01
Uniform Delay, d1	12.1	19.6		12.6	18.6	16.2	36.9	28.4		25.5	26.4	24.4
Progression Factor	0.83	0.83		1.00	1.00	1.00	1.00	1.00		1.00	1.00	1.00
Incremental Delay, d2	0.0	0.5		0.1	0.5	0.2	29.2	0.4		0.2	0.2	0.0
Delay (s)	10.2	16.8		12.7	19.1	16.4	66.1	28.8		25.7	26.6	24.5
Level of Service	B	B		B	B	B	E	C		C	C	C
Approach Delay (s)		16.5			18.4			50.8			26.2	
Approach LOS		B			B			D			C	

Intersection Summary

HCM Average Control Delay	27.2	HCM Level of Service	C
HCM Volume to Capacity ratio	0.60		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	9.0
Intersection Capacity Utilization	59.2%	ICU Level of Service	B
Analysis Period (min)	15		

c Critical Lane Group

Analysis of Intersection #6

I-40 South ramp / Unser Blvd

HCM Unsignalized Intersection Capacity Analysis
6: I-40 South ramp & Unser Blvd

Terry O. Brown, P.E.
10/30/2007

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Volume (veh/h)	50	0	0	0	0	0	0	804	0	0	1329	0
Peak Hour Factor	0.75	0.75	0.75	0.85	0.85	0.85	0.80	0.80	0.80	0.88	0.88	0.88
Hourly flow rate (vph)	67	0	0	0	0	0	0	1005	0	0	1510	0
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)												
pX, platoon unblocked												
vC, conflicting volume	2013	2515	755	1760	2515	502	1510			1005		
vC1, stage 1 conf vol	1510	1510		1005	1005							
vC2, stage 2 conf vol	502	1005		755	1510							
vCu, unblocked vol	2013	2515	755	1760	2515	502	1510			1005		
tC, single (s)	7.6	6.6	7.0	7.6	6.6	7.0	4.2			4.2		
tC, 2 stage (s)	6.6	5.6		6.6	5.6							
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	34	100	100	100	100	100	100			100		
cM capacity (veh/h)	101	116	349	161	116	512	434			679		

Direction, Lane #	EB 1	NB 1	NB 2	SB 1	SB 2
Volume Total	67	502	502	755	755
Volume Left	67	0	0	0	0
Volume Right	0	0	0	0	0
cSH	101	1700	1700	1700	1700
Volume to Capacity	0.66	0.30	0.30	0.44	0.44
Queue Length 95th (ft)	83	0	0	0	0
Control Delay (s)	92.8	0.0	0.0	0.0	0.0
Lane LOS	F				
Approach Delay (s)	92.8	0.0		0.0	
Approach LOS	F				

Intersection Summary			
Average Delay	2.4		
Intersection Capacity Utilization	72.1%	ICU Level of Service	C
Analysis Period (min)	15		

HCM Unsignalized Intersection Capacity Analysis
6: I-40 South ramp & Unser Blvd

Terry O. Brown, P.E.
10/30/2007

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Volume (veh/h)	60	0	0	0	0	0	0	939	0	0	1425	0
Peak Hour Factor	0.75	0.75	0.75	0.85	0.85	0.85	0.80	0.80	0.80	0.88	0.88	0.88
Hourly flow rate (vph)	80	0	0	0	0	0	0	1174	0	0	1619	0
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)												
pX, platoon unblocked												
vC, conflicting volume	2206	2793	810	1983	2793	587	1619			1174		
vC1, stage 1 conf vol	1619	1619		1174	1174							
vC2, stage 2 conf vol	587	1174		810	1619							
vCu, unblocked vol	2206	2793	810	1983	2793	587	1619			1174		
tC, single (s)	7.6	6.6	7.0	7.6	6.6	7.0	4.2			4.2		
tC, 2 stage (s)	6.6	5.6		6.6	5.6							
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	6	100	100	100	100	100	100			100		
cM capacity (veh/h)	85	98	321	131	98	450	394			585		

Direction, Lane #	EB 1	NB 1	NB 2	SB 1	SB 2
Volume Total	80	587	587	810	810
Volume Left	80	0	0	0	0
Volume Right	0	0	0	0	0
cSH	85	1700	1700	1700	1700
Volume to Capacity	0.94	0.35	0.35	0.48	0.48
Queue Length 95th (ft)	129	0	0	0	0
Control Delay (s)	167.6	0.0	0.0	0.0	0.0
Lane LOS	F				
Approach Delay (s)	167.6	0.0		0.0	
Approach LOS	F				

Intersection Summary			
Average Delay	4.7		
Intersection Capacity Utilization	74.9%	ICU Level of Service	D
Analysis Period (min)	15		

HCM Unsignalized Intersection Capacity Analysis
6: I-40 South ramp & Unser Blvd

Terry O. Brown, P.E.
10/30/2007

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Volume (veh/h)	94	0	0	0	0	0	0	1335	0	0	1908	0
Peak Hour Factor	0.90	0.90	0.90	0.85	0.85	0.85	0.92	0.92	0.92	0.97	0.97	0.97
Hourly flow rate (vph)	104	0	0	0	0	0	0	1451	0	0	1967	0
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)												
pX, platoon unblocked												
vC, conflicting volume	2693	3418	984	2435	3418	726	1967			1451		
vC1, stage 1 conf vol	1967	1967		1451	1451							
vC2, stage 2 conf vol	726	1451		984	1967							
vCu, unblocked vol	2693	3418	984	2435	3418	726	1967			1451		
tC, single (s)	7.6	6.6	7.0	7.6	6.6	7.0	4.2			4.2		
tC, 2 stage (s)	6.6	5.6		6.6	5.6							
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	0	100	100	100	100	100	100			100		
cM capacity (veh/h)	52	65	246	88	65	365	288			458		

Direction, Lane #	EB 1	NB 1	NB 2	SB 1	SB 2
Volume Total	104	726	726	984	984
Volume Left	104	0	0	0	0
Volume Right	0	0	0	0	0
cSH	52	1700	1700	1700	1700
Volume to Capacity	2.01	0.43	0.43	0.58	0.58
Queue Length 95th (ft)	258	0	0	0	0
Control Delay (s)	637.2	0.0	0.0	0.0	0.0
Lane LOS	F				
Approach Delay (s)	637.2	0.0		0.0	
Approach LOS	F				

Intersection Summary			
Average Delay	18.9		
Intersection Capacity Utilization	118.6%	ICU Level of Service	H
Analysis Period (min)	15		

HCM Unsignalized Intersection Capacity Analysis
6: I-40 South ramp & Unser Blvd

Terry O. Brown, P.E.
10/30/2007

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Volume (veh/h)	105	0	0	0	0	0	0	1489	0	0	2069	0
Peak Hour Factor	0.90	0.90	0.90	0.85	0.85	0.85	0.92	0.92	0.92	0.97	0.97	0.97
Hourly flow rate (vph)	117	0	0	0	0	0	0	1618	0	0	2133	0
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)												
pX, platoon unblocked												
vC, conflicting volume	2942	3751	1066	2685	3751	809	2133			1618		
vC1, stage 1 conf vol	2133	2133		1618	1618							
vC2, stage 2 conf vol	809	1618		1066	2133							
vCu, unblocked vol	2942	3751	1066	2685	3751	809	2133			1618		
tC, single (s)	7.6	6.6	7.0	7.6	6.6	7.0	4.2			4.2		
tC, 2 stage (s)	6.6	5.6		6.6	5.6							
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	0	100	100	100	100	100	100			100		
cM capacity (veh/h)	41	53	216	71	53	321	247			394		

Direction, Lane #	EB 1	NB 1	NB 2	SB 1	SB 2
Volume Total	117	809	809	1066	1066
Volume Left	117	0	0	0	0
Volume Right	0	0	0	0	0
cSH	41	1700	1700	1700	1700
Volume to Capacity	2.85	0.48	0.48	0.63	0.63
Queue Length 95th (ft)	322	0	0	0	0
Control Delay (s)	1042.9	0.0	0.0	0.0	0.0
Lane LOS	F				
Approach Delay (s)	1042.9	0.0		0.0	
Approach LOS	F				

Intersection Summary			
Average Delay	31.5		
Intersection Capacity Utilization	127.9%	ICU Level of Service	H
Analysis Period (min)	15		

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Volume (veh/h)	0	425	28	15	398	0	113	0	72	0	1	0
Peak Hour Factor	0.88	0.88	0.88	0.79	0.79	0.79	0.86	0.86	0.86	0.85	0.85	0.85
Hourly flow rate (vph)	0	483	32	19	504	0	131	0	84	0	1	0
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)		865										
pX, platoon unblocked												
vC, conflicting volume	504			515			789	1041	257	867	1057	252
vC1, stage 1 conf vol							499	499		542	542	
vC2, stage 2 conf vol							290	542		325	515	
vCu, unblocked vol	504			515			789	1041	257	867	1057	252
tC, single (s)	4.2			4.2			7.6	6.6	7.0	7.6	6.6	7.0
tC, 2 stage (s)							6.6	5.6		6.6	5.6	
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	100			98			66	100	89	100	100	100
cM capacity (veh/h)	1050			1040			390	340	739	334	332	745

Direction, Lane #	EB 1	EB 2	EB 3	WB 1	WB 2	WB 3	NB 1	NB 2	SB 1
Volume Total	0	322	193	19	336	168	131	84	1
Volume Left	0	0	0	19	0	0	131	0	0
Volume Right	0	0	32	0	0	0	0	84	0
cSH	1700	1700	1700	1040	1700	1700	390	739	332
Volume to Capacity	0.00	0.19	0.11	0.02	0.20	0.10	0.34	0.11	0.00
Queue Length 95th (ft)	0	0	0	1	0	0	37	10	0
Control Delay (s)	0.0	0.0	0.0	8.5	0.0	0.0	18.9	10.5	15.9
Lane LOS				A			C	B	C
Approach Delay (s)	0.0			0.3			15.6		15.9
Approach LOS							C		C

Intersection Summary			
Average Delay	2.8		
Intersection Capacity Utilization	32.2%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Volume (veh/h)	0	559	170	52	505	0	83	1	36	1	1	1
Peak Hour Factor	0.93	0.93	0.93	0.80	0.80	0.80	0.88	0.88	0.88	0.85	0.85	0.85
Hourly flow rate (vph)	0	601	183	65	631	0	94	1	41	1	1	1
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)		865										
pX, platoon unblocked												
vC, conflicting volume	631			784			1140	1454	392	1103	1545	316
vC1, stage 1 conf vol							692	692		761	761	
vC2, stage 2 conf vol							447	761		342	784	
vCu, unblocked vol	631			784			1140	1454	392	1103	1545	316
tC, single (s)	4.2			4.2			7.6	6.6	7.0	7.6	6.6	7.0
tC, 2 stage (s)							6.6	5.6		6.6	5.6	
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	100			92			65	100	93	100	99	100
cM capacity (veh/h)	940			824			269	239	604	247	209	677

Direction, Lane #	EB 1	EB 2	EB 3	WB 1	WB 2	WB 3	NB 1	NB 2	SB 1
Volume Total	0	401	383	65	421	210	94	42	4
Volume Left	0	0	0	65	0	0	94	0	1
Volume Right	0	0	183	0	0	0	0	41	1
cSH	1700	1700	1700	824	1700	1700	269	580	291
Volume to Capacity	0.00	0.24	0.23	0.08	0.25	0.12	0.35	0.07	0.01
Queue Length 95th (ft)	0	0	0	6	0	0	38	6	1
Control Delay (s)	0.0	0.0	0.0	9.7	0.0	0.0	25.5	11.7	17.5
Lane LOS				A			D	B	C
Approach Delay (s)	0.0			0.9			21.2		17.5
Approach LOS							C		C

Intersection Summary			
Average Delay	2.2		
Intersection Capacity Utilization	45.5%	ICU Level of Service	A
Analysis Period (min)	15		

HCM Unsignalized Intersection Capacity Analysis
7: Ladera Dr & Market Rd

Terry O. Brown, P.E.
10/30/2007

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Volume (veh/h)	1	669	176	260	505	1	129	1	146	1	1	1
Peak Hour Factor	0.93	0.93	0.93	0.80	0.80	0.80	0.88	0.88	0.88	0.85	0.85	0.85
Hourly flow rate (vph)	1	719	189	325	631	1	147	1	166	1	1	1
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)		888										
pX, platoon unblocked												
vC, conflicting volume	632			909			1784	2099	454	1810	2193	316
vC1, stage 1 conf vol							816	816		1282	1282	
vC2, stage 2 conf vol							967	1282		528	911	
vCu, unblocked vol	632			909			1784	2099	454	1810	2193	316
tC, single (s)	4.2			4.2			7.6	6.6	7.0	7.6	6.6	7.0
tC, 2 stage (s)							6.6	5.6		6.6	5.6	
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	100			56			0	99	70	95	95	100
cM capacity (veh/h)	939			739			106	98	550	22	25	677

Direction, Lane #	EB 1	EB 2	EB 3	WB 1	WB 2	WB 3	NB 1	NB 2	SB 1
Volume Total	1	480	429	325	421	212	147	167	4
Volume Left	1	0	0	325	0	0	147	0	1
Volume Right	0	0	189	0	0	1	0	166	1
cSH	939	1700	1700	739	1700	1700	106	533	34
Volume to Capacity	0.00	0.28	0.25	0.44	0.25	0.12	1.38	0.31	0.10
Queue Length 95th (ft)	0	0	0	56	0	0	259	33	8
Control Delay (s)	8.8	0.0	0.0	13.6	0.0	0.0	292.2	14.8	121.3
Lane LOS	A			B			F	B	F
Approach Delay (s)	0.0			4.6			144.5		121.3
Approach LOS							F		F

Intersection Summary			
Average Delay	23.0		
Intersection Capacity Utilization	62.3%	ICU Level of Service	B
Analysis Period (min)	15		

Analysis of Intersection #8

Ladera Dr / Laurelwood Parkway

HCM Unsignalized Intersection Capacity Analysis
8: Ladera Dr & Laurelwood Pkwy

Terry O. Brown, P.E.
10/30/2007

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Volume (veh/h)	1	490	28	7	363	0	78	0	65	5	0	8
Peak Hour Factor	0.90	0.90	0.90	0.75	0.75	0.75	0.89	0.89	0.89	0.75	0.75	0.75
Hourly flow rate (vph)	1	544	31	9	484	0	88	0	73	7	0	11
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)												
pX, platoon unblocked												
vC, conflicting volume	484			576			834	1065	288	850	1080	242
vC1, stage 1 conf vol							562	562		503	503	
vC2, stage 2 conf vol							271	503		347	578	
vCu, unblocked vol	484			576			834	1065	288	850	1080	242
tC, single (s)	4.2			4.2			7.6	6.6	7.0	7.6	6.6	7.0
tC, 2 stage (s)							6.6	5.6		6.6	5.6	
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	100			99			76	100	90	98	100	99
cM capacity (veh/h)	1068			987			366	335	706	347	329	756

Direction, Lane #	EB 1	EB 2	EB 3	WB 1	WB 2	WB 3	NB 1	NB 2	NB 3	SB 1
Volume Total	1	363	213	9	323	161	88	0	73	17
Volume Left	1	0	0	9	0	0	88	0	0	7
Volume Right	0	0	31	0	0	0	0	0	73	11
cSH	1068	1700	1700	987	1700	1700	366	1700	706	520
Volume to Capacity	0.00	0.21	0.13	0.01	0.19	0.09	0.24	0.00	0.10	0.03
Queue Length 95th (ft)	0	0	0	1	0	0	23	0	9	3
Control Delay (s)	8.4	0.0	0.0	8.7	0.0	0.0	17.9	0.0	10.7	12.2
Lane LOS	A			A			C	A	B	B
Approach Delay (s)	0.0			0.2			14.6			12.2
Approach LOS							B			B

Intersection Summary			
Average Delay	2.1		
Intersection Capacity Utilization	31.8%	ICU Level of Service	A
Analysis Period (min)	15		

HCM Unsignalized Intersection Capacity Analysis
8: Ladera Dr & Laurelwood Pkwy

Terry O. Brown, P.E.
10/30/2007

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Volume (veh/h)	2	602	44	7	526	1	101	1	65	5	1	9
Peak Hour Factor	0.90	0.90	0.90	0.75	0.75	0.75	0.89	0.89	0.89	0.75	0.75	0.75
Hourly flow rate (vph)	2	669	49	9	701	1	113	1	73	7	1	12
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)												
pX, platoon unblocked												
vC, conflicting volume	703			718			1080	1419	359	1133	1443	351
vC1, stage 1 conf vol							698	698		721	721	
vC2, stage 2 conf vol							382	721		412	722	
vCu, unblocked vol	703			718			1080	1419	359	1133	1443	351
tC, single (s)	4.2			4.2			7.6	6.6	7.0	7.6	6.6	7.0
tC, 2 stage (s)							6.6	5.6		6.6	5.6	
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	100			99			60	100	88	97	99	98
cM capacity (veh/h)	884			872			286	256	635	258	250	642

