

Terry O. Brown P.E.

Vassar Development
(I-25 East Frontage Rd. North of Comanche Rd.)

**Traffic Impact Study
FINAL**

February 26, 2009

Presented to:

New Mexico Department of Transportation, Dist. 3
and the City of Albuquerque,
Transportation Development Section

Prepared for:

Tierra West, LLC
5571 Midway Park Pl.
Albuquerque, NM 87109



A handwritten signature in blue ink that reads "Terry O. Brown".

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

Traffic Impact Study
Vassar Development – (I-25 E. Frntg. Rd. N. of Comanche Rd.)

STUDY PURPOSE

The purpose of this study is to identify the development's impact on the adjacent transportation system. The study is being conducted in conjunction with a request for approval of a proposed plan for a commercial development located along the I-25 East Frontage Rd. between Comanche Rd. and Vassar Dr. in Albuquerque, New Mexico. This study is presented to satisfy the requirements of the New Mexico Department of Transportation, District 3 and the City of Albuquerque.

GENERAL

The proposed development is located along the east side of the I-25 East Frontage Road between Comanche Rd. and Vassar Dr. (see Appendix Page A-1 - Vicinity Map). The existing intersections of Montgomery Blvd. (Montano Rd.) / I-25 West Frontage Rd., Montgomery Blvd. / I-25 East Frontage Rd., Montgomery Blvd. / Carlisle Blvd., Comanche Rd. / I-25 West Frontage Rd., Comanche Rd. / I-25 East Frontage Rd. and Comanche Rd. / Carlisle Blvd. are currently signalized intersections. The intersections of Vassar Dr. / I-25 East Frontage Rd., and Comanche Rd. / Vassar Dr. are unsignalized intersections and will be analyzed in this study.

Currently, properties in the area are commercial/office in nature, with a small amount of residential.

PROPOSED DEVELOPMENT

The proposed plan for this site consists of a 93,686 SF Carpenters Training Center, a 22,400 SF restaurant(s), and a 39,200 SF retail building. This development will be constructed in two phases with the Carpenters Training Center being constructed in the first phase and the restaurant(s) and retail building being constructed in the second phase. The development is proposed to take access from one full access driveway along Vassar Dr. and one right-in, right-out only access along the I-25 East Frontage Rd. This study will analyze only the full development of both phases.

The anticipated implementation year for this site is the year 2010.

STUDY PROCEDURES

A scoping meeting was held in March of 2007 with City of Albuquerque Transportation Development staff (Tony Loyd) 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 year definition. The same was discussed with New Mexico Department of Transportation, District 3 staff (Tony Abbo) via e-mail.

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

- ◆ Calculate the generated trips for this proposed commercial / office development as defined on Page A-2 of the Appendix of this report and more specifically defined in the Trip Generation Table on Page A-5 of the Appendix of this report. The trips generated for the implementation year analyses (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 within a two (2) mile radius boundary of the proposed site as shown on Page A-9 in the Appendix of this report. The new office trips will be distributed based on a city-wide distribution.
- ◆ 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.
- ◆ Obtain AM Peak Hour and PM Peak Hour Turning Movement Volumes Traffic Counts from the Mid-Region Council of Governments (MRCOG) for the intersections of Comanche Rd. / I-25 West Frontage Rd., Comanche Rd. / I-25 East Frontage Rd., and Comanche Rd. / Carlisle Blvd. Additionally, traffic counts were performed for the intersections of Montgomery Blvd. (Montano Rd.) / I-25 West Frontage Rd., Montgomery Blvd. / I-25 East Frontage Rd., Montgomery Blvd. / Carlisle Blvd., Vassar Dr. / I-25 East Frontage Rd., and Comanche Rd. / Vassar Dr.
- ◆ Determine Historic Growth Rates for background traffic volumes based on an analysis of the growth trend of recent AWDT Volumes obtained from 2001 thru 2005 MRCOG Traffic Flow Maps.
- ◆ Determine the 2010 NO BUILD Volumes for each intersection to be analyzed by growing the background traffic growth from the year of the counts to 2010.
- ◆ Add data from Trip Assignments Maps and Tables to the 2010 NO BUILD Volumes to obtain the 2010 BUILD Volumes for this project.
- ◆ Provide signalized and unsignalized intersection analyses for the following intersections:

INTERSECTION	TYPE CONTROL	NO BUILD ANALYSIS	BUILD ANALYSIS
Montgomery Blvd. / I-25 W. Frntg. Rd.	Traffic Signal	2010	2010
Montgomery Blvd. / I-25 E. Frntg. Rd.	Traffic Signal	2010	2010
Montgomery Blvd. / Carlisle Blvd.	Traffic Signal	2010	2010
Comanche Rd./I-25 W. Frntg. Rd.	Traffic Signal	2010	2010
Comanche Rd./I-25 E. Frntg. Rd.	Traffic Signal	2010	2010
Comanche Rd./Carlisle Blvd.	Traffic Signal	2010	2010
Vassar Dr. / I-25 E. Frntg. Rd.	Stop Sign	2010	2010
Comanche Rd. /Vassar Dr.	Stop Sign	2010	2010
Driveway 'A' / I-25 E. Frntg. Rd.	Stop Sign	N/A	2010
Driveway 'B' / Vassar Dr.	Stop Sign	N/A	2010

TRIP GENERATION WORKSHEET

Projected trips were calculated from the ITE trip generation data for junior/community college, high turnover (sit-down) restaurant, and shopping center use, high turnover (sit-down) restaurant. Trips for the development were determined based on land use defined on the Conceptual Site Development Plan on Page A-2 in the Appendix of this report.

See Appendix Page A-5 thru A-8 for the Trip Generation Summary Table and Worksheets for this project.

Vassar Development (I-25 E. Frntg. Rd. N. of Comanche Rd.) **Trip Generation Data**

COMMENT	USE (ITE CODE)	24 HR VOL	A. M. PEAK HR.			P. M. PEAK HR.	
	DESCRIPTION		GROSS	ENTER	EXIT	ENTER	EXIT
	Summary Sheet	Units					
Restaurants Pad	High Turnover (Sit-Down) Restaurant (932)	22.40	2,848	134	124	149	95
Retail	Shopping Center (820)	87.20	6,213	88	56	275	298
Carpenter Training Cntr.	Junior / Community College (540)	250.00	471	104	23	114	64
	Subtotal Trips		9,532	326	203	538	457

BACKGROUND TRAFFIC GROWTH

Background traffic growth rates were considered for each individual approach to an intersection that was targeted for analysis based on data from the 2001, 2002, 2003, 2004 and 2005 Traffic Flow maps prepared by the Mid-Region Council of Governments. Most of the Traffic Flow Data for those years taken from the MRCOG Traffic Flow Maps were Standard Data. The data from those years for each approach was plotted on a graph and a linear "regression trend line" calculated using the equation format $y=mx+b$. The growth rate was determined by calculating the average volume increase per year during the time period considered and dividing that volume into the most recent AWDT used in the analysis from which future volumes will be calculated. The rate of growth of that trend line was utilized as the annual growth rate for each approach if that calculated rate appeared feasible. However, there were some instances where the rate indicated a negative growth trend or appeared to be unreasonably high or low. In those cases, an appropriate growth rate from an adjacent segment of the same roadway was used, a

shorter time span was used to determine the growth rate, or the growth rate was considered to be 1% or a generic 3% if appropriate. Due to the limited potential for growth in the area, it was believed that a 3% growth rate was inappropriate for this study. Therefore, a growth rate of 1.00% was used if the linear regression analysis showed the growth rate to be negative. Additionally, if the R^2 value of the trend line was low, other means of establishing a probable growth rate from the data accumulated was considered. Historical Growth Rate Graphs with linear regression trendlines are shown in the Appendix on Pages A-124 through A-137. Additionally, the growth rate utilized for each approach to an intersection is printed at the top of the Turning Movement sheets for each intersection (Appendix Pages A-26 through A-48).

PROJECTED PEAK HOUR TURNING MOVEMENTS FOR 2009 BUILDOUT

The calculated growth rates were applied to the most recent peak hour traffic counts (furnished by the Mid-Region Council of Governments and conducted for this study) to derive the 2010 AM and PM Peak Hour NO BUILD Volumes. To these volumes, the generated trips based on implementation of the proposed Site Development Plan (100% development) were added to obtain BUILD volumes for the intersection analyses. See Appendix Pages A-114 through A-117 for further information regarding the turning movement counts. Turning Movement Volumes Maps for the 2010 NO BUILD Conditions, Trips Generated, and 2010 BUILD Conditions are shown on Pages A-49 thru A-51 in the Appendix of this report.

TRIP DISTRIBUTION

Primary and Diverted Linked Trips:

Commercial Land Use

Primary and diverted linked trips for the commercial land use development were distributed proportionally to the 2009 projected population of Data Analysis Subzones within a two-mile radius of the proposed development. Population data for the years 2000 and 2025 were taken from the 2025 Socioeconomic Forecasts by Data Analysis Subzones for the Mid-Region of New Mexico, S-03-01, 2003, Appendix B and Appendix C, supplied by the Mid-Region Council of Governments (MRCOG). Population data from the years 2000 and 2025 was interpolated linearly to obtain 2009 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 subareas and data analysis subzones is shown on Appendix Pages A-9 thru A-13.

Office Land Uses

Primary and diverted linked trips for the Office land use development were distributed proportionally to the 2009 projected population of Subareas citywide. Population data for the years 2005 and 2010 were taken from the 2025 Socioeconomic Forecasts by Data Analysis Subzones for the Mid-Region of New Mexico, S-03-01, 2003, Appendix D, supplied by the Mid-Region Council of Governments (MRCOG). Population data from the years 2005 and 2010 was interpolated linearly to obtain 2009 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 subareas and data analysis subzones is shown on Appendix Pages A-17 thru A-22.

RESULTS OF SIGNALIZED INTERSECTION CAPACITY ANALYSES

#1 - Montgomery Blvd. (Montano Rd.) / I-25 W. Frntg. Rd. - Pages A-52 thru A-57

The results of the implementation year analysis of the signalized intersection of Montgomery Blvd. (Montano Rd.) / I-25 West Frontage Rd. are summarized in the following table:

Montgomery Blvd. (Montano Rd.) / I-25 W. Frntg. Rd.	No Build		BUILD		
	2010	A.M.	P.M.	A.M.	P.M.
	Existing Geometry	B - 15.0	C - 26.1	B - 15.1	C - 26.9

The implementation year analysis of the intersection of Montgomery Blvd. (Montano Rd.) / I-25 West Frontage Rd. demonstrates that the level-of-service will be acceptable for both the AM Peak Hour and PM Peak Hour conditions. The implementation year analysis shows that the proposed development increases the AM delay at the intersection by only 1 - 8 tenths of a second. Therefore, this study concludes that the development presents no significant impact to the calculated delays at the intersection of Montgomery Blvd. (Montano Rd.) / I-25 West Frontage Rd.

Geometry used for this analysis of Montgomery Blvd. (Montano Rd.) / I-25 West Frontage Rd. is demonstrated in the following table:

Existing Geometry (Montgomery Blvd. / I-25 W. Frntg Rd.)					
Approach	Left Turn Lanes	Thru/Lefts	Thru Lanes	Thru/Rights	Right Turn Lanes
EB Montgomery Blvd.	0	0	2	0	1
WB Montgomery Blvd.	1	0	2	0	1
SB I-25 W. Frntg. Rd.	1	0	1	0	1

The following table summarizes the results of the queuing analysis for the auxiliary lanes at the intersection:

Queueing Analysis Summary Sheet

Project:
Intersection:

Vassar Development (I-25 E. Frntg. Rd. N. of Comanche Rd.)
Montgomery Blvd. / I-25 W. Ramp

2010

Approach	Left Turns			Thru Movements			Right Turns		
Eastbound	# Lanes	Vol.	Length	# Lanes	Vol.	Length	# Lanes	Vol.	Length
<i>Existing Lane Length</i>	0	0	N/A	2	870	Cont	1	593	400
AM NO BUILD Queue	0	0	0	2	896	575	1	611	700
AM BUILD Queue	0	0	0	2	897	575	1	625	725
<i>Existing Lane Length</i>	0	0	N/A	2	844	Cont	1	462	400
PM NO BUILD Queue	0	0	0	2	869	600	1	476	600
PM BUILD Queue	0	0	0	2	871	600	1	502	625
Westbound	# Lanes	Vol.	Length	# Lanes	Vol.	Length	# Lanes	Vol.	Length
<i>Existing Lane Length</i>	1	275	325	2	6	Cont	1	171	Cont
AM NO BUILD Queue	1	285	375	2	6	25	1	177	250
AM BUILD Queue	1	286	375	2	18	25	1	177	250
<i>Existing Lane Length</i>	1	222	325	2	0	Cont	1	70	Cont
PM NO BUILD Queue	1	230	325	2	0	0	1	73	150
PM BUILD Queue	1	231	325	2	26	50	1	73	150
Northbound	# Lanes	Vol.	Length	# Lanes	Vol.	Length	# Lanes	Vol.	Length
<i>Existing Lane Length</i>	0	0	N/A	0	0	Cont	0	0	N/A
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
<i>Existing Lane Length</i>	0	0	N/A	0	0	Cont	0	0	N/A
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
Southbound	# Lanes	Vol.	Length	# Lanes	Vol.	Length	# Lanes	Vol.	Length
<i>Existing Lane Length</i>	1	230	Cont	2	240	Cont	1	227	350
AM NO BUILD Queue	1	237	325	2	247	200	1	234	325
AM BUILD Queue	1	237	325	2	247	200	1	234	325
<i>Existing Lane Length</i>	1	339	Cont	2	457	Cont	1	339	350
PM NO BUILD Queue	1	349	475	2	471	375	1	349	475
PM BUILD Queue	1	349	475	2	471	375	1	349	475

AM
PM
 Cycle Length: 120 130

NOTE: Queue lengths are in feet.

The recommendations based on the queuing analysis for the auxiliary lanes at the intersection are summarized in the following table:

Lane Designation	Existing Length	Required Length	Recommended Length	Comments
EB LT	-	-	-	OK
EB RT	400'	725'	375'	Required length divided by 2 to account for RTOR and overlap - OK
WB LT	325'	375'	325'	Only 2 car lengths, not worth improvement - OK
WB RT	Continuous	250'	-	OK
NB LT	-	-	-	OK
NB RT	-	-	-	OK
SB LT	Continuous	475'	-	OK
SB RT	350'	475'	250'	Required length divided by 2 to account for RTOR and overlap - OK

#2 - Montgomery Blvd. / I-25 E. Frntg. Rd. - Pages A-58 thru A-63

The results of the implementation year analysis of the signalized intersection of Montgomery Blvd. / I-25 East Frontage Rd. are summarized in the following table:

Montgomery Blvd. / I-25 E. Frntg. Rd.	No Build		BUILD		
	2010	A.M.	P.M.	A.M.	P.M.
	Existing Geometry	B – 14.8	C – 33.0	B – 15.1	C – 34.2

The implementation year analysis of the intersection of Montgomery Blvd. / I-25 East Frontage Rd. demonstrates that the level-of-service will be acceptable for both the AM Peak Hour and PM peak hour conditions. The implementation year analysis shows that the proposed development increases the delays at the intersection by only 3 tenths of a second to 1.2 seconds. Therefore, this study concludes that the development presents no significant impact to the calculated delays at the intersection of Montgomery Blvd. / I-25 East Frontage Rd.

Geometry used for this analysis of Montgomery Blvd. / I-25 East Frontage Rd. is demonstrated in the following table:

Existing Geometry (Montgomery Blvd. / I-25 E. Frntg Rd.)					
Approach	Left Turn Lanes	Thru/Lefts	Thru Lanes	Thru/Rights	Right Turn Lanes
EB Montgomery Blvd.	1	0	2	0	0
WB Montgomery Blvd.	0	0	3	0	1
NB I-25 E. Frntg. Rd.	1	1	1	0	1

The following table summarizes the results of the queuing analysis for the auxiliary lanes at the intersection:

Queueing Analysis Summary Sheet

Project:

Vassar Development (I-25 E. Frntg. Rd. N. of Comanche Rd.)

Intersection:

Montgomery Blvd. / I-25 E. Ramp

2010

Approach	Left Turns			Thru Movements			Right Turns		
Eastbound	# Lanes	Vol.	Length	# Lanes	Vol.	Length	# Lanes	Vol.	Length
Existing Lane Length	1	236	250	2	725	Cont	0	0	N/A
AM NO BUILD Queue	1	243	325	2	747	500	0	0	0
AM BUILD Queue	1	243	325	2	748	500	0	0	0
Existing Lane Length	1	308	250	2	875	Cont	0	0	N/A
PM NO BUILD Queue	1	317	425	2	901	625	0	0	0
PM BUILD Queue	1	317	425	2	903	625	0	0	0
Westbound	# Lanes	Vol.	Length	# Lanes	Vol.	Length	# Lanes	Vol.	Length
Existing Lane Length	0	0	N/A	3	1,003	Cont	1	216	175
AM NO BUILD Queue	0	0	0	3	1,039	500	1	224	300
AM BUILD Queue	0	0	0	3	1,053	500	1	224	300
Existing Lane Length	0	0	N/A	3	1,451	Cont	1	289	175
PM NO BUILD Queue	0	0	0	3	1,503	725	1	299	400
PM BUILD Queue	0	0	0	3	1,529	725	1	299	400
Northbound	# Lanes	Vol.	Length	# Lanes	Vol.	Length	# Lanes	Vol.	Length
Existing Lane Length	1	435	Cont	2	206	Cont	1	365	250
AM NO BUILD Queue	1	448	550	2	212	175	1	376	475
AM BUILD Queue	1	460	550	2	218	200	1	406	500
Existing Lane Length	1	609	Cont	2	698	Cont	1	584	250
PM NO BUILD Queue	1	627	775	2	719	525	1	602	750
PM BUILD Queue	1	653	800	2	737	525	1	669	825
Southbound	# Lanes	Vol.	Length	# Lanes	Vol.	Length	# Lanes	Vol.	Length
Existing Lane Length	0	0	N/A	0	0	Cont	0	0	N/A
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	N/A	0	0	Cont	0	0	N/A
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

Cycle Length: AM PM
 120 130

NOTE: Queue lengths are in feet.

The recommendations based on the queuing analysis for the auxiliary lanes at the intersection are summarized in the following table:

Lane Designation	Existing Length	Required Length	Recommended Length	Comments
EB LT	250'	425'	250'	No improvement without bridge widening - OK
EB RT	-	-	-	OK
WB LT	-	-	-	OK
WB RT	175'	400'	175'	No improvement without purchasing right-of-way - OK
NB LT	Continuous	800'	-	OK
NB RT	250'	825'	250'	Free right, no queuing - OK
SB LT	-	-	-	OK
SB RT	-	-	-	OK

#3 - Montgomery Blvd. / Carlisle Blvd. - Pages A-64 thru A-69

The results of the implementation year analysis of the signalized intersection of Montgomery Blvd. / Carlisle Blvd. are summarized in the following table:

Montgomery Blvd. / Carlisle Blvd.	No Build		BUILD		
	2010	<u>A.M.</u>	<u>P.M.</u>	<u>A.M.</u>	<u>P.M.</u>
Existing Geometry		C – 20.0	C – 27.3	C – 20.2	C – 27.6

The implementation year analysis of the intersection of Montgomery Blvd. / Carlisle Blvd. demonstrates that the level-of-service will be acceptable for both the AM Peak Hour and PM Peak Hour conditions. The implementation year analysis shows that the proposed development increases the delays at the intersection by only 2 - 3 tenths of a second. Therefore, this study concludes that the development presents no significant impact to the calculated delays at the intersection of Montgomery Blvd. / Carlisle Blvd.

Geometry used for this analysis of Montgomery Blvd. / Carlisle Blvd. is demonstrated in the following table:

Existing Geometry (Montgomery Blvd. / Carlisle Blvd.)					
Approach	Left Turn Lanes	Thru/Lefts	Thru Lanes	Thru/Rights	Right Turn Lanes
EB Montgomery Blvd.	1	0	3	0	1
WB Montgomery Blvd.	2	0	2	1	0
NB Carlisle Blvd.	2	0	0	1	1
SB Carlisle Blvd.	1	0	1	1	0

Note: Montgomery Blvd. / Carlisle Blvd. was recently reconstructed by the City of Albuquerque to provide additional capacity.

The following table summarizes the results of the queuing analysis for the auxiliary lanes at the intersection:

Queueing Analysis Summary Sheet

Project:
Intersection:

Vassar Development (I-25 E. Frntg. Rd. N. of Comanche Rd.)
Montgomery Blvd. / Carlisle Blvd.

2010

Approach	Left Turns			Thru Movements			Right Turns		
Eastbound	# Lanes	Vol.	Length	# Lanes	Vol.	Length	# Lanes	Vol.	Length
Existing Lane Length	1	7	100	3	812	Cont	1	231	Cont
AM NO BUILD Queue	1	7	25	3	841	400	1	239	325
AM BUILD Queue	1	7	25	3	852	425	1	267	350
Existing Lane Length	1	35	100	3	1,218	Cont	1	245	Cont
PM NO BUILD Queue	1	36	75	3	1,262	625	1	254	350
PM BUILD Queue	1	36	75	3	1,288	625	1	312	425
Westbound	# Lanes	Vol.	Length	# Lanes	Vol.	Length	# Lanes	Vol.	Length
Existing Lane Length	2	330	200	2	1,079	Cont	1	5	Cont
AM NO BUILD Queue	2	340	275	2	1,111	700	1	5	25
AM BUILD Queue	2	355	275	2	1,125	700	1	5	25
Existing Lane Length	2	409	200	2	1,255	Cont	1	24	Cont
PM NO BUILD Queue	2	421	325	2	1,293	850	1	25	75
PM BUILD Queue	2	449	350	2	1,319	875	1	25	75
Northbound	# Lanes	Vol.	Length	# Lanes	Vol.	Length	# Lanes	Vol.	Length
Existing Lane Length	2	281	100 / 175	1	11	Cont	1	203	Cont
AM NO BUILD Queue	2	289	225	1	11	50	1	209	300
AM BUILD Queue	2	289	225	1	11	50	1	220	300
Existing Lane Length	2	485	100 / 175	1	49	Cont	1	485	Cont
PM NO BUILD Queue	2	500	375	1	50	100	1	500	625
PM BUILD Queue	2	500	375	1	50	100	1	525	650
Southbound	# Lanes	Vol.	Length	# Lanes	Vol.	Length	# Lanes	Vol.	Length
Existing Lane Length	1	15	100	2	12	Cont	0	30	125
AM NO BUILD Queue	1	15	50	2	12	25	0	31	75
AM BUILD Queue	1	15	50	2	12	25	0	31	75
Existing Lane Length	1	38	100	2	29	Cont	0	46	125
PM NO BUILD Queue	1	39	100	2	30	50	0	47	100
PM BUILD Queue	1	39	100	2	30	50	0	47	100

Cycle Length: AM PM
 120 130

NOTE: Queue lengths are in feet.

The results of the implementation year analysis of the signalized intersection of Comanche Rd. / I-25 West Frontage Rd. are summarized in the following table:

Comanche Rd. / I-25 W. Frntg. Rd.	No Build		BUILD		
	2010	<u>A.M.</u>	<u>P.M.</u>	<u>A.M.</u>	<u>P.M.</u>
	Existing Geometry	C – 33.6	D – 40.5	D – 35.2	D – 47.1

The implementation year analysis of the intersection of Comanche Rd. / I-25 West Frontage Rd. demonstrates that the level-of-service will be acceptable for both the AM Peak Hour and PM Peak Hour conditions. The implementation year analysis shows that the proposed development increases the delays at the intersection by 1.6 - 6.6 seconds. Therefore, this study concludes that the development of the proposed development presents no significant impact to the calculated delays at the intersection of Comanche Rd. / I-25 West Frontage Rd.

Geometry used for this analysis of Comanche Rd. / I-25 West Frontage Rd. is demonstrated in the following table:

Existing Geometry (Comanche Rd. / I-25 W. Frntg. Rd.)					
Approach	Left Turn Lanes	Thru/Lefts	Thru Lanes	Thru/Rights	Right Turn Lanes
EB Comanche Rd.	0	0	1	1	0
WB Comanche Rd.	2	0	2	0	0
SB I-25 W. Frntg. Rd.	1	0	1	1	1

The following table summarizes the results of the queuing analysis for the auxiliary lanes at the intersection:

Queueing Analysis Summary Sheet

Project:
Intersection:

Vassar Development (I-25 E. Frntg. Rd. N. of Comanche Rd.)
Comanche Rd. / I-25 W. Frntg. Rd.

2010

Approach	Left Turns			Thru Movements			Right Turns		
Eastbound	# Lanes	Vol.	Length	# Lanes	Vol.	Length	# Lanes	Vol.	Length
<i>Existing Lane Length</i>	0	0	N/A	1	565	Cont	1	375	Cont
AM NO BUILD Queue	0	0	0	1	588	675	1	390	475
AM BUILD Queue	0	0	0	1	593	675	1	390	475
<i>Existing Lane Length</i>	0	3	N/A	1	623	Cont	1	523	Cont
PM NO BUILD Queue	0	3	25	1	648	800	1	544	675
PM BUILD Queue	0	3	25	1	658	800	1	544	675
Westbound	# Lanes	Vol.	Length	# Lanes	Vol.	Length	# Lanes	Vol.	Length
<i>Existing Lane Length</i>	2	494	225	2	1,301	Cont	0	0	N/A
AM NO BUILD Queue	2	514	375	2	1,353	825	0	0	0
AM BUILD Queue	2	545	375	2	1,357	825	0	0	0
<i>Existing Lane Length</i>	2	405	225	2	1,417	Cont	0	0	N/A
PM NO BUILD Queue	2	421	325	2	1,474	>1,000	0	0	0
PM BUILD Queue	2	495	375	2	1,483	>1,000	0	0	0
Northbound	# Lanes	Vol.	Length	# Lanes	Vol.	Length	# Lanes	Vol.	Length
<i>Existing Lane Length</i>	0	0	N/A	0	0	Cont	0	0	N/A
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
<i>Existing Lane Length</i>	0	0	N/A	0	0	Cont	0	0	N/A
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
Southbound	# Lanes	Vol.	Length	# Lanes	Vol.	Length	# Lanes	Vol.	Length
<i>Existing Lane Length</i>	1	320	Cont	2	873	Cont	1	144	Cont
AM NO BUILD Queue	1	333	425	2	908	600	1	150	225
AM BUILD Queue	1	392	475	2	908	600	1	150	225
<i>Existing Lane Length</i>	1	378	Cont	2	856	Cont	1	193	Cont
PM NO BUILD Queue	1	393	525	2	890	625	1	201	300
PM BUILD Queue	1	479	600	2	890	625	1	201	300

Cycle Length: **AM** **PM**
 120 130

NOTE: Queue lengths are in feet.

The recommendations based on the queuing analysis for the auxiliary lanes at the intersection are summarized in the following table:

Queueing Analysis Summary Sheet

Project:
Intersection:

Vassar Development (I-25 E. Frntg. Rd. N. of Comanche Rd.)
Comanche Rd. / Carlisle Blvd.

2010											
Approach	Left Turns			Thru Movements			Right Turns				
Eastbound	# Lanes	Vol.	Length	# Lanes	Vol.	Length	# Lanes	Vol.	Length		
<i>Existing Lane Length</i>	1	119	100	1	341	Cont	1	123	Cont.		
AM NO BUILD Queue	1	130	200	1	372	450	1	134	200		
AM BUILD Queue	1	148	225	1	404	500	1	188	275		
<i>Existing Lane Length</i>	1	162	100	1	579	Cont	1	289	Cont.		
PM NO BUILD Queue	1	177	275	1	632	775	1	316	425		
PM BUILD Queue	1	218	325	1	706	850	1	433	550		
Westbound	# Lanes	Vol.	Length	# Lanes	Vol.	Length	# Lanes	Vol.	Length		
<i>Existing Lane Length</i>	1	155	50	1	1,229	Cont	1	67	50		
AM NO BUILD Queue	1	161	225	1	1,278	>1,000	1	70	125		
AM BUILD Queue	1	161	225	1	1,330	>1,000	1	70	125		
<i>Existing Lane Length</i>	1	100	50	1	433	Cont	1	65	50		
PM NO BUILD Queue	1	104	175	1	450	575	1	68	125		
PM BUILD Queue	1	104	175	1	536	675	1	68	125		
Northbound	# Lanes	Vol.	Length	# Lanes	Vol.	Length	# Lanes	Vol.	Length		
<i>Existing Lane Length</i>	1	153	100	1	489	Cont	1	33	Cont		
AM NO BUILD Queue	1	159	225	1	509	600	1	34	75		
AM BUILD Queue	1	227	300	1	509	600	1	34	75		
<i>Existing Lane Length</i>	1	145	100	1	783	Cont	1	128	Cont		
PM NO BUILD Queue	1	151	250	1	814	>1,000	1	133	225		
PM BUILD Queue	1	278	400	1	814	>1,000	1	133	225		
Southbound	# Lanes	Vol.	Length	# Lanes	Vol.	Length	# Lanes	Vol.	Length		
<i>Existing Lane Length</i>	1	61	65	2	707	Cont	1	96	Cont		
AM NO BUILD Queue	1	63	125	2	735	500	1	100	175		
AM BUILD Queue	1	63	125	2	735	500	1	148	225		
<i>Existing Lane Length</i>	1	97	65	2	750	Cont	1	100	Cont		
PM NO BUILD Queue	1	101	175	2	780	550	1	104	175		
PM BUILD Queue	1	101	175	2	780	550	1	195	300		

Cycle Length: **AM** **PM**
 120 130

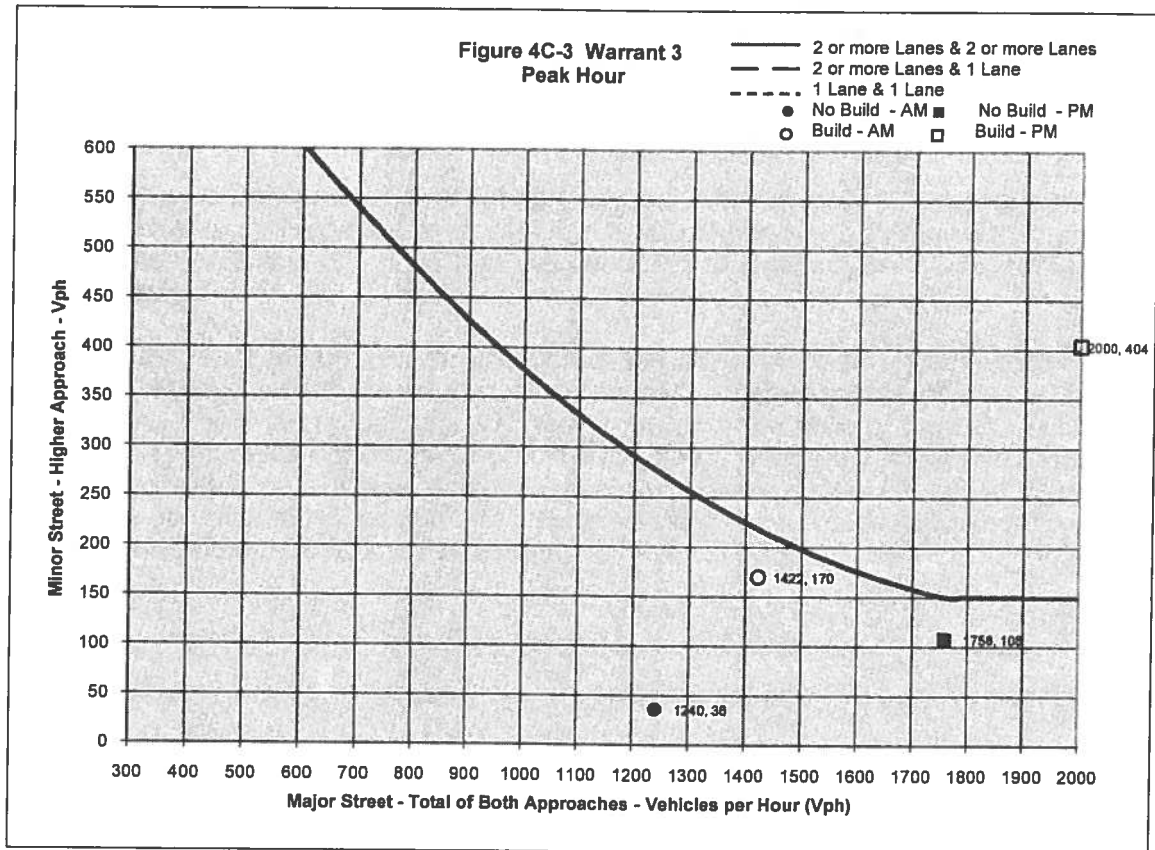
NOTE: Queue lengths are in feet.

Project Name
 Vassar Development
Intersection
 Comanche Rd. & Vassar Dr.
Analysis Year
 2010

Number of Lanes

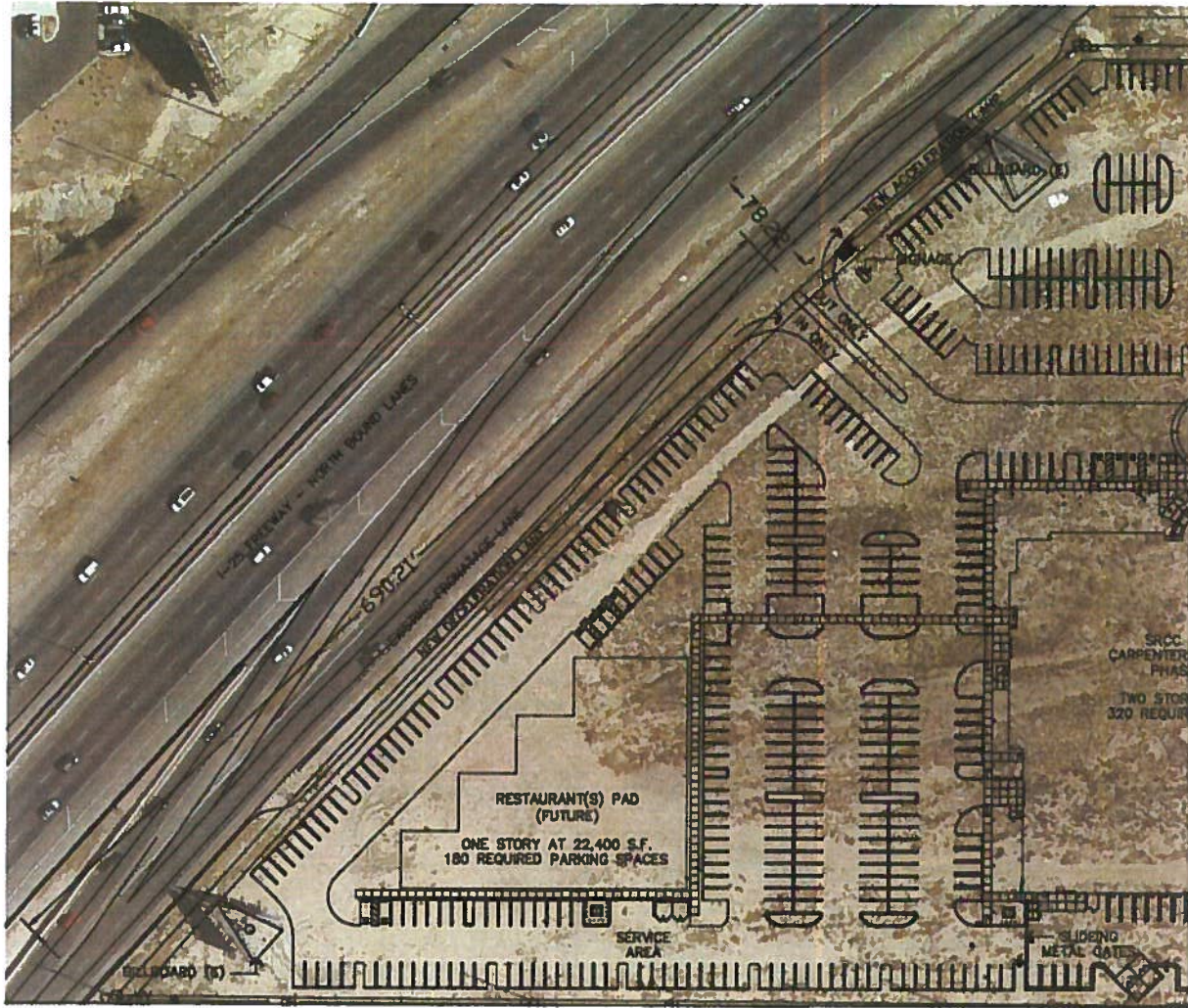
Major St. 2
 Minor St. 2

Analysis Year Traffic Volumes					
AM	Major	Minor	PM	Major	Minor
No Build	1240	36	No Build	1758	108
Build	1422	170	Build	2000	404



Comments - The PM Build Major Street Volume was 2088; however, 2000 was used since it is the max. on the chart.

This analysis indicates that the intersection of Comanche Rd. / Vassar Dr. meet the minimum requirements for the peak hour warrant (Warrant #3) established by the Manual on Uniform Traffic Control Devices (Millenium Edition w/2003 Update). It may be appropriate to construct a traffic signal at this location based on the results of the Peak Hour Warrant analysis. However, a traffic signal should not be permitted nor constructed until such time as a full Traffic Signal Warrant Study has been conducted as part of an engineering study to determine the feasibility of constructing a traffic signal at this location. A traffic signal should be constructed at this location only after such engineering study has been conducted based on actual traffic volumes present at the time of the study which demonstrate that a new traffic signal is warranted and will be beneficial to the transportation system. This study only demonstrates that the



#10 - Driveway 'B' / Vassar Dr. – Pages A-104 thru A-105

The results of the analysis of the unsignalized intersection of Driveway 'B' / Vassar Dr. are summarized in the following table:

	2010 BUILD	
	AM	PM
Driveway 'B' / Vassar Dr.		
Minor Street (Driveway 'B')		
EB	A – 9.8	C – 16.0
Major Street (Vassar Dr.)		
NB	A – 5.4	A – 5.3

This driveway is proposed to be a full access driveway. This analysis indicates that the driveway will operate at acceptable levels-of-service in the implementation year (2010). Thus, this analysis finds that the operation of Driveway 'B' / Vassar Dr. is acceptable.

