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**Westside / Golf Course Commercial Development**

**Traffic Impact Study**

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**Presented to:**

City of Albuquerque  
Transportation Development Section

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# Westside / Golf Course Commercial Development (Westside Blvd. / Golf Course Rd.) TRAFFIC IMPACT STUDY

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# **Westside / Golf Course Commercial Development (Westside Blvd. / Golf Course Rd.) TRAFFIC IMPACT STUDY**

## **STUDY PURPOSE**

The study is being conducted in conjunction with a request for approval of a proposed retail commercial development plan such as the one shown in the Appendix (Pages A-2 thru A-4) of this report. The purpose of this study is to identify the impact of the Development on the adjacent transportation system, and to make recommendations to mitigate any significant adverse impact on the adjacent transportation system resulting from the implementation of the proposed plan. This report is being prepared to meet the requirements of the City of Albuquerque Transportation Development Division in association with the development of the Westside / Golf Course Commercial Development which straddles Golf Course Rd south of Westside Blvd.

## **STUDY PROCEDURES**

The basic procedure followed in this study is described as follows:

- 1) Calculate the generated trips for the proposed development consisting of a combination of retail commercial & medical / dental office uses (See more detailed trip generation rate table on Appendix Page A-8):
- 2) Calculate trip distribution for the newly generated trips by this development. The new commercial trips will be distributed based on year 2012 population within a two-mile radius of the proposed new commercial development (See Appendix Pages A-20 thru A-25 of this report).
- 3) Determine Trip Assignments for the newly generated trips based on the results of the Trip Distribution Analysis and logical routing to and from the site (See Appendix Pages A-26 thru A-31 of this report).
- 4) Acquire recent traffic counts from the City of Albuquerque or from consultant for all signalized intersections to be analyzed in this report. Conduct new AM and PM Peak Hour traffic counts for all existing unsignalized intersections to be analyzed in this report.
- 5) Calculate growth rate for the area utilizing a historic linear growth trendline of the Mid-Region Council of Governments' (MRCOG) Traffic Flow Data from 2001 to 2005 to define area traffic growth rate. (See Appendix Pages A-32 thru A-50a).
- 6) Consider trips generated from the recently approved Smith's @ McMahon / Golf Course and Cabazon Development (Rio Rancho).
- 7) Determine 2012 NO BUILD Volumes by growing the existing turning movement counts to the year 2012 utilizing the calculated annual historic growth rate for the area, and then adding in generated traffic volumes from the other approved and proposed projects.
- 8) Add in data from Trip Assignments Maps and Tables to the 2012 NO BUILD Volumes to obtain 2012 BUILD Volumes for this project.

- 9) Provide signalized and / or unsignalized intersection analyses for the following intersections:

	INTERSECTION	TYPE CONTROL	NO BUILD	BUILD
1)	Westside Blvd / NMSR 528	Traffic Signal	2012	2012
2)	Westside Blvd / Golf Course Rd	Traffic Signal	2012	2012
3)	McMahon Blvd. / Golf Course Rd.	Traffic Signal	2012	2012
4)	Westside Blvd / Unser Blvd	Stop Sign	2012	2012
5)	Driveway 'A' / Golf Course Rd	Stop Sign	N/A	2012
6)	Westside Blvd / Driveway 'B'	Stop Sign	N/A	2012
7)	Westside Blvd / Driveway 'C'	Stop Sign	N/A	2012
8)	Driveway "D" / Golf Course Rd	Stop Sign	N/A	2012
9)	Driveway "E" / Golf Course Rd	Stop Sign	N/A	2012

### **GENERAL AREA CHARACTERISTICS**

The proposed development plan straddles Golf Course Rd. south of Westside Blvd as shown on the Vicinity Map on Page A-1 of the Appendix of this report. The property is bounded on the north by Westside Blvd. and is centered on Golf Course Rd.

This development is comprised of four separate but contiguous projects located in a relatively active development area.

### **AREA STREET NETWORK**

McMahon Blvd. (Ellison Dr.) is classified as a Principal Arterial Street on the Long Range Roadway System Plan for the Albuquerque Urban Area. McMahon Blvd. (west of Golf Course Rd.) is a Limited Access Arterial Street. McMahon Blvd. (Ellison Dr.) has been reconstructed within the past two years so that there will be a continuous four-lane facility connecting Unser Blvd. with Coors By-Pass Blvd.

Golf Course Rd. is classified as a Minor Arterial Street on the Long Range Roadway System Plan for the Albuquerque Urban Area. Golf Course Rd. has recently been reconstructed to be a four lane roadway from the Calabacillas Arroyo north to Westside Blvd. The posted speed limit on Golf Course Rd. near Westside Blvd. is 40 MPH.

Unser Blvd. is classified as a Limited Access Principal Arterial Street on the Long Range Roadway System Plan for the Albuquerque Urban Area. It is a four lane paved street with curbs and gutters intermittently present. The posted speed limit on Unser Blvd. near Westside Blvd. increases from 35 MPH to 45 MPH.

NMSR 528 is classified as a Limited Access Principal Arterial Street on the Long Range Roadway System Plan for the Albuquerque Urban Area. It is an eight lane paved street with curbs and gutters. The posted speed limit on NMSR 528 near Westside Blvd. is 40 MPH.

Westside Blvd is classified as a Limited Access Principal Arterial Street on the Long Range Roadway System Plan for the Albuquerque Urban Area. It is a four lane paved street with

curbs and gutters. The posted speed limit on NMSR 528 near Westside Blvd. is 35 MPH. The plans for the northern quadrants of this development proposed two driveways on Westside Blvd. either side of Golf Course Rd. These driveways will require approval of the Transportation Coordinating Committee.

### **EXISTING TRAFFIC VOLUMES**

2005 Average Weekday Traffic Volumes (AWDT) for major streets in the site plan area are shown on Page A-6 in the Appendix.

Recent AM and PM peak hour turning movement counts were provided by the City of Albuquerque for the following intersections:

#### *Westside Blvd / NMSR 528 - 2004*

Existing AM and PM peak hour turning movement counts for the intersections of Westside Blvd / Golf Course Rd, McMahon Blvd. / Golf Course Rd, and Westside Blvd / Unser Blvd were also obtained by the consultant for this study.

The counts are included in Appendix Z.

### **EXISTING (2007) LEVELS OF SERVICE**

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

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

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

### **EXISTING TRANSIT SERVICE**

There is no transit service on Golf Course Rd. north of Ellison at this time.

### **PROPOSED DEVELOPMENT**

The proposed project consists of a combination of retail commercial & medical / dental office space. There are four distinct tracts of land targeted for development. The northwest quadrant of the project is targeted for medical / dental office development. The other three

quadrants of the project are characterized by proposed commercial development. The eastern two tracts are more intense commercial developments. There is a gasoline station with a convenience market and a fast food restaurant proposed for the southwest quadrant of the project. (See Conceptual Site Plans on Pages A-2 thru A-5 of the Appendix). The northeast quadrant project is called "Concept One Tract" in the Trip Generation Summary Table on Page A-8. The southeast quadrant is called "Chavez Tract", the northwest quadrant is called "Medical Tract", and the southwest quadrant is called "Sherman/Brody Tract."

## **TRIP GENERATION**

Projected trips were calculated from data in the Institute of Transportation Engineers Trip Generation report (7th Edition, 2003). Trips for the development were determined based on land uses defined on the Conceptual Site Development Plans on Pages A-2 thru A-5 in the Appendix of this report.

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

### *Westside / Golf Course Rd. Commercial Development* **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				
Chavez Tract	Shopping Center (820)	50.00	4,328	63	40	191	207
Chavez Tract	High Turnover (Sit-Down) Restaurant (932)	10.00	1,272	60	55	67	43
Chavez Tract	Fast Food Restaurant w/ Drive-Thru Window (934)	3.50	1,736	95	91	63	58
Chavez Tract	Specialty Retail Center (814)	31.90	1,402	120	152	43	55
Concept One Tract	Shopping Center (820)	50.50	4,356	63	41	192	208
Concept One Tract	High Turnover (Sit-Down) Restaurant (932)	15.00	1,907	90	83	100	64
Concept One Tract	Fast Food Restaurant w/o Drive-Thru Window (933)	5.00	3,580	132	88	67	64
Concept One Tract	Specialty Retail Center (814)	10.00	465	72	92	20	25
Sherman/Brody Tract	Gasoline / Service Station w/ Convenience Market (945)	12.00	1,953	60	60	80	80
Sherman/Brody Tract	Fast Food Restaurant w/ Drive-Thru Window (934)	3.40	1,687	92	88	61	57
Medical Tract	Medical-Dental Office Building (720)	50.00	1,830	98	26	45	121
	Subtotal		24,516	945	816	929	982
	Subtotal Commercial Trips					884	881
	Pass-by Trip Reduction	30%	-	-	-	(279)	(258)
	Net New Trips to Transportation System		24,516	945	816	650	724

A 30% adjustment was made to the trip generation rates for PM Pass-by Trips.

## **TRIP DISTRIBUTION**

### Primary and Diverted Linked Trips:

Trips were distributed as follows:

### *Commercial Land Uses*

Primary and diverted linked trips for the commercial land use development were distributed proportionally to the 2012 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 (2000), 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 2012 population data to utilize for this analysis. Population Subzones were grouped based on the most likely major street(s) or route(s) to the subject development. The trip distribution worksheets and associated map of data analysis subzones is shown in the Appendix. The Trip Distribution map can be found in the Appendix on Page A-25.

The medical / dental office land use constituted only 7% of the total trips generated by this project, and were therefore included in the trip distribution percentages of commercial land uses.

### **TRIP ASSIGNMENT**

Trip assignments are first made on a percentage basis derived from data established in the trip distribution determination process and logical routing. Those percentages are then applied to the projected trips to determine individual traffic movements. Percentage trip assignments are shown on Appendix Pages A-26 thru A-31.

### **BACKGROUND TRAFFIC GROWTH**

Background traffic growth rates were considered for each individual approach to an intersection that was targeted for analysis based on data from the 2001, 2002, 2003, 2004 and 2005 Traffic Flow maps prepared by the Mid-Region Council of Governments. Almost all of the Traffic Flow Data for the years 2001, 2002, 2003, 2004 and 2005 taken from the MRCOG Traffic Flow Maps were Standard Data. The data from those years for each approach was plotted on a graph and a linear "regression trend line" calculated using the equation format  $y=mx+b$ . The growth rate was determined by calculating the average volume increase per year during the time period considered and dividing that volume into the most recent Average Weekday Traffic (AWDT) used in the analysis from which future volumes will be calculated. The rate of growth of that trend line was utilized as the growth rate for each approach if that calculated rate appeared feasible. However, there were some instances where the rate indicated a negative growth trend. In those cases, an appropriate growth rate from an adjacent segment of the same roadway was considered. Due to the potential for growth in the area, it was believed that a zero percent growth rate was inappropriate for this study. Additionally, if the  $R^2$  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 trend lines are shown on Appendix Pages A-33 thru A-43.

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-54 thru A-77).

### **PROJECTED PEAK HOUR TURNING MOVEMENTS FOR 2012 BUILDOUT**

The calculated growth rates were applied to the most recent peak hour traffic counts furnished by the City of Albuquerque to establish the 2012 background traffic volumes. Additionally, adjustments were made to the background volumes to account for the additional trips generated by Smith's @ McMahon / Golf Course, and Cabazon Development (which are currently being developed). To these volumes, the generated trips

based on implementation of the proposed Westside / Golf Course Commercial Development Plan were added to obtain BUILD volumes for the intersection analyses. See Appendix Pages A-51 thru A-80 for further information regarding turning movement counts.

### **INTERSECTION CAPACITY ANALYSIS**

Intersection capacity analyses were performed in accordance with the procedures for signalized and unsignalized intersections in the Highway Capacity Manual, Transportation Research Board, 2000, using TEAPAC Signal 2000 Signalized Intersection Analysis Software for signalized intersections and HiCAP 2000 (Highway Capacity Software) for unsignalized intersections. For signalized intersections, the operational method of analysis was used for 2012 conditions (NO BUILD and BUILD). In addition to utilizing the operational analysis for the intersections, the 1985 planning method was also used to provide additional information at the intersection to help define critical lane volumes and to help analyze a solution.

Capacity analyses were performed for the following traffic conditions.

- 2012 without development of the subject property (2012 NO BUILD)
- 2012 with total development as per the Proposed Site Plan (2012 BUILD).

The results of the existing, 2012 NO BUILD and 2012 BUILD capacity analyses are summarized in the following sections - *Results and Discussion of Intersection Capacity Analyses*.



## RESULTS OF SIGNALIZED INTERSECTION CAPACITY ANALYSES

### IMPLEMENTATION YEAR (2012)

#### Intersection #1: Westside Blvd / NMSR 528 – Pages A-81 thru A-87

The results of the 2012 implementation year analysis of the signalized intersection of Westside Blvd / NMSR 528 are summarized in the following tables:

**Existing Geometry (Westside Blvd / NMSR 528)**

Approach	Left Turn Lanes	Thru/Lefts	Thru Lanes	Thru/Rights	Right Turn Lanes
EB Westside Blvd	2	0	1	0	1
WB Westside Blvd	2	0	1	0	1
NB NMSR 528	1	0	4	0	1*
SB NMSR 528	1	0	4	0	1

\* - Right Turn Lane by-passes the signal.

Westside Blvd / NMSR 528	2012 No Build		2012 BUILD	
	A.M.	P.M.	A.M.	P.M.
Existing Geometry	<b><i>F - 264</i></b>	<b><i>D - 52.2</i></b>	<b><i>F - 258</i></b>	<b><i>E - 59.5</i></b>
Mitigated Geometry			<b><i>F - 111</i></b>	<b><i>E - 55.6</i></b>

***D - 39.8*** – Bold Italicized LOS indicates that one or more movements are at Level-of-Service "E" or worse.

It is apparent from this study that the lane configuration at the intersection of Westside Blvd. / NM S.R. 528 is inappropriately configured to accommodate the NO BUILD and BUILD Volumes projected at the intersection for the year 2012. That may also be the case for current volumes. There are not sufficient left turn volumes at the intersection (current or projected) to warrant dual left turn lanes. However, the current configuration of the intersection incorporates dual left turn lanes at all but the northbound left turn movements. The dual left turn lane configuration forces a protected left turn movement, which deteriorates the operation of the intersection. Unless there are safety reasons for incorporating the dual left turn lanes (and protected left turns) at the intersection, this study recommends that the dual left turn lanes at the intersection be eliminated on all but the northbound left turn movement.

Also, the eastbound thru movement on Westside Blvd. at NM S.R. 528 does not warrant dual thru lanes, but the eastbound right turn movement warrants dual right turn lanes. Therefore, this study recommends that the outside eastbound thru lane on Westside Blvd. be converted to a right turn lane to provide dual right turn lanes at the intersection. The eastbound right turn movement should also have an overlap right turn arrow that allows the eastbound right turn movement to occur concurrently with the northbound left turn protected movement at the intersection. Under this scenario, the east-west traffic on Westside Blvd. would be operated with a single phase (See Appendix Pages A-84 and A-87).

In summary, this report recommends that the eastbound, westbound, and southbound dual left turn lanes be eliminated and that dual northbound lanes be implemented. Also, the outside eastbound thru lane should be converted to a second right turn lane and an eastbound right turn overlap phase be implemented.

The queuing analysis for this intersection is summarized in the following table:

## Queueing Analysis Summary Sheet

Project:  
Intersection:

Westside / Golf Course Commercial Development  
Westside Blvd / NMSR 528

<b>2012</b>											
<b>Approach</b>			<b>Left Turns</b>			<b>Thru Movements</b>			<b>Right Turns</b>		
<b>Eastbound</b>			# Lanes	Vol.	Length	# Lanes	Vol.	Length	# Lanes	Vol.	Length
<i>Existing Lane Length</i>			1	120	110	1	60	Cont	2	330	250
AM NO BUILD Queue			1	147	225	1	73	150	2	853	600
AM BUILD Queue			1	215	325	1	92	175	2	892	625
<i>Existing Lane Length</i>			1	58	110	1	12	Cont	2	72	250
PM NO BUILD Queue			1	71	125	1	15	50	2	461	350
PM BUILD Queue			1	132	225	1	31	75	2	496	375
<b>Westbound</b>			# Lanes	Vol.	Length	# Lanes	Vol.	Length	# Lanes	Vol.	Length
<i>Existing Lane Length</i>			1	69	375	1	38	Cont	1	27	250
AM NO BUILD Queue			1	86	150	1	47	100	1	33	75
AM BUILD Queue			1	86	150	1	68	125	1	33	75
<i>Existing Lane Length</i>			1	212	375	1	92	Cont	1	58	250
PM NO BUILD Queue			1	263	375	1	114	200	1	72	125
PM BUILD Queue			1	263	375	1	129	200	1	72	125
<b>Northbound</b>			# Lanes	Vol.	Length	# Lanes	Vol.	Length	# Lanes	Vol.	Length
<i>Existing Lane Length</i>			2	31	375	4	1,376	Cont	1	155	250
AM NO BUILD Queue			2	108	125	4	1,800	675	1	200	300
AM BUILD Queue			2	153	150	4	1,800	675	1	200	300
<i>Existing Lane Length</i>			2	246	375	4	2,183	Cont	1	53	250
PM NO BUILD Queue			2	464	350	4	2,880	>1,000	1	68	125
PM BUILD Queue			2	495	375	4	2,880	>1,000	1	68	125
<b>Southbound</b>			# Lanes	Vol.	Length	# Lanes	Vol.	Length	# Lanes	Vol.	Length
<i>Existing Lane Length</i>			1	26	375	4	3,384	Cont	1	32	200
AM NO BUILD Queue			1	32	75	4	4,278	>1,000	1	40	100
AM BUILD Queue			1	32	75	4	4,278	>1,000	1	119	200
<i>Existing Lane Length</i>			1	39	375	4	2,533	Cont	1	52	200
PM NO BUILD Queue			1	48	100	4	3,220	>1,000	1	64	125
PM BUILD Queue			1	48	100	4	3,220	>1,000	1	118	200

AM
PM  
 Cycle Length:    130       130

**NOTE: Queue lengths are in feet.**

Since there are exclusive right turn lanes on all four legs of this intersections, it is appropriate to reduce the calculated length of the right turn queues above by 50% to account for right turns on red and overlap phases.

The eastbound left turn movement will queue into the thru lane. Since the thru queuing is less than the length of the left turn lane, this should not present a significant problem.

**Intersection #2: Westside Blvd / Golf Course Rd – Pages A-88 thru A-94**

The results of the 2012 implementation year analysis of the signalized intersection of Westside Blvd / Golf Course Rd are summarized in the following tables:

**Base Geometry (Westside Blvd / Golf Course Rd)**

Approach	Left Turn Lanes	Thru/Lefts	Thru Lanes	Thru/Rights	Right Turn Lanes
EB Westside Blvd	1	0	0	1	0
WB Westside Blvd	1	0	0	1	0
NB Golf Course Rd	1	0	1	1	0
SB Golf Course Rd	1	0	1	1	0

Westside Blvd / Golf Course Rd	2012 No Build		2012 BUILD	
	A.M.	P.M.	A.M.	P.M.
Existing Geometry	C - 25.8	C - 33.8	<b><i>F - 100</i></b>	<b><i>E - 62.0</i></b>
Mitigated Geometry			C - 32.5	C - 33.9

***D - 39.8*** – Bold Italicized LOS indicates that one or more movements are at Level-of-Service “E” or worse.

The intersection of Westside Blvd / Golf Course Rd is projected to be significantly impacted by the implementation of the Westside / Golf Course Commercial Development. Asuming the Base Geometry in the table above, the signalized intersection fails under the projected BUILD Conditions. Mitigation of the failing levels-of-service for the BUILD Conditions consists of constructing an eastbound right turn lane and a westbound right turn lane on Westside Blvd. at Golf Course Rd.

The base geometry on Westside Blvd. for this study assumes one thru lane eastbound and one thru lane westbound. However, since Westside Blvd. is classified as a Principal Arterial Limited Access Roadway, it should be planned as a four lane urban facility ultimately. However, for the purposes of this study, it is noted that the eastbound and westbound thru volumes at the intersection are not sufficient to warrant dual thru lanes based on the projected 2012 volumes. However, it is probably that dual eastbound and westbound thru lanes will be needed beyond that date.

The intersection of Westside Blvd. / Golf Course Rd. does not currently exist. Recent traffic counts were conducted at the intersection only to obtain current northbound and southbound thru volumes on Golf Course Rd. Forecast 2012 volumes on Westside Blvd. at Golf Course Rd. were obtained based on Mid-Region Council of Governments' Regional Model Forecast volumes (2025 data set).

The queuing analysis for this intersection is summarized in the following table:

## Queueing Analysis Summary Sheet

Project:  
Intersection:

Westside / Golf Course Commercial Development  
Westside Blvd / Golf Course Rd

**2012**

<b>Eastbound</b>				<b>Left Turns</b>			<b>Thru Movements</b>			<b>Right Turns</b>		
<b>Approach</b>	<b># Lanes</b>	<b>Vol.</b>	<b>Length (Ft.)</b>	<b># Lanes</b>	<b>Vol.</b>	<b>Length (Ft.)</b>	<b># Lanes</b>	<b>Vol.</b>	<b>Length (Ft.)</b>	<b># Lanes</b>	<b>Vol.</b>	<b>Length (Ft.)</b>
<i>Existing Lane Length</i>	1	0	TBD				1	0	Cont	1	0	TBD
AM NO BUILD Queue	1	52	100				1	220	325	1	254	350
AM BUILD Queue	1	54	100				1	298	400	1	410	525
<i>Existing Lane Length</i>	1	0	TBD				1	0	Cont	1	0	TBD
PM NO BUILD Queue	1	140	225				1	42	100	1	79	150
PM BUILD Queue	1	142	225				1	96	175	1	186	275

<b>Westbound</b>				<b>Left Turns</b>			<b>Thru Movements</b>			<b>Right Turns</b>		
<b>Approach</b>	<b># Lanes</b>	<b>Vol.</b>	<b>Length (Ft.)</b>	<b># Lanes</b>	<b>Vol.</b>	<b>Length (Ft.)</b>	<b># Lanes</b>	<b>Vol.</b>	<b>Length (Ft.)</b>	<b># Lanes</b>	<b>Vol.</b>	<b>Length (Ft.)</b>
<i>Existing Lane Length</i>	1	0	TBD				1	0	Cont	1	0	TBD
AM NO BUILD Queue	1	77	150				1	8	25	1	16	50
AM BUILD Queue	1	157	250				1	76	150	1	38	100
<i>Existing Lane Length</i>	1	0	TBD				1	0	Cont	1	0	TBD
PM NO BUILD Queue	1	189	275				1	160	250	1	335	450
PM BUILD Queue	1	244	350				1	220	325	1	354	475

<b>Northbound</b>				<b>Left Turns</b>			<b>Thru Movements</b>			<b>Right Turns</b>		
<b>Approach</b>	<b># Lanes</b>	<b>Vol.</b>	<b>Length (Ft.)</b>	<b># Lanes</b>	<b>Vol.</b>	<b>Length (Ft.)</b>	<b># Lanes</b>	<b>Vol.</b>	<b>Length (Ft.)</b>	<b># Lanes</b>	<b>Vol.</b>	<b>Length (Ft.)</b>
<i>Existing Lane Length</i>	1	0	280				2	0	Cont	1	0	140
AM NO BUILD Queue	1	25	75				2	50	75	1	212	300
AM BUILD Queue	1	159	250				2	98	100	1	281	400
<i>Existing Lane Length</i>	1	0	280				2	0	Cont	1	0	140
PM NO BUILD Queue	1	258	375				2	539	400	1	161	250
PM BUILD Queue	1	377	500				2	582	425	1	222	325

<b>Southbound</b>				<b>Left Turns</b>			<b>Thru Movements</b>			<b>Right Turns</b>		
<b>Approach</b>	<b># Lanes</b>	<b>Vol.</b>	<b>Length (Ft.)</b>	<b># Lanes</b>	<b>Vol.</b>	<b>Length (Ft.)</b>	<b># Lanes</b>	<b>Vol.</b>	<b>Length (Ft.)</b>	<b># Lanes</b>	<b>Vol.</b>	<b>Length (Ft.)</b>
<i>Existing Lane Length</i>	1	0	200				2	0	Cont	0	0	0
AM NO BUILD Queue	1	395	525				2	456	350	0	46	100
AM BUILD Queue	1	420	550				2	512	400	0	49	100
<i>Existing Lane Length</i>	1	0	200				2	0	Cont	0	0	0
PM NO BUILD Queue	1	134	225				2	253	225	0	214	325
PM BUILD Queue	1	151	250				2	291	250	0	216	325

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

TBD - To Be Designed

**Intersection #3: McMahon Blvd. (Ellison Dr.) / Golf Course Rd. – Pages A-95 thru A-99**

The results of the 2012 implementation year analysis of the signalized intersection of McMahon Blvd. (Ellison Dr.) / Golf Course Rd. are summarized in the following tables:

**Existing Geometry (McMahon Blvd. / Golf Course Rd.)**

Approach	Left Turn Lanes	Thru/Lefts	Thru Lanes	Thru/Rights	Right Turn Lanes
EB McMahon Blvd.	1	0	2	0	1
WB Ellison Dr.	2	0	2	0	1
NB Golf Course Rd.	2	0	2	0	1
SB Golf Course Rd.	2	0	2	0	1

McMahon Blvd. / Golf Course Rd.	2012 No Build		2012 BUILD	
	A.M.	P.M.	A.M.	P.M.
Existing Geometry	<b><i>F - 81.4</i></b>	<b><i>F - 150</i></b>	<b><i>F - 94.1</i></b>	<b><i>F - 174</i></b>

***D - 39.8*** – Bold Italicized LOS indicates that one or more movements are at Level-of-Service “E” or worse.

The intersection of McMahon Blvd. (Ellison Dr.) / Golf Course Rd. is projected to operate at or beyond capacity for the projected 2012 AM and PM Peak Hour NO BUILD and BUILD Conditions. The intersection of McMahon Blvd. (Ellison Dr.) / Golf Course Rd. was recently reconstructed to its optimum attainable geometry. No additional improvements can be made to the intersection.

Given that this is a new intersection, this study does not recommend further improvements.

The queuing analysis for this intersection is summarized in the following table:

## Queueing Analysis Summary Sheet

Project:  
Intersection:

Westside / Golf Course Commercial Development  
McMahon Blvd / Golf Course Rd

**2012**

<b>Eastbound</b>				<b>Left Turns</b>			<b>Thru Movements</b>			<b>Right Turns</b>		
<b>Approach</b>	<b># Lanes</b>	<b>Vol.</b>	<b>Length (Ft.)</b>				<b># Lanes</b>	<b>Vol.</b>	<b>Length (Ft.)</b>	<b># Lanes</b>	<b>Vol.</b>	<b>Length (Ft.)</b>
<i>Existing Lane Length</i>	1	93	200				2	590	Cont	1	580	250
AM NO BUILD Queue	1	193	300				2	852	600	1	794	>1,000
AM BUILD Queue	1	285	400				2	852	600	1	794	>1,000
<i>Existing Lane Length</i>	1	52	200				2	555	Cont	1	283	250
PM NO BUILD Queue	1	167	250				2	831	575	1	392	525
PM BUILD Queue	1	230	325				2	831	575	1	392	525

<b>Westbound</b>				<b>Left Turns</b>			<b>Thru Movements</b>			<b>Right Turns</b>		
<b>Approach</b>	<b># Lanes</b>	<b>Vol.</b>	<b>Length (Ft.)</b>				<b># Lanes</b>	<b>Vol.</b>	<b>Length (Ft.)</b>	<b># Lanes</b>	<b>Vol.</b>	<b>Length (Ft.)</b>
<i>Existing Lane Length</i>	2	121	300				2	269	Cont	1	69	250
AM NO BUILD Queue	2	200	175				2	367	300	1	114	200
AM BUILD Queue	2	200	175				2	367	300	1	276	375
<i>Existing Lane Length</i>	2	376	300				2	949	Cont	1	129	250
PM NO BUILD Queue	2	555	425				2	1,269	850	1	240	350
PM BUILD Queue	2	555	425				2	1,269	850	1	351	475

<b>Northbound</b>				<b>Left Turns</b>			<b>Thru Movements</b>			<b>Right Turns</b>		
<b>Approach</b>	<b># Lanes</b>	<b>Vol.</b>	<b>Length (Ft.)</b>				<b># Lanes</b>	<b>Vol.</b>	<b>Length (Ft.)</b>	<b># Lanes</b>	<b>Vol.</b>	<b>Length (Ft.)</b>
<i>Existing Lane Length</i>	2	201	250				2	348	Cont	1	220	120
AM NO BUILD Queue	2	219	200				2	514	400	1	226	325
AM BUILD Queue	2	219	200				2	713	525	1	226	325
<i>Existing Lane Length</i>	2	743	250				2	766	Cont	1	313	120
PM NO BUILD Queue	2	802	575				2	1,241	825	1	321	425
PM BUILD Queue	2	802	575				2	1,378	900	1	321	425

<b>Southbound</b>				<b>Left Turns</b>			<b>Thru Movements</b>			<b>Right Turns</b>		
<b>Approach</b>	<b># Lanes</b>	<b>Vol.</b>	<b>Length (Ft.)</b>				<b># Lanes</b>	<b>Vol.</b>	<b>Length (Ft.)</b>	<b># Lanes</b>	<b>Vol.</b>	<b>Length (Ft.)</b>
<i>Existing Lane Length</i>	2	126	160				2	538	Cont	1	17	100
AM NO BUILD Queue	2	181	175				2	1,022	700	1	64	125
AM BUILD Queue	2	321	275				2	1,194	800	1	144	225
<i>Existing Lane Length</i>	2	125	160				2	448	Cont	1	73	100
PM NO BUILD Queue	2	201	200				2	1,166	775	1	174	275
PM BUILD Queue	2	325	275				2	1,318	875	1	245	350

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

## **RESULTS OF UNSIGNALIZED INTERSECTION CAPACITY ANALYSES**

### **IMPLEMENTATION YEAR (2012)**

#### **Intersection #4: Westside Blvd / Unser Blvd – Pages A-100 thru A-104**

The results of the analysis of the unsignalized intersection of Westside Blvd / Unser Blvd are summarized in the following table:

	2012 NO BUILD		2012 BUILD	
	AM	PM	AM	PM
<b>Westside Blvd / Unser Blvd</b>				
<b>Major Street (Westside Blvd)</b>				
EB Left	F - *	F - *	F - *	F - *
EB Thru	F - *	F - *	F - *	F - *
EB Right	F - *	F - *	F - *	F - *
<b>Major Street (Westside Blvd)</b>				
WB Left	F - *	F - *	F - *	F - *
WB Thru	F - *	F - *	F - *	F - *
WB Right	F - *	F - *	F - *	F - *
<b>Minor Street (Unser Blvd)</b>				
NB Left	B - 12	B - 11	B - 12	B - 11
SB Left	C - 24	F - 55	D - 27	F - 69

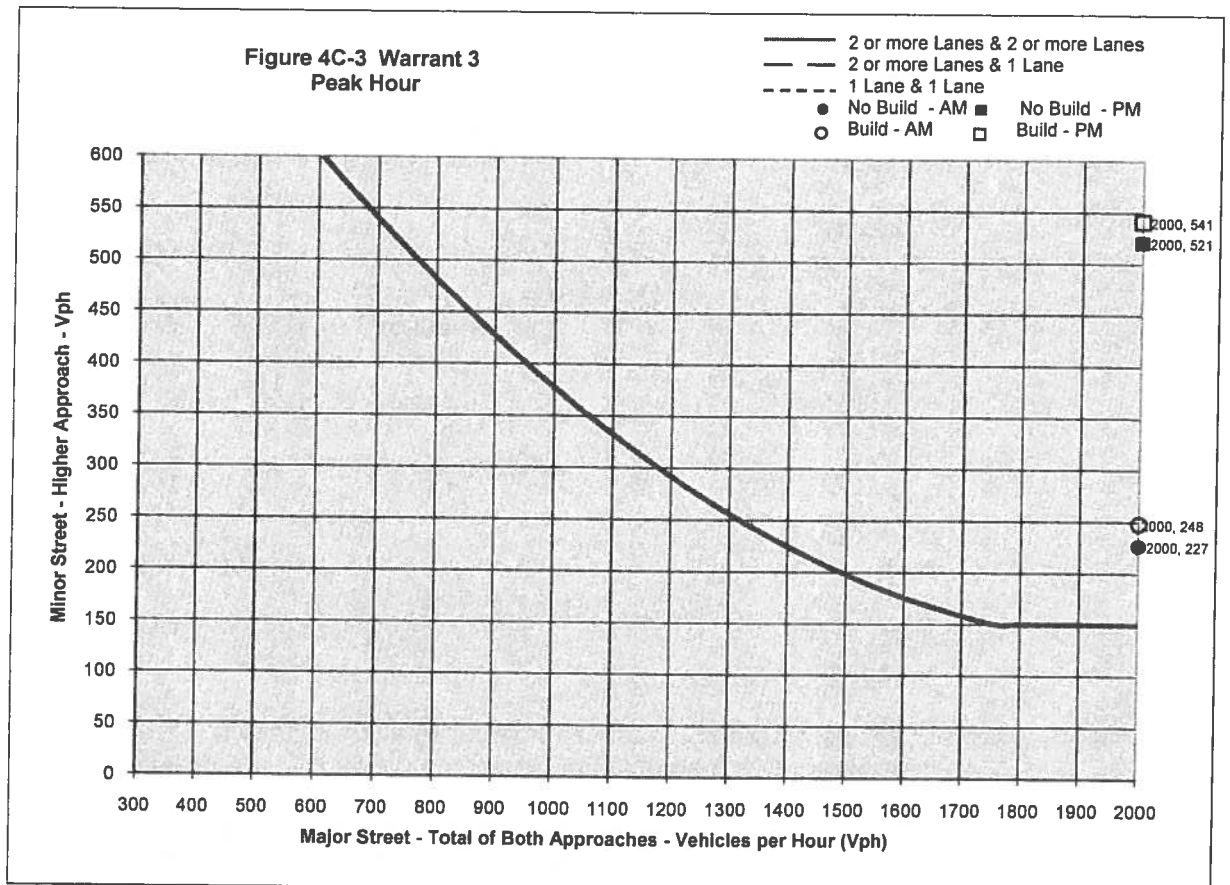
Due to the fact that this intersection is projected to fail and it is comprised of the intersection of two Limited Access Principal Arterial Roadways, then it is reasonable to assume that a traffic signal may be warranted here.

The following graph depicts the Peak Hour Signal Warrant analysis for this intersection based on projected 2012 AM and PM Peak Hour Volumes:

**Project Name**  
Westside / Golf Course Commercial Dev.  
**Intersection**  
Westside Blvd. / Unser Blvd.  
**Analysis Year**  
2012

**Number of Lanes**  
Major St. 2  
Minor St. 2

Analysis Year Traffic Volumes					
AM	Major	Minor	PM	Major	Minor
No Build	2583	227	No Build	2955	521
Build	2621	248	Build	2981	541



Comments - Signal is Warranted for AM and PM Peak Hour NO BUILD and BUILD.

A traffic signal is warranted at the intersection of Westside Blvd. / Unser Blvd. based on the forecast 2012 AM and PM Peak Hour Volumes defined in this report. Consideration should be given to the construction of a new traffic signal at the intersection of Westside Blvd. / Unser Blvd. However, this analysis does not constitute reason to construct nor provide a guarantee that a traffic signal will be warranted in the future. It is merely an indicator that additional study is warranted near the horizon year to certify that the traffic volumes present at that time may provide the need for the traffic signal. A full signal warrant study should be performed at the intersection in the future based on actual traffic volumes present to determine if a signal should be constructed.



at Driveway "A" will still fail with the added full access driveway to the south, but the calculated westbound queue length for the left turn movements at Driveway "A" will be reduced to 625 feet and the queue will need to be contained on the project property for that quadrant of the development.

**Intersection #6: Westside Blvd / Driveway "B" – Pages A-110 thru A-112**

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

	2012 BUILD	
	AM	PM
<b>Westside Blvd / Driveway "B"</b>		
<b>Minor Street (Driveway "B")</b>		
NB Left	N/A	N/A
NB Right	C - 18	B - 10
<b>Major Street (Westside Blvd)</b>		
WB Left	N/A	N/A

Driveway "B" is proposed as a right-turn-in, right-turn-out access driveway located approximately 450 feet east of the intersection of Westside Blvd / Golf Course Rd. (centerline to centerline).

**Intersection #7: Westside Blvd / Driveway "C" – Pages A-113 thru A-115**

The results of the analysis of the unsignalized intersection of Westside Blvd / Driveway "C" are summarized in the following table:

	2012 BUILD	
	AM	PM
<b>Westside Blvd / Driveway "C"</b>		
<b>Minor Street (Driveway "C")</b>		
NB Left	N/A	N/A
NB Right	D - 27	C - 17
<b>Major Street (Westside Blvd)</b>		
WB Left	N/A	N/A

Driveway "C" is proposed as a right-turn-in, right-turn-out access driveway located approximately 525 feet west of the intersection of Westside Blvd / Golf Course Rd. (centerline to centerline).

**Intersection # 8: Driveway "D" / Golf Course Rd. – Pages A-116 thru A-120**

The results of the analysis of the unsignalized intersection of Driveway "D" / Golf Course Rd. are summarized in the following table:

	2012 BUILD	
	AM	PM
<b>Driveway "D" / Golf Course Rd.</b>		
<b>Minor Street (Driveway "D")</b>		
WB Left	N/A	N/A
WB Right	B - 13	D - 27
<b>Major Street (Golf Course Rd.)</b>		
SB Left	N/A	N/A

Driveway "D" was initially proposed to be a right-turn-in, right-turn-out driveway. However, the results of the analysis of Driveway "A" in this report suggests that it would be beneficial to permit Driveway "D" as a full access driveway. The results of the analysis of Driveway "D" if approved as a full access driveway, is summarized in the following table:

Full Access	2012 BUILD	
	AM	PM
<b>Driveway "D" / Golf Course Rd.</b>		
<b>Minor Street (Driveway "D")</b>		
WB Left	F - 53	F - 202
WB Right	B - 13	D - 27
<b>Major Street (Golf Course Rd.)</b>		
SB Left	A - 10	B - 14

While the westbound left turn movement fails, it demonstrates a significant improvement in operation over the scenario where only one full access driveway (Driveway "A") is permitted on Golf Course Rd. The calculated westbound left turn queue length at Driveway "D" as a full access driveway is 11 vehicles (275 feet).

**Intersection # 9: Driveway "E" / Golf Course Rd. – Pages A-121 thru A-123**

The results of the analysis of the unsignalized intersection of Driveway "E" / Golf Course Rd. are summarized in the following table:

	2012 BUILD	
	AM	PM
<b>Driveway "E" / Golf Course Rd.</b>		
<b>Minor Street (Driveway "E")</b>		
EB Left	N/A	N/A
EB Right	C - 15	B - 13
<b>Major Street (Golf Course Rd.)</b>		
NB Left	N/A	N/A

Driveway "E" is proposed as a right-turn-in, right-turn-out access intersection.

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**

<b><u>Average Delay (secs)</u></b>	<b><u>Level-of-Service</u></b>
≤ 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.

#### **CONCLUSIONS**

This analysis was conducted using the following methodology: Trip Generation was established using the Institute of Transportation Engineers' (ITE's) Trip Generation Manual (7th Edition). Generated Trips were distributed proportionately based on the Population Data within a two-mile radius of the project; Growth rate of background traffic volumes was established from Traffic Flow Map data from 2001 through 2005 or from the Mid-Region Council of Governments' Regional Model forecast volumes (2025 data set); and the intersection analyses were performed in accordance with the 2000 Highway Capacity Manual. The Traffic Impact Study showed a moderate increase in traffic congestion for the adjacent transportation network based on 100% buildout of the proposed project.