Direction, Lane #	EB 1	EB 2	EB 3	WB 1	WB 2	WB 3	NB 1	NB 2	NB 3	SB 1
Volume Total	2	446	272	9	468	235	113	1	73	20
Volume Left	2	0	0	9	0	0	113	0	0	7
Volume Right	0	0	49	0	0	1	0	0	73	12
cSH	884	1700	1700	872	1700	1700	286	256	635	401
Volume to Capacity	0.00	0.26	0.16	0.01	0.28	0.14	0.40	0.00	0.12	0.05
Queue Length 95th (ft)	0	0	0	1	0	0	45	0	10	4
Control Delay (s)	9.1	0.0	0.0	9.2	0.0	0.0	25.6	19.1	11.4	14.4
Lane LOS	A			A			D	C	B	B
Approach Delay (s)	0.0			0.1			20.0			14.4
Approach LOS							C			B

Intersection Summary			
Average Delay	2.5		
Intersection Capacity Utilization	37.0%	ICU Level of Service	A
Analysis Period (min)	15		

HCM Unsignalized Intersection Capacity Analysis
8: Ladera Dr & Laurelwood Pkwy

Terry O. Brown, P.E.
10/30/2007

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Volume (veh/h)	10	481	98	82	589	10	37	1	34	1	1	3
Peak Hour Factor	0.89	0.89	0.89	0.91	0.91	0.91	0.85	0.85	0.85	0.75	0.75	0.75
Hourly flow rate (vph)	11	540	110	90	647	11	44	1	40	1	1	4
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)												
pX, platoon unblocked												
vC, conflicting volume	658			651			1126	1456	325	1166	1506	329
vC1, stage 1 conf vol							618	618		833	833	
vC2, stage 2 conf vol							509	838		333	673	
vCu, unblocked vol	658			651			1126	1456	325	1166	1506	329
tC, single (s)	4.2			4.2			7.6	6.6	7.0	7.6	6.6	7.0
tC, 2 stage (s)							6.6	5.6		6.6	5.6	
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	99			90			84	99	94	99	99	99
cM capacity (veh/h)	919			925			267	226	667	223	207	664

Direction, Lane #	EB 1	EB 2	EB 3	WB 1	WB 2	WB 3	NB 1	NB 2	NB 3	SB 1
Volume Total	11	360	290	90	432	227	44	1	40	7
Volume Left	11	0	0	90	0	0	44	0	0	1
Volume Right	0	0	110	0	0	11	0	0	40	4
cSH	919	1700	1700	925	1700	1700	267	226	667	361
Volume to Capacity	0.01	0.21	0.17	0.10	0.25	0.13	0.16	0.01	0.06	0.02
Queue Length 95th (ft)	1	0	0	8	0	0	14	0	5	1
Control Delay (s)	9.0	0.0	0.0	9.3	0.0	0.0	21.1	21.0	10.7	15.1
Lane LOS	A			A			C	C	B	C
Approach Delay (s)	0.2			1.1			16.2			15.1
Approach LOS							C			C

Intersection Summary			
Average Delay	1.6		
Intersection Capacity Utilization	38.7%	ICU Level of Service	A
Analysis Period (min)	15		

HCM Unsignalized Intersection Capacity Analysis
8: Ladera Dr & Laurelwood Pkwy

Terry O. Brown, P.E.
10/30/2007

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Volume (veh/h)	11	674	124	82	769	10	63	1	34	1	1	4
Peak Hour Factor	0.89	0.89	0.89	0.91	0.91	0.91	0.85	0.85	0.85	0.75	0.75	0.75
Hourly flow rate (vph)	12	757	139	90	845	11	74	1	40	1	1	5
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)												
pX, platoon unblocked												
vC, conflicting volume	856			897			1460	1888	448	1475	1952	428
vC1, stage 1 conf vol							852	852		1031	1031	
vC2, stage 2 conf vol							609	1036		444	921	
vCu, unblocked vol	856			897			1460	1888	448	1475	1952	428
tC, single (s)	4.2			4.2			7.6	6.6	7.0	7.6	6.6	7.0
tC, 2 stage (s)							6.6	5.6		6.6	5.6	
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	98			88			61	99	93	99	99	99
cM capacity (veh/h)	774			747			191	163	555	160	143	572

Direction, Lane #	EB 1	EB 2	EB 3	WB 1	WB 2	WB 3	NB 1	NB 2	NB 3	SB 1
Volume Total	12	505	392	90	563	293	74	1	40	8
Volume Left	12	0	0	90	0	0	74	0	0	1
Volume Right	0	0	139	0	0	11	0	0	40	5
cSH	774	1700	1700	747	1700	1700	191	163	555	296
Volume to Capacity	0.02	0.30	0.23	0.12	0.33	0.17	0.39	0.01	0.07	0.03
Queue Length 95th (ft)	1	0	0	10	0	0	42	1	6	2
Control Delay (s)	9.7	0.0	0.0	10.5	0.0	0.0	35.2	27.2	12.0	17.5
Lane LOS	A			B			E	D	B	C
Approach Delay (s)	0.1			1.0			27.1			17.5
Approach LOS							D			C

Intersection Summary			
Average Delay	2.2		
Intersection Capacity Utilization	47.3%	ICU Level of Service	A
Analysis Period (min)	15		

Analysis of Intersection #9

Ladera Dr / Driveway 'A'

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Volume (veh/h)	526	33	0	493	0	65
Peak Hour Factor	0.79	0.79	0.79	0.79	0.85	0.85
Hourly flow rate (vph)	666	42	0	624	0	76
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type					None	
Median storage veh)						
Upstream signal (ft)	481					
pX, platoon unblocked						
vC, conflicting volume			708		999	354
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			708		999	354
tC, single (s)			4.2		6.9	7.0
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			100		100	88
cM capacity (veh/h)			880		238	640

Direction, Lane #	EB 1	EB 2	WB 1	WB 2	NB 1
Volume Total	444	264	312	312	76
Volume Left	0	0	0	0	0
Volume Right	0	42	0	0	76
cSH	1700	1700	1700	1700	640
Volume to Capacity	0.26	0.16	0.18	0.18	0.12
Queue Length 95th (ft)	0	0	0	0	10
Control Delay (s)	0.0	0.0	0.0	0.0	11.4
Lane LOS					B
Approach Delay (s)	0.0		0.0		11.4
Approach LOS					B

Intersection Summary			
Average Delay	0.6		
Intersection Capacity Utilization	26.3%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑↳			↑↑		↱
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Volume (veh/h)	664	85	0	757	0	111
Peak Hour Factor	0.93	0.93	0.93	0.93	0.85	0.85
Hourly flow rate (vph)	714	91	0	814	0	131
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type					None	
Median storage veh)						
Upstream signal (ft)	481					
pX, platoon unblocked						
vC, conflicting volume			805		1167	403
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			805		1167	403
tC, single (s)			4.2		6.9	7.0
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			100		100	78
cM capacity (veh/h)			808		185	594

Direction, Lane #	EB 1	EB 2	WB 1	WB 2	NB 1
Volume Total	476	329	407	407	131
Volume Left	0	0	0	0	0
Volume Right	0	91	0	0	131
cSH	1700	1700	1700	1700	594
Volume to Capacity	0.28	0.19	0.24	0.24	0.22
Queue Length 95th (ft)	0	0	0	0	21
Control Delay (s)	0.0	0.0	0.0	0.0	12.8
Lane LOS					B
Approach Delay (s)	0.0		0.0		12.8
Approach LOS					B

Intersection Summary			
Average Delay	1.0		
Intersection Capacity Utilization	34.6%	ICU Level of Service	A
Analysis Period (min)	15		

Analysis of Intersection #10

Driveway 'B' / Market Rd

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Volume (veh/h)	88	3	5	189	48	187
Peak Hour Factor	0.85	0.85	0.85	0.85	0.86	0.86
Hourly flow rate (vph)	104	4	6	222	56	217
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None					
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	399	165	273			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	399	165	273			
tC, single (s)	6.4	6.2	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	83	100	100			
cM capacity (veh/h)	602	877	1284			

Direction, Lane #	EB 1	NB 1	SB 1
Volume Total	107	228	273
Volume Left	104	6	0
Volume Right	4	0	217
cSH	608	1284	1700
Volume to Capacity	0.18	0.00	0.16
Queue Length 95th (ft)	16	0	0
Control Delay (s)	12.2	0.2	0.0
Lane LOS	B	A	
Approach Delay (s)	12.2	0.2	0.0
Approach LOS	B		

Intersection Summary			
Average Delay	2.2		
Intersection Capacity Utilization	25.8%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Volume (veh/h)	150	5	6	126	210	209
Peak Hour Factor	0.85	0.85	0.88	0.88	0.88	0.88
Hourly flow rate (vph)	176	6	7	143	239	238
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None					
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	514	357	476			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	514	357	476			
tC, single (s)	6.4	6.2	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	66	99	99			
cM capacity (veh/h)	515	685	1081			

Direction, Lane #	EB 1	NB 1	SB 1
Volume Total	182	150	476
Volume Left	176	7	0
Volume Right	6	0	238
cSH	519	1081	1700
Volume to Capacity	0.35	0.01	0.28
Queue Length 95th (ft)	39	0	0
Control Delay (s)	15.6	0.4	0.0
Lane LOS	C	A	
Approach Delay (s)	15.6	0.4	0.0
Approach LOS	C		

Intersection Summary			
Average Delay	3.6		
Intersection Capacity Utilization	39.1%	ICU Level of Service	A
Analysis Period (min)	15		

Analysis of Intersection #11

Hanover Rd / Driveway 'C'

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Volume (veh/h)	0	0	0	11	7	0
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85
Hourly flow rate (vph)	0	0	0	13	8	0
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type					None	
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	13				6	6
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	13				6	6
tC, single (s)	4.1				6.4	6.2
tC, 2 stage (s)						
tF (s)	2.2				3.5	3.3
p0 queue free %	100				99	100
cM capacity (veh/h)	1599				1012	1073

Direction, Lane #	EB 1	WB 1	SB 1
Volume Total	0	13	8
Volume Left	0	0	8
Volume Right	0	13	0
cSH	1700	1700	1012
Volume to Capacity	0.00	0.01	0.01
Queue Length 95th (ft)	0	0	1
Control Delay (s)	0.0	0.0	8.6
Lane LOS			A
Approach Delay (s)	0.0	0.0	8.6
Approach LOS			A

Intersection Summary			
Average Delay	3.3		
Intersection Capacity Utilization	13.3%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Volume (veh/h)	0	0	0	11	12	0
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85
Hourly flow rate (vph)	0	0	0	13	14	0
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type					None	
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	13				6	6
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	13				6	6
tC, single (s)	4.1				6.4	6.2
tC, 2 stage (s)						
tF (s)	2.2				3.5	3.3
p0 queue free %	100				99	100
cM capacity (veh/h)	1599				1012	1073

Direction, Lane #	EB 1	WB 1	SB 1
Volume Total	0	13	14
Volume Left	0	0	14
Volume Right	0	13	0
cSH	1700	1700	1012
Volume to Capacity	0.00	0.01	0.01
Queue Length 95th (ft)	0	0	1
Control Delay (s)	0.0	0.0	8.6
Lane LOS			A
Approach Delay (s)	0.0	0.0	8.6
Approach LOS			A

Intersection Summary			
Average Delay	4.5		
Intersection Capacity Utilization	13.3%	ICU Level of Service	A
Analysis Period (min)	15		

Analysis of Intersection #12

Unser Blvd / Driveway 'D'

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Volume (veh/h)	144	80	797	216	116	1806
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85
Hourly flow rate (vph)	169	94	938	254	136	2125
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	Raised					
Median storage veh)	1					
Upstream signal (ft)						649
pX, platoon unblocked	0.62					
vC, conflicting volume	2273	469			1192	
vC1, stage 1 conf vol	938					
vC2, stage 2 conf vol	1335					
vCu, unblocked vol	2440	469			1192	
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 %	0	83			76	
cM capacity (veh/h)	105	538			576	

Direction, Lane #	WB 1	WB 2	NB 1	NB 2	NB 3	SB 1	SB 2	SB 3
Volume Total	169	94	469	469	254	136	1062	1062
Volume Left	169	0	0	0	0	136	0	0
Volume Right	0	94	0	0	254	0	0	0
cSH	105	538	1700	1700	1700	576	1700	1700
Volume to Capacity	1.61	0.17	0.28	0.28	0.15	0.24	0.62	0.62
Queue Length 95th (ft)	324	16	0	0	0	23	0	0
Control Delay (s)	387.2	13.1	0.0	0.0	0.0	13.2	0.0	0.0
Lane LOS	F	B				B		
Approach Delay (s)	253.6		0.0			0.8		
Approach LOS	F							

Intersection Summary			
Average Delay	18.5		
Intersection Capacity Utilization	64.6%	ICU Level of Service	C
Analysis Period (min)	15		

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Volume (veh/h)	340	242	1613	327	204	1011
Peak Hour Factor	0.85	0.85	0.95	0.95	0.95	0.95
Hourly flow rate (vph)	400	285	1698	344	215	1064
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	Raised					
Median storage veh)	1					
Upstream signal (ft)						649
pX, platoon unblocked						
vC, conflicting volume	2659	849			2042	
vC1, stage 1 conf vol	1698					
vC2, stage 2 conf vol	962					
vCu, unblocked vol	2659	849			2042	
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 %	0	6			20	
cM capacity (veh/h)	42	302			269	

Direction, Lane #	WB 1	WB 2	NB 1	NB 2	NB 3	SB 1	SB 2	SB 3
Volume Total	400	285	849	849	344	215	532	532
Volume Left	400	0	0	0	0	215	0	0
Volume Right	0	285	0	0	344	0	0	0
cSH	42	302	1700	1700	1700	269	1700	1700
Volume to Capacity	9.60	0.94	0.50	0.50	0.20	0.80	0.31	0.31
Queue Length 95th (ft)	Err	232	0	0	0	155	0	0
Control Delay (s)	Err	76.0	0.0	0.0	0.0	56.0	0.0	0.0
Lane LOS	F	F				F		
Approach Delay (s)	5873.0		0.0			9.4		
Approach LOS	F							

Intersection Summary			
Average Delay	1006.9		
Intersection Capacity Utilization	84.7%	ICU Level of Service	E
Analysis Period (min)	15		

Timings
12: 'D' & Unser Blvd

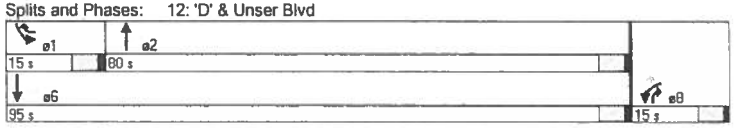
Terry O. Brown, P.E.
10/31/2007

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (vph)	144	80	797	216	116	1806
Turn Type		pm+ov		pm+ov	pm+pt	
Protected Phases	8	1	2	8	1	6
Permitted Phases		8		2	6	
Detector Phases	8	1	2	8	1	6
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	21.0	10.0	21.0	21.0	10.0	21.0
Total Split (s)	15.0	15.0	80.0	15.0	15.0	95.0
Total Split (%)	13.6%	13.6%	72.7%	13.6%	13.6%	86.4%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lead/Lag		Lead	Lag		Lead	
Lead-Lag Optimize?						
Recall Mode	Min	Min	C-Max	Min	Min	C-Max
Act Effct Green (s)	11.4	23.0	81.0	95.4	92.6	92.6
Actuated g/C Ratio	0.10	0.21	0.74	0.87	0.84	0.84
v/c Ratio	0.48	0.23	0.25	0.18	0.27	0.50
Control Delay	51.1	8.8	8.7	0.8	1.8	1.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	51.1	8.8	8.7	0.8	1.8	1.9
LOS	D	A	A	A	A	A
Approach Delay	36.0		7.0			1.9
Approach LOS	D		A			A

Intersection Summary

Cycle Length: 110
Actuated Cycle Length: 110
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBTL, Start of Green
Natural Cycle: 55
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.50
Intersection Signal Delay: 5.9 — Intersection LOS: A
Intersection Capacity Utilization 45.7% — ICU Level of Service A
Analysis Period (min) 15