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

LEVEL-OF-SERVICE CRITERIA FOR UNSIGNALIZED INTERSECTIONS

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

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

A queuing analysis for each lane group of each approach for every intersection was also analyzed in this study. The following table summarizes the results of the queuing analysis for the auxiliary lanes at each intersection:

Street Name	EB Queue Length (FT)	WB Queue Length (FT)	NB Queue Length (FT)	SB Queue Length (FT)
Vassar Dr. / I-25 E. Frntg. Rd.	-	50	-	-
Comanche Rd. / Vassar Dr.	25	-	-	1000

Note: Queue lengths obtained from Synchro

CONCLUSIONS AND RECOMMENDATIONS

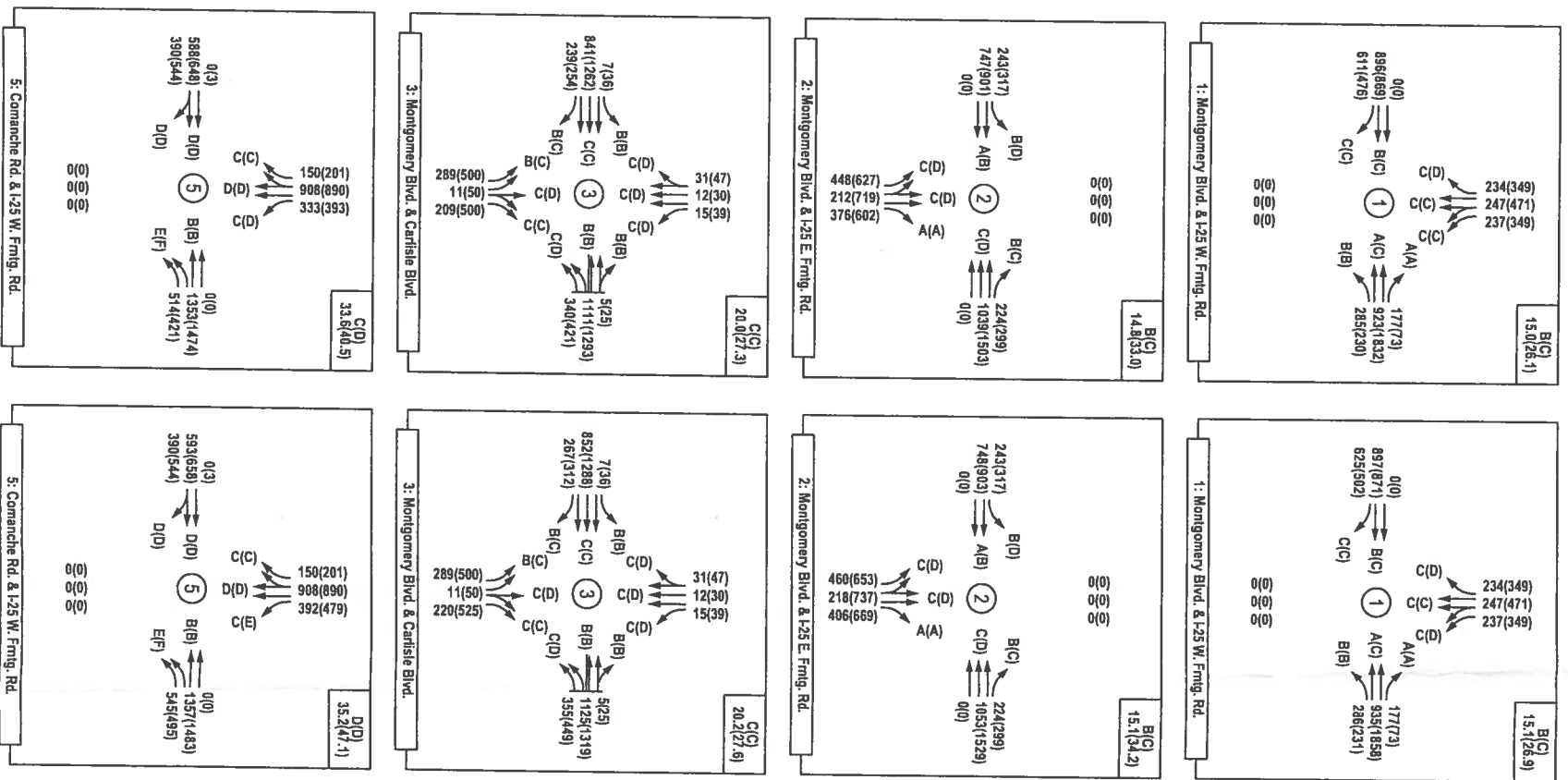
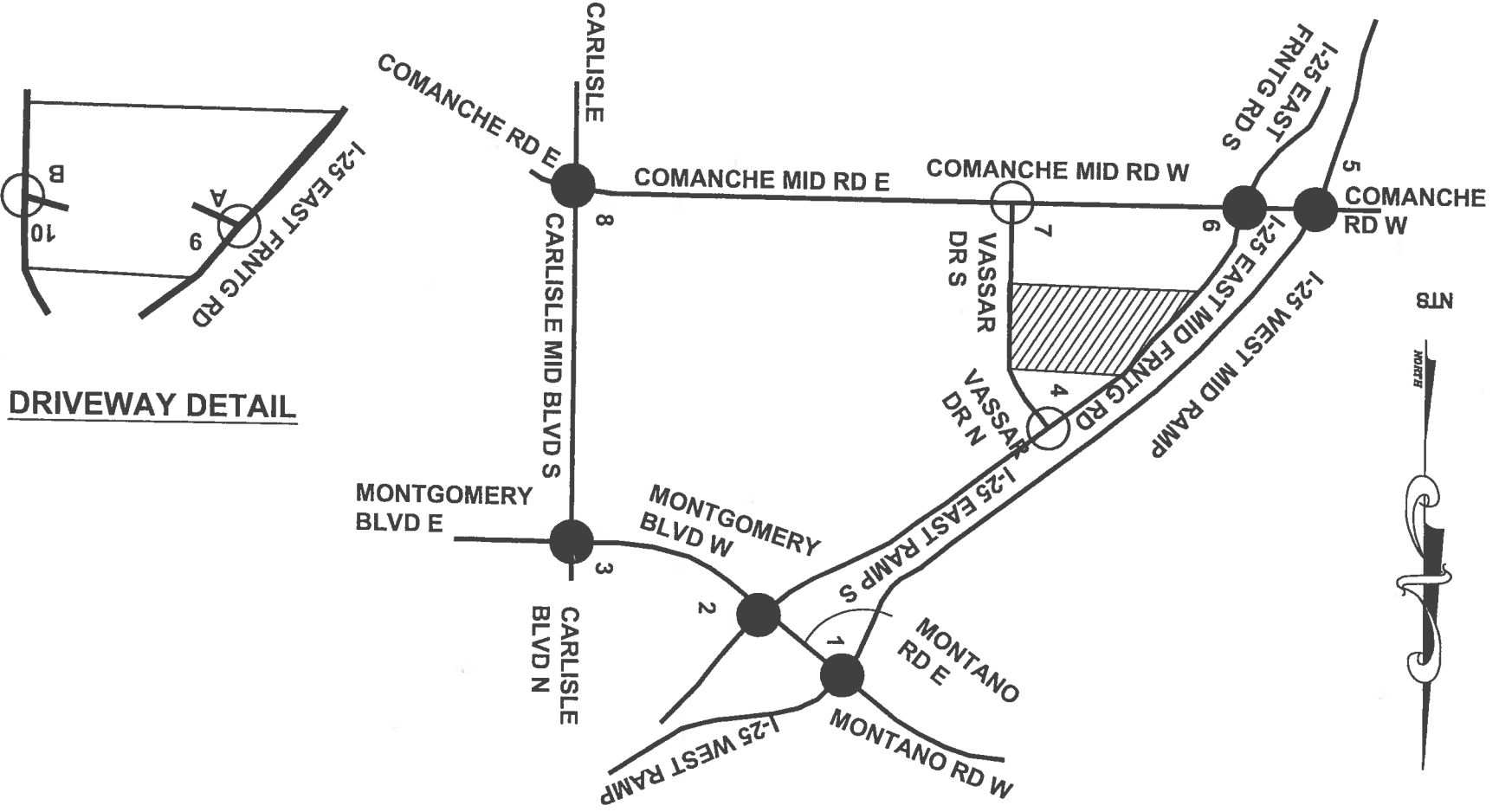
Utilizing projected traffic volumes resulting from the development of this site into a commercial facility such as the one shown on Page A-2 in the Appendix in conjunction with projected 2010 traffic volumes this report concludes that development of the subject site will have no significant adverse impact on the adjacent transportation system, provided that the following recommendations are followed:

RECOMMENDATIONS

- Design of the site should maintain adequate sight distances for traffic approaching, entering, and exiting the site from the proposed driveways
- All driveways should be constructed utilizing 25 feet minimum radius curb returns or larger if needed to accommodate delivery trucks. The new development should be implemented utilizing two driveways for access. Driveway 'A' (from I-25 East Frontage Rd.) should be a right-in, right-out drive and Driveway 'B' (from

Vassar Dr.) should be a full access drive. The driveways should be unsignalized and should be constructed with one entering lane and one exiting lane.

- Construct a 300' NB right turn lane at the intersection on the I-25 East Frontage Rd. at Comanche Rd.



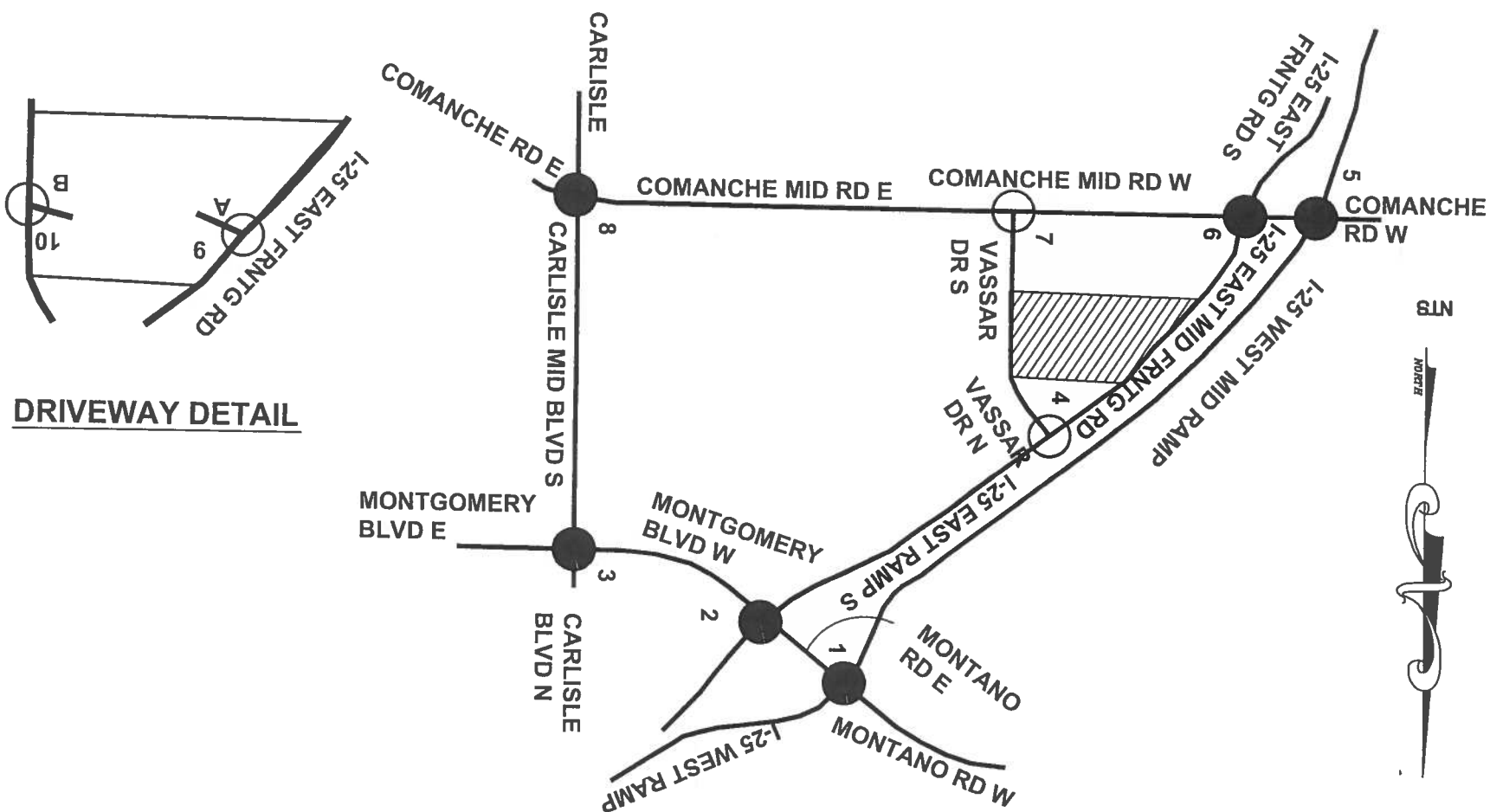
NO RECOMMENDATION

NO RECOMMENDATION

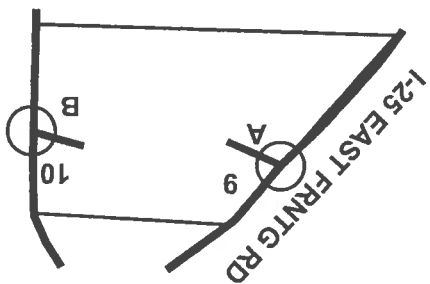
NO RECOMMENDATION

NO RECOMMENDATION

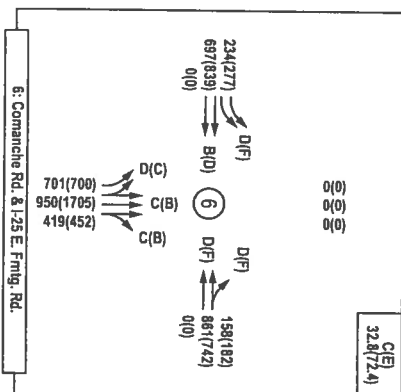
BUILD Analysis
(Mitigated)



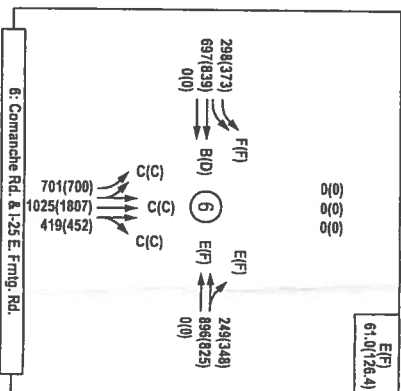
DRIVEWAY DETAIL



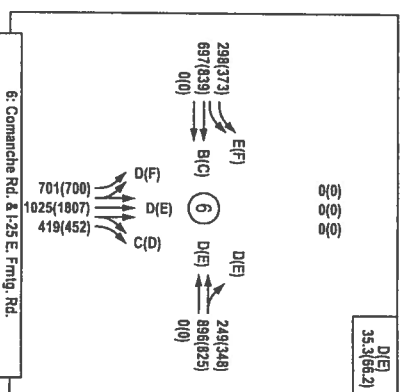
NO BUILD Analysis



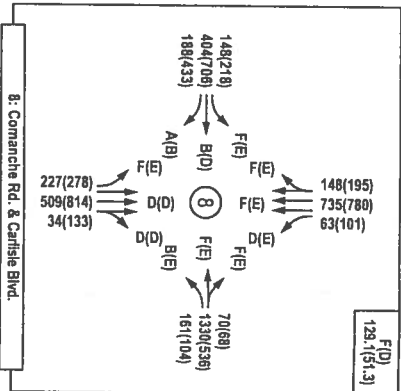
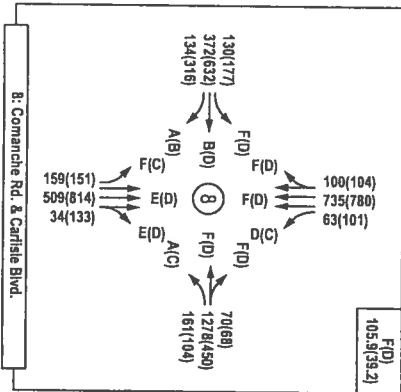
BUILD Analysis



BUILD Analysis (Mitigated)



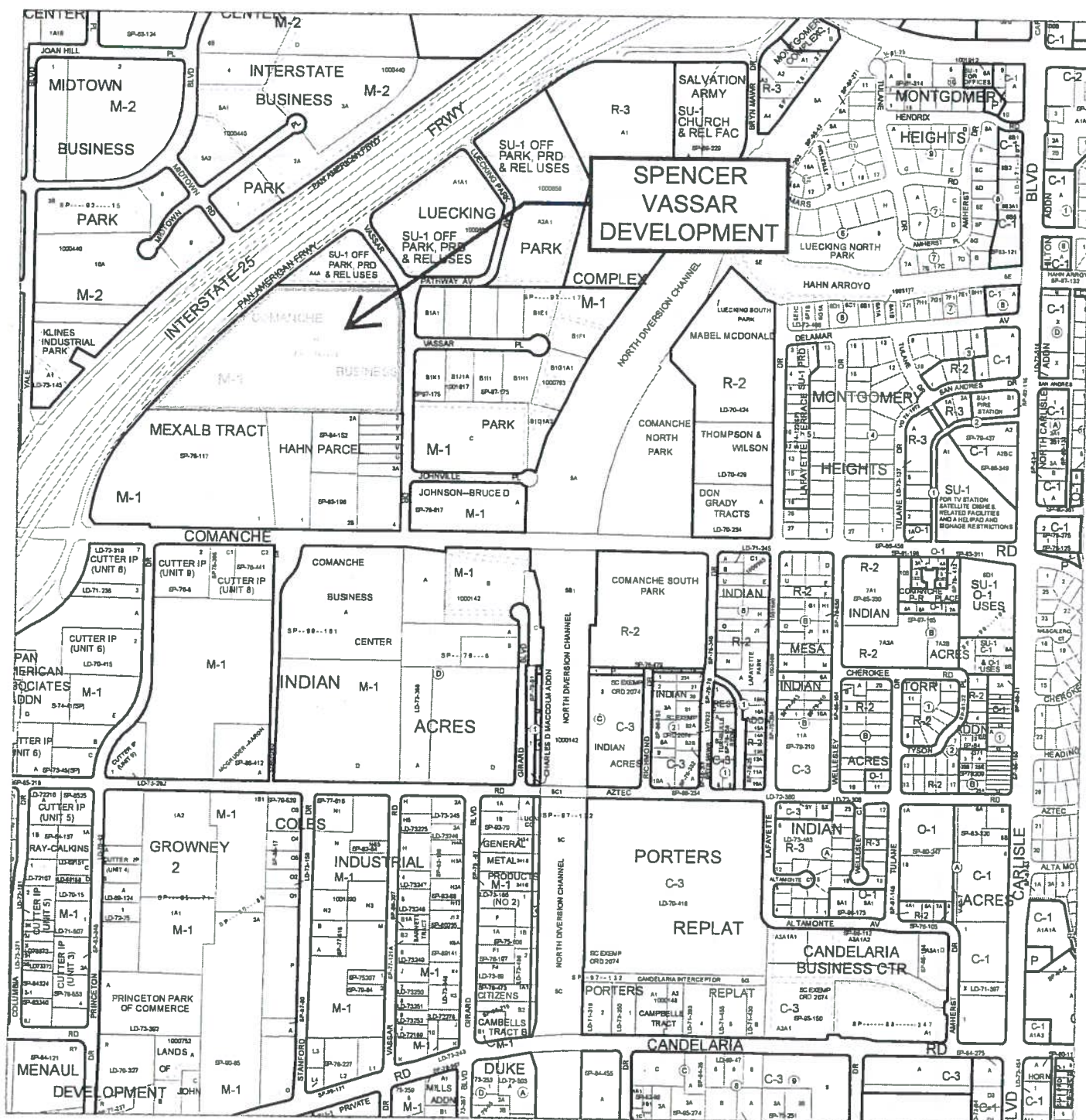
NO RECOMMENDATION



Appendix

<u>SITE INFORMATION</u>	
Vicinity Map	A-1
Proposed Site Plan	A-2
Long Range System Roadway Map (from MRCOG)	A-3
2005 Traffic Flow Map (from MRCOG)	A-4
<u>TRIP GENERATION</u>	
Trip Generation Worksheet	A-5 thru A-8
<u>TRIP DISTRIBUTION AND TRIP ASSIGNMENTS</u>	
Commercial Data Analysis Subzone (DASZ) Map	A-9
Commercial Trip Distribution Tables	A-10 thru A-13
Commercial Trip Distribution Map (%)	A-14
Commercial Trip Assignments Map (% Entering)	A-15
Commercial Trip Assignments Map (% Exiting)	A-16
Office Trip Distribution Subarea Map	A-17
Office Trip Distribution Tables	A-18 thru A-22
Office Trip Distribution Map (%)	A-23
Office Trip Assignments Map (% Entering)	A-24
Office Trip Assignments Map (% Exiting)	A-25
<u>TURNING MOVEMENT VOLUMES</u>	
2010 Turning Movement Volumes Summary Table	A-26 thru A-28
2010 Turning Movement Volumes Intersection Worksheets	A-29 thru A-48
Map – 2010 NO BUILD, Trips Generated, and BUILD Volumes	A-49 thru A-51
<u>SIGNALIZED INTERSECTION ANALYSES</u>	
Signalized Intersection Analysis (Montgomery Blvd. / I-25 W. Frntg. Rd)	A-52 thru A-57
Signalized Intersection Analysis (Montgomery Blvd. / I-25 E. Frntg. Rd.)	A-58 thru A-63
Signalized Intersection Analysis (Montgomery Blvd. / Carlisle Blvd.)	A-64 thru A-69
Signalized Intersection Analysis (Comanche Rd. / I-25 W. Frntg. Rd.)	A-70 thru A-75
Signalized Intersection Analysis (Comanche Rd. / I-25 E. Frntg. Rd.)	A-76 thru A-83
Signalized Intersection Analysis (Comanche Rd. / Carlisle Blvd.)	A-84 thru A-89
<u>UNSIGNALIZED INTERSECTION ANALYSES</u>	
Unsignalized Intersection Analysis (Vassar Dr. / I-25 E. Frntg. Rd.)	A-90 thru A-95
Unsignalized Intersection Analysis (Comanche Rd / Vassar Dr.)	A-96 thru A-101
Unsignalized Intersection Analysis (Driveway 'A' / I-25 E. Frntg. Rd.)	A-102 thru A-103
Unsignalized Intersection Analysis (Driveway 'B' / Vassar Dr.)	A-104 thru A-105
<u>TRAFFIC DATA</u>	
Traffic Count Data Sheets	A-106 thru A-117
Intersection Data Sheets	A-118 thru A-123
Growth Rate Charts	A-124 thru A-137

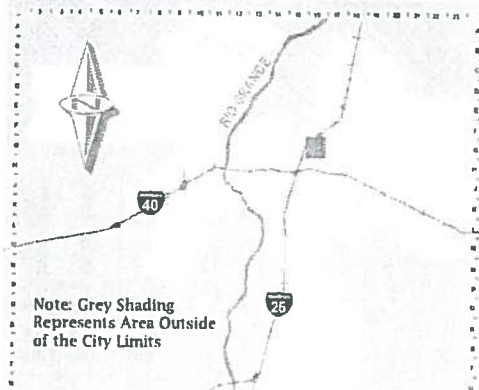
APPENDIX



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



Map amended through: 11/2/2005



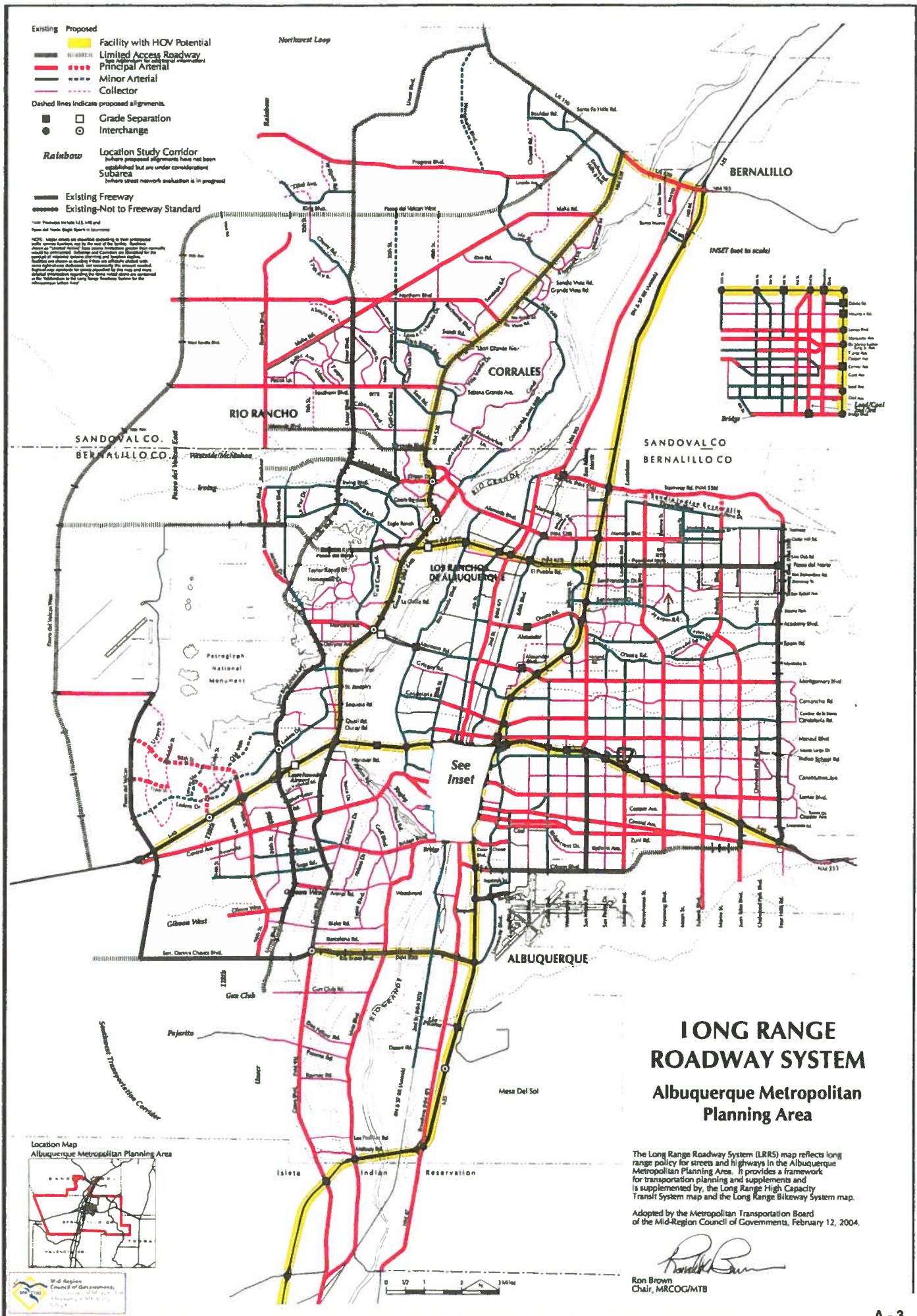
Zone Atlas Page:

G-16-Z

Selected Symbols

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





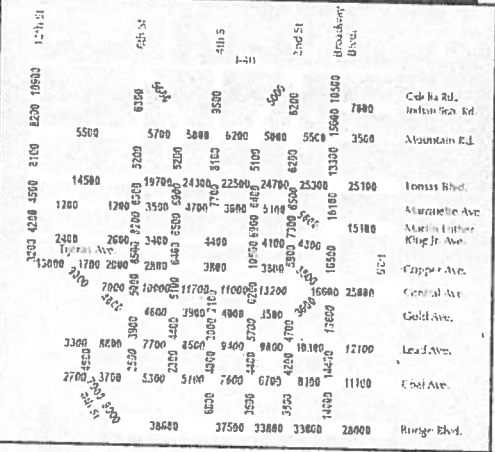
LONG RANGE ROADWAY SYSTEM Albuquerque Metropolitan Planning Area

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.

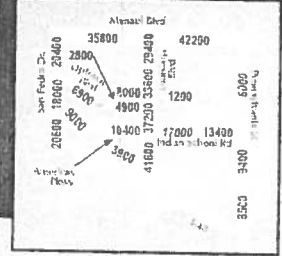
Adopted by the Metropolitan Transportation Board of the Mid-Region Council of Governments, February 12, 2004.

Ron Brown
Ron Brown
Chair, MRCOG/MTB

Inset for Downtown



Inset for Uptown



SANDOVAL CO.
BERNALILLO CO.

BERNALILLO CO.

Sandia Indian Reservation

See Inset for Downtown

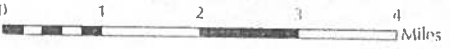
AI BUQUERQUE

Average Weekday Traffic Flows

- 0 - 900
- 1000 - 4900
- 5000 - 14900
- 15000 - 24900
- 25000 - 34900
- 35000 - 44900
- 45000 - 54900
- 55000 - 184900

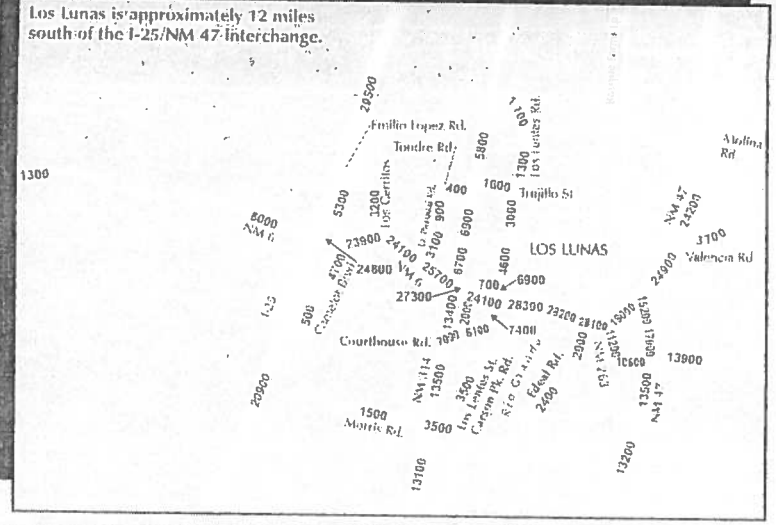
Standard Data
9500
Link Volume is based on traffic count data accepted by the NM Department of Transportation Traffic Monitoring System (TMS) as standard in accordance with the New Mexico State Traffic Monitoring Standards (NMSTMS).

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



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.

Inset for Los Lunas/Valencia County



2005 Traffic Flows for the Greater Albuquerque Area

Vassar Development (I-25 E. Frntg. Rd. N. of Comanche Rd.)
Trip Generation Data

COMMENT	USE (ITE CODE)	DESCRIPTION	24 HR VOL		A. M. PEAK HR.		P. M. PEAK HR.	
			GROSS	ENTER	EXIT	ENTER	EXIT	
Summary Sheet								
		Units						
Restaurants Pad		High Turnover (Sit-Down) Restaurant (932)	22.40	2,848	134	124	149	95
Retail		Shopping Center (820)	87.20	6,213	88	56	275	298
Carpenter Training Cntr. Junior / Community College (540)			250.00	471	104	23	114	64
Subtotal Trips				9,532	326	203	538	457

Vassar Development (I-25 E. Frntg. Rd. N. of Comanche Rd.)
Trip Generation Data

USE (ITE CODE)	24 HOUR TWO-WAY VOLUME	A. M. PEAK HOUR		P. M. PEAK HOUR	
	GROSS	ENTER	EXIT	ENTER	EXIT
High Turnover (Sit-Down) Restaurant (932)					
Units					
22.40					
1,000 S.F.					
	2,848	134	124	149	95

ITE Trip Generation Equations:

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

$$T = \frac{127.15 (X) + 0}{50\% \text{ Enter, } 50\% \text{ Exit}}$$

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

$$T = \frac{11.52 (X) + 0}{52\% \text{ Enter, } 48\% \text{ Exit}}$$

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

$$T = \frac{10.92 (X) + 0}{61\% \text{ Enter, } 39\% \text{ Exit}}$$

Comments:
Restaurants Pad

Based on ITE Trip Generation Manual - 7th Edition

Vassar Development (I-25 E. Frntg. Rd. N. of Comanche Rd.)
Trip Generation Data

USE (ITE CODE)	24 HOUR TWO-WAY VOLUME		A. M. PEAK HOUR		P. M. PEAK HOUR	
	GROSS	ENTER	EXIT	ENTER	EXIT	ENTER
Shopping Center (820)						
		Units				
	87.20	6,213	88	56	275	298
	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:
Retail

Based on ITE Trip Generation Manual - 7th Edition

*Vassar Development (I-25 E. Frntg. Rd. N. of Comanche Rd.)
Trip Generation Data*

USE (ITE CODE)	24 HOUR TWO-WAY VOLUME	A. M. PEAK HOUR		P. M. PEAK HOUR	
		ENTER	EXIT	ENTER	EXIT
Junior / Community College (540)					
	GROSS	ENTER	EXIT	ENTER	EXIT
		471	104	23	114
Units					
250					
Students					
64					

ITE Trip Generation Equations:

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

$$\ln(T) = 0.89 \ln(X) + 1.24$$

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)

$$\ln(T) = 0.64 \ln(X) + 1.31$$

82% Enter, 18% Exit

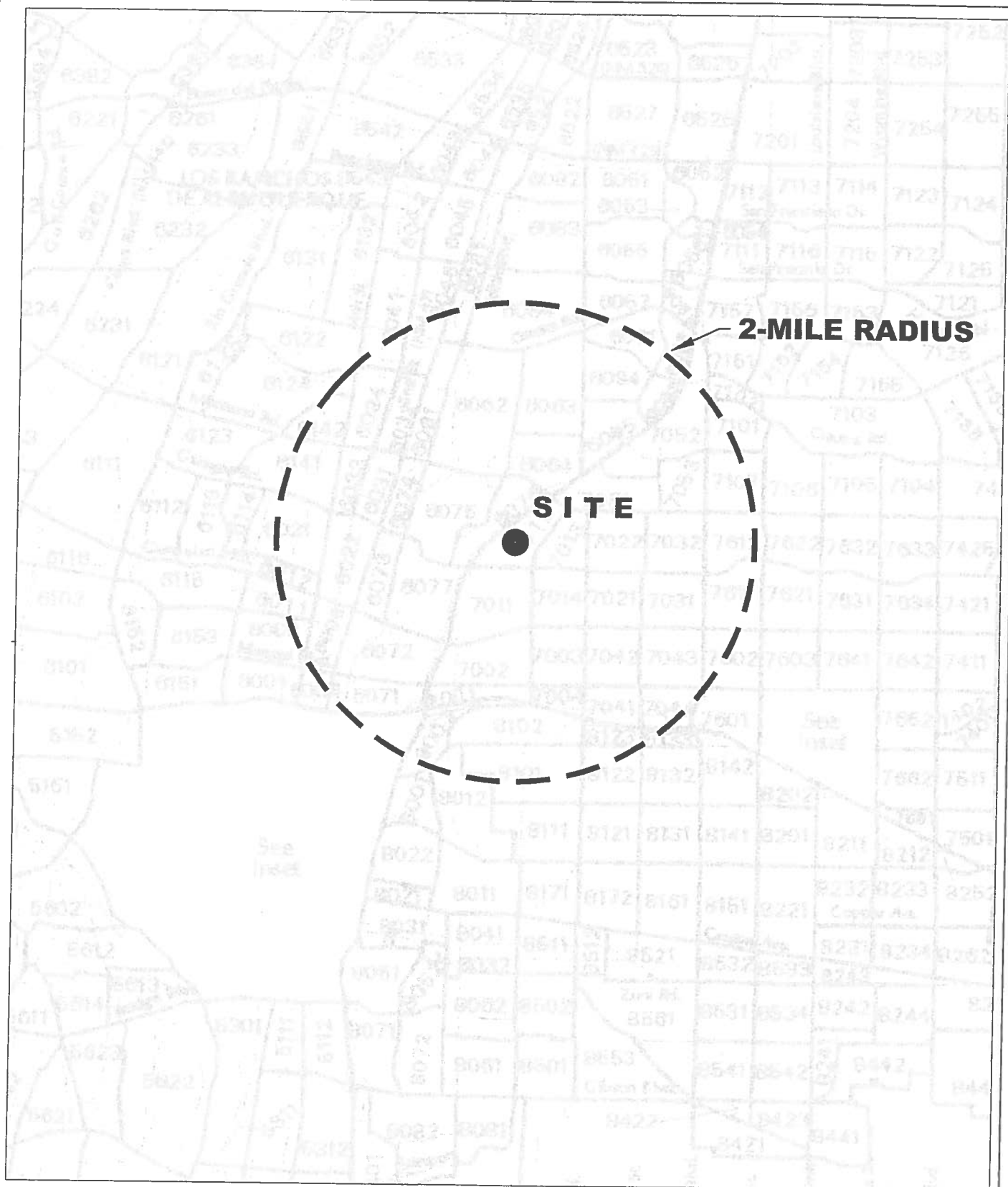
Average Vehicle Trip Ends on a Weekday, Peak Hour of Adjacent Street Traffic, One Hour Between 4pm and 6pm (P.M. PEAK HOUR)

$$\ln(T) = 0.53 \ln(X) + 2.26$$

64% Enter, 36% Exit

Comments:
Carpenter Training Cntr.

Based on ITE Trip Generation Manual - 7th Edition



DATA ANALYSIS SUBZONE (DASZ) MAP

Vassar Office Park (I-25 E. Frntg. Rd. North of Comanche Rd.

Trip Distribution Table
Vassar Development (I-25 E. Frntg. Rd. N. of Comanche Rd.)

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

2000 and 2025 Data Taken from Mid-Region Council of Governments' 2025 Socioeconomic
2025 Socioeconomic Forecasts by Data Analysis Subzones for the Mid-Region of New Mexico (S-03-01)

Boundary Specified on DASZ Map							(CAN)			(ME)			(CE)			(CAMS)			(CAS)		
DASZ #	% Sub Area in Study	2000 Population	2025 Population	Interpolated Population for the Year 2010	Population in Study	Percent Population	% Utilizing	% Population Utilizing	Population	% Utilizing	% Population Utilizing	Population	% Utilizing	% Population Utilizing	Population	% Utilizing	% Population Utilizing	Population	% Utilizing	% Population Utilizing	Population
6062	100%	1359	1526	1,426	1,426	6.24%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
6063	100%	0	2	1	1	0.00%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
6064	100%	0	0	0	0	0.00%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
6075	100%	99	97	98	98	0.43%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
6076	100%	3	3	3	3	0.01%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
6077	100%	354	388	368	368	1.61%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
6074	100%	53	48	51	51	0.22%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
6073	100%	48	49	48	48	0.21%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
6072	100%	232	290	255	255	1.12%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
6071	100%	406	397	402	402	1.76%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
6094	100%	0	2	1	1	0.00%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
6095	100%	0	0	0	0	0.00%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
7001	100%	0	0	0	0	0.00%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
7002	100%	5	55	25	25	0.11%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
7003	100%	88	319	180	180	0.79%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
7004	100%	2	2	2	2	0.01%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
7011	100%	13	15	14	14	0.06%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	0%	0.00%	1
7012	100%	464	530	490	490	2.14%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
7013	100%	1097	1137	1,113	1,113	4.87%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
7014	100%	1970	1872	1,931	1,931	8.45%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
7051	100%	2944	2761	2,871	2,871	12.56%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
7052	100%	6	6	6	6	0.03%	0%	0.01%	2	0%	0.01%	2	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
7053	100%	7	56	27	27	0.12%	0%	0.00%	0	0%	0.12%	27	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
7022	100%	1724	1681	1,707	1,707	7.47%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
7032	100%	1574	1667	1,611	1,611	7.05%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
7021	100%	1308	1466	1,371	1,371	6.00%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
7031	100%	1996	1919	1,965	1,965	8.60%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
7042	100%	1133	1053	1,101	1,101	4.82%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
7043	100%	1495	1395	1,455	1,455	6.37%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
7044	100%	182	172	178	178	0.78%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
7044	80%	13	15	14	11	0.05%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
8101	60%	2390	2245	2,332	1,399	6.12%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
8102	100%	1479	1425	1,457	1,457	6.37%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
8122	30%	1258	1198	1,234	370	1.62%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
8123	100%	267	316	287	287	1.26%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
8133	15%	1	1	1	0	0.00%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
7602	30%	1084	1036	1,065	320	1.40%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
7612	90%	940	919	932	839	0.00%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
7613	80%	940	919	932	746	0.00%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
7107	70%	2270	2166	2,228	1,560	0.00%	0%	0.00%	0	100%	0.00%	0	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
7101	30%	2152	2020	2,099	630	0.00%	0%	0.00%	0	70%	0.00%	0	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
6022	100%	1093	1114	1,101	1,101	0.00%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
6031	100%	374	636	479	479	0.00%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
6032	100%	670	683	675	675	0.00%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
6033	100%	561	546	555	555	0.00%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
6034	100%	465	509	483	483	0.00%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
6142	75%	565	545	557	418	0.00%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
6141	65%	1983	2029	2,001	1,301	0.00%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
6021	75%	2228	2220	2,225	1,689	0.00%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
6011	50%	552	551	552	276	0.00%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
6012	75%	914	1030	960	720	0.00%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
6041	25%	1144	1318	1,214	304	0.00%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
6046	50%	661	619	644	322	0.00%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
6084	50%	565	2145	1,197	599	0.00%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
6061	100%	411	610	491	491	0.00%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0</						

Trip Distribution Table
Vassar Development (I-25 E. Frmtg. Rd. N. of Comanche Rd.)

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

2000 and 2025 Data Taken from Mid-Region Council of Governments' 2025 Socioeconomic
2025 Socioeconomic Forecasts by Data Analysis Subzones for the Mid-Region of New Mexico (S-03-01)

						(CME)			(CMW)			(IEFS)			(CW)			(IWFN)		
DASZ #		% Sub Area In Study	2000 Population	2025 Population	Interpolated Population for the Year 2010	Population In Study	Percent Population	% Utilizing	% Population Utilizing	Population	% Utilizing	% Population Utilizing	Population	% Utilizing	% Population Utilizing	Population	% Utilizing	% Population Utilizing	Population	
Boundary Specified on DASZ Map																				
6062	100%	100%	1359	1526	1,426	1,426	6.24%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	
6063	100%	100%	0	2	1	1	0.00%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	
6064	100%	100%	0	0	0	0	0.00%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	
6075	100%	100%	99	97	98	98	0.43%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	
6076	100%	100%	3	3	3	3	0.01%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	
6077	100%	100%	354	388	368	368	1.61%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	
6074	100%	100%	53	48	51	51	0.22%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	
6073	100%	100%	48	49	48	48	0.21%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	
6072	100%	100%	232	290	255	255	1.12%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	
6071	100%	100%	406	397	402	402	1.76%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	
6094	100%	100%	0	2	1	1	0.00%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	
6095	100%	100%	0	0	0	0	0.00%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	
7001	100%	100%	0	0	0	0	0.00%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	
7002	100%	100%	5	55	25	25	0.11%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	
7003	100%	100%	88	319	180	180	0.79%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	
7004	100%	100%	2	1	2	2	0.01%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	
7011	100%	100%	13	15	14	14	0.06%	0%	0.00%	0	50%	0.03%	7	50%	0.03%	7	0%	0.00%	0	
7012	100%	100%	464	530	490	490	2.14%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	
7013	100%	100%	1097	1137	1,113	1,113	4.87%	60%	2.92%	668	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	
7014	100%	100%	1970	1872	1,931	1,931	8.45%	33%	2.79%	637	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	
7051	100%	100%	2944	2761	2,871	2,871	12.56%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	
7052	100%	100%	6	6	6	6	0.03%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	
7053	100%	100%	7	56	27	27	0.12%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	0%	0.00%	2	
7022	100%	100%	1724	1681	1,707	1,707	7.47%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	
7032	100%	100%	1574	1667	1,611	1,611	7.05%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	
7021	100%	100%	1308	1466	1,371	1,371	6.00%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	
7031	100%	100%	1996	1919	1,965	1,965	8.60%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	
7042	100%	100%	1133	1053	1,101	1,101	4.82%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	
7043	100%	100%	1495	1395	1,455	1,455	6.37%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	
7041	100%	100%	182	172	178	178	0.78%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	
7044	80%	80%	13	15	14	11	0.05%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	
8101	60%	60%	2390	2245	2,332	1,399	6.12%	0%	0.00%	0	0%	0.00%	0	50%	3.06%	700	0%	0.00%	0	
8102	100%	100%	1479	1425	1,457	1,457	6.37%	0%	0.00%	0	0%	0.00%	0	50%	3.19%	729	0%	0.00%	0	
8122	30%	30%	1258	1198	1,234	370	1.62%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	
8123	100%	100%	267	316	287	287	1.26%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	
8133	15%	15%	1	1	1	0	0.00%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	
7602	30%	30%	1084	1036	1,065	320	1.40%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	
7612	90%	90%	940	919	932	839	0.00%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	
7613	80%	80%	940	919	932	746	0.00%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	
7107	70%	70%	2270	2166	2,228	1,560	0.00%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	
7101	30%	30%	2152	2020	2,099	630	0.00%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	
6022	100%	100%	1093	1114	1,101	1,101	0.00%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	
6031	100%	100%	374	636	479	479	0.00%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	
6032	100%	100%	670	683	675	675	0.00%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	
6033	100%	100%	561	546	555	555	0.00%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	
6034	100%	100%	465	509	483	483	0.00%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	
6142	75%	75%	565	545	557	418	0.00%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	
6141	65%	65%	1983	2029	2,001	1,301	0.00%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	
6021	75%	75%	2228	2220	2,225	1,669	0.00%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	
6011	50%	50%	552	551	552	276	0.00%	0%	0.00%	0	20%	0.00%	0	80%	0.00%	0	0%	0.00%	0	
6012	75%	75%	914	1030	960	720	0.00%	0%	0.00%	0	50%	0.00%	0	50%	0.00%	0	0%	0.00%	0	
6041	25%	25%	1144	1318	1,214	304	0.00%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	
6046	50%	50%	661	619	644	322	0.00%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	
6084	50%	50%	565	2145	1,197	599	0.00%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	
6061	100%	100%	411	610	491	491	0.00%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	
6081	20%	20%	280	467	355	71	0.00%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	
6002	15%	15%	1377	1315	1,352	203	0.00%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	
6124	5%	5%	727	796	755	38	0.00%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	
8012	15%	15%	466	458	463	69	0.00%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	
8002	90%	90%	419	710	535	482	0.00%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	
6003	100%	100%	722	701	714	714	0.00%	0%	0.00%	0	60%	0.00%	0	40%	0.00%	0	0%	0.00%	0	
6004	20%	20%	77	369	194	39	0.00%	0%	0.00%	0	100%	0.00%	0	0%	0.00%	0	0%	0.00%	0	
6091	50%	50%	0	0	0	0	0.00%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	
6092	30%	30%	0	0	0	0	0.00%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	
6093	100%	100%	0</																	

Trip Distribution Table
Vassar Development (I-25 E. Fm'tg. Rd. N. of Comanche Rd.)