In summary, the proposed retail commercial / office development plan presents no significant adverse impact to the adjacent transportation system provided that the following recommendations are followed:

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## **Appendix**



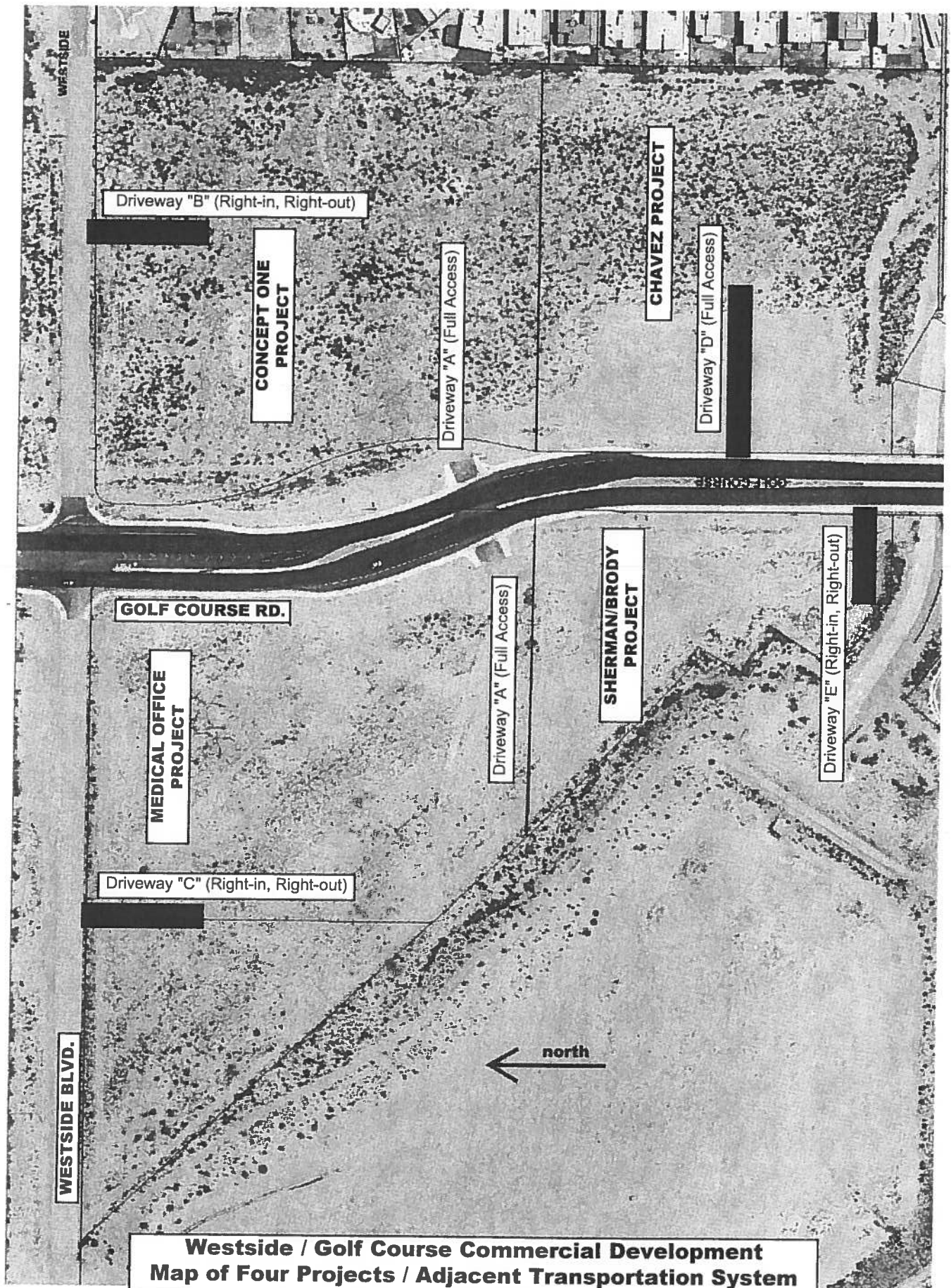
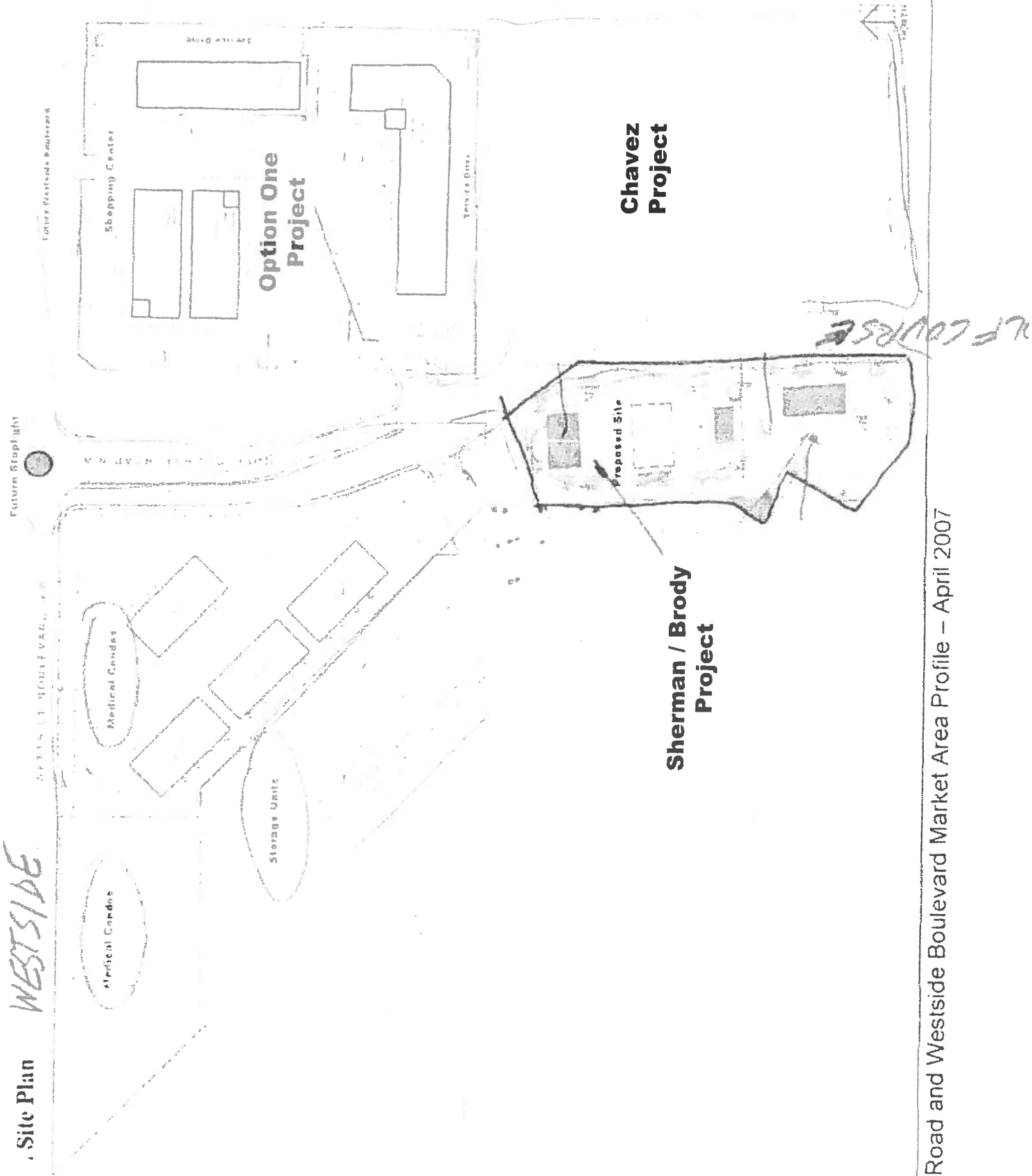


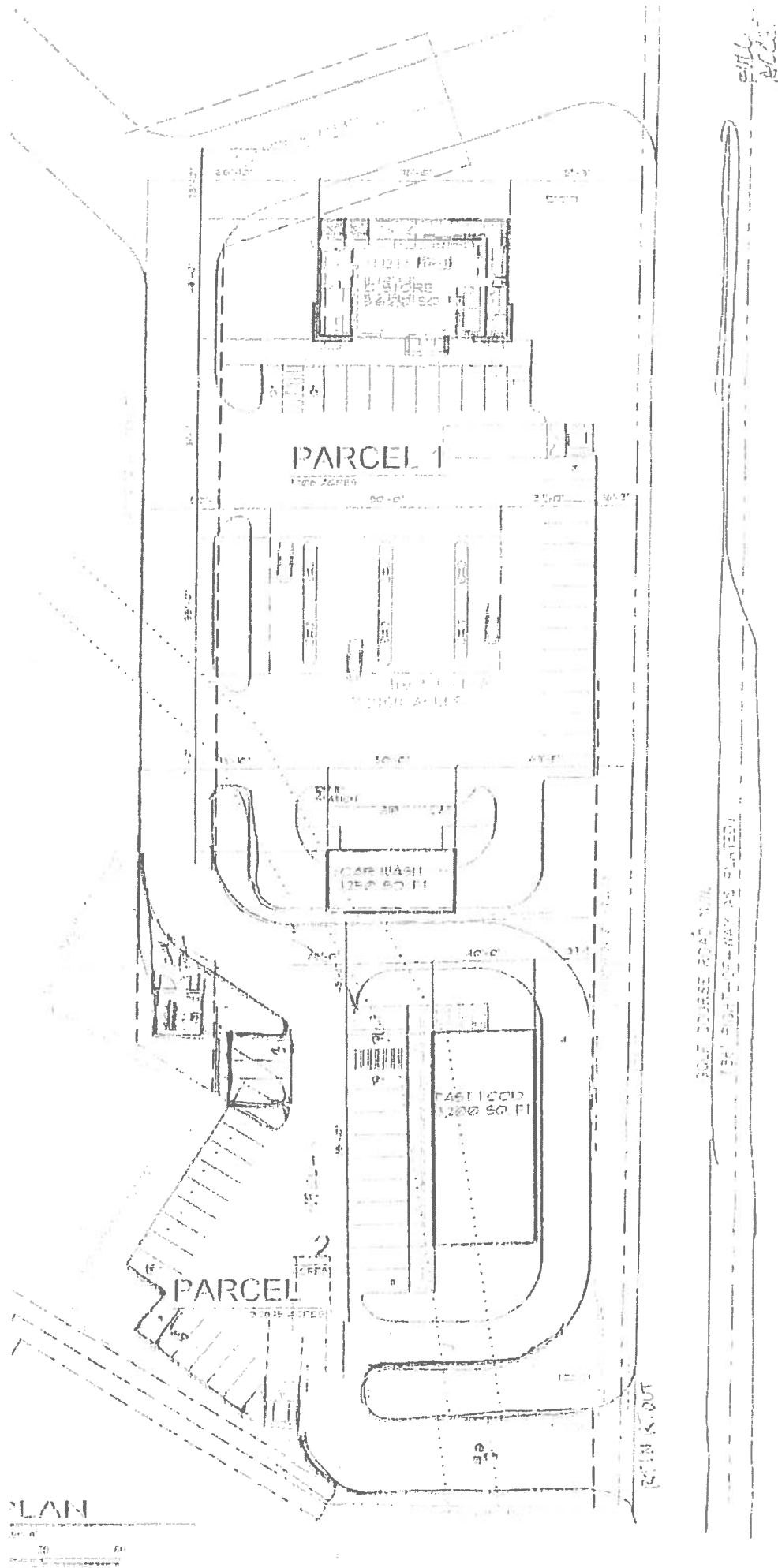
Figure 1: A . Site Plan

WESTSIDE



**MASTER SITE DEVELOPMENT PLAN (CONCEPTUAL)**





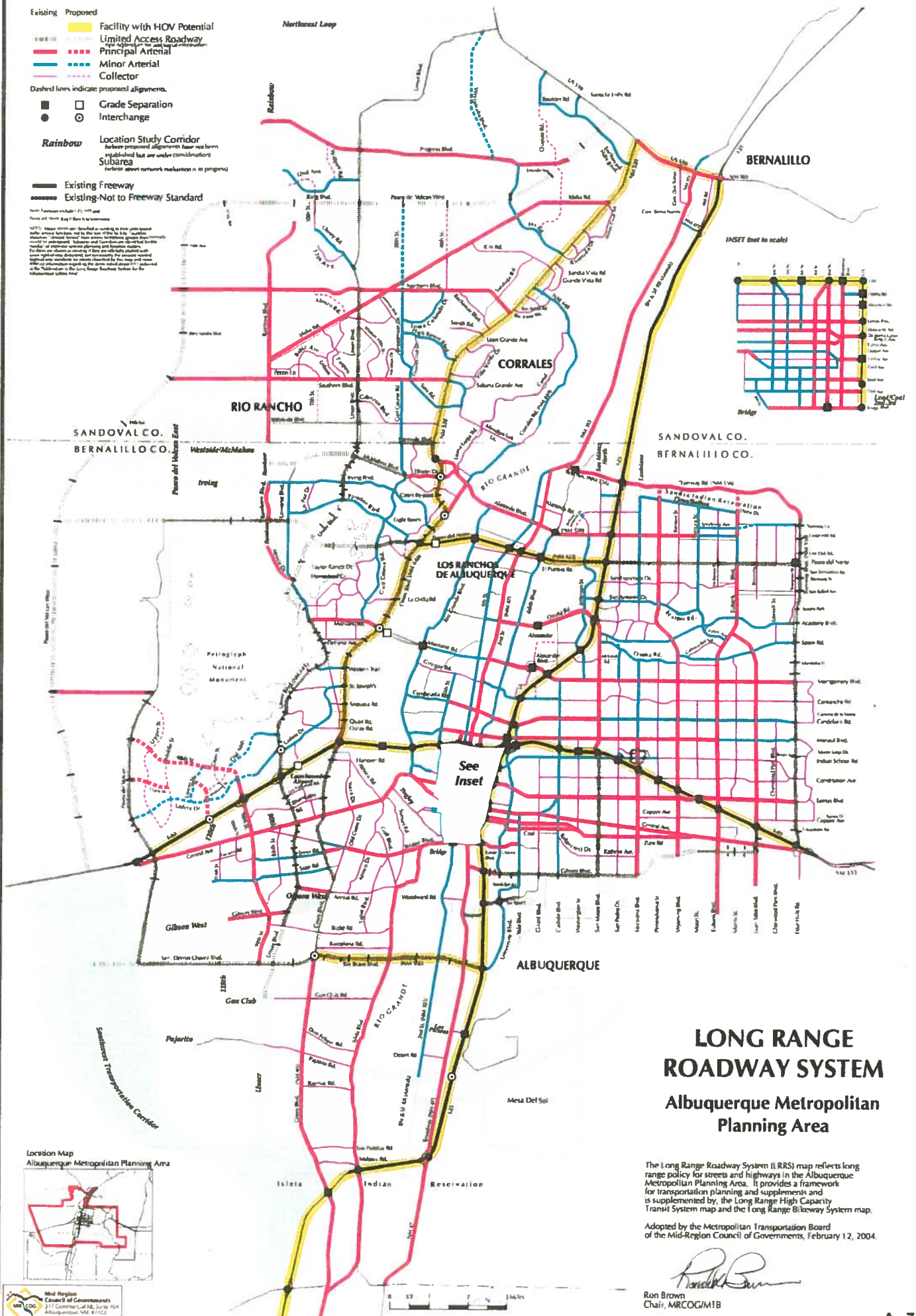
PLAN  
 1" = 50'  
 1" = 100'





- Existing Proposed
- Facility with HOV Potential  
 Limited Access Roadway  
 Principal Arterial  
 Minor Arterial  
 Collector
- Dashed lines indicate proposed alignments.
- Grade Separation  
 Interchange
- Rainbow** Location Study Corridor  
 between proposed alignments have been established but are under consideration  
 Subarea  
 between street network mechanism is in progress
- Existing Freeway  
 Existing-Not to Freeway Standard

NOTES: Major streets are based on existing or proposed alignments. Minor streets are based on existing or proposed alignments. The map shows the existing and proposed alignments for the Long Range Roadway System. The map also shows the existing and proposed alignments for the Long Range High Capacity Transit System map and the Long Range Bikeway System map.



## LONG RANGE ROADWAY SYSTEM

### Albuquerque Metropolitan Planning Area

The Long Range Roadway System (LRRS) map reflects long range policy for streets and highways in the Albuquerque Metropolitan Planning Area. It provides a framework for transportation planning and supplements and is supplemented by the Long Range High Capacity Transit System map and the Long Range Bikeway System map.

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

Ron Brown  
Chair, MRCOG/MTB

*Westside / Golf Course Rd. Commercial Development*  
**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					
Chavez Tract		Shopping Center (820)	50.00	4,328	63	40	191	207
Chavez Tract		High Turnover (Sit-Down) Restaurant (932)	10.00	1,272	60	55	67	43
Chavez Tract		Fast Food Restaurant w/ Drive-Thru Window (934)	3.50	1,736	95	91	63	58
Chavez Tract		Specialty Retail Center (814)	31.90	1,402	120	152	43	55
Concept One Tract		Shopping Center (820)	50.50	4,356	63	41	192	208
Concept One Tract		High Turnover (Sit-Down) Restaurant (932)	15.00	1,907	90	83	100	64
Concept One Tract		Fast Food Restaurant w/o Drive-Thru Window (933)	5.00	3,580	132	88	67	64
Concept One Tract		Specialty Retail Center (814)	10.00	465	72	92	20	25
Sherman/Brody Tract		Gasoline / Service Station w/ Convenience Market (945)	12.00	1,953	60	60	80	80
Sherman/Brody Tract		Fast Food Restaurant w/ Drive-Thru Window (934)	3.40	1,687	92	88	61	57
Medical Tract		Medical-Dental Office Building (720)	50.00	1,830	98	26	45	121
Subtotal				24,516	945	816	929	982
Subtotal Commercial Trips							884	861
Pass-by Trip Reduction			30%	-	-	-	(279)	(258)
Net New Trips to Transportation System				24,516	945	816	650	724



# Westside / Golf Course Rd. Commercial Development Trip Generation Data

USE (ITE CODE)	24 HOUR TWO-WAY VOLUME	A.M. PEAK HOUR		P.M. PEAK HOUR	
		ENTER	EXIT	ENTER	EXIT
Shopping Center (820)					
Units					
		50.00			
		4,328	63	40	191
				207	
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:

Chavez Tract

Based on ITE Trip Generation Manual - 7th Edition

# *Westside / Golf Course Rd. Commercial Development* *Trip Generation Data*

USE (ITE CODE)	24 HOUR TWO-WAY VOLUME	A.M. PEAK HOUR		P.M. PEAK HOUR	
	GROSS	ENTER	EXIT	ENTER	EXIT
Units					
10.00					
1,000 S.F.					
High Turnover (Sit-Down) Restaurant (932)					
	1,272	60	55	67	43

## 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:

Chavez Tract

Based on ITE Trip Generation Manual - 7th Edition

# Westside / Golf Course Rd. Commercial Development Trip Generation Data

USE (ITE CODE)	24 HOUR TWO-WAY VOLUME	A.M. PEAK HOUR		P.M. PEAK HOUR		
		ENTER	EXIT	ENTER	EXIT	
Units						
		1,736	95	91	63	58
		3.50				
		1,000 S.F.				

Fast Food Restaurant w/ Drive-Thru Window (934)

## ITE Trip Generation Equations:

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

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

50% Enter, 50% Exit

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

$$T = 53.11 (X) + 0$$

51% Enter, 49% Exit

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

$$T = 34.64 (X) + 0$$

52% Enter, 48% Exit

Comments:  
Chavez Tract

Based on ITE Trip Generation Manual - 7th Edition



# Westside / Golf Course Rd. Commercial Development Trip Generation Data

USE (ITE CODE)	24 HOUR TWO-WAY VOLUME		A.M. PEAK HOUR		P.M. PEAK HOUR	
	GROSS	ENTER	EXIT	ENTER	EXIT	EXIT
Specialty Retail Center (814)						
Units						
	31.90	120	152	43	55	
1,000 S.F.						

## ITE Trip Generation Equations:

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

$$T = 50\% \text{ Enter, } 42.78 (X) + 37.66 \text{ Exit}$$

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

$$T = 44\% \text{ Enter, } 4.9 (X) + 115.59 \text{ Exit}$$

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

$$T = 44\% \text{ Enter, } 2.4 (X) + 21.48 \text{ Exit}$$

Comments:

Chavez Tract

Based on ITE Trip Generation Manual - 7th Edition

## *Westside / Golf Course Rd. Commercial Development*

### *Trip Generation Data*

USE (ITE CODE)	24 HOUR TWO-WAY VOLUME	A.M. PEAK HOUR		P.M. PEAK HOUR	
		ENTER	EXIT	ENTER	EXIT
Units					
		15.00			
		1,907	90	83	100
		64			
1,000 S.F.					
High Turnover (Sit-Down) Restaurant (932)					

#### 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:  
Concept One Tract

Based on ITE Trip Generation Manual - 7th Edition

# *Westside / Golf Course Rd. Commercial Development* *Trip Generation Data*

USE (ITE CODE)	24 HOUR TWO-WAY VOLUME	A.M. PEAK HOUR		P.M. PEAK HOUR		
		ENTER	EXIT	ENTER	EXIT	
Units						
		GROSS	ENTER	EXIT	ENTER	EXIT

## ITE Trip Generation Equations:

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

$$T = \frac{716 (X) + 0}{50\% \text{ Enter, } 50\% \text{ Exit}}$$

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

$$T = \frac{43.87 (X) + 0}{60\% \text{ Enter, } 40\% \text{ Exit}}$$

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

$$T = \frac{26.15 (X) + 0}{51\% \text{ Enter, } 49\% \text{ Exit}}$$

Comments:  
 Concept One Tract

Based on ITE Trip Generation Manual - 7th Edition

# Westside / Golf Course Rd. Commercial Development Trip Generation Data

USE (ITE CODE)	24 HOUR TWO-WAY VOLUME	A.M. PEAK HOUR		P.M. PEAK HOUR	
	GROSS	ENTER	EXIT	ENTER	EXIT
Specialty Retail Center (814)					
Units					
10.00					
1,000 S.F.					
	465	72	92	20	25

## ITE Trip Generation Equations:

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

$$T = \frac{42.78 (X) + 37.66}{50\% \text{ Enter, } 50\% \text{ Exit}}$$

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

$$T = \frac{4.9 (X) + 115.59}{44\% \text{ Enter, } 56\% \text{ Exit}}$$

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

$$T = \frac{2.4 (X) + 21.48}{44\% \text{ Enter, } 56\% \text{ Exit}}$$

Comments:  
Concept One Tract

Based on ITE Trip Generation Manual - 7th Edition

# *Westside / Golf Course Rd. Commercial Development* *Trip Generation Data*

USE (ITE CODE)	24 HOUR TWO-WAY VOLUME	A.M. PEAK HOUR		P.M. PEAK HOUR		
		ENTER	EXIT	ENTER	EXIT	
Units						
		1,953	60	60	80	80
Gasoline / Service Station w/ Convenience Market (945)						
Fueling Positions						

## ITE Trip Generation Equations:

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

$$T = 162.78 (X) + 0$$

50% Enter, 50% Exit

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

$$T = 10.06 (X) + 0$$

50% Enter, 50% Exit

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

$$T = 13.38 (X) + 0$$

50% Enter, 50% Exit

Comments:  
 Sherman/Brady Tract

Based on ITE Trip Generation Manual - 7th Edition

# *Westside / Golf Course Rd. Commercial Development* *Trip Generation Data*

USE (ITE CODE)	24 HOUR TWO-WAY VOLUME	A.M. PEAK HOUR		P.M. PEAK HOUR		
		ENTER	EXIT	ENTER	EXIT	
Fast Food Restaurant w/ Drive-Thru Window (934)						
Units						
3.40						
1,000 S.F.						
	GROSS	ENTER	EXIT	ENTER	EXIT	
	1,687	92	88	61	57	

## ITE Trip Generation Equations:

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

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

50% Enter, 50% Exit

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

$$T = 53.11 (X) + 0$$

51% Enter, 49% Exit

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

$$T = 34.64 (X) + 0$$

52% Enter, 48% Exit

Comments:  
 Sherman/Brady Tract

Based on ITE Trip Generation Manual - 7th Edition

# *Westside / Golf Course Rd. Commercial Development* *Trip Generation Data*

USE (ITE CODE)	24 HOUR TWO-WAY VOLUME	A.M. PEAK HOUR		P.M. PEAK HOUR	
	GROSS	ENTER	EXIT	ENTER	EXIT
Units					
	50.00	98	26	45	121
1,000 S.F.					

**Medical-Dental Office Building (720)**

## ITE Trip Generation Equations:

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

$$T = \begin{matrix} 40.89 & (X) + \\ 50\% & \text{Enter,} \end{matrix} \quad \begin{matrix} -214.97 \\ 50\% & \text{Exit} \end{matrix}$$

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

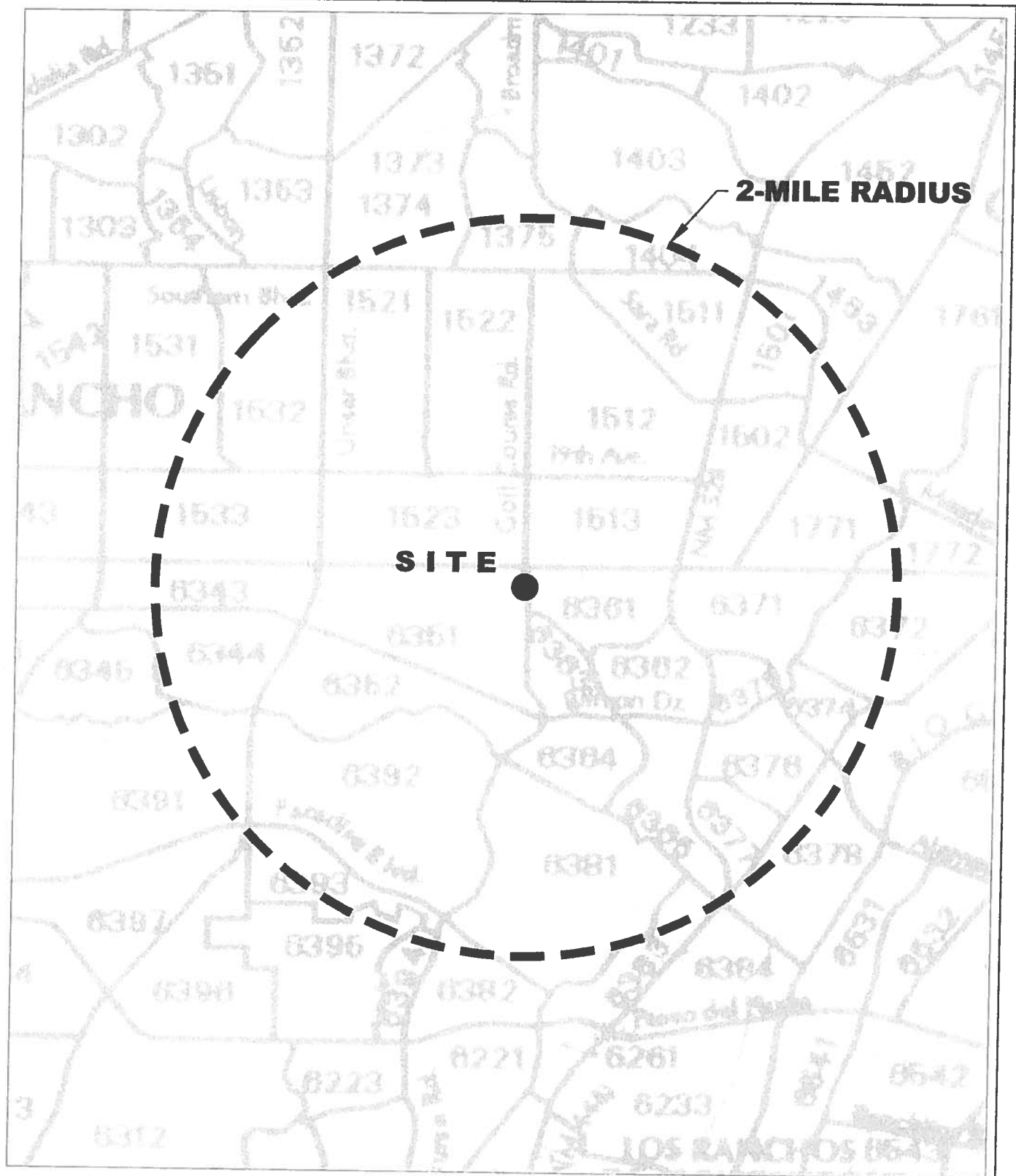
$$T = \begin{matrix} 2.48 & (X) + \\ 79\% & \text{Enter,} \end{matrix} \quad \begin{matrix} 0 \\ 21\% & \text{Exit} \end{matrix}$$

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

$$\ln(T) = \begin{matrix} 0.93 & \ln(X) + \\ 27\% & \text{Enter,} \end{matrix} \quad \begin{matrix} 1.47 \\ 73\% & \text{Exit} \end{matrix}$$

Comments:  
Medical Tract

Based on ITE Trip Generation Manual - 7th Edition



**DATA ANALYSIS SUBZONE (DASZ) MAP**  
**Westside Blvd / Golf Course Rd Comm. Dev.**



# **Trip Distribution Table**

Westside / Golf Course Comm. Dev.

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 Delta Analysis Subzones for the Mid-Region of New Mexico (S-03-01)

DASZ #	% Sub Area in Study	2000 Population		2025 Population	Interpolated Population for the Year 2012	Population In Study	Percent Population	(UN)			(GN)			(5N)		
		2000						% Utilizing	% Population Utilizing	Population	% Utilizing	% Population Utilizing	Population	% Utilizing	% Population Utilizing	
Boundary Specified on DASZ Map																
1374	15%	3384	3288	3,338	501	1.52%	100%	1.52%	501	0%	0.00%	0	0%	0.00%	0	
1376	40%	1185	1679	1,422	589	1.73%	0%	0.00%	0	100%	1.73%	589	0%	0.00%	0	
1404	45%	1198	1522	1,354	609	1.85%	0%	0.00%	0	85%	1.57%	518	15%	0.28%	91	
1501	75%	170	638	385	286	0.90%	0%	0.00%	0	0%	0.00%	0	100%	0.90%	286	
1502	100%	0	52	25	25	0.08%	0%	0.00%	0	0%	0.00%	0	0%	0.04%	13	
1511	100%	914	893	904	904	2.75%	0%	0.00%	0	0%	0.00%	0	100%	2.75%	904	
1512	100%	1966	1931	1,949	1,949	5.93%	0%	0.00%	0	50%	2.96%	975	50%	2.96%	975	
1513	100%	964	950	957	957	2.91%	0%	0.00%	0	50%	1.45%	479	50%	1.45%	479	
1521	100%	0	1312	630	630	1.92%	100%	1.92%	630	0%	0.00%	0	0%	0.00%	0	
1522	100%	39	600	308	308	0.94%	0%	0.00%	0	100%	0.94%	308	0%	0.00%	0	
1523	100%	9	235	117	117	0.36%	50%	0.18%	59	50%	0.18%	59	0%	0.00%	0	
1531	10%	255	650	445	45	0.14%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	
1532	75%	164	598	372	279	0.85%	50%	0.42%	140	0%	0.00%	0	0%	0.00%	0	
1533	80%	0	192	92	74	0.22%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	
1771	95%	552	554	553	525	1.60%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	
1772	10%	147	249	186	20	0.08%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	
6343	80%	0	2216	1,064	851	2.89%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	
6344	90%	631	1736	1,161	1,045	3.18%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	
6351	100%	615	4082	2,279	2,279	6.93%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	
6352	100%	2016	3080	2,527	2,527	7.88%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	
6361	100%	880	1429	1,144	1,144	3.48%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	
6362	100%	1668	4791	3,167	3,167	9.53%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	
6363	100%	759	730	745	745	2.28%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	
6364	100%	1025	1280	1,147	1,147	3.49%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	
6365	100%	1376	1334	1,356	1,356	4.12%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	
6371	100%	389	372	381	381	1.16%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	
6372	45%	325	327	326	147	0.45%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	
6374	100%	1106	1047	1,078	1,078	3.28%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	
6375	100%	0	0	0	0	0.00%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	
6376	100%	2	2	2	2	0.01%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	
6377	100%	0	0	0	0	0.00%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	
6378	15%	245	266	255	38	0.12%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	
6381	90%	3454	5850	4,604	4,144	12.60%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	
6382	5%	770	1298	1,023	51	0.16%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	
6383	20%	647	1413	1,015	203	0.62%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	
6391	15%	2565	5511	3,979	597	1.81%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	
6392	100%	3643	3472	3,561	3,561	10.83%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	
6393	75%	574	1035	795	586	1.81%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	
6394	5%	399	652	520	26	0.08%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	
6395	5%	0	0	0	0	0.00%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	
						32,893	100.00%	0%	1,329	0%	0.00%	2,906	0%	0.00%	2,757	
						45,186			4.04%			8.84%		8.38%		

# **Trip Distribution Table**

Westside / Golf Course Comm. Dev.

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)

DASZ #	% Sub Area in Study	2000 Population		2025 Population		Interpolated Population for the Year 2012	Population in Study	Percent Population	(WE)			(SS)			(EE)		
		2000		2025					Westside Blvd East			NMSR 528 South			Ellison Blvd East		
									% Utilizing	% Population Utilizing	Population	% Utilizing	% Population Utilizing	Population	% Utilizing	% Population Utilizing	
Boundary Specified on DASZ Map																	
1374	15%	3384	3288	3338	501	1.52%	0	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	
1375	40%	1185	1679	1422	589	1.73%	0	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	
1404	45%	1198	1522	1354	608	1.85%	0	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	
1501	75%	170	638	395	298	0.90%	0	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	
1502	100%	0	52	25	25	0.08%	13	50%	0.04%	13	0%	0.00%	0	0%	0.00%	0	
1511	100%	914	893	904	904	2.76%	0	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	
1512	100%	1966	1931	1949	1949	5.93%	0	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	
1513	100%	964	950	957	957	2.91%	0	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	
1521	100%	0	1312	630	630	1.92%	0	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	
1522	100%	39	600	308	308	0.94%	0	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	
1523	100%	9	235	117	117	0.38%	0	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	
1531	10%	255	650	445	45	0.14%	0	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	
1532	75%	164	598	372	279	0.85%	0	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	
1533	80%	0	192	92	74	0.22%	0	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	
1771	95%	552	554	553	525	1.80%	525	100%	1.80%	525	0%	0.00%	0	0%	0.00%	0	
1772	10%	147	249	186	20	0.06%	20	100%	0.06%	20	0%	0.00%	0	0%	0.00%	0	
6343	80%	0	2216	1064	851	2.59%	0	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	
6344	90%	631	1736	1161	1045	3.18%	0	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	
6351	100%	615	4082	2279	2279	8.93%	0	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	
6352	100%	2016	3080	2527	2527	7.88%	0	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	
6361	100%	880	1429	1144	1144	3.48%	0	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	
6362	100%	1688	4791	3167	3167	9.83%	0	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	
6363	100%	759	730	745	745	2.28%	0	0%	0.00%	0	0%	0.00%	0	100%	9.83%	3,167	
6364	100%	1025	1280	1147	1147	3.49%	0	0%	0.00%	0	0%	0.00%	0	25%	0.57%	188	
6365	100%	1376	1334	1358	1358	4.12%	0	0%	0.00%	0	0%	0.00%	0	90%	3.14%	1,032	
6371	100%	389	372	381	381	1.16%	191	50%	0.58%	191	0%	0.00%	138	90%	3.71%	1,220	
6372	45%	325	326	326	147	0.45%	0	0%	0.00%	0	100%	0.45%	147	0%	0.00%	0	
6374	100%	1106	1047	1078	1,078	3.28%	0	0%	0.00%	0	100%	3.28%	1,078	0%	0.00%	0	
6375	100%	0	0	0	0	0.00%	0	0%	0.00%	0	100%	0.00%	0	0%	0.00%	0	
6376	100%	2	2	2	2	0.01%	0	0%	0.00%	0	50%	0.00%	1	0%	0.00%	0	
6377	100%	0	0	0	0	0.00%	0	0%	0.00%	0	0%	0.00%	0	50%	0.00%	1	
6378	15%	245	266	255	38	0.12%	0	0%	0.00%	0	0%	0.00%	0	100%	0.00%	0	
6381	90%	3454	5850	4,604	4,144	12.80%	0	0%	0.00%	0	50%	0.06%	19	50%	0.08%	19	
6382	5%	770	1298	1,023	51	0.16%	0	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	
6383	20%	647	1413	1,015	203	0.62%	0	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	
6391	15%	2565	5511	3,978	597	1.81%	0	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	
6392	100%	3643	3472	3,561	3,561	10.83%	0	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	
6393	75%	574	1035	795	596	1.81%	0	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	
6394	5%	399	652	520	26	0.08%	0	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	
6395	5%	0	0	0	0	0.00%	0	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	
							748	100.00%				0%	0.00%	0	0%	0.00%	0
							32,893					0%	0.00%	1,571	0%	0.00%	5,628
							45,186					0%	0.00%	4,796	0%	0.00%	17,106

# **Trip Distribution Table**

Westside / Golf Course Comm. Dev.

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)

DASZ #	% Sub Area in Study	2000 Population		2025 Population	Interpolated Population for the Year 2012	Population in Study	Percent Population	(GS)			(MW)			(US)		
		2000 Population						% Utilizing	% Population Utilizing	Population	% Utilizing	% Population Utilizing	Population	% Utilizing	% Population Utilizing	
Boundary Specified on DASZ Map																
1374	15%	3384	3288	3338	501	1.52%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	
1375	40%	1185	1679	1422	569	1.73%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	
1404	45%	1198	1522	1354	609	1.86%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	
1501	75%	170	638	395	298	0.90%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	
1502	100%	0	52	25	25	0.08%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	
1511	100%	914	893	904	904	2.75%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	
1512	100%	1966	1931	1949	1949	5.93%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	
1513	100%	964	950	957	957	2.81%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	
1521	100%	0	1312	630	630	1.92%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	
1522	100%	39	600	308	308	0.94%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	
1523	100%	9	235	117	117	0.38%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	
1531	10%	255	650	445	45	0.14%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	
1532	75%	164	598	372	279	0.85%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	
1533	80%	0	192	82	74	0.22%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	
1771	95%	552	554	553	525	1.60%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	
1772	10%	147	249	198	20	0.08%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	
6343	80%	0	2216	1064	851	2.59%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	
6344	90%	631	1736	1161	1045	3.18%	0%	0.00%	0	0%	0.00%	0	50%	1.29%	426	
6351	100%	615	4082	2279	2279	6.93%	0%	0.00%	0	0%	0.00%	0	100%	3.18%	1,045	
6362	100%	2016	3080	2527	2527	7.88%	0%	0.00%	0	100%	7.88%	2,527	0%	0.00%	0	
6361	100%	880	1429	1144	1144	3.48%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	
6362	100%	1688	4791	3167	3167	9.83%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	
6363	100%	759	730	745	745	2.28%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	
6364	100%	1025	1280	1147	1147	3.49%	10%	0.35%	115	0%	0.00%	0	0%	0.00%	0	
6365	100%	1376	1334	1356	1356	4.12%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	
6371	100%	389	372	381	381	1.16%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	
6372	45%	325	325	326	147	0.45%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	
6374	100%	1106	1047	1078	1,078	3.28%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	
6375	100%	0	0	0	0	0.00%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	
6376	100%	2	2	2	2	0.01%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	
6377	100%	0	0	0	0	0.00%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	
6378	15%	245	266	255	38	0.12%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	
6381	90%	3454	5850	4604	4,144	12.60%	100%	12.60%	4,144	0%	0.00%	0	0%	0.00%	0	
6382	5%	770	1298	1,023	51	0.16%	100%	0.16%	51	0%	0.00%	0	0%	0.00%	0	
6383	20%	647	1413	1,015	203	0.82%	100%	0.82%	203	0%	0.00%	0	0%	0.00%	0	
6391	15%	2565	5511	3,979	597	1.81%	50%	0.91%	289	0%	0.00%	0	0%	0.00%	0	
6392	100%	3643	3472	3,561	3,561	10.83%	50%	5.41%	1,781	0%	0.00%	0	50%	0.91%	289	
6393	75%	574	1035	785	596	1.81%	50%	0.91%	288	0%	0.00%	0	50%	0.91%	1,781	
6394	5%	399	652	520	26	0.08%	100%	0.08%	26	0%	0.00%	0	50%	0.91%	288	
6395	5%	0	0	0	0	0.00%	100%	0.00%	0	0%	0.00%	0	0%	0.00%	0	
						32,893	100.00%	6,916			3,211	9,76%			3,848	
								21.02%				11.70%				

### Trip Distribution Table

Westside / Golf Course Comm. Dev.