Splits and Phases: 12: 'D' & Unser Blvd



HCM Signalized Intersection Capacity Analysis
12: 'D' & Unser Blvd

Terry O. Brown, P.E.
10/31/2007

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	3.0	3.0	3.0	3.0	3.0	3.0
Lane Util. Factor	0.97	1.00	0.91	1.00	1.00	0.91
Frt	1.00	0.85	1.00	0.85	1.00	1.00
Flt Protected	0.95	1.00	1.00	1.00	0.95	1.00
Satd. Flow (prot)	3400	1568	5036	1568	1752	5036
Flt Permitted	0.95	1.00	1.00	1.00	0.27	1.00
Satd. Flow (perm)	3400	1568	5036	1568	496	5036
Volume (vph)	144	80	797	216	116	1806
Peak-hour factor, PHF	0.85	0.85	0.85	0.85	0.85	0.85
Adj. Flow (vph)	169	94	938	254	136	2125
RTOR Reduction (vph)	0	77	0	41	0	0
Lane Group Flow (vph)	169	17	938	213	136	2125
Turn Type		pm+ov		pm+ov	pm+pt	
Protected Phases	8	1	2	8	1	6
Permitted Phases		8		2	6	
Actuated Green, G (s)	9.4	16.0	79.0	88.4	90.6	90.6
Effective Green, g (s)	11.4	20.0	81.0	92.4	92.6	92.6
Actuated g/C Ratio	0.10	0.18	0.74	0.84	0.84	0.84
Clearance Time (s)	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
Lane Grp Cap (vph)	352	328	3708	1360	516	4239
v/s Ratio Prot	c0.05	0.00	0.19	0.02	0.02	c0.42
v/s Ratio Perm		0.01		0.12	0.20	
v/c Ratio	0.48	0.05	0.25	0.16	0.26	0.50
Uniform Delay, d1	46.5	37.2	4.7	1.6	1.8	2.4
Progression Factor	1.00	1.00	1.77	3.59	0.87	0.71
Incremental Delay, d2	1.0	0.1	0.2	0.1	0.1	0.1
Delay (s)	47.5	37.2	8.5	5.9	1.6	1.8
Level of Service	D	D	A	A	A	A
Approach Delay (s)	43 9		7.9			1.8
Approach LOS	D		A			A

Intersection Summary

HCM Average Control Delay	6.7	HCM Level of Service	A
HCM Volume to Capacity ratio	0.50		
Actuated Cycle Length (s)	110.0	Sum of lost time (s)	6.0
Intersection Capacity Utilization	45.7%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

4.1298

Determination of Warrants for Auxiliary Lanes

Project Name: **Heritage Neighborhood Center**
Name of Highway: **Unser Blvd**
Name of Cross Street: **Driveway 'D'**

Determination of Warrants for: **Westbound Driveway**

Implementation Year Volumes - **2010** **Posted Speed Limit:** **45**

Right Turn Deceleration Lane - Implementation Year Volumes

Condition	Year	Projected Right Turn Volume	Warrant Volume in thru Lane	Projected Volume in thru Lane	✓ if Met	Lane Length (Deceleration)*	Adjustment Factor for Grade**	Lane Length (Storage)***	Total Lane Length	Taper Ratio
AM Peak Hour NO BUILD	2010	-	-	399		N/A		-	N/A	N/A
AM Peak Hour BUILD	2010	216	1	399	✓	400	1.00	-	400	12.5:1
PM Peak Hour NO BUILD	2010	-	-	855		N/A		-	N/A	N/A
PM Peak Hour BUILD	2010	327	1	807	✓	400	1.00	-	400	12.5:1

Based on Table 17.B-2 (Criteria for Deceleration Lanes on Urban Multi-Lane Highways)

Left Turn Deceleration Lane - Implementation Year Volumes

Condition	Year	Projected Left Turn Volume	Warrant Volume in thru Lane	Projected Volume in thru Lane	✓ if Met	Lane Length (Deceleration)*	Adjustment Factor for Grade**	Lane Length (Storage)***	Total Lane Length	Taper Ratio
AM Peak Hour NO BUILD	2010	-	-	903		N/A		N/A	N/A	N/A
AM Peak Hour BUILD	2010	116	1	903	✓	400	1.00	150	550	12.5:1
PM Peak Hour NO BUILD	2010	-	-	543		N/A		N/A	N/A	N/A
PM Peak Hour BUILD	2010	204	1	506	✓	400	1.00	250	650	12.5:1

Based on Table 17.B-2 (Criteria for Deceleration Lanes on Urban Multi-Lane Highways)

* Lane Length Requirements based on Table 18.K-1 (Deceleration and Acceleraion Lengths)
** Enter Grade Adjustment Factor from Table 18.K-2 or other criteria.
*** Lane Storage Length is Based on a calculated 3-minute queue based on average arrival rate per minute.
= Volume/Hr. divided by 60 times three (rounded) times 25 feet per vehicle.
Lane Storage Length for right turn decel lanes is zero unless there is a stop condition.

Notes and Comments:

1. This warrant sheet is for the westbound Driveway 'D' at 100% Development of the Project

Turning Movement Count Data

Date: 6/13/2007 **Day:** Wednesday

E-W Street: 98th St **N-S Street:** Unser Blvd

AM Period

Time	Eastbound					Westbound					Northbound					Southbound						Hourly
	LT	TH	RT	Truck	Sum	LT	TH	RT	Truck	Sum	LT	TH	RT	Truck	Sum	LT	TH	RT	Truck	Sum	Sum	Total
7:00-7:15	8	2	51	0	61	7	0	2	0	9	9	111	3	4	123	3	169	2	0	174	367	
7:15-7:30	7	0	62	0	69	2	0	0	0	2	7	161	2	1	170	0	215	2	0	217	458	
7:30-7:45	17	0	55	0	72	5	0	1	0	6	6	163	4	3	173	3	209	4	0	216	467	
7:45-8:00	6	0	42	0	48	1	0	1	0	2	5	160	3	5	168	5	191	8	0	204	422	1714
8:00-8:15	4	3	36	0	43	6	0	2	0	8	10	147	6	2	163	2	168	7	0	177	391	1738
8:15-8:30	10	0	35	0	45	6	0	3	0	9	14	121	4	3	139	4	131	2	0	137	330	1610
8:30-8:45	9	1	40	0	50	11	0	4	0	15	8	126	4	8	138	3	161	3	0	167	370	1513
8:45-9:00	2	1	28	1	31	5	1	3	0	9	19	99	3	3	121	3	136	3	0	142	303	1394
9:00-9:15	10	1	23	1	34	4	1	1	0	6	17	71	3	4	91	2	120	2	0	124	255	1258
9:15-9:30	8	1	27	0	36	6	0	1	0	7	12	69	6	1	87	2	118	6	0	126	256	1184
9:30-9:45	7	0	26	0	33	7	2	3	0	12	22	96	7	1	125	3	94	4	0	101	271	1085
9:45-10:00	10	2	24	2	36	4	0	2	0	6	15	93	2	1	110	3	102	8	0	113	265	1047
Peak Hour	34	3	195	0	232	14	0	4	0	18	28	631	15	11	674	10	783	21	0	814	1738	Peak
PHF	0.50	0.25	0.79		0.81	0.58	#####	0.50		0.56	0.70	0.97	0.63		0.97	0.50	0.91	0.66		0.94	0.93	7:15
Truck %				0%					0%					2%					0%		1%	8:15

Mid-Day Period

Time	Eastbound					Westbound					Northbound					Southbound						Hourly
	LT	TH	RT	Truck	Sum	LT	TH	RT	Truck	Sum	LT	TH	RT	Truck	Sum	LT	TH	RT	Truck	Sum	Sum	Total
11:00-11:15	9	0	22	0	31	4	0	4	0	8	16	74	8	3	98	3	99	7	0	109	246	
11:15-11:30	6	0	30	0	36	15	0	2	0	17	20	100	8	2	128	6	84	6	0	96	277	
11:30-11:45	8	1	30	0	39	13	0	3	0	16	12	106	7	3	125	5	105	4	0	114	294	
11:45-12:00	2	0	21	0	23	12	1	3	0	16	14	81	10	2	105	3	78	6	0	87	231	1048
12:00-12:15	4	1	20	1	25	11	0	4	0	15	24	96	13	4	133	5	86	5	0	96	269	1071
12:15-12:30	7	2	22	0	31	16	2	8	0	26	33	116	4	2	153	7	120	8	0	135	345	1139
12:30-12:45	8	1	26	0	35	8	2	4	0	14	24	98	7	1	129	1	78	7	0	86	264	1109
12:45-1:00	10	0	23	1	33	3	0	11	0	14	20	100	11	0	131	5	85	4	0	94	272	1150
1:00-1:15	10	2	28	0	40	12	0	9	0	21	24	77	7	2	108	10	96	9	0	115	284	1165
1:15-1:30	5	1	22	0	28	15	2	6	0	23	23	99	5	1	127	4	85	5	0	94	272	1092
1:30-1:45	8	1	17	0	26	8	1	4	0	13	23	102	4	4	129	4	89	9	0	102	270	1098
1:45-2:00	6	1	11	0	18	7	2	1	0	10	22	100	11	2	133	4	93	3	0	100	261	1087
Peak Hour	35	5	99	1	139	39	4	32	0	75	101	391	29	5	521	23	379	28	0	430	1165	Peak
PHF	0.88	0.63	0.88		0.87	0.61	0.50	0.73		0.72	0.77	0.84	0.66		0.85	0.58	0.79	0.78		0.80	0.84	12:15
Truck %				1%					0%					1%					0%		1%	1:15

PM Period

Time	Eastbound					Westbound					Northbound					Southbound						Hourly
	LT	TH	RT	Truck	Sum	LT	TH	RT	Truck	Sum	LT	TH	RT	Truck	Sum	LT	TH	RT	Truck	Sum	Sum	Total
3:00-3:15	2	1	11	0	14	13	0	5	0	18	27	116	8	6	151	9	122	5	0	136	319	
3:15-3:30	11	1	14	0	26	5	0	8	0	13	30	148	14	3	192	5	129	12	0	146	377	
3:30-3:45	6	1	28	0	35	10	0	5	0	15	23	170	6	1	199	4	154	4	0	162	411	
3:45-4:00	12	2	22	0	36	11	1	7	0	19	42	186	10	0	238	2	147	8	0	157	450	1557
4:00-4:15	8	0	26	0	34	10	2	5	0	17	38	161	7	0	206	5	182	11	0	198	455	1693
4:15-4:30	3	3	13	0	19	18	4	7	0	29	45	203	10	2	258	9	168	11	0	188	494	1810
4:30-4:45	6	0	33	0	39	6	3	8	0	17	40	201	6	0	247	6	158	13	0	177	480	1879
4:45-5:00	4	0	20	0	24	7	1	11	0	19	45	172	17	1	234	3	183	8	0	194	471	1900
5:00-5:15	8	1	17	0	26	22	1	8	0	31	48	216	8	1	272	6	180	13	0	199	528	1973
5:15-5:30	7	0	17	0	24	11	0	0	0	11	45	229	3	0	277	10	179	5	0	194	506	1985
5:30-5:45	8	0	20	0	28	20	0	11	0	31	34	206	6	0	246	6	219	15	0	240	545	2050
5:45-6:00	8	1	14	0	23	12	0	5	0	17	52	189	5	1	246	6	192	14	0	212	498	2077
Peak Hour	31	2	68	0	101	65	1	24	0	90	179	840	22	2	1041	28	770	47	0	845	2077	Peak
PHF	0.97	0.50	0.85		0.90	0.74	0.25	0.55		0.73	0.86	0.92	0.69		0.94	0.70	0.88	0.78		0.88	0.95	5:00
Truck %				0%					0%					0%					0%		0%	6:00

5301 Camino Sandia NE
Albuquerque, NM 87111
(505) 275-5706

Turning Movement Count Data

Date: 6/12/2007 **Day:** Tuesday

E-W Street: Ladera Dr **N-S Street:** Unser Blvd

AM Period

Time	Eastbound					Westbound					Northbound					Southbound						Hourly
	LT	TH	RT	Truck	Sum	LT	TH	RT	Truck	Sum	LT	TH	RT	Truck	Sum	LT	TH	RT	Truck	Sum	Sum	Total
7:00-7:15	46	52	88	3	186	68	16	10	0	94	10	88	42	2	140	9	237	17	1	263	683	
7:15-7:30	44	66	91	1	201	75	15	6	1	96	6	104	49	2	159	10	263	11	2	284	740	
7:30-7:45	44	77	106	0	227	76	43	9	0	128	18	120	69	1	207	17	227	15	0	259	821	
7:45-8:00	41	56	80	2	177	98	31	19	1	148	14	117	64	4	195	9	179	15	0	203	723	2967
8:00-8:15	26	35	80	1	141	61	16	27	1	104	17	109	49	4	175	22	198	10	0	230	650	2934
8:15-8:30	32	49	80	1	161	86	14	8	1	108	17	100	55	3	172	22	179	12	2	213	654	2848
8:30-8:45	33	38	65	2	136	61	19	6	1	86	17	79	46	1	142	11	177	13	5	201	565	2592
8:45-9:00	28	31	63	2	122	45	23	10	1	78	17	76	33	3	126	13	149	14	4	176	502	2371
9:00-9:15	25	24	37	2	88	42	19	7	1	68	14	72	28	1	115	14	128	17	2	159	430	2151
9:15-9:30	21	31	37	0	89	41	15	5	0	61	19	71	36	3	129	8	105	14	2	127	406	1903
9:30-9:45	26	38	31	2	97	40	26	9	3	75	16	88	44	3	151	12	126	17	7	155	478	1816
9:45-10:00	29	62	30	1	122	47	19	9	1	75	18	72	38	1	128	14	100	17	0	131	456	1770
Peak Hour	175	251	365	6	791	317	105	44	2	466	48	429	224	9	701	45	906	58	3	1009	2967	Peak
PHF	0.95	0.81	0.86		0.87	0.81	0.61	0.58		0.79	0.67	0.89	0.81		0.85	0.66	0.86	0.85		0.89	0.90	7:00
Truck %				1%					0%					1%					0%		1%	8:00

Mid-Day Period

Time	Eastbound					Westbound					Northbound					Southbound						Hourly
	LT	TH	RT	Truck	Sum	LT	TH	RT	Truck	Sum	LT	TH	RT	Truck	Sum	LT	TH	RT	Truck	Sum	Sum	Total
11:00-11:15	26	30	32	0	88	43	19	12	0	74	28	80	41	3	149	15	75	16	2	106	417	
11:15-11:30	29	24	29	1	82	41	27	16	3	84	34	73	47	3	154	14	86	14	2	114	434	
11:30-11:45	22	32	29	0	83	38	22	8	1	68	18	74	49	1	141	21	76	18	0	115	407	
11:45-12:00	17	38	24	0	79	46	27	6	2	79	14	71	53	2	138	16	103	19	0	138	434	1692
12:00-12:15	22	26	15	0	63	37	34	8	2	79	53	97	62	2	212	22	98	16	2	136	490	1765
12:15-12:30	17	31	37	0	85	48	43	10	0	101	31	98	58	4	187	13	99	21	1	133	506	1837
12:30-12:45	25	28	31	0	84	39	40	12	0	91	30	81	48	3	159	8	98	18	2	124	458	1888
12:45-1:00	27	29	32	0	88	50	33	7	0	90	31	83	42	2	156	15	98	20	5	133	487	1921
1:00-1:15	26	26	17	1	69	46	26	18	0	90	28	95	46	1	169	16	80	17	2	113	441	1872
1:15-1:30	20	38	24	0	82	53	29	7	1	89	31	92	46	4	169	16	100	15	0	131	471	1837
1:30-1:45	18	39	26	0	83	30	29	5	0	64	27	69	58	0	154	17	91	19	3	127	428	1807
1:45-2:00	15	32	16	1	63	58	25	3	1	86	24	76	71	1	171	16	90	21	0	127	447	1787
Peak Hour	91	114	115	0	320	174	150	37	2	361	145	359	210	11	714	58	393	75	10	526	1921	Peak
PHF	0.84	0.92	0.78		0.91	0.87	0.87	0.77		0.89	0.68	0.92	0.85		0.84	0.66	0.99	0.89		0.97	0.95	12:00
Truck %				0%					1%					2%					2%		1%	1:00