Data Analysis Subzone Population Data for determination of Local Trip Distribution for Proposed Retail Commercial Trips
2000 and 2025 Data Taken from Mid-Region Council of Governments' 2025 Socioeconomic
2025 Socioeconomic Forecasts by Data Analysis Subzones for the Mid-Region of New Mexico (S-03-01)

							(IEMS)			(VS)			(VN)			(IES)		
							I-25 E. Mid. Fm'tg. Rd. S.			Vassar Dr. S			Vassar Dr. N.			I-25 East Ramp S		
DASZ #	% Sub Area in Study	2000 Population	2025 Population	Interpolated Population for the Year 2010	Population In Study	Percent Population	% Utilizing	% Population Utilizing	Population	% Utilizing	% Population Utilizing	Population	% Utilizing	% Population Utilizing	Population	% Utilizing	% Population Utilizing	Population
Boundary Specified on DASZ Map																		
6062	100%	1359	1526	1,426	1,426	6.24%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
6063	100%	0	2	1	1	0.00%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
6064	100%	0	0	0	0	0.00%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
6075	100%	99	97	98	98	0.43%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
6076	100%	3	3	3	3	0.01%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
6077	100%	354	388	368	368	1.61%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
6074	100%	53	48	51	51	0.22%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
6073	100%	48	49	48	48	0.21%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
6072	100%	232	290	255	255	1.12%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
6071	100%	406	397	402	402	1.76%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
6094	100%	0	2	1	1	0.00%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
6095	100%	0	0	0	0	0.00%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
7001	100%	0	0	0	0	0.00%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
7002	100%	5	55	25	25	0.11%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
7003	100%	88	319	180	180	0.79%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
7004	100%	2	1	2	2	0.01%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
7011	100%	13	15	14	14	0.06%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
7012	100%	464	530	490	490	2.14%	0%	0.00%	0	50%	1.07%	245	50%	1.07%	245	0%	0.00%	0
7013	100%	1097	1137	1,113	1,113	4.87%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
7014	100%	1970	1872	1,931	1,931	8.45%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
7051	100%	2944	2761	2,871	2,871	12.56%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
7052	100%	6	6	6	6	0.03%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
7053	100%	7	56	27	27	0.12%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
7022	100%	1724	1681	1,707	1,707	7.47%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
7032	100%	1574	1667	1,611	1,611	7.05%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
7021	100%	1308	1466	1,371	1,371	6.00%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
7031	100%	1996	1919	1,965	1,965	8.60%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
7042	100%	1133	1053	1,101	1,101	4.82%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
7043	100%	1495	1395	1,455	1,455	6.37%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
7041	100%	182	172	178	178	0.78%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
7044	80%	13	15	14	11	0.05%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
8101	60%	2390	2245	2,332	1,399	6.12%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
8102	100%	1479	1425	1,457	1,457	6.37%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
8122	30%	1258	1198	1,234	370	1.62%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
8123	100%	267	316	287	287	1.26%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
8133	15%	1	1	1	0	0.00%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
7602	30%	1084	1036	1,065	320	1.40%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
7612	90%	940	919	932	839	0.00%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
7613	80%	940	919	932	746	0.00%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
7107	70%	2270	2166	2,228	1,560	0.00%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
7101	30%	2152	2020	2,099	630	0.00%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
6022	100%	1093	1114	1,101	1,101	0.00%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
6031	100%	374	636	479	479	0.00%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
6032	100%	670	683	675	675	0.00%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
6033	100%	561	546	555	555	0.00%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
6034	100%	465	509	483	483	0.00%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
6142	75%	565	545	557	418	0.00%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
6141	65%	1983	2029	2,001	1,301	0.00%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
6021	75%	2228	2220	2,225	1,669	0.00%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
6011	50%	552	551	552	276	0.00%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
6012	75%	914	1030	960	720	0.00%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
6041	25%	1144	1318	1,214	304	0.00%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
6046	50%	661	619	644	322	0.00%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
6084	50%	565	2145	1,197	599	0.00%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
6061	100%	411	610	491	491	0.00%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
6081	20%	280	467	355	71	0.00%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
6002	15%	1377	1315	1,352	203	0.00%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
6124	5%	727	796	755	38	0.00%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
8012	15%	466	498	463	69	0.00%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
8002	90%	419	710	535	482	0.00%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
6003	100%	722	701	714	714	0.00%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
6004	20%	77	369	194	39	0.00%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
6091	30%	0	0	0	0	0.00%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
6092	30%	0	0	0	0	0.00%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
6093	100%	0	0	0	0	0.00%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
5242	25%	1278	1229	1,258	315	1.38%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
							50.041		37,643	100.00%		245	1.07%		245	1.07%		0.00%

Trip Distribution Table
Vassar Development (I-25 E. Frntg. Rd. N. of Comanche Rd.)

Data Analysis Subzone Population Data for determination of Local Trip Distribution for Proposed Retail Commercial Trips
2000 and 2025 Data Taken from Mid-Region Council of Governments' 2025 Socioeconomic
2025 Socioeconomic Forecasts by Data Analysis Subzones for the Mid-Region of New Mexico (S-03-01)

										(MOW)				(MOE)				(MMW)				(IMW)			
										Montano Rd. W.				Montano Rd. E.				Montgomery Blvd. W.				I-25 W. Ramp N.			
DASZ #	% Sub Area In Study	2000 Population	2025 Population	Interpolated Population for the Year 2010	Population in Study	Percent Population	% Utilizing	% Population Utilizing	Population	% Utilizing	% Population Utilizing	Population	% Utilizing	% Population Utilizing	Population	% Utilizing	% Population Utilizing	Population	% Utilizing	% Population Utilizing	Population				
Boundary Specified on DASZ Map																									
6062	100%	1359	1526	1,426	1,426	6.24%	100%	6.24%	1,426	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0				
6063	100%	0	2	1	1	0.00%	70%	0.00%	1	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	10%	0.00%	0				
6064	100%	0	0	0	0	0.00%	40%	0.00%	0	20%	0.00%	0	0%	0.00%	0	0%	0.00%	0	40%	0.00%	0				
6075	100%	99	97	98	98	0.43%	30%	0.13%	29	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0				
6076	100%	3	3	3	3	0.01%	15%	0.00%	0	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0				
6077	100%	354	388	368	368	1.61%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0				
6074	100%	53	48	51	51	0.22%	30%	0.07%	15	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0				
6073	100%	48	49	48	48	0.21%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0				
6072	100%	232	290	255	255	1.12%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0				
6071	100%	406	397	402	402	1.76%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0				
6094	100%	0	2	1	1	0.00%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0				
6095	100%	0	0	0	0	0.00%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	50%	0.00%	0				
7001	100%	0	0	0	0	0.00%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0				
7002	100%	5	55	25	25	0.11%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0				
7003	100%	88	319	180	180	0.79%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0				
7004	100%	2	1	2	2	0.01%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0				
7011	100%	13	15	14	14	0.06%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0				
7012	100%	464	530	490	490	2.14%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0				
7013	100%	1097	1137	1,113	1,113	4.87%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	0%	0.00%	56	0%	0.00%	0				
7014	100%	1970	1872	1,931	1,931	8.45%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	5%	0.24%	0	0%	0.00%	0				
7051	100%	2944	2761	2,871	2,871	12.56%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0				
7052	100%	6	6	6	6	0.03%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	50%	6.28%	1,436	0%	0.00%	0				
7053	100%	7	56	27	27	0.12%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0				
7022	100%	1724	1681	1,707	1,707	7.47%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0				
7032	100%	1574	1667	1,611	1,611	7.05%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0				
7021	100%	1308	1466	1,371	1,371	6.00%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0				
7031	100%	1996	1919	1,965	1,965	8.60%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0				
7042	100%	1133	1053	1,101	1,101	4.82%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0				
7043	100%	1495	1395	1,455	1,455	6.37%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0				
7041	100%	182	178	178	178	0.78%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0				
7044	80%	13	15	14	11	0.05%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0				
8101	60%	2390	2245	2,332	1,399	6.12%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0				
8102	100%	1479	1425	1,457	1,457	6.37%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0				
8122	30%	1258	1198	1,234	370	1.62%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0				
8123	100%	267	316	287	287	1.26%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0				
8133	15%	1	1	1	0	0.00%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0				
7602	30%	1084	1036	1,065	320	1.40%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0				
7612	90%	940	919	932	839	0.00%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0				
7613	80%	940	919	932	746	0.00%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0				
7107	70%	2270	2166	2,228	1,560	0.00%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0				
7101	30%	2152	2020	2,099	630	0.00%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0				
6022	100%	1093	1114	1,101	1,101	0.00%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0				
6031	100%	374	636	479	479	0.00%	40%	0.00%	0	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0				
6032	100%	670	683	675	675	0.00%	100%	0.00%	0	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0				
6033	100%	561	546	555	555	0.00%	50%	0.00%	0	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0				
6034	100%	465	509	483	483	0.00%	100%	0.00%	0	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0				
6142	75%	565	545	557	418	0.00%	100%	0.00%	0	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0				
6141	65%	1983	2029	2,001	1,301	0.00%	15%	0.00%	0	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0				
6021	75%	2228	2220	2,225	1,669	0.00%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0				
6011	50%	552	551	552	276	0.00%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0				
6012	75%	914	1030	960	720	0.00%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0				
6041	25%	1144	1318	1,214	304	0.00%	100%	0.00%	0	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0				
6046	50%	661	619	644	322	0.00%	50%	0.00%	0	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0				
6084	50%	565	2145	1,197	599	0.00%	50%	0.00%	0	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0				
6061	100%	411	610	491	491	0.00%	100%	0.00%	0	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0				
6081	20%	280																							

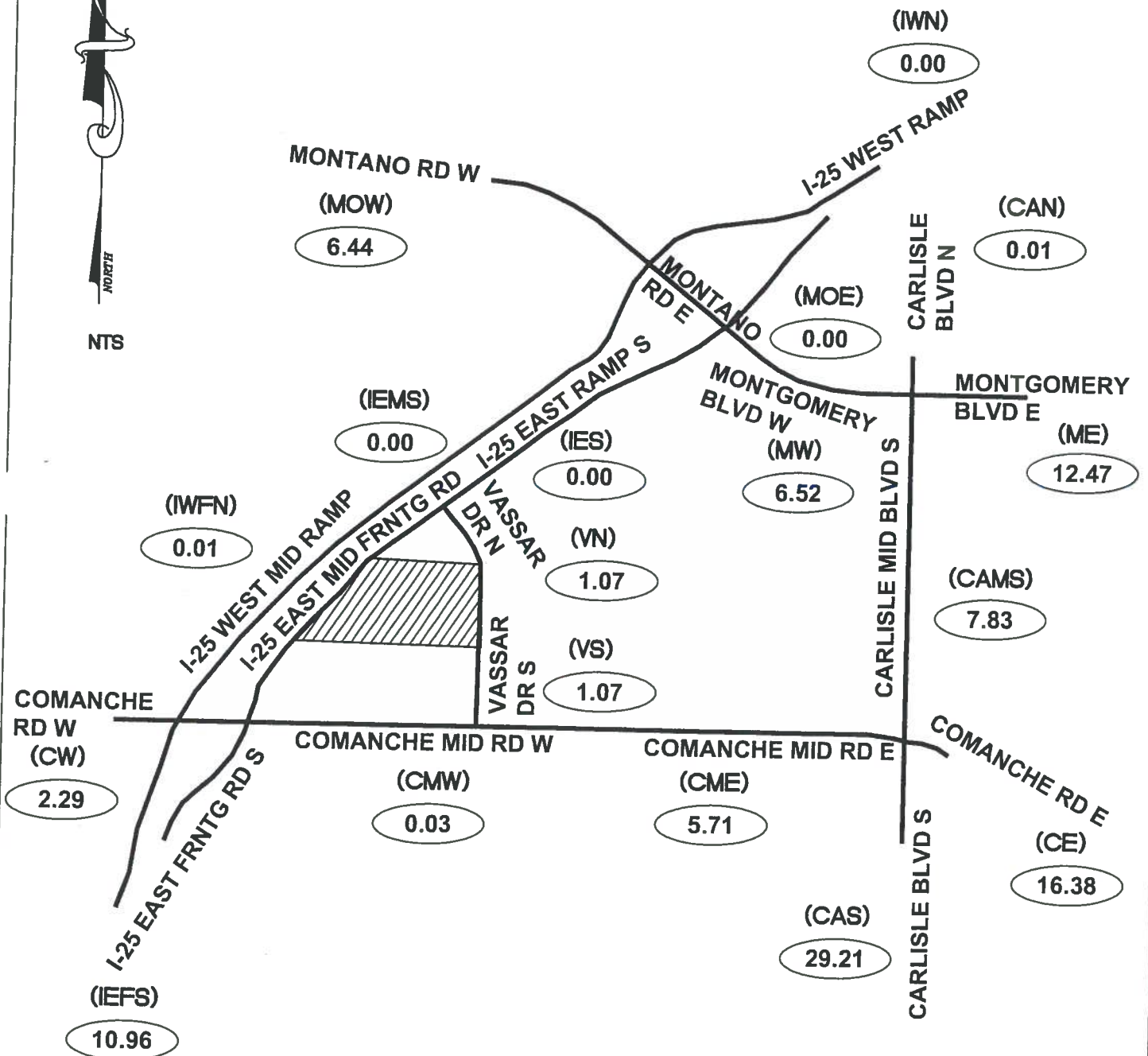
Vassar Development

(I-25 E. Frntg. Rd. N. of Comanche Rd.)

Commercial Trip Distribution Map (%)



NTS



Terry O. Brown, P.E.

P.O. Box 92051

Albuquerque, NM 87199-2051

(505)883-8807 (Voice)

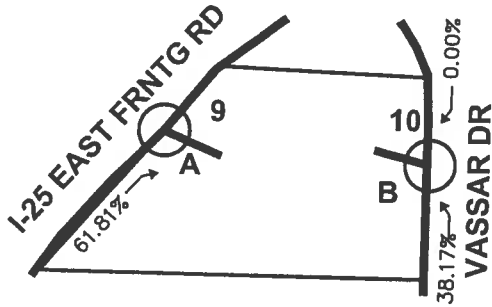
(505)212-0267 (Fax)

Vassar Development

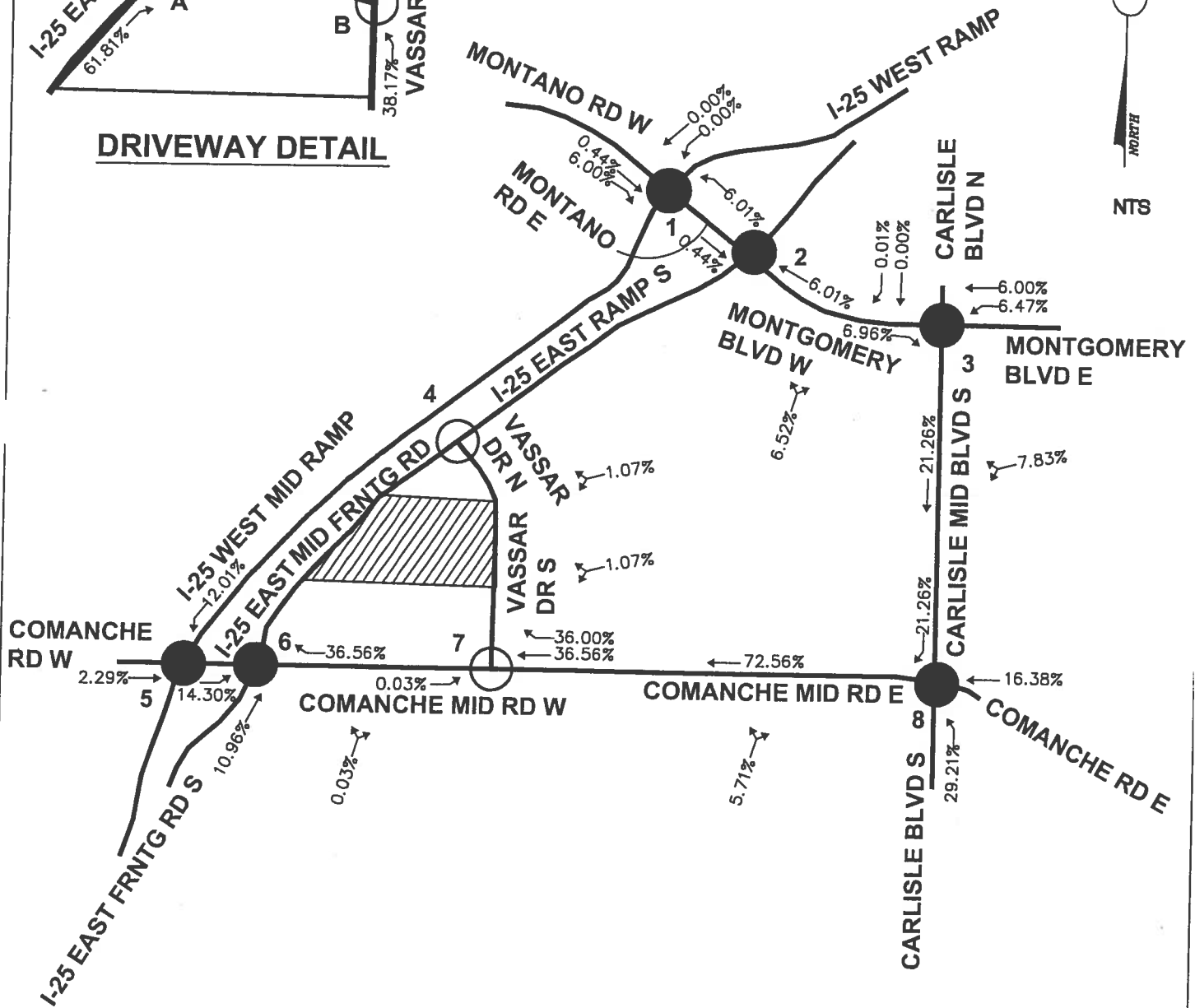
(I-25 E. Frntg. Rd. N. of Comanche Rd.)
Commercial Trip Assignments (% Entering)



NTS



DRIVEWAY DETAIL

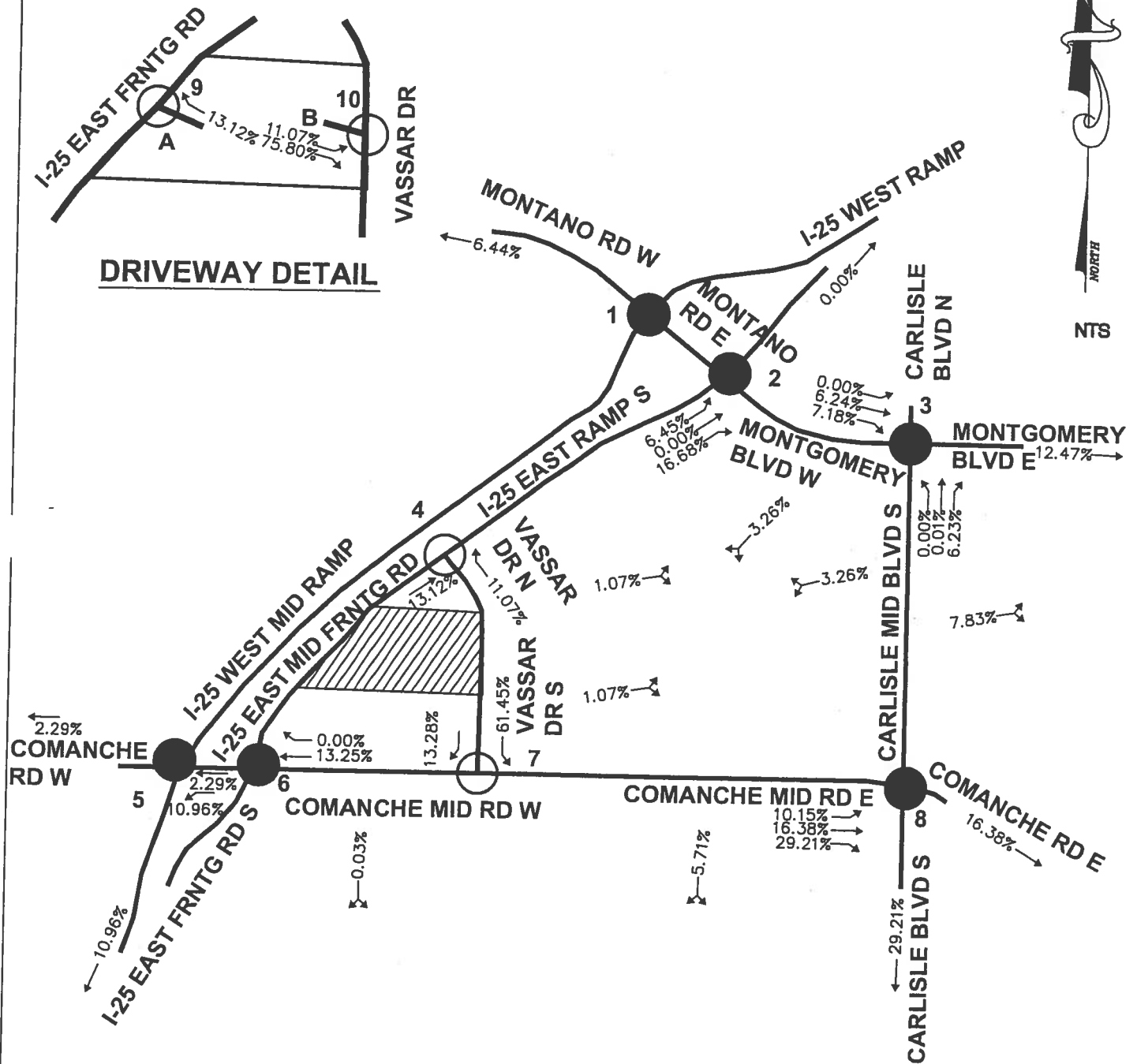


- SIGNALIZED INTERSECTION
- UNSIGNALIZED INTERSECTION

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

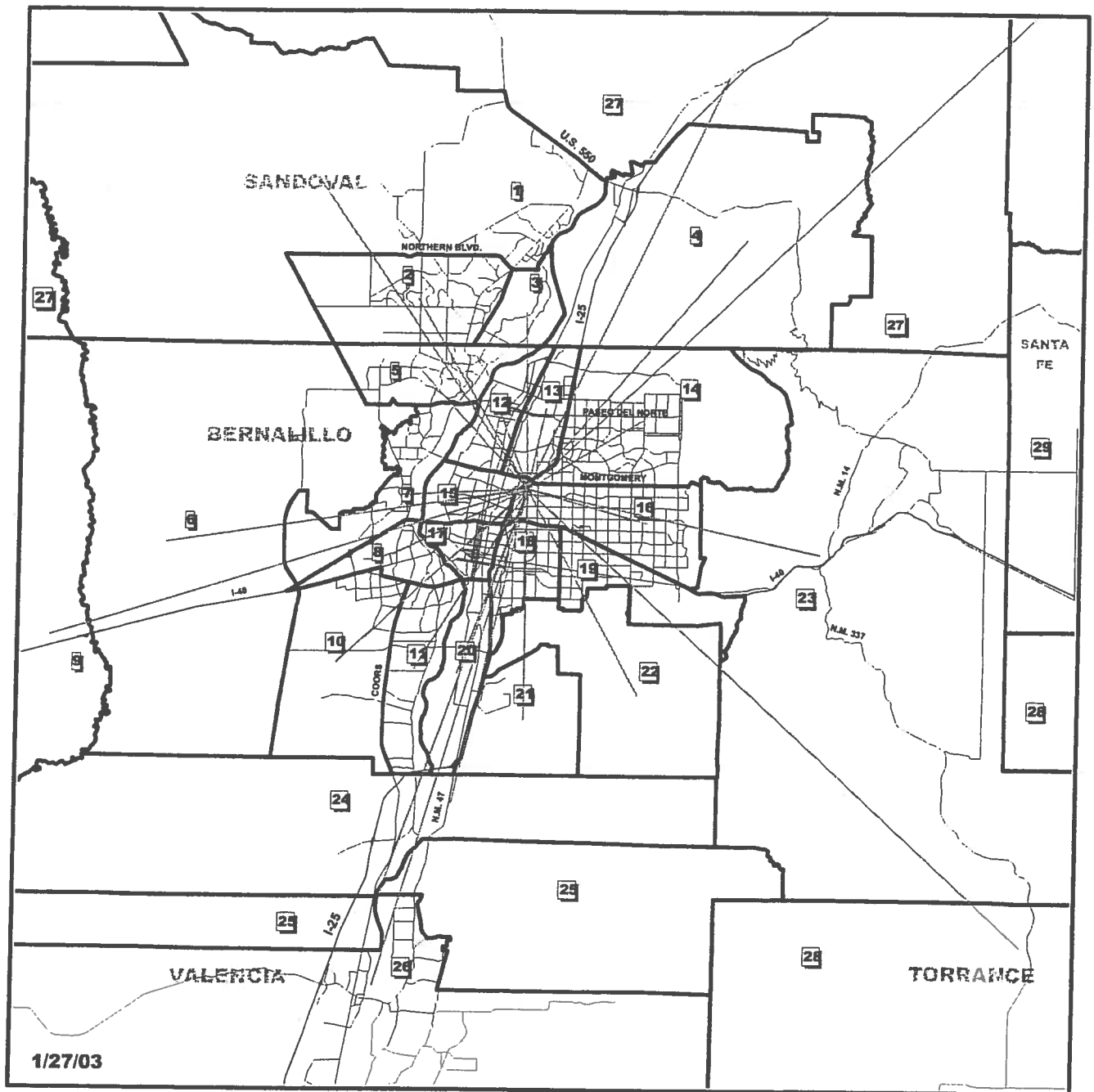
Vassar Development

(I-25 E. Frntg. Rd. N. of Comanche Rd.)
Commercial Trip Assignments (% Exiting)



- SIGNALIZED INTERSECTION
- UNSIGNALIZED INTERSECTION

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



22 Subarea Identification Number

Subareas of the MRCOG Region

Subarea boundaries extend to county boundary where full extent of subarea not shown except for Subarea 29 which only includes southern Santa Fe County.


**Mid-Region
Council of Governments**
 809 Copper Ave. NW
 Albuquerque, NM 87102
 505-247-1750

**Vassar Office Park (I-25 E. Frontage Rd. North of Comanche Rd.
Trip Distribution - Subarea Map**

Trip Distribution Table

Yassar Development (I-25 E. Fmtd. Rd. N. of Comanche Rd.)

Sub Area Population Data:

For determination of Trip Distribution for Proposed Office Development

2000 and 2025 Data Taken from Mid-Region Council of Governments' 2025 Socioeconomic

2025 Socioeconomic Forecasts by Data Analysis Subzones for the Mid-Region of New Mexico (S-03-01)

Sub Area I.D.#	% Sub Area in Study	2005 Population		2010 Population		2015 Population		2025 Population		Interpolated Population for the Year 2010	Distance (in.)	Population in Study	Dist. (Mi.)	Population / Distance	% Population / Distance	(CAN)		(ME)		(CE)		(CAMS)	
		2005	2010	2015	2025	2010	2025	2010	2025							% Utilizing	% Population / Dist Utilizing	Population	% Utilizing	% Population / Dist Utilizing	Population	% Utilizing	% Population / Dist Utilizing
1	100%	26,972	39,738	53,201	77,230	39,738	77,230	39,738	77,230	39,738	2.4	2,010	16.08	125	0.10%	0%	0.00%	0	0%	0.00%	0	0%	0.00%
2	100%	39,348	40,610	42,227	47,940	40,610	47,940	40,610	47,940	40,610	1.4	39,738	9.38	4,236	3.29%	0%	0.00%	0	0%	0.00%	0	0%	0.00%
3	100%	7,865	8,728	9,336	9,591	8,728	9,591	8,728	9,591	8,728	1.15	8,728	7.71	1,133	0.88%	0%	0.00%	0	0%	0.00%	0	0%	0.00%
4	100%	13,387	14,936	15,923	18,527	14,936	18,527	14,936	18,527	14,936	2.1	14,936	14.07	1,062	0.82%	0%	0.00%	0	0%	0.00%	0	0%	0.00%
5	100%	35,968	44,203	48,059	54,241	44,203	54,241	44,203	54,241	44,203	1	44,203	6.70	6,597	5.12%	0%	0.00%	0	0%	0.00%	0	0%	0.00%
6	100%	2,784	3,950	4,265	18,676	3,950	18,676	3,950	18,676	3,950	2.3	3,950	15.41	256	0.20%	0%	0.00%	0	0%	0.00%	0	0%	0.00%
7	100%	48,565	59,615	64,196	75,089	59,615	75,089	59,615	75,089	59,615	0.8	59,615	5.36	11,122	8.63%	0%	0.00%	0	0%	0.00%	0	0%	0.00%
8	100%	27,546	28,553	29,299	33,406	28,553	33,406	28,553	33,406	28,553	0.95	28,553	6.37	4,486	3.48%	0%	0.00%	0	0%	0.00%	0	0%	0.00%
9	100%	1,678	1,888	2,055	2,438	1,888	2,438	1,888	2,438	1,888	3.18	1,888	21.31	89	0.07%	0%	0.00%	0	0%	0.00%	0	0%	0.00%
10	100%	39,532	4,822	59,940	70,184	4,822	70,184	4,822	70,184	4,822	1.65	4,822	11.06	436	0.34%	0%	0.00%	0	0%	0.00%	0	0%	0.00%
11	100%	32,051	37,130	38,279	38,279	32,051	38,279	32,051	38,279	32,051	1.35	33,202	9.05	3,671	2.85%	0%	0.00%	0	0%	0.00%	0	0%	0.00%
12	100%	16,144	16,146	16,635	17,804	16,146	17,804	16,146	17,804	16,146	0.5	16,146	3.35	4,820	3.74%	0%	0.00%	0	0%	0.00%	0	0%	0.00%
13	100%	8,715	10,146	10,348	11,137	10,146	11,137	10,146	11,137	10,146	0.95	94,279	6.37	3,029	2.35%	0%	0.00%	0	0%	0.00%	0	0%	0.00%
14	100%	93,104	94,279	96,147	99,871	94,279	99,871	94,279	99,871	94,279	0.4	94,279	25.262	9,426	7.31%	0%	0.00%	0	18%	2.07%	2,666	0%	0.00%
15	100%	24,691	25,262	25,949	25,919	25,262	25,919	25,262	25,919	25,262	0.4	25,262	2.68	15,549	12.06%	0%	0.00%	0	0%	0.00%	0	0%	0.00%
16	100%	108,882	108,353	107,806	106,703	108,353	106,703	108,353	106,703	108,353	0.79	108,353	5.29	20,471	4.91%	0%	0.00%	0	0%	0.00%	0	90%	14.29%
17	100%	20,920	21,196	22,042	22,645	21,196	22,645	21,196	22,645	21,196	0.5	21,196	3.35	6,327	11.49%	0%	0.00%	0	0%	0.00%	0	0%	0.00%
18	100%	42,078	41,670	41,542	42,625	41,670	42,625	41,670	42,625	41,670	0.4	41,670	2.68	15,549	12.06%	0%	0.00%	0	0%	0.00%	0	0%	0.00%
19	100%	59,027	58,888	60,441	60,385	58,888	60,385	58,888	60,385	58,888	0.75	58,888	5.03	11,719	9.09%	0%	0.00%	0	10%	0.91%	1,172	0%	0.00%
20	100%	9,482	9,699	9,756	9,893	9,699	9,893	9,699	9,893	9,699	1.25	9,699	8.38	1,158	0.90%	0%	0.00%	0	0%	0.00%	0	0%	0.00%
21	100%	6	6	2,463	9,511	6	9,511	6	9,511	6	1.49	6	9.98	1	0.00%	0%	0.00%	0	0%	0.00%	0	0%	0.00%
22	100%	4,231	3,629	3,701	3,704	3,629	3,704	3,629	3,704	3,629	1.5	3,629	10.05	361	0.28%	0%	0.00%	0	0%	0.00%	0	0%	0.00%
23	100%	18,140	20,390	21,613	24,186	20,390	24,186	20,390	24,186	20,390	1.9	20,390	12.73	1,602	1.24%	0%	0.00%	0	0%	0.00%	0	0%	0.00%
24	100%	2,393	2,554	2,697	3,054	2,554	3,054	2,554	3,054	2,554	2.05	2,554	13.74	186	0.14%	0%	0.00%	0	0%	0.00%	0	0%	0.00%
25	100%	1,009	1,062	1,127	1,252	1,062	1,252	1,062	1,252	1,062	2.78	1,062	18.63	57	0.04%	0%	0.00%	0	0%	0.00%	0	0%	0.00%
26	100%	75,506	85,654	96,202	117,341	85,654	117,341	85,654	117,341	85,654	3.33	85,654	22.31	3,839	2.98%	0%	0.00%	0	0%	0.00%	0	0%	0.00%
27	100%	20,955	22,276	23,694	26,710	22,276	26,710	22,276	26,710	22,276	2.9	22,276	19.43	1,146	0.89%	0%	0.00%	0	0%	0.00%	0	0%	0.00%
28	100%	19,524	21,690	23,476	26,318	21,690	26,318	21,690	26,318	21,690	4.3	21,690	28.81	753	0.58%	0%	0.00%	0	0%	0.00%	0	0%	0.00%
29	100%	11,360	13,771	16,206	20,579	13,771	20,579	13,771	20,579	13,771	4.4	13,771	29.48	467	0.36%	0%	0.00%	0	0%	0.00%	0	0%	0.00%
811,863		836,916	947,476	1,075,238		836,916				836,916		798,316		128,936	100.00%	0.00%	0.00%	0	0.00%	0.00%	2,666	15.20%	19,596
																		0			2,666	15.20%	0

- Subarea in which the site it located.

Trip Distribution Table

Vassar Development (I-25 E. Frmtg. Rd. N. of Comanche Rd.)

Sub Area Population Data:

For determination of Trip Distribution for Proposed Office Development

2000 and 2025 Data Taken from Mid-Region Council of Governments' 2025 Socioeconomic

2025 Socioeconomic Forecasts by Data Analysis Subzones for the Mid-Region of New Mexico (S-03-01)

Sub Area I.D.#	% Sub Area in Study	2005 Population	2010 Population	2015 Population	2025 Population	Interpolated Population for the Year 2010	Distance (in.)	Population in Study	Dist. (Mi.)	Population / Distance	(CAS)		(CME)		(CMW)		(IEFS)	
											Carlisle Blvd. S.		Comanche Rd. Mid E.		Comanche Rd. Mid. W.		I-25 E. Frmtg. Rd. S.	
1	100%	26,972	39,738	53,201	77,230	39,738	2.4	2,010	16.08	125	0%	0.00%	0	0%	0.00%	0	0%	0.00%
2	100%	39,348	40,610	42,227	47,940	40,610	1.4	39,738	9.38	4,236	0%	0.00%	0	0%	0.00%	0	0%	0.00%
3	100%	7,865	8,728	9,336	9,591	8,728	1.15	8,728	7.71	1,133	0%	0.00%	0	0%	0.00%	0	0%	0.00%
4	100%	13,387	14,936	15,933	18,527	14,936	2.1	14,936	14.07	1,062	0%	0.00%	0	0%	0.00%	0	0%	0.00%
5	100%	35,968	44,203	48,059	54,241	44,203	1	44,203	6.70	6,597	0%	0.00%	0	0%	0.00%	0	0%	0.00%
6	100%	2,784	3,950	4,265	18,676	3,950	2.3	3,950	15.41	256	0%	0.00%	0	0%	0.00%	0	0%	0.00%
7	100%	48,565	59,615	64,196	75,089	59,615	0.8	59,615	5.36	11,122	0%	0.00%	0	0%	0.00%	0	0%	0.00%
8	100%	27,546	28,553	29,299	33,406	28,553	0.95	28,553	6.37	4,486	0%	0.00%	0	0%	0.00%	0	0%	0.00%
9	100%	1,678	1,888	2,055	2,438	1,888	3.18	1,888	21.31	89	0%	0.00%	0	0%	0.00%	0	0%	0.00%
10	100%	39,532	4,822	59,940	70,184	4,822	1.65	4,822	11.06	436	0%	0.00%	0	0%	0.00%	0	0%	0.00%
11	100%	32,051	33,202	37,130	38,279	33,202	1.35	33,202	9.05	3,671	0%	0.00%	0	0%	0.00%	0	0%	0.00%
12	100%	16,144	16,146	16,635	17,804	16,146	0.5	16,146	3.35	4,820	0%	0.00%	0	0%	0.00%	0	0%	0.00%
13	100%	8,715	10,146	10,348	11,137	10,146	0.5	10,146	3.35	3,029	0%	0.00%	0	0%	0.00%	0	0%	0.00%
14	100%	93,104	94,279	96,147	99,871	94,279	0.95	94,279	6.37	14,812	0%	0.00%	0	0%	0.00%	0	0%	0.00%
15	100%	24,691	25,262	25,949	25,919	25,262	0.4	25,262	2.68	9,426	0%	0.00%	0	0%	0.00%	0	0%	0.00%
15+	100%	108,882	108,353	107,806	106,703	108,353	0.79	108,353	5.29	20,471	0%	0.00%	0	0%	0.00%	0	0%	0.00%
17	100%	20,920	21,196	22,042	22,645	21,196	0.5	21,196	3.35	6,327	0%	0.00%	0	0%	0.00%	0	0%	0.00%
18	100%	42,078	41,670	41,542	42,625	41,670	0.4	41,670	2.68	15,549	15%	0.00%	0	0%	0.00%	0	0%	0.00%
19	100%	59,027	58,888	60,441	60,385	58,888	0.75	58,888	5.03	11,719	10%	0.91%	2,332	0%	0.00%	0	0%	0.00%
20	100%	9,482	9,699	9,756	9,893	9,699	1.25	9,699	8.38	1,158	0%	0.00%	1,172	0%	0.00%	0	0%	0.00%
21	100%	6	6	2,463	9,511	6	1.49	6	9.98	1	0%	0.00%	0	0%	0.00%	0	0%	0.00%
22	100%	4,231	3,629	3,701	3,704	3,629	1.5	3,629	10.05	361	15%	0.04%	54	0%	0.00%	0	0%	0.00%
23	100%	18,140	20,390	21,613	24,186	20,390	1.9	20,390	12.73	1,602	0%	0.00%	0	0%	0.00%	0	0%	0.00%
24	100%	2,393	2,554	2,697	3,054	2,554	2.05	2,554	13.74	186	0%	0.00%	0	0%	0.00%	0	0%	0.00%
25	100%	1,009	1,062	1,127	1,252	1,062	2.78	1,062	18.63	57	0%	0.00%	0	0%	0.00%	0	0%	0.00%
26	100%	75,506	85,654	96,202	117,341	85,654	3.33	85,654	22.31	3,839	0%	0.00%	0	0%	0.00%	0	0%	0.00%
27	100%	20,965	22,276	23,694	26,710	22,276	2.9	22,276	19.43	1,146	0%	0.00%	0	0%	0.00%	0	0%	0.00%
28	100%	19,524	21,690	23,476	26,318	21,690	4.3	21,690	28.81	753	0%	0.00%	0	0%	0.00%	0	0%	0.00%
29	100%	11,360	13,771	16,206	20,579	13,771	4.4	13,771	29.48	467	0%	0.00%	0	0%	0.00%	0	100%	0.58%
		811,863	836,916	947,476	1,075,238	836,916		798,316		128,936	2.76%	3,558	0.79%	1,024	0.79%	1,024	100%	48.89%

* - Subarea in which the site it located.