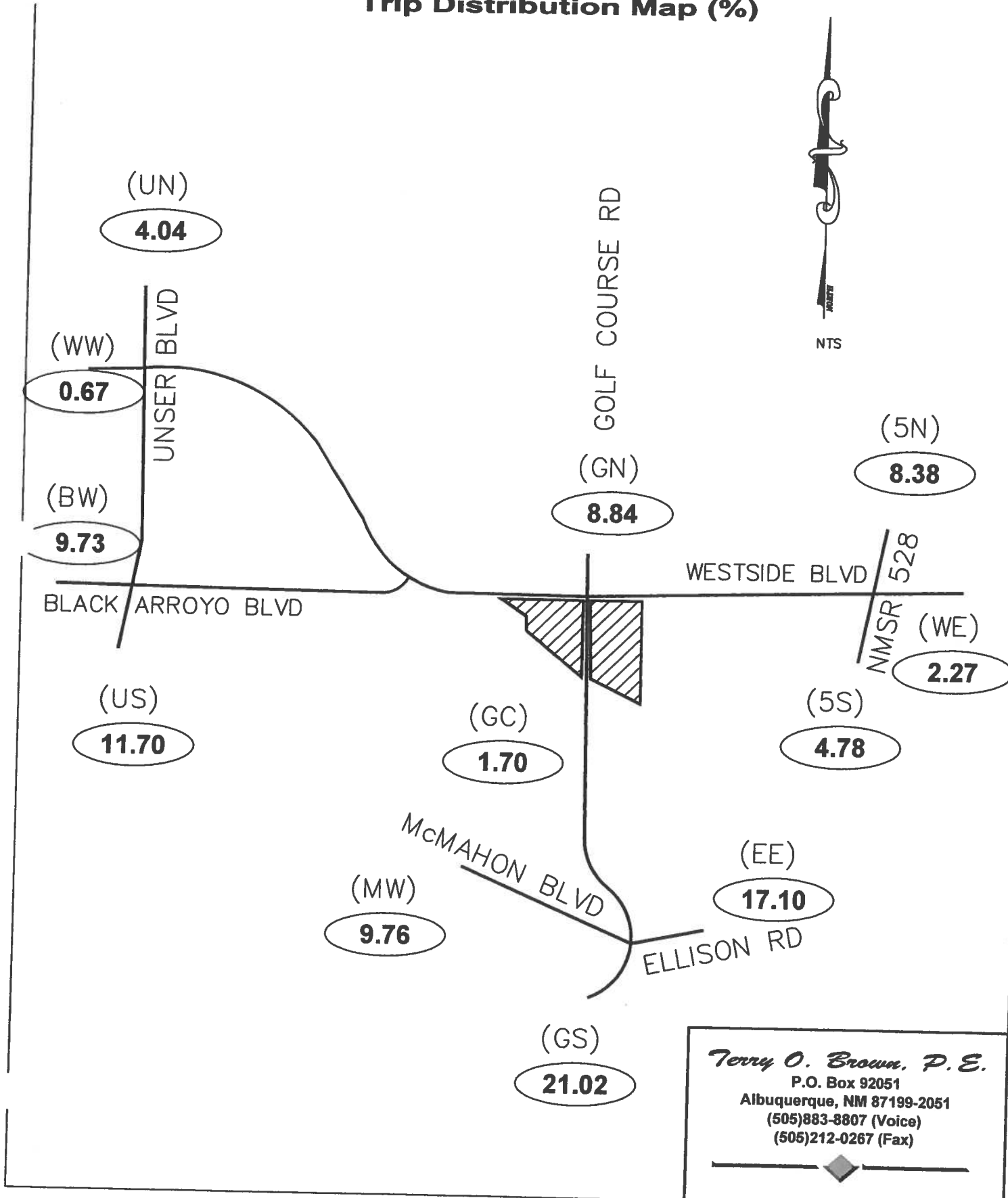
Data Analysis Subzone Population Data for determination of Local Trip Distribution for Proposed Retail Commercial Trips

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)

DASZ #	% Sub Area in Study	2000 Population		Interpolated Population for the Year 2012	Population In Study	Percent Population	(BW)			(GC)			(WW)		
		Black Arrow Blvd West					Golf Course Rd Central			Westside Blvd West					
		% Utilizing	% Population Utilizing				Population	% Utilizing	% Population Utilizing	Population	% Utilizing	% Population Utilizing	Population		
Boundary Specified on DASZ Map															
1374	15%	3384	3288	3,338	501	1.82%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
1375	40%	1185	1679	1,422	589	1.73%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
1404	45%	1198	1522	1,354	809	1.85%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
1501	75%	170	638	395	286	0.90%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
1502	100%	0	52	25	25	0.08%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
1511	100%	914	893	904	904	2.75%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
1512	100%	1966	1931	1,949	1,949	5.93%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
1513	100%	964	950	957	957	2.91%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
1521	100%	0	1312	630	630	1.92%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
1522	100%	39	600	308	308	0.94%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
1523	100%	9	235	117	117	0.36%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
1531	10%	255	650	445	45	0.14%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
1532	75%	164	598	372	279	0.85%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
1533	80%	0	192	92	74	0.22%	0%	0.00%	37	0%	0.00%	0	50%	0.11%	140
1771	95%	552	554	553	525	1.60%	0%	0.00%	0	0%	0.00%	0	50%	0.11%	37
1772	10%	147	249	198	20	0.08%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
6343	80%	0	2216	1,064	851	2.69%	50%	1.29%	428	0%	0.00%	0	0%	0.00%	0
6344	90%	631	1736	1,161	1,045	3.18%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
6351	100%	615	4082	2,279	2,279	6.93%	70%	4.85%	1,595	0%	0.00%	0	0%	0.00%	0
6362	100%	2016	3080	2,527	2,527	7.88%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
6361	100%	880	1429	1,144	1,144	3.48%	100%	3.48%	1,144	0%	0.00%	0	0%	0.00%	0
6362	100%	1668	4791	3,167	3,167	9.63%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
6363	100%	759	730	745	745	2.28%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
6364	100%	1025	1280	1,147	1,147	3.49%	0%	0.00%	0	75%	1.70%	559	0%	0.00%	0
6365	100%	1376	1334	1,358	1,358	4.12%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
6371	100%	389	372	381	381	1.16%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
6372	45%	325	327	326	147	0.45%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
6374	100%	1106	1047	1,078	1,078	3.28%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
6375	100%	0	0	0	0	0.00%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
6376	100%	2	2	2	2	0.01%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
6377	100%	0	0	0	0	0.00%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
6378	15%	245	266	255	38	0.12%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
6381	90%	3454	5850	4,604	4,144	12.60%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
6382	5%	770	1298	1,023	51	0.16%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
6383	20%	647	1413	1,015	203	0.82%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
6391	15%	2565	5511	3,979	597	1.81%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
6392	100%	3643	3472	3,561	3,561	10.83%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
6393	75%	574	1035	785	596	1.81%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
6394	5%	399	652	520	26	0.08%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
6395	5%	0	0	0	0	0.00%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
						100.00%	3,202			559			222		
							8.73%			1.70%			0.67%		

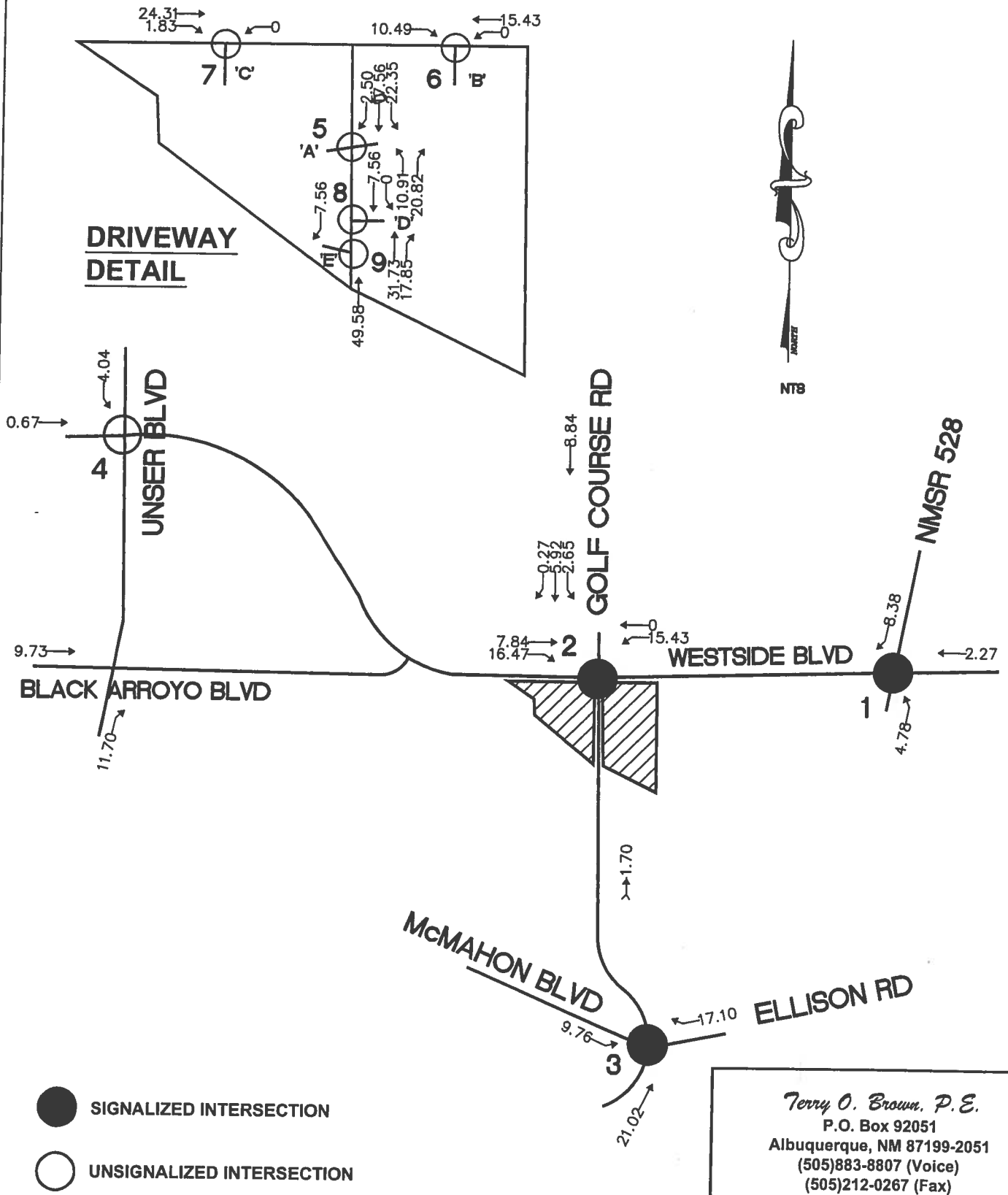
# *Westside / Golf Course Comm. Dev.*

## **Trip Distribution Map (%)**



# Westside / Golf Course Comm. Dev.

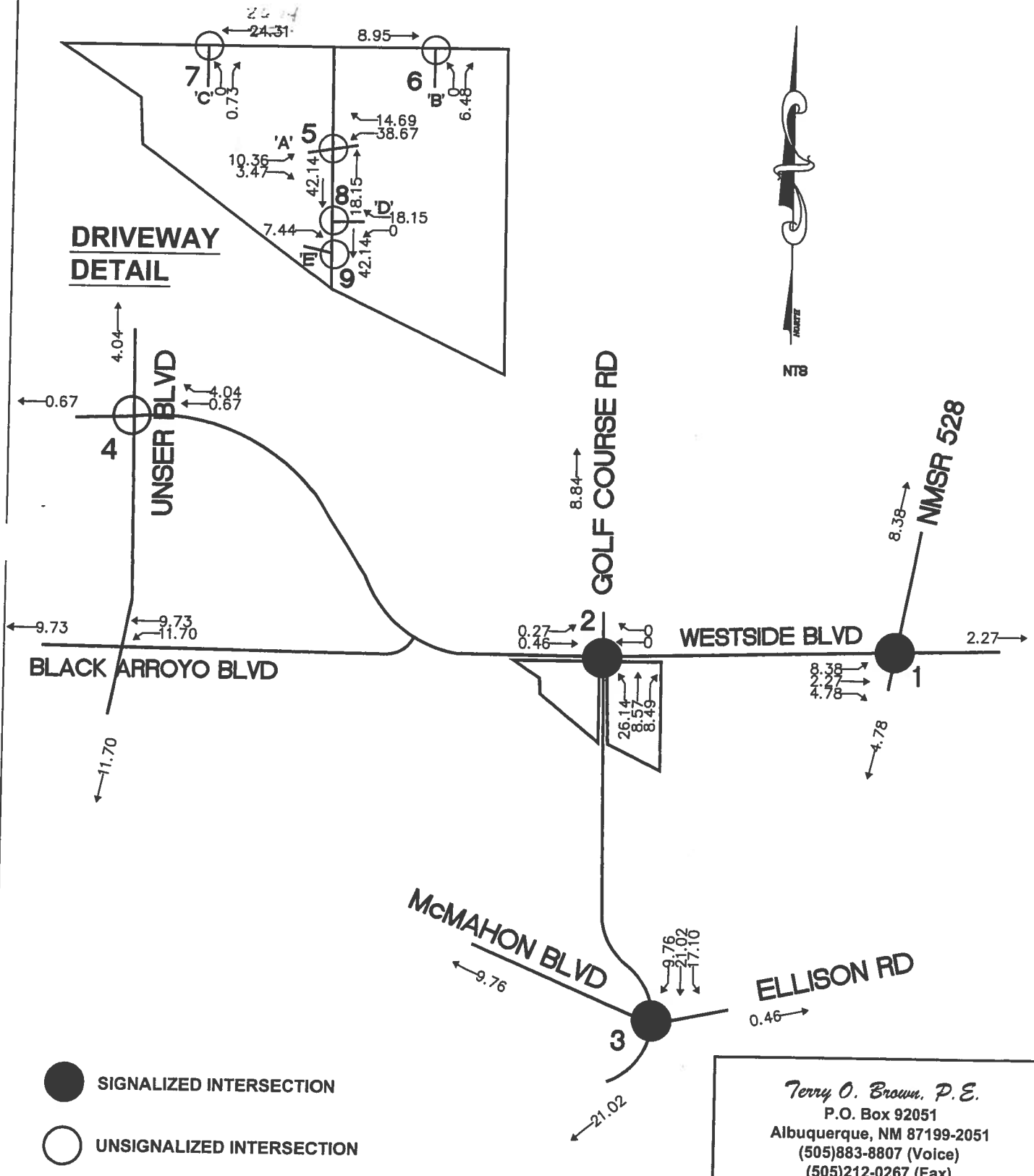
Trip Assignments (% Entering)  
Base Case - One Full Access Driveway



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Albuquerque, NM 87199-2051  
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(505)212-0267 (Fax)

# Westside / Golf Course Comm. Dev.

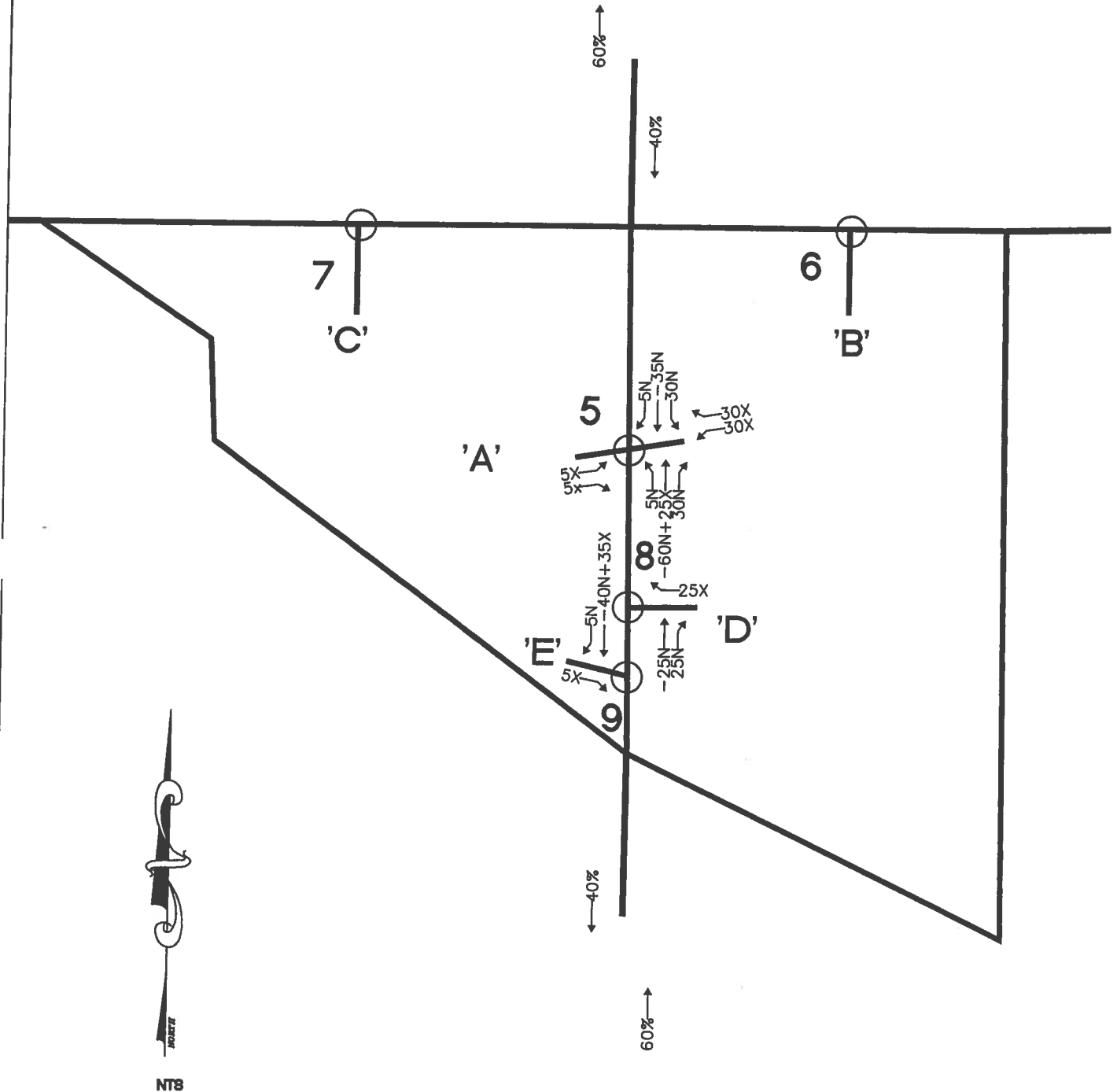
## Trip Assignments (% Exiting) Base Case - One Full Access Driveway



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# *Westside / Golf Course Comm. Dev.*

## Passby Trip Assignments (Base Case - One Full Access Driveway)



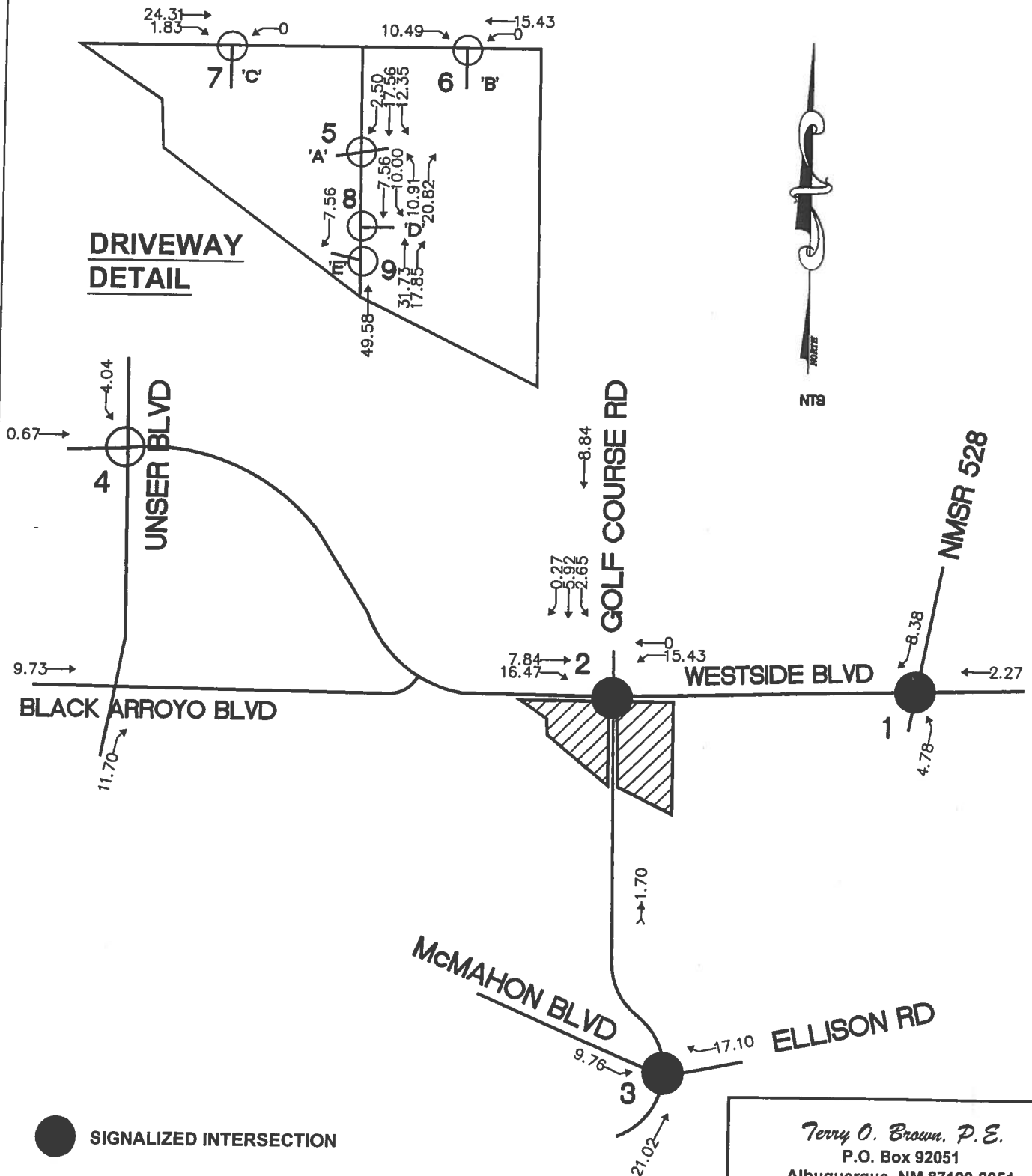
NTS

*Terry O. Brown, P.E.*  
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# Westside / Golf Course Comm. Dev.

## Trip Assignments (% Entering) Alternate Case - Two Full Access Driveways

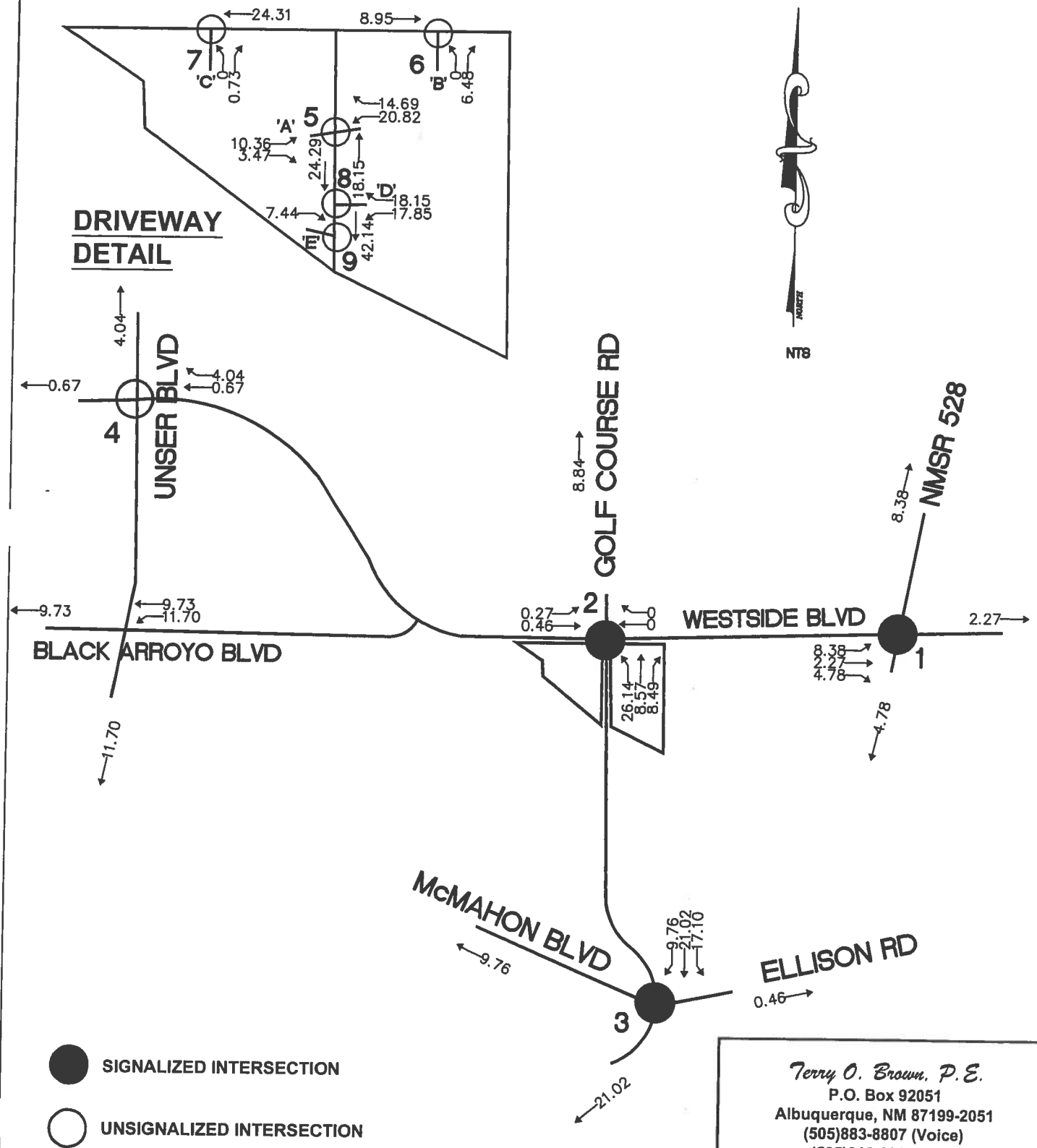


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# Westside / Golf Course Comm. Dev.

Trip Assignments (% Exiting)

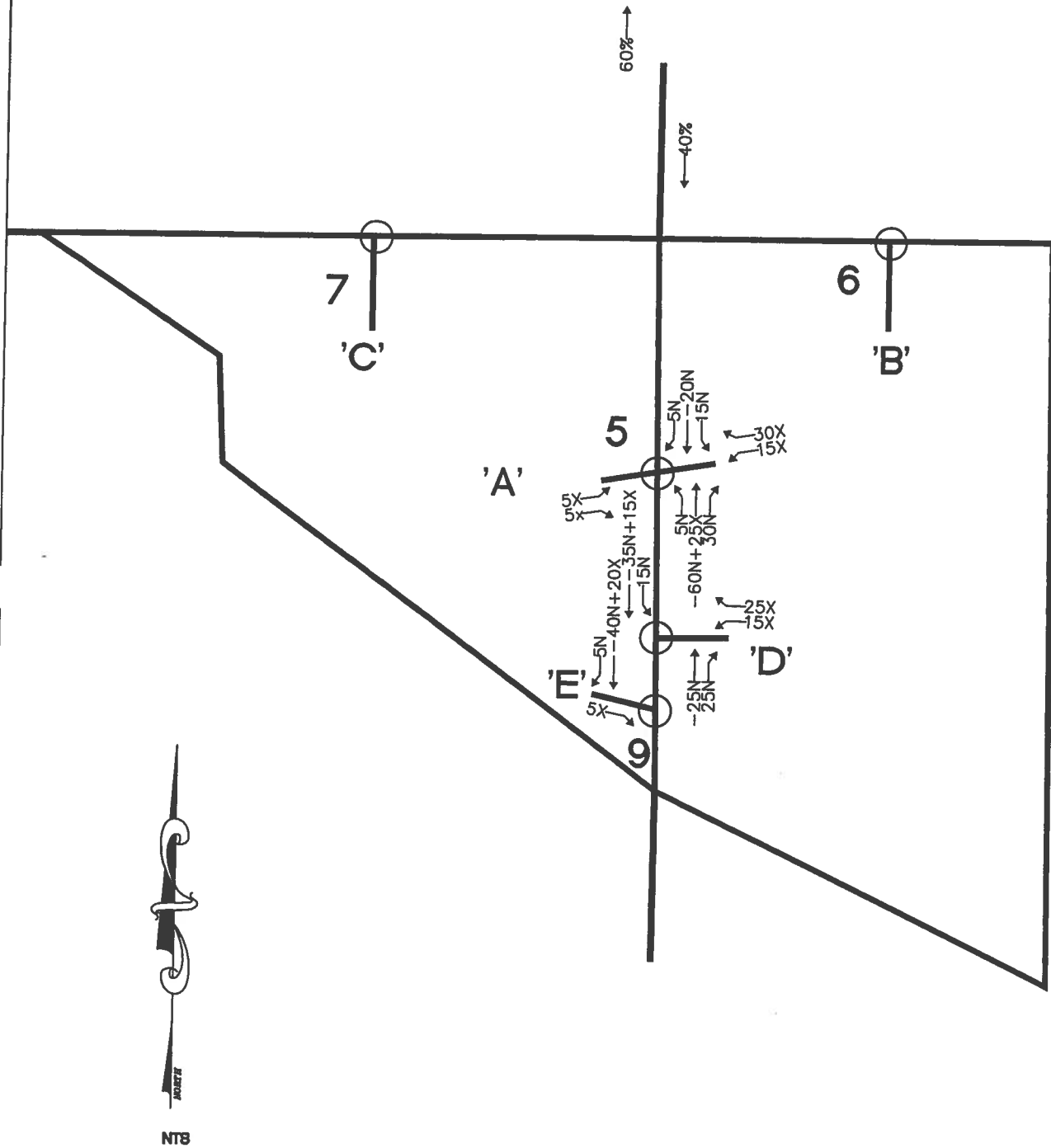
Alternate Case - Two Full Access Driveways



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# *Westside / Golf Course Comm. Dev.*

## Passby Trip Assignments (Alternate Case - Two Full Access Driveways)



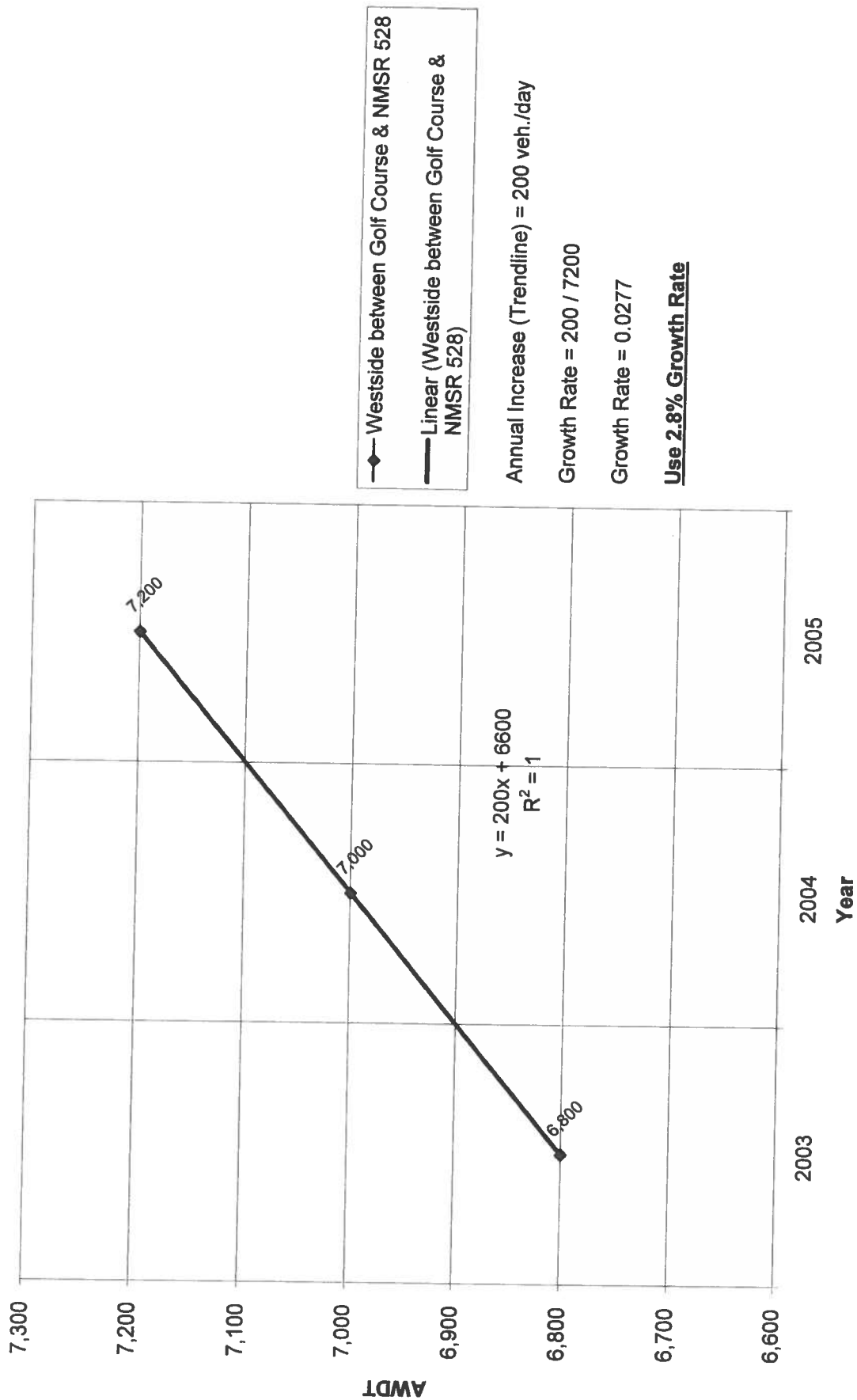
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**Westside / Golf Course Comm. Dev.**  
**Historic Growth Rate Table**

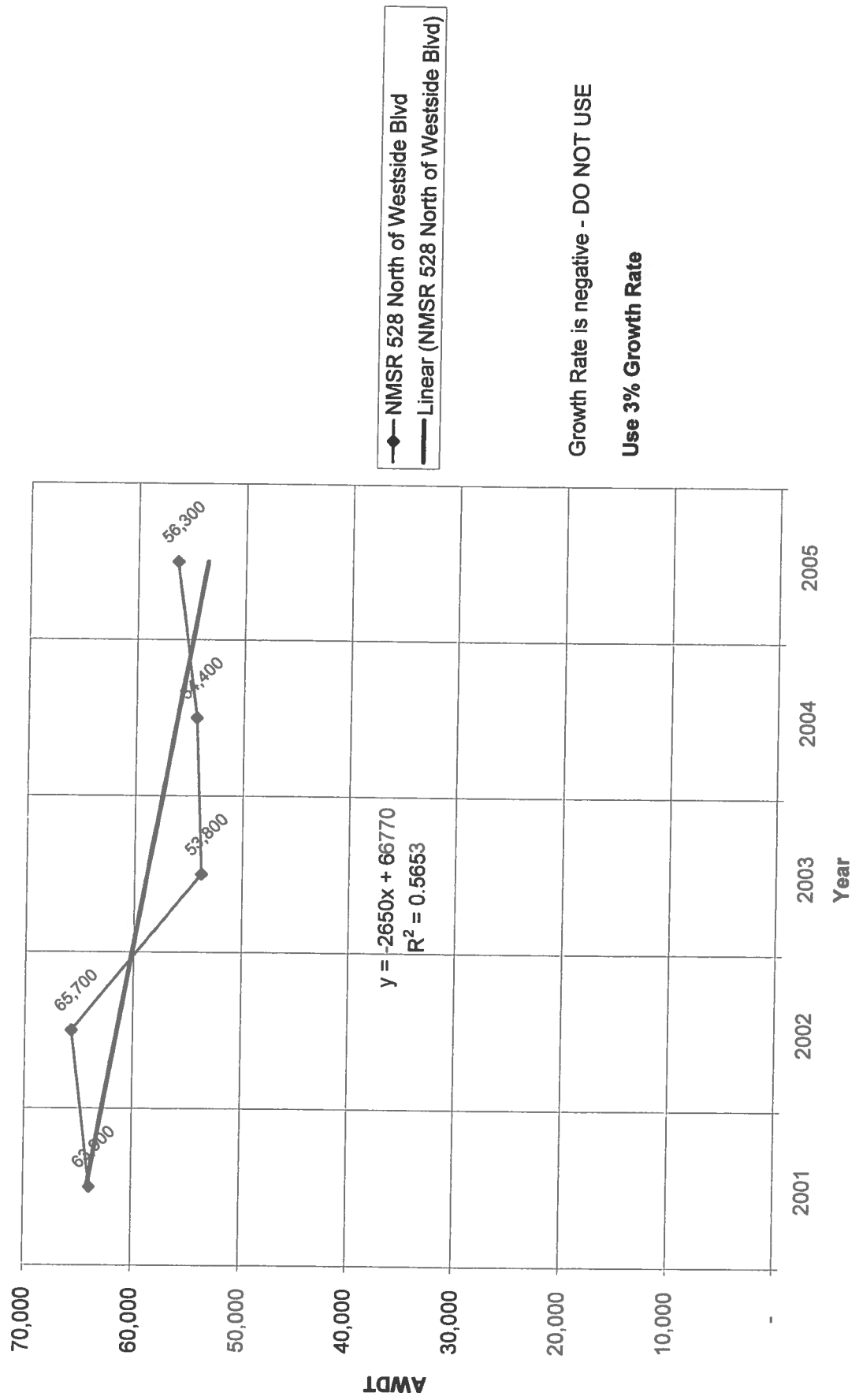
**Traffic Flows from MRCOG Map**

	2001	2002	2003	2004	2005
Unser Blvd North of Westside Blvd	16,500	16,100	23,200	24,000	24,900
Golf Course Rd North of Westside Blvd	21,100	21,700	13,500	14,000	14,500
Westside between Golf Course & NMSR 528	-	-	6,800	7,000	7,200
NMSR 528 North of Westside Blvd	63,900	65,700	53,800	54,400	56,300
NMSR 528 South of Westside Blvd	55,300	56,800	61,800	62,000	64,100
Golf Course between Westside & McMahon	12,400	12,700	13,000	13,400	11,500
McMahon Blvd East of Golf Course Rd	1,500	18,600	21,000	21,700	22,500
Golf Course Rd South of McMahon Blvd	23,100	23,800	24,300	25,200	23,000
McMahon Blvd West of Golf Course Rd	-	-	14,300	14,800	19,100
Unser Blvd South of Westside Blvd	15,300	15,800	16,100	17,200	17,800