PM Period

Time	Eastbound					Westbound					Northbound					Southbound						Hourly
	LT	TH	RT	Truck	Sum	LT	TH	RT	Truck	Sum	LT	TH	RT	Truck	Sum	LT	TH	RT	Truck	Sum	Sum	Total
3:00-3:15	27	21	32	0	80	49	36	12	1	97	38	116	60	1	214	10	97	30	1	137	528	
3:15-3:30	29	24	28	0	81	43	42	12	3	97	43	123	59	0	225	16	117	32	0	165	568	
3:30-3:45	29	47	33	0	109	57	44	16	1	117	35	174	99	1	308	16	160	22	0	198	732	
3:45-4:00	21	26	17	0	64	50	45	22	0	117	64	154	82	1	300	14	151	35	0	200	681	2509
4:00-4:15	29	38	22	0	89	53	36	21	3	110	56	180	104	2	340	36	145	41	0	222	761	2742
4:15-4:30	20	42	16	0	78	59	62	21	2	142	59	172	67	1	298	20	144	50	0	214	732	2906
4:30-4:45	26	44	32	0	102	61	56	16	1	133	70	209	86	0	365	21	144	36	3	201	801	2975
4:45-5:00	33	45	31	1	109	56	58	16	0	130	65	213	85	4	363	13	128	52	0	193	795	3089
5:00-5:15	32	36	34	0	102	78	58	19	0	155	73	238	89	3	400	33	149	33	0	215	872	3200
5:15-5:30	36	52	33	0	121	83	64	29	1	176	66	215	102	1	383	22	131	54	0	207	887	3355
5:30-5:45	34	50	39	1	123	53	75	27	0	155	68	222	103	3	393	17	124	50	0	191	862	3416
5:45-6:00	38	44	32	0	114	67	67	32	1	166	81	185	78	0	344	22	143	47	0	212	836	3457
Peak Hour	140	182	138	1	460	281	264	107	2	652	288	860	372	7	1520	94	547	184	0	825	3457	Peak
PHF	0.92	0.88	0.88		0.93	0.85	0.88	0.84		0.93	0.89	0.90	0.90		0.95	0.71	0.92	0.85		0.96	0.97	5:00
Truck %				0%					0%					0%					0%		0%	6:00

Traffic Count Data Sheet

Year Counts Taken: **2007**

E-W Street I-40 N. ramp
N-S Street: Unser Blvd

Speed Limit (I-40 N. ramp)= 25 MPH
Speed Limit (Unser Blvd)= 45 MPH
Date of Count: 5/22/07

Begin Time	End Time	Eastbound (I-40 N. ramp)			Westbound (I-40 N. ramp)			Northbound (Unser Blvd)			Southbound (Unser Blvd)		
		L	T	R	L	T	R	L	T	R	L	T	R
7:00 AM	7:15 AM	0	0	0	87	3	38	13	165	0	0	496	19
7:15 AM	7:30 AM	0	0	0	83	0	35	6	175	0	0	498	13
7:30 AM	7:45 AM	0	0	0	93	0	53	3	180	0	0	424	25
7:45 AM	8:00 AM	0	0	0	80	0	62	2	167	0	0	357	11
8:00 AM	8:15 AM	~~0~~	~~0~~	~~0~~	~~58~~	~~0~~	~~51~~	~~2~~	~~134~~	~~0~~	~~0~~	~~356~~	~~13~~
8:15 AM	8:30 AM	~~0~~	~~0~~	~~0~~	~~74~~	~~0~~	~~67~~	~~1~~	~~156~~	~~0~~	~~0~~	~~319~~	~~5~~
8:30 AM	8:45 AM	~~0~~	~~0~~	~~0~~	~~77~~	~~0~~	~~61~~	~~2~~	~~130~~	~~0~~	~~0~~	~~298~~	~~9~~
8:45 AM	9:00 AM	~~0~~	~~0~~	~~0~~	~~78~~	~~0~~	~~47~~	~~8~~	~~92~~	~~0~~	~~0~~	~~261~~	~~6~~
AM Peak Hour Volumes		**0**	**0**	**0**	**343**	**3**	**188**	**24**	**687**	**0**	**0**	**1775**	**68**
% of Total Traffic		0.0%	0.0%	0.0%	11.1%	0.1%	6.1%	0.8%	22.2%	0.0%	0.0%	57.5%	2.2%
% Directional			0.0%			17.3%			23.0%			59.7%	
AM Peak Hour Factor						*0.91*			*0.97*			*0.89*	

Begin Time	End Time	Eastbound (I-40 N. ramp)			Westbound (I-40 N. ramp)			Northbound (Unser Blvd)			Southbound (Unser Blvd)		
		L	T	R	L	T	R	L	T	R	L	T	R
4:00 PM	4:15 PM	~~0~~	~~0~~	~~0~~	~~158~~	~~3~~	~~137~~	~~4~~	~~178~~	~~0~~	~~0~~	~~276~~	~~13~~
4:15 PM	4:30 PM	~~0~~	~~0~~	~~0~~	~~177~~	~~0~~	~~159~~	~~1~~	~~145~~	~~0~~	~~0~~	~~232~~	~~10~~
4:30 PM	4:45 PM	~~0~~	~~0~~	~~0~~	~~184~~	~~1~~	~~143~~	~~6~~	~~146~~	~~0~~	~~0~~	~~207~~	~~16~~
4:45 PM	5:00 PM	~~0~~	~~0~~	~~0~~	~~157~~	~~0~~	~~193~~	~~11~~	~~166~~	~~0~~	~~0~~	~~229~~	~~18~~
5:00 PM	5:15 PM	0	0	0	153	0	217	6	210	0	0	219	20
5:15 PM	5:30 PM	0	0	0	145	0	190	8	193	0	0	208	14
5:30 PM	5:45 PM	0	0	0	168	0	190	3	148	0	0	232	15
5:45 PM	6:00 PM	0	0	0	160	0	174	7	174	0	0	244	21
PM Peak Hour Volumes		**0**	**0**	**0**	**626**	**0**	**771**	**24**	**725**	**0**	**0**	**903**	**70**
% of Total Traffic		0.0%	0.0%	0.0%	20.1%	0.0%	24.7%	0.8%	23.2%	0.0%	0.0%	29.0%	2.2%
% Directional			0.0%			44.8%			24.0%			31.2%	
PM Peak Hour Factor						*0.94*			*0.87*			*0.92*	

Traffic Count Data Sheet

Year Counts Taken: **2007**

E-W Street Los Volcanes
N-S Street: Unser Blvd

Speed Limit (Los Volcanes)= 35 MPH
Speed Limit (Unser Blvd)= 45 MPH
Date of Count: 5/23/07

Begin Time	End Time	Eastbound (Los Volcanes)			Westbound (Los Volcanes)			Northbound (Unser Blvd)			Southbound (Unser Blvd)		
		L	T	R	L	T	R	L	T	R	L	T	R
7:00 AM	7:15 AM	**32**	**26**	**0**	**32**	**11**	**42**	**1**	**293**	**40**	**62**	**208**	**13**
7:15 AM	7:30 AM	**51**	**18**	**4**	**31**	**8**	**42**	**4**	**307**	**17**	**61**	**235**	**17**
7:30 AM	7:45 AM	**28**	**20**	**1**	**8**	**1**	**24**	**3**	**297**	**25**	**97**	**256**	**19**
7:45 AM	8:00 AM	**26**	**5**	**2**	**24**	**7**	**26**	**0**	**204**	**19**	**40**	**198**	**20**
8:00 AM	8:15 AM	~~38~~	~~5~~	~~2~~	~~8~~	~~1~~	~~28~~	~~3~~	~~217~~	~~16~~	~~30~~	~~162~~	~~13~~
8:15 AM	8:30 AM	~~23~~	~~1~~	~~5~~	4	~~3~~	~~28~~	4	~~233~~	~~12~~	~~33~~	~~139~~	~~6~~
8:30 AM	8:45 AM	~~14~~	~~3~~	~~2~~	4	~~6~~	~~16~~	~~1~~	~~170~~	~~9~~	~~31~~	~~136~~	~~17~~
8:45 AM	9:00 AM	~~20~~	4	~~9~~	~~12~~	~~3~~	~~23~~	~~6~~	~~148~~	~~6~~	~~27~~	~~138~~	~~14~~
AM Peak Hour Volumes		**137**	**69**	**7**	**95**	**27**	**134**	**8**	**1101**	**101**	**260**	**897**	**69**
% of Total Traffic		4.7%	2.4%	0.2%	3.3%	0.9%	4.6%	0.3%	37.9%	3.5%	9.0%	30.9%	2.4%
% Directional			7.3%			8.8%			41.7%			42.2%	
AM Peak Hour Factor			*0.73*			*0.75*			*0.91*			*0.82*	

Begin Time	End Time	Eastbound (Los Volcanes)			Westbound (Los Volcanes)			Northbound (Unser Blvd)			Southbound (Unser Blvd)		
		L	T	R	L	T	R	L	T	R	L	T	R
4:00 PM	4:15 PM	~~12~~	~~1~~	~~0~~	~~22~~	~~7~~	~~41~~	~~1~~	~~178~~	~~9~~	~~31~~	~~232~~	~~18~~
4:15 PM	4:30 PM	~~9~~	~~3~~	~~5~~	~~10~~	~~1~~	~~14~~	~~0~~	~~150~~	~~14~~	~~9~~	~~152~~	~~23~~
4:30 PM	4:45 PM	~~13~~	~~0~~	~~1~~	~~12~~	4	~~16~~	~~1~~	~~137~~	~~6~~	~~22~~	~~176~~	~~22~~
4:45 PM	5:00 PM	~~19~~	~~2~~	~~3~~	~~19~~	~~2~~	~~26~~	~~2~~	~~205~~	~~14~~	~~31~~	~~242~~	~~26~~
5:00 PM	5:15 PM	**18**	**3**	**1**	**17**	**7**	**37**	**1**	**186**	**13**	**21**	**255**	**35**
5:15 PM	5:30 PM	**18**	**2**	**2**	**17**	**5**	**40**	**0**	**204**	**23**	**20**	**241**	**21**
5:30 PM	5:45 PM	**9**	**8**	**0**	**19**	**7**	**29**	**5**	**214**	**51**	**24**	**254**	**30**
5:45 PM	6:00 PM	**9**	**2**	**1**	**20**	**4**	**26**	**4**	**189**	**33**	**43**	**272**	**35**
PM Peak Hour Volumes		**54**	**15**	**4**	**73**	**23**	**132**	**10**	**793**	**120**	**108**	**1022**	**121**
% of Total Traffic		2.2%	0.6%	0.2%	2.9%	0.9%	5.3%	0.4%	32.0%	4.8%	4.4%	41.3%	4.9%
% Directional			2.9%			9.2%			37.3%			50.5%	
PM Peak Hour Factor			*0.83*			*0.92*			*0.85*			*0.89*	

Traffic Count Data Sheet

Year Counts Taken: **2007**

E-W Street LADERA
N-S Street: OURAY

UNSIGNALIZED

Speed Limit (LADERA)= 40 MPH
Speed Limit (OURAY)= 30/35 MPH
Date of Count: 9/20/07

Begin Time	End Time	Eastbound (LADERA)			Westbound (LADERA)			Northbound (OURAY)			Southbound (OURAY)		
		L	T	R	L	T	R	L	T	R	L	T	R
7:00 AM	7:15 AM	~~2~~	~~90~~	~~59~~	~~1~~	~~26~~	~~2~~	~~22~~	~~12~~	~~2~~	~~12~~	~~36~~	~~2~~
7:15 AM	7:30 AM	**4**	**84**	**68**	**0**	**30**	**3**	**20**	**16**	**1**	**18**	**42**	**3**
7:30 AM	7:45 AM	**5**	**94**	**73**	**0**	**38**	**6**	**23**	**22**	**1**	**22**	**56**	**4**
7:45 AM	8:00 AM	**6**	**111**	**57**	**1**	**40**	**3**	**38**	**18**	**1**	**32**	**39**	**3**
8:00 AM	8:15 AM	**5**	**76**	**49**	**2**	**37**	**8**	**17**	**21**	**2**	**17**	**54**	**3**
8:15 AM	8:30 AM	~~0~~	~~59~~	~~31~~	~~3~~	~~22~~	~~8~~	~~6~~	~~17~~	~~3~~	~~5~~	~~45~~	~~5~~
8:30 AM	8:45 AM	~~1~~	~~58~~	~~42~~	~~1~~	~~35~~	~~1~~	~~19~~	~~16~~	~~1~~	~~6~~	~~46~~	~~1~~
8:45 AM	9:00 AM	~~0~~	~~60~~	~~46~~	~~2~~	~~31~~	~~0~~	~~18~~	~~15~~	~~2~~	~~8~~	~~49~~	~~2~~
AM Peak Hour Volumes		**20**	**365**	**247**	**3**	**145**	**20**	**98**	**77**	**5**	**89**	**191**	**13**
% of Total Traffic		1.6%	28.7%	19.4%	0.2%	11.4%	1.6%	7.7%	6.0%	0.4%	7.0%	15.0%	1.0%
% Directional			49.6%			13.2%			14.1%			23.0%	
AM Peak Hour Factor			*0.91*			*0.89*			*0.79*			*0.89*	

Begin Time	End Time	Eastbound (LADERA)			Westbound (LADERA)			Northbound (OURAY)			Southbound (OURAY)		
		L	T	R	L	T	R	L	T	R	L	T	R
4:00 PM	4:15 PM	~~4~~	~~61~~	~~37~~	~~3~~	~~80~~	~~23~~	~~69~~	~~75~~	~~3~~	~~10~~	~~30~~	~~2~~
4:15 PM	4:30 PM	~~2~~	~~58~~	~~29~~	~~3~~	~~73~~	~~19~~	~~61~~	~~69~~	~~2~~	~~13~~	~~36~~	~~6~~
4:30 PM	4:45 PM	~~4~~	~~56~~	~~34~~	~~4~~	~~84~~	~~24~~	~~66~~	~~75~~	~~3~~	~~15~~	~~39~~	~~5~~
4:45 PM	5:00 PM	~~3~~	~~52~~	~~37~~	~~2~~	~~80~~	~~22~~	~~70~~	~~71~~	~~2~~	~~13~~	~~35~~	~~6~~
5:00 PM	5:15 PM	**4**	**84**	**48**	**1**	**83**	**18**	**63**	**67**	**4**	**11**	**34**	**3**
5:15 PM	5:30 PM	**4**	**61**	**41**	**4**	**92**	**23**	**78**	**55**	**1**	**12**	**30**	**4**
5:30 PM	5:45 PM	**5**	**61**	**52**	**6**	**105**	**35**	**78**	**60**	**6**	**3**	**31**	**2**
5:45 PM	6:00 PM	**6**	**65**	**59**	**9**	**99**	**31**	**74**	**51**	**5**	**8**	**28**	**4**
PM Peak Hour Volumes		**19**	**271**	**200**	**20**	**379**	**107**	**293**	**233**	**16**	**34**	**123**	**13**
% of Total Traffic		1.1%	15.9%	11.7%	1.2%	22.2%	6.3%	17.2%	13.6%	0.9%	2.0%	7.2%	0.8%
% Directional			28.7%			29.6%			31.7%			10.0%	
PM Peak Hour Factor			*0.90*			*0.87*			*0.94*			*0.89*	

Traffic Count Data Sheet

Year Counts Taken: **2007**

E-W Street I-40 S. ramp
N-S Street: Unser Blvd

Speed Limit (I-40 S. ramp)= 25 MPH
Speed Limit (Unser Blvd)= 45 MPH
Date of Count: 5/21/07

Begin Time	End Time	Eastbound (I-40 S. ramp)			Westbound (I-40 S. ramp)			Northbound (Unser Blvd)			Southbound (Unser Blvd)		
		L	T	R	L	T	R	L	T	R	L	T	R
7:00 AM	7:15 AM	~~0~~	~~0~~	~~0~~	~~0~~	~~0~~	~~0~~	~~0~~	~~0~~	~~0~~	~~0~~	~~0~~	~~0~~
7:15 AM	7:30 AM	~~0~~	~~0~~	~~0~~	~~0~~	~~0~~	~~0~~	~~0~~	~~0~~	~~0~~	~~0~~	~~0~~	~~0~~
7:30 AM	7:45 AM	~~0~~	~~0~~	~~0~~	~~0~~	~~0~~	~~0~~	~~0~~	~~0~~	~~0~~	~~0~~	~~0~~	~~0~~
7:45 AM	8:00 AM	**9**	**0**	**6**	**0**	**0**	**0**	**3**	**173**	**172**	**3**	**296**	**145**
8:00 AM	8:15 AM	**10**	**0**	**1**	**0**	**0**	**0**	**0**	**126**	**141**	**1**	**206**	**206**
8:15 AM	8:30 AM	**9**	**0**	**0**	**0**	**0**	**0**	**0**	**128**	**138**	**0**	**165**	**209**
8:30 AM	8:45 AM	**3**	**0**	**2**	**0**	**0**	**0**	**0**	**108**	**129**	**0**	**154**	**180**
8:45 AM	9:00 AM	~~6~~	~~0~~	~~1~~	~~0~~	~~0~~	~~0~~	~~10~~	~~96~~	~~113~~	~~5~~	~~188~~	~~139~~
AM Peak Hour Volumes		**31**	**0**	**9**	**0**	**0**	**0**	**3**	**535**	**580**	**4**	**821**	**740**
% of Total Traffic		1.1%	0.0%	0.3%	0.0%	0.0%	0.0%	0.1%	19.6%	21.3%	0.1%	30.2%	27.2%
% Directional			1.5%			0.0%			41.1%			57.5%	
AM Peak Hour Factor			*0.67*			*#DIV/0!*			*0.80*			*0.88*	