63,042

48.89%

Trip Distribution Table

Vassar Development (I-25 E. Fmty. Rd. N. of Comanche Rd.)

Sub Area Population Data:

For determination of Trip Distribution for Proposed Office Development

2000 and 2025 Data Taken from Mid-Region Council of Governments' 2025 Socioeconomic

2025 Socioeconomic Forecasts by Data Analysis Subzones for the Mid-Region of New Mexico (S-03-01)

Sub Area I.D.#	% Sub Area in Study	2005 Population	2010 Population	2015 Population	2025 Population	Interpolated Population for the Year 2010	Distance (in.)	Population in Study	Dist. (Mi.)	Population / Distance	(CW)		(IWFN)		(IEMS)		(VS)					
											Comanche Rd. W.	% Utilizing / Dist. Utilizing	I-25 W. Fmty. Rd. N.	% Utilizing / Dist. Utilizing	I-25 E. Mid. Fmty. Rd. S.	% Utilizing / Dist. Utilizing	Vassar Dr. S.	% Utilizing / Dist. Utilizing				
1	100%	26,972	39,738	53,201	77,230	39,738	2.4	2,010	16.08	125	0%	0.00%	0	100%	0.10%	125	0%	0.00%	0	0%	0.00%	0
2	100%	39,348	40,610	42,227	47,940	40,610	1.4	39,738	9.38	4,236	0%	0.00%	0	100%	3.29%	4,236	0%	0.00%	0	0%	0.00%	0
3	100%	7,865	8,728	9,336	9,591	8,728	1.15	8,728	7.71	1,133	0%	0.00%	0	100%	0.88%	1,133	0%	0.00%	0	0%	0.00%	0
4	100%	13,387	14,936	15,923	18,527	14,936	2.1	14,936	14.07	1,062	0%	0.00%	0	100%	0.82%	1,062	0%	0.00%	0	0%	0.00%	0
5	100%	35,966	44,203	48,059	54,241	44,203	1	44,203	6.70	6,597	0%	0.00%	0	100%	5.12%	6,597	0%	0.00%	0	0%	0.00%	0
6	100%	2,784	3,950	4,265	18,676	3,950	2.3	3,950	15.41	256	1%	0.00%	3	33%	0.07%	85	0%	0.00%	0	0%	0.00%	0
7	100%	48,565	59,615	64,196	75,089	59,615	0.8	59,615	5.36	11,122	0%	0.00%	0	12%	1.04%	1,335	0%	0.00%	0	0%	0.00%	0
8	100%	27,546	28,553	29,299	33,406	28,553	0.95	28,553	6.37	4,486	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
9	100%	1,678	1,888	2,055	2,438	1,888	3.18	1,888	21.31	89	0%	0.00%	0	100%	0.07%	89	0%	0.00%	0	0%	0.00%	0
10	100%	39,532	4,822	59,940	70,184	4,822	1.65	4,822	11.06	436	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
11	100%	32,051	33,202	37,130	38,279	33,202	1.35	33,202	9.05	3,671	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
12	100%	16,144	16,146	16,635	17,804	16,146	0.5	16,146	3.35	4,820	0%	0.00%	0	0%	3.36%	4,338	0%	0.00%	0	0%	0.00%	0
13	100%	8,715	10,146	10,348	11,137	10,146	0.5	10,146	3.35	3,029	0%	0.00%	0	90%	2.11%	2,726	0%	0.00%	0	0%	0.00%	0
14	100%	93,104	94,279	96,147	99,871	94,279	0.95	94,279	6.37	14,812	0%	0.00%	0	80%	9.19%	11,850	0%	0.00%	0	0%	0.00%	0
15	100%	24,691	25,262	25,949	25,919	25,262	0.4	25,262	2.68	9,426	2%	0.11%	141	17%	1.24%	1,602	0%	0.00%	0	0%	0.00%	0
16	100%	108,882	108,353	107,806	106,703	108,353	0.79	108,353	5.29	20,471	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
17	100%	20,920	21,196	22,042	22,645	21,196	0.5	21,196	3.35	6,327	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
18	100%	42,078	41,670	41,542	42,625	41,670	0.4	41,670	2.68	15,549	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
19	100%	59,027	58,888	60,441	60,385	58,888	0.75	58,888	5.03	11,719	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
20	100%	9,482	9,699	9,756	9,893	9,699	1.25	9,699	8.38	1,158	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
21	100%	6	6	2,463	9,511	6	1.49	6	9.98	1	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
22	100%	4,231	3,629	3,701	3,704	3,629	1.5	3,629	10.05	361	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
23	100%	18,140	20,390	21,613	24,186	20,390	1.9	20,390	12.73	1,602	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
24	100%	2,393	2,554	2,697	3,054	2,554	2.05	2,554	13.74	186	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
25	100%	1,009	1,062	1,127	1,252	1,062	2.78	1,062	18.63	57	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
26	100%	75,506	85,654	96,202	117,341	85,654	3.33	85,654	22.31	3,839	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
27	100%	20,955	22,276	23,694	26,710	22,276	2.9	22,276	19.43	1,146	0%	0.00%	0	100%	0.89%	1,146	0%	0.00%	0	0%	0.00%	0
28	100%	19,524	21,690	23,476	26,318	21,690	4.3	21,690	28.81	753	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
29	100%	11,360	13,771	16,206	20,579	13,771	4.4	13,771	29.48	467	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
		811,863	836,916	947,476	1,075,238	836,916		798,316		128,936		0.11%	144		28.17%	36,323		0.00%	0		0.00%	0

Subarea in which the site it located.

- Subarea in which the site it located.

Trip Distribution Table

Vassar Development (I-25 E. Fmly. Rd. N. of Comanche Rd.)

Sub Area Population Data:

For determination of Trip Distribution for Proposed Office Development

2000 and 2025 Data Taken from Mid-Region Council of Governments' 2025 Socioeconomic

2025 Socioeconomic Forecasts by Data Analysis Subzones for the Mid-Region of New Mexico (S-03-01)

												(VN)		(IES)		(MOW)			
												Vassar Dr. N.		I-25 East Ramp S.		Montano Rd. W.			
Sub Area I.D.#	% Sub Area in Study	2005 Population	2010 Population	2015 Population	2025 Population	Interpolated Population for the Year 2010	Distance (in.)	Population in Study	Dist. (Mi.)	Population / Distance	% Utilizing	% Population / Dist Utilizing	Population	% Utilizing	% Population / Dist Utilizing	Population			
1	100%	26,972	39,738	53,201	77,230	39,738	2.4	2,010	16.08	125	0%	0.00%	0	0%	0.00%	0			
2	100%	39,348	40,610	42,227	47,940	40,610	1.4	39,738	9.38	4,236	0%	0.00%	0	0%	0.00%	0			
3	100%	7,865	8,728	9,336	9,591	8,728	1.15	8,728	7.71	1,133	0%	0.00%	0	0%	0.00%	0			
4	100%	13,387	14,936	15,923	18,527	14,936	2.1	14,936	14.07	1,062	0%	0.00%	0	0%	0.00%	0			
5	100%	35,968	44,203	48,059	54,241	44,203	1	44,203	6.70	6,597	0%	0.00%	0	0%	0.00%	0			
6	100%	2,784	3,950	4,265	18,676	3,950	2.3	3,950	15.41	256	0%	0.00%	0	0%	0.00%	3			
7	100%	48,565	59,615	64,196	75,089	59,615	0.8	59,615	5.36	11,122	0%	0.00%	0	0%	0.00%	334			
8	100%	27,546	28,553	29,299	33,406	28,553	0.95	28,553	6.37	4,486	0%	0.00%	0	0%	0.00%	0			
9	100%	1,678	1,888	2,055	2,438	1,888	3.18	1,888	21.31	89	0%	0.00%	0	0%	0.00%	0			
10	100%	39,532	4,822	59,940	70,184	4,822	1.65	4,822	11.06	436	0%	0.00%	0	0%	0.00%	0			
11	100%	32,051	33,202	37,130	38,279	33,202	1.35	33,202	9.05	3,671	0%	0.00%	0	0%	0.00%	0			
12	100%	16,144	16,146	16,635	17,804	16,146	0.5	16,146	3.35	4,820	0%	0.00%	0	0%	0.00%	482			
13	100%	8,715	10,146	10,348	11,137	10,146	0.95	10,146	3.35	3,029	0%	0.00%	0	0%	0.00%	303			
14	100%	93,104	94,279	96,147	99,871	94,279	0.4	94,279	6.37	14,812	0%	0.00%	0	0%	0.23%	296			
15	100%	24,691	25,262	25,949	25,919	25,262	0.4	25,262	2.68	9,426	0%	0.00%	0	0%	0.11%	141			
16	100%	108,882	108,353	107,806	106,703	108,353	0.79	108,353	5.29	20,471	0%	0.00%	0	0%	0.00%	0			
17	100%	20,920	21,196	22,042	22,645	21,196	0.5	21,196	3.35	6,327	0%	0.00%	0	0%	0.00%	0			
18	100%	42,078	41,670	41,542	42,625	41,670	0.4	41,670	2.68	15,549	0%	0.00%	0	0%	0.00%	0			
19	100%	59,027	58,888	60,441	60,385	58,888	0.75	58,888	5.03	11,719	0%	0.00%	0	0%	0.00%	0			
20	100%	9,482	9,699	9,756	9,893	9,699	1.25	9,699	8.38	1,158	0%	0.00%	0	0%	0.00%	0			
21	100%	6	6	2,463	9,511	6	1.49	6	9.98	1	0%	0.00%	0	0%	0.00%	0			
22	100%	4,231	3,629	3,701	3,704	3,629	1.5	3,629	10.05	361	0%	0.00%	0	0%	0.00%	0			
23	100%	18,140	20,390	21,613	24,186	20,390	1.9	20,390	12.73	1,602	0%	0.00%	0	0%	0.00%	0			
24	100%	2,393	2,554	2,697	3,054	2,554	2.05	2,554	13.74	186	0%	0.00%	0	0%	0.00%	0			
25	100%	1,009	1,062	1,127	1,252	1,062	2.78	1,062	18.63	57	0%	0.00%	0	0%	0.00%	0			
26	100%	75,506	85,654	96,202	117,341	85,654	3.33	85,654	22.31	3,839	0%	0.00%	0	0%	0.00%	0			
27	100%	20,955	22,276	23,694	26,710	22,276	2.9	22,276	19.43	1,146	0%	0.00%	0	0%	0.00%	0			
28	100%	19,524	21,690	23,476	26,318	21,690	4.3	21,690	28.81	753	0%	0.00%	0	0%	0.00%	0			
29	100%	11,360	13,771	16,206	20,579	13,771	4.4	13,771	29.48	467	0%	0.00%	0	0%	0.00%	0			
811,863 836,916 947,476 1,075,238 836,916												798,316 128,936		0 0.00%		0 0.00%		1,559 1.21%	
Subarea in which the site it located.																		1,21%	

* - Subarea in which the site it located.

Trip Distribution Table

Vassar Development (I-25 E. Frntg. Rd. N. of Comanche Rd.)

Sub Area Population Data:

For Determination of Trip Distribution for Proposed Office Development

2000 and 2025 Data Taken from Mid-Region Council of Governments' 2025 Socioeconomic

2025 Socioeconomic Forecasts by Data Analysis Subzones for the Mid-Region of New Mexico (S-03-01)

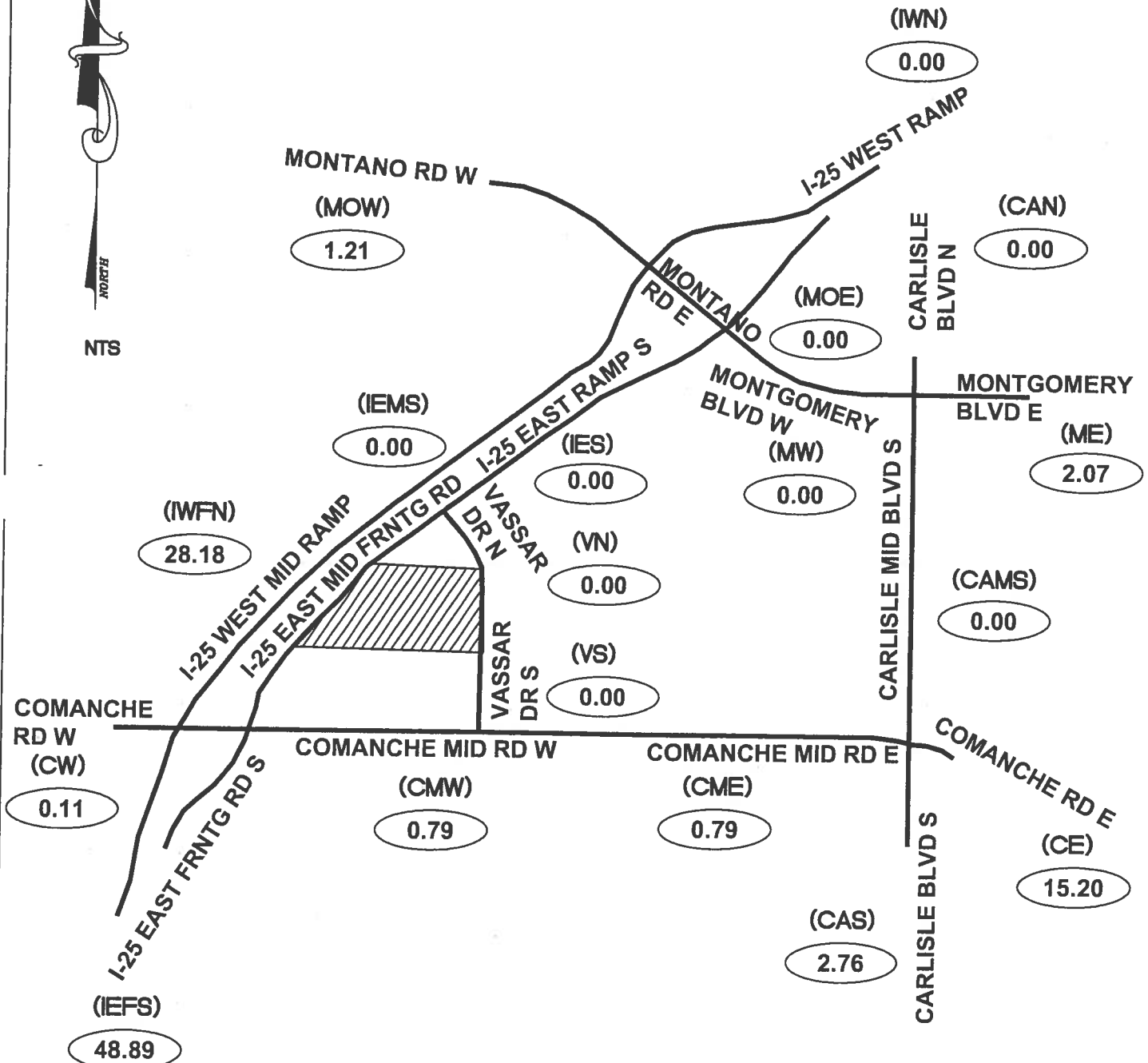
Sub Area I.D.#	% Sub Area in Study	2005 Population	2010 Population	2015 Population	2025 Population	Interpolated Population for the Year 2010	Distance (in.)	Population in Study	Dist. (Mi.)	Population / Distance	% Utilizing	(MOE)			(MM)			(IMN)		
												Montano Rd. E.	Population	% Utilizing	% Population / Dist. Utilizing	Population	% Utilizing	% Population / Dist. Utilizing	Population	% Utilizing
1	100%	26,972	39,738	53,201	77,230	39,738	2.4	2,010	16.08	125	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	0%
2	100%	39,348	40,610	42,227	47,940	40,610	1.4	39,738	9.38	4,236	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	0%
3	100%	7,865	8,728	9,336	9,591	8,728	1.15	8,728	7.71	1,133	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	0%
4	100%	13,387	14,936	15,923	18,527	14,936	2.1	14,936	14.07	1,062	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	0%
5	100%	35,966	44,203	48,059	54,241	44,203	1	44,203	6.70	6,597	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	0%
6	100%	2,784	3,950	4,265	18,676	3,950	2.3	3,950	15.41	256	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	0%
7	100%	48,565	59,615	64,196	75,089	59,615	0.8	59,615	5.36	11,122	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	0%
8	100%	27,546	28,553	29,299	33,406	28,553	0.95	28,553	6.37	4,486	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	0%
9	100%	1,678	1,888	2,055	2,438	1,888	3.18	1,888	21.31	89	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	0%
10	100%	39,532	4,822	59,940	70,184	4,822	1.65	4,822	11.06	436	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	0%
11	100%	32,051	33,202	37,130	38,279	33,202	1.35	33,202	9.05	3,671	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	0%
12	100%	16,144	16,146	16,635	17,804	16,146	0.5	16,146	3.35	4,820	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	0%
13	100%	8,715	10,146	10,348	11,137	10,146	0.5	10,146	3.35	3,029	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	0%
14	100%	93,104	94,279	96,147	99,871	94,279	0.95	94,279	6.37	14,812	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	0%
15	100%	24,691	25,262	25,949	25,919	25,262	0.74	25,262	2.68	9,426	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	0%
16	100%	108,882	108,353	107,806	106,703	108,353	0.09	108,353	5.29	20,471	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	0%
17	100%	20,920	21,196	22,042	22,645	21,196	0.5	21,196	3.35	6,327	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	0%
18	100%	42,078	41,670	41,542	42,625	41,670	0.4	41,670	2.68	15,549	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	0%
19	100%	59,027	58,888	60,441	60,385	58,888	0.75	58,888	5.03	11,719	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	0%
20	100%	9,482	9,699	9,756	9,893	9,699	1.25	9,699	8.38	1,158	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	0%
21	100%	6	6	2,463	9,511	6	1.49	6	9.98	1	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	0%
22	100%	4,231	3,629	3,701	3,704	3,629	1.5	3,629	10.05	361	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	0%
23	100%	18,140	20,390	21,613	24,186	20,390	1.9	20,390	12.73	1,602	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	0%
24	100%	2,393	2,554	2,697	3,054	2,554	2.05	2,554	13.74	186	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	0%
25	100%	1,009	1,062	1,127	1,252	1,062	2.78	1,062	18.63	57	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	0%
26	100%	75,506	85,654	96,202	117,341	85,654	3.33	85,654	22.31	3,839	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	0%
27	100%	20,955	22,276	23,694	26,710	22,276	2.9	22,276	19.43	1,146	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	0%
28	100%	19,524	21,690	23,476	26,318	21,690	4.3	21,690	28.81	753	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	0%
29	100%	11,360	13,771	16,206	20,579	13,771	4.4	13,771	29.48	467	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	0%
		811,863	836,916	947,476	1,075,238	836,916		798,316		128,936		0.00%	0	0.00%	0.00%	0	0.00%	0.00%	0	0.00%

* - Subarea in which the site it located.

Vassar Development

(I-25 E. Frntg. Rd. N. of Comanche Rd.)

Office Trip Distribution Map (%)



Terry O. Brown, P.E.

P.O. Box 92051

Albuquerque, NM 87199-2051

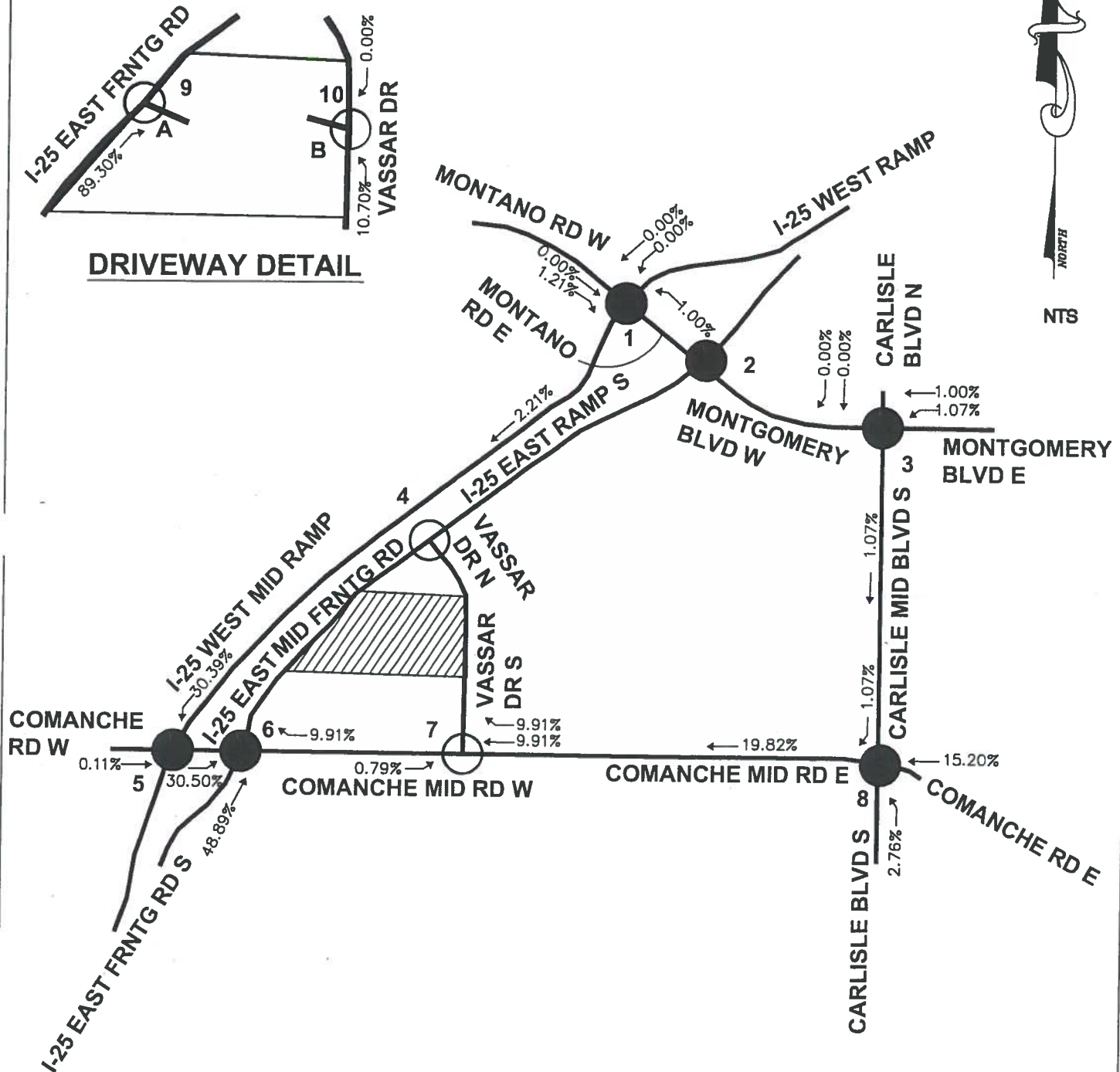
(505)883-8807 (Voice)

(505)212-0267 (Fax)

Vassar Development

(I-25 E. Frntg. Rd. N. of Comanche Rd.)

Office Trip Assignments (% Entering)



Terry O. Brown, P.E.

P.O. Box 92051

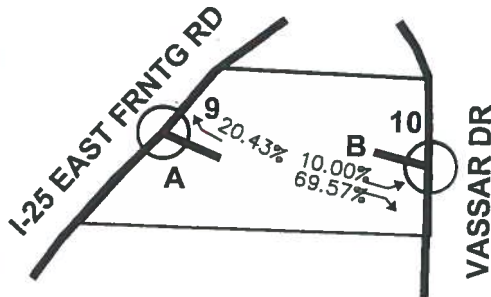
Albuquerque, NM 87199-2051

(505)883-8807 (Voice)

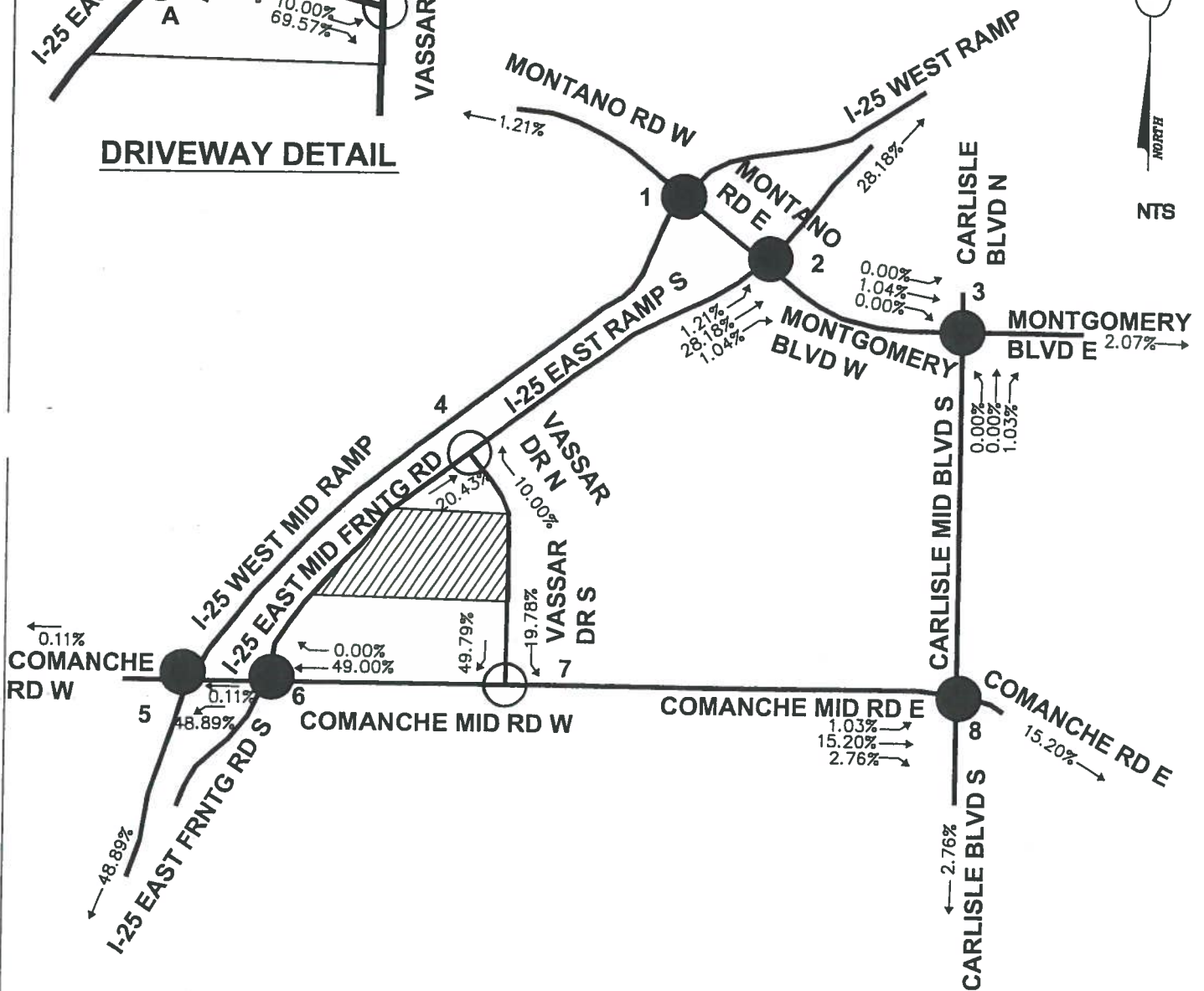
(505)212-0267 (Fax)

Vassar Development

(I-25 E. Frntg. Rd. N. of Comanche Rd.)
Office Trip Assignments (% Exiting)



DRIVEWAY DETAIL



- SIGNALIZED INTERSECTION
- UNSIGNALIZED INTERSECTION

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

Vassar Development (I-25 E. Frntg. Rd. N. of Comanche Rd.)

Projected Turning Movements SUMMARY PROPOSED DEVELOPMENT (2010) - 100% Development

INTERSECTION: Summary

Montgomery Blvd. / I-25 W. Ramp

(1)	0.92			0.76			0.75			0.94			PHF
	Eastbound (Montgomery Blvd.)			Westbound (Montgomery Blvd.)			Northbound (I-25 W. Ramp)			Southbound (I-25 W. Ramp)			
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
	0	870	593	275	891	171	0	1	0	230	240	227	
	0	896	611	285	923	177	0	1	0	237	247	234	
	0.94			0.92			0.75			0.85			PHF
	Eastbound (Montgomery Blvd.)			Westbound (Montgomery Blvd.)			Northbound (I-25 W. Ramp)			Southbound (I-25 W. Ramp)			
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
	0	844	462	222	1,768	70	0	0	0	339	457	339	
	0	869	476	230	1,832	73	0	0	0	349	471	349	
	0	871	502	231	1,858	73	0	0	0	349	471	349	

Existing (2007)	0.0% Truck			0.0% Truck			0.0% Truck			0.0% Truck			
	Existing (2007)			Existing (2007)			Existing (2007)			Existing (2007)			
	2010 (NO BUILD - A.M.)			2010 (NO BUILD - A.M.)			2010 (NO BUILD - A.M.)			2010 (NO BUILD - A.M.)			
	2010 (BUILD - A.M.)			2010 (BUILD - A.M.)			2010 (BUILD - A.M.)			2010 (BUILD - A.M.)			
	2010 (BUILD - A.M.)			2010 (BUILD - A.M.)			2010 (BUILD - A.M.)			2010 (BUILD - A.M.)			

Existing (2007)	0.94			0.92			0.75			0.85			PHF
	Eastbound (Montgomery Blvd.)			Westbound (Montgomery Blvd.)			Northbound (I-25 W. Ramp)			Southbound (I-25 W. Ramp)			
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
	0	844	462	222	1,768	70	0	0	0	339	457	339	
	0	869	476	230	1,832	73	0	0	0	349	471	349	
	0.94			0.92			0.75			0.85			PHF
	Eastbound (Montgomery Blvd.)			Westbound (Montgomery Blvd.)			Northbound (I-25 W. Ramp)			Southbound (I-25 W. Ramp)			
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
	0	844	462	222	1,768	70	0	0	0	339	457	339	
	0	869	476	230	1,832	73	0	0	0	349	471	349	
	0	871	502	231	1,858	73	0	0	0	349	471	349	

Montgomery Blvd. / I-25 E. Ramp

(2)	0.82												0.94			0.75			PHF			
	Eastbound (Montgomery Blvd.)			Westbound (Montgomery Blvd.)			Northbound (I-25 E. Ramp)			Southbound (I-25 E. Ramp)												
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right										
	236	725	0	0	1,003	216	435	206	365	0	0	0										
	243	747	0	0	1,039	224	448	212	376	0	0	0										
	0.94												0.87			0.92			0.75			PHF
	Eastbound (Montgomery Blvd.)			Westbound (Montgomery Blvd.)			Northbound (I-25 E. Ramp)			Southbound (I-25 E. Ramp)												
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right										
Existing (2007)	308	875	0	0	1,451	289	609	698	584	0	0	0										
2010 (NO BUILD - P.M.)	317	901	0	0	1,503	299	627	719	602	0	0	0										
2010 (BUILD - P.M.)	317	903	0	0	1,529	299	653	737	669	0	0	0										

Montgomery Blvd. / Carlisle Blvd.

(3)	0.95			0.94			0.84			0.79			PHF								
	Eastbound (Montgomery Blvd.)			Westbound (Montgomery Blvd.)			Northbound (Carlisle Blvd.)			Southbound (Carlisle Blvd.)											
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right									
	7	812	231	330	1,079	5	281	11	203	15	12	30									
	7	841	239	340	1,111	5	289	11	209	15	12	31									
	7	852	267	355	1,125	5	289	11	220	15	12	31									
0.93														0.94	0.96			0.86			PHF
Eastbound (Montgomery Blvd.)			Westbound (Montgomery Blvd.)			Northbound (Carlisle Blvd.)			Southbound (Carlisle Blvd.)												
Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right							
35	1,218	245	409	1,255	24	485	49	485	38	29	46										
36	1,262	254	421	1,293	25	500	50	500	39	30	47										
36	1,288	312	449	1,319	25	500	50	525	39	30	47										

Vassar Dr. / I-25 E. Frntg. Rd.

(4)		0.75			0.75			0.93			0.75			PHF
	0.0% Truck Existing (2007) 2010 (NO BUILD - A.M.) 2010 (BUILD - A.M.)	Eastbound (Vassar Dr.)			Westbound (Vassar Dr.)			Northbound (I-25 E. Frmtg. Rd.)			Southbound (I-25 E. Frmtg. Rd.)			
		Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
		0	0	0	0	0	36	0	207	24	0	0	0	0
		0	0	0	0	0	37	0	213	25	0	0	0	0
	0	0	0	0	0	59	0	242	25	0	0	0	0	
		0.75			0.75			0.90			0.75			PHF
Existing (2007) 2010 (NO BUILD - P.M.) 2010 (BUILD - P.M.)		Eastbound (Vassar Dr.)			Westbound (Vassar Dr.)			Northbound (I-25 E. Frmtg. Rd.)			Southbound (I-25 E. Frmtg. Rd.)			
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right		
	0	0	0	0	0	102	0	1,012	10	0	0	0	0	
	0	0	0	0	0	105	0	1,042	10	0	0	0	0	
	0	0	0	0	0	155	0	1,107	10	0	0	0	0	

Vassar Development (I-25 E. Frntg. Rd. N. of Comanche Rd.)

Projected Turning Movements SUMMARY

PROPOSED DEVELOPMENT (2010) - 100% Development

INTERSECTION: Summary

Comanche Rd. / I-25 W. Frntg. Rd.												
0.91			0.92			0.75			0.91			PHF
Eastbound (Comanche Rd.)			Westbound (Comanche Rd.)			Northbound (I-25 W. Frntg. Rd.)			Southbound (I-25 W. Frntg. Rd.)			
Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
0	571	379	499	1,314	0	0	0	0	323	882	145	
0	588	390	514	1,353	0	0	0	0	333	908	150	
0	593	390	545	1,357	0	0	0	0	392	908	150	
0.90			0.96			0.75			0.95			PHF
Eastbound (Comanche Rd.)			Westbound (Comanche Rd.)			Northbound (I-25 W. Frntg. Rd.)			Southbound (I-25 W. Frntg. Rd.)			
Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
3	629	528	409	1,431	0	0	0	0	382	865	195	
3	648	544	421	1,474	0	0	0	0	393	890	201	
3	658	544	495	1,483	0	0	0	0	479	890	201	

Comanche Rd. / I-25 E. Frntg. Rd.												
0.88			0.90			0.90			0.75			PHF
Eastbound (Comanche Rd.)			Westbound (Comanche Rd.)			Northbound (I-25 E. Frntg. Rd.)			Southbound (I-25 E. Frntg. Rd.)			
Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
227	677	0	0	836	154	681	922	407	0	0	0	
234	697	0	0	861	158	701	950	419	0	0	0	
298	697	0	0	896	249	701	1,025	419	0	0	0	
0.92			0.91			0.95			0.75			PHF
Eastbound (Comanche Rd.)			Westbound (Comanche Rd.)			Northbound (I-25 E. Frntg. Rd.)			Southbound (I-25 E. Frntg. Rd.)			
Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
269	815	0	0	720	177	680	1,655	439	0	0	0	
277	839	0	0	742	182	700	1,705	452	0	0	0	
373	839	0	0	825	348	700	1,807	452	0	0	0	

Comanche Rd. / Vassar Dr.												
0.86			0.84			0.75			0.84			PHF
Eastbound (Comanche Rd.)			Westbound (Comanche Rd.)			Northbound (Vassar Dr.)			Southbound (Vassar Dr.)			
Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
99	443	0	0	601	61	0	0	0	14	0	43	
102	456	0	0	619	63	0	0	0	14	0	44	
103	456	0	0	710	153	0	0	0	130	0	79	
0.86			0.82			0.75			0.77			PHF
Eastbound (Comanche Rd.)			Westbound (Comanche Rd.)			Northbound (Vassar Dr.)			Southbound (Vassar Dr.)			
Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
72	993	0	1	604	37	0	0	0	64	0	81	
74	1,023	0	1	622	38	0	0	0	66	0	83	
75	1,023	0	1	788	202	0	0	0	320	0	167	

Comanche Rd. / Carlisle Blvd.												
0.82			0.75			0.85			0.84			PHF
Eastbound (Comanche Rd.)			Westbound (Comanche Rd.)			Northbound (Carlisle Blvd.)			Southbound (Carlisle Blvd.)			
Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
122	349	126	157	1,241	68	155	494	33	62	714	97	
130	372	134	161	1,278	70	159	509	34	63	735	100	
148	404	188	161	1,330	70	227	509	34	63	735	148	
0.93			0.92			0.83			0.88			PHF
Eastbound (Comanche Rd.)			Westbound (Comanche Rd.)			Northbound (Carlisle Blvd.)			Southbound (Carlisle Blvd.)			
Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
166	592	296	101	437	66	146	791	129	98	758	101	
177	632	316	104	450	68	151	814	133	101	780	104	
218	706	433	104	536	68	278	814	133	101	780	195	

Vassar Development (I-25 E. Frntg. Rd. N. of Comanche Rd.)

Projected Turning Movements SUMMARY

PROPOSED DEVELOPMENT (2010) - 100% Development

INTERSECTION: Summary

Driveway 'A' / I-25 E. Frntg. Rd.		0.75			0.75			0.78			0.75			PHF
(9)		Eastbound (Driveway 'A')			Westbound (Driveway 'A')			Northbound (I-25 E. Frntg. Rd.)			Southbound (I-25 E. Frntg. Rd.)			
	0.0% Truck	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
	Existing (2007)	0	0	0	0	0	0	0	857	0	0	0	0	
	2010 (NO BUILD - A.M.)	0	0	0	0	0	0	0	883	0	0	0	0	
	2010 (BUILD - A.M.)	0	0	0	0	0	29	0	883	230	0	0	0	

		0.75			0.75			0.93			0.75			PHF
		Eastbound (Driveway 'A')			Westbound (Driveway 'A')			Northbound (I-25 E. Frntg. Rd.)			Southbound (I-25 E. Frntg. Rd.)			
		Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
	Existing (2007)	0	0	0	0	0	0	0	2,099	0	0	0	0	
	2010 (NO BUILD - P.M.)	0	0	0	0	0	0	0	2,161	0	0	0	0	
	2010 (BUILD - P.M.)	0	0	0	0	0	65	0	2,161	364	0	0	0	

Driveway 'B' / Vassar Dr.		0.75			0.75			0.75			0.83			PHF
(10)		Eastbound (Driveway 'B')			Westbound (Driveway 'B')			Northbound (Vassar Dr.)			Southbound (Vassar Dr.)			
	0.0% Truck	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
	Existing (2007)	0	0	0	0	0	0	0	40	0	0	54	0	
	2010 (NO BUILD - A.M.)	0	0	0	0	0	0	0	42	0	0	55	0	
	2010 (BUILD - A.M.)	22	0	152	0	0	0	96	42	0	0	55	0	

		0.75			0.75			0.75			0.77			PHF
		Eastbound (Driveway 'B')			Westbound (Driveway 'B')			Northbound (Vassar Dr.)			Southbound (Vassar Dr.)			
		Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
	Existing (2007)	0	0	0	0	0	0	0	106	0	0	146	0	
	2010 (NO BUILD - P.M.)	0	0	0	0	0	0	0	109	0	0	151	0	
	2010 (BUILD - P.M.)	50	0	343	0	0	0	174	109	0	0	151	0	

Vassar Development (I-25 E. Frntg. Rd. N. of Comanche Rd.)
 Projected Turning Movements Worksheet
Montgomery Blvd. / I-25 W. Ramp

INTERSECTION: E-W Street: **Montgomery Blvd.** (1)
 N-S Street: **I-25 W. Ramp**

Year of Existing Counts: 2007
 Implementation Year: 2010

Growth Rates

	1.00%			1.20%			1.00%			1.00%		
	Eastbound (Montgomery Blvd.)			Westbound (Montgomery Blvd.)			Northbound (I-25 W. Ramp)			Southbound (I-25 W. Ramp)		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing Volumes	0	870	593	275	891	171	0	1	0	230	240	227
Background Traffic Growth	0	26	18	10	32	6	0	0	0	7	7	7
Subtotal	0	896	611	285	923	177	0	1	0	237	247	234
Subtotal (NO BUILD - A.M.)	0	896	611	285	923	177	0	1	0	237	247	234
Percent Commercial Trips Generated(Entering)	0.00%	0.44%	6.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Percent Commercial Trips Generated(Exiting)	0.00%	0.00%	0.00%	0.00%	6.44%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Percent Office Trips Generated(Entering)	0.00%	0.00%	1.21%	1.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Percent Office Trips Generated(Exiting)	0.00%	0.00%	0.00%	0.00%	1.21%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Total Trips Generated	0	1	14	1	12	0	0	0	0	0	0	0
Subtotal AM Pk Hr. BUILD Volumes	0	897	625	286	935	177	0	1	0	237	247	234
Pass-by Trip Adjustments	0	0	0	0	0	0	0	0	0	0	0	0
Total AM Peak Hour BUILD Volumes	0	897	625	286	935	177	0	1	0	237	247	234

	Eastbound (Montgomery Blvd.)			Westbound (Montgomery Blvd.)			Northbound (I-25 W. Ramp)			Southbound (I-25 W. Ramp)		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing Volumes	0	844	462	222	1,768	70	0	0	0	339	457	339
Background Traffic Growth	0	25	14	8	64	3	0	0	0	10	14	10
Subtotal	0	869	476	230	1,832	73	0	0	0	349	471	349
Subtotal (NO BUILD - P.M.)	0	869	476	230	1,832	73	0	0	0	349	471	349
Percent Commercial Trips Generated(Entering)	0.00%	0.44%	6.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Percent Commercial Trips Generated(Exiting)	0.00%	0.00%	0.00%	0.00%	6.44%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Percent Office Trips Generated(Entering)	0.00%	0.00%	1.21%	1.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Percent Office Trips Generated(Exiting)	0.00%	0.00%	0.00%	0.00%	1.21%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Total Trips Generated	0	2	26	1	26	0	0	0	0	0	0	0
Subtotal PM Pk Hr. BUILD Volumes	0	871	502	231	1,858	73	0	0	0	349	471	349
Pass-by Trip Adjustments	0	0	0	0	0	0	0	0	0	0	0	0
Total PM Peak Hour BUILD Volumes	0	871	502	231	1,858	73	0	0	0	349	471	349

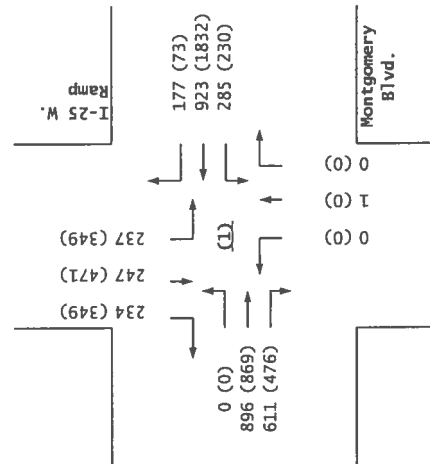
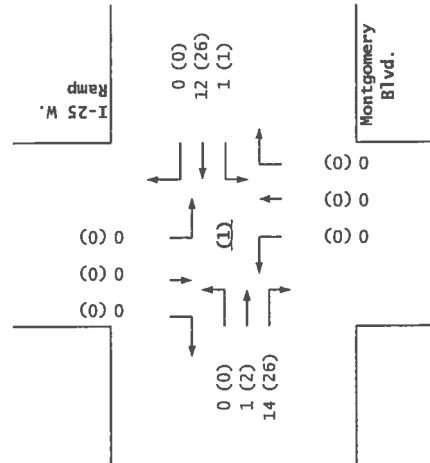
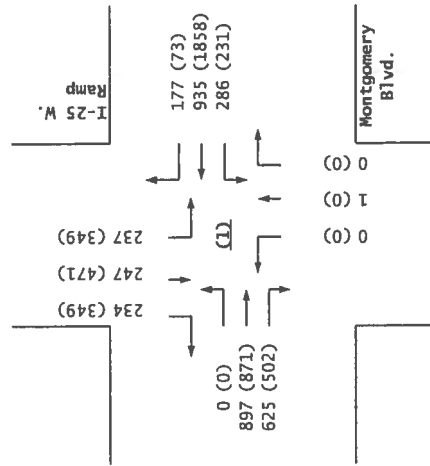
	Entering	Exiting		
Number of Commercial Trips Generated	222	180	A.M.	100% Commercial Development
	424	393	P.M.	
Number of Office Trips Generated	104	23	A.M.	100% Office Development
	114	64	P.M.	