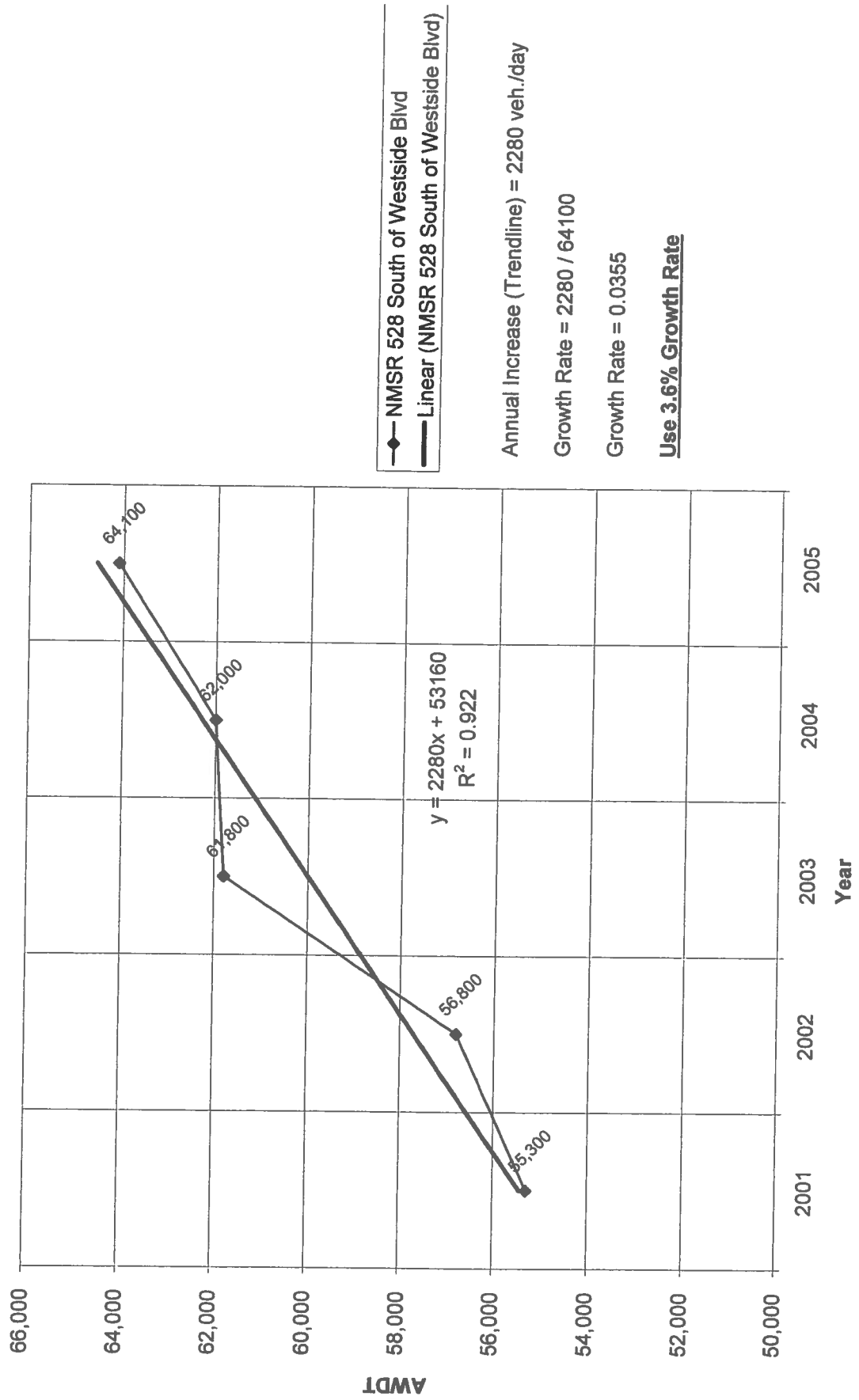
**Historic Growth Chart Westside between Golf Course & NMSR 528 (2003-2005)**



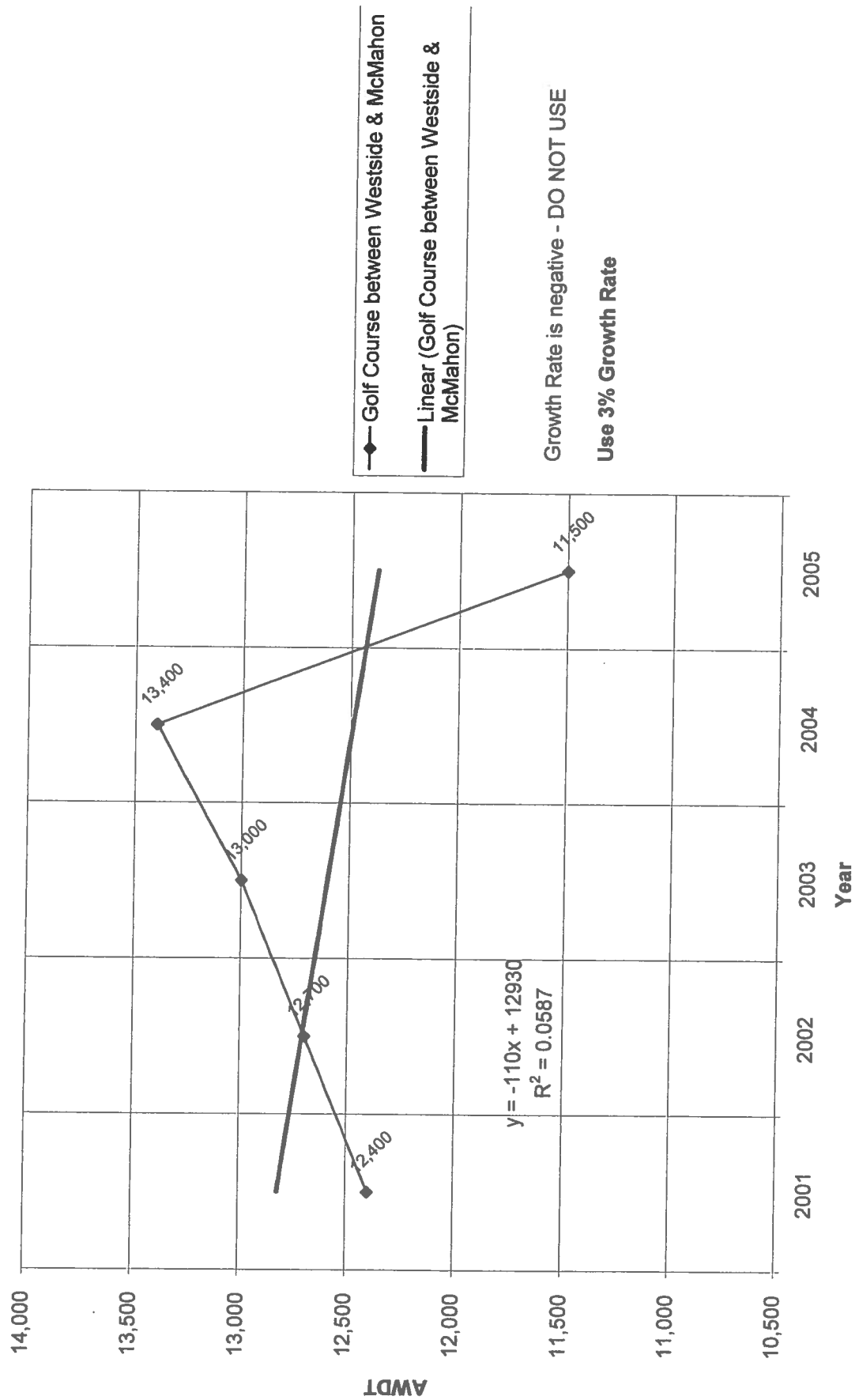
# Historic Growth Chart NMSR 528 North of Westside Blvd (2001-2005)



Historic Growth Chart NMSR 528 South of Westside Blvd (2001-2005)

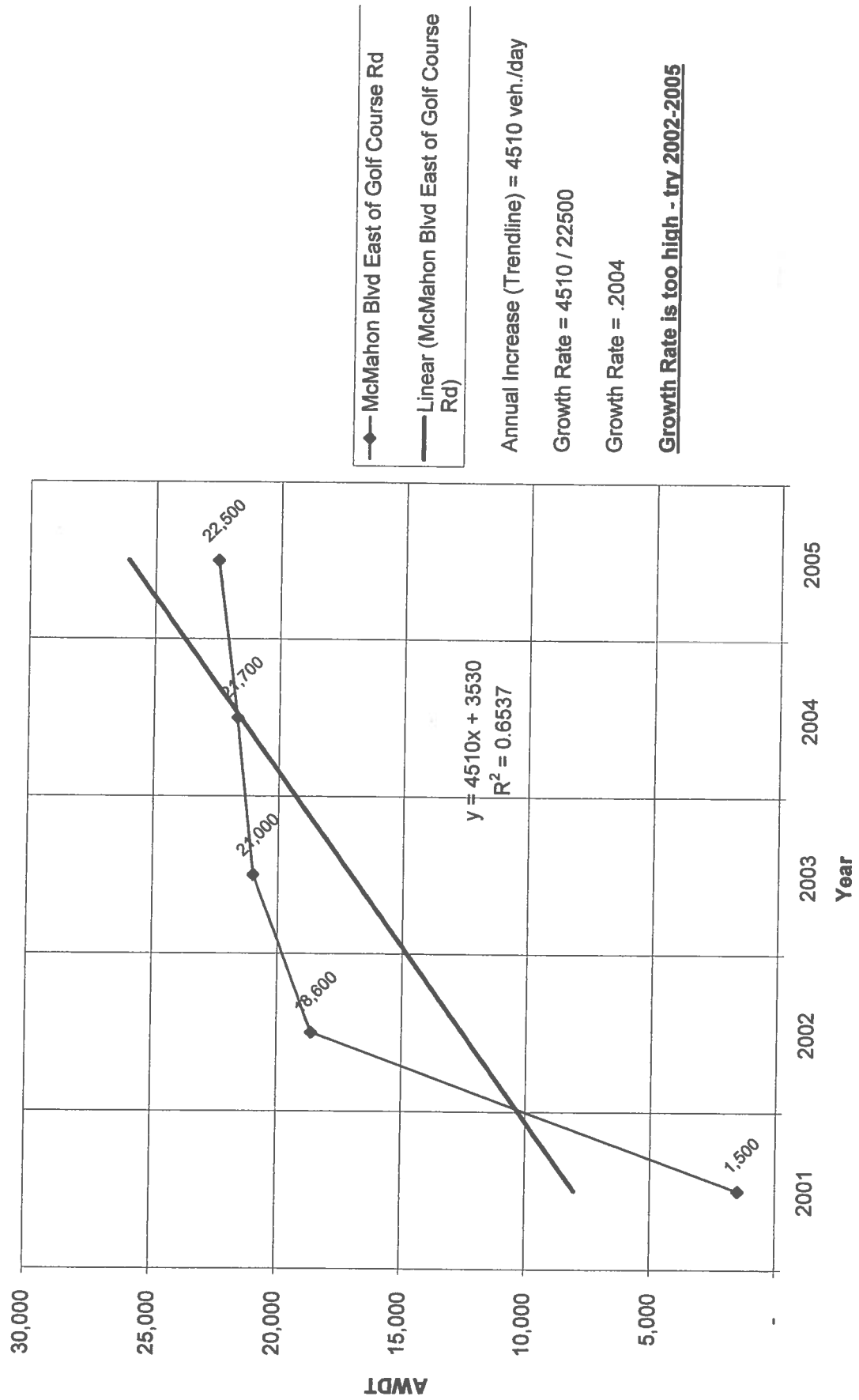


# Historic Growth Chart Golf Course between Westside & McMahon (2001-2005)

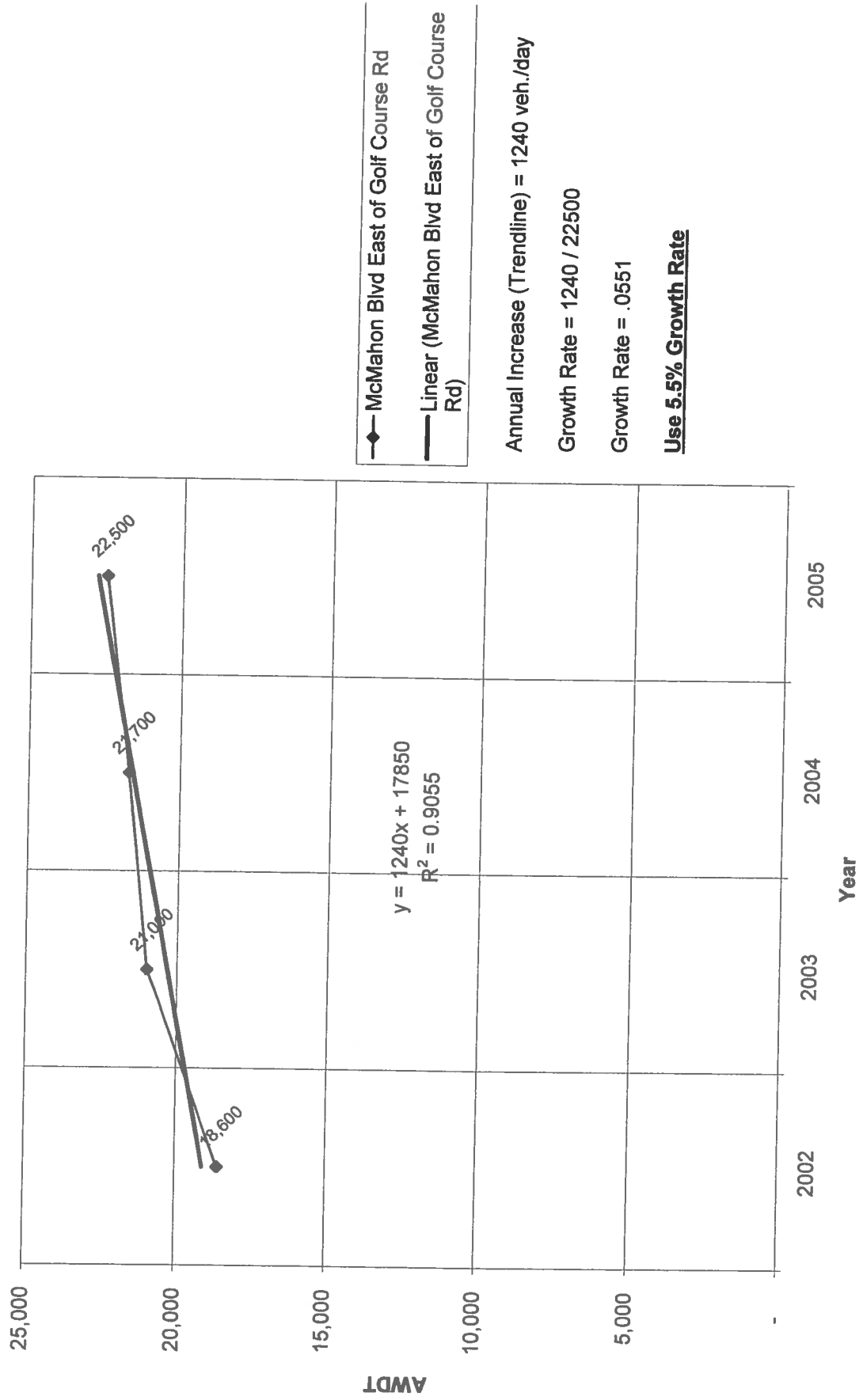




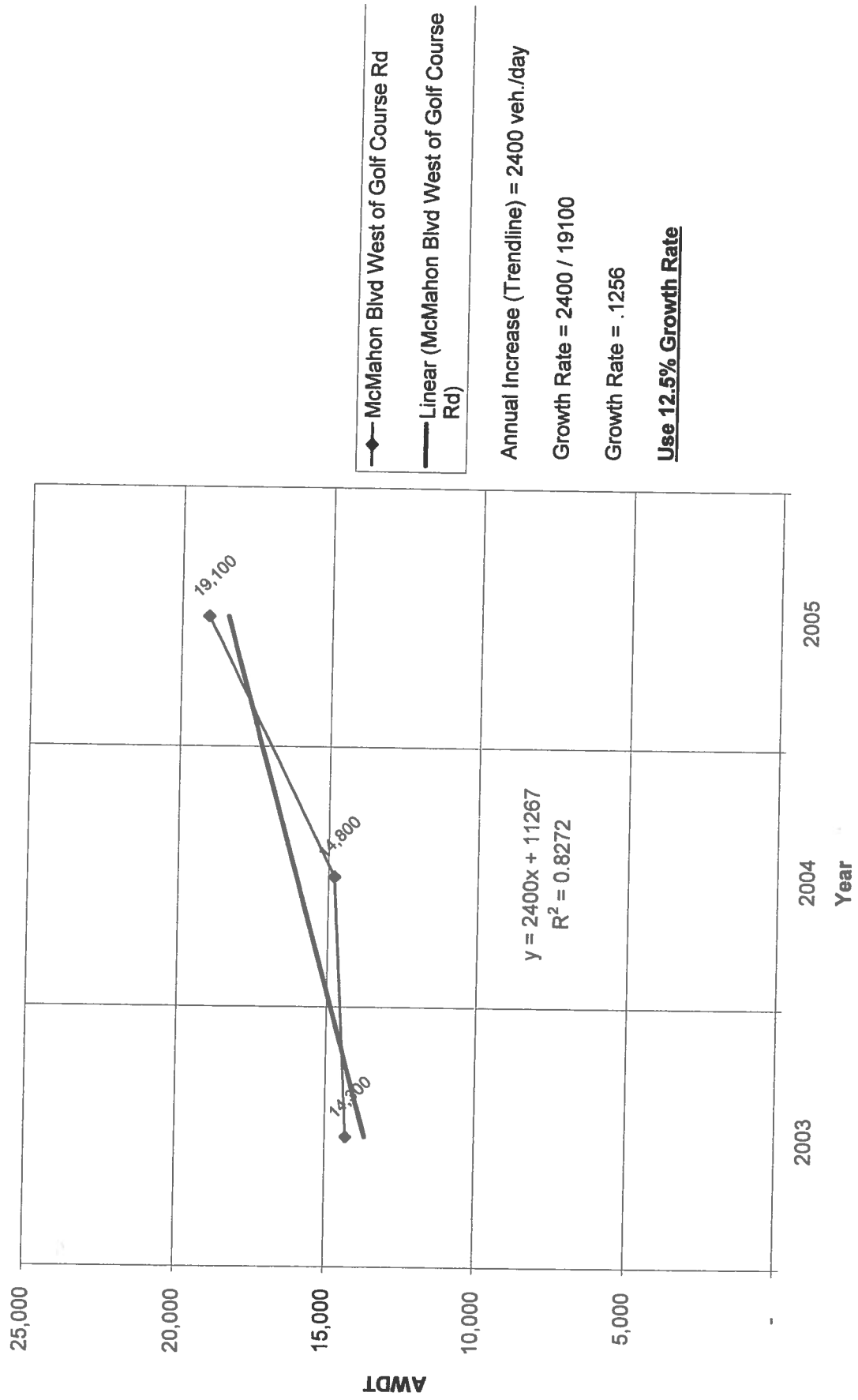
Historic Growth Chart McMahon Blvd East of Golf Course Rd (2001-2005)



# Historic Growth Chart McMahon Blvd East of Golf Course Rd (2002-2005)

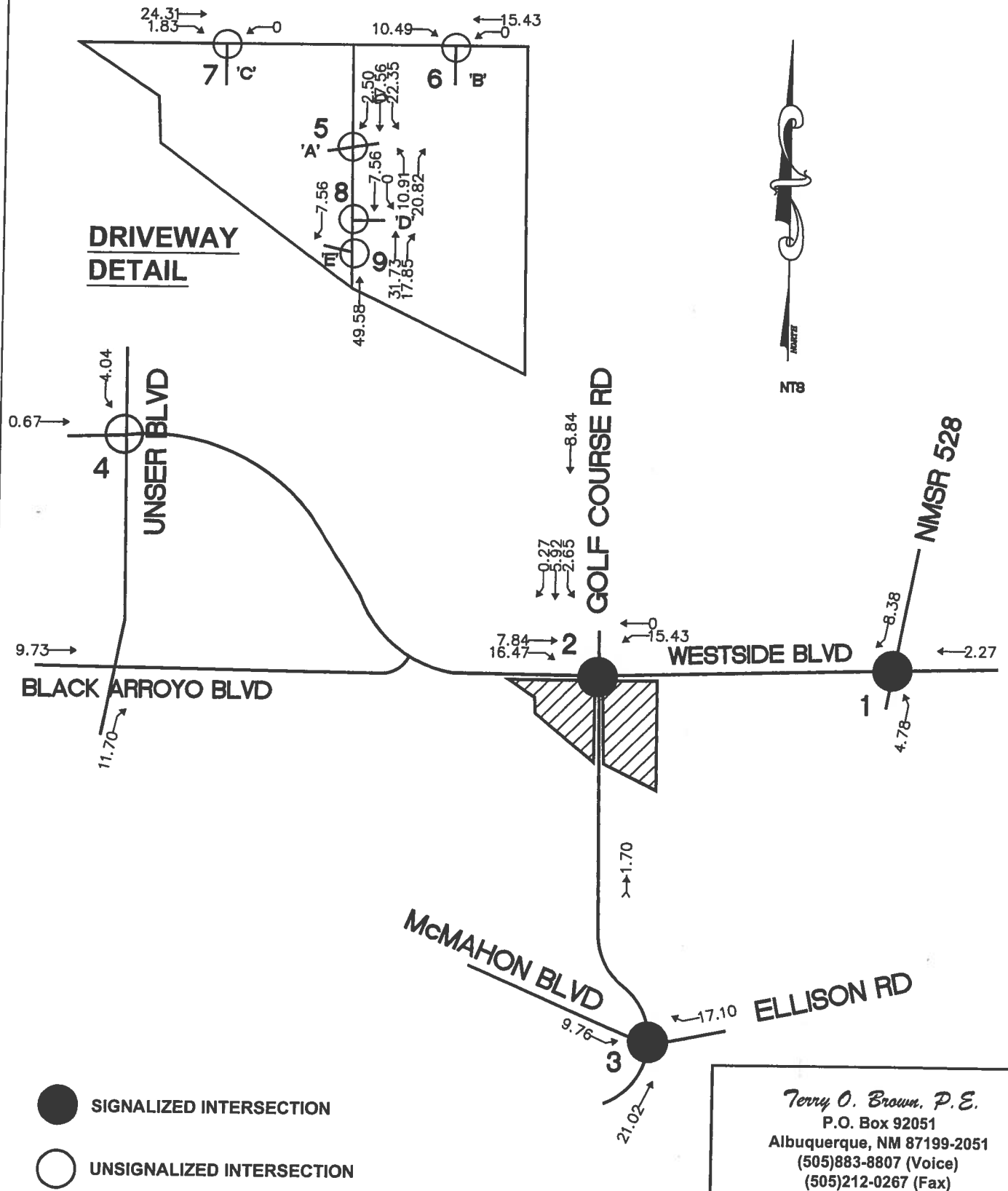


Historic Growth Chart McMahon Blvd West of Golf Course Rd (2001-2005)



# Westside / Golf Course Comm. Dev.

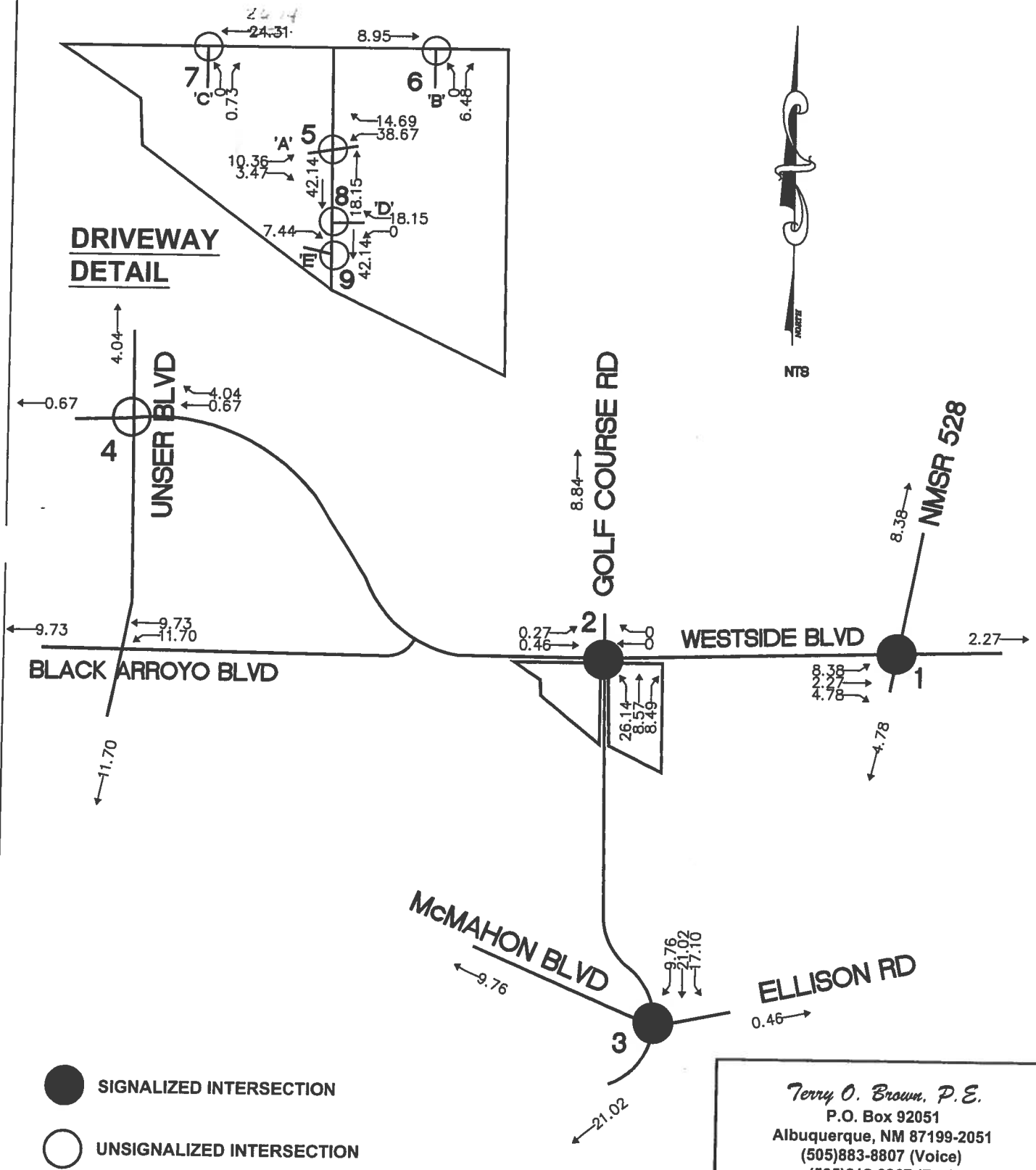
Trip Assignments (% Entering)  
Base Case - One Full Access Driveway



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# Westside / Golf Course Comm. Dev.

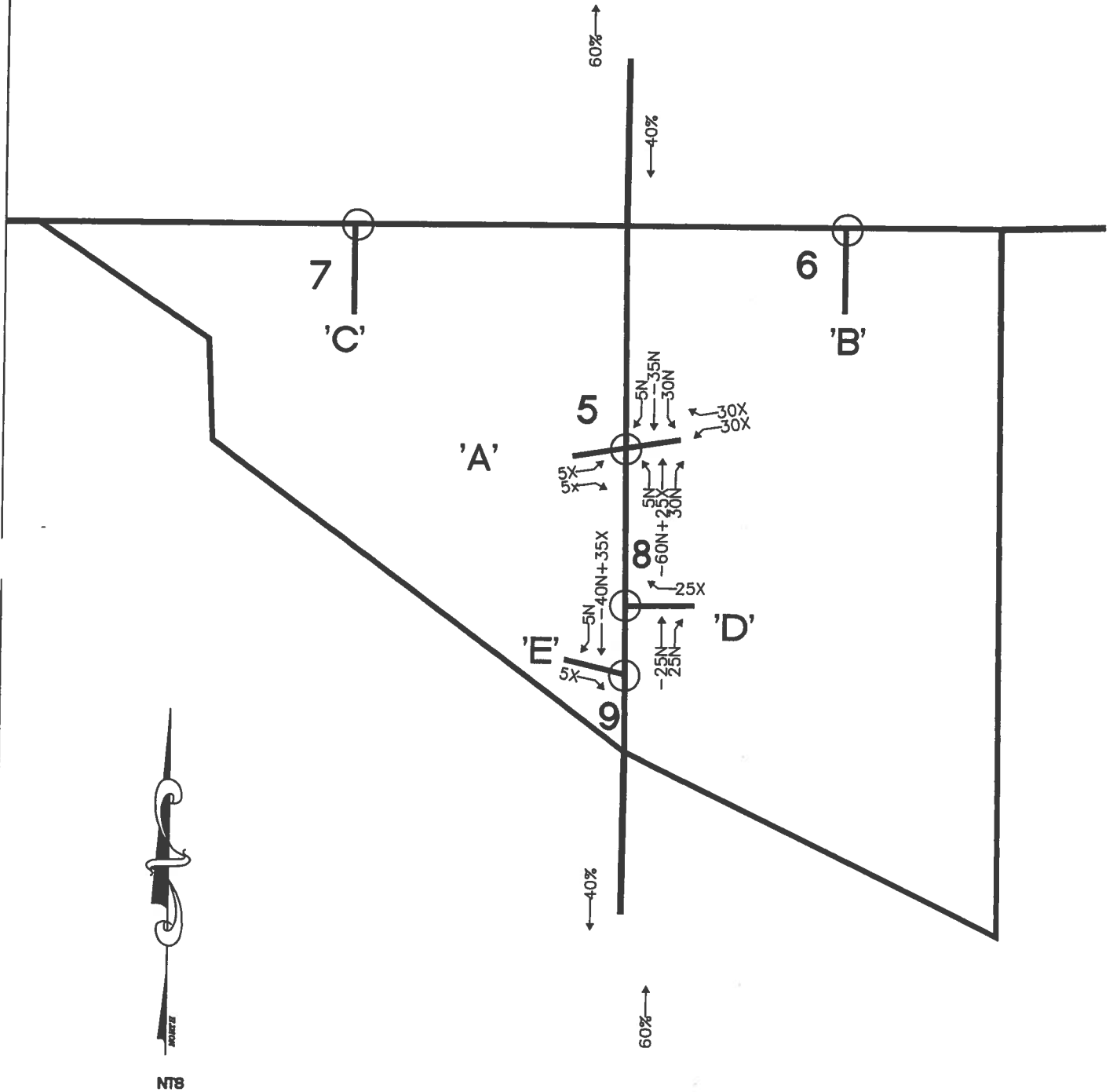
Trip Assignments (% Exiting)  
Base Case - One Full Access Driveway



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# Westside / Golf Course Comm. Dev.

## Passby Trip Assignments (Base Case - One Full Access Driveway)



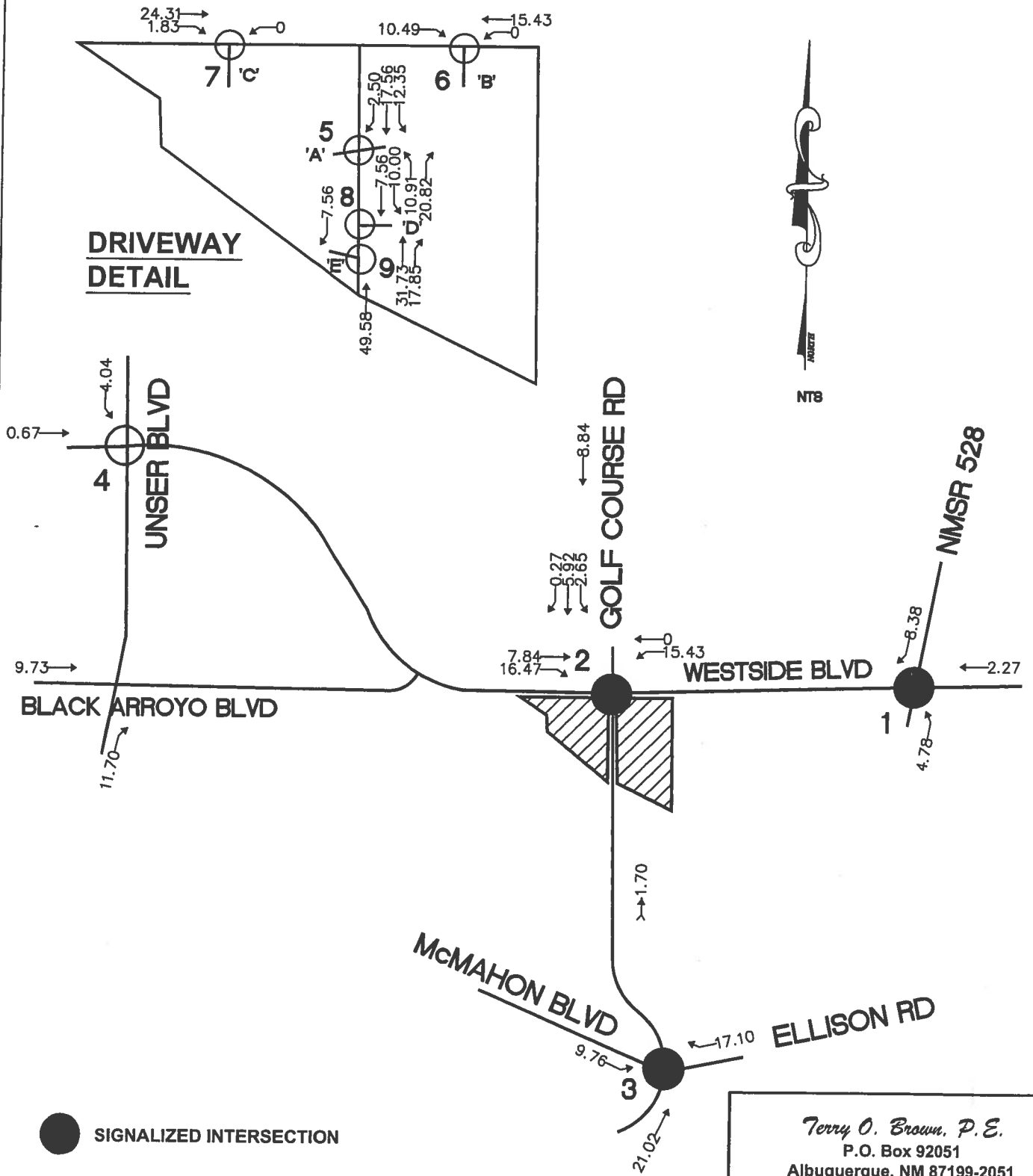
N78

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# Westside / Golf Course Comm. Dev.

Trip Assignments (% Entering)

Alternate Case - Two Full Access Driveways



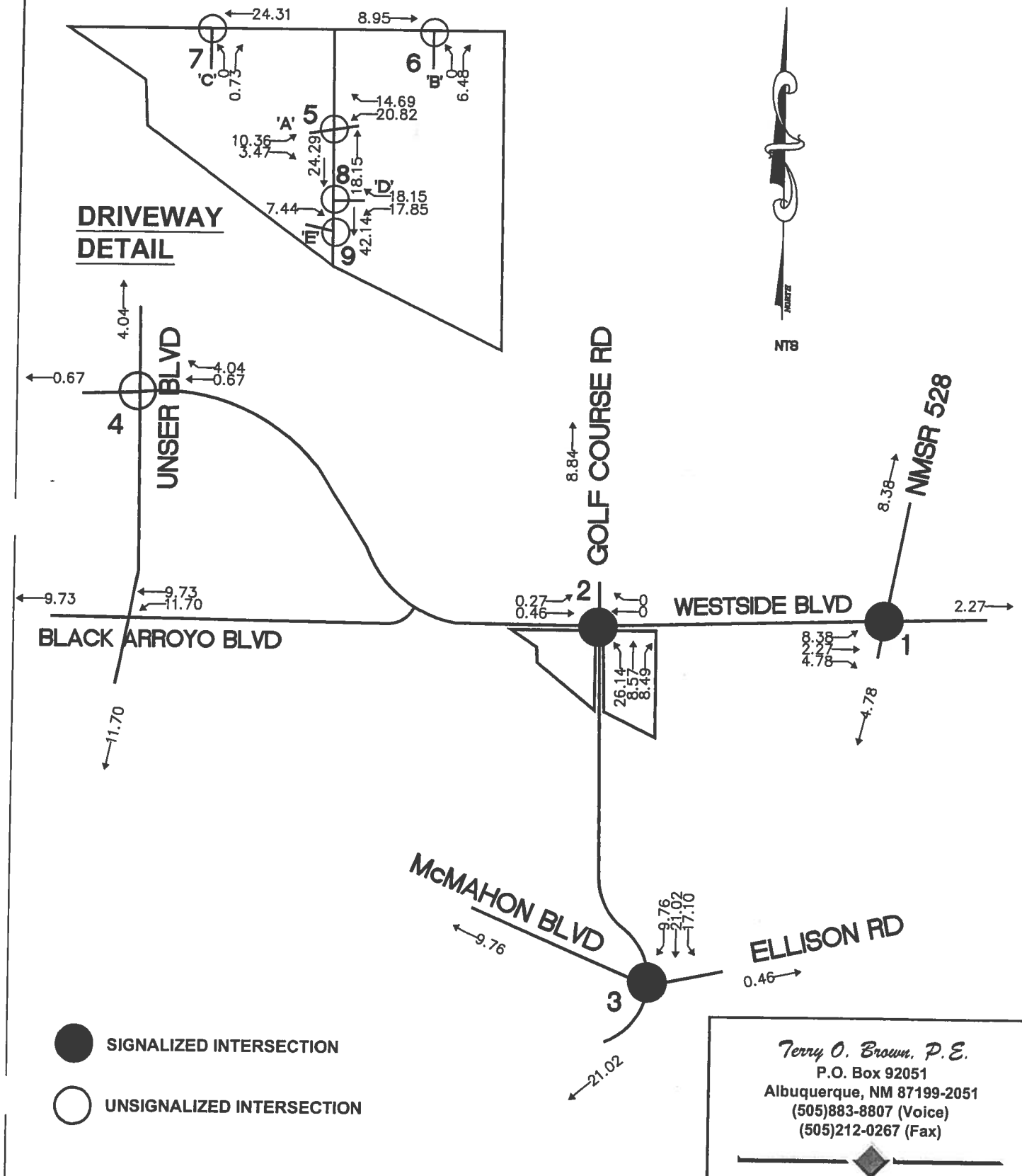
- SIGNALIZED INTERSECTION
- UNSIGNALIZED INTERSECTION

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# Westside / Golf Course Comm. Dev.