Begin Time	End Time	Eastbound (I-40 S. ramp)			Westbound (I-40 S. ramp)			Northbound (Unser Blvd)			Southbound (Unser Blvd)		
		L	T	R	L	T	R	L	T	R	L	T	R
4:00 PM	4:15 PM	~~10~~	~~0~~	~~5~~	~~0~~	~~0~~	~~0~~	~~0~~	~~144~~	~~82~~	~~0~~	~~297~~	~~91~~
4:15 PM	4:30 PM	**19**	**0**	**6**	**0**	**0**	**0**	**0**	**168**	**106**	**0**	**285**	**91**
4:30 PM	4:45 PM	**17**	**0**	**5**	**0**	**0**	**0**	**0**	**135**	**77**	**0**	**294**	**80**
4:45 PM	5:00 PM	**18**	**0**	**2**	**0**	**0**	**0**	**0**	**162**	**92**	**0**	**272**	**71**
5:00 PM	5:15 PM	**15**	**0**	**8**	**0**	**0**	**0**	**0**	**176**	**89**	**0**	**311**	**66**
5:15 PM	5:30 PM	~~18~~	~~0~~	~~5~~	~~0~~	~~0~~	~~0~~	~~0~~	~~158~~	~~95~~	~~0~~	~~297~~	~~55~~
5:30 PM	5:45 PM	~~18~~	~~0~~	~~6~~	~~0~~	~~0~~	~~0~~	~~0~~	~~138~~	~~75~~	~~0~~	~~321~~	~~78~~
5:45 PM	6:00 PM	~~12~~	~~0~~	~~2~~	~~0~~	~~0~~	~~0~~	~~0~~	~~156~~	~~87~~	~~0~~	~~276~~	~~60~~
PM Peak Hour Volumes		**69**	**0**	**21**	**0**	**0**	**0**	**0**	**641**	**364**	**0**	**1162**	**308**
% of Total Traffic		2.7%	0.0%	0.8%	0.0%	0.0%	0.0%	0.0%	25.0%	14.2%	0.0%	45.3%	12.0%
% Directional			3.5%			0.0%			39.2%			57.3%	
PM Peak Hour Factor			*0.90*			*#DIV/0!*			*0.92*			*0.97*	

Traffic Count Data Sheet

Year Counts Taken: **2007**

E-W Street LADERA
N-S Street: MARKET

UNSIGNALIZED

Speed Limit (LADERA)= 40 MPH
Speed Limit (MARKET)= 30 MPH
Date of Count: 9/21/07

Begin Time	End Time	Eastbound (LADERA)			Westbound (LADERA)			Northbound (MARKET)			Southbound (MARKET)		
		L	T	R	L	T	R	L	T	R	L	T	R
7:00 AM	7:15 AM	0	109	5	1	69	0	24	0	20	0	0	0
7:15 AM	7:30 AM	0	112	4	2	75	0	25	0	23	0	0	0
7:30 AM	7:45 AM	0	121	7	3	83	0	27	0	16	0	0	0
7:45 AM	8:00 AM	0	95	8	4	116	0	35	0	19	0	0	0
8:00 AM	8:15 AM	0	97	9	5	91	0	26	0	14	0	0	0
8:15 AM	8:30 AM	0	89	13	5	77	0	25	0	8	0	0	0
8:30 AM	8:45 AM	0	94	9	4	79	0	21	0	4	0	0	0
8:45 AM	9:00 AM	0	99	12	7	85	0	24	0	6	0	0	0
AM Peak Hour Volumes		**0**	**425**	**28**	**14**	**365**	**0**	**113**	**0**	**72**	**0**	**0**	**0**
% of Total Traffic		0.0%	41.8%	2.8%	1.4%	35.9%	0.0%	11.1%	0.0%	7.1%	0.0%	0.0%	0.0%
% Directional			44.5%			37.3%			18.2%			0.0%	
AM Peak Hour Factor			*0.88*			*0.79*			*0.86*			*#DIV/0!*	

Begin Time	End Time	Eastbound (LADERA)			Westbound (LADERA)			Northbound (MARKET)			Southbound (MARKET)		
		L	T	R	L	T	R	L	T	R	L	T	R
4:00 PM	4:15 PM	0	121	20	7	93	0	11	0	5	0	0	0
4:15 PM	4:30 PM	0	129	24	10	96	0	9	0	4	0	0	0
4:30 PM	4:45 PM	0	116	32	5	109	0	15	0	4	0	0	0
4:45 PM	5:00 PM	0	124	45	14	104	0	12	0	7	0	0	0
5:00 PM	5:15 PM	0	153	27	14	115	0	19	0	8	0	0	0
5:15 PM	5:30 PM	0	121	42	16	143	0	22	0	3	0	0	0
5:30 PM	5:45 PM	0	115	41	10	100	0	22	0	12	0	0	0
5:45 PM	6:00 PM	0	124	46	8	105	0	20	0	13	0	0	0
PM Peak Hour Volumes		**0**	**513**	**156**	**48**	**463**	**0**	**83**	**0**	**36**	**0**	**0**	**0**
% of Total Traffic		0.0%	39.5%	12.0%	3.7%	35.6%	0.0%	6.4%	0.0%	2.8%	0.0%	0.0%	0.0%
% Directional			51.5%			39.3%			9.2%			0.0%	
PM Peak Hour Factor			*0.93*			*0.80*			*0.88*			*#DIV/0!*	

Traffic Count Data Sheet

Year Counts Taken: **2007**

E-W Street LADERA
N-S Street: LAURELWOOD PKWY
UNSIGNALIZED

Speed Limit (LADERA)= 40 MPH
Speed Limit (LAURELWOOD PKWY 25 MPH
Date of Count: 9/19/07

Begin Time	End Time	Eastbound (LADERA)			Westbound (LADERA)			Northbound (LAURELWOOD PKW			Southbound (LAURELWOOD PKW		
		L	T	R	L	T	R	L	T	R	L	T	R
7:00 AM	7:15 AM	0	126	7	1	47	0	21	0	19	1	0	2
7:15 AM	7:30 AM	0	128	6	2	52	0	19	0	17	2	0	3
7:30 AM	7:45 AM	1	135	8	1	65	0	16	0	19	2	0	2
7:45 AM	8:00 AM	0	101	7	1	91	0	22	0	10	0	0	1
8:00 AM	8:15 AM	1	94	10	2	67	0	20	0	6	2	0	0
8:15 AM	8:30 AM	0	87	8	3	54	0	23	0	9	0	0	2
8:30 AM	8:45 AM	1	91	6	4	57	0	19	0	8	2	0	0
8:45 AM	9:00 AM	0	99	8	5	61	0	22	0	10	0	0	1
AM Peak Hour Volumes		**1**	**490**	**28**	**5**	**255**	**0**	**78**	**0**	**65**	**5**	**0**	**8**
% of Total Traffic		0.1%	52.4%	3.0%	0.5%	27.3%	0.0%	8.3%	0.0%	7.0%	0.5%	0.0%	0.9%
% Directional			55.5%			27.8%			15.3%			1.4%	
AM Peak Hour Factor			*0.90*			*0.71*			*0.89*			*0.65*	

Begin Time	End Time	Eastbound (LADERA)			Westbound (LADERA)			Northbound (LAURELWOOD PKW			Southbound (LAURELWOOD PKW		
		L	T	R	L	T	R	L	T	R	L	T	R
4:00 PM	4:15 PM	2	102	19	12	95	0	7	0	10	0	0	1
4:15 PM	4:30 PM	4	100	24	14	91	1	9	1	12	0	0	1
4:30 PM	4:45 PM	1	91	16	13	93	0	12	0	20	0	0	3
4:45 PM	5:00 PM	1	108	7	13	108	0	5	0	12	0	0	1
5:00 PM	5:15 PM	2	118	26	10	117	0	9	0	8	0	0	0
5:15 PM	5:30 PM	2	96	18	21	150	2	6	0	9	1	0	0
5:30 PM	5:45 PM	3	107	22	24	136	4	12	0	9	0	0	2
5:45 PM	6:00 PM	2	101	20	21	143	3	10	0	8	0	0	1
PM Peak Hour Volumes		**9**	**422**	**86**	**76**	**546**	**9**	**37**	**0**	**34**	**1**	**0**	**3**
% of Total Traffic		0.7%	34.5%	7.0%	6.2%	44.6%	0.7%	3.0%	0.0%	2.8%	0.1%	0.0%	0.2%
% Directional			42.3%			51.6%			5.8%			0.3%	
PM Peak Hour Factor			*0.89*			*0.91*			*0.85*			*0.50*	

Intersection Data Sheet

Intersection: **Los Volcanes Rd / Unser Blvd.**

Posted Speed Limit (E-W Street): 35

Eastbound Approach: Los Volcanes Rd Date: 8/8/2005

Left Turn Lanes	Thru/Left Lanes	Thru Lanes	Thru/Right Lanes	Right Turn Lanes
2	0	0	1	0

Length: 95 feet

Left Turn Arrow?	Thru Green?	Right Turn Arrow?
Y	Y	Y

Is there a right turn slip lane that by-passes the traffic signal? **No**

Westbound Approach: **Los Volcanes Rd**

Left Turn Lanes	Thru/Left Lanes	Thru Lanes	Thru/Right Lanes	Right Turn Lanes
1	0	1	0	1

Length: 140 feet

Left Turn Arrow?	Thru Green?	Right Turn Arrow?
Y	Y	Y

Is there a right turn slip lane that by-passes the traffic signal? **No**

Posted Speed Limit (N-S Street): 45

Northbound Approach: Unser Blvd.

Left Turn Lanes	Thru/Left Lanes	Thru Lanes	Thru/Right Lanes	Right Turn Lanes
1	stripes	2	0	1

Length: 600 feet

Left Turn Arrow?	Thru Green?	Right Turn Arrow?
Y	Y	Y

Is there a right turn slip lane that by-passes the traffic signal? **Yes**

Southbound Approach: **Unser Blvd.**

Left Turn Lanes	Thru/Left Lanes	Thru Lanes	Thru/Right Lanes	Right Turn Lanes
1	stripes	2	0	1

Length: 170 feet

Left Turn Arrow?	Thru Green?	Right Turn Arrow?
Y	Y	Y

Is there a right turn slip lane that by-passes the traffic signal? **No**

Signalized Intersection Information Sheet

Intersection: **LADERA & OURAY**

Speed Limit - E-W Street: 40 M.P.H.
Speed Limit - N-S Street: 30 M.P.H.

Date: **9/20/2007**

East Bound Approach: LADERA

	Left Turn Lanes	Thru / Lefts	Thru Lanes	Thru / Rights	Right Turn Lanes
	1	-	1	1	-
Length	7				0

Left Turn Arrow?	Thru Green	Right Turn Arrow?
YES	YES	NO

Is there a right turn slip laned that by-passes the traffic signal? NO

West Bound Approach: LADERA

	Left Turn Lanes	Thru / Lefts	Thru Lanes	Thru / Rights	Right Turn Lanes
	1	-	2	-	1
Length	5				5

Left Turn Arrow?	Thru Green	Right Turn Arrow?
YES	YES	NO

Is there a right turn slip laned that by-passes the traffic signal? NO

North Bound Approach: OURAY

	Left Turn Lanes	Thru / Lefts	Thru Lanes	Thru / Rights	Right Turn Lanes
	1	-	-	1	-
Length	6				0

Left Turn Arrow?	Thru Green	Right Turn Arrow?
NO	YES	NO

Is there a right turn slip laned that by-passes the traffic signal? NO

South Bound Approach: OURAY

	Left Turn Lanes	Thru / Lefts	Thru Lanes	Thru / Rights	Right Turn Lanes
	1	-	1	-	1
Length	5				4

Left Turn Arrow?	Thru Green	Right Turn Arrow?
NO	NO	NO

Is there a right turn slip laned that by-passes the traffic signal? NO

NOTE: Existing Geometry

Signalized Intersection Information Sheet

Intersection: **LADERA & MARKET**

Speed Limit - E-W Street: 40 M.P.H.
Speed Limit - N-S Street: 30 M.P.H.

Date: **9/21/2007**

East Bound Approach: LADERA

	Left Turn Lanes	Thru / Lefts	Thru Lanes	Thru / Rights	Right Turn Lanes
	1	-	1	1	-
Length	12				0

Left Turn Arrow?	Thru Green	Right Turn Arrow?
NO	NO	NO

Is there a right turn slip laned that by-passes the traffic signal? NO

West Bound Approach: LADERA

	Left Turn Lanes	Thru / Lefts	Thru Lanes	Thru / Rights	Right Turn Lanes
	1	-	1	1	-
Length	4				0

Left Turn Arrow?	Thru Green	Right Turn Arrow?
NO	NO	NO

Is there a right turn slip laned that by-passes the traffic signal? NO

North Bound Approach: MARKET

	Left Turn Lanes	Thru / Lefts	Thru Lanes	Thru / Rights	Right Turn Lanes
	1	-	-	-	1
Length	0				0

Left Turn Arrow?	Thru Green	Right Turn Arrow?
NO	NO	NO

Is there a right turn slip laned that by-passes the traffic signal? NO

South Bound Approach: MARKET

	Left Turn Lanes	Thru / Lefts	Thru Lanes	Thru / Rights	Right Turn Lanes
	-	-	-	-	-
Length	0				0

Left Turn Arrow?	Thru Green	Right Turn Arrow?
NO	NO	NO

Is there a right turn slip laned that by-passes the traffic signal? NO

NOTE: Existing Geometry

Signalized Intersection Information Sheet

Intersection: **LADERA & LAURELWOOD PKWY**

Speed Limit - E-W Street: 40 M.P.H.
Speed Limit - N-S Street: 25 M.P.H.