	Eastbound (Montgomery Blvd.)			Westbound (Montgomery Blvd.)			Northbound (I-25 W. Ramp)			Southbound (I-25 W. Ramp)		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
2007 AM Peak Hr. Volumes	0	870	593	275	891	171	0	1	0	230	240	227
2007 PM Peak Hr. Volumes	0	844	462	222	1,768	70	0	0	0	339	457	339

2010
BUILD

Trips

2010
NO BUILD



Montgomery Blvd. / I-25 W. Ramp

Vassar Development (I-25 E. Frontg. Rd. N. of Comanche Rd.)
Projected Turning Movements Worksheet
Montgomery Blvd. / I-25 E. Ramp

INTERSECTION : E-W Street: **Montgomery Blvd.** (2)

N-S Street: **I-25 E. Ramp**

Year of Existing Counts **2007**

Implementation Year **2010**

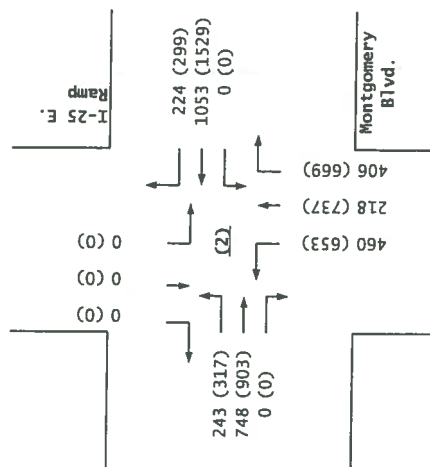
	1.00%			1.20%			1.00%			1.00%		
	Eastbound (Montgomery Blvd.)			Westbound (Montgomery Blvd.)			Northbound (I-25 E. Ramp)			Southbound (I-25 E. Ramp)		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing Volumes	236	725	0	0	1,003	216	435	206	365	0	0	0
Background Traffic Growth	7	22	0	0	36	8	13	6	11	0	0	0
Subtotal	243	747	0	0	1,039	224	448	212	376	0	0	0
Subtotal (NO BUILD - A.M.)	243	747	0	0	1,039	224	448	212	376	0	0	0
Percent Commercial Trips Generated(Entering)	0.00%	0.44%	0.00%	0.00%	6.01%	0.00%	0.00%	0.00%	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%	6.45%	0.00%	16.68%	0.00%	0.00%	0.00%
Percent Office Trips Generated(Entering)	0.00%	0.00%	0.00%	0.00%	1.00%	0.00%	0.00%	0.00%	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%	1.21%	28.18%	1.04%	0.00%	0.00%	0.00%
Total Trips Generated	0	1	0	0	14	0	12	6	30	0	0	0
Subtotal AM Pk Hr. BUILD Volumes	243	748	0	0	1,053	224	460	218	406	0	0	0
Pass-by Trip Adjustments	0	0	0	0	0	0	0	0	0	0	0	0
Total AM Peak Hour BUILD Volumes	243	748	0	0	1,053	224	460	218	406	0	0	0

	Eastbound (Montgomery Blvd.)			Westbound (Montgomery Blvd.)			Northbound (I-25 E. Ramp)			Southbound (I-25 E. Ramp)		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing Volumes	308	875	0	0	1,451	289	609	698	584	0	0	0
Background Traffic Growth	9	26	0	0	52	10	18	21	18	0	0	0
Subtotal	317	901	0	0	1,503	299	627	719	602	0	0	0
Subtotal (NO BUILD - P.M.)	317	901	0	0	1,503	299	627	719	602	0	0	0
Percent Commercial Trips Generated(Entering)	0.00%	0.44%	0.00%	0.00%	6.01%	0.00%	0.00%	0.00%	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%	6.45%	0.00%	16.68%	0.00%	0.00%	0.00%
Percent Office Trips Generated(Entering)	0.00%	0.00%	0.00%	0.00%	1.00%	0.00%	0.00%	0.00%	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%	1.21%	28.18%	1.04%	0.00%	0.00%	0.00%
Total Trips Generated	0	2	0	0	26	0	26	18	67	0	0	0
Subtotal PM Pk Hr. BUILD Volumes	317	903	0	0	1,529	299	653	737	669	0	0	0
Pass-by Trip Adjustments	0	0	0	0	0	0	0	0	0	0	0	0
Total PM Peak Hour BUILD Volumes	317	903	0	0	1,529	299	653	737	669	0	0	0

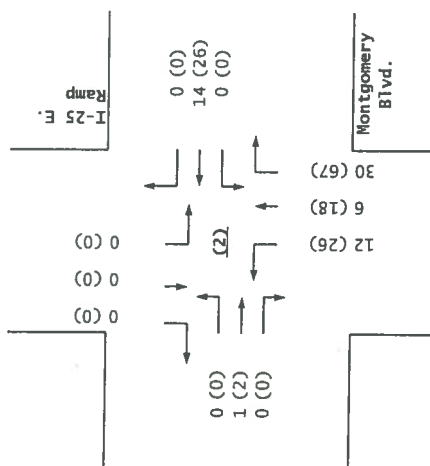
	Entering	Exiting		
Number of Commercial Trips Generated	222	180	A.M.	100% Commercial Development
	424	393	P.M.	
Number of Office Trips Generated	104	23	A.M.	100% Office Development
	114	64	P.M.	

	Eastbound (Montgomery Blvd.)			Westbound (Montgomery Blvd.)			Northbound (I-25 E. Ramp)			Southbound (I-25 E. Ramp)		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
2007 AM Peak Hr. Volumes	236	725	0	0	1,003	216	435	206	365	0	0	0
2007 PM Peak Hr. Volumes	308	875	0	0	1,451	289	609	698	584	0	0	0

2010
BUILD

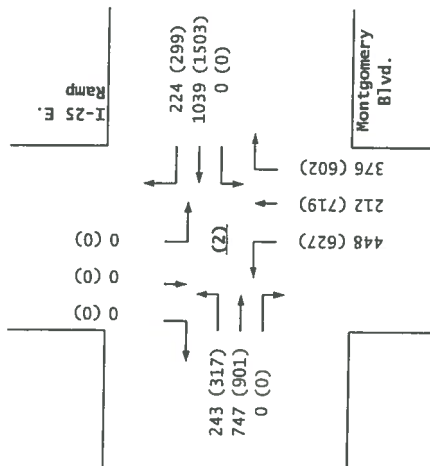


Trips



Montgomery Blvd. / I-25 E. Ramp

2010
NO BUILD



Vassar Development (I-25 E. Frntg. Rd. N. of Comanche Rd.)
Projected Turning Movements Worksheet
Montgomery Blvd. I Carlisle Blvd.

INTERSECTION:

E-W Street: **Montgomery Blvd.** (3)
 N-S Street: **Carlisle Blvd.**

Year of Existing Counts
 Implementation Year

2007
 2010
 Growth Rates

Existing Volumes
 Background Traffic Growth

Subtotal

Subtotal (NO BUILD - A.M.)

Percent Commercial Trips Generated(Entering)

Percent Commercial Trips Generated(Exiting)

Percent Office Trips Generated(Entering)

Percent Office Trips Generated(Exiting)

Total Trips Generated

Subtotal AM Pk Hr. BUILD Volumes

Pass-by Trip Adjustments

Total AM Peak Hour BUILD Volumes

1.20%			1.00%			1.00%			1.00%		
Eastbound (Montgomery Blvd.)			Westbound (Montgomery Blvd.)			Northbound (Carlisle Blvd.)			Southbound (Carlisle Blvd.)		
Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
7	812	231	330	1,079	5	281	11	203	15	12	30
0	29	8	10	32	0	8	0	6	0	0	1
7	841	239	340	1,111	5	289	11	209	15	12	31
7	841	239	340	1,111	5	289	11	209	15	12	31
0.00%	0.00%	6.96%	6.47%	6.00%	0.00%	0.00%	0.00%	6.23%	0.00%	0.00%	0.01%
0.00%	6.24%	7.18%	0.00%	0.00%	0.00%	0.00%	0.01%	6.23%	0.00%	0.00%	0.00%
0.00%	0.00%	0.00%	1.07%	1.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
0.00%	1.04%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	1.03%	0.00%	0.00%	0.00%
0	11	28	15	14	0	0	0	11	0	0	0
7	852	267	355	1,125	5	289	11	220	15	12	31
0	0	0	0	0	0	0	0	0	0	0	0
7	852	267	355	1,125	5	289	11	220	15	12	31

Existing Volumes

Background Traffic Growth

Subtotal

Previous Development #1

Previous Development #2

Previous Development #3

Subtotal (NO BUILD - P.M.)

Percent Commercial Trips Generated(Entering)

Percent Commercial Trips Generated(Exiting)

Percent Office Trips Generated(Entering)

Percent Office Trips Generated(Exiting)

Total Trips Generated

Subtotal PM Pk Hr. BUILD Volumes

Pass-by Trip Adjustments

Total PM Peak Hour BUILD Volumes

Eastbound (Montgomery Blvd.)			Westbound (Montgomery Blvd.)			Northbound (Carlisle Blvd.)			Southbound (Carlisle Blvd.)		
Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
35	1,218	245	409	1,255	24	485	49	485	38	29	46
1	44	9	12	38	1	15	1	15	1	1	1
36	1,262	254	421	1,293	25	500	50	500	39	30	47
0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0
36	1,262	254	421	1,293	25	500	50	500	39	30	47
0.00%	0.00%	6.96%	6.47%	6.00%	0.00%	0.00%	0.00%	6.23%	0.00%	0.00%	0.01%
0.00%	6.24%	7.18%	0.00%	0.00%	0.00%	0.00%	0.01%	6.23%	0.00%	0.00%	0.00%
0.00%	0.00%	0.00%	1.07%	1.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
0.00%	1.04%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	1.03%	0.00%	0.00%	0.00%
0	26	58	28	26	0	0	0	25	0	0	0
36	1,288	312	449	1,319	25	500	50	525	39	30	47
0	0	0	0	0	0	0	0	0	0	0	0
36	1,288	312	449	1,319	25	500	50	525	39	30	47

Number of Commercial Trips Generated

Number of Office Trips Generated

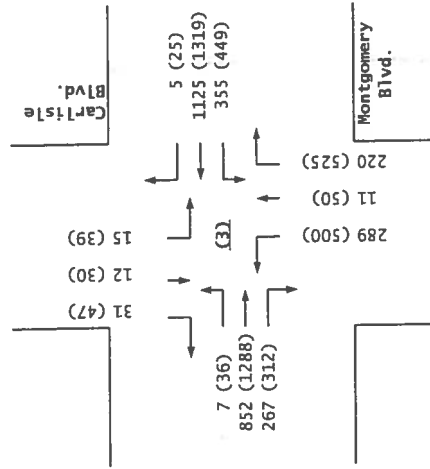
Entering	Exiting		
222	180	A.M.	100% Commercial Development
424	393	P.M.	
104	23	A.M.	100% Office Development
114	64	P.M.	

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

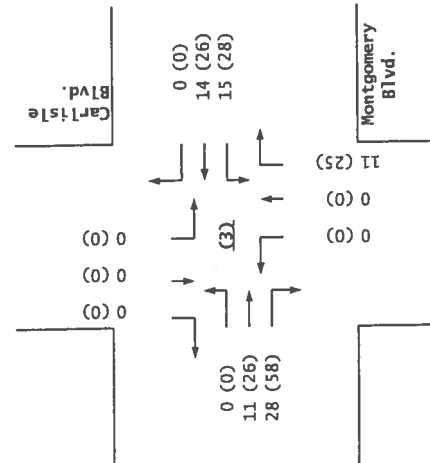
Eastbound (Montgomery Blvd.)			Westbound (Montgomery Blvd.)			Northbound (Carlisle Blvd.)			Southbound (Carlisle Blvd.)		
Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
7	812	231	330	1,079	5	281	11	203	15	12	30
35	1,218	245	409	1,255	24	485	49	485	38	29	46

7/23/2007

2010
BUILD

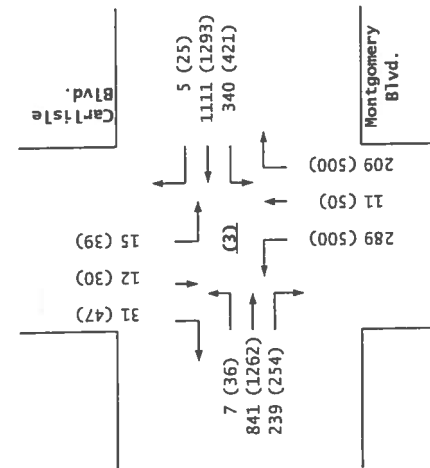


Trips



Montgomery Blvd. / Carlisle Blvd.

2010
NO BUILD



Vassar Development (I-25 E. Fmrg. Rd. N. of Comanche Rd.)
Projected Turning Movements Worksheet
Vassar Dr. / I-25 E. Fmrg. Rd.

INTERSECTION : E-W Street: Vassar Dr. (4)

N-S Street: I-25 E. Fmrg. Rd.

Year of Existing Counts 2007

Implementation Year 2010

Growth Rates

	1.00%			1.00%			1.00%			1.00%		
	Eastbound (Vassar Dr.)			Westbound (Vassar Dr.)			Northbound (I-25 E. Fmrg. Rd.)			Southbound (I-25 E. Fmrg. Rd.)		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing Volumes	0	0	0	0	0	36	0	207	24	0	0	0
Background Traffic Growth	0	0	0	0	0	1	0	6	1	0	0	0
Subtotal	0	0	0	0	0	37	0	213	25	0	0	0
Subtotal (NO BUILD - A.M.)	0	0	0	0	0	37	0	213	25	0	0	0
Percent Commercial Trips Generated(Entering)	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Percent Commercial Trips Generated(Exiting)	0.00%	0.00%	0.00%	0.00%	0.00%	11.07%	0.00%	13.12%	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%	0.00%	0.00%	0.00%	0.00%
Percent Office Trips Generated(Exiting)	0.00%	0.00%	0.00%	0.00%	0.00%	10.00%	0.00%	20.43%	0.00%	0.00%	0.00%	0.00%
Total Trips Generated	0	0	0	0	0	22	0	29	0	0	0	0
Subtotal AM Pk Hr. BUILD Volumes	0	0	0	0	0	59	0	242	25	0	0	0
Pass-by Trip Adjustments	0	0	0	0	0	0	0	0	0	0	0	0
Total AM Peak Hour BUILD Volumes	0	0	0	0	0	59	0	242	25	0	0	0

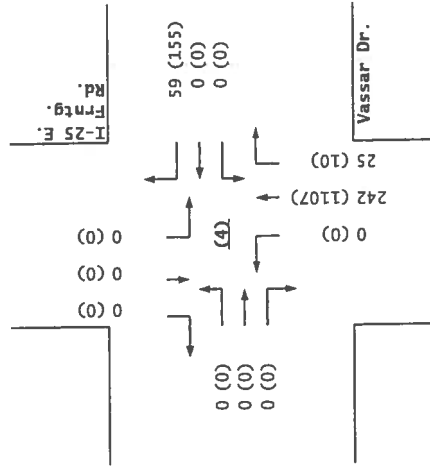
	1.00%			1.00%			1.00%			1.00%		
	Eastbound (Vassar Dr.)			Westbound (Vassar Dr.)			Northbound (I-25 E. Fmrg. Rd.)			Southbound (I-25 E. Fmrg. Rd.)		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing Volumes	0	0	0	0	0	102	0	1,012	10	0	0	0
Background Traffic Growth	0	0	0	0	0	3	0	30	0	0	0	0
Subtotal	0	0	0	0	0	105	0	1,042	10	0	0	0
Subtotal (NO BUILD - P.M.)	0	0	0	0	0	105	0	1,042	10	0	0	0
Percent Commercial Trips Generated(Entering)	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Percent Commercial Trips Generated(Exiting)	0.00%	0.00%	0.00%	0.00%	0.00%	11.07%	0.00%	13.12%	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%	0.00%	0.00%	0.00%	0.00%
Percent Office Trips Generated(Exiting)	0.00%	0.00%	0.00%	0.00%	0.00%	10.00%	0.00%	20.43%	0.00%	0.00%	0.00%	0.00%
Total Trips Generated	0	0	0	0	0	50	0	65	0	0	0	0
Subtotal PM Pk Hr. BUILD Volumes	0	0	0	0	0	155	0	1,107	10	0	0	0
Pass-by Trip Adjustments	0	0	0	0	0	0	0	0	0	0	0	0
Total PM Peak Hour BUILD Volumes	0	0	0	0	0	155	0	1,107	10	0	0	0

	Entering	Exiting		
Number of Commercial Trips Generated	222	180	A.M.	100% Commercial Development
	424	393	P.M.	
Number of Office Trips Generated	104	23	A.M.	100% Office Development
	114	64	P.M.	

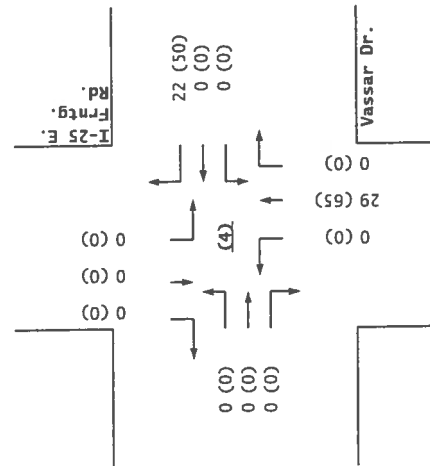
	1.00%			1.00%			1.00%			1.00%		
	Eastbound (Vassar Dr.)			Westbound (Vassar Dr.)			Northbound (I-25 E. Fmrg. Rd.)			Southbound (I-25 E. Fmrg. Rd.)		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
2007 AM Peak Hr. Volumes	0	0	0	0	0	36	0	207	24	0	0	0
2007 PM Peak Hr. Volumes	0	0	0	0	0	102	0	1,012	10	0	0	0

7/23/2007

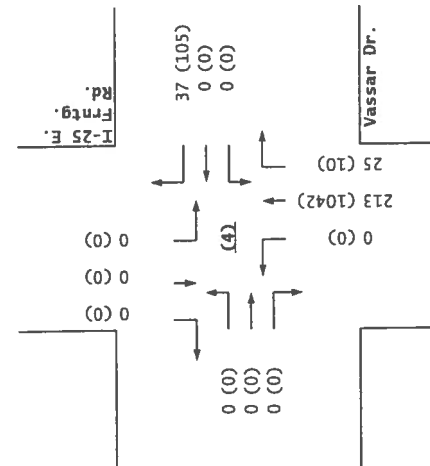
2010
BUILD



Trips



2010
NO BUILD



Vassar Dr. / I-25 E. Frntg. Rd.

Vassar Development (I-25 E. Fmtg. Rd. N. of Comanche Rd.)
Projected Turning Movements Worksheet
Comanche Rd. / I-25 W. Fmtg. Rd.

INTERSECTION : E-W Street: Comanche Rd. (5)

N-S Street: I-25 W. Fmtg. Rd.

Year of Existing Counts 2006

Implementation Year 2010

Growth Rates

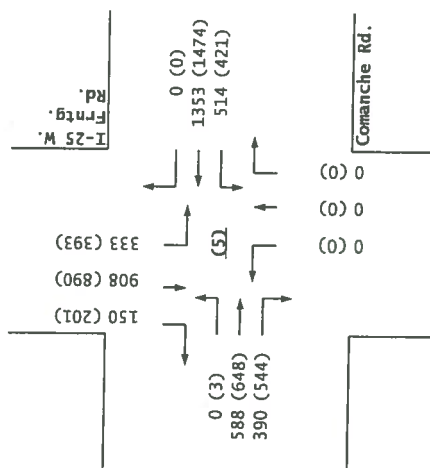
	1.00%			1.00%			1.00%			1.00%		
	Eastbound (Comanche Rd.)			Westbound (Comanche Rd.)			Northbound (I-25 W. Fmtg. Rd.)			Southbound (I-25 W. Fmtg. Rd.)		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing Volumes	0	565	375	494	1,301	0	0	0	0	320	873	144
Background Traffic Growth	0	23	15	20	52	0	0	0	0	13	35	6
Subtotal	0	588	390	514	1,353	0	0	0	0	333	908	150
Subtotal (NO BUILD - A.M.)	0	588	390	514	1,353	0	0	0	0	333	908	150
Percent Commercial Trips Generated(Entering)	0.00%	2.29%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	12.01%	0.00%	0.00%
Percent Commercial Trips Generated(Exiting)	0.00%	0.00%	0.00%	10.96%	2.29%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Percent Office Trips Generated(Entering)	0.00%	0.11%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	30.39%	0.00%	0.00%
Percent Office Trips Generated(Exiting)	0.00%	0.00%	0.00%	48.89%	0.11%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Total Trips Generated	0	5	0	31	4	0	0	0	0	59	0	0
Subtotal AM Pk Hr. BUILD Volumes	0	593	390	545	1,357	0	0	0	0	392	908	150
Pass-by Trip Adjustments	0	0	0	0	0	0	0	0	0	0	0	0
Total AM Peak Hour BUILD Volumes	0	593	390	545	1,357	0	0	0	0	392	908	150

	Eastbound (Comanche Rd.)			Westbound (Comanche Rd.)			Northbound (I-25 W. Fmtg. Rd.)			Southbound (I-25 W. Fmtg. Rd.)		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing Volumes	3	623	523	405	1,417	0	0	0	0	378	856	193
Background Traffic Growth	0	25	21	16	57	0	0	0	0	15	34	8
Subtotal	3	648	544	421	1,474	0	0	0	0	393	890	201
Subtotal (NO BUILD - P.M.)	3	648	544	421	1,474	0	0	0	0	393	890	201
Percent Commercial Trips Generated(Entering)	0.00%	2.29%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	12.01%	0.00%	0.00%
Percent Commercial Trips Generated(Exiting)	0.00%	0.00%	0.00%	10.96%	2.29%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Percent Office Trips Generated(Entering)	0.00%	0.11%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	30.39%	0.00%	0.00%
Percent Office Trips Generated(Exiting)	0.00%	0.00%	0.00%	48.89%	0.11%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Total Trips Generated	0	10	0	74	9	0	0	0	0	86	0	0
Subtotal PM Pk Hr. BUILD Volumes	3	658	544	495	1,483	0	0	0	0	479	890	201
Pass-by Trip Adjustments	0	0	0	0	0	0	0	0	0	0	0	0
Total PM Peak Hour BUILD Volumes	3	658	544	495	1,483	0	0	0	0	479	890	201

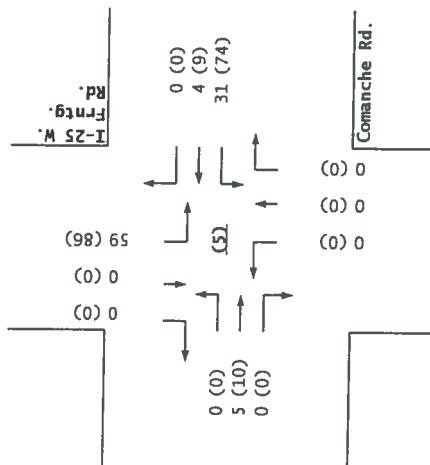
Number of Commercial Trips Generated	Entering 222	Exiting 180	A.M.	100% Commercial Development
Number of Office Trips Generated	424	393	P.M.	
	104	23	A.M.	100% Office Development
	114	64	P.M.	

	Eastbound (Comanche Rd.)			Westbound (Comanche Rd.)			Northbound (I-25 W. Fmtg. Rd.)			Southbound (I-25 W. Fmtg. Rd.)		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
2007 AM Peak Hr. Volumes	0	571	379	499	1,314	0	0	0	0	323	882	145
2007 PM Peak Hr. Volumes	3	629	528	409	1,431	0	0	0	0	382	865	195

2010
NO BUILD

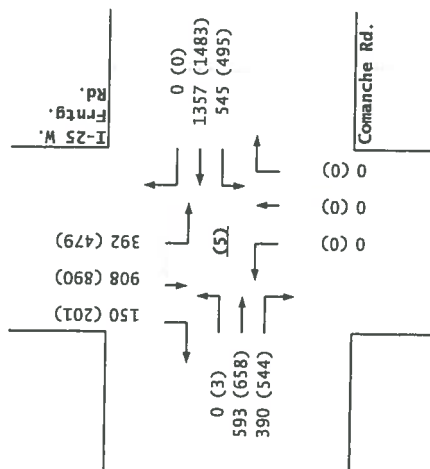


Trips



Comanche Rd. / I-25 W. Frntg. Rd.

2010
BUILD



Vassar Development (I-25 E. Fmtg. Rd. N. of Comanche Rd.)
Projected Turning Movements Worksheet
Comanche Rd. I-25 E. Fmtg. Rd.

INTERSECTION :

E-W Street: **Comanche Rd.** (6)
 N-S Street: **I-25 E. Fmtg. Rd.**

Year of Existing Counts: **2006**
 Implementation Year: **2010**

Growth Rates

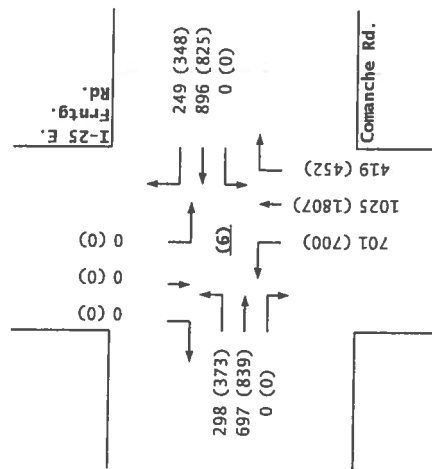
	1.00%			1.00%			1.00%			1.00%		
	Eastbound (Comanche Rd.)			Westbound (Comanche Rd.)			Northbound (I-25 E. Fmtg. Rd.)			Southbound (I-25 E. Fmtg. Rd.)		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing Volumes	225	670	0	0	828	152	674	913	403	0	0	0
Background Traffic Growth	9	27	0	0	33	6	27	37	16	0	0	0
Subtotal	234	697	0	0	861	158	701	950	419	0	0	0
Subtotal (NO BUILD - A.M.)	234	697	0	0	861	158	701	950	419	0	0	0
Percent Commercial Trips Generated(Entering)	14.30%	0.00%	0.00%	0.00%	0.00%	36.56%	0.00%	10.96%	0.00%	0.00%	0.00%	0.00%
Percent Commercial Trips Generated(Exiting)	0.00%	0.00%	0.00%	0.00%	13.25%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Percent Office Trips Generated(Entering)	30.50%	0.00%	0.00%	0.00%	0.00%	9.91%	0.00%	48.89%	0.00%	0.00%	0.00%	0.00%
Percent Office Trips Generated(Exiting)	0.00%	0.00%	0.00%	0.00%	49.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Total Trips Generated	64	0	0	0	35	91	0	75	0	0	0	0
Subtotal AM Pk Hr. BUILD Volumes	298	697	0	0	896	249	701	1,025	419	0	0	0
Pass-by Trip Adjustments	0	0	0	0	0	0	0	0	0	0	0	0
Total AM Peak Hour BUILD Volumes	298	697	0	0	896	249	701	1,025	419	0	0	0

	Eastbound (Comanche Rd.)			Westbound (Comanche Rd.)			Northbound (I-25 E. Fmtg. Rd.)			Southbound (I-25 E. Fmtg. Rd.)		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing Volumes	266	807	0	0	713	175	673	1,639	435	0	0	0
Background Traffic Growth	11	32	0	0	29	7	27	66	17	0	0	0
Subtotal	277	839	0	0	742	182	700	1,705	452	0	0	0
Subtotal (NO BUILD - P.M.)	277	839	0	0	742	182	700	1,705	452	0	0	0
Percent Commercial Trips Generated(Entering)	14.30%	0.00%	0.00%	0.00%	0.00%	36.56%	0.00%	10.96%	0.00%	0.00%	0.00%	0.00%
Percent Commercial Trips Generated(Exiting)	0.00%	0.00%	0.00%	0.00%	13.25%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Percent Office Trips Generated(Entering)	30.50%	0.00%	0.00%	0.00%	0.00%	9.91%	0.00%	48.89%	0.00%	0.00%	0.00%	0.00%
Percent Office Trips Generated(Exiting)	0.00%	0.00%	0.00%	0.00%	49.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Total Trips Generated	96	0	0	0	83	166	0	102	0	0	0	0
Subtotal PM Pk Hr. BUILD Volumes	373	839	0	0	825	348	700	1,807	452	0	0	0
Pass-by Trip Adjustments	0	0	0	0	0	0	0	0	0	0	0	0
Total PM Peak Hour BUILD Volumes	373	839	0	0	825	348	700	1,807	452	0	0	0

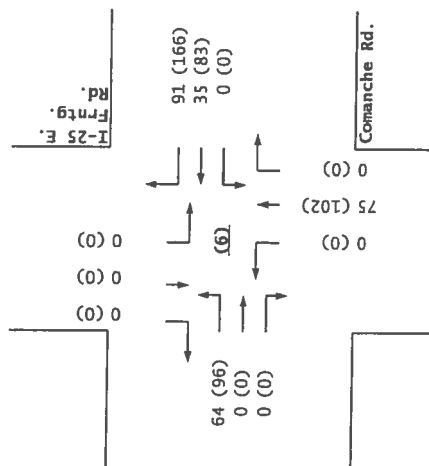
	Entering	Exiting	
Number of Commercial Trips Generated	222	180	A.M. 100% Commercial Development
	424	393	P.M.
Number of Office Trips Generated	104	23	A.M. 100% Office Development
	114	64	P.M.

	Eastbound (Comanche Rd.)			Westbound (Comanche Rd.)			Northbound (I-25 E. Fmtg. Rd.)			Southbound (I-25 E. Fmtg. Rd.)		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
2007 AM Peak Hr. Volumes	227	677	0	0	836	154	681	922	407	0	0	0
2007 PM Peak Hr. Volumes	269	815	0	0	720	177	680	1,655	439	0	0	0

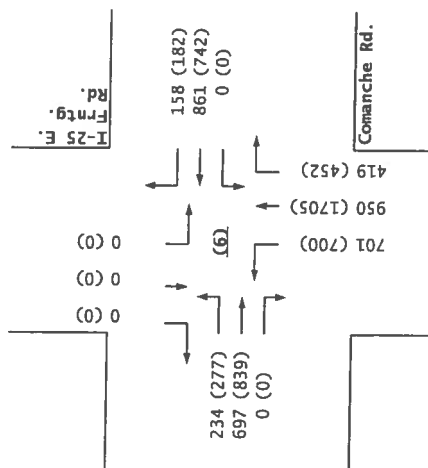
2010
BUILD



Trips



2010
NO BUILD



Comanche Rd. / I-25 E. Frntg. Rd.

Vassar Development (I-25 E. Frntg. Rd. N. of Comanche Rd.)
Projected Turning Movements Worksheet
Comanche Rd. / Vassar Dr.

INTERSECTION: E-W Street: **Comanche Rd.** (7)

N-S Street: **Vassar Dr.**

Year of Existing Counts **2007**

Implementation Year **2010**

Growth Rates

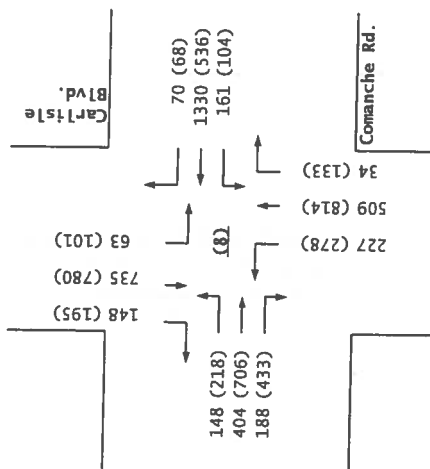
	1.00%			1.00%			1.00%			1.00%		
	Eastbound (Comanche Rd.)			Westbound (Comanche Rd.)			Northbound (Vassar Dr.)			Southbound (Vassar Dr.)		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing Volumes	99	443	0	0	601	61	0	0	0	14	0	43
Background Traffic Growth	3	13	0	0	18	2	0	0	0	0	0	1
Subtotal	102	456	0	0	619	63	0	0	0	14	0	44
Subtotal (NO BUILD - A.M.)	102	456	0	0	619	63	0	0	0	14	0	44
Percent Commercial Trips Generated(Entering)	0.03%	0.00%	0.00%	0.00%	36.56%	36.00%	0.00%	0.00%	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%	61.45%	0.00%	13.28%
Percent Office Trips Generated(Entering)	0.79%	0.00%	0.00%	0.00%	9.91%	9.91%	0.00%	0.00%	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%	19.78%	0.00%	49.79%
Total Trips Generated	1	0	0	0	91	90	0	0	0	116	0	35
Subtotal AM Pk Hr. BUILD Volumes	103	456	0	0	710	153	0	0	0	130	0	79
Pass-by Trip Adjustments	0	0	0	0	0	0	0	0	0	0	0	0
Total AM Peak Hour BUILD Volumes	103	456	0	0	710	153	0	0	0	130	0	79

	Eastbound (Comanche Rd.)			Westbound (Comanche Rd.)			Northbound (Vassar Dr.)			Southbound (Vassar Dr.)		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing Volumes	72	993	0	1	604	37	0	0	0	64	0	81
Background Traffic Growth	2	30	0	0	18	1	0	0	0	2	0	2
Subtotal	74	1,023	0	1	622	38	0	0	0	66	0	83
Subtotal (NO BUILD - P.M.)	74	1,023	0	1	622	38	0	0	0	66	0	83
Percent Commercial Trips Generated(Entering)	0.03%	0.00%	0.00%	0.00%	36.56%	36.00%	0.00%	0.00%	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%	61.45%	0.00%	13.28%
Percent Office Trips Generated(Entering)	0.79%	0.00%	0.00%	0.00%	9.91%	9.91%	0.00%	0.00%	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%	19.78%	0.00%	49.79%
Total Trips Generated	1	0	0	0	166	164	0	0	0	254	0	84
Subtotal PM Pk Hr. BUILD Volumes	75	1,023	0	1	788	202	0	0	0	320	0	167
Pass-by Trip Adjustments	0	0	0	0	0	0	0	0	0	0	0	0
Total PM Peak Hour BUILD Volumes	75	1,023	0	1	788	202	0	0	0	320	0	167

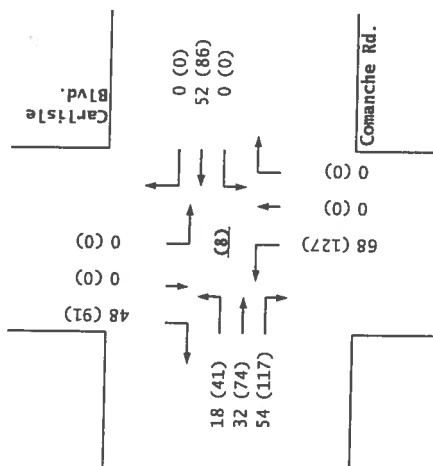
	Entering	Exiting		
Number of Commercial Trips Generated	222	180	A.M.	100% Commercial Development
	424	393	P.M.	
Number of Office Trips Generated	104	23	A.M.	100% Office Development
	114	84	P.M.	

	Eastbound (Comanche Rd.)			Westbound (Comanche Rd.)			Northbound (Vassar Dr.)			Southbound (Vassar Dr.)		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
2007 AM Peak Hr. Volumes	99	443	0	0	601	61	0	0	0	14	0	43
2007 PM Peak Hr. Volumes	72	993	0	1	604	37	0	0	0	64	0	81

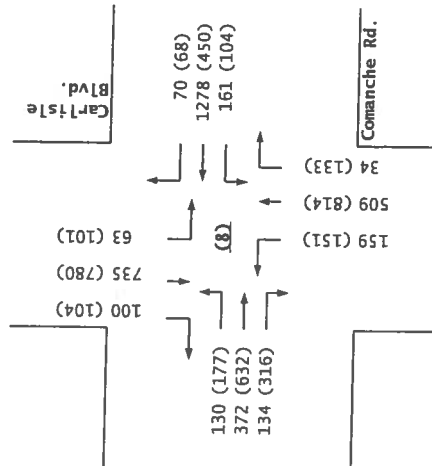
2010
BUILD



Trips



2010
NO BUILD



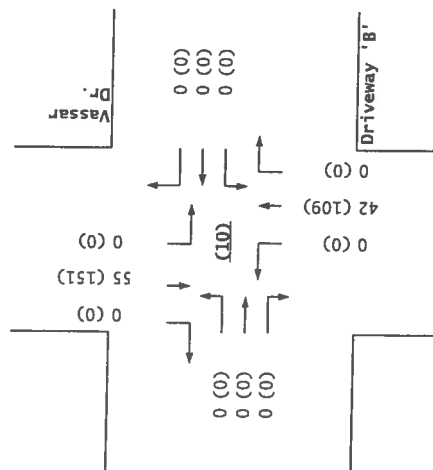
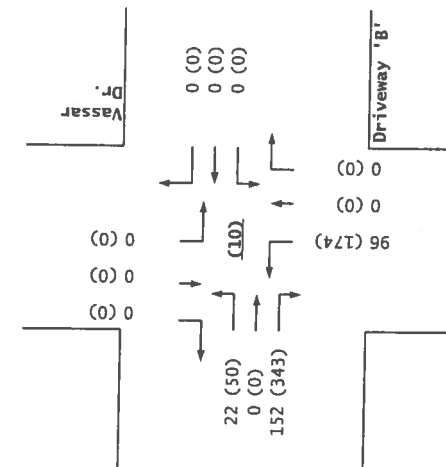
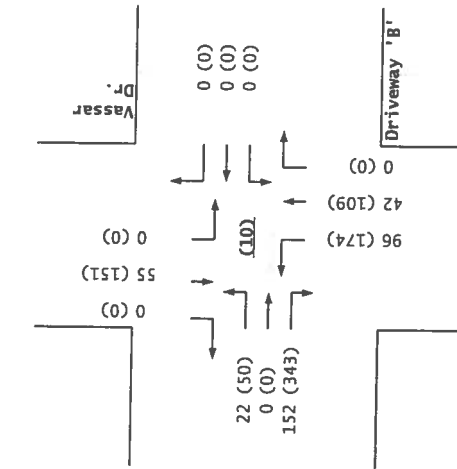
Comanche Rd. / Carlisle Blvd.

2010
BUILD

Trips

2010
NO BUILD

Driveway 'B' / Vassar Dr.



HCM Unsignalized Intersection Capacity Analysis
7: Comanche Rd. & Vassar Dr.