Trip Assignments (% Exiting)

Alternate Case - Two Full Access Driveways

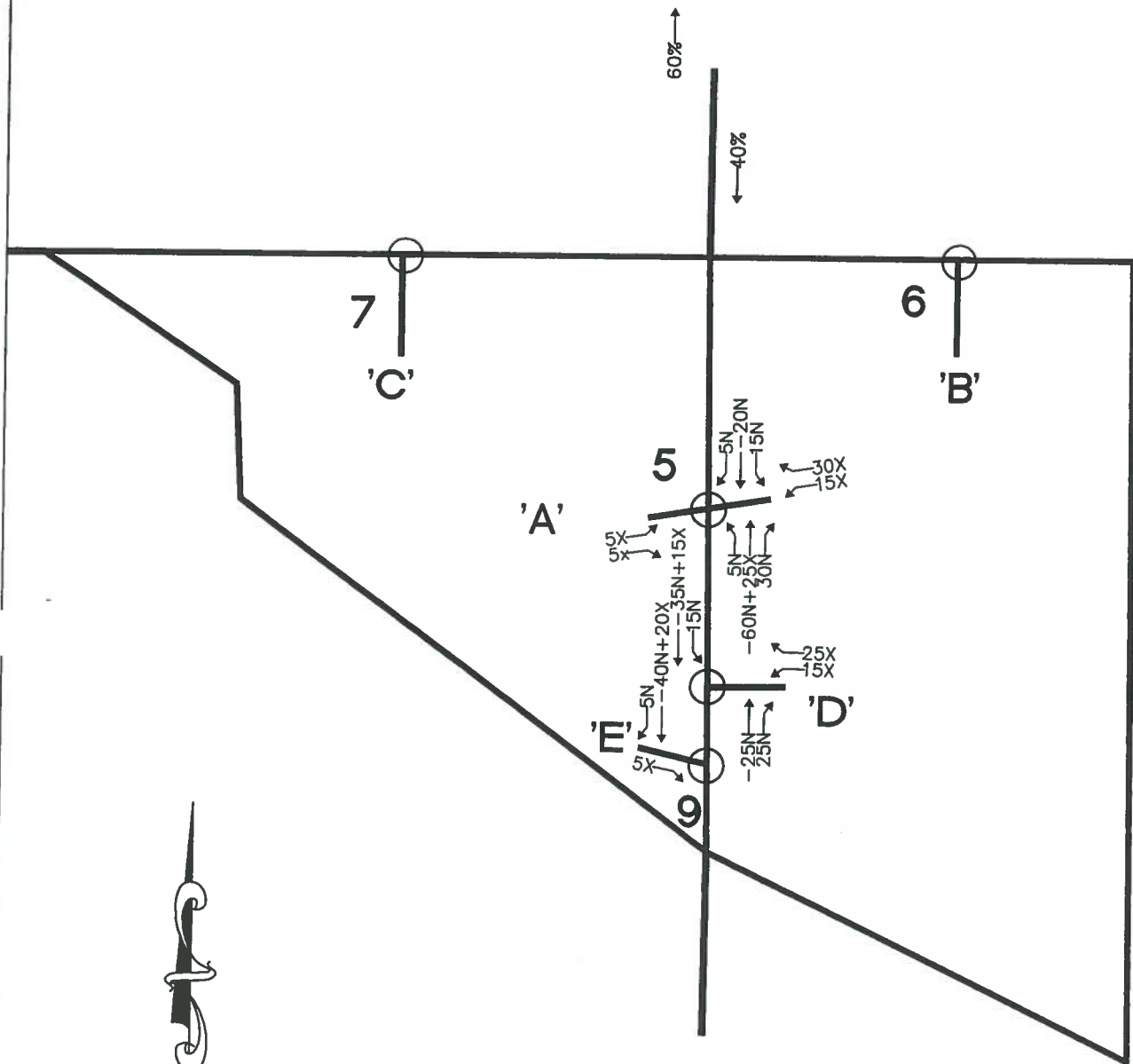




# *Westside / Golf Course Comm. Dev.*

## Passby Trip Assignments

(Alternate Case - Two Full Access Driveways)



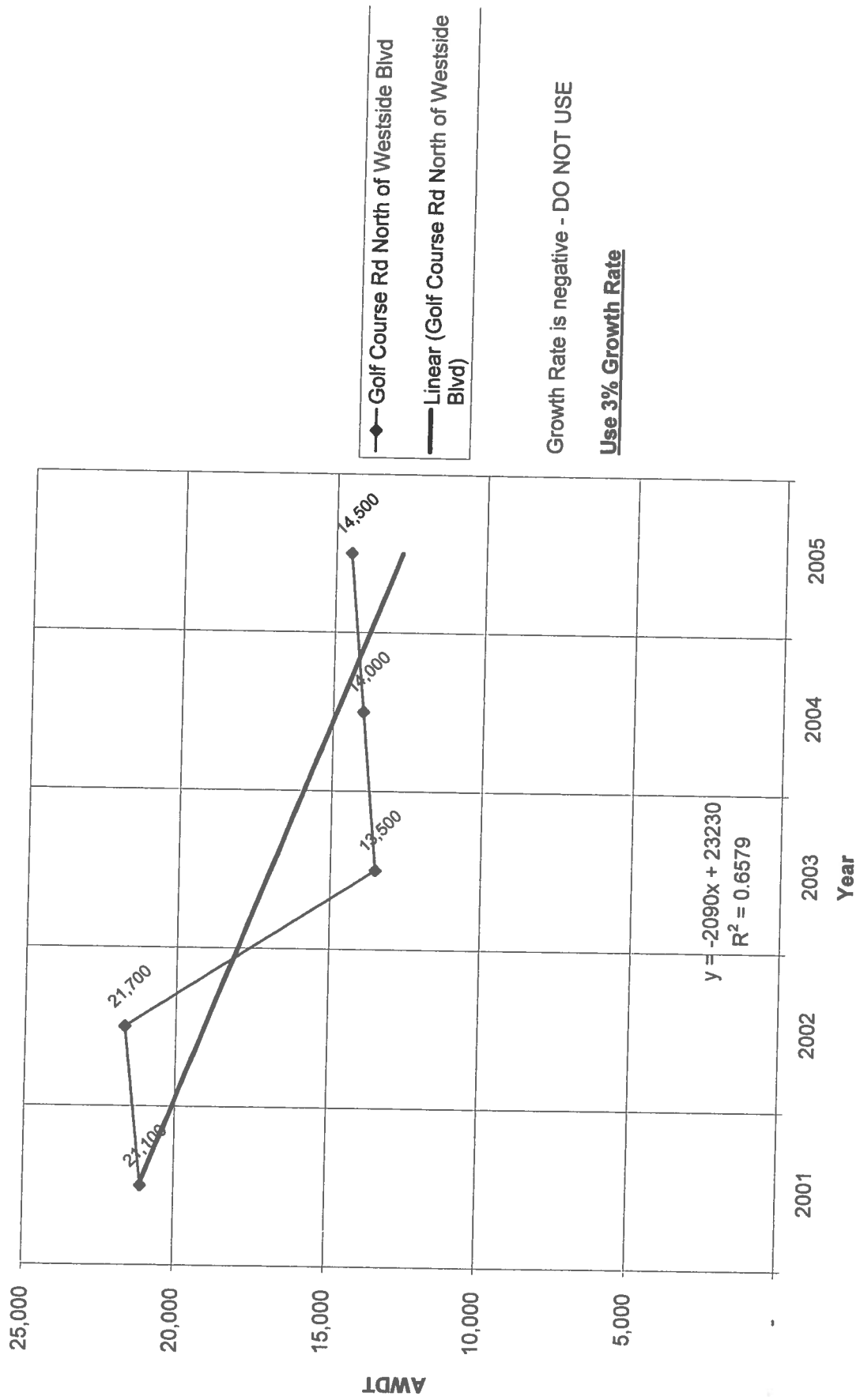
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**Westside / Golf Course Comm. Dev.**  
**Historic Growth Rate Table**

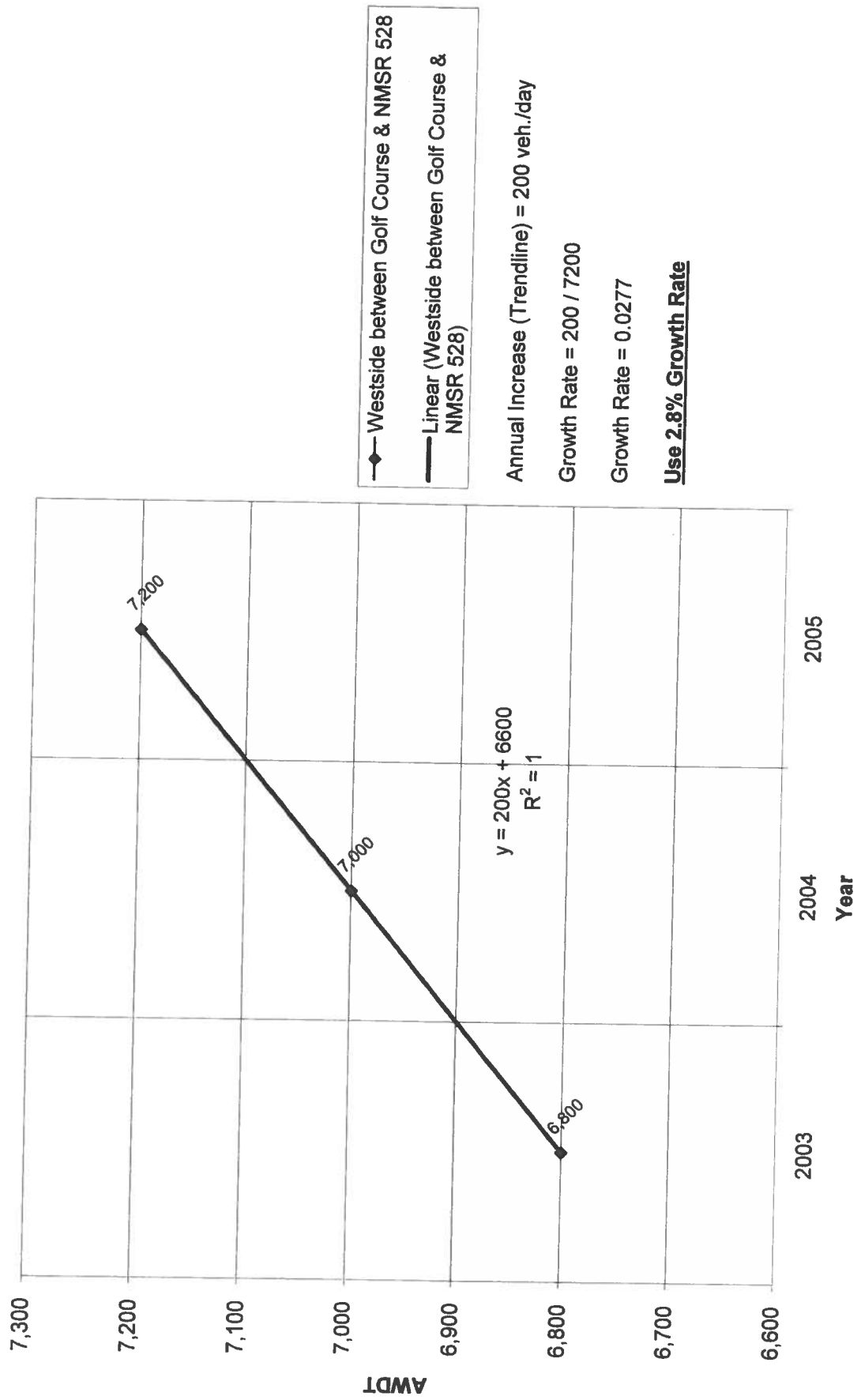
**Traffic Flows from MRCOG Map**

	2001	2002	2003	2004	2005
Unser Blvd North of Westside Blvd	16,500	16,100	23,200	24,000	24,900
Golf Course Rd North of Westside Blvd	21,100	21,700	13,500	14,000	14,500
Westside between Golf Course & NMSR 528	-	-	6,800	7,000	7,200
NMSR 528 North of Westside Blvd	63,900	65,700	53,800	54,400	56,300
NMSR 528 South of Westside Blvd	55,300	56,800	61,800	62,000	64,100
Golf Course between Westside & McMahon	12,400	12,700	13,000	13,400	11,500
McMahon Blvd East of Golf Course Rd	1,500	18,600	21,000	21,700	22,500
Golf Course Rd South of McMahon Blvd	23,100	23,800	24,300	25,200	23,000
McMahon Blvd West of Golf Course Rd	-	-	14,300	14,800	19,100
Unser Blvd South of Westside Blvd	15,300	15,800	16,100	17,200	17,800

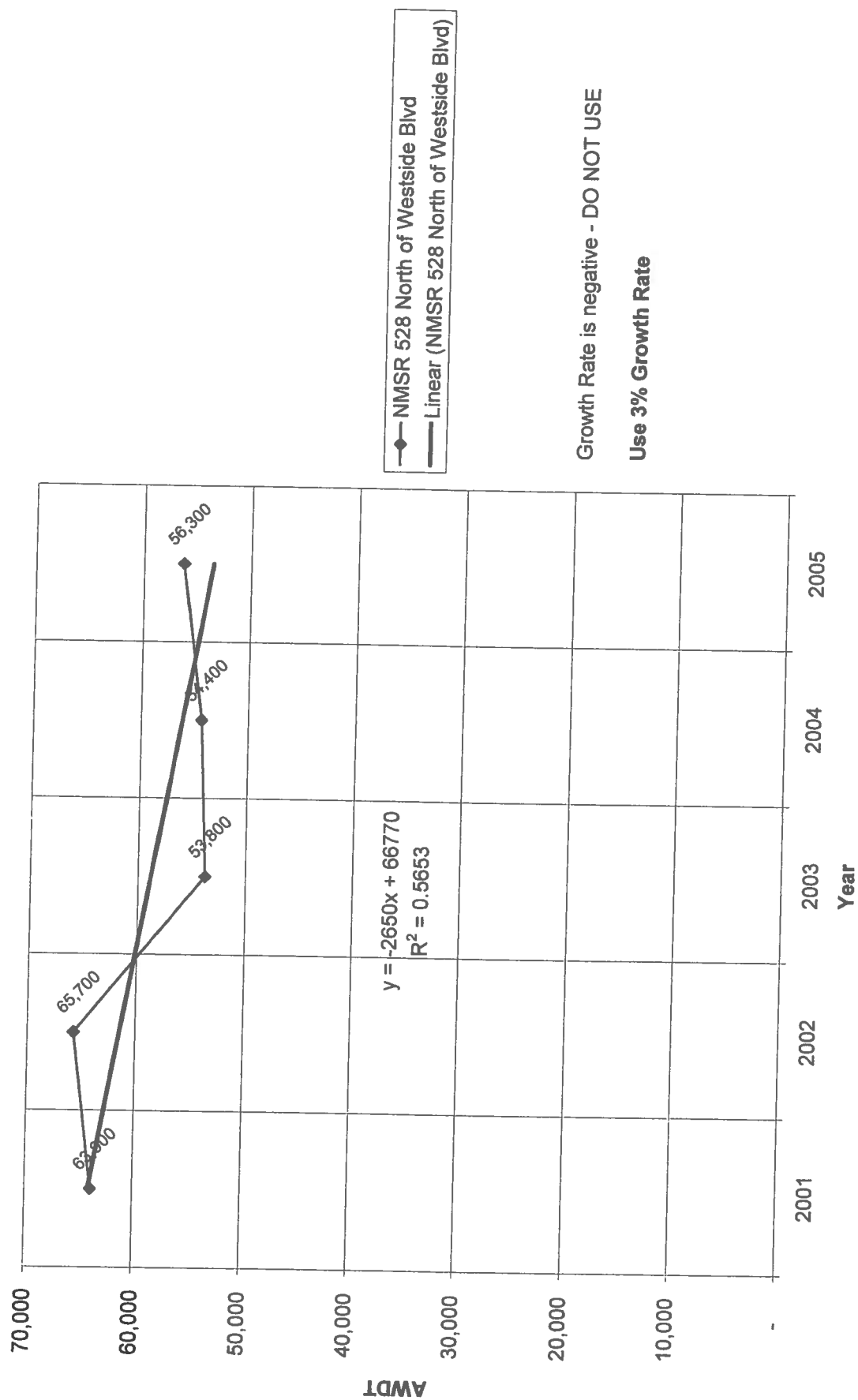
Historic Growth Chart Golf Course Rd North of Westside Blvd (2001-2005)



**Historic Growth Chart Westside between Golf Course & NMSR 528 (2003-2005)**



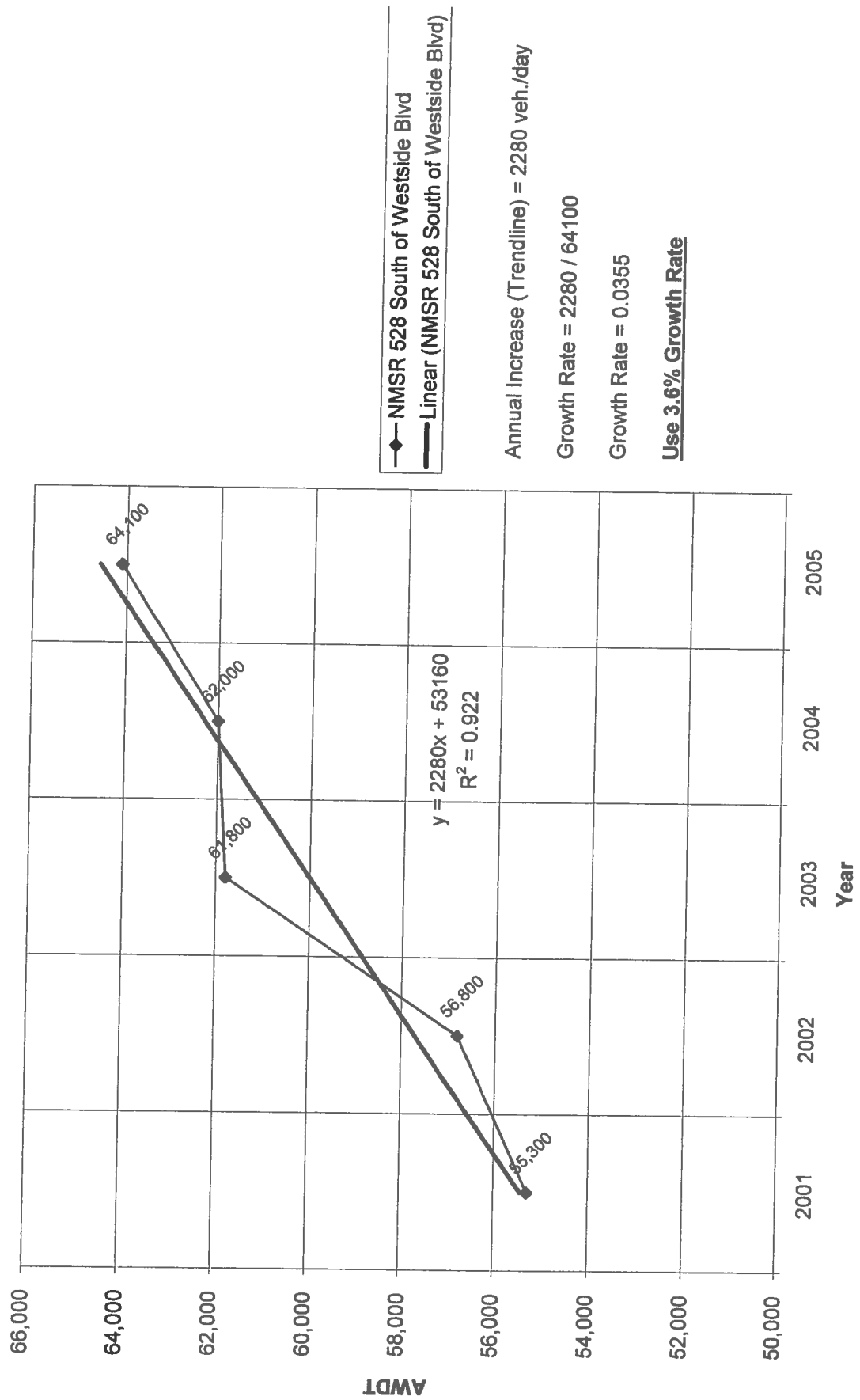
Historic Growth Chart NMSR 528 North of Westside Blvd (2001-2005)



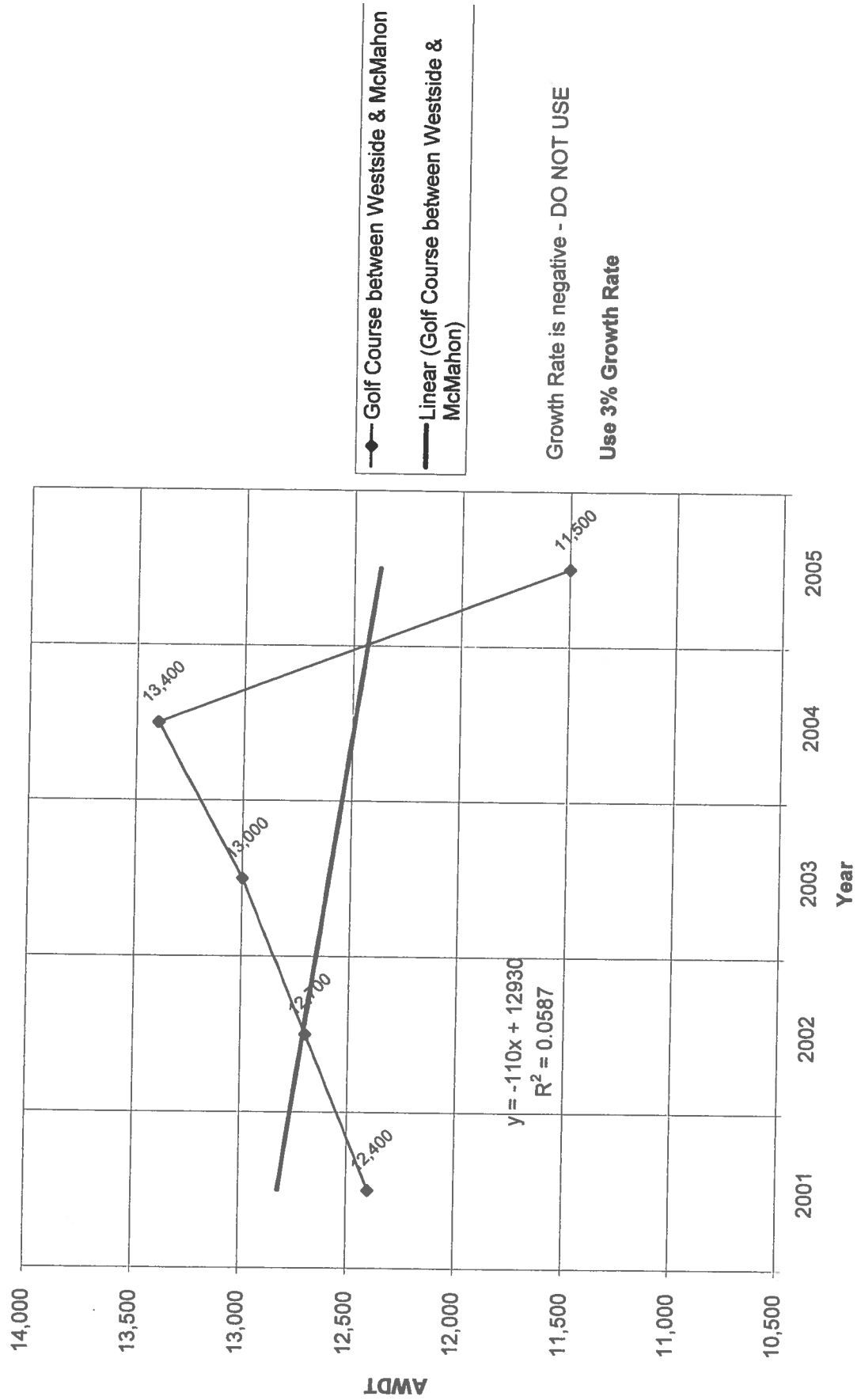
Growth Rate is negative - DO NOT USE

Use 3% Growth Rate

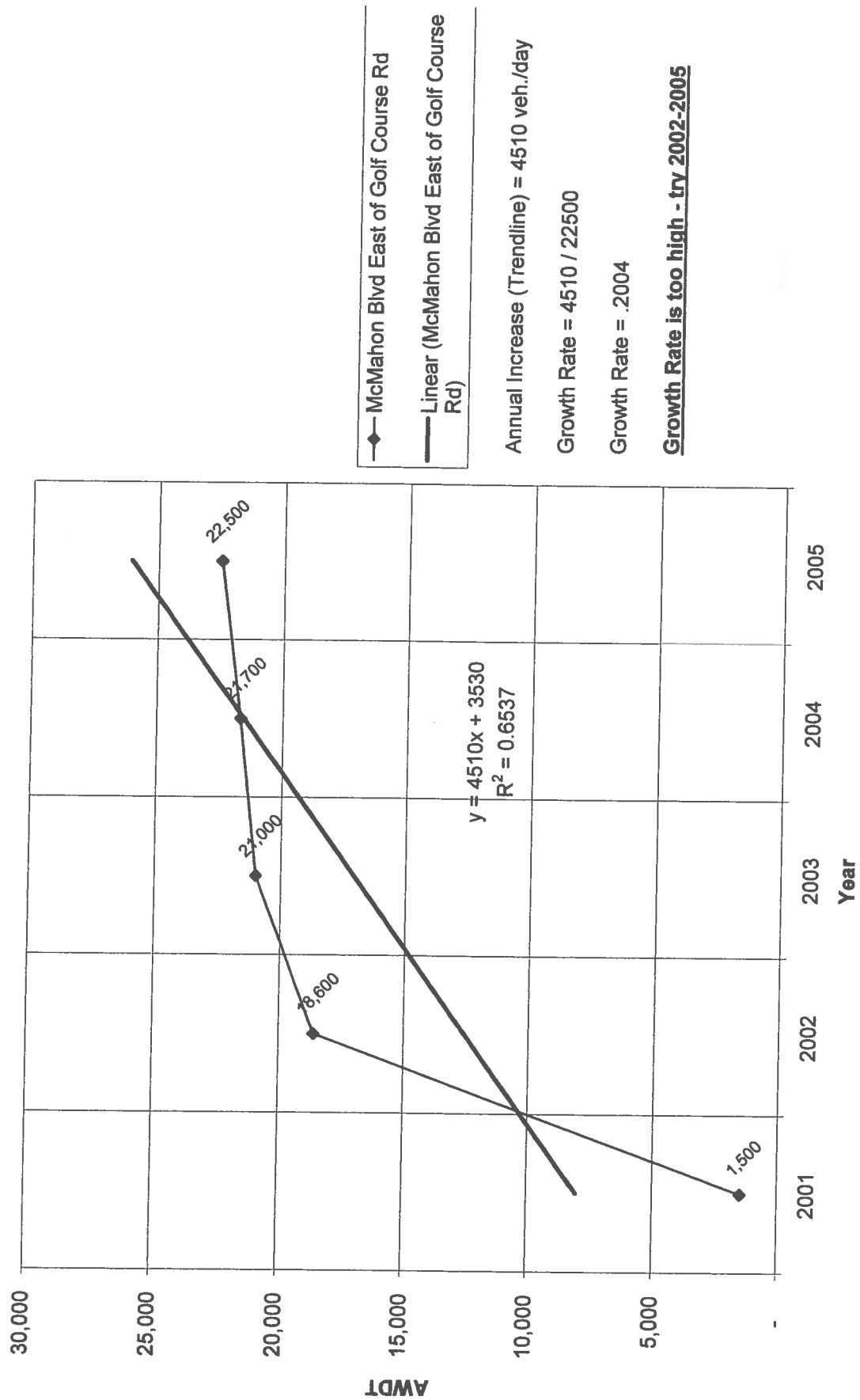
Historic Growth Chart NMSR 528 South of Westside Blvd (2001-2005)



Historic Growth Chart Golf Course between Westside & McMahon (2001-2005)

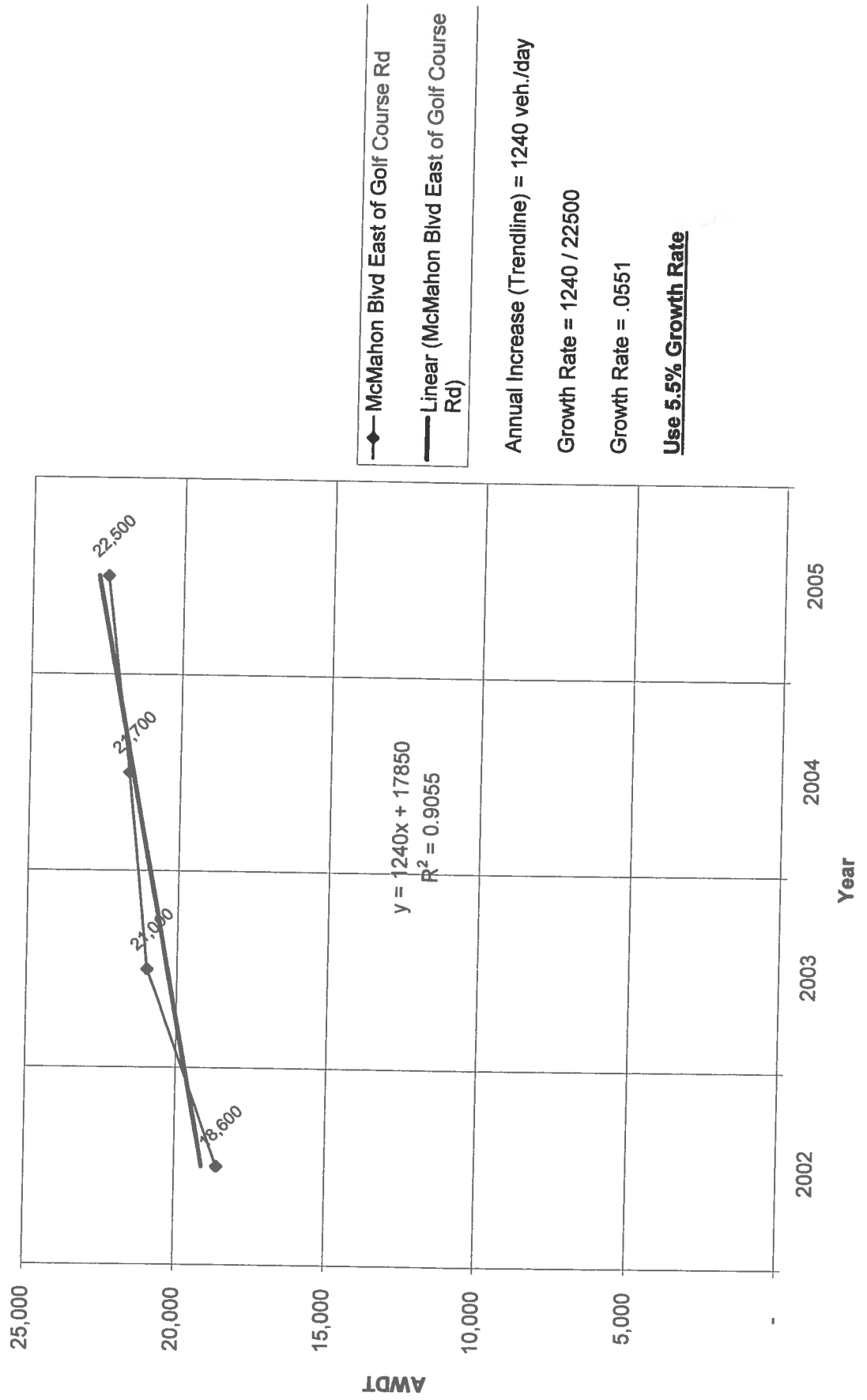


Historic Growth Chart McMahon Blvd East of Golf Course Rd (2001-2005)

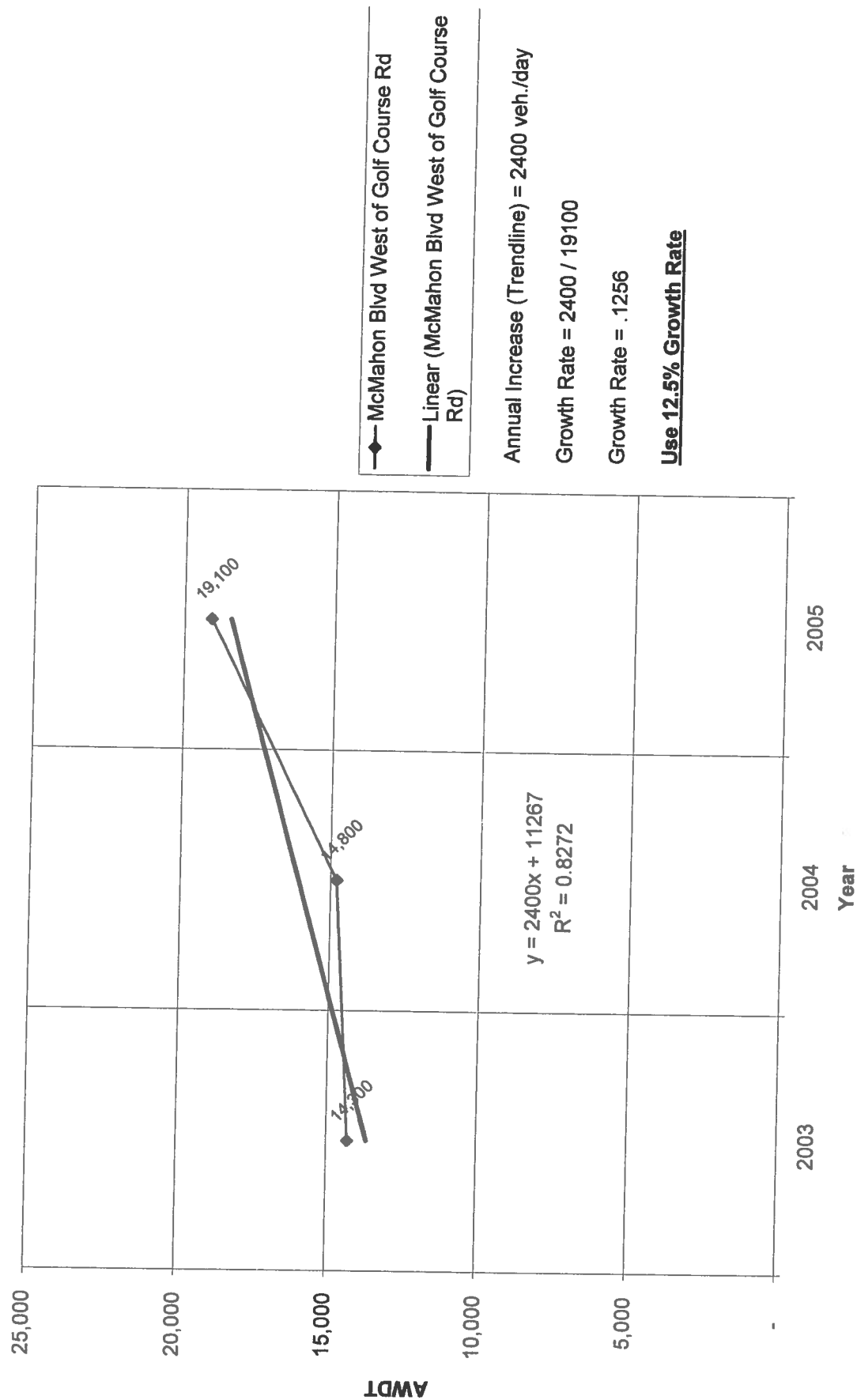




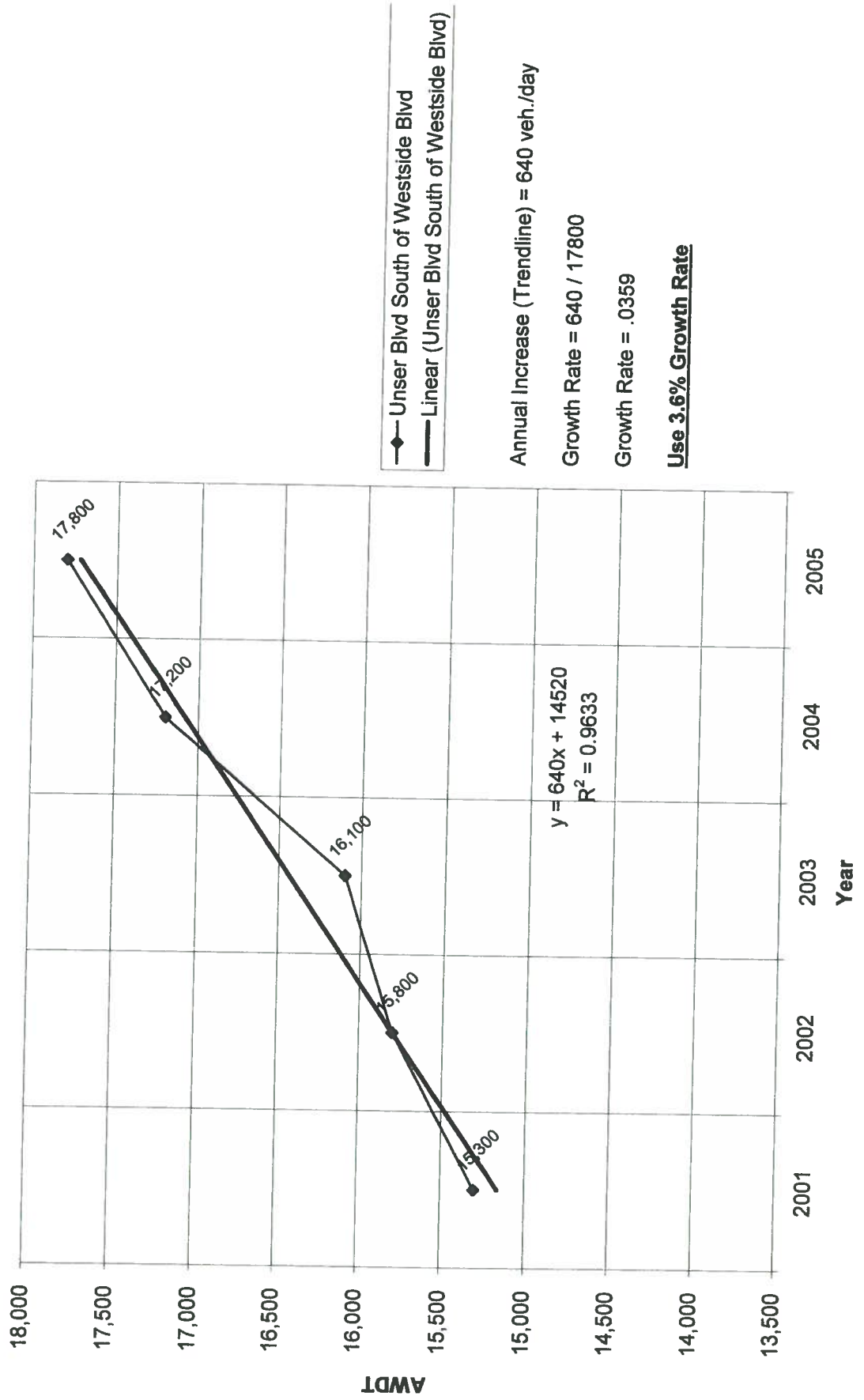
# Historic Growth Chart McMahon Blvd East of Golf Course Rd (2002-2005)