Date: **9/19/2007**

East Bound Approach: LADERA

	Left Turn Lanes	Thru / Lefts	Thru Lanes	Thru / Rights	Right Turn Lanes
	1	-	1	1	-
Length	7				0

Left Turn Arrow?	Thru Green	Right Turn Arrow?
NO	NO	NO

Is there a right turn slip laned that by-passes the traffic signal? NO

West Bound Approach: LADERA

	Left Turn Lanes	Thru / Lefts	Thru Lanes	Thru / Rights	Right Turn Lanes
	1	-	1	1	-
Length	4				0

Left Turn Arrow?	Thru Green	Right Turn Arrow?
NO	NO	NO

Is there a right turn slip laned that by-passes the traffic signal? NO

North Bound Approach: LAURELWOOD PKWY

	Left Turn Lanes	Thru / Lefts	Thru Lanes	Thru / Rights	Right Turn Lanes
	1	-	1	-	1
Length	12				10

Left Turn Arrow?	Thru Green	Right Turn Arrow?
NO	NO	NO

Is there a right turn slip laned that by-passes the traffic signal? NO

South Bound Approach: LAURELWOOD PKWY

	Left Turn Lanes	Thru / Lefts	Thru Lanes	Thru / Rights	Right Turn Lanes
	-	-	1	-	-
Length	0				0

Left Turn Arrow?	Thru Green	Right Turn Arrow?
NO	NO	NO

Is there a right turn slip laned that by-passes the traffic signal? NO

NOTE: Existing Geometry

Storm Cloud
Turning Movement Tabulation

INTERSECTION: Ladera and Unser
(existing traffic signal)

AM Peak Hour

	Southbound Unser			Westbound Ladera			Northbound Unser			Eastbound Ladera		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing* (2002)	75	2,262	14	668	88	36	87	310	262	36	104	486
Background Growth** (2002-2003)	9	278	2	76	10	4	10	34	29	4	12	60
2005 Volumes	84	2,540	16	744	98	40	97	344	291	40	116	556
Background Growth** (2003-2005)	7	208	1	57	7	3	7	25	22	3	9	44
Approved Future Developments:												
Westridge		110						37				
Painted Sky							30					68
Parkway							7					22
Tierra Oeste							3					9
Cielo Oeste							14	7				42
Crossings		21					10					30
2005 Existing	91	2,880	17	881	185	43	168	414	313	44	126	791
Background Growth to 2007	7	236	1	81	8	3	12	31	23	3	10	63
New Network: Ladera extended to 98th												
Enter			10		12		7					
Exit										29	37	20
Diversions							-37					-110
Unit I Build	98	3,116	28	882	128	46	150	445	336	76	173	785
Additional From Unit II												
Enter			8		11		6					
Exit										24	31	17
2007 no Build	98	3,116	36	882	137	46	156	445	336	100	204	782
Storm Cloud												
Enter			10		13		7					
Exit										34	44	24
2007 Build	98	3,116	47	882	150	46	163	445	336	134	248	806
PHF	0.860	131	28	0.840	36		0.810	44		0.810	112	142
							41			87		

PM Peak Hour

	Southbound Unser			Westbound Ladera			Northbound Unser			Eastbound Ladera		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing* (2002)	67	549	20	257	97	65	229	1,029	550	34	102	139
Background Growth** (2002-2003)	3	23	1	10	4	2	8	38	20	1	4	6
2005 Volumes	70	572	30	267	101	67	237	1,067	570	35	106	145
Background Growth** (2003-2005)	6	47	2	20	8	5	18	79	42	3	8	12
Approved Future Developments:												
Westridge		70						125				
Painted Sky							102					67
Parkway							25					14
Tierra Oeste							10					8
Cielo Oeste							49					27
Crossings		13					35	24				19
2005 Existing	75	701	33	287	109	73	476	1,295	613	38	115	279
Background Growth to 2007												
New Network: Ladera extended to 98th												
Enter			33		43		24					
Exit										18	24	13
Diversions							-127					-71
Unit I Build	75	701	66	287	191	73	373	1,295	613	57	138	221
Additional From Unit II												
Enter			28		36		20					
Exit										16	21	17
2007 no Build	75	701	93	287	187	73	392	1,295	613	73	159	233
Storm Cloud												
Enter			30		39		21					
Exit										29	28	16
2007 Build	75	701	123	287	225	73	414	1,295	613	92	184	247
PHF	0.810	83	91	0.950	118		0.930	159		0.74	71	92
										54		

*: 2002 Volumes from Middle Rio Grande COG 11/2002
**: Growth rates 7% on the WB approach, and 4% on all the other approaches

growth rates	4.1%	4.1%	4.1%	3.8%	3.8%	3.8%	3.7%	3.7%	3.7%	4.0%	4.0%	4.0%
Residential Trip Distribution % Enter			10.19%		13.12%		7.25%					
Residential Trip Distribution % Exit										10.19%	13.12%	7.25%

M:\Projects\Storm Cloud\tmc SC.xls

Watershed & Inspiration
Existing & Forecast Turning Movement Tabulation

INTERSECTION: Tierra Pintada and Unser
(exisiting traffic signal)

AM Peak Hour

	Southbound Unser			Westbound Tierra Pintada			Northbound Unser			Eastbound Tierra Pintada		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing (2007)	10	783	21	14	0	4	15	93	2	34	3	195
Background Growth* (2007-2012)	2	161	4	3	0	1	3	17	0	7	1	39
Approved Future Developments**:												
Storm Cloud	0	0	10	0	0	0	0	0	0	34	0	0
2012 No Build Volumes	**12**	**944**	**35**	**17**	**0**	**5**	**18**	**110**	**2**	**75**	**4**	**234**
Proposed Developments:												
Watershed Residential												
Enter	0	0	24	0	0	0	5	0	0	0	0	0
Exit	0	0	0	0	0	0	0	0	0	78	0	17
Retail												
Enter	0	0	0	0	0	0	1	0	0	0	0	0
Exit	0	0	0	0	0	0	0	0	0	0	0	0
2012 Build	**12**	**944**	**59**	**17**	**0**	**5**	**24**	**110**	**2**	**153**	**4**	**252**
PHF	*0.940*			*0.560*			*0.970*			*0.810*		

PM Peak Hour

	Southbound Unser			Westbound Tierra Pintada			Northbound Unser			Eastbound Tierra Pintada		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing (2007)	28	770	47	65	1	24	179	840	22	31	2	68
Background Growth* (2007-2012)	6	158	10	12	0	5	33	155	4	6	0	14
Approved Future Developments**:												
Storm Cloud	0	0	30	0	0	0	0	0	0	20	0	0
2012 No Build Volumes	**34**	**928**	**87**	**77**	**1**	**29**	**212**	**995**	**26**	**57**	**2**	**82**
Proposed Developments:												
Watershed												
Enter	0	0	78	0	0	0	17	0	0	0	0	0
Exit	0	0	0	0	0	0	0	0	0	44	0	10
Retail												
Enter	0	0	0	0	0	0	2	0	0	0	0	0
Exit	0	0	0	0	0	0	0	0	0	0	0	2
2012 Build	**34**	**928**	**165**	**77**	**1**	**29**	**231**	**995**	**26**	**102**	**2**	**93**
PHF	*0.880*			*0.730*			*0.940*			*0.900*		

growth rates	4.1%	4.1%	4.1%	3.8%	3.8%	3.8%	3.7%	3.7%	3.7%	4.0%	4.0%	4.0%
Residential Trip Distribution % Enter			11.45%				2.51%					
Residential Trip Distribution % Exit										11.45%		2.51%
Retail Trip Distribution % Enter							3.00%					
Retail Trip Distribution % Exit												3.00%

* - Background traffic growth estimates

** - Proposed development include Storm Cloud, Target, Ladera Business Park, Vista Oriente, and subdivisions from the southwest valley from appropriate TIA's

Watershed & Inspiration
Existing & Forecast Turning Movement Tabulation

INTERSECTION: Ladera and Unser
(exisiting traffic signal)

AM Peak Hour

	Southbound Unser			Westbound Ladera			Northbound Unser			Eastbound Ladera		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing (2007)	45	906	58	317	105	44	48	429	224	175	251	365
Background Growth* (2007-2012)	9	186	12	60	20	8	9	79	41	35	50	73
Approved Future Developments**:												
Storm Cloud	0	0	0	0	13	0	0	0	0	0	44	24
Vista Oriente Development	21	11	7	0	0	25	0	13	0	9	0	0
Ladera Business Park	5	47	0	0	0	3	0	28	0	0	0	0
Target	0	42	0	161	0	0	32	32	121	0	0	43
2012 No Build Volumes	**80**	**1,192**	**77**	**538**	**138**	**80**	**89**	**581**	**386**	**219**	**345**	**505**
Proposed Developments:												
Watershed Residential												
Enter	0	0	0	0	24	0	0	5	0	0	0	0
Exit	0	17	0	0	0	0	0	0	0	0	78	0
Retail												
Enter	0	0	0	0	0	0	0	1	0	0	0	0
Exit	0	0	0	0	0	0	0	0	0	0	0	0
2012 Build	**80**	**1,209**	**77**	**538**	**162**	**80**	**89**	**587**	**386**	**219**	**424**	**505**
PHF	*0.890*			*0.790*			*0.850*			*0.870*		

PM Peak Hour

	Southbound Unser			Westbound Ladera			Northbound Unser			Eastbound Ladera		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing (2007)	94	547	184	281	264	107	288	860	372	140	182	138
Background Growth* (2007-2012)	19	112	38	53	50	20	53	159	69	28	36	28
Approved Future Developments**:												
Storm Cloud	0	0	0	0	39	0	21	0	0	0	26	14
Vista Oriente Debelopment	41	0	0	113	10	39	0	49	68	3	7	0
Ladera Business Park	23	204	0	0	0	14	0	123	0	0	0	0
Target	0	77	0	292	0	0	77	77	290	0	77	0
2012 No Build Volumes	**177**	**940**	**222**	**739**	**363**	**180**	**439**	**1,268**	**799**	**171**	**328**	**180**
Proposed Developments:												
Watershed Residential												
Enter	0	0	0	0	78	0	0	17	0	0	0	0
Exit	0	10	0	0	0	0	0	0	0	0	44	0
Retail												
Enter	0	0	0	0	0	0	0	2	0	0	0	0
Exit	0	2	0	0	0	0	0	0	0	0	0	0
2012 Build	**177**	**952**	**222**	**739**	**441**	**180**	**439**	**1,287**	**799**	**171**	**373**	**180**
PHF	*0.960*			*0.930*			*0.950*			*0.930*		

growth rates	4.1%	4.1%	4.1%	3.8%	3.8%	3.8%	3.7%	3.7%	3.7%	4.0%	4.0%	4.0%
Residential Trip Distribution % Enter					11.45%			2.51%				
Residential Trip Distribution % Exit		2.51%									11.45%	
Retail Trip Distribution % Enter								3.00%				
Retail Trip Distribution % Exit		3.00%										

* - Background traffic growth estimates

** - Proposed development include Storm Cloud, Target, Ladera Business Park, Vista Oriente, and subdivisions from the southwest valley from appropriate TIA's

Watershed & Inspiration
Existing & Forecast Turning Movement Tabulation

INTERSECTION:Unser and I-40 WB Ramp
(existing un-signalized intersection)

AM Peak Hour

	Southbound Unser			Westbound I-40			Northbound Unser			Eastbound I-40		
					Off-Ramp		On-Ramp					
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing (2007)	0	1,491	54	265	5	215	13	535	0	0	0	0
Background Growth* (2007-2012)	0	224	8	50	1	41	2	66	0	0	0	0
Approved Future Developments**:												
Storm Cloud	0	0	0	0	0	0	0	24	0	0	0	0
Southwest Mesa Subdivisions	0	10	0	37	0	0	0	26	0	0	0	0
Target	0	246	0	28	0	0	20	186	0	0	0	0
2012 No Build Volumes	**0**	**1,971**	**62**	**380**	**6**	**256**	**35**	**837**	**0**	**0**	**0**	**0**
Proposed Developments:												
Watershed Residential												
Enter	0	0	0	0	0	5	0	0	0	0	0	0
Exit	0	17	0	0	0	0	0	0	0	0	0	0
2012 Build	**0**	**1,988**	**62**	**380**	**6**	**261**	**35**	**837**	**0**	**0**	**0**	**0**
PHF	*0.950*			*0.940*			*0.890*					

PM Peak Hour

	Southbound Unser			Westbound I-40			Northbound Unser			Eastbound I-40		
					Off-Ramp		On-Ramp		On-Ramp			
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing (2007)	0	981	86	586	2	754	22	729	0	0	0	0
Background Growth* (2007-2012)	0	147	13	111	0	143	3	90	0	0	0	0
Approved Future Developments**:												
Storm Cloud	0	0	0	0	0	0	0	14	0	0	0	0
Southwest Mesa Subdivisions	0	6	31	93	0	0	0	38	0	0	0	0
Target	0	447	0	51	0	0	49	445	0	0	0	0
2012 No Build Volumes	**0**	**1,581**	**130**	**841**	**2**	**897**	**74**	**1,316**	**0**	**0**	**0**	**0**
Proposed Developments:												
Watershed Residential												
Enter	0	0	0	0	0	17	0	0	0	0	0	0
Exit	0	10	0	0	0	0	0	0	0	0	0	0
2012 Build	**0**	**1,591**	**130**	**841**	**2**	**914**	**74**	**1,316**	**0**	**0**	**0**	**0**
PHF	0.99			0.97			0.96					

	3.0%	3.0%	3.0%	3.8%	3.8%	3.8%	2.5%	2.5%	2.5%	4.0%	4.0%	4.0%
Residential Trip Distribution % Enter						2.51%						
Residential Trip Distribution % Exit		2.51%										

* - Background traffic growth estimates

** - Proposed development include Storm Cloud, Target, Ladera Business Park, Vista Oriente, and subdivisions from the southwest valley from appropriate TIA's

Watershed & Inspiration
Existing & Forecast Turning Movement Tabulation

INTERSECTION: Unser and I-40 EB Ramp
(existing un-signalized intersection)

AM Peak Hour

	Southbound Unser			Westbound I-40			Northbound Unser			Eastbound I-40		
									On-Ramp			Off-Ramp
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing (2007)	0	788	917	0	0	0	0	486	874	53	1	23
Background Growth* (2007-2012)	0	118	138	0	0	0	0	60	108	11	0	5
Approved Future Developments**:												
Storm Cloud	0	0	0	0	0	0	0	24	0	0	0	0
Southwest Mesa Subdivisions	0	77	0	0	0	0	0	26	49	0	0	0
Target	0	274	0	0	0	0	0	207	21	0	0	27
2012 No Build Volumes	**0**	**1,257**	**1,055**	**0**	**0**	**0**	**0**	**803**	**1,052**	**64**	**1**	**55**
Proposed Developments:												
Watershed Residential												
Enter	0	0	0	0	0	0	0	0	0	0	0	0
Exit	0	0	17	0	0	0	0	0	0	0	0	0
2012 Build	**0**	**1,257**	**1,072**	**0**	**0**	**0**	**0**	**803**	**1,052**	**64**	**1**	**55**
PHF	*0.970*						*0.890*			*0.690*		

PM Peak Hour

	Southbound Unser			Westbound I-40			Northbound Unser			Eastbound I-40		
									On-Ramp			Off Ramp
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing (2007)	0	1,238	259	0	0	0	0	663	395	56	0	31
Background Growth* (2007-2012)	0	186	39	0	0	0	0	82	49	11	0	6
Approved Future Developments**:												
Storm Cloud	0	0	0	0	0	0	0	14	0	0	0	0
Southwest Mesa Subdivisions	0	98	0	0	0	0	0	38	96	0	0	0
Target	0	498	0	0	0	0	0	496	51	0	0	49
2012 No Build Volumes	**0**	**2,020**	**298**	**0**	**0**	**0**	**0**	**1,293**	**591**	**67**	**0**	**86**
Proposed Developments:												
Watershed Residential												
Enter	0	0	0	0	0	0	0	0	0	0	0	0
Exit	0	0	10	0	0	0	0	0	0	0	0	0
2012 Build	**0**	**2,020**	**308**	**0**	**0**	**0**	**0**	**1,293**	**591**	**67**	**0**	**86**
PHF	0.93						0.92			0.62		

	3.0%	3.0%	3.0%	3.8%	3.8%	3.8%	2.5%	2.5%	2.5%	4.0%	4.0%	4.0%
Residential Trip Distribution % Enter												
Residential Trip Distribution % Exit			2.51%									

* - Background traffic growth estimates

** - Proposed development include Storm Cloud, Target, Ladera Business Park, Vista Oriente, and subdivisions from the southwest valley from appropriate TIA's

Terry O. Brown P.E.
Civil / Transportation Engineering

Monday, January 14, 2008

Richard H. Dourte, City Engineer
City of Albuquerque
P. O. Box 1293
Albuquerque, NM 87103

Re: Ladera Dr. / Unser Blvd.

Dear Richard:

As you and Tony Loyd have requested, I have prepared additional analysis of the intersection of Ladera Dr. / Unser Blvd. for the following conditions:

Case "F" – Assuming a full access signalized Driveway "D" on Unser Blvd. south of Ladera Dr. is approved for the Heritage Neighborhood Marketplace project.
Case "L" – Assuming a right-turn-in, right-turn-out, left-turn-in driveway is approved for the Heritage Neighborhood Marketplace project.

For each of the preceding two cases, the following conditions were analyzed:

Base Geometry – assumes the geometry recommended in the Traffic Impact Study for the project.
w/Triple Left Turn Lanes – assumes the Base Geometry plus triple westbound left turn lanes on Ladera Dr. at Unser Blvd.
w/Left Turn Flyover – assumes the Base Geometry plus a westbound left turn flyover lane in lieu of at-grade left turn lanes.

The Base Geometry for the intersection of Ladera Dr. / Unser Blvd. as recommended in the Traffic Impact Study for Heritage Neighborhood Marketplace is summarized in the following table:

Base Geometry (Ladera Dr. / Unser Blvd.)