Terry O. Brown, P.E.
7/27/2007



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations	↰	↱↱	↰↱		↰	
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Volume (veh/h)	75	1023	788	202	320	167
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	82	1112	857	220	348	182
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type				TWLT		
Median storage veh				1		
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	1076				1685	538
vC1, stage 1 conf vol					966	
vC2, stage 2 conf vol					719	
vCu, unblocked vol	1076				1685	538
tC, single (s)	4.1				6.8	6.9
tC, 2 stage (s)					5.8	
tF (s)	2.2				3.5	3.3
p0 queue free %	87				0	63
cM capacity (veh/h)	644				196	488
Direction, Lane #	EB 1	EB 2	EB 3	WB 1	WB 2	SB 1
Volume Total	82	556	556	571	505	529
Volume Left	82	0	0	0	0	348
Volume Right	0	0	0	0	220	182
cSH	644	1700	1700	1700	1700	247
Volume to Capacity	0.13	0.33	0.33	0.34	0.30	2.15
Queue Length 95th (ft)	11	0	0	0	0	1007
Control Delay (s)	11.4	0.0	0.0	0.0	0.0	561.2
Lane LOS	B					F
Approach Delay (s)	0.8			0.0		561.2
Approach LOS						F

Intersection Summary

Average Delay	106.5		
Intersection Capacity Utilization	70.3%	ICU Level of Service	C
Analysis Period (min)	15		

PM BUILD Condition

Baseline
H:\Vassar Development\synchro\Vassar_B_P.sy7

HCM Unsignalized Intersection Capacity Analysis
9: Driveway 'A' & I-25 E. Frntg. Rd.

Terry O. Brown, P.E.
7/23/2007

						
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations		↗	↕↕	↗		
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Volume (veh/h)	0	29	883	230	0	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	0	32	960	250	0	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	960	480			1210	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	960	480			1210	
tC, single (s)	6.8	6.9			4.1	
tC, 2 stage (s)						
tF (s)	3.5	3.3			2.2	
p0 queue free %	100	94			100	
cM capacity (veh/h)	255	532			572	
Direction, Lane #	WB 1	NB 1	NB 2	NB 3		
Volume Total	32	480	480	250		
Volume Left	0	0	0	0		
Volume Right	32	0	0	250		
cSH	532	1700	1700	1700		
Volume to Capacity	0.06	0.28	0.28	0.15		
Queue Length 95th (ft)	5	0	0	0		
Control Delay (s)	12.2	0.0	0.0	0.0		
Lane LOS	B					
Approach Delay (s)	12.2	0.0				
Approach LOS	B					
Intersection Summary						
Average Delay		0.3				
Intersection Capacity Utilization		34.4%		ICU Level of Service		A
Analysis Period (min)		15				

AM BUILD Condition

Baseline
H:\Vassar Development\synchro\Vassar_B_A.sy7

7/26/2007

Traffic Count Data Sheet

Year Counts Taken: 2007

Vassar Development (I-25 E. Frntg. Rd. N. of Comanche Rd.)
 E-W Street Montgomery Blvd.
 N-S Street: I-25 Ramp W

Speed Limit (Montgomery Blvd.)= 45 MPH
 Speed Limit (I-25 Ramp W)= 35 MPH

Signalized
 Date of Count: 7/12/07

Begin Time	End Time	Eastbound (Montgomery Blvd.)			Westbound (Montgomery Blvd.)			Northbound (I-25 Ramp W)			Southbound (I-25 Ramp W)		
		L	T	R	L	T	R	L	T	R	L	T	R
7:00 AM	7:15 AM	0	422	445	57	246	27	0	0	0	33	56	47
7:15 AM	7:30 AM	0	479	448	55	295	2	0	0	0	49	36	32
7:30 AM	7:45 AM	0	455	446	75	247	27	0	0	0	38	40	36
7:45 AM	8:00 AM	0	234	163	84	300	53	0	0	0	59	76	50
8:00 AM	8:15 AM	0	199	134	57	269	36	0	0	0	52	59	44
8:15 AM	8:30 AM	0	223	145	65	160	40	0	0	0	51	50	72
8:30 AM	8:45 AM	0	214	151	69	162	42	0	0	0	68	55	61
8:45 AM	9:00 AM	0	248	406	67	476	50	0	0	0	77	38	68
AM Peak Hour Volumes		0	870	593	275	891	171	0	0	0	230	240	227
% of Total Traffic		0.0%	24.9%	17.0%	7.9%	25.5%	4.9%	0.0%	0.0%	0.0%	6.6%	6.9%	6.5%
% Directional			41.8%			38.2%			0.0%			19.9%	
AM Peak Hour Factor			0.92			0.76			#DIV/0!			0.94	

Begin Time	End Time	Eastbound (Montgomery Blvd.)			Westbound (Montgomery Blvd.)			Northbound (I-25 Ramp W)			Southbound (I-25 Ramp W)		
		L	T	R	L	T	R	L	T	R	L	T	R
4:00 PM	4:15 PM	0	462	96	40	410	8	0	0	0	85	88	85
4:15 PM	4:30 PM	0	493	429	43	398	12	0	0	0	64	61	64
4:30 PM	4:45 PM	0	474	440	45	350	24	0	0	0	76	104	76
4:45 PM	5:00 PM	0	477	427	54	370	49	0	0	0	59	106	59
5:00 PM	5:15 PM	0	195	113	65	402	18	0	0	0	72	146	72
5:15 PM	5:30 PM	0	221	109	63	428	20	0	0	0	75	138	75
5:30 PM	5:45 PM	0	207	114	55	492	11	0	0	0	107	118	107
5:45 PM	6:00 PM	0	221	126	39	446	21	0	0	0	85	55	85
PM Peak Hour Volumes		0	844	462	222	1768	70	0	0	0	339	457	339
% of Total Traffic		0.0%	18.8%	10.3%	4.9%	39.3%	1.6%	0.0%	0.0%	0.0%	7.5%	10.2%	7.5%
% Directional			29.0%			45.8%			0.0%			25.2%	
PM Peak Hour Factor			0.94			0.92			#DIV/0!			0.85	

Timings
8: Comanche Rd. & Carlisle Blvd.

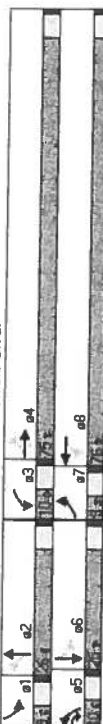
Terry O. Brown, P.E.
7/26/2007

Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations	130	372	134	161	1278	159	509	63	735
Volume (vph)	pm+pt	4	5	3	8	5	2	1	6
Turn Type	pm+pt	4	5	3	8	5	2	1	6
Permitted Phases	4	5	3	8	5	2	1	6	6
Detector Phases	4	5	3	8	5	2	1	6	6
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Split (s)	9.0	21.0	9.0	21.0	9.0	21.0	9.0	21.0	21.0
Total Split (s)	9.0	75.0	10.0	10.0	76.0	10.0	26.0	9.0	25.0
Total Split (%)	7.5%	62.5%	8.3%	8.3%	63.3%	8.3%	21.7%	7.5%	20.8%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lead-Lag	Lead	Lag	Lead	Lag	Lag	Lead	Lag	Lead	Lag
Recall Mode	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Act Effd Green (s)	76.0	71.0	81.0	78.0	72.0	28.0	22.0	26.0	21.0
Actuated g/C Ratio	0.63	0.59	0.68	0.65	0.60	0.23	0.18	0.22	0.18
Control Delay	115.5	14.0	3.0	8.6	175.1	155.4	67.3	48.4	83.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	115.5	14.0	3.0	8.6	175.1	155.4	67.3	48.4	83.5
LOS	F	B	A	A	F	F	E	D	F
Approach Delay	32.4				157.3		87.3		81.1
Approach LOS	C				F		F		F

Intersection Summary
Cycle Length: 120
Actuated Cycle Length: 120
Natural Cycle: 140
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 1.32
Intersection Signal Delay: 104.7
Intersection Capacity Utilization 117.3%
Analysis Period (min) 15

Intersection LOS: F
ICU Level of Service H

Splits and Phases: 8: Comanche Rd. & Carlisle Blvd.



HCM Signalized Intersection Capacity Analysis
8: Comanche Rd. & Carlisle Blvd.

Terry O. Brown, P.E.
7/26/2007

Movement	EBL	EBT	EBR	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations	1900	1900	1900	1900	1900	1900	1900	1900	1900
Ideal Flow (vphpl)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Total Lost time (s)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lane Util. Factor	0.95	1.00	0.85	1.00	0.99	1.00	0.99	1.00	0.91
Flt Protected	1770	1863	1583	1770	1848	1770	3506	1770	4994
Satd. Flow (prot)	0.06	1.00	1.00	0.44	1.00	0.18	1.00	0.19	1.00
Flt Permitted	105	1863	1583	825	1848	339	3506	355	4994
Volume (vph)	130	372	134	161	1278	70	159	34	63
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	141	404	146	175	1389	76	173	37	68
RTOR Reduction (vph)	0	0	34	0	2	0	0	0	15
Lane Group Flow (vph)	141	404	112	175	1463	0	173	586	893
Turn Type	pm+pt	pm+pt	pm+ov	pm+pt	pm+pt	pm+pt	pm+pt	pm+pt	pm+pt
Permitted Phases	7	4	5	3	8	5	2	1	6
Actuated Green, G (s)	74.0	70.0	75.0	76.0	71.0	26.0	21.0	24.0	20.0
Effective Green, g (s)	76.0	71.0	77.0	78.0	72.0	28.0	22.0	26.0	21.0
Actuated g/C Ratio	0.63	0.59	0.64	0.65	0.60	0.23	0.18	0.22	0.18
Clearance Time (s)	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
Lane Grp Cap (vph)	136	1102	1069	584	1109	151	643	136	874
v/s Ratio Prot	c0.04	0.22	0.01	0.01	c0.79	c0.06	0.17	0.02	0.18
v/s Ratio Perm	0.61		0.07	0.18		c0.21		0.09	
v/c Ratio	1.04	0.37	0.11	0.30	1.32	1.15	0.91	0.50	1.02
Uniform Delay, d1	59.7	12.8	8.3	8.8	24.0	44.8	48.0	39.3	49.5
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	87.3	0.2	0.0	0.3	150.2	117.8	17.2	2.9	36.1
Delay (s)	147.0	13.0	8.3	9.1	174.2	162.6	65.2	42.2	85.6
Level of Service	F	B	A	A	F	F	E	D	F
Approach Delay (s)	39.3				156.6		87.3		82.6
Approach LOS	D				F		F		F

Intersection Summary
HCM Average Control Delay 105.9 HCM Level of Service F
HCM Volume to Capacity ratio 1.18
Actuated Cycle Length (s) 120.0 Sum of lost time (s) 8.0
Intersection Capacity Utilization 117.3% ICU Level of Service H
Analysis Period (min) 15
c Critical Lane Group

AM NOBUILD Condition

Baseline
H:\Vassar Developments\synchro\Vassar_N_A.s77

AM NOBUILD Condition

Baseline
H:\Vassar Developments\synchro\Vassar_N_A.s77

Timings
8: Comanche Rd. & Carlisle Blvd.

Terry O. Brown, P.E.
7/26/2007

Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations	177	632	316	104	450	151	814	101	780
Volume (vph)	pm+pt	pm+pt	pm+ov	pm+pt	pm+pt	pm+pt	pm+pt	pm+pt	pm+pt
Turn Type	4	4	5	3	8	5	2	1	6
Permitted Phases	4	4	8	8	2	2	6	6	6
Detector Phases	7	4	5	3	8	5	2	1	6
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Split (s)	9.0	21.0	9.0	9.0	21.0	9.0	21.0	9.0	21.0
Total Split (%)	13.0	58.0	21.0	11.0	56.0	21.0	49.0	12.0	40.0
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lead-Lag	Lead	Lag	Lead	Lead	Lag	Lag	Lag	Lead	Lag
Recall Mode	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Act Eff Green (s)	55.8	46.6	63.7	51.7	44.5	50.5	39.3	42.4	34.4
Actuated g/C Ratio	0.47	0.40	0.54	0.44	0.38	0.43	0.33	0.36	0.29
Control Delay	35.7	54.8	14.7	40.4	43.1	32.8	46.8	38.9	39.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	35.7	54.8	14.7	40.4	43.1	32.8	46.8	38.9	39.3
LOS	D	D	B	D	D	C	D	D	D
Approach Delay	40.6	D	D	42.6	D	D	44.9	D	39.2
Approach LOS	D	D	D	D	D	D	D	D	D

Intersection Summary	
Cycle Length: 130	
Actuated Cycle Length: 117.6	
Natural Cycle: 90	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.93	
Intersection Signal Delay: 41.8	
Intersection Capacity Utilization 84.7%	
Analysis Period (min) 15	
Intersection LOS: D	
ICU Level of Service E	



PM NOBUILD Condition
H:\Vassar Development\sync\ctrlVassar_N_P.sy7
Baseline

HCM Signalized Intersection Capacity Analysis
8: Comanche Rd. & Carlisle Blvd.

Terry O. Brown, P.E.
7/26/2007

Movement	EBL	EBT	EBR	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations	1900	1900	1900	1900	1900	1900	1900	1900	1900
Ideal Flow (vphpl)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Total Lost time (s)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lane Util. Factor	0.95	1.00	0.85	1.00	0.95	1.00	0.95	1.00	0.91
Fit Protected	1770	1863	1583	1770	1826	1770	3464	1770	4996
Satd. Flow (prot)	0.15	1.00	1.00	0.09	1.00	0.14	1.00	0.12	1.00
Fit Permitted	281	1863	1583	167	1826	253	3464	217	4996
Satd. Flow (perm)	177	632	316	104	450	68	151	814	101
Volume (vph)	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Peak-hour factor, PHF	192	687	343	113	489	74	164	885	145
Adj. Flow (vph)	0	0	22	0	4	0	0	10	0
RTOR Reduction (vph)	192	687	321	113	559	0	164	1020	0
Lane Group Flow (vph)	pm+pt	pm+pt	pm+ov	pm+pt	pm+pt	pm+pt	pm+pt	pm+pt	pm+pt
Turn Type	7	4	5	3	8	5	2	1	6
Protected Phases	4	4	8	8	2	2	6	6	6
Permitted Phases	53.7	45.5	57.5	49.7	43.5	50.3	38.3	40.3	33.3
Actuated Green, G (s)	55.7	46.5	59.5	51.7	44.5	51.3	39.3	42.3	34.3
Effective Green, g (s)	0.48	0.40	0.51	0.44	0.38	0.44	0.34	0.36	0.29
Actuated g/C Ratio	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Clearance Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Vehicle Extension (s)	251	740	859	172	695	279	1164	185	1465
Lane Grp Cap (vph)	c0.06	c0.37	0.04	0.04	0.31	c0.07	c0.29	0.04	0.19
v/c Ratio Prot	0.30	0.16	0.25	0.25	0.19	0.19	0.17	0.17	0.17
v/c Ratio Perm	0.76	0.93	0.37	0.66	0.80	0.59	0.88	0.59	0.65
Uniform Delay, d1	23.3	33.7	17.4	26.2	32.4	22.8	36.6	28.4	36.1
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	13.0	17.7	0.3	8.7	6.7	3.1	7.6	5.1	1.0
Delay (s)	36.3	51.4	17.7	34.9	39.1	26.0	44.2	33.5	37.1
Level of Service	D	D	B	C	D	C	D	C	D
Approach Delay (s)	39.6	D	D	38.4	D	41.7	D	36.7	D
Approach LOS	D	D	D	D	D	D	D	D	D

Intersection Summary

HCM Average Control Delay	39.2	HCM Level of Service	D
HCM Volume to Capacity ratio	0.89		
Actuated Cycle Length (s)	117.0	Sum of lost time (s)	16.0
Intersection Capacity Utilization	84.7%	ICU Level of Service	E
Analysis Period (min)	15		
c Critical Lane Group			

PM NOBUILD Condition
H:\Vassar Development\sync\ctrlVassar_N_P.sy7
Baseline

Timings
8: Comanche Rd. & Carlisle Blvd.

Terry O. Brown, P.E.
7/26/2007

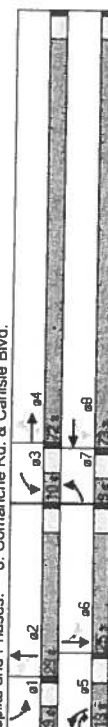
Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations	148	404	188	161	1330	227	509	63	735
Volume (vph)	pm+pt	pm+pt	pm+ov	pm+pt	pm+pt	pm+pt	pm+pt	pm+pt	pm+pt
Turn Type	4	4	5	3	8	5	2	1	6
Protected Phases	4	4	4	8	2	2	6	6	6
Permitted Phases	7	4	5	3	8	5	2	1	6
Detector Phases	4	4	4	4	4	4	4	4	4
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Split (s)	9.0	21.0	9.0	9.0	21.0	9.0	21.0	9.0	21.0
Total Split (s)	9.0	72.0	13.0	10.0	73.0	13.0	29.0	9.0	25.0
Total Split (%)	7.5%	60.0%	10.8%	8.3%	60.8%	10.8%	24.2%	7.5%	20.8%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lead/Lag	Lead	Lead	Lead	Lead	Lag	Lag	Lag	Lead	Lag
Recall Mode	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Act Eff Green (s)	73.0	68.0	81.0	75.0	69.0	34.0	25.0	26.0	21.0
Actuated g/c Ratio	0.61	0.57	0.68	0.62	0.58	0.28	0.21	0.22	0.18
v/c Ratio	1.18	0.42	0.19	0.33	1.43	1.27	0.80	0.50	1.08
Control Delay	159.7	16.2	4.4	10.2	223.6	187.2	54.2	46.5	97.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	159.7	16.2	4.4	10.2	223.6	187.2	54.2	46.5	97.7
LOS	F	B	A	B	F	F	D	D	F
Approach Delay	42.0				201.5		93.5		94.3
Approach LOS	D				F		F		F

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 120
Natural Cycle: 120
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 1.43
Intersection Signal Delay: 126.2
Intersection Capacity Utilization: 125.9%
Analysis Period (min): 15

Intersection LOS: F
ICU Level of Service: H

Spits and Phases: 8: Comanche Rd. & Carlisle Blvd.



HCM Signalized Intersection Capacity Analysis

8: Comanche Rd. & Carlisle Blvd.

Terry O. Brown, P.E.
7/26/2007

Movement	EBL	EBT	EBR	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations	1900	1900	1900	1900	1900	1900	1900	1900	1900
Ideal Flow (vphpl)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Total Lost time (s)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Fit Protected	0.95	1.00	1.00	0.95	1.00	0.95	1.00	0.95	1.00
Satd. Flow (prot)	1770	1863	1583	1770	1849	1770	3506	1770	4957
Fit Permitted	0.06	1.00	1.00	0.41	1.00	0.16	1.00	0.19	1.00
Satd. Flow (perm)	110	1863	1583	757	1849	298	3506	355	4957
Volume (vph)	148	404	188	161	1330	70	509	34	735
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	161	439	204	175	1446	76	553	37	799
RTOR Reduction (vph)	0	0	31	0	2	0	4	0	26
Lane Group Flow (vph)	161	439	173	175	1520	0	586	0	68
Turn Type	pm+pt	pm+pt	pm+ov	pm+pt	pm+pt	pm+pt	pm+pt	pm+pt	pm+pt
Protected Phases	7	4	5	3	8	5	2	1	6
Permitted Phases	4	4	4	8	2	24.0	24.0	24.0	20.0
Actuated Green, G (s)	71.0	67.0	75.0	73.0	68.0	32.0	24.0	24.0	20.0
Effective Green, g (s)	73.0	68.0	77.0	75.0	69.0	34.0	25.0	26.0	21.0
Actuated g/c Ratio	0.61	0.57	0.64	0.62	0.58	0.28	0.21	0.22	0.18
Clearance Time (s)	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
Lane Grp Cap (vph)	136	1056	1069	524	1063	195	730	136	867
v/s Ratio Prot	c0.05	0.24	0.01	0.02	c0.82	c0.10	0.17	c0.02	0.19
v/s Ratio Perm	0.67		0.10	0.19		c0.26		0.09	
v/c Ratio	1.18	0.42	0.16	0.33	1.43	1.27	0.80	0.50	1.08
Uniform Delay, d1	59.7	14.7	8.6	10.3	25.5	39.8	45.2	38.9	49.5
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	135.0	0.3	0.1	0.4	199.1	154.1	6.4	2.9	53.7
Delay (s)	194.7	15.0	8.7	10.7	224.6	193.9	51.5	41.8	103.2
Level of Service	F	B	A	B	F	F	D	D	F
Approach Delay (s)	49.4				202.5		93.5		99.2
Approach LOS	D				F		F		F

Intersection Summary

HCM Average Control Delay: 129.1
HCM Volume to Capacity ratio: 1.30
Actuated Cycle Length (s): 120.0
Intersection Capacity Utilization: 125.9%
Analysis Period (min): 15
Critical Lane Group: c

AM BUILD Condition

H:\Vassar Development\synchroVassar_B_A.sy7

Baseline
H:\Vassar Development\synchroVassar_B_A.sy7

Timings
8: Comanche Rd. & Carlisle Blvd.

Terry O. Brown, P.E.
7/26/2007

Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations	218	706	433	104	536	278	814	101	780
Volume (vph)	pm+pt	pm+pt	pm+ov	pm+pt	pm+pt	pm+pt	pm+pt	pm+pt	pm+pt
Turn Type	7	4	5	3	8	5	2	1	6
Protected Phases	4	4	4	8	2	2	2	1	6
Detector Phases	4	4	4	8	2	2	2	1	6
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Split (s)	9.0	21.0	9.0	9.0	21.0	9.0	21.0	9.0	21.0
Total Split (s)	19.0	63.0	24.0	9.0	53.0	24.0	49.0	9.0	34.0
Total Split (%)	14.6%	48.5%	18.5%	6.9%	40.8%	18.5%	37.7%	6.9%	26.2%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lead/Lag	Lead	Lead	Lead	Lead	Lag	Lag	Lag	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	Min	Min	Min	Min	Min	Min	Min	Min	Min
Act Effd Green (s)	66.1	57.1	80.7	52.2	47.1	52.9	43.9	34.2	29.2
Actuated g/C Ratio	0.52	0.45	0.64	0.41	0.37	0.42	0.35	0.27	0.23
Control Delay	0.90	0.92	0.46	0.89	0.96	0.91	0.85	0.87	0.91
Queue Delay	68.3	49.9	13.1	80.0	65.3	66.3	46.4	82.6	57.8
Total Delay	68.3	49.9	13.1	80.0	65.3	66.3	46.4	82.6	57.8
LOS	E	D	B	E	E	E	D	F	E
Approach Delay	41.1				67.4		50.9		60.1
Approach LOS	D				E		D		E

Intersection Summary
Cycle Length: 130
Actuated Cycle Length: 127
Natural Cycle: 90
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.96
Intersection Signal Delay: 52.8
Intersection Capacity Utilization 92.6%
Analysis Period (min) 15

Intersection LOS: D
ICU Level of Service F



Splits and Phases: 8: Comanche Rd. & Carlisle Blvd.

HCM Signalized Intersection Capacity Analysis

8: Comanche Rd. & Carlisle Blvd.

Terry O. Brown, P.E.
7/26/2007

Movement	EBL	EBT	EBR	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations	1900	1900	1900	1900	1900	1900	1900	1900	1900
Ideal Flow (vphpl)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Total Lost time (s)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lane Util. Factor	0.95	1.00	0.85	1.00	0.98	1.00	0.98	1.00	0.91
Fit Protected	1770	1863	1583	1770	1831	1770	1831	1770	1831
Satd. Flow (prot)	0.46	1.00	1.00	0.08	1.00	0.12	1.00	0.14	1.00
Fit Permitted	1770	1863	1583	1770	1831	1770	1831	1770	1831
Satd. Flow (perm)	0.46	1.00	1.00	0.08	1.00	0.12	1.00	0.14	1.00
Volume (vph)	218	706	433	104	536	278	814	101	780
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	237	767	471	113	583	302	885	110	848
RTOR Reduction (vph)	0	0	9	0	4	0	10	0	33
Lane Group Flow (vph)	237	767	471	113	583	302	885	110	848
Turn Type	pm+pt	pm+pt	pm+ov	pm+pt	pm+pt	pm+pt	pm+pt	pm+pt	pm+pt
Protected Phases	4	4	5	3	8	5	2	1	6
Permitted Phases	4	4	5	3	8	5	2	1	6
Actuated Green, G (s)	65.0	56.0	74.6	50.1	46.1	51.8	42.8	32.2	28.2
Effective Green, g (s)	66.0	57.0	75.6	52.1	47.1	52.8	43.8	34.2	29.2
Actuated g/C Ratio	0.52	0.45	0.60	0.41	0.37	0.42	0.35	0.27	0.23
Clearance Time (s)	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
Lane Grp Cap (vph)	267	837	1006	128	680	332	1197	129	1136
v/s Ratio Prot	c0.10	c0.41	0.27	0.03	0.36	c0.14	0.29	0.03	0.21
v/s Ratio Perm	0.36	0.92	0.46	0.88	0.96	c0.24	0.20	0.85	0.90
v/c Ratio	0.89	0.92	0.46	0.88	0.96	0.91	0.85	0.85	0.90
Uniform Delay, d1	37.6	32.7	13.8	30.6	38.9	35.8	38.5	40.5	47.4
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	27.8	14.5	0.3	45.8	25.0	27.4	6.0	38.7	10.1
Delay (s)	65.4	47.2	14.1	76.4	64.0	63.2	44.5	79.2	57.6
Level of Service	E	D	B	E	E	D	D	E	E
Approach Delay (s)	39.6				55.8		48.8		59.6
Approach LOS	D				E		D		E

Intersection Summary

HCM Average Control Delay	51.3	HCM Level of Service	D
HCM Volume to Capacity ratio	0.89		
Actuated Cycle Length (s)	126.8	Sum of lost time (s)	8.0
Intersection Capacity Utilization	92.6%	ICU Level of Service	F
Analysis Period (min)	15		
c Critical Lane Group			

PM BUILD Condition

H:\Vassar Development\synchro\Vassar_B_P_sy7

Baseline
H:\Vassar Development\synchro\Vassar_B_P_sy7

HCM Unsignalized Intersection Capacity Analysis
4: Vassar Dr. & I-25 E. Frntg. Rd.

Terry O. Brown, P.E.
7/23/2007

						
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Volume (veh/h)	0	1	207	24	0	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	0	1	225	26	0	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	225	112			251	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	225	112			251	
tC, single (s)	6.8	6.9			4.1	
tC, 2 stage (s)						
tF (s)	3.5	3.3			2.2	
p0 queue free %	100	100			100	
cM capacity (veh/h)	743	919			1311	
Direction, Lane #	WB 1	NB 1	NB 2	NB 3		
Volume Total	1	112	112	26		
Volume Left	0	0	0	0		
Volume Right	1	0	0	26		
cSH	919	1700	1700	1700		
Volume to Capacity	0.00	0.07	0.07	0.02		
Queue Length 95th (ft)	0	0	0	0		
Control Delay (s)	8.9	0.0	0.0	0.0		
Lane LOS	A					
Approach Delay (s)	8.9	0.0				
Approach LOS	A					
Intersection Summary						
Average Delay			0.0			
Intersection Capacity Utilization			15.7%		ICU Level of Service	A
Analysis Period (min)			15			

Existing AM Condition

Baseline
H:\Vassar Development\synchro\Vassar_X_A.sy7

HCM Unsignalized Intersection Capacity Analysis
4: Vassar Dr. & I-25 E. Frntg. Rd.

Terry O. Brown, P.E.
7/23/2007

						
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations			 			
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Volume (veh/h)	0	102	1012	10	0	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	0	111	1100	11	0	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	1100	550			1111	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	1100	550			1111	
tC, single (s)	6.8	6.9			4.1	
tC, 2 stage (s)						
tF (s)	3.5	3.3			2.2	
-p0 queue free %	100	77			100	
cM capacity (veh/h)	206	479			624	
Direction, Lane #	WB 1	NB 1	NB 2	NB 3		
Volume Total	111	550	550	11		
Volume Left	0	0	0	0		
Volume Right	111	0	0	11		
cSH	479	1700	1700	1700		
Volume to Capacity	0.23	0.32	0.32	0.01		
Queue Length 95th (ft)	22	0	0	0		
Control Delay (s)	14.8	0.0	0.0	0.0		
Lane LOS	B					
Approach Delay (s)	14.8	0.0				
Approach LOS	B					
Intersection Summary						
Average Delay		1.3				
Intersection Capacity Utilization		41.0%	ICU Level of Service		A	
Analysis Period (min)		15				

Existing PM Condition

Baseline
H:\Vassar Development\synchro\Vassar_X_P.sy7

HCM Unsignalized Intersection Capacity Analysis
4: Vassar Dr. & I-25 E. Frntg. Rd.

Terry O. Brown, P.E.
7/23/2007

						
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations		↗	↑↑	↗		
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Volume (veh/h)	0	37	213	25	0	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	0	40	232	27	0	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	232	116			259	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	232	116			259	
tC, single (s)	6.8	6.9			4.1	
tC, 2 stage (s)						
tF (s)	3.5	3.3			2.2	
p0 queue free %	100	96			100	
cM capacity (veh/h)	736	915			1303	
Direction, Lane #	WB 1	NB 1	NB 2	NB 3		
Volume Total	40	116	116	27		
Volume Left	0	0	0	0		
Volume Right	40	0	0	27		
cSH	915	1700	1700	1700		
Volume to Capacity	0.04	0.07	0.07	0.02		
Queue Length 95th (ft)	3	0	0	0		
Control Delay (s)	9.1	0.0	0.0	0.0		
Lane LOS	A					
Approach Delay (s)	9.1	0.0				
Approach LOS	A					
Intersection Summary						
Average Delay		1.2				
Intersection Capacity Utilization		15.9%		ICU Level of Service		A
Analysis Period (min)		15				

AM NOBUILD Condition

Baseline
H:\Vassar Development\synchro\Vassar_N_A.sy7

HCM Unsignalized Intersection Capacity Analysis
4: Vassar Dr. & I-25 E. Frntg. Rd.

Terry O. Brown, P.E.
7/23/2007

						
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations			 			
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Volume (veh/h)	0	105	1042	10	0	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	0	114	1133	11	0	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	1133	566			1143	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	1133	566			1143	
tC, single (s)	6.8	6.9			4.1	
tC, 2 stage (s)						
tF (s)	3.5	3.3			2.2	
p0 queue free %	100	76			100	
cM capacity (veh/h)	197	467			607	
Direction, Lane #	WB 1	NB 1	NB 2	NB 3		
Volume Total	114	566	566	11		
Volume Left	0	0	0	0		
Volume Right	114	0	0	11		
cSH	467	1700	1700	1700		
Volume to Capacity	0.24	0.33	0.33	0.01		
Queue Length 95th (ft)	24	0	0	0		
Control Delay (s)	15.2	0.0	0.0	0.0		
Lane LOS	C					
Approach Delay (s)	15.2	0.0				
Approach LOS	C					
Intersection Summary						
Average Delay		1.4				
Intersection Capacity Utilization		42.0%		ICU Level of Service		A
Analysis Period (min)		15				

PM NOBUILD Condition

Baseline
H:\Vassar Development\synchro\Vassar_N_P.sy7

HCM Unsignalized Intersection Capacity Analysis

4: Vassar Dr. & I-25 E. Frntg. Rd.

Terry O. Brown, P.E.
7/23/2007

						
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations			 			
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Volume (veh/h)	0	59	242	25	0	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	0	64	263	27	0	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	263	132			290	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	263	132			290	
tC, single (s)	6.8	6.9			4.1	
tC, 2 stage (s)						
tF (s)	3.5	3.3			2.2	
p0 queue free %	100	93			100	
cM capacity (veh/h)	704	894			1268	
Direction, Lane #	WB 1	NB 1	NB 2	NB 3		
Volume Total	64	132	132	27		
Volume Left	0	0	0	0		
Volume Right	64	0	0	27		
cSH	894	1700	1700	1700		
Volume to Capacity	0.07	0.08	0.08	0.02		
Queue Length 95th (ft)	6	0	0	0		
Control Delay (s)	9.3	0.0	0.0	0.0		
Lane LOS	A					
Approach Delay (s)	9.3	0.0				
Approach LOS	A					
Intersection Summary						
Average Delay		1.7				
Intersection Capacity Utilization		17.0%		ICU Level of Service		A
Analysis Period (min)		15				

AM BUILD Condition

Baseline
H:\Vassar Development\synchro\Vassar_B_A.sy7

HCM Unsignalized Intersection Capacity Analysis
4: Vassar Dr. & I-25 E. Frntg. Rd.

Terry O. Brown, P.E.
7/24/2007

						
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations			 			
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Volume (veh/h)	0	155	1107	10	0	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	0	168	1203	11	0	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	1203	602			1214	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	1203	602			1214	
tC, single (s)	6.8	6.9			4.1	
tC, 2 stage (s)						
tF (s)	3.5	3.3			2.2	
p0 queue free %	100	62			100	
cM capacity (veh/h)	177	443			570	
Direction, Lane #	WB 1	NB 1	NB 2	NB 3		
Volume Total	168	602	602	11		
Volume Left	0	0	0	0		
Volume Right	168	0	0	11		
cSH	443	1700	1700	1700		
Volume to Capacity	0.38	0.35	0.35	0.01		
Queue Length 95th (ft)	44	0	0	0		
Control Delay (s)	18.0	0.0	0.0	0.0		
Lane LOS	C					
Approach Delay (s)	18.0	0.0				
Approach LOS	C					
Intersection Summary						
Average Delay		2.2				
Intersection Capacity Utilization		46.9%		ICU Level of Service		A
Analysis Period (min)		15				

PM BUILD Condition

Baseline
H:\Vassar Development\synchro\Vassar_B_P.sy7

HCM Unsignalized Intersection Capacity Analysis

7: Comanche Rd. & Vassar Dr.

Terry O. Brown, P.E.
7/27/2007

						
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Volume (veh/h)	102	456	619	63	14	44
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	111	496	673	68	15	48
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type					TWLT	
Median storage veh					1	
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	741				1177	371
vC1, stage 1 conf vol					707	
vC2, stage 2 conf vol					470	
vCu, unblocked vol	741				1177	371
tC, single (s)	4.1				6.8	6.9
tC, 2 stage (s)					5.8	
tF (s)	2.2				3.5	3.3
p0 queue free %	87				95	92
cM capacity (veh/h)	861				293	627
Direction, Lane #	EB 1	EB 2	EB 3	WB 1	WB 2	SB 1
Volume Total	111	248	248	449	293	63
Volume Left	111	0	0	0	0	15
Volume Right	0	0	0	0	68	48
cSH	861	1700	1700	1700	1700	491
Volume to Capacity	0.13	0.15	0.15	0.26	0.17	0.13
Queue Length 95th (ft)	11	0	0	0	0	11
Control Delay (s)	9.8	0.0	0.0	0.0	0.0	13.4
Lane LOS	A					B
Approach Delay (s)	1.8			0.0		13.4
Approach LOS						B
Intersection Summary						
Average Delay			1.4			
Intersection Capacity Utilization			38.3%		ICU Level of Service	A
Analysis Period (min)			15			

AM NOBUILD Condition

Baseline
H:\Vassar Development\synchro\Vassar_N_A.sy7

HCM Unsignalized Intersection Capacity Analysis
7: Comanche Rd. & Vassar Dr.

Terry O. Brown, P.E.
7/27/2007

						
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Volume (veh/h)	103	456	710	153	130	79
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	112	496	772	166	141	86
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type					TWLT	
Median storage (veh)					1	
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	938				1327	469
vC1, stage 1 conf vol					855	
vC2, stage 2 conf vol					472	
vCu, unblocked vol	938				1327	469
tC, single (s)	4.1				6.8	6.9
tC, 2 stage (s)					5.8	
tF (s)	2.2				3.5	3.3
p0 queue free %	85				44	84
cM capacity (veh/h)	726				252	541
Direction, Lane #	EB 1	EB 2	EB 3	WB 1	WB 2	SB 1
Volume Total	112	248	248	514	424	227
Volume Left	112	0	0	0	0	141
Volume Right	0	0	0	0	166	86
cSH	726	1700	1700	1700	1700	315
Volume to Capacity	0.15	0.15	0.15	0.30	0.25	0.72
Queue Length 95th (ft)	14	0	0	0	0	131
Control Delay (s)	10.9	0.0	0.0	0.0	0.0	41.0
Lane LOS	B					E
Approach Delay (s)	2.0			0.0		41.0
Approach LOS						E
Intersection Summary						
Average Delay			5.9			
Intersection Capacity Utilization			52.2%		ICU Level of Service	A
Analysis Period (min)			15			

AM BUILD Condition

Baseline
H:\Vassar Development\synchro\Vassar_B_A.sy7

HCM Unsignalized Intersection Capacity Analysis
7: Comanche Rd. & Vassar Dr.

Terry O. Brown, P.E.
7/27/2007



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations	↰	↱↱	↰↱		↰	
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Volume (veh/h)	75	1023	788	202	320	167
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	82	1112	857	220	348	182
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type				TWLT		
Median storage veh				1		
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	1076				1685	538
vC1, stage 1 conf vol					966	
vC2, stage 2 conf vol					719	
vCu, unblocked vol	1076				1685	538
tC, single (s)	4.1				6.8	6.9
tC, 2 stage (s)					5.8	
tF (s)	2.2				3.5	3.3
p0 queue free %	87				0	63
cM capacity (veh/h)	644				196	488
Direction, Lane #	EB 1	EB 2	EB 3	WB 1	WB 2	SB 1
Volume Total	82	556	556	571	505	529
Volume Left	82	0	0	0	0	348
Volume Right	0	0	0	0	220	182
cSH	644	1700	1700	1700	1700	247
Volume to Capacity	0.13	0.33	0.33	0.34	0.30	2.15
Queue Length 95th (ft)	11	0	0	0	0	1007
Control Delay (s)	11.4	0.0	0.0	0.0	0.0	561.2
Lane LOS	B					F
Approach Delay (s)	0.8			0.0		561.2
Approach LOS						F

Intersection Summary

Average Delay	106.5		
Intersection Capacity Utilization	70.3%	ICU Level of Service	C
Analysis Period (min)	15		

PM BUILD Condition

Baseline
H:\Vassar Development\synchro\Vassar_B_P.sy7

HCM Unsignalized Intersection Capacity Analysis
9: Driveway 'A' & I-25 E. Frntg. Rd.