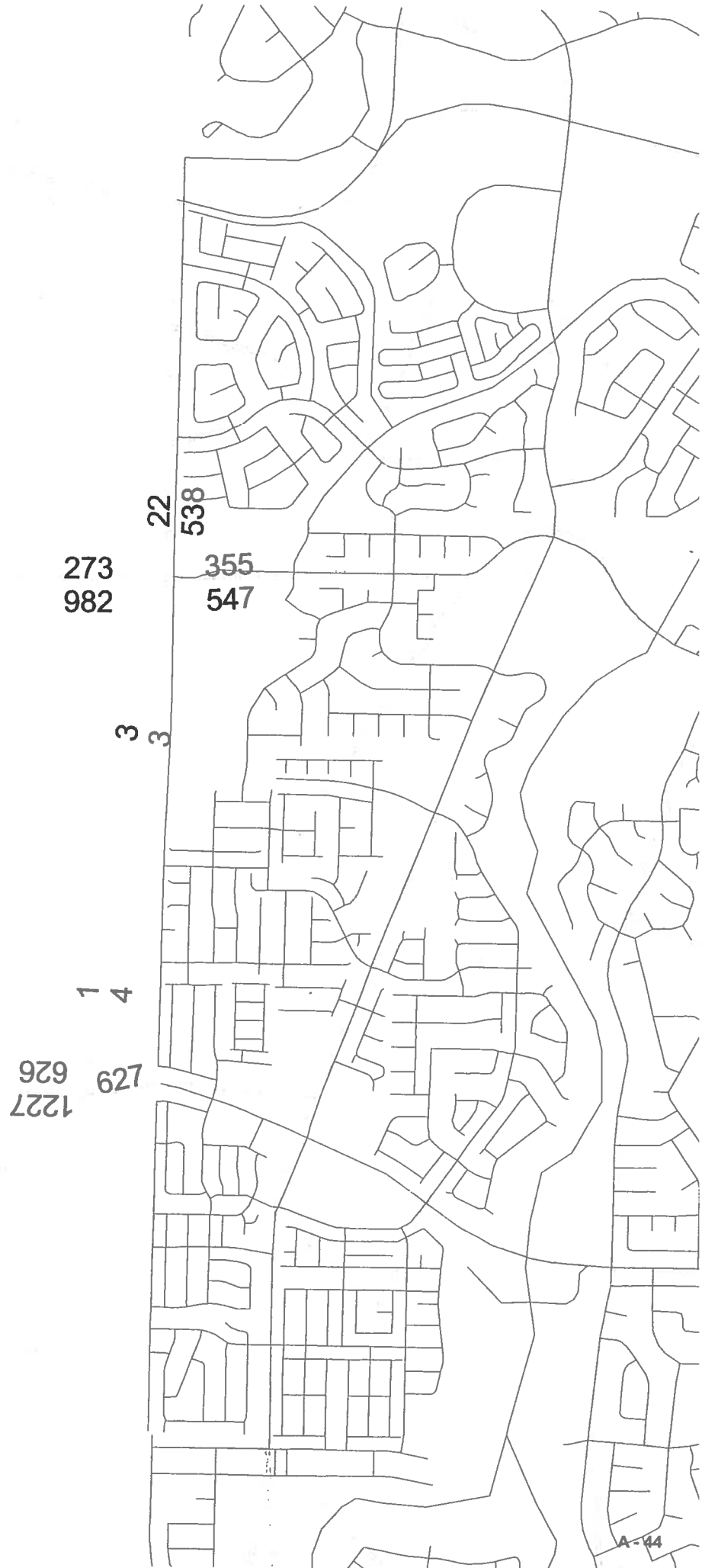
# Historic Growth Chart McMahon Blvd West of Golf Course Rd (2001-2005)



Historic Growth Chart Unser Blvd South of Westside Blvd (2001-2005)



2005 AM Peak  
Hour Volumes





# 2010 AM Peak Hour Volumes

18 219  
119 755  
941 1446  
694 1660

156  
829

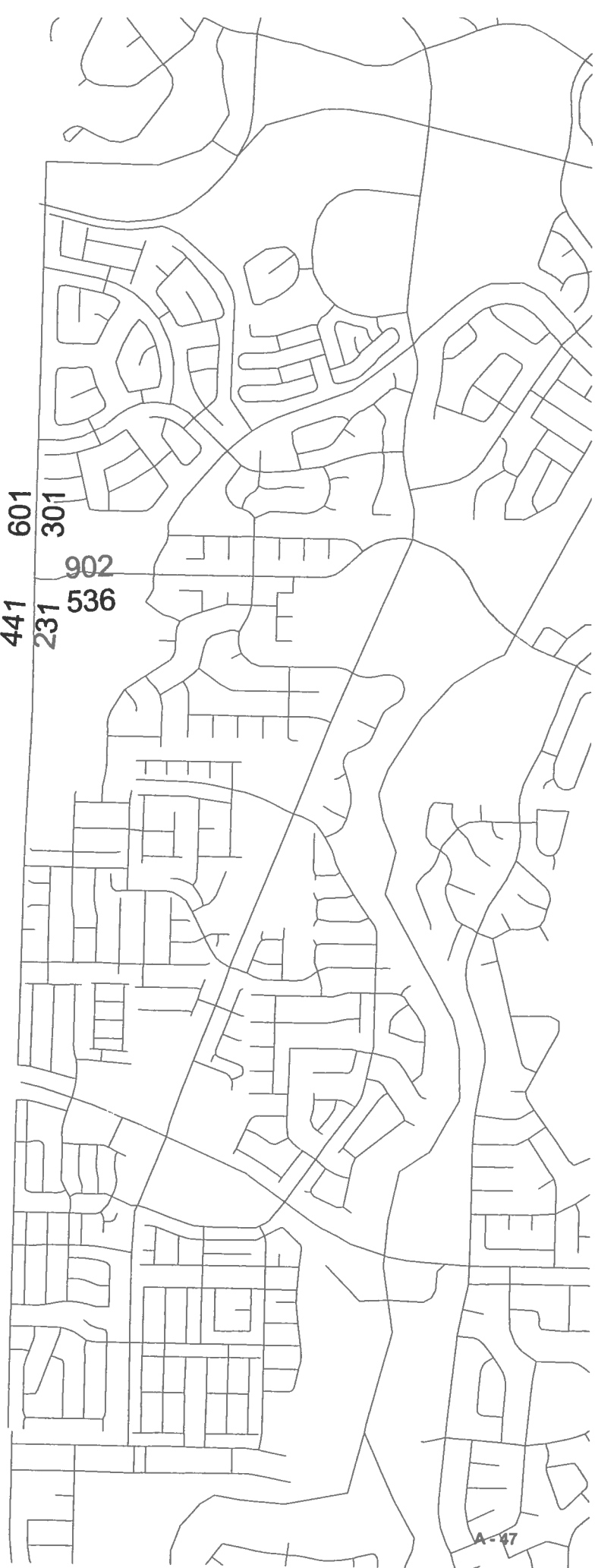
76 93  
459 642  
268 776



# 2010 PM Peak Hour Volumes

1202 1701  
117 629  
61 1440  
121 580  
1213

994 601  
539 301  
441 902  
231 536



2025 AM Volumes

2336  
1079

63 602  
304 1243  
1816 330  
2187

262  
1346

147 148

964 1249

408  
1209



2025 PM Volumes

309 1326  
128 2410  
1668 908  
2480 1834

1554  
1001

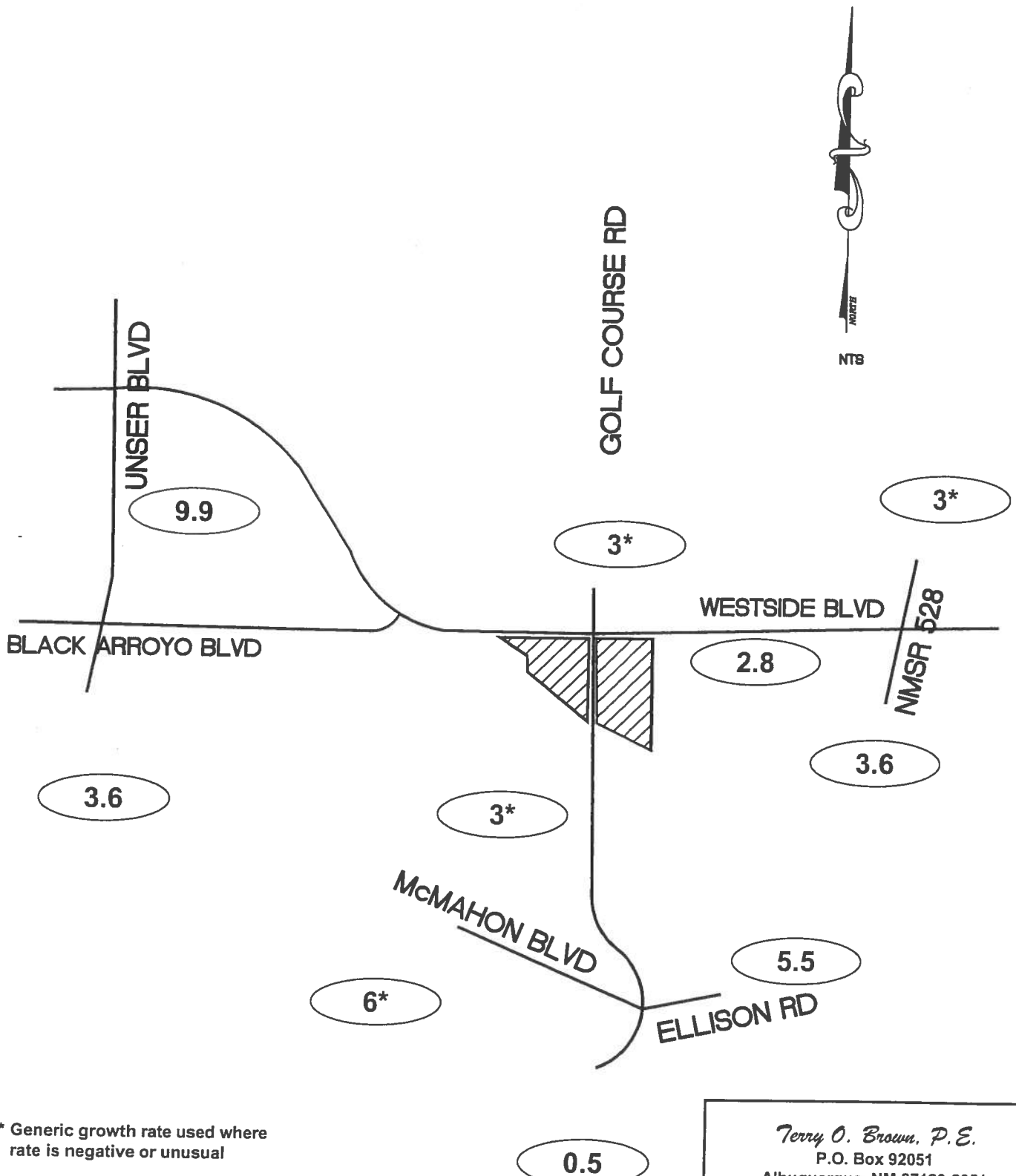
964 1227  
453 440  
1321  
1044

## Interpolation of 2012 Volumes from MRCOG Link Volumes

		Entering Trips		Exiting Trips		NOBUILD Turning Volumes (based on % exiting traffic)																	
		2010	2025	2012	2010	2025	2012	Westside / Unser						Westside / Unser									
		Westside / Unser			Westside / Unser			Westside / Unser						Westside / Unser									
AM	PM							AM		AM		AM		AM		AM							
		Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right							
119	61	304	144	EB	595	1243	681	EB	36	33	75	180	3	87	14	427	391	530	1202	19			
219	629	602	270	WB	18	63	24	WB	PM	PM	PM	PM	PM	PM	PM	PM	PM	PM	PM	PM			
755	1580	1330	832	NB	694	1079	745	NB	Left <td>Thru</td> <td>Right</td> <td>Left<td>Thru</td><td>Right</td><td>Left<td>Thru</td><td>Right</td><td>Left<td>Thru</td><td>Right</td></td></td></td>	Thru	Right	Left <td>Thru</td> <td>Right</td> <td>Left<td>Thru</td><td>Right</td><td>Left<td>Thru</td><td>Right</td></td></td>	Thru	Right	Left <td>Thru</td> <td>Right</td> <td>Left<td>Thru</td><td>Right</td></td>	Thru	Right	Left <td>Thru</td> <td>Right</td>	Thru	Right			
1680	1202	2336	1750	SB	1446	2187	1545	SB	35	10	25	288	32	402	99	1246	346	327	844	93			
											Eastbound		Westbound		Northbound		Southbound						
		Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
964	231	964	526	EB	642	1249	723	EB	35	10	25	288	32	402	99	1246	346	327	844	93			
148	601	148	100	WB	76	147	85	WB	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
408	902	408	287	NB	156	262	170	NB	52	220	254	77	8	16	25	50	212	395	456	46			
1346	539	1346	898	SB	776	1209	834	SB	PM	PM	PM	PM	PM	PM	PM	PM	PM	PM	PM	PM	PM	PM	
											Eastbound		Westbound		Northbound		Southbound						
		Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
453	231	453	261	EB	301	440	320	EB	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
1227	601	1227	684	WB	441	964	511	WB	140	42	79	189	160	335	258	539	161	134	253	214			
1321	902	1321	958	NB	994	1554	1069	NB	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
1001	539	1001	601	SB	536	1044	604	SB	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right

# *Westside / Golf Course Comm. Dev.*

Growth Rate Map (%)



\* Generic growth rate used where rate is negative or unusual

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(505)212-0267 (Fax)

*Westside / Golf Course Commercial Development*  
 Projected Turning Movements SUMMARY  
**PROPOSED DEVELOPMENT (2012) - 100% Development**

**INTERSECTION:      Summary**

**Westside Blvd / NMSR 528**

(1) 4.2% Truck Existing (2007) 2012 (NO BUILD - A.M.) 2012 (BUILD - A.M.)	0.78			0.75			0.79			0.84			PHF
	Eastbound (Westside Blvd)			Westbound (Westside Blvd)			Northbound (NMSR 528)			Southbound (NMSR 528)			
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
	130	65	358	75	41	29	34	1,525	172	28	3,689	35	
Existing (2007) 2012 (NO BUILD - P.M.) 2012 (BUILD - P.M.)	147	73	853	86	47	33	108	1,800	200	32	4,278	40	
	215	92	892	86	68	33	153	1,800	200	32	4,278	119	
	0.91			0.82			0.97			0.96			PHF
	Eastbound (Westside Blvd)			Westbound (Westside Blvd)			Northbound (NMSR 528)			Southbound (NMSR 528)			
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
	63	13	78	231	100	63	273	2,419	59	43	2,761	57	
	71	15	461	263	114	72	464	2,880	68	48	3,220	64	
	132	31	496	263	129	72	495	2,880	68	48	3,220	118	

**Westside Blvd / Golf Course Rd**

(2) 3.0% Truck Existing (2007) 2012 (NO BUILD - A.M.) 2012 (BUILD - A.M.)	0.85			0.85			0.96			0.87			PHF
	Eastbound (Westside Blvd)			Westbound (Westside Blvd)			Northbound (Golf Course Rd)			Southbound (Golf Course Rd)			
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
	0	0	0	0	0	0	0	0	0	0	0	0	
Existing (2007) 2012 (NO BUILD - P.M.) 2012 (BUILD - P.M.)	52	220	254	77	8	16	25	50	212	395	456	46	
	54	298	410	223	8	16	222	120	281	420	512	49	
	0.85			0.85			0.93			0.90			PHF
	Eastbound (Westside Blvd)			Westbound (Westside Blvd)			Northbound (Golf Course Rd)			Southbound (Golf Course Rd)			
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
	0	0	0	0	0	0	0	0	0	0	0	0	
	140	42	79	189	160	335	258	539	161	134	253	214	
	142	96	186	289	160	335	433	601	222	151	291	216	

**McMahon Blvd / Golf Course Rd**

(3) 3.0% Truck Existing (2007) 2012 (NO BUILD - A.M.) 2012 (BUILD - A.M.)	0.92			0.83			0.89			0.76			PHF
	Eastbound (McMahon Blvd)			Westbound (McMahon Blvd)			Northbound (Golf Course Rd)			Southbound (Golf Course Rd)			
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
	93	590	580	121	269	69	201	348	220	126	538	17	
Existing (2007) 2012 (NO BUILD - P.M.) 2012 (BUILD - P.M.)	193	852	794	200	367	114	219	514	226	181	1,022	64	
	285	852	794	200	367	276	219	713	226	321	1,194	144	
	0.78			0.97			0.91			0.92			PHF
	Eastbound (McMahon Blvd)			Westbound (McMahon Blvd)			Northbound (Golf Course Rd)			Southbound (Golf Course Rd)			
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
	52	555	283	376	949	129	743	766	313	125	448	73	
	167	831	392	555	1,269	240	802	1,241	321	201	1,166	174	
	230	831	392	555	1,269	351	802	1,378	321	325	1,318	245	

**Westside / Golf Course Commercial Development**  
**Projected Turning Movements SUMMARY**  
**PROPOSED DEVELOPMENT (2012) - 100% Development**

**INTERSECTION:      Summary**

**Westside Blvd / Unser Blvd**

			0.75			0.85			0.87			0.98			PHF
<b>Eastbound (Westside Blvd)</b>			<b>Westbound (Westside Blvd)</b>			<b>Northbound (Unser Blvd)</b>			<b>Southbound (Unser Blvd)</b>						
Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
36	33	75	180	3	87	14	427	391	530	1,202	19				
36	39	75	180	8	120	14	427	391	568	1,202	19				

			0.80			0.75			0.98			0.94			PHF
<b>Eastbound (Westside Blvd)</b>			<b>Westbound (Westside Blvd)</b>			<b>Northbound (Unser Blvd)</b>			<b>Southbound (Unser Blvd)</b>						
Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
35	10	25	288	32	402	99	1,246	346	327	844	93				
35	14	25	288	37	431	99	1,246	346	353	844	93				

(4) 3.0% Truck

Existing (2007)

2012 (NO BUILD - A.M.)

2012 (BUILD - A.M.)

Existing (2007)

2012 (NO BUILD - P.M.)

2012 (BUILD - P.M.)

**Driveway 'A' / Golf Course Rd**

			0.85			0.85			0.96			0.96			PHF
<b>Eastbound (Driveway 'A')</b>			<b>Westbound (Driveway 'A')</b>			<b>Northbound (Golf Course Rd)</b>			<b>Southbound (Golf Course Rd)</b>						
Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
0	0	0	0	0	0	0	287	0	0	787	0				
85	0	28	316	0	120	103	435	197	211	953	24				

			0.85			0.85			0.93			0.93			PHF
<b>Eastbound (Driveway 'A')</b>			<b>Westbound (Driveway 'A')</b>			<b>Northbound (Golf Course Rd)</b>			<b>Southbound (Golf Course Rd)</b>						
Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
0	0	0	0	0	0	0	958	0	0	521	0				
88	0	38	357	0	183	85	987	219	229	537	30				

(5) 3.0% Truck

Existing (2007)

2012 (NO BUILD - A.M.)

2012 (BUILD - A.M.)

Existing (2007)

2012 (NO BUILD - P.M.)

2012 (BUILD - P.M.)

**Westside Blvd / Driveway 'B'**

			0.85			0.85			0.85			0.85			PHF
<b>Eastbound (Westside Blvd)</b>			<b>Westbound (Westside Blvd)</b>			<b>Northbound (Driveway 'B')</b>			<b>Southbound (Driveway 'B')</b>						
Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
0	553	0	0	109	0	0	0	0	0	0	0	0	0	0	
0	624	0	0	124	0	0	0	0	0	0	0	0	0	0	
0	697	99	0	270	0	0	0	53	0	0	0	0	0	0	

			0.85			0.85			0.85			0.85			PHF
<b>Eastbound (Westside Blvd)</b>			<b>Westbound (Westside Blvd)</b>			<b>Northbound (Driveway 'B')</b>			<b>Southbound (Driveway 'B')</b>						
Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
0	154	0	0	423	0	0	0	0	0	0	0	0	0	0	
0	174	0	0	477	0	0	0	0	0	0	0	0	0	0	
0	239	68	0	577	0	0	0	47	0	0	0	0	0	0	

Existing (2007)

2012 (NO BUILD - P.M.)

2012 (BUILD - P.M.)

**Westside / Golf Course Commercial Development**  
**Projected Turning Movements SUMMARY**  
**PROPOSED DEVELOPMENT (2012) - 100% Development**

**INTERSECTION:      Summary**

**Westside Blvd / Driveway 'C'**

(7)	0.85			0.85			0.85			0.85			PHF
	Eastbound (Westside Blvd)			Westbound (Westside Blvd)			Northbound (Driveway 'C')			Southbound (Driveway 'C')			
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
	0	0	0	0	0	0	0	0	0	0	0	0	
	0	954	0	0	270	0	0	0	0	0	0	0	
Existing (2007)	0			0			0			0			
2012 (NO BUILD - A.M.)	0			270			0			0			
2012 (BUILD - A.M.)	0			483			0			0			

Existing (2007)  
 2012 (NO BUILD - P.M.)  
 2012 (BUILD - P.M.)

0.85			0.85			0.85			0.85			PHF
Eastbound (Westside Blvd)			Westbound (Westside Blvd)			Northbound (Driveway 'C')			Southbound (Driveway 'C')			
Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
0	0	0	0	0	0	0	0	0	0	0	0	
0	683	0	0	722	0	0	0	0	0	0	0	
0	841	12	0	911	0	0	0	5	0	0	0	

**Driveway 'D' / Golf Course Rd**

(8)	0.85			0.85			0.96			0.96			PHF
	Eastbound (Driveway 'D')			Westbound (Driveway 'D')			Northbound (Golf Course Rd)			Southbound (Golf Course Rd)			
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
	0	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	287	0	0	787	0	
Existing (2007)	0	0	0	146	0	148	0	587	169	0	1,056	0	
2012 (NO BUILD - A.M.)													
2012 (BUILD - A.M.)													

Existing (2007)  
 2012 (NO BUILD - P.M.)  
 2012 (BUILD - P.M.)

0.85			0.85			0.93			0.93			PHF
Eastbound (Driveway 'D')			Westbound (Driveway 'D')			Northbound (Golf Course Rd)			Southbound (Golf Course Rd)			
Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
0	0	0	0	0	0	0	0	0	0	0	0	
0	0	0	0	0	0	0	958	0	0	521	0	
0	0	0	129	0	196	0	1,094	186	0	746	0	

**Driveway 'E' / Golf Course Rd**

(9)	0.85			0.85			0.96			0.96			PHF
	Eastbound (Driveway 'E')			Westbound (Driveway 'E')			Northbound (Golf Course Rd)			Southbound (Golf Course Rd)			
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
	0	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	287	0	0	787	0	
Existing (2007)	0	0	61	0	0	0	0	756	0	0	1,131	71	
2012 (NO BUILD - A.M.)													
2012 (BUILD - A.M.)													

Existing (2007)  
 2012 (NO BUILD - P.M.)  
 2012 (BUILD - P.M.)

0.85			0.85			0.93			0.93			PHF
Eastbound (Driveway 'E')			Westbound (Driveway 'E')			Northbound (Golf Course Rd)			Southbound (Golf Course Rd)			
Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
0	0	0	0	0	0	0	0	0	0	0	0	
0	0	0	0	0	0	0	958	0	0	521	0	
0	0	67	0	0	0	0	1,280	0	0	804	63	

**Westside / Golf Course Commercial Development**

## Projected Turning Movements Worksheet

**Westside Blvd / NMSR 528****INTERSECTION:**E-W Street: **Westside Blvd**

(1)

N-S Street: **NMSR 528**

Year of Existing Counts

2004

Implementation Year

2012

Growth Rates

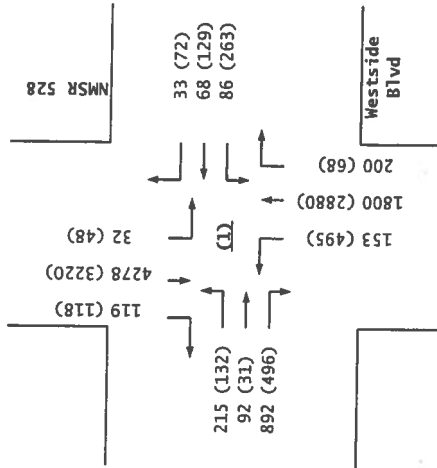
	2.80%			3.00%			3.60%			3.00%		
	Eastbound (Westside Blvd)			Westbound (Westside Blvd)			Northbound (NMSR 528)			Southbound (NMSR 528)		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing Volumes	120	60	330	69	38	27	31	1,376	155	26	3,384	32
Background Traffic Growth	27	13	74	17	9	6	9	396	45	6	812	8
Subtotal	147	73	404	86	47	33	40	1,772	200	32	4,196	40
Cabezon Development	0	0	449	0	0	0	68	28	0	0	82	0
Subtotal (NO BUILD - A.M.)	147	73	853	86	47	33	108	1,800	200	32	4,278	40
Percent Commercial Trips Generated(Entering)	0.00%	0.00%	0.00%	0.00%	2.27%	0.00%	4.78%	0.00%	0.00%	0.00%	0.00%	8.38%
Percent Commercial Trips Generated(Exiting)	8.38%	2.27%	4.78%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Total Trips Generated	68	19	39	0	21	0	45	0	0	0	0	79
Total AM Peak Hour BUILD Volumes	215	92	892	86	68	33	153	1,800	200	32	4,278	119

	Eastbound (Westside Blvd)			Westbound (Westside Blvd)			Northbound (NMSR 528)			Southbound (NMSR 528)		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing Volumes	58	12	72	212	92	58	246	2,183	53	39	2,533	52
Background Traffic Growth	13	3	16	51	22	14	71	629	15	9	608	12
Subtotal	71	15	88	263	114	72	317	2,812	68	48	3,141	64
Cabezon Development	0	0	373	0	0	0	147	68	0	0	79	0
Subtotal (NO BUILD - P.M.)	71	15	461	263	114	72	464	2,880	68	48	3,220	64
Percent Commercial Trips Generated(Entering)	0.00%	0.00%	0.00%	0.00%	2.27%	0.00%	4.78%	0.00%	0.00%	0.00%	0.00%	8.38%
Percent Commercial Trips Generated(Exiting)	8.38%	2.27%	4.78%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Total Trips Generated	61	16	35	0	15	0	31	0	0	0	0	54
Total PM Peak Hour BUILD Volumes	132	31	496	263	129	72	495	2,880	68	48	3,220	118

Number of Commercial Trips Generated	Entering		Exiting	A.M.	100% Commercial Development
	945	816			
	650	724		P.M.	

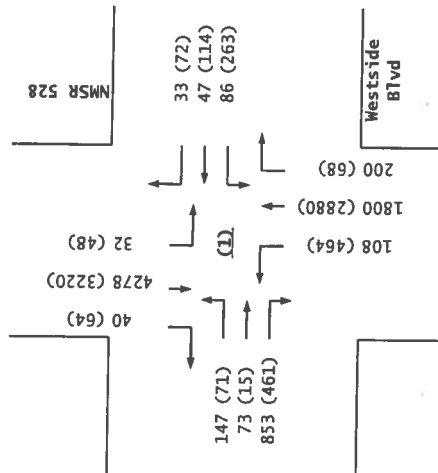
	Eastbound (Westside Blvd)			Westbound (Westside Blvd)			Northbound (NMSR 528)			Southbound (NMSR 528)		
2007 AM Peak Hr. Volumes	130	65	358	75	41	29	34	1,525	172	28	3,689	35
2007 PM Peak Hr. Volumes	63	13	78	231	100	63	273	2,419	59	43	2,761	57

2012  
BUILD



Trips

2012  
NO BUILD





**Westside / Golf Course Commercial Development**  
**Projected Turning Movements Worksheet**  
**Westside Blvd / Golf Course Rd**

**INTERSECTION :**E-W Street: **Westside Blvd** (2)N-S Street: **Golf Course Rd**

Year of Existing Counts

2007

Implementation Year

2012

NOBUILD volumes interpolated from MRCOG link volumes (see Appendix)

	3.00%			2.80%			3.00%			3.00%		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing Volumes	0	0	0	0	0	0	0	0	0	0	0	0
Background Traffic Growth	0	0	0	0	0	0	0	0	0	0	0	0
Subtotal	0	0	0	0	0	0	0	0	0	0	0	0
Subtotal (NO BUILD - A.M.)	52	220	254	77	8	16	25	50	212	395	456	46
Percent Commercial Trips Generated(Entering)	0.00%	7.84%	16.47%	15.43%	0.00%	0.00%	0.00%	0.00%	0.00%	2.65%	5.92%	0.27%
Percent Commercial Trips Generated(Exiting)	0.27%	0.46%	0.00%	0.00%	0.00%	0.00%	24.14%	8.57%	8.49%	0.00%	0.00%	0.00%
Total Trips Generated	2	78	156	146	0	0	197	70	69	25	56	3
Total AM Peak Hour BUILD Volumes	54	298	410	223	8	16	222	120	281	420	512	49

	Eastbound (Westside Blvd)			Westbound (Westside Blvd)			Northbound (Golf Course Rd)			Southbound (Golf Course Rd)		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing Volumes	0	0	0	0	0	0	0	0	0	0	0	0
Background Traffic Growth	0	0	0	0	0	0	0	0	0	0	0	0
Subtotal	0	0	0	0	0	0	0	0	0	0	0	0
Subtotal (NO BUILD - P.M.)	140	42	79	189	160	335	258	539	161	134	253	214
Percent Commercial Trips Generated(Entering)	0.00%	7.84%	16.47%	15.43%	0.00%	0.00%	0.00%	0.00%	0.00%	2.65%	5.92%	0.27%
Percent Commercial Trips Generated(Exiting)	0.27%	0.46%	0.00%	0.00%	0.00%	0.00%	24.14%	8.57%	8.49%	0.00%	0.00%	0.00%
Total Trips Generated	2	54	107	100	0	0	175	62	61	17	38	2
Total PM Peak Hour BUILD Volumes	142	96	186	289	160	335	433	601	222	151	291	216

Number of Commercial Trips Generated

Entering	Exiting	
945	816	A.M.
650	724	P.M.

100% Commercial Development

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

Eastbound (Westside Blvd)	Westbound (Westside Blvd)	Northbound (Golf Course Rd)	Southbound (Golf Course Rd)
0	0	0	0
0	0	0	0

**MRCOG Forecast Volumes Worksheet****Based on 2007 Traffic Count**

2007 AM Link Volume	0	0	0	0
2007 PM Link Volume	0	0	0	0

**Based on MRCOG Model (2025 Data Set)**

2010 AM Link Volume	459	93	268	829
2010 PM Link Volume	231	601	902	539
2025 AM Link Volume	964	148	408	1346
2025 PM Link Volume	453	1227	1321	1001

Growth Rate to Apply to Existing Counts to Match 2025 Forecasts

2007-2025 AM Growth Rates	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
2007-2025 PM Growth Rates	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!

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

2010-2025 AM Growth Rates	7.33%	3.94%	3.48%	4.16%
2010-2025 PM Growth Rates	6.41%	6.94%	3.10%	5.71%

**Pass-by Trip Calculations:****AM Pass-by Trips**Percent Entering  
Volume Entering  
Percent Exiting  
Volume Exiting  
Net AM Passby Trips

Eastbound (Westside Blvd)	Westbound (Westside Blvd)	Northbound (Golf Course Rd)	Southbound (Golf Course Rd)
0.00%	0.00%	0.00%	0.00%
0	0	0	0
0.00%	0.00%	0.00%	0.00%
0	0	0	0
0	0	0	0
0	0	0	0

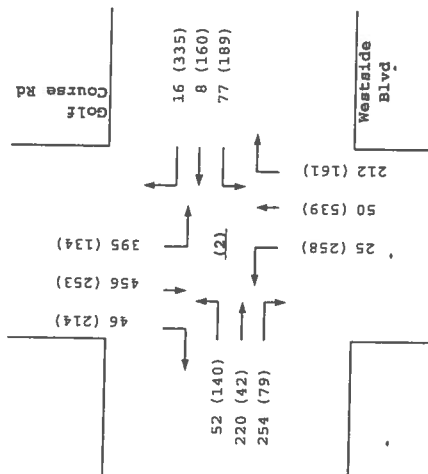
**PM Pass-by Trips**Percent Entering  
Volume Entering  
Percent Exiting  
Volume Exiting  
Net PM Passby Trips

Eastbound (Westside Blvd)	Westbound (Westside Blvd)	Northbound (Golf Course Rd)	Southbound (Golf Course Rd)
0.00%	0.00%	0.00%	0.00%
0	0	0	0
0.00%	0.00%	0.00%	0.00%
0	0	0	0
0	0	0	0
0	0	0	0

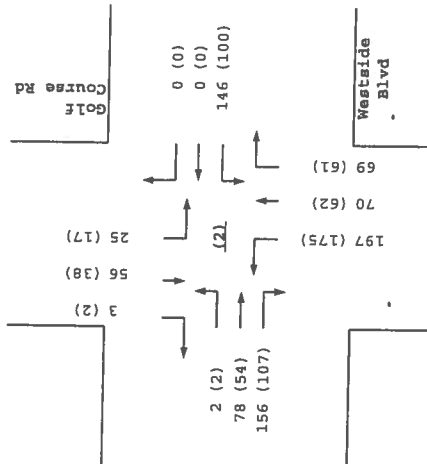
Pass-by Trips

Entering	Exiting
0	0 AM
279	258 PM

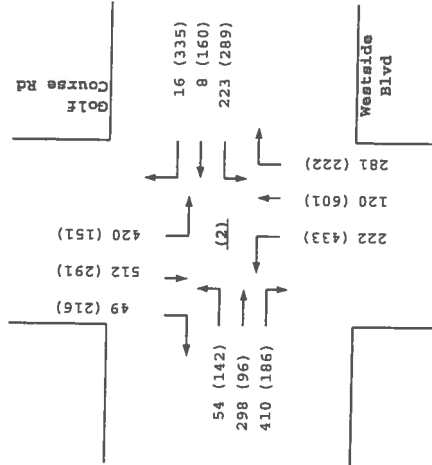
2012  
NO BUILD



Trips



2012  
BUILD



Westside Blvd / Golf Course Rd

## Westside / Golf Course Commercial Development

## Projected Turning Movements Worksheet

## Westside Blvd / Golf Course Rd

## ALTERNATE Case (Two Full Access Driveways)

## INTERSECTION:

E-W Street: Westside Blvd

N-S Street: Golf Course Rd

Year of Existing Counts

2007

Implementation Year

2012

NOBUILD volumes interpolated from MRCOG link volumes (see Appendix)

Growth Rates

Existing Volumes

Background Traffic Growth

Subtotal

Subtotal (NO BUILD - A.M.)

Percent Commercial Trips Generated(Entering)

Percent Commercial Trips Generated(Exiting)

Total Trips Generated

Total AM Peak Hour BUILD Volumes

3.00%			2.80%			3.00%			3.00%		
Eastbound (Westside Blvd)			Westbound (Westside Blvd)			Northbound (Golf Course Rd)			Southbound (Golf Course Rd)		
Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0
52	220	254	77	8	16	25	50	212	395	456	46
0.00%	7.84%	16.47%	15.43%	0.00%	0.00%	0.00%	0.00%	0.00%	2.65%	5.92%	0.27%
0.27%	0.46%	0.00%	0.00%	0.00%	0.00%	26.14%	8.57%	8.49%	0.00%	0.00%	0.00%
2	78	156	146	0	0	213	70	69	25	56	3
54	298	410	223	8	16	238	120	281	420	512	49

Existing Volumes

Background Traffic Growth

Subtotal

Subtotal (NO BUILD - P.M.)

Percent Commercial Trips Generated(Entering)

Percent Commercial Trips Generated(Exiting)

Total Trips Generated

Total PM Peak Hour BUILD Volumes

Eastbound (Westside Blvd)			Westbound (Westside Blvd)			Northbound (Golf Course Rd)			Southbound (Golf Course Rd)		
Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0
140	42	79	189	160	335	258	539	161	134	253	214
0.00%	7.84%	16.47%	15.43%	0.00%	0.00%	0.00%	0.00%	0.00%	2.65%	5.92%	0.27%
0.27%	0.46%	0.00%	0.00%	0.00%	0.00%	26.14%	8.57%	8.49%	0.00%	0.00%	0.00%
2	54	107	100	0	0	189	62	61	17	38	2
142	96	186	289	160	335	447	601	222	151	291	216

Number of Commercial Trips Generated

Entering Exiting

945 816

A.M.

100% Commercial Development

650 724

P.M.

2007 AM Peak Hr. Volumes

2007 PM Peak Hr. Volumes

Eastbound (Westside Blvd)			Westbound (Westside Blvd)			Northbound (Golf Course Rd)			Southbound (Golf Course Rd)		
Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0

## MRCOG Forecast Volumes Worksheet

## Based on 2007 Traffic Count

2007 AM Link Volume

0

0

0

0

2007 PM Link Volume

0

0

0

0

## Based on MRCOG Model (2025 Data Set)

2010 AM Link Volume

459

93

268

829

2010 PM Link Volume

231

601

902

539

2025 AM Link Volume

964

148

408

1346

2025 PM Link Volume

453

1227

1321

1001

Growth Rate to Apply to Existing Counts to Match 2025 Forecasts

2007-2025 AM Growth Rates

#DIV/0!

#DIV/0!

#DIV/0!

#DIV/0!

2007-2025 PM Growth Rates

#DIV/0!

#DIV/0!

#DIV/0!

#DIV/0!