Approach	Left Turn Lanes	Thru/Lefts	Thru Lanes	Thru/Rights	Right Turn Lanes
EB Ladera Dr.	1	0	2	0	2
WB Ladera Dr.	2	0	1	1	0
NB Unser Blvd.	2	0	2	0	1
SB Unser Blvd.	2	0	2	0	1

The volumes utilized in this analysis were all the same as those calculated and utilized in the Traffic Impact Study for the Heritage Neighborhood Marketplace project. The only thing that was changed for each case or the analysis was the geometry. Triple

Terry O. Brown • tobe@swcp.com • P.O. Box 92051 • Albuquerque, NM 87199 • 505 · 883 · 8807


Unser Blvd.
GRAPHIC SCALE
(IN FEET)
1 inch = 100 ft.
Ladera Dr.
Unser Blvd.
PROJECT

A-1

Timings
2: Ladera Dr & Unser Blvd

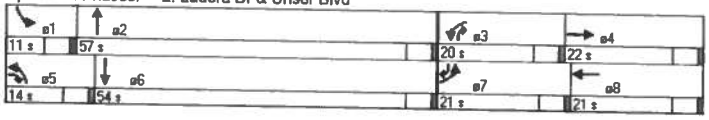
Terry O. Brown, P.E.
1/14/2008

Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations											
Volume (vph)	199	460	597	542	196	163	704	376	125	1355	105
Turn Type	pm+pt		pm+ov	Prot		Prot		pm+ov	Prot		pm+ov
Protected Phases	7	4	5	3	8	5	2	3	1	6	7
Permitted Phases	4		4					2			6
Detector Phases	7	4	5	3	8	5	2	3	1	6	7
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	10.0	21.0	10.0	10.0	21.0	10.0	21.0	10.0	10.0	21.0	10.0
Total Split (s)	21.0	22.0	14.0	20.0	21.0	14.0	57.0	20.0	11.0	54.0	21.0
Total Split (%)	19.1%	20.0%	12.7%	18.2%	19.1%	12.7%	51.8%	18.2%	10.0%	49.1%	19.1%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lead/Lag	Lead	Lag	Lead	Lead	Lag	Lead	Lag	Lead	Lead	Lag	Lead
Lead-Lag Optimize?											
Recall Mode	Min	Min	Min	Min	Min	Min	C-Max	Min	None	C-Max	Min
Act Effct Green (s)	35.5	19.0	32.9	17.0	19.5	10.9	54.0	74.0	8.0	51.1	70.6
Actuated g/C Ratio	0.32	0.17	0.30	0.15	0.18	0.10	0.49	0.67	0.07	0.46	0.64
v/c Ratio	0.69	0.87	0.82	0.90	0.61	0.57	0.48	0.41	0.57	0.93	0.11
Control Delay	38.4	61.0	44.3	59.8	32.3	56.9	14.1	7.9	57.9	35.8	1.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	38.4	61.0	44.3	59.8	32.3	56.9	14.1	7.9	57.9	35.8	1.3
LOS	D	E	D	E	C	E	B	A	E	D	A
Approach Delay		49.5			49.3		17.8			35.3	
Approach LOS		D			D		B			D	

Intersection Summary

Cycle Length: 110
Actuated Cycle Length: 110
Offset: 84 (76%), Referenced to phase 2:NBT and 6:SBT, Start of Green
Natural Cycle: 90
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.93
Intersection Signal Delay: 37.1 — Intersection LOS: D
Intersection Capacity Utilization 78.6% — ICU Level of Service D
Analysis Period (min) 15

Splits and Phases: 2: Ladera Dr & Unser Blvd



HCM Signalized Intersection Capacity Analysis
2: Ladera Dr & Unser Blvd

Terry O. Brown, P.E.
1/14/2008

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
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	3.0
Lane Util. Factor	1.00	0.95	0.88	0.94	0.95		0.97	0.95	1.00	0.97	0.95	1.00
Frt	1.00	1.00	0.85	1.00	0.94		1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1752	3505	2760	4942	3286		3400	3505	1568	3400	3505	1568
Flt Permitted	0.26	1.00	1.00	0.95	1.00		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)	473	3505	2760	4942	3286		3400	3505	1568	3400	3505	1568
Volume (vph)	199	460	597	542	196	140	163	704	376	125	1355	105
Peak-hour factor, PHF	0.87	0.87	0.87	0.79	0.79	0.79	0.85	0.85	0.85	0.89	0.89	0.89
Adj. Flow (vph)	229	529	686	686	248	177	192	828	442	140	1522	118
RTOR Reduction (vph)	0	0	12	0	116	0	0	0	12	0	0	45
Lane Group Flow (vph)	229	529	674	686	309	0	192	828	430	140	1522	73
Turn Type	pm+pt		pm+ov	Prot			Prot		pm+ov	Prot		pm+ov
Protected Phases	7	4	5	3	8		5	2	3	1	6	7
Permitted Phases	4		4						2			6
Actuated Green, G (s)	31.5	17.0	25.9	15.0	17.5		8.9	52.0	67.0	6.0	49.1	63.6
Effective Green, g (s)	35.5	19.0	29.9	17.0	19.5		10.9	54.0	71.0	8.0	51.1	67.6
Actuated g/C Ratio	0.32	0.17	0.27	0.15	0.18		0.10	0.49	0.65	0.07	0.46	0.61
Clearance Time (s)	5.0	5.0	5.0	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	3.0	3.0	3.0
Lane Grp Cap (vph)	345	605	825	764	583		337	1721	1055	247	1628	1006
v/s Ratio Prot	0.10	c0.15	c0.08	c0.14	0.09		0.06	c0.24	0.06	0.04	c0.43	0.01
v/s Ratio Perm	0.11		0.16						0.21			0.04
v/c Ratio	0.66	0.87	0.82	0.90	0.53		0.57	0.48	0.41	0.57	0.93	0.07
Uniform Delay, d1	29.5	44.3	37.5	45.6	41.1		47.3	18.7	9.4	49.3	27.9	8.6
Progression Factor	1.00	1.00	1.00	0.96	1.01		1.05	0.70	0.88	1.00	0.88	0.87
Incremental Delay, d2	4.8	13.3	6.3	13.2	0.9		2.2	1.0	0.3	2.7	10.7	0.0
Delay (s)	34.3	57.6	43.8	57.0	42.4		51.9	14.0	8.5	51.8	35.2	7.5
Level of Service	C	E	D	E	D		D	B	A	D	D	A
Approach Delay (s)		47.3			51.4			17.3			34.7	
Approach LOS		D			D			B			C	

Intersection Summary

HCM Average Control Delay	36.7	HCM Level of Service	D
HCM Volume to Capacity ratio	0.91		
Actuated Cycle Length (s)	110.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	78.6%	ICU Level of Service	D
Analysis Period (min)	15		

c Critical Lane Group

Timings
2: Ladera Dr & Unser Blvd

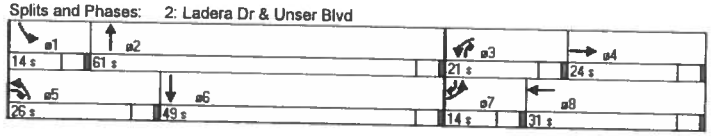
Terry O. Brown, P.E.
1/14/2008

Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations											
Volume (vph)	192	334	369	594	496	607	1524	708	290	1169	333
Turn Type	pm+pt		pm+ov	Prot		Prot		pm+ov	Prot		pm+ov
Protected Phases	7	4	5	3	8	5	2	3	1	6	7
Permitted Phases	4		4					2			6
Detector Phases	7	4	5	3	8	5	2	3	1	6	7
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	10.0	21.0	10.0	10.0	21.0	10.0	21.0	10.0	10.0	21.0	10.0
Total Split (s)	14.0	24.0	26.0	21.0	31.0	26.0	61.0	21.0	14.0	49.0	14.0
Total Split (%)	11.7%	20.0%	21.7%	17.5%	25.8%	21.7%	50.8%	17.5%	11.7%	40.8%	11.7%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lead/Lag	Lead	Lag	Lead	Lead	Lag	Lead	Lag	Lead	Lead	Lag	Lead
Lead-Lag Optimize?											
Recall Mode	Min	Min	Min	Min	Min	Min	C-Max	Min	Min	C-Max	Min
Act Effct Green (s)	32.0	21.0	47.0	18.0	28.0	23.0	58.0	79.0	11.0	46.0	60.0
Actuated g/C Ratio	0.27	0.18	0.39	0.15	0.23	0.19	0.48	0.66	0.09	0.38	0.50
v/c Ratio	0.93	0.59	0.36	0.86	0.99	0.98	0.95	0.71	0.97	0.91	0.43
Control Delay	77.2	49.9	25.6	61.5	69.6	81.1	33.9	13.8	87.2	40.1	21.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	77.2	49.9	25.6	61.5	69.6	81.1	33.9	13.8	87.2	40.1	21.5
LOS	E	D	C	E	E	F	C	B	F	D	C
Approach Delay		45.7			66.1		39.0			44.3	
Approach LOS		D			E		D			D	

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 120
Offset: 26 (22%), Referenced to phase 2:NBT and 6:SBT, Start of Green
Natural Cycle: 90
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.99
Intersection Signal Delay: 46.7 — Intersection LOS: D
Intersection Capacity Utilization 97.0% — ICU Level of Service F
Analysis Period (min) 15

Splits and Phases: 2: Ladera Dr & Unser Blvd



HCM Signalized Intersection Capacity Analysis
2: Ladera Dr & Unser Blvd

Terry O. Brown, P.E.
1/14/2008

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
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	3.0
Lane Util. Factor	1.00	0.95	0.88	0.94	0.95		0.97	0.95	1.00	0.97	0.95	1.00
Frt	1.00	1.00	0.85	1.00	0.95		1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1752	3505	2760	4942	3316		3400	3505	1568	3400	3505	1568
Flt Permitted	0.19	1.00	1.00	0.95	1.00		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)	351	3505	2760	4942	3316		3400	3505	1568	3400	3505	1568
Volume (vph)	192	334	369	594	496	279	607	1524	708	290	1169	333
Peak-hour factor, PHF	0.93	0.93	0.93	0.93	0.93	0.93	0.95	0.95	0.95	0.96	0.96	0.96
Adj. Flow (vph)	206	359	397	639	533	300	639	1604	745	302	1218	347
RTOR Reduction (vph)	0	0	13	0	65	0	0	0	19	0	0	18
Lane Group Flow (vph)	206	359	384	639	768	0	639	1604	726	302	1218	329
Turn Type	pm+pt		pm+ov	Prot			Prot		pm+ov	Prot		pm+ov
Protected Phases	7	4	5	3	8		5	2	3	1	6	7
Permitted Phases	4		4						2			6
Actuated Green, G (s)	28.0	19.0	40.0	16.0	26.0		21.0	56.0	72.0	9.0	44.0	53.0
Effective Green, g (s)	32.0	21.0	44.0	18.0	28.0		23.0	58.0	76.0	11.0	46.0	57.0
Actuated g/C Ratio	0.27	0.18	0.37	0.15	0.23		0.19	0.48	0.63	0.09	0.38	0.48
Clearance Time (s)	5.0	5.0	5.0	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	3.0	3.0	3.0
Lane Grp Cap (vph)	222	613	1081	741	774		652	1694	1032	312	1344	784
v/s Ratio Prot	c0.09	0.10	0.07	c0.13	c0.23		c0.19	c0.46	0.11	0.09	0.35	0.04
v/s Ratio Perm	0.16		0.07						0.36			0.17
v/c Ratio	0.93	0.59	0.35	0.86	0.99		0.98	0.95	0.70	0.97	0.91	0.42
Uniform Delay, d1	39.1	45.5	27.7	49.8	45.9		48.3	29.5	14.5	54.3	35.0	20.7
Progression Factor	1.00	1.00	1.00	0.98	0.97		1.06	0.71	0.78	0.94	0.91	1.16
Incremental Delay, d2	40.5	1.4	0.2	10.0	30.0		29.3	12.0	2.1	34.3	7.8	0.3
Delay (s)	79.6	46.9	27.9	58.7	74.5		80.5	33.1	13.4	85.3	39.5	24.3
Level of Service	E	D	C	E	E		F	C	B	F	D	C
Approach Delay (s)		46.1			67.7			38.3			44.1	
Approach LOS		D			E			D			D	

Intersection Summary

HCM Average Control Delay	46.8	HCM Level of Service	D
HCM Volume to Capacity ratio	0.94		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	6.0
Intersection Capacity Utilization	97.0%	ICU Level of Service	F
Analysis Period (min)	15		
c Critical Lane Group			

Timings
2: Ladera Dr & Unser Blvd

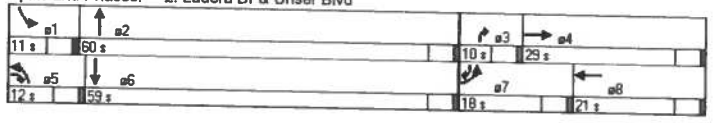
Terry O. Brown, P.E.
1/14/2008

Lane Group	EBL	EBT	EBR	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations										
Volume (vph)	199	460	597	196	163	704	376	125	1355	105
Turn Type	pm+pt		pm+ov		Prot		custom	Prot		pm+ov
Protected Phases	7	4	5	8	5	2	3	1	6	7
Permitted Phases	4		4				2			6
Detector Phases	7	4	5	8	5	2	3	1	6	7
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	10.0	21.0	10.0	21.0	10.0	21.0	10.0	10.0	21.0	10.0
Total Split (s)	18.0	29.0	12.0	21.0	12.0	60.0	10.0	11.0	59.0	18.0
Total Split (%)	16.4%	26.4%	10.9%	19.1%	10.9%	54.5%	9.1%	10.0%	53.6%	16.4%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lead/Lag	Lead	Lag	Lead	Lag	Lead	Lag	Lead	Lead	Lag	Lead
Lead-Lag Optimize?										
Recall Mode	Min	Min	Min	Min	Min	C-Max	Min	None	C-Max	Min
Act Effct Green (s)	33.7	23.7	36.8	16.0	10.1	58.3	68.3	8.9	57.2	75.0
Actuated g/C Ratio	0.31	0.22	0.33	0.15	0.09	0.53	0.62	0.08	0.52	0.68
v/c Ratio	0.77	0.70	0.65	0.71	0.62	0.45	0.44	0.51	0.84	0.11
Control Delay	48.7	45.0	24.9	37.0	60.7	12.8	9.6	54.6	25.1	1.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	48.7	45.0	24.9	37.0	60.7	12.8	9.6	54.6	25.1	1.3
LOS	D	D	C	D	E	B	A	D	C	A
Approach Delay		36.0		37.0		18.1			25.8	
Approach LOS		D		D		B			C	

Intersection Summary

Cycle Length: 110
Actuated Cycle Length: 110
Offset: 84 (76%), Referenced to phase 2:NBT and 6:SBT, Start of Green
Natural Cycle: 80
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.84
Intersection Signal Delay: 27.4 **Intersection LOS: C**
Intersection Capacity Utilization 76.4% ICU Level of Service D
Analysis Period (min) 15

Splits and Phases: 2: Ladera Dr & Unser Blvd



HCM Signalized Intersection Capacity Analysis
2: Ladera Dr & Unser Blvd

Terry O. Brown, P.E.
1/14/2008

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
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	0.95	0.88		0.95		0.97	0.95	1.00	0.97	0.95	1.00
Frt	1.00	1.00	0.85		0.94		1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00		1.00		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1752	3505	2760		3286		3400	3505	1568	3400	3505	1568
Flt Permitted	0.21	1.00	1.00		1.00		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)	388	3505	2760		3286		3400	3505	1568	3400	3505	1568
Volume (vph)	199	460	597	0	196	140	163	704	376	125	1355	105
Peak-hour factor, PHF	0.87	0.87	0.87	0.79	0.79	0.79	0.85	0.85	0.85	0.89	0.89	0.89
Adj. Flow (vph)	229	529	686	0	248	177	192	828	442	140	1522	118
RTOR Reduction (vph)	0	0	134	0	120	0	0	0	25	0	0	41
Lane Group Flow (vph)	229	529	552	0	305	0	192	828	417	140	1522	77
Turn Type	pm+pt		pm+ov				Prot		custom	Prot		pm+ov
Protected Phases	7	4	5		8		5	2	3	1	6	7
Permitted Phases	4		4						2			6
Actuated Green, G (s)	31.8	21.8	29.9		14.0		8.1	56.3	61.3	6.9	55.1	67.9
Effective Green, g (s)	33.8	23.8	33.9		16.0		10.1	58.3	65.3	8.9	57.1	71.9
Actuated g/C Ratio	0.31	0.22	0.31		0.15		0.09	0.53	0.59	0.08	0.52	0.65
Clearance Time (s)	5.0	5.0	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	3.0	3.0
Lane Grp Cap (vph)	303	758	926		478		312	1858	974	275	1819	1068
v/s Ratio Prot	c0.10	0.15	c0.05		0.09		0.06	0.24	0.03	0.04	c0.43	0.01
v/s Ratio Perm	c0.13		0.15						0.24			0.04
v/c Ratio	0.76	0.70	0.60		0.64		0.62	0.45	0.43	0.51	0.84	0.07
Uniform Delay, d1	31.3	39.8	32.3		44.3		48.1	15.9	12.2	48.5	22.5	6.9
Progression Factor	1.00	1.00	1.00		1.02		1.06	0.73	0.84	0.99	0.89	0.93
Incremental Delay, d2	10.3	2.8	1.0		2.8		3.6	0.8	0.3	1.4	4.4	0.0
Delay (s)	41.6	42.6	33.3		48.0		54.7	12.5	10.6	49.4	24.4	6.5
Level of Service	D	D	C		D		D	B	B	D	C	A
Approach Delay (s)		38.0			48.0			17.4			25.1	
Approach LOS		D			D			B			C	