Terry O. Brown, P.E.
7/23/2007

						
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Volume (veh/h)	0	29	883	230	0	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	0	32	960	250	0	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	960	480			1210	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	960	480			1210	
tC, single (s)	6.8	6.9			4.1	
tC, 2 stage (s)						
tF (s)	3.5	3.3			2.2	
p0 queue free %	100	94			100	
cM capacity (veh/h)	255	532			572	
Direction, Lane #	WB 1	NB 1	NB 2	NB 3		
Volume Total	32	480	480	250		
Volume Left	0	0	0	0		
Volume Right	32	0	0	250		
cSH	532	1700	1700	1700		
Volume to Capacity	0.06	0.28	0.28	0.15		
Queue Length 95th (ft)	5	0	0	0		
Control Delay (s)	12.2	0.0	0.0	0.0		
Lane LOS	B					
Approach Delay (s)	12.2	0.0				
Approach LOS	B					
Intersection Summary						
Average Delay		0.3				
Intersection Capacity Utilization		34.4%		ICU Level of Service		A
Analysis Period (min)		15				

AM BUILD Condition

Baseline
H:\Vassar Development\synchro\Vassar_B_A.sy7

7/26/2007

Traffic Count Data Sheet

Year Counts Taken: **2007** **Vassar Development (I-25 E. Frntg. Rd. N. of Comanche Rd.)**
E-W Street Montgomery Blvd. Speed Limit (Montgomery Blvd.)= **45** MPH
N-S Street: I-25 Ramp W Speed Limit (I-25 Ramp W)= **35** MPH
SIGNALIZED Date of Count: **7/12/07**

Begin Time	End Time	Eastbound (Montgomery Blvd.)			Westbound (Montgomery Blvd.)			Northbound (I-25 Ramp W)			Southbound (I-25 Ramp W)		
		L	T	R	L	T	R	L	T	R	L	T	R
7:00 AM	7:15 AM	0	422	445	57	246	27	0	0	0	33	56	47
7:15 AM	7:30 AM	0	479	448	55	295	2	0	0	0	49	36	32
7:30 AM	7:45 AM	0	455	446	75	247	27	0	0	0	38	40	36
7:45 AM	8:00 AM	0	234	163	84	300	53	0	0	0	59	76	50
8:00 AM	8:15 AM	0	199	134	57	269	36	0	0	0	52	59	44
8:15 AM	8:30 AM	0	223	145	65	160	40	0	0	0	51	50	72
8:30 AM	8:45 AM	0	214	151	69	162	42	0	0	0	68	55	61
8:45 AM	9:00 AM	0	248	406	67	476	50	0	0	0	77	38	68
AM Peak Hour Volumes		0	870	593	275	891	171	0	0	0	230	240	227
% of Total Traffic		0.0%	24.9%	17.0%	7.9%	25.5%	4.9%	0.0%	0.0%	0.0%	6.6%	6.9%	6.5%
% Directional			41.8%			38.2%			0.0%			19.9%	
AM Peak Hour Factor			0.92			0.76			#DIV/0!			0.94	

Begin Time	End Time	Eastbound (Montgomery Blvd.)			Westbound (Montgomery Blvd.)			Northbound (I-25 Ramp W)			Southbound (I-25 Ramp W)		
		L	T	R	L	T	R	L	T	R	L	T	R
4:00 PM	4:15 PM	0	462	96	40	410	8	0	0	0	85	88	85
4:15 PM	4:30 PM	0	493	429	43	398	12	0	0	0	64	61	64
4:30 PM	4:45 PM	0	474	440	45	350	24	0	0	0	76	104	76
4:45 PM	5:00 PM	0	477	427	54	370	49	0	0	0	59	106	59
5:00 PM	5:15 PM	0	195	113	65	402	18	0	0	0	72	146	72
5:15 PM	5:30 PM	0	221	109	63	428	20	0	0	0	75	138	75
5:30 PM	5:45 PM	0	207	114	55	492	11	0	0	0	107	118	107
5:45 PM	6:00 PM	0	221	126	39	446	21	0	0	0	85	55	85
PM Peak Hour Volumes		0	844	462	222	1768	70	0	0	0	339	457	339
% of Total Traffic		0.0%	18.8%	10.3%	4.9%	39.3%	1.6%	0.0%	0.0%	0.0%	7.5%	10.2%	7.5%
% Directional			29.0%			45.8%			0.0%			25.2%	
PM Peak Hour Factor			0.94			0.92			#DIV/0!			0.85	

Traffic Count Data Sheet

Year Counts Taken: 2007

Vassar Development (I-25 E. Frntg, Rd. N. of Comanche Rd.)
 E-W Street Montgomery Blvd.
 N-S Street: I-25 Ramp E

Speed Limit (Montgomery Blvd.)= 45 MPH
 Speed Limit (I-25 Ramp E)= 35 MPH
 Date of Count: 7/11/07

SIGNALIZED

Begin Time	End Time	Eastbound (Montgomery Blvd.)			Westbound (Montgomery Blvd.)			Northbound (I-25 Ramp E)			Southbound (I-25 Ramp E)		
		L	T	R	L	T	R	L	T	R	L	T	R
7:00 AM	7:15 AM	64	94	0	0	216	43	444	52	79	0	0	0
7:15 AM	7:30 AM	45	183	0	0	232	47	120	41	85	0	0	0
7:30 AM	7:45 AM	54	139	0	0	229	68	90	56	100	0	0	0
7:45 AM	8:00 AM	76	217	0	0	326	58	111	57	101	0	0	0
8:00 AM	8:15 AM	65	186	0	0	262	40	100	44	103	0	0	0
8:15 AM	8:30 AM	53	224	0	0	187	47	78	48	66	0	0	0
8:30 AM	8:45 AM	38	244	0	0	194	28	79	34	68	0	0	0
8:45 AM	9:00 AM	68	227	0	0	203	33	90	47	118	0	0	0
AM Peak Hour Volumes		240	725	0	0	1049	213	421	198	389	0	0	0
% of Total Traffic		7.4%	22.4%	0.0%	0.0%	32.4%	6.6%	13.0%	6.1%	12.0%	0.0%	0.0%	0.0%
% Directional			29.8%			39.0%			31.2%				
AM Peak Hour Factor			0.82			0.82			0.94				
													#DIV/0!

Begin Time	End Time	Eastbound (Montgomery Blvd.)			Westbound (Montgomery Blvd.)			Northbound (I-25 Ramp E)			Southbound (I-25 Ramp E)		
		L	T	R	L	T	R	L	T	R	L	T	R
4:00 PM	4:15 PM	67	180	0	0	308	59	160	108	140	0	0	0
4:15 PM	4:30 PM	77	180	0	0	302	37	151	106	109	0	0	0
4:30 PM	4:45 PM	54	196	0	0	302	48	117	85	90	0	0	0
4:45 PM	5:00 PM	70	166	0	0	296	54	144	137	113	0	0	0
5:00 PM	5:15 PM	69	198	0	0	351	64	134	128	128	0	0	0
5:15 PM	5:30 PM	83	213	0	0	338	53	173	174	132	0	0	0
5:30 PM	5:45 PM	88	226	0	0	407	93	151	177	187	0	0	0
5:45 PM	6:00 PM	68	238	0	0	355	79	151	219	137	0	0	0
PM Peak Hour Volumes		308	875	0	0	1451	289	609	698	584	0	0	0
% of Total Traffic		6.4%	18.2%	0.0%	0.0%	30.1%	6.0%	12.7%	14.5%	12.1%	0.0%	0.0%	0.0%
% Directional			24.6%			36.1%			39.3%				
PM Peak Hour Factor			0.94			0.87			0.92				
													#DIV/0!

Traffic Count Data Sheet

Year Counts Taken: 2007
 Vassar Development (I-25 E. Frntg, Rd. N. of Comanche Rd.)
 E-W Street Vassar Dr.
 N-S Street: I-25 Ramp E
 Speed Limit (Vassar Dr.)= 25 MPH
 Speed Limit (I-25 Ramp E)= 35 MPH
 Date of Count: 7/17/07
 UNSIGNALIZED

Begin Time	End Time	Eastbound (Vassar Dr.)			Westbound (Vassar Dr.)			Northbound (I-25 Ramp E)			Southbound (I-25 Ramp E)		
		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	4	0	0	0
7:15 AM	7:30 AM	0	0	0	0	0	12	0	53	5	0	0	0
7:30 AM	7:45 AM	0	0	0	0	0	15	0	58	4	0	0	0
7:45 AM	8:00 AM	0	0	0	0	0	6	0	54	5	0	0	0
8:00 AM	8:15 AM	0	0	0	0	0	3	0	42	10	0	0	0
8:15 AM	8:30 AM	0	0	0	0	0	8	0	46	5	0	0	0
8:30 AM	8:45 AM	0	0	0	0	0	6	0	43	7	0	0	0
8:45 AM	9:00 AM	0	0	0	0	0	2	0	51	5	0	0	0
AM Peak Hour Volumes		0	0	0	0	0	36	0	207	24	0	0	0
% of Total Traffic		0.0%	0.0%	0.0%	0.0%	0.0%	13.5%	0.0%	77.5%	9.0%	0.0%	0.0%	0.0%
% Directional		0.0%			13.5%			0.0%			0.0%		
AM Peak Hour Factor		#DIV/0!			0.60			0.93			#DIV/0!		

Begin Time	End Time	Eastbound (Vassar Dr.)			Westbound (Vassar Dr.)			Northbound (I-25 Ramp E)			Southbound (I-25 Ramp E)		
		L	T	R	L	T	R	L	T	R	L	T	R
4:00 PM	4:15 PM	0	0	0	0	0	22	0	161	4	0	0	0
4:15 PM	4:30 PM	0	0	0	0	0	15	0	145	4	0	0	0
4:30 PM	4:45 PM	0	0	0	0	0	21	0	150	0	0	0	0
4:45 PM	5:00 PM	0	0	0	0	0	15	0	196	3	0	0	0
5:00 PM	5:15 PM	0	0	0	0	0	29	0	204	1	0	0	0
5:15 PM	5:30 PM	0	0	0	0	0	42	0	280	3	0	0	0
5:30 PM	5:45 PM	0	0	0	0	0	19	0	282	3	0	0	0
5:45 PM	6:00 PM	0	0	0	0	0	12	0	246	3	0	0	0
PM Peak Hour Volumes		0	0	0	0	0	102	0	1012	10	0	0	0
% of Total Traffic		0.0%	0.0%	0.0%	0.0%	0.0%	9.1%	0.0%	90.0%	0.9%	0.0%	0.0%	0.0%
% Directional		0.0%			9.1%			0.0%			0.0%		
PM Peak Hour Factor		#DIV/0!			0.61			0.90			#DIV/0!		

Mid-Region Council of Governments
Intersection Turning Movement Analysis

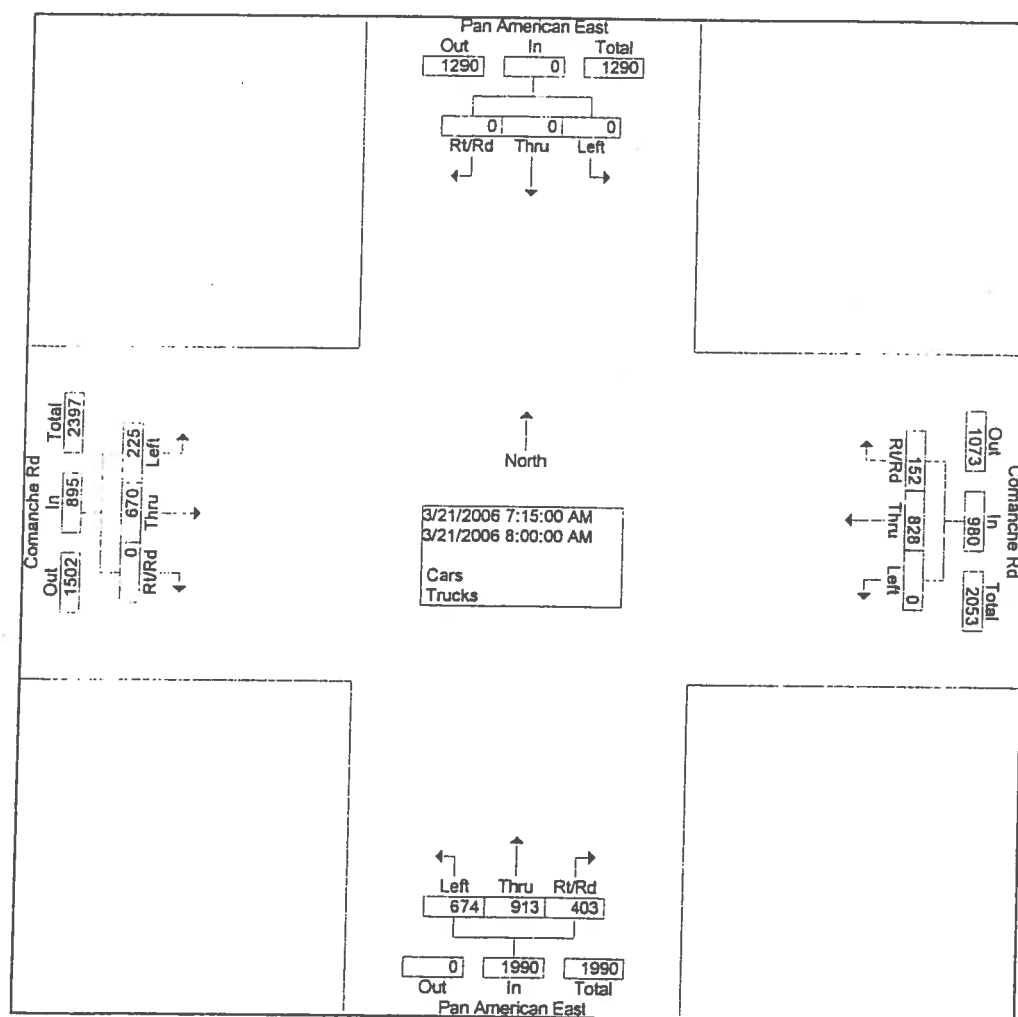
File Name : Comanche Rd and Pan American E

Site Code : 00025120

Start Date : 03/21/2006

Page No : 3

	Pan American East From North					Comanche Rd From East					Pan American East From South					Comanche Rd From West					
Start Time	Rig ht	Rt/ Rd	Thr u	Left	App. Total	Rig ht	Rt/ Rd	Thr u	Left	App. Total	Rig ht	Rt/ Rd	Thr u	Left	App. Total	Rig ht	Rt/ Rd	Thr u	Left	App. Total	Int Total
Peak Hour From 06:45 to 09:30 - Peak 1 of 1																					
Intersection	07:15																				
Volume	0	0	0	0	0	144	8	828	0	980	357	46	913	674	1990	0	0	670	225	895	3865
Percent	0.0	0.0	0.0	0.0		14.7	0.8	84.5	0.0		17.9	2.3	45.9	33.9		0.0	0.0	74.9	25.1		
Volume	0	0	0	0	0	144	8	828	0	980	357	46	913	674	1990	0	0	670	225	895	3865
Volume	0	0	0	0	0	44	3	226	0	273	83	8	246	184	521	0	0	187	67	254	1048
Peak Factor																					0.922
High Int.	6:30:00 AM					07:30					07:45					07:30					
Volume	0	0	0	0	0	44	3	226	0	273	107	16	243	185	551	0	0	187	67	254	
Peak Factor										0.897					0.903						0.881



Mid-Region Council of Governments
Intersection Turning Movement Analysis

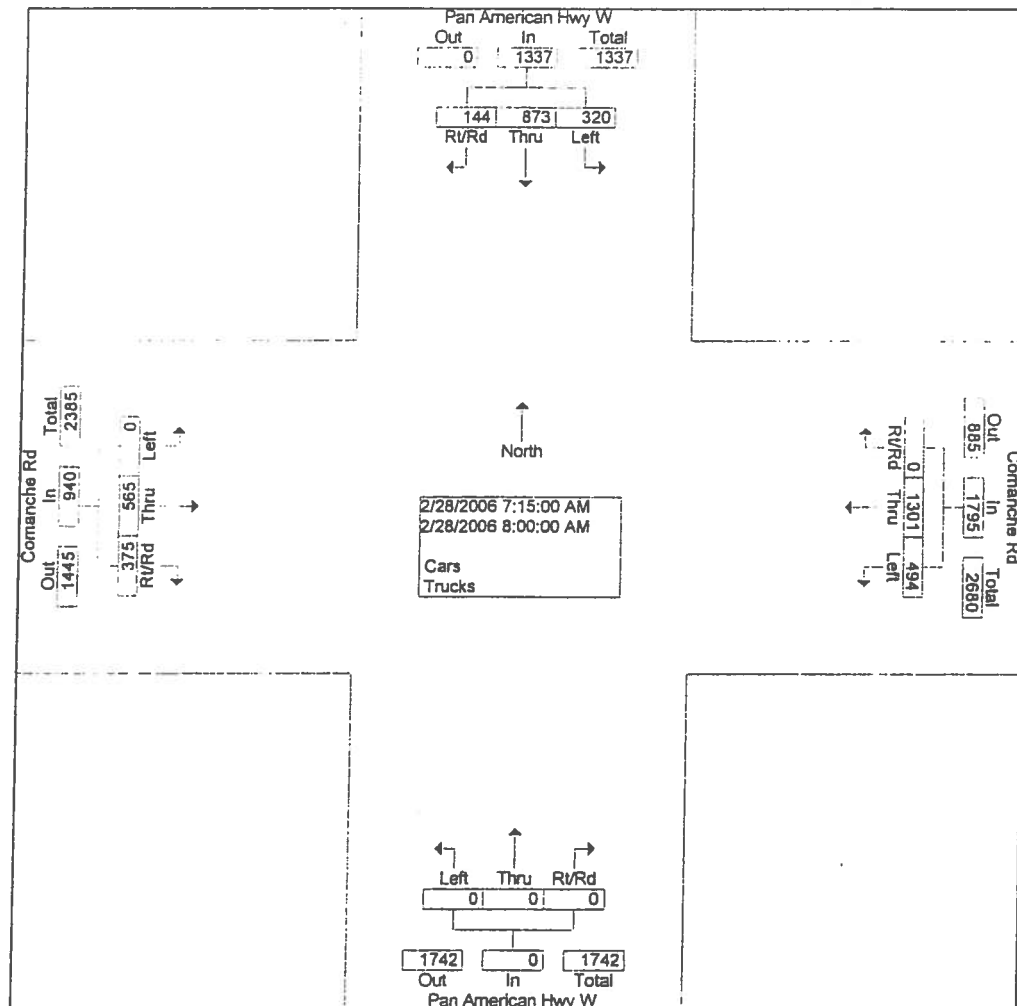
File Name : Comanche Rd and Pan American Hwy We

Site Code : 00025119

Start Date : 02/28/2006

Page No : 3

Start Time	Pan American Hwy W From North SB					Comanche Rd From East WB					Pan American Hwy W From South NB					Comanche Rd From West EB					Int. Total
	Rig ht	R/ Rd	Thr u	Left	App. Total	Rig ht	R/ Rd	Thr u	Left	App. Total	Rig ht	R/ Rd	Thr u	Left	App. Total	Rig ht	R/ Rd	Thr u	Left	App. Total	
Peak Hour From 06:45 to 09:30 - Peak 1 of 1																					
Intersection 07:15																					
Volume	83	61	873	320	1337	0	0	130	494	1795	0	0	0	0	0	349	26	565	0	940	4072
Percent	6.2	4.6	65.3	23.9		0.0	0.0	72.5	27.5		0.0	0.0	0.0	0.0		37.1	2.8	60.1	0.0		
Volume	83	61	873	320	1337	0	0	130	494	1795	0	0	0	0	0	349	26	565	0	940	4072
Volume	25	24	234	86	369	0	0	323	113	436	0	0	0	0	0	87	8	162	0	257	1062
Peak Factor																					0.959
High Int. 07:45						07:15					6:30:00 AM					07:45					
Volume	25	24	234	86	369	0	0	348	139	487	0	0	0	0	0	87	8	162	0	257	
Peak Factor					0.906					0.921										0.914	



Mid-Region Council of Governments
Intersection Turning Movement Analysis

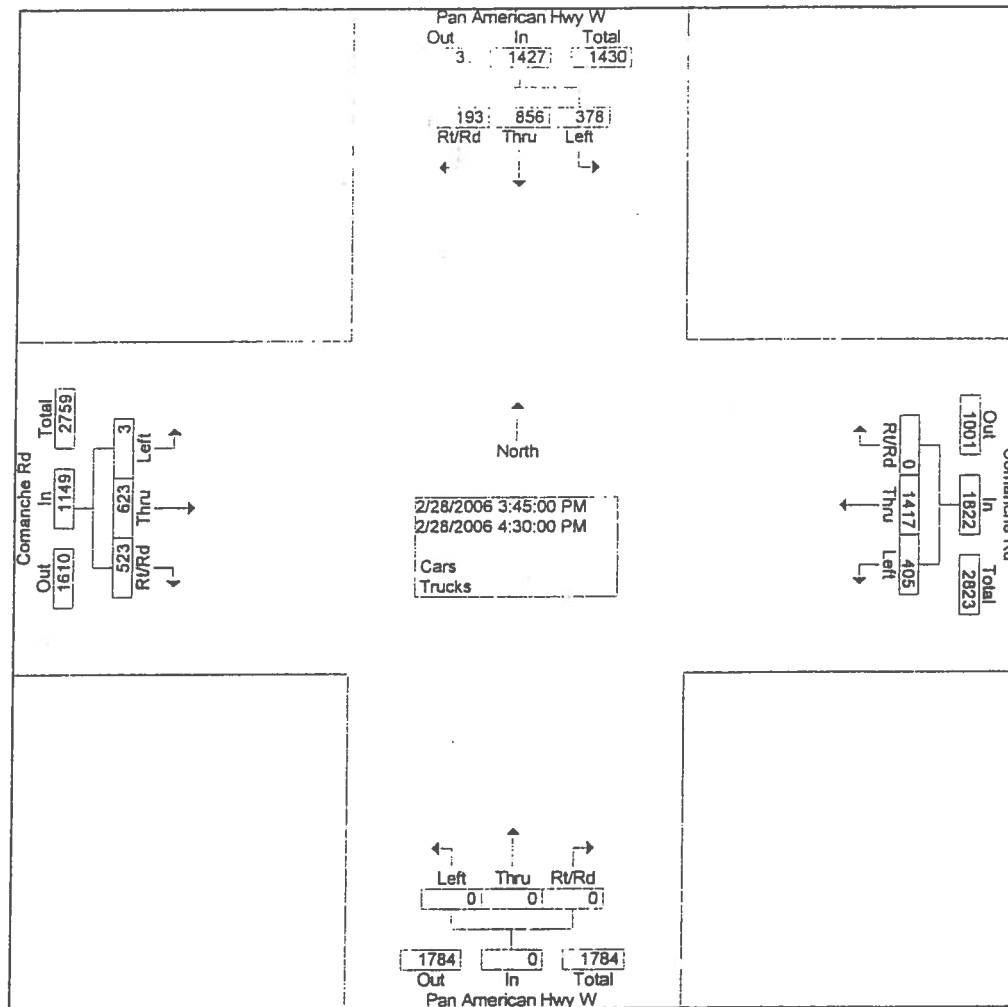
File Name : Comanche Rd and Pan American Hwy We

Site Code : 00025119

Start Date : 02/28/2006

Page No : 5

Start Time	Pan American Hwy W From North SB					Comanche Rd From East WB					Pan American Hwy W From South NB					Comanche Rd From West EB					Int. Total
	Rig ht	Rt/Rd	Thru	Left	App. Total	Rig ht	Rt/Rd	Thru	Left	App. Total	Rig ht	Rt/Rd	Thru	Left	App. Total	Rig ht	Rt/Rd	Thru	Left	App. Total	
Peak Hour From 15:00 to 17:30 - Peak 1 of 1																					
Intersection 15:45																					
Volume	151	42	856	378	1427	0	0	141	405	1822	0	0	0	0	0	497	26	623	3	1149	4398
Percent	10.6	2.9	60.0	26.5		0.0	0.0	77.8	22.2		0.0	0.0	0.0	0.0		43.3	2.3	54.2	0.3		
Volume	151	42	856	378	1427	0	0	141	405	1822	0	0	0	0	0	497	26	623	3	1149	4398
Volume	46	13	224	92	375	0	0	369	106	475	0	0	0	0	0	125	11	182	2	320	1170
Peak Factor																					0.940
High Int. Volume	15:45					16:15										16:15					
Peak Factor	34	10	232	101	377	0	0	369	106	475	0	0	0	0	0	125	11	182	2	320	0.898
					0.946					0.959											



Traffic Count Data Sheet

Year Counts Taken: **2007**
Vassar Development (I-25 E. Frntg, Rd. N. of Comanche Rd.)
 E-W Street Comanche Rd. Speed Limit (Comanche Rd.)= **40** MPH
 N-S Street: Vassar Dr. Speed Limit (Vassar Dr.)= **25** MPH
 Date of Count: **7/16/07**

UN SIGNALIZED

Begin Time	End Time	Eastbound (Comanche Rd.)			Westbound (Comanche Rd.)			Northbound (Vassar Dr.)			Southbound (Vassar Dr.)		
		L	T	R	L	T	R	L	T	R	L	T	R
7:00 AM	7:15 AM	43	104	0	0	150	45	0	0	0	5	0	14
7:15 AM	7:30 AM	45	67	0	0	108	42	0	0	0	0	0	8
7:30 AM	7:45 AM	22	78	0	0	165	18	0	0	0	4	0	10
7:45 AM	8:00 AM	30	128	0	0	178	20	0	0	0	2	0	13
8:00 AM	8:15 AM	25	114	0	0	127	12	0	0	0	4	0	7
8:15 AM	8:30 AM	22	123	0	0	131	11	0	0	0	4	0	13
8:30 AM	8:45 AM	47	128	0	0	104	9	0	0	0	4	0	13
8:45 AM	9:00 AM	44	144	0	0	124	43	0	0	0	4	0	40
AM Peak Hour Volumes		99	443	0	0	601	61	0	0	0	14	0	43
% of Total Traffic		7.9%	35.1%	0.0%	0.0%	47.7%	4.8%	0.0%	0.0%	0.0%	1.1%	0.0%	3.4%
% Directional			43.0%			52.5%			0.0%			4.5%	
AM Peak Hour Factor			0.86			0.84			#DIV/0!			0.84	

Begin Time	End Time	Eastbound (Comanche Rd.)			Westbound (Comanche Rd.)			Northbound (Vassar Dr.)			Southbound (Vassar Dr.)		
		L	T	R	L	T	R	L	T	R	L	T	R
4:00 PM	4:15 PM	42	489	0	0	445	44	0	0	0	42	0	24
4:15 PM	4:30 PM	48	452	0	0	93	4	0	0	0	8	0	7
4:30 PM	4:45 PM	40	426	0	0	83	8	0	0	0	6	0	3
4:45 PM	5:00 PM	13	217	0	1	127	12	0	0	0	24	0	17
5:00 PM	5:15 PM	24	276	0	0	133	7	0	0	0	17	0	30
5:15 PM	5:30 PM	22	287	0	0	184	12	0	0	0	15	0	12
5:30 PM	5:45 PM	13	213	0	0	160	6	0	0	0	8	0	22
5:45 PM	6:00 PM	42	203	0	0	437	5	0	0	0	8	0	44
PM Peak Hour Volumes		72	993	0	1	604	37	0	0	0	64	0	81
% of Total Traffic		3.9%	53.6%	0.0%	0.1%	32.6%	2.0%	0.0%	0.0%	0.0%	3.5%	0.0%	4.4%
% Directional			57.5%			34.7%			0.0%			7.8%	
PM Peak Hour Factor			0.86			0.82			#DIV/0!			0.77	

Traffic Count Data Sheet

Year Counts Taken: 2006
 Vassar Development (I-25 E. Frntg, Rd. N. of Comanche Rd.)
 E-W Street Comanche Rd. Speed Limit (Comanche Rd.)= 40 MPH
 N-S Street: Carlisle Ave. Speed Limit (Carlisle Ave.)= 35 MPH
 Date of Count: 2/9/06

SIGNALIZED

Begin Time	End Time	Eastbound (Comanche Rd.)			Westbound (Comanche Rd.)			Northbound (Carlisle Ave.)			Southbound (Carlisle Ave.)		
		L	T	R	L	T	R	L	T	R	L	T	R
7:00 AM	7:15 AM	25	42	18	44	94	40	37	82	6	7	164	8
7:15 AM	7:30 AM	23	65	26	20	759	17	35	90	7	12	167	14
7:30 AM	7:45 AM	36	77	24	54	172	22	50	139	10	22	199	36
7:45 AM	8:00 AM	31	100	46	40	186	12	40	103	10	16	207	17
8:00 AM	8:15 AM	29	99	27	41	112	16	28	157	6	11	134	29
8:15 AM	8:30 AM	33	53	37	30	88	17	54	88	6	3	179	20
8:30 AM	8:45 AM	20	78	40	23	64	14	24	97	3	9	174	8
8:45 AM	9:00 AM	23	76	38	38	86	14	30	126	11	9	179	8
AM Peak Hour Volumes		119	341	123	155	1229	67	153	489	33	61	707	96
% of Total Traffic		3.3%	9.5%	3.4%	4.3%	34.4%	1.9%	4.3%	13.7%	0.9%	1.7%	19.8%	2.7%
% Directional			16.3%			40.6%			18.9%			24.2%	
AM Peak Hour Factor			0.82			0.46			0.85			0.84	

Begin Time	End Time	Eastbound (Comanche Rd.)			Westbound (Comanche Rd.)			Northbound (Carlisle Ave.)			Southbound (Carlisle Ave.)		
		L	T	R	L	T	R	L	T	R	L	T	R
4:00 PM	4:15 PM	39	134	52	30	129	13	33	206	24	30	192	22
4:15 PM	4:30 PM	44	134	93	24	84	5	34	185	17	24	146	22
4:30 PM	4:45 PM	35	139	58	25	100	18	44	170	28	28	215	25
4:45 PM	5:00 PM	47	151	80	26	96	18	32	161	27	26	198	29
5:00 PM	5:15 PM	40	158	76	20	123	20	34	247	38	19	156	15
5:15 PM	5:30 PM	40	131	75	29	114	9	35	205	35	24	181	31
5:30 PM	5:45 PM	37	145	57	17	117	13	34	169	20	12	147	14
5:45 PM	6:00 PM	28	89	54	28	64	12	32	167	22	24	154	13
PM Peak Hour Volumes		162	579	289	100	433	65	145	783	128	97	750	100
% of Total Traffic		4.5%	15.9%	8.0%	2.8%	11.9%	1.8%	4.0%	21.6%	3.5%	2.7%	20.7%	2.8%
% Directional			28.4%			16.5%			29.1%			26.1%	
PM Peak Hour Factor			0.93			0.92			0.83			0.88	

Traffic Count Data Sheet

Year Counts Taken: 2006 Vassar Development (I-25 E. Frntg, Rd. N. of Comanche Rd.)
 E-W Street Driveway 'A' Speed Limit (Driveway 'A')= 25 MPH
 N-S Street: I-25 E. Frntg. Rd. Speed Limit (I-25 E. Frntg. Rd.)= 35 MPH
 Date of Count: 2/13/06

UN SIGNALIZED

Begin Time	End Time	Eastbound (Driveway 'A')			Westbound (Driveway 'A')			Northbound (I-25 E. Frntg. Rd.)			Southbound (I-25 E. Frntg. Rd.)		
		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	144	0	0	0	0
7:15 AM	7:30 AM	0	0	0	0	0	0	0	166	0	0	0	0
7:30 AM	7:45 AM	0	0	0	0	0	0	0	203	0	0	0	0
7:45 AM	8:00 AM	0	0	0	0	0	0	0	118	0	0	0	0
8:00 AM	8:15 AM	0	0	0	0	0	0	0	104	0	0	0	0
8:15 AM	8:30 AM	0	0	0	0	0	0	0	243	0	0	0	0
8:30 AM	8:45 AM	0	0	0	0	0	0	0	273	0	0	0	0
8:45 AM	9:00 AM	0	0	0	0	0	0	0	229	0	0	0	0
AM Peak Hour Volumes		0	0	0	0	0	0	0	849	0	0	0	0
% of Total Traffic		0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%	0.0%	0.0%	0.0%	0.0%
% Directional		0.0%	0.0%			0.0%		0.0%	100.0%		0.0%	0.0%	
AM Peak Hour Factor		#DIV/0!			#DIV/0!			0.78			#DIV/0!		

Begin Time	End Time	Eastbound (Driveway 'A')			Westbound (Driveway 'A')			Northbound (I-25 E. Frntg. Rd.)			Southbound (I-25 E. Frntg. Rd.)		
		L	T	R	L	T	R	L	T	R	L	T	R
4:00 PM	4:15 PM	0	0	0	0	0	0	0	388	0	0	0	0
4:15 PM	4:30 PM	0	0	0	0	0	0	0	472	0	0	0	0
4:30 PM	4:45 PM	0	0	0	0	0	0	0	468	0	0	0	0
4:45 PM	5:00 PM	0	0	0	1	0	0	0	454	0	0	0	0
5:00 PM	5:15 PM	0	0	0	0	0	0	0	560	0	0	0	0
5:15 PM	5:30 PM	0	0	0	0	0	0	0	554	0	0	0	0
5:30 PM	5:45 PM	0	0	0	0	0	0	0	510	0	0	0	0
5:45 PM	6:00 PM	0	0	0	0	0	0	0	389	0	0	0	0
PM Peak Hour Volumes		0	0	0	1	0	0	0	2078	0	0	0	0
% of Total Traffic		0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%	0.0%	0.0%	0.0%	0.0%
% Directional		0.0%	0.0%			0.0%		0.0%	100.0%		0.0%	0.0%	
PM Peak Hour Factor		#DIV/0!			0.25			0.93			#DIV/0!		

Traffic Count Data Sheet

Year Counts Taken: 2006 Vassar Development (I-25 E. Frntg, Rd. N. of Comanche Rd.)
 E-W Street Driveway 'B' Speed Limit (Driveway 'B')= 25 MPH
 N-S Street: Vassar Dr. Speed Limit (Vassar Dr.)= 25 MPH
 Date of Count: 2/13/06

UN SIGNALIZED

Begin Time	End Time	Eastbound (Driveway 'B')			Westbound (Driveway 'B')			Northbound (Vassar Dr.)			Southbound (Vassar Dr.)		
		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	7	0	0	16	0
7:15 AM	7:30 AM	0	0	0	0	0	0	0	12	0	0	8	0
7:30 AM	7:45 AM	0	0	0	0	0	0	0	15	0	0	14	0
7:45 AM	8:00 AM	0	0	0	0	0	0	0	6	0	0	15	0
8:00 AM	8:15 AM	0	0	0	0	0	0	0	3	0	0	14	0
8:15 AM	8:30 AM	0	0	0	0	0	0	0	8	0	0	17	0
8:30 AM	8:45 AM	0	0	0	0	0	0	0	6	0	0	14	0
8:45 AM	9:00 AM	0	0	0	0	0	0	0	2	0	0	14	0
AM Peak Hour Volumes		0	0	0	0	0	0	0	40	0	0	53	0
% of Total Traffic		0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	43.0%	0.0%	0.0%	57.0%	0.0%
% Directional		0.0%			0.0%			0.0%			57.0%		
AM Peak Hour Factor		#DIV/0!			#DIV/0!			0.67			0.83		

Begin Time	End Time	Eastbound (Driveway 'B')			Westbound (Driveway 'B')			Northbound (Vassar Dr.)			Southbound (Vassar Dr.)		
		L	T	R	L	T	R	L	T	R	L	T	R
4:00 PM	4:15 PM	0	0	0	0	0	0	0	22	0	0	36	0
4:15 PM	4:30 PM	0	0	0	0	0	0	0	15	0	0	15	0
4:30 PM	4:45 PM	0	0	0	0	0	0	0	24	0	0	9	0
4:45 PM	5:00 PM	0	0	0	0	0	0	0	15	0	0	41	0
5:00 PM	5:15 PM	0	0	0	0	0	0	0	29	0	0	47	0
5:15 PM	5:30 PM	0	0	0	0	0	0	0	42	0	0	27	0
5:30 PM	5:45 PM	0	0	0	0	0	0	0	19	0	0	30	0
5:45 PM	6:00 PM	0	0	0	0	0	0	0	42	0	0	49	0
PM Peak Hour Volumes		0	0	0	0	0	0	0	105	0	0	145	0
% of Total Traffic		0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	42.0%	0.0%	0.0%	58.0%	0.0%
% Directional		0.0%			0.0%			42.0%			58.0%		
PM Peak Hour Factor		#DIV/0!			#DIV/0!			0.63			0.77		

Signalized Intersection Information SheetIntersection: Montgomery / I25 Ramp west of FreewaySpeed Limit - E-W Street: 45 M.P.H.

Date:

Speed Limit - N-S Street: UNKNOWN7/11/2007Type of Intersection Control: Signalized**East Bound Approach:****Montgomery**

	Left Turn Lanes	Thru / Lefts	Thru Lanes	Thru / Rights	Right Turn Lanes
Length	0	-	2	-	1
	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? YES**West Bound Approach:****Montgomery**

	Left Turn Lanes	Thru / Lefts	Thru Lanes	Thru / Rights	Right Turn Lanes
Length	1	-	2	-	1
	0				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? YES**North Bound Approach:****I25 Ramp west of Freeway**

	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**South Bound Approach:****I25 Ramp west of Freeway**

	Left Turn Lanes	Thru / Lefts	Thru Lanes	Thru / Rights	Right Turn Lanes
Length	1	1	1	-	1
	0				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**NOTE:** Existing Geometry

Signalized Intersection Information SheetIntersection: Montgomery / I25 Ramp East of FreewaySpeed Limit - E-W Street: 45 M.P.H.

Date:

Speed Limit - N-S Street: UNKNOWN7/11/2007Type of Intersection Control: Signalized**East Bound Approach:****Montgomery**

	Left Turn Lanes	Thru / Lefts	Thru Lanes	Thru / Rights	Right Turn Lanes						
Length	0	-	2	-	0						
	<table border="1"> <tr> <td>Left Turn Arrow?</td> <td>Thru Green</td> <td>Right Turn Arrow?</td> </tr> <tr> <td>NO</td> <td>YES</td> <td>NO</td> </tr> </table>					Left Turn Arrow?	Thru Green	Right Turn Arrow?	NO	YES	NO
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**West Bound Approach:****Montgomery**

	Left Turn Lanes	Thru / Lefts	Thru Lanes	Thru / Rights	Right Turn Lanes						
Length	0	-	3	-	0						
	<table border="1"> <tr> <td>Left Turn Arrow?</td> <td>Thru Green</td> <td>Right Turn Arrow?</td> </tr> <tr> <td>NO</td> <td>YES</td> <td>NO</td> </tr> </table>					Left Turn Arrow?	Thru Green	Right Turn Arrow?	NO	YES	NO
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**North Bound Approach:****I25 Ramp East of Freeway**

	Left Turn Lanes	Thru / Lefts	Thru Lanes	Thru / Rights	Right Turn Lanes						
Length	0	1	1	-	0						
	<table border="1"> <tr> <td>Left Turn Arrow?</td> <td>Thru Green</td> <td>Right Turn Arrow?</td> </tr> <tr> <td>NO</td> <td>YES</td> <td>NO</td> </tr> </table>					Left Turn Arrow?	Thru Green	Right Turn Arrow?	NO	YES	NO
Left Turn Arrow?	Thru Green	Right Turn Arrow?									
NO	YES	NO									

Is there a right turn slip laned that by-passes the traffic signal? YES**South Bound Approach:****I25 Ramp East of Freeway**

	Left Turn Lanes	Thru / Lefts	Thru Lanes	Thru / Rights	Right Turn Lanes						
Length	0	-	-	-	0						
	<table border="1"> <tr> <td>Left Turn Arrow?</td> <td>Thru Green</td> <td>Right Turn Arrow?</td> </tr> <tr> <td>NO</td> <td>YES</td> <td>NO</td> </tr> </table>					Left Turn Arrow?	Thru Green	Right Turn Arrow?	NO	YES	NO
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**NOTE:** Existing Geometry

Signalized Intersection Information SheetIntersection: Montgomery / CarlisleSpeed Limit - E-W Street: 35 M.P.H.Speed Limit - N-S Street: 35 M.P.H.Type of Intersection Control: Signalized

Date:

7/10/2007**East Bound Approach:****Montgomery**

	Left Turn Lanes	Thru / Lefts	Thru Lanes	Thru / Rights	Right Turn Lanes
Length	0	-	3	-	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:****Montgomery**

	Left Turn Lanes	Thru / Lefts	Thru Lanes	Thru / Rights	Right Turn Lanes
Length	0	-	2	1	-
	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:****Carlisle**

	Left Turn Lanes	Thru / Lefts	Thru Lanes	Thru / Rights	Right Turn Lanes
Length	0	-	-	1	-
	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**South Bound Approach:****Carlisle**

	Left Turn Lanes	Thru / Lefts	Thru Lanes	Thru / Rights	Right Turn Lanes
Length	0	-	1	1	-
	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**NOTE:** Existing Geometry

Signalized Intersection Information SheetIntersection: Comanche Rd. / I-25 Ramp WSpeed Limit - E-W Street: 30 M.P.H.Speed Limit - N-S Street: 35 M.P.H.Type of Intersection Control: SignalizedDate:
7/19/2007

East Bound Approach:		Comanche Rd.		
Left Turn Lanes	Thru / Lefts	Thru Lanes	Thru / Rights	Right Turn Lanes
0	-	1	1	-
Length	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? <u>NO</u>				

West Bound Approach:		Comanche Rd.		
Left Turn Lanes	Thru / Lefts	Thru Lanes	Thru / Rights	Right Turn Lanes
2	-	2	-	-
Length	225			
	Left Turn Arrow?	Thru Green	Right Turn Arrow?	
	YES	YES	NO	
Is there a right turn slip laned that by-passes the traffic signal? <u>NO</u>				

North Bound Approach:		I-25 Ramp W		
Left Turn Lanes	Thru / Lefts	Thru Lanes	Thru / Rights	Right Turn Lanes
-	-	-	-	-
Length	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? <u>NO</u>				

South Bound Approach:		I-25 Ramp W		
Left Turn Lanes	Thru / Lefts	Thru Lanes	Thru / Rights	Right Turn Lanes
1	-	1	1	1
Length	999'			
	Left Turn Arrow?	Thru Green	Right Turn Arrow?	
	NO	YES	YES	
Is there a right turn slip laned that by-passes the traffic signal? <u>NO</u>				

NOTE: Existing Geometry

Signalized Intersection Information SheetIntersection: Comanche Rd. / I-25 E. RampSpeed Limit - E-W Street: UNKNOWN

Date:

Speed Limit - N-S Street: UNKNOWN7/19/2007Type of Intersection Control: Signalized**East Bound Approach:****Comanche Rd.**

	Left Turn Lanes	Thru / Lefts	Thru Lanes	Thru / Rights	Right Turn Lanes
	2	-	2	-	-
Length	60' / 330'				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:****Comanche Rd.**

	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		YES	NO	

Is there a right turn slip laned that by-passes the traffic signal? NO**North Bound Approach:****I-25 E. Ramp**

	Left Turn Lanes	Thru / Lefts	Thru Lanes	Thru / Rights	Right Turn Lanes
	-	-	1	1	-
Length	999'				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:****I-25 E. Ramp**

	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 SheetIntersection: Comanche Rd. / CarlisleSpeed Limit - E-W Street: 30 M.P.H.Speed Limit - N-S Street: 35 M.P.H.Type of Intersection Control: Signalized

Date:

7/19/2007**East Bound Approach:****Comanche Rd.**

	Left Turn Lanes	Thru / Lefts	Thru Lanes	Thru / Rights	Right Turn Lanes					
Length	100'				0					
	<table><tr><td>Left Turn Arrow?</td><td>Thru Green</td><td>Right Turn Arrow?</td></tr><tr><td>YES</td><td>YES</td><td>YES</td></tr></table>				Left Turn Arrow?	Thru Green	Right Turn Arrow?	YES	YES	YES
	Left Turn Arrow?	Thru Green	Right Turn Arrow?							
YES	YES	YES								

Is there a right turn slip laned that by-passes the traffic signal? NO**West Bound Approach:****Comanche Rd.**

	Left Turn Lanes	Thru / Lefts	Thru Lanes	Thru / Rights	Right Turn Lanes					
Length	50'				0					
	<table><tr><td>Left Turn Arrow?</td><td>Thru Green</td><td>Right Turn Arrow?</td></tr><tr><td>YES</td><td>YES</td><td>YES</td></tr></table>				Left Turn Arrow?	Thru Green	Right Turn Arrow?	YES	YES	YES
	Left Turn Arrow?	Thru Green	Right Turn Arrow?							
YES	YES	YES								

Is there a right turn slip laned that by-passes the traffic signal? NO**North Bound Approach:****Carlisle**

	Left Turn Lanes	Thru / Lefts	Thru Lanes	Thru / Rights	Right Turn Lanes
Length	100'				0
		Left Turn Arrow?	Thru Green	Right Turn Arrow?	
		YES	YES	YES	

Is there a right turn slip laned that by-passes the traffic signal? NO**South Bound Approach:****Carlisle**

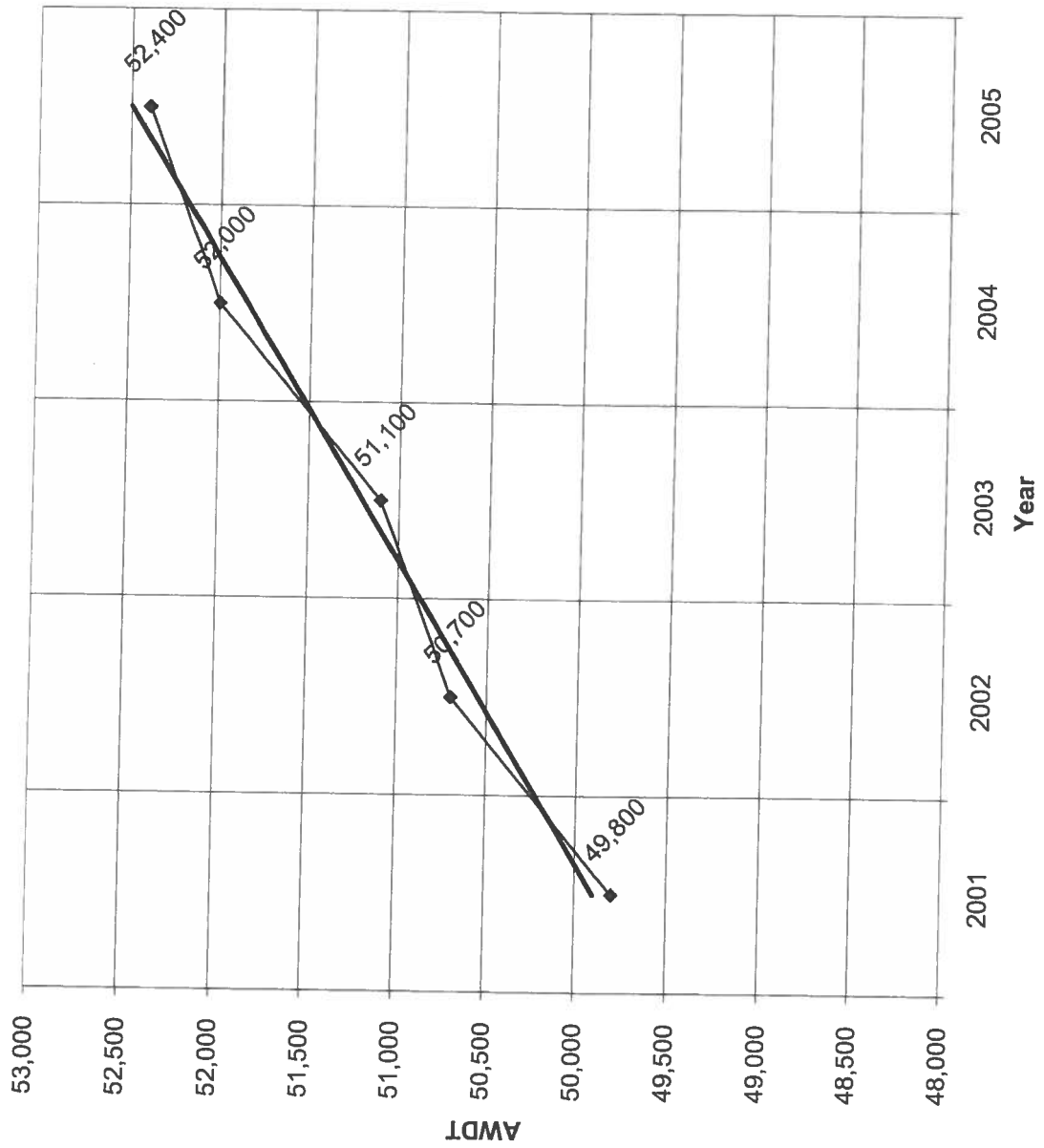
	Left Turn Lanes	Thru / Lefts	Thru Lanes	Thru / Rights	Right Turn Lanes
	1	-	2	1	-
Length	65				0
		Left Turn Arrow?	Thru Green	Right Turn Arrow?	
		YES	YES	YES	

Is there a right turn slip laned that by-passes the traffic signal? YES**NOTE:** Existing Geometry

Traffic Flow Table for Vassar Development (I-25 E. Frntg. Rd. N. of Comanche Rd.)