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

2010-2025 AM Growth Rates

7.33%

3.94%

3.48%

4.16%

2010-2025 PM Growth Rates

6.41%

6.94%

3.10%

5.71%

## Pass-by Trip Calculations:

## AM Pass-by Trips

Percent Entering

Volume Entering

Percent Exiting

Volume Exiting

Net AM Passby Trips

Eastbound (Westside Blvd)			Westbound (Westside Blvd)			Northbound (Golf Course Rd)			Southbound (Golf Course Rd)		
0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
0	0	0	0	0	0	0	0	0	0	0	0
0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0

## PM Pass-by Trips

Percent Entering

Volume Entering

Percent Exiting

Volume Exiting

Net PM Passby Trips

Eastbound (Westside Blvd)			Westbound (Westside Blvd)			Northbound (Golf Course Rd)			Southbound (Golf Course Rd)		
0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
0	0	0	0	0	0	0	0	0	0	0	0
0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0

Pass-by Trips

Entering

Exiting

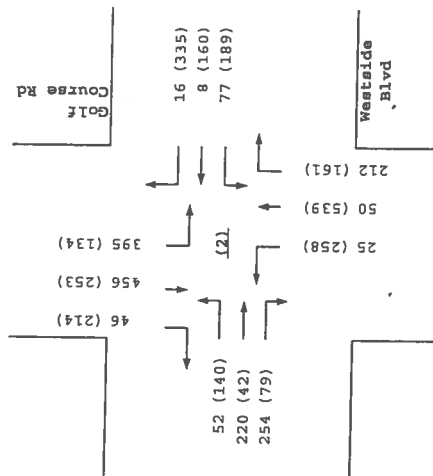
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0 AM

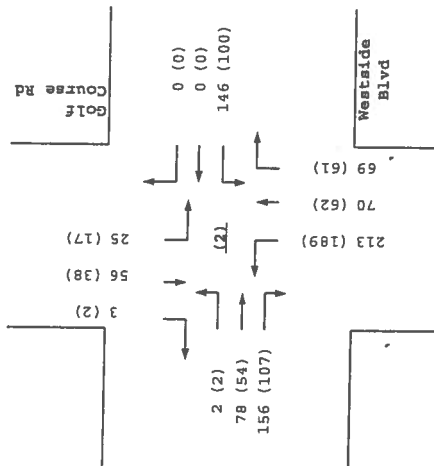
279

258 PM

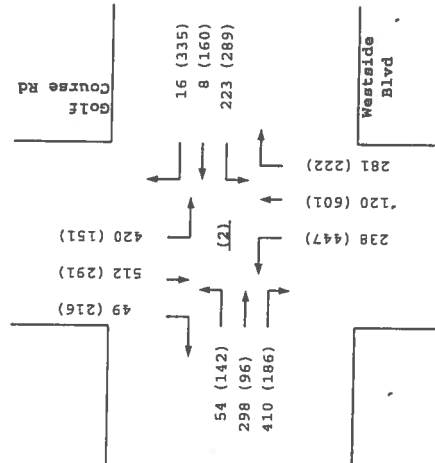
2012  
NO BUILD



ALTERNATE Case (Two Full Access Driveways)  
Trips



2012  
BUILD



Westside Blvd / Golf Course Rd

**Westside / Golf Course Commercial Development**  
**Projected Turning Movements Worksheet**  
**McMahon Blvd / Golf Course Rd**

**INTERSECTION :**

E-W Street: McMahon Blvd (3)

N-S Street: Golf Course Rd

Year of Existing Counts 2007

Implementation Year 2012

Growth Rates

	6.00%			5.50%			0.50%			3.00%		
	Eastbound (McMahon Blvd)			Westbound (McMahon Blvd)			Northbound (Golf Course Rd)			Southbound (Golf Course Rd)		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing Volumes	93	590	580	121	269	69	201	348	220	126	538	17
Background Traffic Growth	28	177	174	33	74	19	5	9	6	19	81	3
Subtotal	121	767	754	154	343	88	206	357	226	145	619	20
Paradise Hts / Anasazi Ridge	40	40	40	0	13	0	13	0	0	0	0	13
Smiths @ Golf Course / McMahon	19	45	0	46	11	0	0	0	0	0	25	0
Cabezon Development	13	0	0	0	0	26	0	157	0	36	378	31
Subtotal (NO BUILD - A.M.)	193	852	794	200	367	114	219	514	226	181	1,022	64
Percent Commercial Trips Generated(Entering)	9.76%	0.00%	0.00%	0.00%	0.00%	17.10%	0.00%	21.02%	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%	17.10%	21.02%	9.76%
Total Trips Generated	92	0	0	0	0	162	0	199	0	140	172	80
Total AM Peak Hour BUILD Volumes	285	852	794	200	367	276	219	713	226	321	1,194	144

	Eastbound (McMahon Blvd)			Westbound (McMahon Blvd)			Northbound (Golf Course Rd)			Southbound (Golf Course Rd)		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing Volumes	52	555	283	376	949	129	743	766	313	125	448	73
Background Traffic Growth	16	167	85	103	261	35	19	19	8	19	67	11
Subtotal	68	722	368	479	1,210	164	762	785	321	144	515	84
Paradise Hts / Anasazi Ridge	24	24	24	0	40	0	40	0	0	0	0	40
Smiths @ Golf Course / McMahon	37	85	0	76	19	0	0	0	0	0	41	0
Cabezon Development	38	0	0	0	0	76	0	456	0	57	610	50
Subtotal (NO BUILD - P.M.)	167	831	392	555	1,269	240	802	1,241	321	201	1,166	174
Percent Commercial Trips Generated(Entering)	9.76%	0.00%	0.00%	0.00%	0.00%	17.10%	0.00%	21.02%	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%	17.10%	21.02%	9.76%
Total Trips Generated	63	0	0	0	0	111	0	137	0	124	152	71
Total PM Peak Hour BUILD Volumes	230	831	392	555	1,269	351	802	1,378	321	325	1,318	245

Number of Commercial Trips Generated

Entering	945	816	A.M.	100% Commercial Development
Exiting	650	724	P.M.	

	Eastbound (McMahon Blvd)			Westbound (McMahon Blvd)			Northbound (Golf Course Rd)			Southbound (Golf Course Rd)		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
2007 AM Peak Hr. Volumes	93	590	580	121	269	69	201	348	220	126	538	17
2007 PM Peak Hr. Volumes	52	555	283	376	949	129	743	766	313	125	448	73

**Westside / Golf Course Commercial Development**  
**Projected Turning Movements Worksheet**  
**Westside Blvd / Unser Blvd**

**INTERSECTION :**E-W Street: **Westside Blvd** (4)N-S Street: **Unser Blvd**Year of Existing Counts  
Implementation Year

2007

2012

NOBUILD volumes interpolated from MRCOG link volumes (see Appendix)

Growth Rates

	3.00%			3.00%			9.90%			9.90%		
	Eastbound (Westside Blvd)			Westbound (Westside Blvd)			Northbound (Unser Blvd)			Southbound (Unser Blvd)		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing Volumes	0	0	0	0	0	0	0	0	0	0	0	0
Background Traffic Growth	0	0	0	0	0	0	0	0	0	0	0	0
Subtotal	0	0	0	0	0	0	0	0	0	0	0	0
Cabezon Development	0	0	0	0	0	0	0	0	0	0	0	0
Subtotal (NO BUILD - A.M.)	36	33	75	180	3	87	14	427	391	530	1,202	19
Percent Commercial Trips Generated(Entering)	0.00%	0.67%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	4.04%	0.00%	0.00%
Percent Commercial Trips Generated(Exiting)	0.00%	0.00%	0.00%	0.00%	0.67%	4.04%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Total Trips Generated	0	6	0	0	5	33	0	0	0	38	0	0
Total AM Peak Hour BUILD Volumes	36	39	75	180	8	120	14	427	391	568	1,202	19

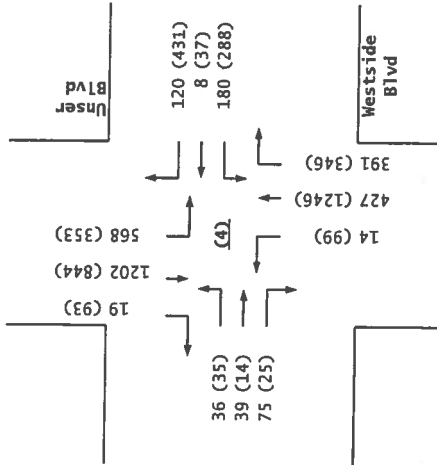
	Eastbound (Westside Blvd)			Westbound (Westside Blvd)			Northbound (Unser Blvd)			Southbound (Unser Blvd)		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing Volumes	0	0	0	0	0	0	0	0	0	0	0	0
Background Traffic Growth	0	0	0	0	0	0	0	0	0	0	0	0
Subtotal	0	0	0	0	0	0	0	0	0	0	0	0
Cabezon Development	0	0	0	0	0	0	0	0	0	0	0	0
Subtotal (NO BUILD - P.M.)	35	10	25	288	32	402	99	1,246	346	327	844	93
Percent Commercial Trips Generated(Entering)	0.00%	0.67%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	4.04%	0.00%	0.00%
Percent Commercial Trips Generated(Exiting)	0.00%	0.00%	0.00%	0.00%	0.67%	4.04%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Total Trips Generated	0	4	0	0	5	29	0	0	0	28	0	0
Total PM Peak Hour BUILD Volumes	35	14	25	288	37	431	99	1,246	346	353	844	93

Number of Commercial Trips Generated

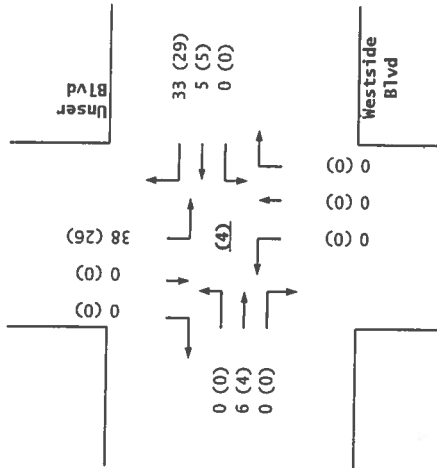
Entering	945	816	A.M.	100% Commercial Development
Exiting	650	724	P.M.	

	Eastbound (Westside Blvd)			Westbound (Westside Blvd)			Northbound (Unser Blvd)			Southbound (Unser Blvd)		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
2007 AM Peak Hr. Volumes	0	0	0	0	0	0	0	0	0	0	0	0
2007 PM Peak Hr. Volumes	0	0	0	0	0	0	0	0	0	0	0	0

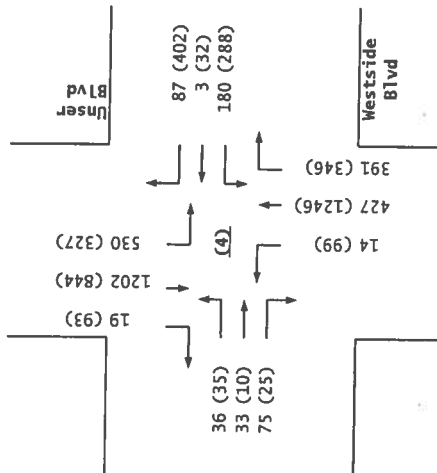
2012  
BUILD



Trips



2012  
NO BUILD



**Westside / Golf Course Commercial Development**

Projected Turning Movements Worksheet

**Driveway 'A' / Golf Course Rd**Base Case (One Full Access Driveway)**INTERSECTION :**E-W Street: Driveway 'A'  
N-S Street: Golf Course Rd

(5)

Year of Existing Counts  
Implementation Year2007  
2012

NOBUILD volumes interpolated from MRCOG link volumes (see Appendix)

	3.00%			3.00%			3.00%			3.00%		
	Eastbound (Driveway 'A')			Westbound (Driveway 'A')			Northbound (Golf Course Rd)			Southbound (Golf Course Rd)		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing Volumes	0	0	0	0	0	0	0	0	0	0	0	0
Background Traffic Growth	0	0	0	0	0	0	0	0	0	0	0	0
Subtotal	0	0	0	0	0	0	0	0	0	0	0	0
Subtotal (NO BUILD - A.M.)	0	0	0	0	0	0	0	287	0	0	787	0
Percent Commercial Trips Generated(Entering)	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	10.91%	0.00%	20.82%	22.35%	17.56%	2.50%
Percent Commercial Trips Generated(Exiting)	10.36%	0.00%	3.47%	38.67%	0.00%	14.69%	0.00%	18.15%	0.00%	0.00%	0.00%	0.00%
Total Trips Generated	85	0	28	316	0	120	103	148	197	211	166	24
Subtotal AM Pk Hr. BUILD Volumes	85	0	28	316	0	120	103	435	197	211	953	24
Pass-by Trip Adjustments	0	0	0	0	0	0	0	0	0	0	0	0
Total AM Peak Hour BUILD Volumes	85	0	28	316	0	120	103	435	197	211	953	24

	Eastbound (Driveway 'A')			Westbound (Driveway 'A')			Northbound (Golf Course Rd)			Southbound (Golf Course Rd)		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing Volumes	0	0	0	0	0	0	0	0	0	0	0	0
Background Traffic Growth	0	0	0	0	0	0	0	0	0	0	0	0
Subtotal	0	0	0	0	0	0	0	0	0	0	0	0
Subtotal (NO BUILD - P.M.)	0	0	0	0	0	0	0	958	0	0	521	0
Percent Commercial Trips Generated(Entering)	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	10.91%	0.00%	20.82%	22.35%	17.56%	2.50%
Percent Commercial Trips Generated(Exiting)	10.36%	0.00%	3.47%	38.67%	0.00%	14.69%	0.00%	18.15%	0.00%	0.00%	0.00%	0.00%
Total Trips Generated	75	0	25	280	0	106	71	131	135	145	114	16
Subtotal PM Pk Hr. BUILD Volumes	75	0	25	280	0	106	71	1,089	135	145	635	16
Pass-by Trip Adjustments	13	0	13	77	0	77	14	-102	84	84	-98	14
Total PM Peak Hour BUILD Volumes	88	0	38	357	0	183	85	987	219	229	537	30

Number of Commercial Trips Generated

Entering	945	818	A.M.	100% Commercial Development
Exiting	650	724	P.M.	

	Eastbound (Driveway 'A')			Westbound (Driveway 'A')			Northbound (Golf Course Rd)			Southbound (Golf Course Rd)		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
2007 AM Peak Hr. Volumes	0	0	0	0	0	0	0	0	0	0	0	0
2007 PM Peak Hr. Volumes	0	0	0	0	0	0	0	0	0	0	0	0

**MRCOG Forecast Volumes Worksheet**Based on 2007 Traffic Count

2007 AM Link Volume	0	0	0	0
2007 PM Link Volume	0	0	0	0

Based on MRCOG Model (2025 Data Set)

2005 AM Link Volume	370	327	1248	1049
2005 PM Link Volume	313	1024	1058	1248
2025 AM Link Volume	1468	848	1809	777
2025 PM Link Volume	923	1753	1389	1534

Growth Rate to Apply to Existing Counts to Match 2025 Forecasts

2007-2025 AM Growth Rates	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
2007-2025 PM Growth Rates	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!

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

2005-2025 AM Growth Rates	14.84%	7.97%	1.45%	-1.30%
2005-2025 PM Growth Rates	9.74%	3.56%	1.56%	1.16%

**Pass-by Trip Calculations:**PM Pass-by Trips

	Eastbound (Driveway 'A')			Westbound (Driveway 'A')			Northbound (Golf Course Rd)			Southbound (Golf Course Rd)		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Percent Entering	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	5.00%	-60.00%	30.00%	30.00%	-35.00%	5.00%
Volume Entering	0	0	0	0	0	0	14	-167	84	84	-98	14
Percent Exiting	5.00%	0.00%	5.00%	30.00%	0.00%	30.00%	0.00%	25.00%	0.00%	0.00%	0.00%	0.00%
Volume Exiting	13	0	13	77	0	77	0	65	0	0	0	0
Net PM Passby Trips	13	0	13	77	0	77	14	-102	84	84	-98	14
Pass-by Trips	0	0	0	0	0	0	0	0	0	0	0	0
	279	0	279	258	0	258	0	0	0	0	0	0



**Westside / Golf Course Commercial Development**

Projected Turning Movements Worksheet

**Driveway 'A' / Golf Course Rd****ALTERNATE Case (Two Full Access Driveways)****INTERSECTION :**

E-W Street: Driveway 'A'

(5)

N-S Street: Golf Course Rd

Year of Existing Counts  
Implementation Year2007  
2012

NOBUILD volumes interpolated from MRCOG link volumes (see Appendix)

Growth Rates

Existing Volumes

Background Traffic Growth

Subtotal

Subtotal (NO BUILD - A.M.)

Percent Commercial Trips Generated(Entering)

Percent Commercial Trips Generated(Exiting)

Total Trips Generated

Subtotal AM Pk Hr. BUILD Volumes

Pass-by Trip Adjustments

Total AM Peak Hour BUILD Volumes

3.00%			3.00%			3.00%			3.00%		
Eastbound (Driveway 'A')			Westbound (Driveway 'A')			Northbound (Golf Course Rd)			Southbound (Golf Course Rd)		
Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	287	0	0	787	0
0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	10.91%	0.00%	20.82%	12.35%	17.56%	2.50%
10.36%	0.00%	3.47%	20.82%	0.00%	14.69%	0.00%	18.15%	0.00%	0.00%	0.00%	0.00%
85	0	28	170	0	120	103	148	197	117	166	24
85	0	28	170	0	120	103	435	197	117	953	24
0	0	0	0	0	0	0	0	0	0	0	0
85	0	28	170	0	120	103	435	197	117	953	24

Existing Volumes

Background Traffic Growth

Subtotal

Subtotal (NO BUILD - P.M.)

Percent Commercial Trips Generated(Entering)

Percent Commercial Trips Generated(Exiting)

Total Trips Generated

Subtotal PM Pk Hr. BUILD Volumes

Pass-by Trip Adjustments

Total PM Peak Hour BUILD Volumes

Eastbound (Driveway 'A')			Westbound (Driveway 'A')			Northbound (Golf Course Rd)			Southbound (Golf Course Rd)		
Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	958	0	0	521	0
0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	10.91%	0.00%	20.82%	12.35%	17.56%	2.50%
10.36%	0.00%	3.47%	20.82%	0.00%	14.69%	0.00%	18.15%	0.00%	0.00%	0.00%	0.00%
75	0	25	151	0	106	71	131	135	80	114	16
75	0	25	151	0	106	71	1,089	135	80	635	16
13	0	13	77	0	77	14	-102	84	84	-98	14
88	0	38	228	0	183	85	987	219	164	537	30

Number of Commercial Trips Generated

Entering

Exiting

945

816

A.M.

100% Commercial Development

650

724

P.M.

2007 AM Peak Hr. Volumes

2007 PM Peak Hr. Volumes

Eastbound (Driveway 'A')			Westbound (Driveway 'A')			Northbound (Golf Course Rd)			Southbound (Golf Course Rd)		
Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0

**MRCOG Forecast Volumes Worksheet****Based on 2007 Traffic Count**

2007 AM Link Volume

0

0

0

0

2007 PM Link Volume

0

0

0

0

**Based on MRCOG Model (2025 Data Set)**

2005 AM Link Volume

370

327

1248

1049

2005 PM Link Volume

313

1024

1058

1246

2025 AM Link Volume

1468

848

1809

777

2025 PM Link Volume

923

1753

1389

1534

Growth Rate to Apply to Existing Counts to Match 2025 Forecasts

2007-2025 AM Growth Rates

#DIV/0!

#DIV/0!

#DIV/0!

#DIV/0!

2007-2025 PM Growth Rates

#DIV/0!

#DIV/0!

#DIV/0!

#DIV/0!

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

2005-2025 AM Growth Rates

14.84%

7.97%

1.45%

-1.30%

2005-2025 PM Growth Rates

9.74%

3.56%

1.56%

1.16%

Pass-by Trip Calculations:

**PM Pass-by Trips**

Percent Entering

Volume Entering

Percent Exiting

Volume Exiting

Net PM Passby Trips

Pass-by Trips

Eastbound (Driveway 'A')			Westbound (Driveway 'A')			Northbound (Golf Course Rd)			Southbound (Golf Course Rd)		
0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	5.00%	-60.00%	30.00%	30.00%	-35.00%	5.00%
0	0	0	0	0	0	14	-167	84	84	-98	14
5.00%	0.00%	5.00%	30.00%	0.00%	30.00%	0.00%	25.00%	0.00%	0.00%	0.00%	0.00%
13	0	13	77	0	77	14	-102	84	84	-98	14
13	0	13	77	0	77	14	-102	84	84	-98	14
Entering	0	0	0	0	0	0	0	0	0	0	0
Exiting	0	0	0	0	0	0	0	0	0	0	0
279	0	0	258	0	0	0	0	0	0	0	0

**Westside / Golf Course Commercial Development**

## Projected Turning Movements Worksheet

**Westside Blvd / Driveway 'B'**Base Case (One Full Access Driveway)**INTERSECTION :**

E-W Street: Westside Blvd

N-S Street: Driveway 'B'

(6)

Year of Existing Counts

2004

Implementation Year

2012

Growth Rates

	2.80%			2.80%			3.00%			3.00%		
	Eastbound (Westside Blvd)			Westbound (Westside Blvd)			Northbound (Driveway 'B')			Southbound (Driveway 'B')		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing Volumes	0	510	0	0	101	0	0	0	0	0	0	0
Background Traffic Growth	0	114	0	0	23	0	0	0	0	0	0	0
Subtotal	0	624	0	0	124	0	0	0	0	0	0	0
Subtotal (NO BUILD - A.M.)	0	624	0	0	124	0	0	0	0	0	0	0
Percent Commercial Trips Generated(Entering)	0.00%	0.00%	10.49%	0.00%	15.43%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Percent Commercial Trips Generated(Exiting)	0.00%	8.95%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	6.48%	0.00%	0.00%	0.00%
Total Trips Generated	0	73	99	0	146	0	0	0	53	0	0	0
Subtotal AM Pk Hr. BUILD Volumes	0	697	99	0	270	0	0	0	53	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	697	99	0	270	0	0	0	53	0	0	0

	Eastbound (Westside Blvd)			Westbound (Westside Blvd)			Northbound (Driveway 'B')			Southbound (Driveway 'B')		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing Volumes	0	142	0	0	390	0	0	0	0	0	0	0
Background Traffic Growth	0	32	0	0	87	0	0	0	0	0	0	0
Subtotal	0	174	0	0	477	0	0	0	0	0	0	0
Subtotal (NO BUILD - P.M.)	0	174	0	0	477	0	0	0	0	0	0	0
Percent Commercial Trips Generated(Entering)	0.00%	0.00%	10.49%	0.00%	15.43%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Percent Commercial Trips Generated(Exiting)	0.00%	8.95%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	6.48%	0.00%	0.00%	0.00%
Total Trips Generated	0	65	68	0	100	0	0	0	47	0	0	0
Subtotal PM Pk Hr. BUILD Volumes	0	239	68	0	577	0	0	0	47	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	239	68	0	577	0	0	0	47	0	0	0

Number of Commercial Trips Generated	Entering 945	Exiting 816	A.M.	100% Commercial Development
	850	724	P.M.	

	Eastbound (Westside Blvd)			Westbound (Westside Blvd)			Northbound (Driveway 'B')			Southbound (Driveway 'B')		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
2007 AM Peak Hr. Volumes	0	553	0	0	109	0	0	0	0	0	0	0
2007 PM Peak Hr. Volumes	0	154	0	0	423	0	0	0	0	0	0	0

**MRCOG Forecast Volumes Worksheet**Based on 2004 Traffic Count

2004 AM Link Volume	510	101	0	0
2004 PM Link Volume	142	390	0	0

Based on MRCOG Model (2025 Data Set)

2005 AM Link Volume	370	327	1248	1049
2005 PM Link Volume	313	1024	1058	1246
2025 AM Link Volume	1468	848	1609	777
2025 PM Link Volume	923	1753	1389	1534

## Growth Rate to Apply to Existing Counts to Match 2025 Forecasts

2004-2025 AM Growth Rates	8.94%	35.22%	#DIV/0!	#DIV/0!
2004-2025 PM Growth Rates	28.18%	18.84%	#DIV/0!	#DIV/0!

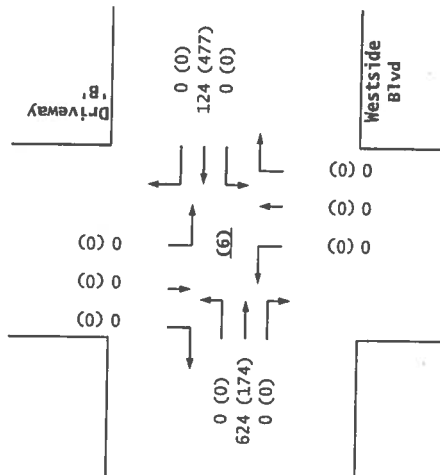
## Growth Rate to Apply to 2005 Model Volumes to Match 2025 Forecasts

2005-2025 AM Growth Rates	14.84%	7.97%	1.45%	-1.30%
2005-2025 PM Growth Rates	9.74%	3.56%	1.56%	1.16%

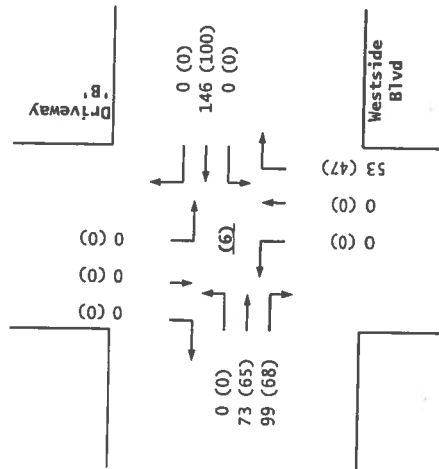
## Pass-by Trip Calculations:

	Eastbound (Westside Blvd)			Westbound (Westside Blvd)			Northbound (Driveway 'B')			Southbound (Driveway 'B')		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
PH Pass-by Trips	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 Entering	0	0	0	0	0	0	0	0	0	0	0	0
Volume 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 Exiting	0	0	0	0	0	0	0	0	0	0	0	0
Volume Exiting	0	0	0	0	0	0	0	0	0	0	0	0
Net PM Passby Trips	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips	Entering 0	Exiting 0	AM 279	Exiting 0	AM 258	PM 258						

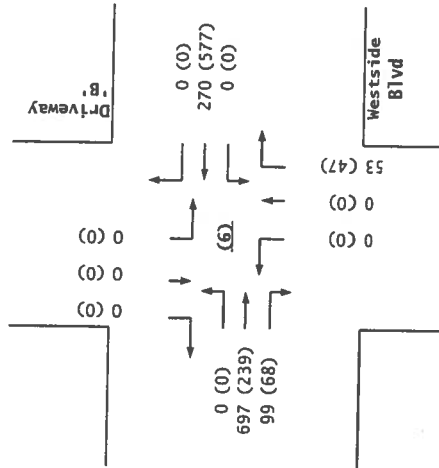
2012  
NO BUILD



Trips



2012  
BUILD



Westside Blvd / Driveway 'B'

**Westside / Golf Course Commercial Development**

## Projected Turning Movements Worksheet

**Driveway 'E' / Golf Course Rd**Base Case (One Full Access Driveway)**INTERSECTION :**

E-W Street: Driveway 'E'

N-S Street: Golf Course Rd

(9)

Year of Existing Counts

2007

Implementation Year

2012

NOBUILD volumes interpolated from MRCOG link volumes (see Appendix)

	3.00%			3.00%			3.00%			3.00%		
	Eastbound (Driveway 'E')			Westbound (Driveway 'E')			Northbound (Golf Course Rd)			Southbound (Golf Course Rd)		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing Volumes	0	0	0	0	0	0	0	0	0	0	0	0
Background Traffic Growth	0	0	0	0	0	0	0	0	0	0	0	0
Subtotal	0	0	0	0	0	0	0	0	0	0	0	0
Subtotal (NO BUILD - A.M.)	0	0	0	0	0	0	0	287	0	0	787	0
Percent Commercial Trips Generated(Entering)	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	49.58%	0.00%	0.00%	0.00%	7.56%
Percent Commercial Trips Generated(Exiting)	0.00%	0.00%	7.44%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	42.14%	0.00%
Total Trips Generated	0	0	61	0	0	0	0	469	0	0	344	71
Subtotal AM Pk Hr. BUILD Volumes	0	0	61	0	0	0	0	756	0	0	1,131	71
Pass-by Trip Adjustments	0	0	0	0	0	0	0	0	0	0	0	0
Total AM Peak Hour BUILD Volumes	0	0	61	0	0	0	0	756	0	0	1,131	71

	Eastbound (Driveway 'E')			Westbound (Driveway 'E')			Northbound (Golf Course Rd)			Southbound (Golf Course Rd)		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing Volumes	0	0	0	0	0	0	0	0	0	0	0	0
Background Traffic Growth	0	0	0	0	0	0	0	0	0	0	0	0
Subtotal	0	0	0	0	0	0	0	0	0	0	0	0
Subtotal (NO BUILD - P.M.)	0	0	0	0	0	0	0	958	0	0	521	0
Percent Commercial Trips Generated(Entering)	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	49.58%	0.00%	0.00%	0.00%	7.56%
Percent Commercial Trips Generated(Exiting)	0.00%	0.00%	7.44%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	42.14%	0.00%
Total Trips Generated	0	0	54	0	0	0	0	322	0	0	305	49
Subtotal PM Pk Hr. BUILD Volumes	0	0	54	0	0	0	0	1,280	0	0	826	49
Pass-by Trip Adjustments	0	0	13	0	0	0	0	0	0	0	-22	14
Total PM Peak Hour BUILD Volumes	0	0	67	0	0	0	0	1,280	0	0	804	63

Number of Commercial Trips Generated	Entering	Exiting	A.M.	100% Commercial Development
	945	816		
	650	724	P.M.	

	Eastbound (Driveway 'E')			Westbound (Driveway 'E')			Northbound (Golf Course Rd)			Southbound (Golf Course Rd)		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
2007 AM Peak Hr. Volumes	0	0	0	0	0	0	0	0	0	0	0	0
2007 PM Peak Hr. Volumes	0	0	0	0	0	0	0	0	0	0	0	0

**MRCOG Forecast Volumes Worksheet**Based on 2007 Traffic Count

2007 AM Link Volume	0	0	0	0
2007 PM Link Volume	0	0	0	0

Based on MRCOG Model (2025 Data Set)

2005 AM Link Volume	370	327	1248	1049
2005 PM Link Volume	313	1024	1058	1246
2025 AM Link Volume	1468	848	1609	777
2025 PM Link Volume	923	1753	1389	1534

## Growth Rate to Apply to Existing Counts to Match 2025 Forecasts

2007-2025 AM Growth Rates	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
2007-2025 PM Growth Rates	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!

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

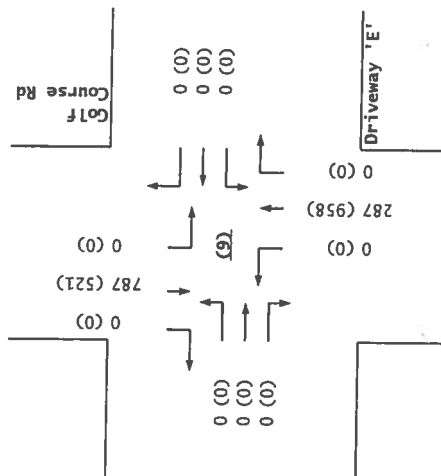
2005-2025 AM Growth Rates	14.84%	7.97%	1.45%	-1.30%
2005-2025 PM Growth Rates	9.74%	3.56%	1.56%	1.16%

## Pass-by Trip Calculations:

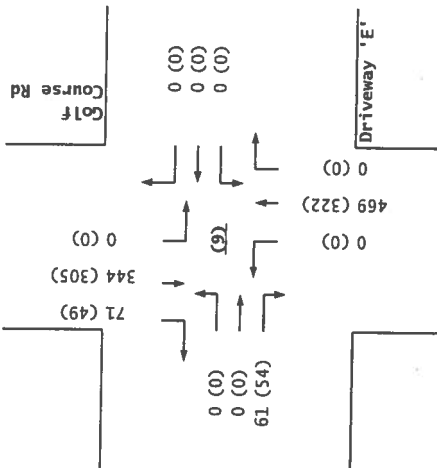
PM Pass-by Trips  
 Percent Entering  
 Volume Entering  
 Percent Exiting  
 Volume Exiting  
 Net PM Passby Trips

	Eastbound (Driveway 'E')			Westbound (Driveway 'E')			Northbound (Golf Course Rd)			Southbound (Golf Course Rd)		
	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	-40.00%	5.00%
Volume Entering	0	0	0	0	0	0	0	0	0	0	-112	14
Volume Exiting	0.00%	0.00%	5.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	35.00%	0.00%
Net PM Passby Trips	0	0	13	0	0	0	0	0	0	0	90	0
Entering	0	0	13	0	0	0	0	0	0	0	-22	14
Exiting	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips	0	0	0	0	0	0	0	0	0	0	0	0
	279	0	0	258	0	0	0	0	0	0	0	0

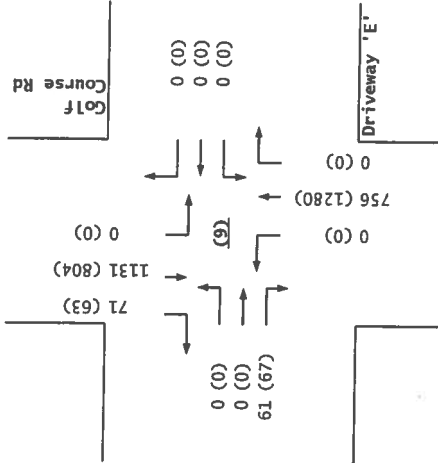
2012  
NO BUILD



Trips



2012  
BUILD



Driveway 'E' / Golf Course Rd



**2007 NO BUILD Volumes - AM(PM)**

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



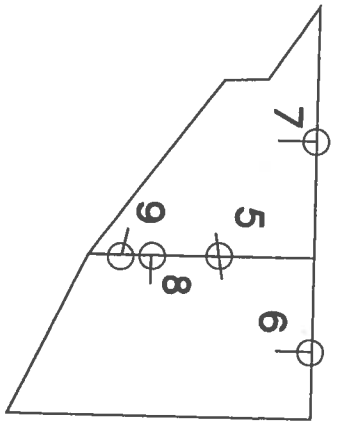
### **Trips Generated Volumes - AM(PM)**

Terry O. Brown, P.E.

**P.O. Box 9205**

**Albuquerque, NM 87199-2051**

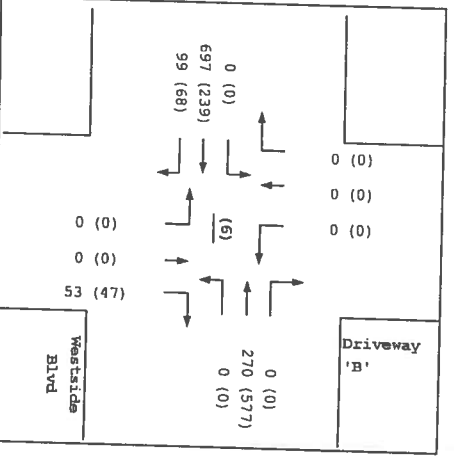
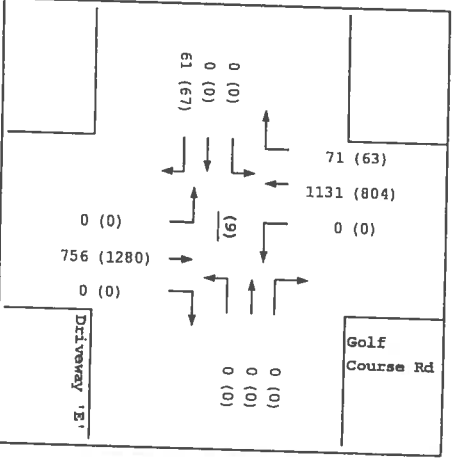
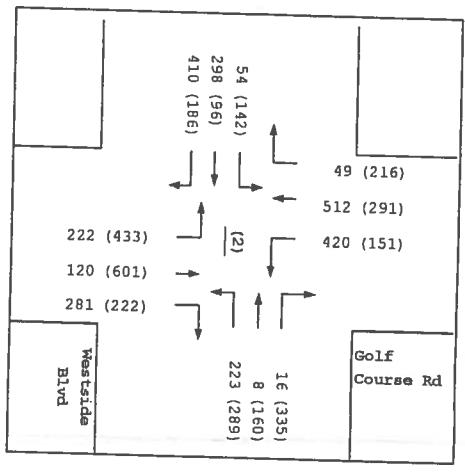
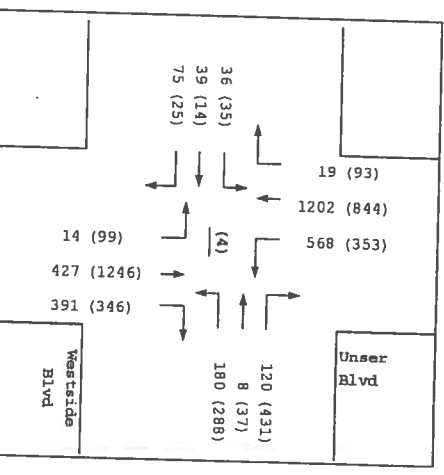
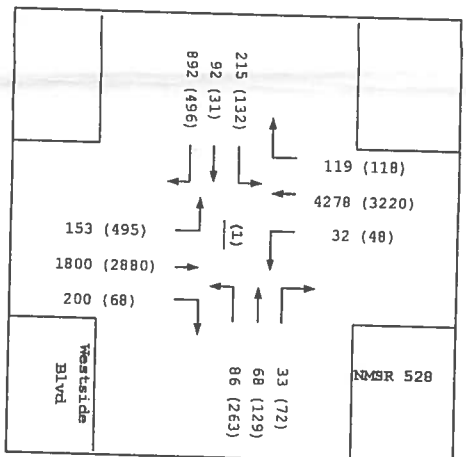
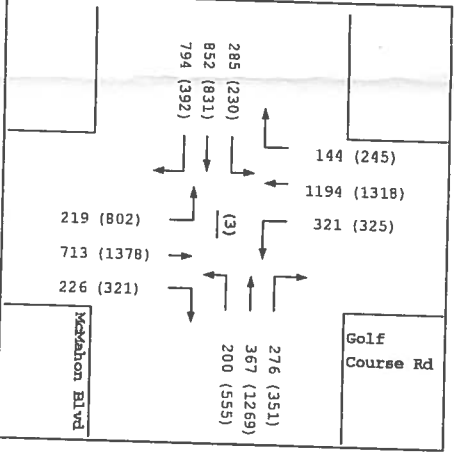
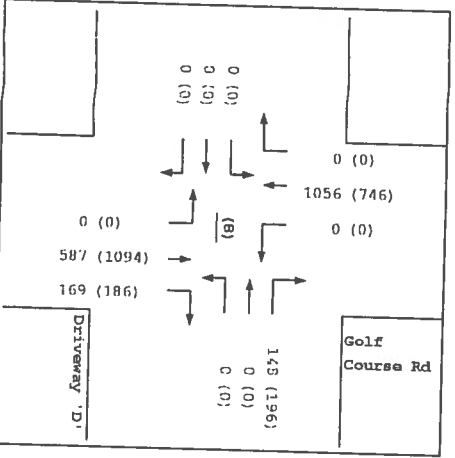
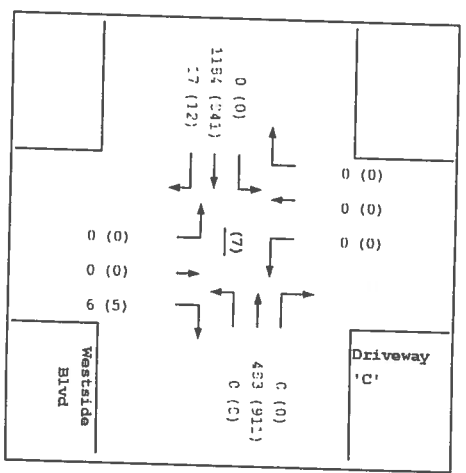
**(505) 883-8807 (Voice)**



DRIVEWAY DETAIL



- SIGNALIZED INTERSECTION
- UNSIGNALIZED INTERSECTION



*Westside / Golf Course Comm. Dev.*  
2007 BUILD Volumes - AM(PM)

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



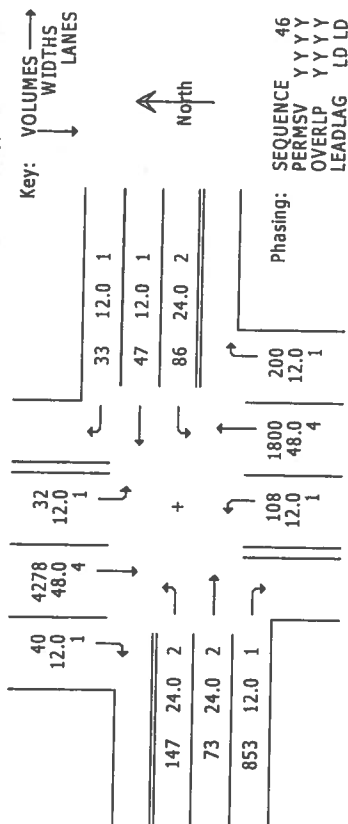
Analysis of Intersection #1

**Westside Blvd / NMSR 528**

**SIGNAL2000/TEAPAC[Ver 2.71.07] - HCM Input Worksheet**

Intersection # 1 - Westside Blvd / NMSR 528

Area Location Type: NONCBD



	SB			WB			NB			EB		
	RT	TH	LT	RT	TH	LT	RT	TH	LT	RT	TH	LT
Heavy veh, %HV	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Pk-hr fact, PHF	.84	.84	.84	.75	.75	.75	.79	.79	.79	.78	.78	.78
Prctimed or Act	A	A	A	A	A	A	A	A	A	A	A	A
Strup lost, l1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Ext eff grn, e	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Arrival typ, AT	3	3	3	3	3	3	3	3	3	3	3	3
Ped vol, vped	0	0	0	0	0	0	0	0	0	0	0	0
Bike vol, vbic	0	0	0	0	0	0	0	0	0	0	0	0
Parking locatns	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
Park mnvrs, Nm	0	0	0	0	0	0	0	0	0	0	0	0
Bus stops, NB	0	0	0	0	0	0	0	0	0	0	0	0
Grade, %G	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0