Intersection Summary

HCM Average Control Delay	28.5	HCM Level of Service	C
HCM Volume to Capacity ratio	0.77		
Actuated Cycle Length (s)	110.0	Sum of lost time (s)	6.0
Intersection Capacity Utilization	76.4%	ICU Level of Service	D
Analysis Period (min)	15		
c Critical Lane Group			

Timings
2: Ladera Dr & Unser Blvd

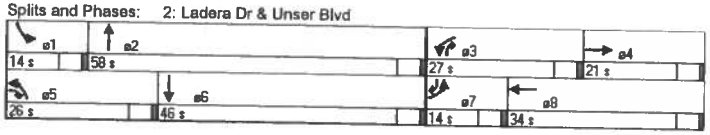
Terry O. Brown, P.E.
1/14/2008

Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations											
Volume (vph)	192	334	369	934	496	607	1524	708	290	1169	333
Turn Type	pm+pt		pm+ov	Prot		Prot		pm+ov	Prot		pm+ov
Protected Phases	7	4	5	3	8	5	2	3	1	6	7
Permitted Phases	4		4					2			6
Detector Phases	7	4	5	3	8	5	2	3	1	6	7
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	10.0	21.0	10.0	10.0	21.0	10.0	21.0	10.0	10.0	21.0	10.0
Total Split (s)	14.0	21.0	26.0	27.0	34.0	26.0	58.0	27.0	14.0	46.0	14.0
Total Split (%)	11.7%	17.5%	21.7%	22.5%	28.3%	21.7%	48.3%	22.5%	11.7%	38.3%	11.7%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lead/Lag	Lead	Lag	Lead	Lead	Lag	Lead	Lag	Lead	Lead	Lag	Lead
Lead-Lag Optimize?											
Recall Mode	Min	Min	Min	Min	Min	Min	Max	Min	Min	Max	Min
Act Effct Green (s)	28.4	17.4	43.4	24.0	30.4	23.0	55.0	82.0	11.0	43.0	57.0
Actuated g/C Ratio	0.24	0.15	0.36	0.20	0.25	0.19	0.46	0.69	0.09	0.36	0.48
v/c Ratio	0.93	0.70	0.39	1.01	0.92	0.97	0.99	0.68	0.96	0.96	0.45
Control Delay	77.3	56.8	28.6	78.7	54.4	77.8	53.3	14.7	96.6	56.0	20.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	77.3	56.8	28.6	78.7	54.4	77.8	53.3	14.7	96.6	56.0	20.1
LOS	E	E	C	E	D	E	D	B	F	E	C
Approach Delay		49.5			67.7		48.9			55.9	
Approach LOS		D			E		D			E	

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 119.4
Natural Cycle: 120
Control Type: Semi Act-Uncoord
Maximum v/c Ratio: 1.01
Intersection Signal Delay: 55.2 — Intersection LOS: E
Intersection Capacity Utilization 97.0% — ICU Level of Service F
Analysis Period (min) 15

Splits and Phases: 2: Ladera Dr & Unser Blvd



HCM Signalized Intersection Capacity Analysis
2: Ladera Dr & Unser Blvd

Terry O. Brown, P.E.
1/14/2008

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
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	3.0
Lane Util. Factor	1.00	0.95	0.88	0.94	0.95		0.97	0.95	1.00	0.97	0.95	1.00
Frt	1.00	1.00	0.85	1.00	0.95		1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1752	3505	2760	4942	3316		3400	3505	1568	3400	3505	1568
Flt Permitted	0.23	1.00	1.00	0.95	1.00		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)	427	3505	2760	4942	3316		3400	3505	1568	3400	3505	1568
Volume (vph)	192	334	369	934	496	279	607	1524	708	290	1169	333
Peak-hour factor, PHF	0.93	0.93	0.93	0.93	0.93	0.93	0.95	0.95	0.95	0.96	0.96	0.96
Adj. Flow (vph)	206	359	397	1004	533	300	639	1604	745	302	1218	347
RTOR Reduction (vph)	0	0	9	0	66	0	0	0	11	0	0	25
Lane Group Flow (vph)	206	359	388	1004	767	0	639	1604	734	302	1218	322
Turn Type	pm+pt		pm+ov	Prot			Prot		pm+ov	Prot		pm+ov
Protected Phases	7	4	5	3	8		5	2	3	1	6	7
Permitted Phases	4		4						2			6
Actuated Green, G (s)	24.3	15.3	36.3	22.0	28.3		21.0	53.0	75.0	9.0	41.0	50.0
Effective Green, g (s)	28.3	17.3	40.3	24.0	30.3		23.0	55.0	79.0	11.0	43.0	54.0
Actuated g/C Ratio	0.24	0.15	0.34	0.20	0.25		0.19	0.46	0.66	0.09	0.36	0.45
Clearance Time (s)	5.0	5.0	5.0	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	3.0	3.0	3.0
Lane Grp Cap (vph)	223	508	1002	994	842		655	1616	1078	313	1263	749
v/s Ratio Prot	0.08	0.10	0.07	c0.20	c0.23		c0.19	c0.46	0.14	0.09	0.35	0.04
v/s Ratio Perm	0.13		0.07						0.33			0.17
v/c Ratio	0.92	0.71	0.39	1.01	0.91		0.98	0.99	0.68	0.96	0.96	0.43
Uniform Delay, d1	41.1	48.6	30.1	47.6	43.2		47.9	31.9	12.4	54.0	37.4	22.2
Progression Factor	1.00	1.00	1.00	1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	39.6	4.5	0.2	31.0	13.9		28.8	20.7	1.8	41.1	18.1	0.4
Delay (s)	80.7	53.0	30.3	78.7	57.1		76.7	52.6	14.2	95.0	55.5	22.6
Level of Service	F	D	C	E	E		E	D	B	F	E	C
Approach Delay (s)		49.6			68.9			48.2			55.8	
Approach LOS		D			E			D			E	

Intersection Summary

HCM Average Control Delay	55.2	HCM Level of Service	E
HCM Volume to Capacity ratio	0.97		
Actuated Cycle Length (s)	119.3	Sum of lost time (s)	6.0
Intersection Capacity Utilization	97.0%	ICU Level of Service	F
Analysis Period (min)	15		

c Critical Lane Group

Timings
2: Ladera Dr & Unser Blvd

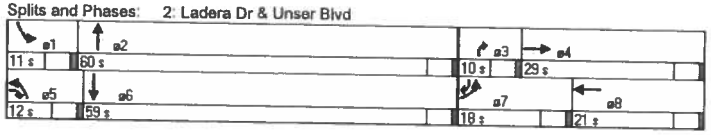
Terry O. Brown, P.E.
1/14/2008

Lane Group	EBL	EBT	EBR	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations										
Volume (vph)	199	460	597	196	163	704	376	125	1355	105
Turn Type	pm+pt		pm+ov		Prot		custom	Prot		pm+ov
Protected Phases	7	4	5	8	5	2	3	1	6	7
Permitted Phases	4		4				2			6
Detector Phases	7	4	5	8	5	2	3	1	6	7
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	10.0	21.0	10.0	21.0	10.0	21.0	10.0	10.0	21.0	10.0
Total Split (s)	18.0	29.0	12.0	21.0	12.0	60.0	10.0	11.0	59.0	18.0
Total Split (%)	16.4%	26.4%	10.9%	19.1%	10.9%	54.5%	9.1%	10.0%	53.6%	16.4%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lead/Lag	Lead	Lag	Lead	Lag	Lead	Lag	Lead	Lead	Lag	Lead
Lead-Lag Optimize?										
Recall Mode	Min	Min	Min	Min	Min	C-Max	Min	None	C-Max	Min
Act Effct Green (s)	33.7	23.7	36.8	15.9	10.1	58.3	68.3	9.0	57.2	74.9
Actuated g/C Ratio	0.31	0.22	0.33	0.14	0.09	0.53	0.62	0.08	0.52	0.68
v/c Ratio	0.77	0.70	0.65	0.71	0.61	0.45	0.44	0.51	0.84	0.11
Control Delay	48.7	45.1	24.9	36.5	57.5	17.1	11.2	55.5	28.0	1.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	48.7	45.1	24.9	36.5	57.5	17.1	11.2	55.5	28.0	1.4
LOS	D	D	C	D	E	B	B	E	C	A
Approach Delay		36.1		36.5		20.6			28.4	
Approach LOS		D		D		C			C	

Intersection Summary

Cycle Length: 110
Actuated Cycle Length: 110
Offset: 84 (76%), Referenced to phase 2:NBT and 6:SBT, Start of Green
Natural Cycle: 80
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.84
Intersection Signal Delay: 29.0 — Intersection LOS: C
Intersection Capacity Utilization 76.4% — ICU Level of Service D
Analysis Period (min) 15

Splits and Phases: 2: Ladera Dr & Unser Blvd



HCM Signalized Intersection Capacity Analysis
2: Ladera Dr & Unser Blvd

Terry O. Brown, P.E.
1/14/2008

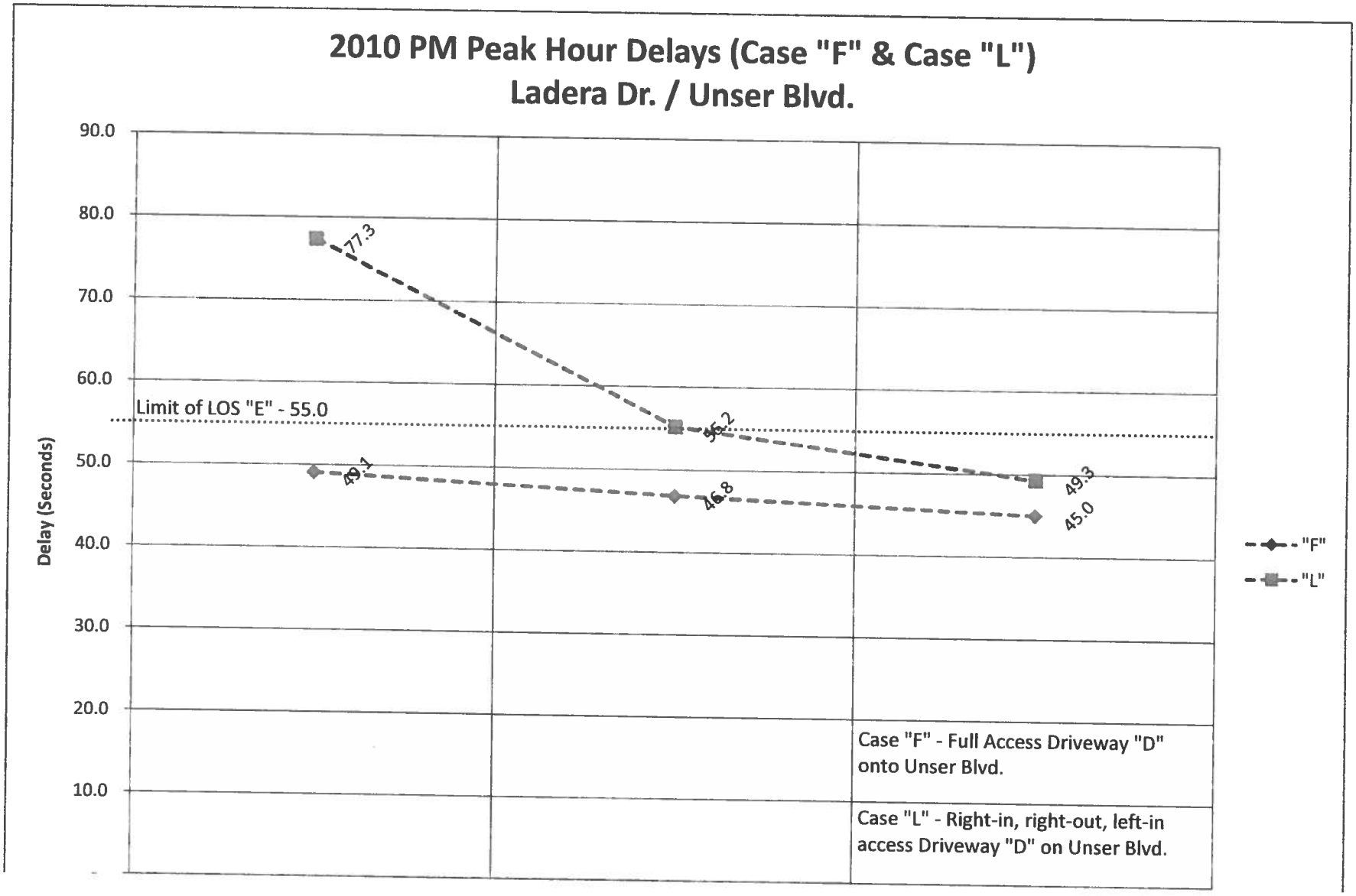
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	3.0	3.0	3.0		3.0		3.0	3.0	3.0	3.0	3.0	3.0
Lane Util. Factor	1.00	0.95	0.88		0.95		0.97	0.95	1.00	0.97	0.95	1.00
Frt	1.00	1.00	0.85		0.94		1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00		1.00		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1752	3505	2760		3286		3400	3505	1568	3400	3505	1568
Flt Permitted	0.21	1.00	1.00		1.00		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)	390	3505	2760		3286		3400	3505	1568	3400	3505	1568
Volume (vph)	199	460	597	0	196	140	163	704	376	125	1355	105
Peak-hour factor, PHF	0.87	0.87	0.87	0.79	0.79	0.79	0.85	0.85	0.85	0.89	0.89	0.89
Adj. Flow (vph)	229	529	686	0	248	177	192	828	442	140	1522	118
RTOR Reduction (vph)	0	0	134	0	121	0	0	0	25	0	0	41
Lane Group Flow (vph)	229	529	552	0	304	0	192	828	417	140	1522	77
Turn Type	pm+pt		pm+ov				Prot		custom	Prot		pm+ov
Protected Phases	7	4	5		8		5	2	3	1	6	7
Permitted Phases	4		4						2			6
Actuated Green, G (s)	31.7	21.7	29.8		13.9		8.1	56.3	61.3	7.0	55.2	68.0
Effective Green, g (s)	33.7	23.7	33.8		15.9		10.1	58.3	65.3	9.0	57.2	72.0
Actuated g/C Ratio	0.31	0.22	0.31		0.14		0.09	0.53	0.59	0.08	0.52	0.65
Clearance Time (s)	5.0	5.0	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	3.0	3.0
Lane Grp Cap (vph)	303	755	923		475		312	1858	974	278	1823	1069
v/s Ratio Prot	c0.10	0.15	c0.05		0.09		0.06	0.24	0.03	0.04	c0.43	0.01
v/s Ratio Perm	c0.13		0.15						0.24			0.04
v/c Ratio	0.76	0.70	0.60		0.64		0.62	0.45	0.43	0.50	0.83	0.07
Uniform Delay, d1	31.4	39.9	32.3		44.4		48.1	15.9	12.2	48.4	22.4	6.9
Progression Factor	1.00	1.00	1.00		1.00		1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	10.3	2.9	1.1		2.9		3.6	0.8	0.3	1.4	4.7	0.0
Delay (s)	41.7	42.8	33.4		47.3		51.7	16.7	12.5	49.8	27.1	6.9
Level of Service	D	D	C		D		D	B	B	D	C	A
Approach Delay (s)		38.2			47.3			20.0			27.5	
Approach LOS		D			D			C			C	

Intersection Summary

HCM Average Control Delay	30.0	HCM Level of Service	C
HCM Volume to Capacity ratio	0.77		
Actuated Cycle Length (s)	110.0	Sum of lost time (s)	6.0
Intersection Capacity Utilization	76.4%	ICU Level of Service	D
Analysis Period (min)	15		

c Critical Lane Group

2010 AM Peak BUILD Conditions - MITIGATED w/Left Turn Flyover Right-in, right-out, left-in access at Intersection 12
D:\ATOBE\PROJECTS\Heritage_Neighborhood_Marketplace_Ladera_Unser\CaseL\Flyover\2010AB_Mit_L_Flyover.sy7


2010 PM Peak Hour Delays (Case "F" & Case "L")
Ladera Dr. / Unser Blvd.
Delay (Seconds)
90.0
80.0
70.0
60.0
50.0
40.0
30.0
20.0
10.0
Limit of LOS "E" - 55.0
77.3
56.2
49.3
49.1
46.8
45.0
"F"
"L"
Case "F" - Full Access Driveway "D" onto Unser Blvd.
Case "L" - Right-in, right-out, left-in access Driveway "D" on Unser Blvd.