	2001	2002	2003	2004	2005
Montgomery Blvd. east of I-25	49,800	50,700	51,100	52,000	52,400
Montano Blvd. west of I-25	43,800	44,500	44,100	44,000	43,800
Comanche Rd. east of I-25	24,300	24,400	24,300	24,800	24,500
Comanche Rd. west of I-25	19,500	19,800	20,000	17,900	17,800
Carlisle Blvd. south of Montgomery Blvd.	21,400	22,500	22,400	22,200	15,300
Comanche Rd. east of Carlisle Blvd.	11,300	12,200	12,200	12,100	8,500
Comanche Rd. west of Carlisle Blvd.	12,500	18,400	18,300	18,100	14,500
Carlisle Blvd. north of Comanche Rd.	21,400	22,500	22,400	22,200	15,300
Carlisle Blvd. south of Comanche Rd.	25,500	25,600	23,500	23,600	23,300
Montgomery Blvd. east of Carlisle Blvd.	54,200	55,100	48,000	47,200	47,600
Montgomery Blvd. west of Carlisle Blvd.	49,800	50,700	51,100	52,000	52,400
I-25 north of Montgomery Blvd.	119,800	140,100	164,100	163,800	167,600
I-25 south of Montgomery Blvd.	134,800	158,000	183,400	181,000	179,200

Growth Chart for Montgomery Blvd. East of I-25



—●— Montgomery Blvd. east of I-25

— Linear (Montgomery Blvd. east of I-25)

Annual Increase in Volume - 650 vehicles/day

Rate of Increase - 650 / 52,400

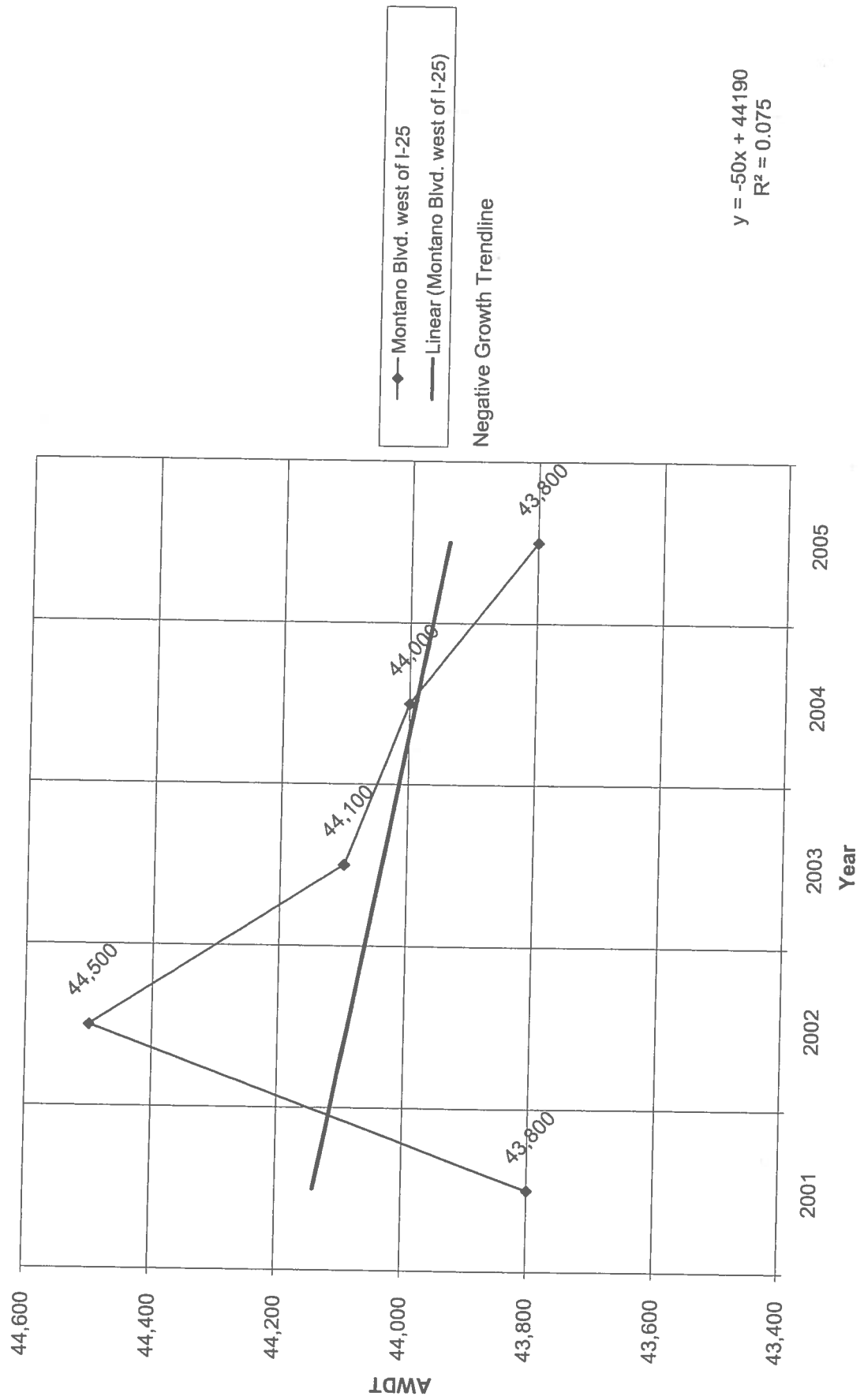
Growth Rate = 1.24%

Use 1.2% Growth Rate

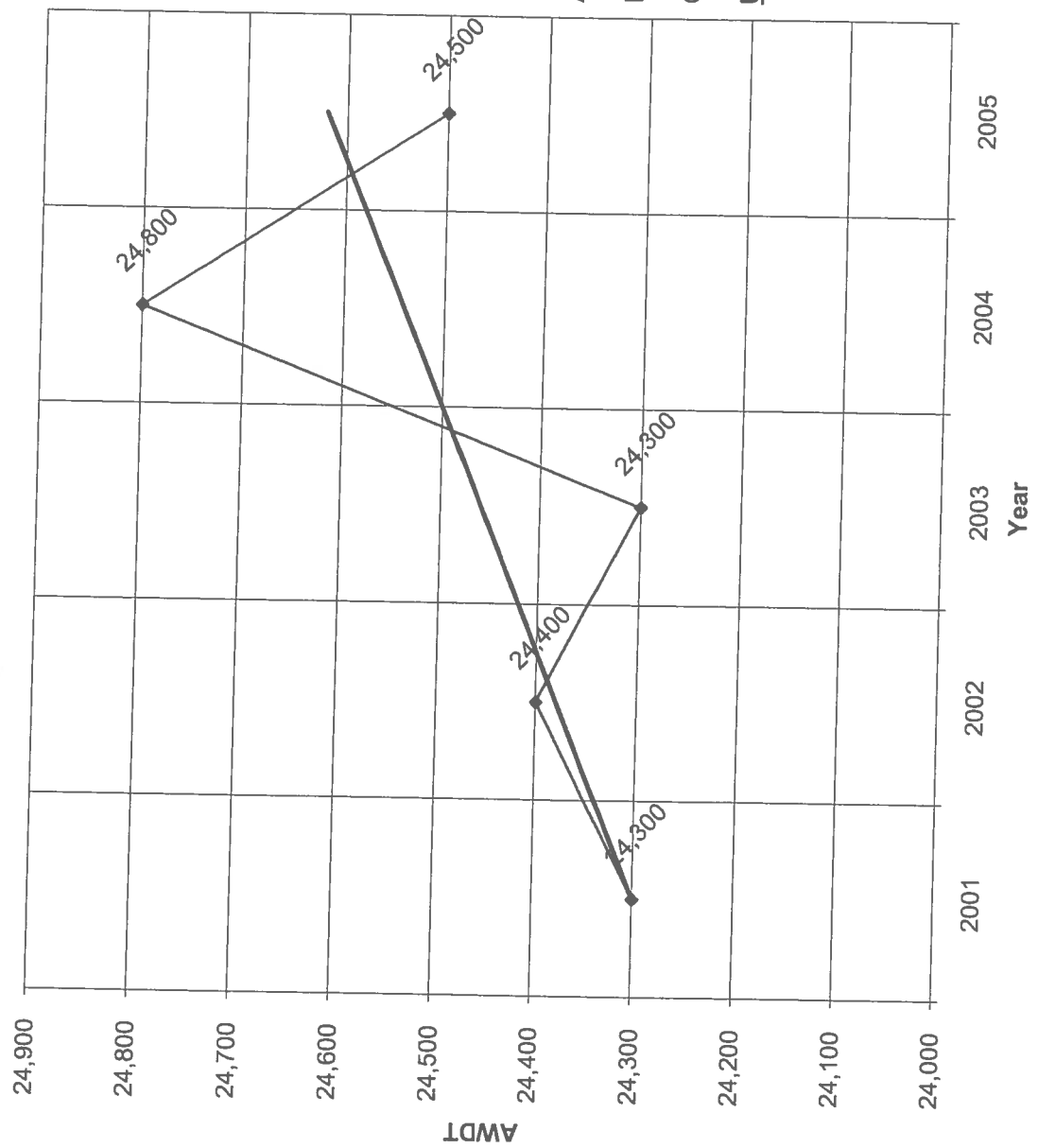
$$y = 650x + 49250$$

$$R^2 = 0.982$$

Growth Chart for Montano Blvd. West of I-25



Growth Chart for Comanche Rd. East of I-25



◆ Comanche Rd. east of I-25
 — Linear (Comanche Rd. east of I-25)

Annual Increase in Volume - 80 vehicles/day

Rate of Increase - 80 / 24,500

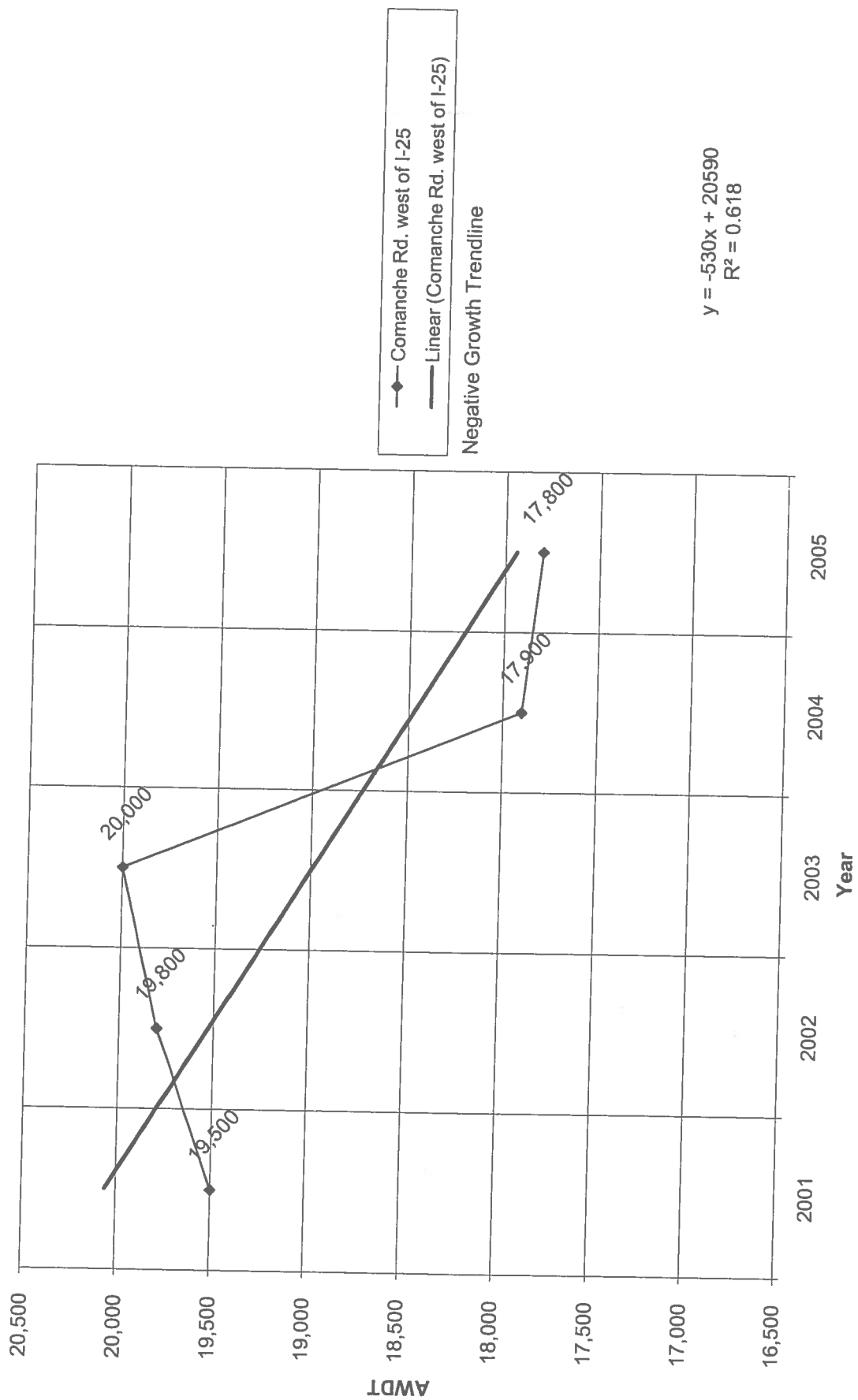
Growth Rate = 0.33%

Use 1.0% Growth Rate

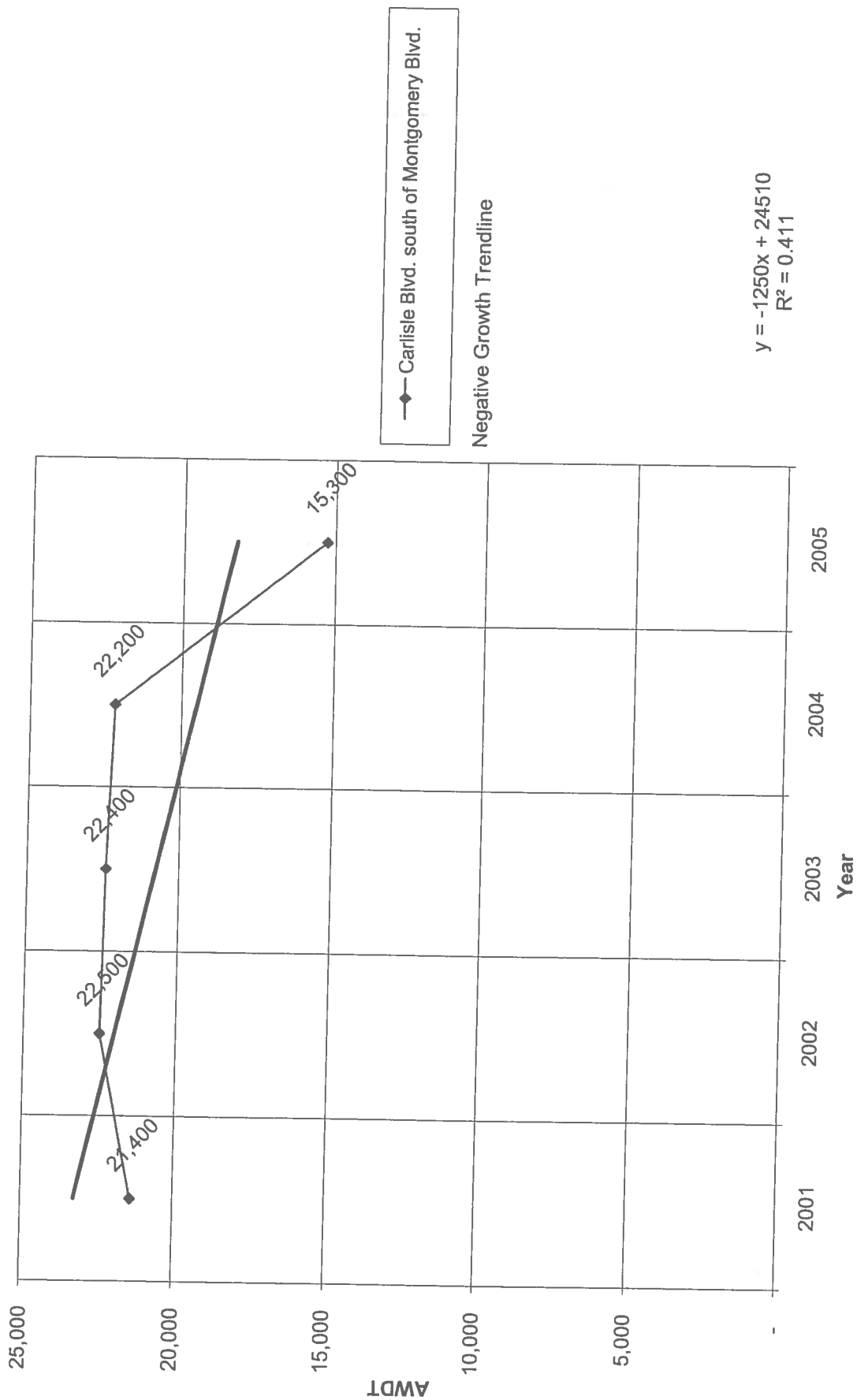
$$y = 80x + 24220$$

$$R^2 = 0.372$$

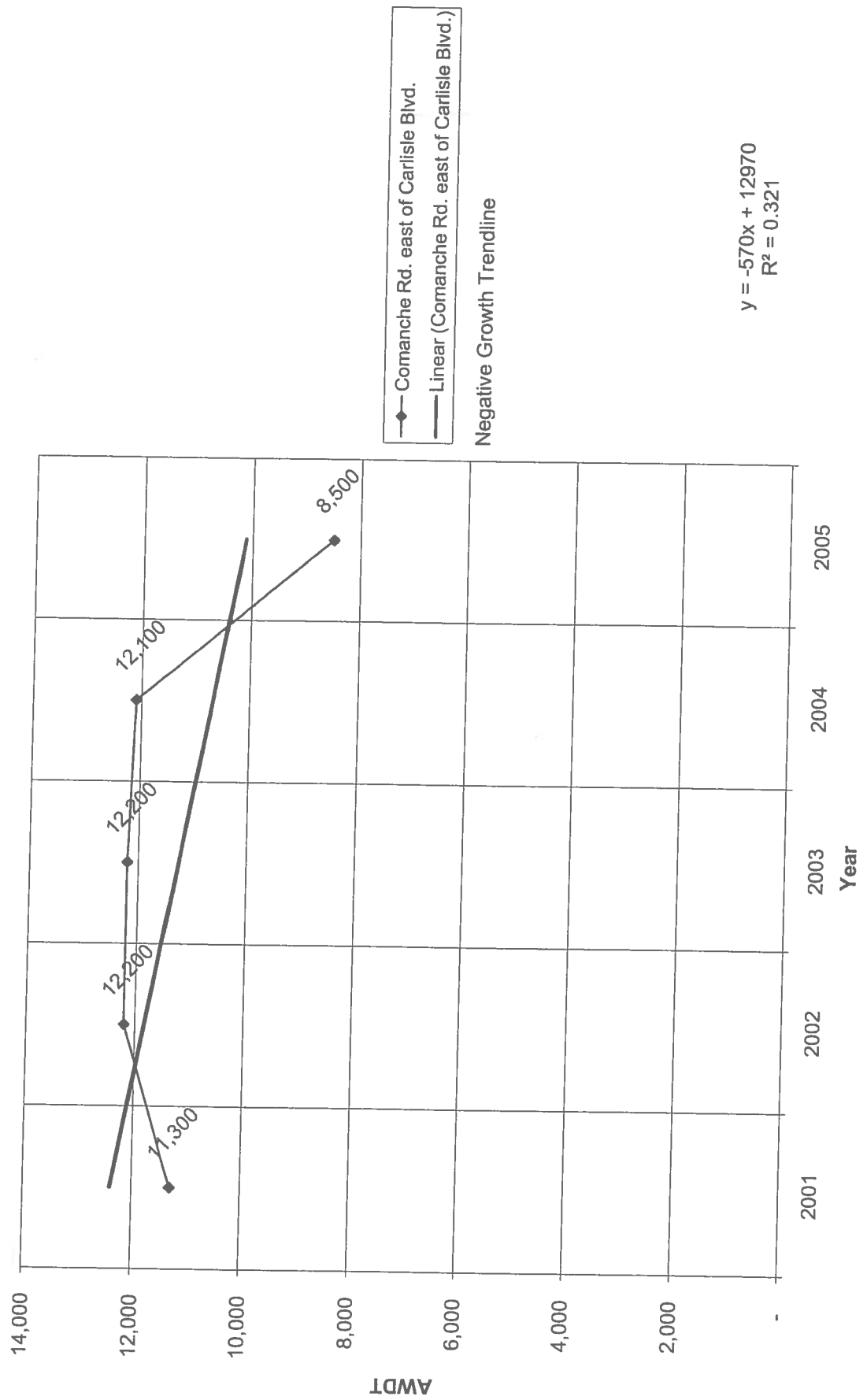
Growth Chart for Comanche Rd. West of I-25



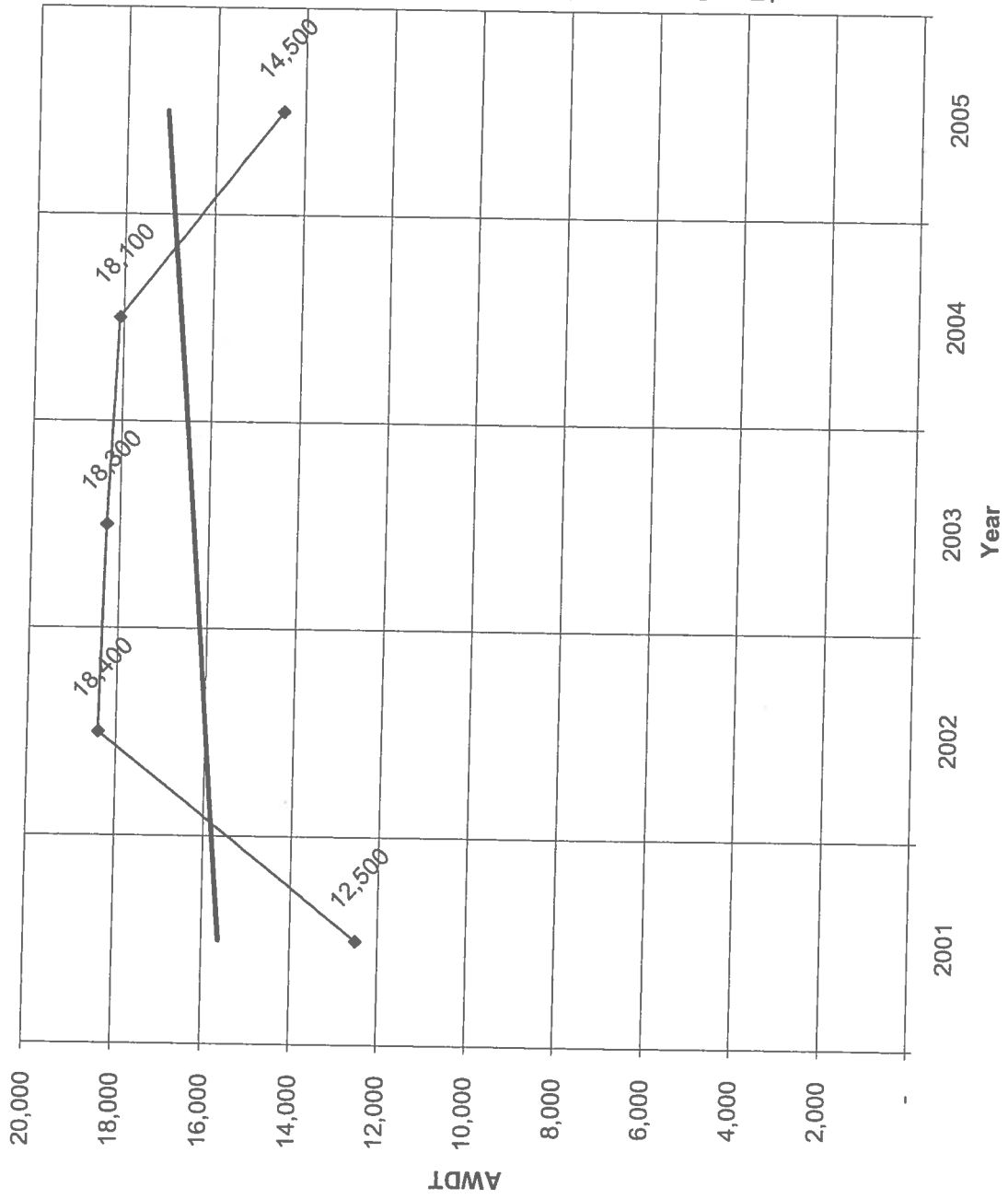
Growth Chart for Carlisle Blvd. South of Montgomery Blvd.



Growth Chart for Comanche Rd. East of Carlisle Blvd.



Growth Chart for Comanche Rd. West of Carlisle Blvd.



◆ Comanche Rd. west of Carlisle Blvd.

Annual Increase in Volume - 840 veh/day

Rate of Increase - 840 / 36,700

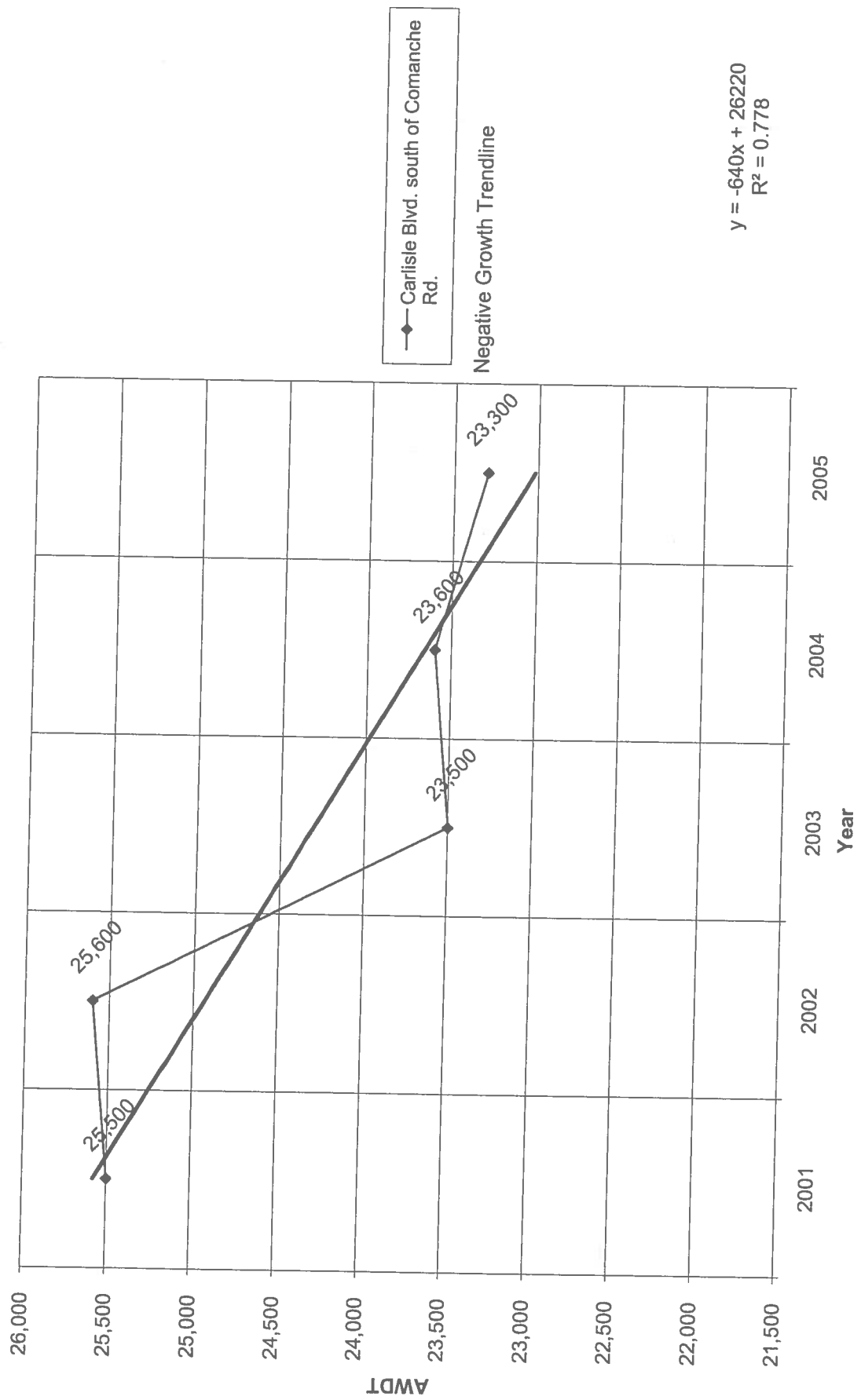
Growth Rate = 2.29%

Use 2.3% Growth Rate

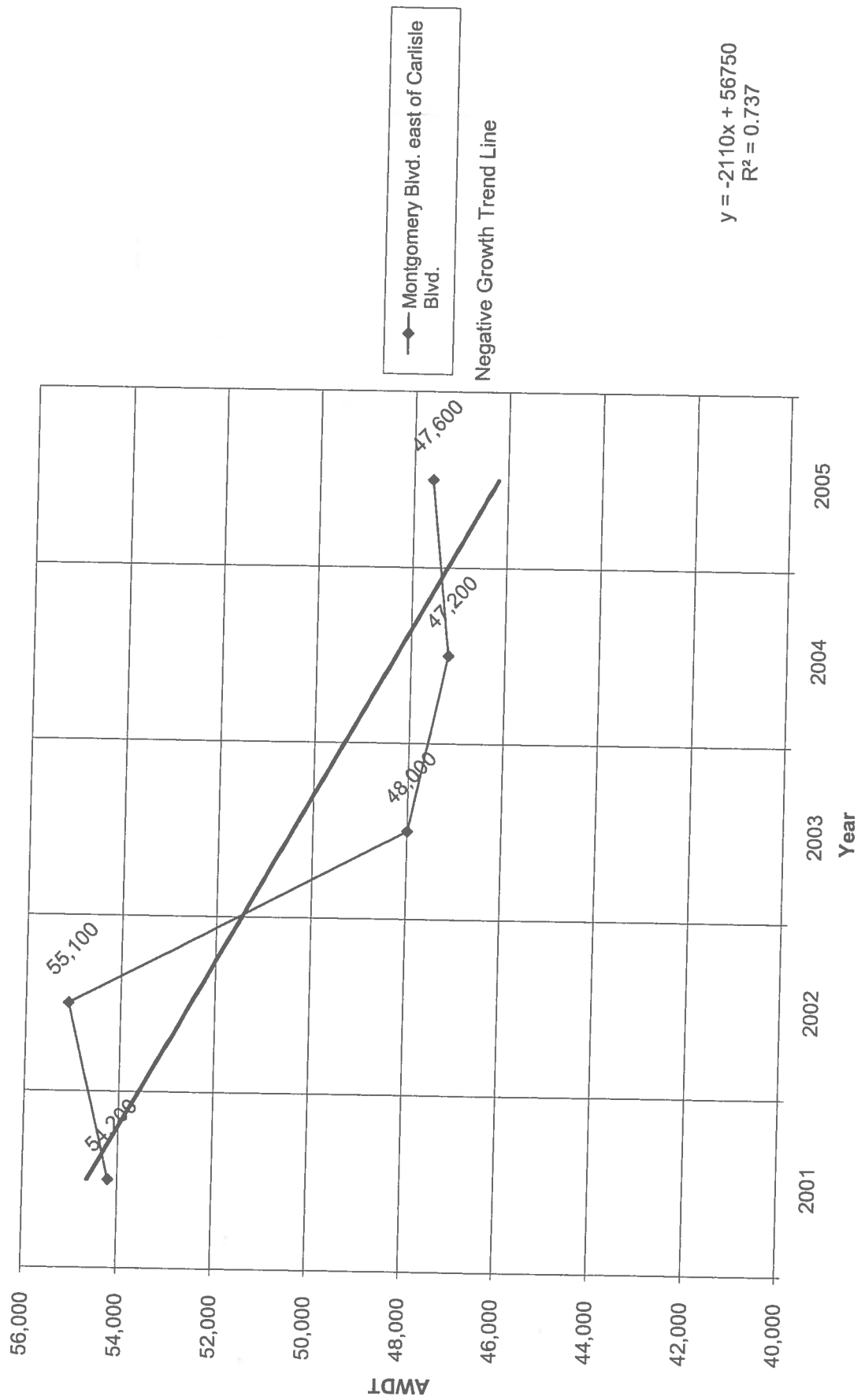
$$y = 370x + 15250$$

$$R^2 = 0.046$$

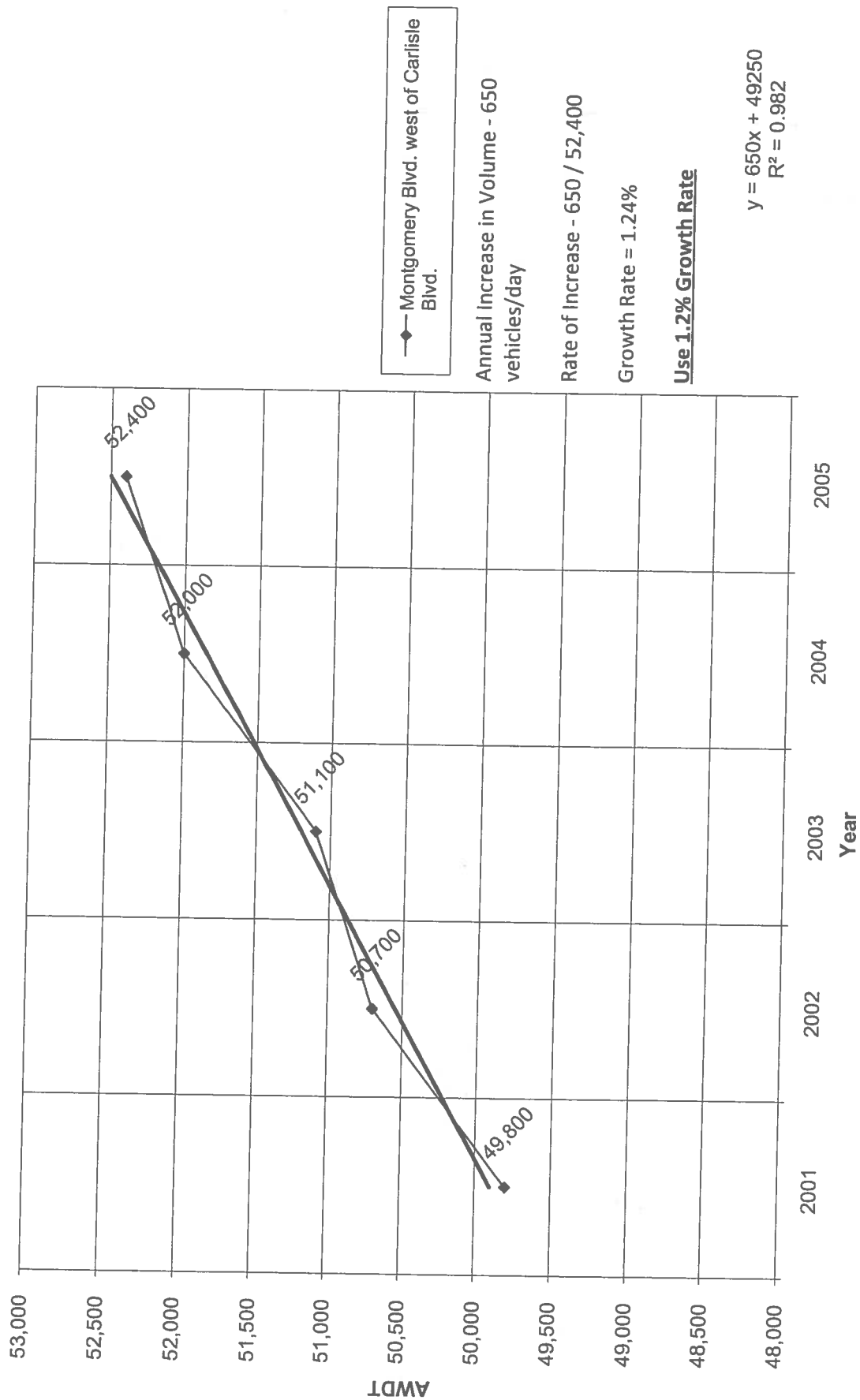
Growth Chart for Carlisle Blvd. South of Comanche Rd.



Growth Chart for Montgomery Blvd. East of Carlisle Blvd.



Growth Chart for Montgomery Blvd. West of Carlisle Blvd.



Growth Chart for I-25 South of Montgomery Blvd.