	Phase 1	Phase 2	Phase 3	Phase 4	Phase 5	Phase 6
Sq 46 LD/LD						
North						
C=130"	G= 5.7" Y+R= 5.0"	G= 55.7" Y+R= 5.0"	G= 5.0" Y+R= 5.0"	G= -2.8" Y+R= 5.0"	G= 41.4" Y+R= 5.0"	G= 0.0" Y+R= 0.0"

**SIGNAL2000/TEAPAC[Ver 2.71.07] - Capacity Analysis Summary**

Intersection Averages for Int # 1 - Westside Blvd / NMSR 528  
V/C 1.398 (Critical V/C 1.686)

Level of Service F

Control Delay 263.5

Sq 46 LD/LD	Phase 1	Phase 2	Phase 3	Phase 4	Phase 5

C=130 sec G=105.0 sec = 80.8% Y=25.0 sec = 19.2% Ped= 0.0 sec = 0.0%

Lane Group	Width/ Lanes	Reqd	q/c Used	Service Rate @D (vph) @E	Adj Volume	v/c	HCM Delay	L	Queue Model 1
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SB Approach

RT	12/1	0.103	0.522	797	819	0.059	15.3	B	41 ft
TH	48/4	0.711	0.429	2872	2872	1.773	386.6	*F	4590 ft
LT	12/1	0.004	0.044	109	124	0.284	23.8	C+	40 ft

NB Approach

RT	12/1	0.220	0.506	767	793	0.319	19.2	B	248 ft
TH	48/4	0.349	0.429	2872	2872	0.793	33.8	C	864 ft
LT	12/1	0.065	0.044	105	122	1.022	117.0	*F	309 ft

WB Approach

RT	12/1	0.101	0.401	575	628	0.070	24.1	C+	47 ft
TH	12/1	0.104	0.318	511	585	0.107	31.4	C	76 ft
LT	24/2	0.101	0.038	1	96	0.878	106.5	*F	127 ft

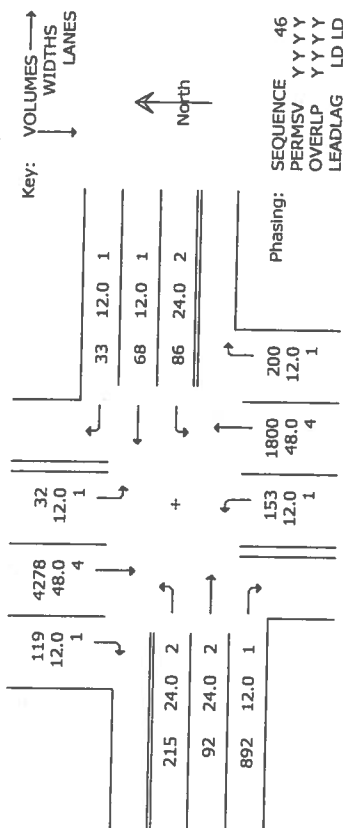
EB Approach

RT	12/1	0.680	0.418	606	655	1.670	346.2	*F	3428 ft
TH	24/2	0.096	0.335	1098	1177	0.080	29.6	C	58 ft
LT	24/2	0.114	0.055	1	148	1.000	127.0	*F	222 ft

**SIGNAL2000/TEAPAC[Ver 2.71.07] - HCM Input Worksheet**

Intersection # 1 - - Westside Blvd / NMSR 528

Area Location Type: NONCBD



	SB			WB			NB			EB		
	RT	TH	LT	RT	TH	LT	RT	TH	LT	RT	TH	LT
Heavy veh, %HV	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Pk-hr fact, PHF	.84	.84	.84	.75	.75	.75	.79	.79	.79	.78	.78	.78
Pretimed or Act	A	A	A	A	A	A	A	A	A	A	A	A
Startup lost, l1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Ext eff gm, e	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Arrival typ, AT	3	3	3	3	3	3	3	3	3	3	3	3
Ped vol, vped	0	0	0	0	0	0	0	0	0	0	0	0
Bike vol, vbic	0	0	0	0	0	0	0	0	0	0	0	0
Parking locatns	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
Park mnvrs, Nm	0	0	0	0	0	0	0	0	0	0	0	0
Bus stops, NB	0	0	0	0	0	0	0	0	0	0	0	0
Grade, %G	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0

Sq 46 LD/LD	Phase 1	Phase 2	Phase 3	Phase 4	Phase 5	Phase 6
North						
G= 7.8" Y+R= 5.0"						
G= 53.8" Y+R= 5.0"						
G= 5.0" Y+R= 5.0"						
G= 0.3" Y+R= 5.0"						
G= 38.1" Y+R= 5.0"						
G= 0.0" Y+R= 0.0"						

C=130"

**SIGNAL2000/TEAPAC[Ver 2.71.07] - Capacity Analysis Summary**

Intersection Averages for Int # 1 - - Westside Blvd / NMSR 528  
V/C 1.422 (Critical V/C 1.722)

Level of Service F

Sq 46 LD/LD	Phase 1	Phase 2	Phase 3	Phase 4	Phase 5
North					
G/C=0.060 G= 7.8" Y+R= 5.0" Off= 0.0%					
G/C=0.414 G= 53.8" Y+R= 5.0" Off= 9.9%					
G/C=0.038 G= 5.0" Y+R= 5.0" Off=55.1%					
G/C=0.002 G= 0.3" Y+R= 5.0" Off=62.8%					
G/C=0.293 G= 38.1" Y+R= 5.0" Off=66.9%					

C=130 sec G=105.0 sec = 80.8% Y=25.0 sec = 19.2% Ped= 0.0 sec = 0.0%

Lane Group	Width/ Lanes	g/C	Reqd	Used	Service Rate @D (vph) @E	Adj Volume	v/c	HCM Delay	L Queue Model 1
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SB Approach

RT	12/1	0.153	0.532	814	833	142	0.170	15.8	B
TH	48/4	0.711	0.414	2772	2773	5093	1.837	416.0	*F
LT	12/1	0.005	0.060	134	151	38	0.233	23.6	C+

NB Approach

RT	12/1	0.220	0.491	740	770	253	0.329	20.3	C+
TH	48/4	0.349	0.414	2772	2773	5093	0.821	35.9	D+
LT	12/1	0.105	0.060	132	149	194	1.190	167.8	*F

WB Approach

RT	12/1	0.101	0.392	559	614	44	0.072	24.8	C+
TH	12/1	0.115	0.293	457	532	91	0.169	34.3	C
LT	24/2	0.101	0.038	1	96	115	0.878	106.5	*F

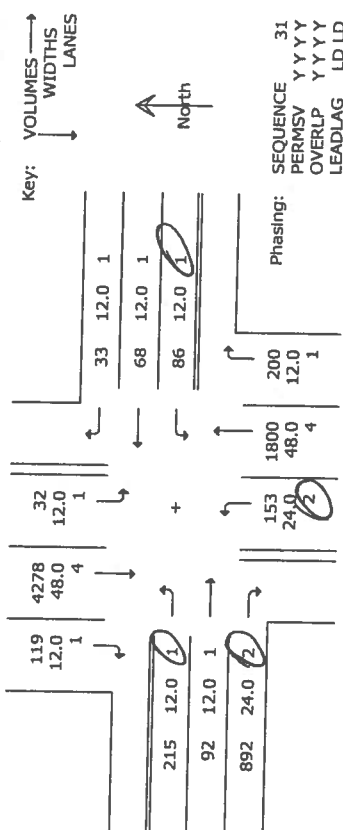
EB Approach

RT	12/1	0.706	0.432	633	678	1144	1.687	352.6	*F
TH	24/2	0.100	0.334	1091	1171	118	1.011	29.9	C
LT	24/2	0.136	0.079	1	228	276	1.022	120.5	*F

**SIGNAL2000/TEAPAC[Ver 2.80.00] - HCM Input Worksheet**

Intersection # 1 - - Westside Blvd / NMSR 528

Area Location Type: NONCBD



	Sb			Wb			Eb		
	RT	TH	LT	RT	TH	LT	RT	TH	LT
Heavy veh, %HV	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Pk-hr fact, PHF	.84	.84	.84	.75	.75	.75	.78	.78	.78
Pretimed or Act	A	A	A	A	A	A	A	A	A
Startup lost, l1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Ext eff gm, e	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Arrival typ, AT	3	3	3	3	3	3	3	3	3
Ped vol, vped	0	0	0	0	0	0	0	0	0
Bike vol, vbic	NO	NO	NO	NO	NO	NO	NO	NO	NO
Parking locatns	0	0	0	0	0	0	0	0	0
Bus stops, NB	0	0	0	0	0	0	0	0	0
Grade, %G	.0	.0	.0	.0	.0	.0	.0	.0	.0

	Phase 1	Phase 2	Phase 3	Phase 4	Phase 5	Phase 6
Sq 31 LD/LD						
North						
C=130"	G= 5.8" Y+R= 5.0"	G= 77.1" Y+R= 5.0"	G= 32.1" Y+R= 5.0"	G= 0.0" Y+R= 0.0"	G= 0.0" Y+R= 0.0"	G= 0.0" Y+R= 0.0"

**SIGNAL2000/TEAPAC[Ver 2.80.00] - Capacity Analysis Summary**

Intersection Averages for Int # 1 - - Westside Blvd / NMSR 528  
V/C 1.001 (Critical V/C 1.270) Control Delay 111.0 Level of Service F

	Phase 1	Phase 2	Phase 3
Sq 31 LD/LD			
North			
G/C=0.044 G= 5.8" Y+R= 5.0" Off= 0.0"	G/C=0.593 G= 77.1" Y+R= 5.0" Off= 8.3"	G/C=0.247 G= 32.1" Y+R= 5.0" Off= 71.4"	

C=130 sec G=115.0 sec = 88.5% Y=15.0 sec = 11.5% Ped= 0.0 sec = 0.0%

Lane Group	Width/ Lanes	Reqd g/C	Service Rate @D (vph) @E	Adj Volume	v/c	HCM Delay	L	Queue Model 1
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**SB Approach**

RT	12/1	0.153	0.593	927	930	0.153	11.9	B+	109 ft
TH	48/4	0.711	0.593	3973	3973	1.282	155.3	*F	3321 ft
LT	12/1	0.474	0.593	52	59	0.551	25.1	C+	47 ft

**NB Approach**

RT	12/1	0.220	0.676	1060	1060	0.239	8.3	A	168 ft
TH	48/4	0.349	0.676	4529	4529	0.503	10.4	B+	498 ft
LT	24/2	0.115	0.044	1	114	1.285	231.0	*F	302 ft

**WB Approach**

RT	12/1	0.101	0.247	300	366	0.114	38.0	D+	58 ft
TH	12/1	0.115	0.247	361	438	0.200	39.0	D+	122 ft
LT	12/1	0.164	0.247	218	269	0.394	41.7	D+	164 ft

**EB Approach**

RT	24/2	0.426	0.330	836	916	1.249	164.7	*F	1547 ft
TH	12/1	0.125	0.247	361	438	0.259	39.7	D+	159 ft
LT	12/1	0.274	0.247	238	293	0.873	69.6	E	482 ft

**SIGNAL2000/TEAPAC[Ver 2.80.00] - HCM Input Worksheet**

Intersection # 1 - - Westside Blvd / NMSR 528

Area Location Type: NONCBD

Key: 



SEQUENCE	35
PERMSV	Y Y Y Y
OVERLP	Y Y Y Y
LEADLAG	LD LD

	SB		WB		LT		RT		NB		LT		RT		EB	
	TH	LT	TH	LT	TH	LT	TH	LT	TH	LT	TH	LT	TH	LT	TH	LT
Heavy veh., %HV	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Pk-hr fact, PHF	.96	.96	.96	.96	.82	.82	.82	.82	.97	.97	.97	.97	.91	.91	.91	.91
Predimed or Act	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A
Srtup lost, I1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Ext eff gm, e	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Arrival typ, AT	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3
Ped vol, vped	0				0				0						0	
Bike vol, vbic	0				0				0						0	
Parking locatns	NO				NO				NO						NO	
Park mrvrs, Nm	0				0				0						0	
Bus stops, NB	0				0				0						0	
Grade, %G	-0.				-0.				-0.						0	

Phase 1	Phase 2	Phase 3	Phase 4	Phase 5	Phase 6
$G = 32.8''$ $Y+R = 5.0''$	$G = 60.1''$ $Y+R = 5.0''$	$G = 5.0''$ $Y+R = 5.0''$	$G = 2.1''$ $Y+R = 5.0''$	$G = 5.0''$ $Y+R = 5.0''$	$G = 0.0''$ $Y+R = 0.0''$

 $C=130''$ 

## SIGNAL2000/TEAPAC[Ver 2.80.00] - Capacity Analysis Summary

Intersection Averages for Int # 1 - - Westside Blvd / NMSR 528  
V/C 0.851 (Critical V/C 1.038) Control Delay

Level of Service D

Phase 1	Phase 2	Phase 3	Phase 4	Phase 5
$G/C=0.252$ $G=32.8"$ $Y+R=5.0"$ $Off=0.0\%$	$G/C=0.463$ $G=60.1"$ $Y+R=5.0"$ $Off=29.1\%$	$G/C=0.038$ $G=5.0"$ $Y+R=5.0"$ $Off=79.2\%$	$G/C=0.016$ $G=2.1"$ $Y+R=5.0"$ $Off=86.9\%$	$G/C=0.038$ $G=5.0"$ $Y+R=5.0"$ $Off=92.3\%$

C=130 sec    G=105.0 sec = 80.8%    Y=25.0 sec = 19.2%    Ped= 0.0 sec = 0.0%

Lane Group	Width/ Lanes	g/C Reqd Used	Service Rate @D (vph) @E	Adj Volume	v/c	HCM Delay	L S	Queue Model 1
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### SB Approach

RT	12/1	0.111	0.540	829	846	67	0.079	14.4	B+	56 ft
TH	48/4	0.489	0.463	3099	3099	3354	1.082	78.5	*E	1761 ft
LT	12/1	0.558	0.463	39	45	50	0.877	108.1	F	101 ft

### NB Approach

15.9 B									
RT	12/1	0.113	1387	1387	70	0.050	0.9	A	16 ft
TH	48/4	0.440	5046	5046	2969	0.588	7.3	A	590 ft
LT	12/1	0.276	433	494	478	0.958	71.8	*E	786 ft

**WB Approach**

	RT	12/1	0.121	0.093	27	113	88	0.603	63.5	E+	152 R
	TH	12/1	0.137	0.093	34	137	139	0.808	82.0	F	256 R
	LT	24/2	0.147	0.093	73	276	321	1.013	112.7	*F	761 R

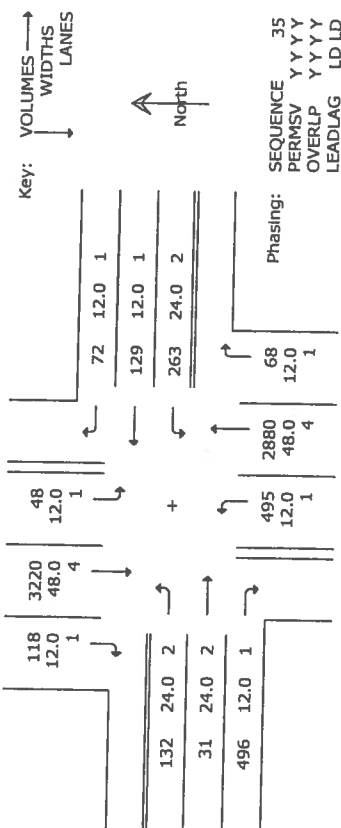
### EB Approach

	RT	12/1	0.363	0.329	446	511	507	0.983	78.3	E	917 ft
	TH	24/2	0.083	0.038	1	99	16	0.119	60.8	*E+	14 ft
	LT	24/2	0.094	0.038	1	96	78	0.595	68.7	*E	75 ft

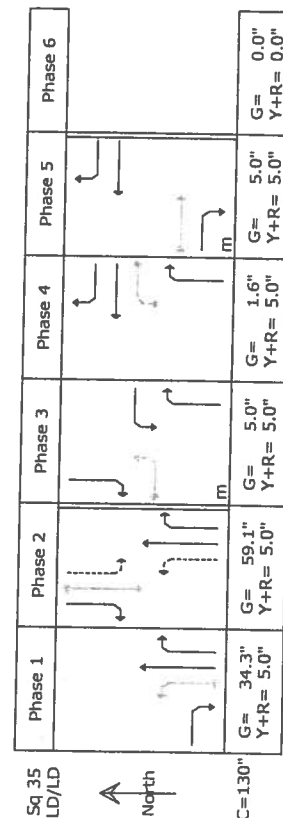
**SIGNAL2000/TEAPAC[Ver 2.80.00] - HCM Input Worksheet**

Intersection # 1 - - Westside Blvd / NMSR 528

Area Location Type: NONCBO



	SB		WB		EB	
	RT	LT	RT	LT	RT	LT
Heavy veh, %HV	3.0	3.0	3.0	3.0	3.0	3.0
Pk-hr fact, PHF	.96	.96	.82	.82	.91	.91
Predimed or Act	A	A	A	A	A	A
Startup lost, l1	2.0	2.0	2.0	2.0	2.0	2.0
Ext eff gm, e	2.0	2.0	2.0	2.0	2.0	2.0
Arrival typ, AT	3	3	3	3	3	3
Ped vol, vped	0	0	0	0	0	0
Bike vol, vbic	0	0	0	0	0	0
Parking locatns	NO	NO	NO	NO	NO	NO
Park mnvrs, Nm	0	0	0	0	0	0
Bus stops, NB	0	0	0	0	0	0
Grade, %G	.0	.0	.0	.0	.0	.0



	SB		WB		EB	
	RT	LT	RT	LT	RT	LT
Heavy veh, %HV	3.0	3.0	3.0	3.0	3.0	3.0
Pk-hr fact, PHF	.96	.96	.82	.82	.91	.91
Predimed or Act	A	A	A	A	A	A
Startup lost, l1	2.0	2.0	2.0	2.0	2.0	2.0
Ext eff gm, e	2.0	2.0	2.0	2.0	2.0	2.0
Arrival typ, AT	3	3	3	3	3	3
Ped vol, vped	0	0	0	0	0	0
Bike vol, vbic	0	0	0	0	0	0
Parking locatns	NO	NO	NO	NO	NO	NO
Park mnvrs, Nm	0	0	0	0	0	0
Bus stops, NB	0	0	0	0	0	0
Grade, %G	.0	.0	.0	.0	.0	.0

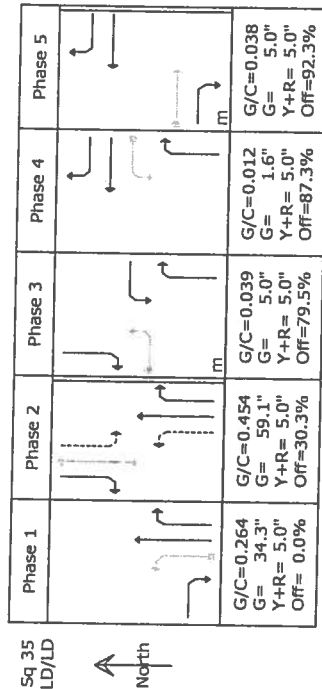
**SIGNAL2000/TEAPAC[Ver 2.80.00] - Capacity Analysis Summary**

Intersection Averages for Int # 1 - - Westside Blvd / NMSR 528

V/C 0.869 (Critical V/C 1.065)

Level of Service E+

Control Delay 59.5



C=130 sec G=105.0 sec = 80.8% Y=25.0 sec = 19.2% Ped= 0.0 sec = 0.0%

Lane Group	Width/Lanes	Reqd	g/C	Used	Service Rate @D (vph) @E	Adj Volume	v/c	HCM Delay	Queue Model 1
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SB Approach

RT	12/1	0.142	0.532	814	833	123	0.148	15.6	B
TH	48/4	0.489	0.454	3044	3044	3354	1.102	87.0	*F
LT	12/1	0.548	0.454	39	45	50	0.877	108.7	F

NB Approach

RT	12/1	0.113	0.885	1387	1387	70	0.050	0.9	A
TH	48/4	0.440	0.757	5072	5072	2969	0.585	7.1	A
LT	12/1	0.293	0.264	456	517	510	0.981	76.3	*E

WB Approach

RT	12/1	0.121	0.089	18	107	88	0.633	66.2	E+
TH	12/1	0.146	0.089	23	130	157	0.957	116.5	F
LT	24/2	0.147	0.089	51	262	321	1.059	127.4	*F

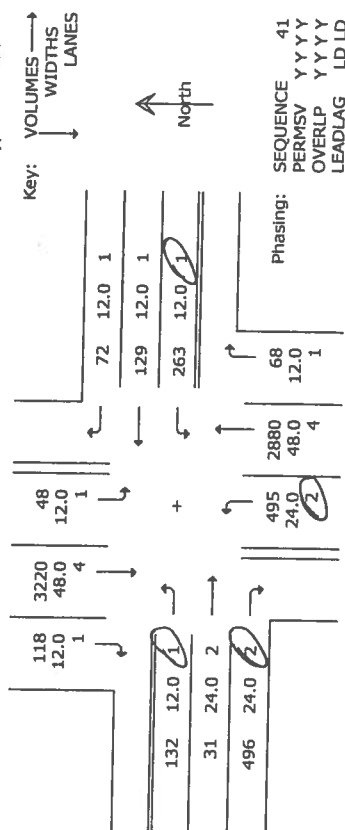
EB Approach

RT	12/1	0.384	0.341	468	532	545	1.019	86.5	F
TH	24/2	0.086	0.038	1	99	34	0.252	61.7	*E+
LT	24/2	0.106	0.039	1	96	145	1.098	169.7	*F

SIGNAL2000/TEAPAC[Ver 2.80.00] - HCM Input Worksheet

Intersection # 1 - - Westside Blvd / NMSR 528

Area Location Type: NONCBD



	SB		WB		NB		EB	
	RT	TH	LT	RT	TH	LT	RT	TH
Heavy veh, %HV	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Pk-hr fact, PHF	.96	.96	.96	.82	.82	.82	.91	.91
Predimed or Act	A	A	A	A	A	A	A	A
Startup lost, l1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Ext eff gm, e	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Arrival typ, AT	3	3	3	3	3	3	3	3
Ped vol, vped	0	0	0	0	0	0	0	0
Bike vol, vbic	0	0	0	0	0	0	0	0
Parking locatns	NO	NO	NO	NO	NO	NO	NO	NO
Park mnvrs, Nm	0	0	0	0	0	0	0	0
Bus stops, NB	0	0	0	0	0	0	0	0
Grade, %G	.0	.0	.0	.0	.0	.0	.0	.0

	Phase 1	Phase 2	Phase 3	Phase 4	Phase 5	Phase 6
G= 20.9"						
Y+R= 5.0"						
G= 33.3"						
Y+R= 5.0"						
G= 0.0"						
Y+R= 0.0"						
G= 0.0"						
Y+R= 0.0"						

C=130"

SIGNAL2000/TEAPAC[Ver 2.80.00] - Capacity Analysis Summary

Intersection Averages for Int # 1 - - Westside Blvd / NMSR 528  
V/C 0.907 (Critical V/C 1.003)

Level of Service E+

Control Delay 55.6

	Phase 1	Phase 2	Phase 3
Sq 41 LD/LD			
G/C=0.161			
G= 20.9"			
Y+R= 5.0"			
Off= 0.0%			
G/C=0.467			
G= 60.8"			
Y+R= 5.0"			
Off=19.9%			
G/C=0.257			
G= 33.3"			
Y+R= 5.0"			
Off=70.5%			

C=130 sec G=115.0 sec = 88.5% Y=15.0 sec = 11.5% Ped= 0.0 sec = 0.0%

Lane Group	Width/ Lanes	Reqd	g/C	Used	Service Rate @D (vph) @E	Adj Volume	v/c	HCM Delay	L	Queue Model 1
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SB Approach

RT	12/1	0.142	0.467	697	733	123	0.168	20.1	C+	139 ft
TH	48/4	0.489	0.467	3131	3131	3354	1.071	73.8	*E	1864 ft
LT	12/1	0.011	0.161	276	323	50	0.147	21.2	C+	39 ft

NB Approach

RT	12/1	0.113	0.467	697	733	70	0.095	19.4	B	78 ft
TH	48/4	0.440	0.467	3131	3131	2969	0.948	40.5	*E	1407 ft
LT	24/2	0.195	0.161	375	519	510	0.932	76.9	*E	552 ft

WB Approach

RT	12/1	0.121	0.456	676	715	88	0.123	20.5	C+	100 ft
TH	12/1	0.146	0.257	381	457	157	0.332	39.7	D+	243 ft
LT	12/1	0.291	0.257	268	326	321	0.925	77.1	*E	643 ft

EB Approach

RT	24/2	0.239	0.456	1238	1265	545	0.431	24.2	C+	386 ft
TH	24/2	0.086	0.257	780	901	34	0.038	36.3	D+	27 ft
LT	12/1	0.205	0.257	203	249	145	0.533	43.7	D+	246 ft



Analysis of Intersection #2

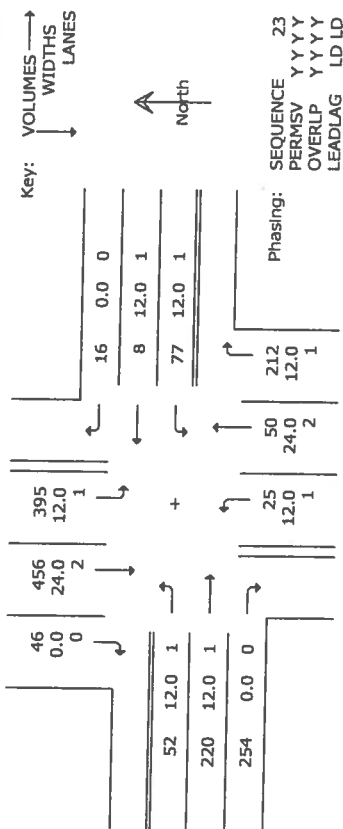
**Westside Blvd / Golf Course Rd**



SIGNAL2000/TEAPAC[Ver 2.80.00] - HCM Input Worksheet

Intersection # 2 - - Westside Blvd / Golf Course

Area Location Type: NONCBD



	N			E			S			W		
	RT	TH	LT	RT	TH	LT	RT	TH	LT	RT	TH	LT
Heavy veh, %HV	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Pk-hr fact, PHF	.87	.87	.87	.85	.85	.85	.96	.96	.96	.85	.85	.85
Pretimed or Act	A	A	A	A	A	A	A	A	A	A	A	A
Startup lost, l1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Ext erf gm, e	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Arrival typ, AT	3	3	3	3	3	3	3	3	3	3	3	3
Ped vol, vped	0	0	0	0	0	0	0	0	0	0	0	0
Bike vol, vbic	0	0	0	0	0	0	0	0	0	0	0	0
Parking locatns	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
Park mnvrs, Nm	0	0	0	0	0	0	0	0	0	0	0	0
Bus stops, NB	0	0	0	0	0	0	0	0	0	0	0	0
Grade, %G	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0

	Phase 1	Phase 2	Phase 3	Phase 4	Phase 5	Phase 6
Sq 23 LD/LD	12/1	12/1	12/1	12/1	12/1	12/1
North	12/1	12/1	12/1	12/1	12/1	12/1
G= 6.6"	G= 6.6"	G= 36.0"	G= 5.0"	G= 42.4"	G= 0.0"	G= 0.0"
Y+R= 5.0"	Y+R= 5.0"	Y+R= 5.0"	Y+R= 5.0"	Y+R= 5.0"	Y+R= 0.0"	Y+R= 0.0"

C=110"

SIGNAL2000/TEAPAC[Ver 2.80.00] - Capacity Analysis Summary

Intersection Averages for Int # 2 - - Westside Blvd / Golf Course  
V/C 0.532 (Critical V/C 0.724)

Level of Service C+

	Phase 1	Phase 2	Phase 3	Phase 4
Sq 23 LD/LD	12/1	12/1	12/1	12/1
North	12/1	12/1	12/1	12/1
G/C=0.060	G/C=0.060	G/C=0.328	G/C=0.045	G/C=0.385
G= 6.6"	G= 6.6"	G= 36.0"	G= 5.0"	G= 42.4"
Y+R= 5.0"	Y+R= 5.0"	Y+R= 5.0"	Y+R= 5.0"	Y+R= 5.0"
Off= 0.0%	Off= 0.0%	Off=10.5%	Off=47.9%	Off=56.9%

C=110 sec G= 90.0 sec = 81.8% Y=20.0 sec = 18.2% Ped= 0.0 sec = 0.0%

Lane Group	Width/ Lanes	Reqd	g/C	Used	Service Rate @C (vph) @E	Adj Volume	V/c	HCM Delay	L	Queue Model 1
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N Approach	RT+TH	24/2	0.282	0.433	1321	1500	577	0.385	21.4	C+
	LT	12/1	0.050	0.060	477	588	454	0.772	32.3	C+

S Approach	RT	12/1	0.273	0.328	342	514	221	0.430	29.5	*C
	TH	24/2	0.209	0.328	838	1151	52	0.045	25.3	C+
	LT	12/1	0.220	0.328	160	252	26	0.099	25.9	C+

E Approach	RT+TH	12/1	0.210	0.385	488	638	28	0.044	21.2	C+
	LT	12/1	0.288	0.385	161	231	91	0.379	25.4	C+

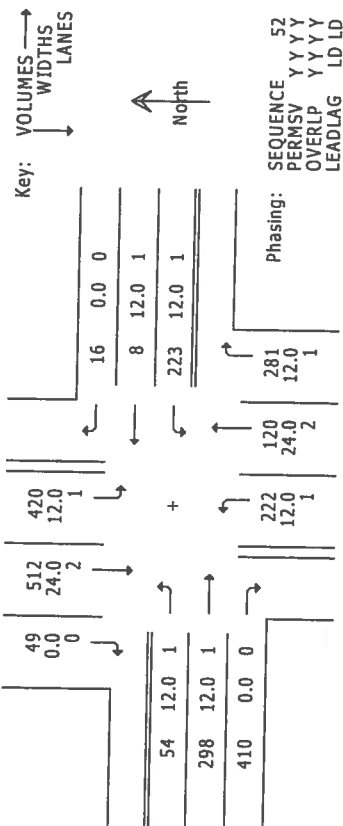
W Approach	RT+TH	12/1	0.411	0.476	695	807	558	0.691	25.1	*C+
	LT	12/1	0.000	0.045	553	654	61	0.093	15.7	*B

**SIGNAL2000/TEAPAC[Ver 2.80.00] - HCM Input Worksheet**

Intersection # 2 - - Westside Blvd / Golf Course

Area Location Type: NONCBD

Key: VOLUMES  
WIDTHS  
LANES



SEQUENCE 52  
PERMSV Y Y Y Y  
OVERLP Y Y Y Y  
LEADLAG LD LD

Phasing:  
281  
12.0  
1  
222  
12.0  
1  
120  
24.0  
2  
12.0  
1

	N			E			S			W		
	RT	TH	LT	RT	TH	LT	RT	TH	LT	RT	TH	LT
Heavy veh, %HV	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Pk-hr fact, PHF	.87	.87	.87	.85	.85	.85	.96	.96	.96	.85	.85	.85
Pretimed or Act	A	A	A	A	A	A	A	A	A	A	A	A
Strup lost, l1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Ext eff grm, e	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Arrival typ, AT	3	3	3	3	3	3	3	3	3	3	3	3
Ped vol, vped	0	0	0	0	0	0	0	0	0	0	0	0
Bike vol, vbic	0	0	0	0	0	0	0	0	0	0	0	0
Parking locatns	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
Park mnvrs, Nm	0	0	0	0	0	0	0	0	0	0	0	0
Bus stops, NB	0	0	0	0	0	0	0	0	0	0	0	0
Grade, %G	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0

Sq 52 LD/LD	Phase 1	Phase 2	Phase 3	Phase 4	Phase 5	Phase 6
	G= 15.0" Y+R= 5.0"	G= 12.0" Y+R= 5.0"	G= 4.8" Y+R= 5.0"	G= 17.0" Y+R= 5.0"	G= 56.2" Y+R= 5.0"	G= 0.0" Y+R= 0.0"

C=130"

**SIGNAL2000/TEAPAC[Ver 2.80.00] - Capacity Analysis Summary**

Intersection Averages for Int # 2 - - Westside Blvd / Golf Course  
V/C 1.007 (Critical V/C 1.063) Control Delay 100.0 Level of Service F

Sq 52 LD/LD	Phase 1	Phase 2	Phase 3	Phase 4	Phase 5
	G/C=0.115 G= 15.0" Y+R= 5.0" Off= 0.0%	G/C=0.092 G= 12.0" Y+R= 5.0" Off=15.4%	G/C=0.037 G= 4.8" Y+R= 5.0" Off=28.4%	G/C=0.131 G= 17.0" Y+R= 5.0" Off=36.0%	G/C=0.433 G= 56.2" Y+R= 5.0" Off=52.9%

C=130 sec G=105.0 sec = 80.8% Y=25.0 sec = 19.2% Ped= 0.0 sec = 0.0%

Lane Group	Width/ Lanes	Reqd q/c	Service Rate @C (vph) @E	Adj Volume	v/c	HCM Delay	L	Queue Model 1
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N Approach

RT+TH LT	24/2 12/1	0.343 0.342	0.168 0.246	1 220	555 484	645 483	1.110 0.990	125.4 79.7	*F *E	754 889
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S Approach

RT TH LT	12/1 24/2 12/1	0.348 0.273 0.284	0.206 0.037 0.115	1 1 1	296 95 227	293 125 231	0.907 0.962 0.892	78.3 129.4 83.5	E *F	528 150 425
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E Approach

RT+TH LT	12/1 12/1	0.273 0.229	0.602 0.131	909 164	997 269	28 262	0.028 0.916	10.5 74.5	B+ *E	20 450
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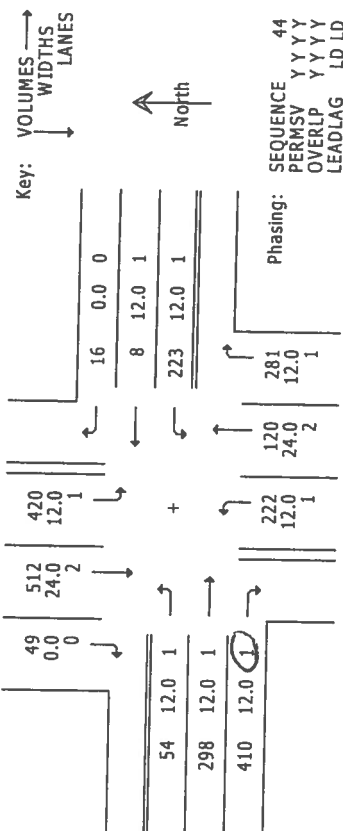
W Approach

RT+TH LT	12/1 12/1	0.559 0.286	0.433 0.433	543 429	729 590	833 64	1.143 0.108	116.9 22.0	*F C+	1733 65
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SIGNAL2000/TEAPAC[Ver 2.80.00] - HCM Input Worksheet

Intersection # 2 - Westside Blvd / Golf Course

Area Location Type: NONCBD



	N			E			S			W		
	RT	TH	LT	RT	TH	LT	RT	TH	LT	RT	TH	LT
Heavy veh, %HV	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Pk-hr fact, PHF	.87	.87	.87	.85	.85	.85	.96	.96	.96	.85	.85	.85
Pretimed or Act	A	A	A	A	A	A	A	A	A	A	A	A
Strutp lost, l1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Ext eff grn, e	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Arrival typ, AT	3	3	3	3	3	3	3	3	3	3	3	3
Ped vol, vped	0	0	0	0	0	0	0	0	0	0	0	0
Bike vol, vbic	0	0	0	0	0	0	0	0	0	0	0	0
Parking locatns	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
Park mnvrs, Nm	0	0	0	0	0	0	0	0	0	0	0	0
Bus stops, NB	0	0	0	0	0	0	0	0	0	0	0	0
Grade, %G	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0

Sg 44 LD/LD	Phase 1		Phase 2		Phase 3		Phase 4		Phase 5		Phase 6	
	RT	TH	RT	TH	RT	TH	RT	TH	RT	TH	RT	TH
G= 12.2"												
Y+R= 5.0"												
C=130"												

SIGNAL2000/TEAPAC[Ver 2.80.00] - Capacity Analysis Summary

Intersection Averages for Int. # 2 - Westside Blvd / Golf Course  
V/C 0.592 (Critical V/C 0.721)

Level of Service C

Sg 44 LD/LD	Phase 1	Phase 2	Phase 3	Phase 4
	G/C=0.094 G= 12.2" Y+R= 5.0" Off= 0.0"	G/C=0.334 G= 43.4" Y+R= 5.0" Off=13.2"	G/C=0.074 G= 9.6" Y+R= 5.0" Off=50.5"	G/C=0.344 G= 44.8" Y+R= 5.0" Off=61.7"

C=130 sec G=110.0 sec = 84.6% Y=20.0 sec = 15.4% Ped = 0.0 sec = 0.0%

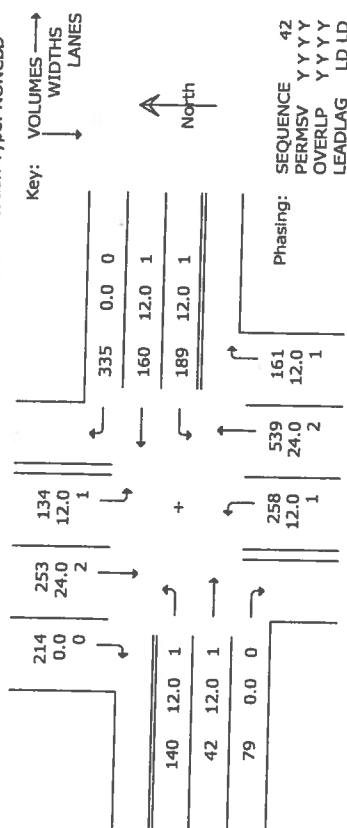
Lane Group	Width/ Lanes	Reqd q/c	Used q/c	Service Rate @C (vph)	Adj Volume	v/c	HCM Delay	L	Queue Model 1
N Approach									
RT+TH	24/2	0.343	0.334	583	645	0.557	36.0	*D+	449 ft
LT	12/1	0.100	0.094	469	483	0.812	36.9	*D+	691 ft
S Approach									
RT	12/1	0.348	0.447	532	293	0.419	24.9	C+	328 ft
TH	24/2	0.280	0.334	591	125	0.107	29.9	C	77 ft
LT	12/1	0.081	0.094	254	231	0.704	30.3	C	324 ft
E Approach									
RT+TH	12/1	0.273	0.344	299	28	0.049	28.5	C	32 ft
LT	12/1	0.076	0.074	258	262	0.734	35.9	*D+	375 ft
W Approach									
RT	12/1	0.424	0.476	598	747	0.645	27.7	C	585 ft
TH	12/1	0.349	0.344	336	351	0.553	35.6	*D+	459 ft
LT	12/1	0.000	0.074	496	64	0.100	20.0	B	63 ft

**SIGNAL2000/TEAPAC[Ver 2.80.00] - HCM Input Worksheet**

Intersection # 2 - - Westside Blvd / Golf Course

Area Location Type: NONCBD







Key: VOLUMES →  
WIDTHS  
LANES



SEQUENCE	42
PERMSV	Y Y Y Y
OVERLP	Y Y Y Y
LEADLAG	LD LD

**Phasing:**

	N		E		S		W	
	RT	LT	RT	LT	RT	LT	RT	LT
Heavy veh, %HV	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
PK-hr fact, PHF	.90	.90	.85	.85	.93	.93	.85	.85
Pretimed or Act	A	A	A	A	A	A	A	A
Startup lost, I1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Ext eff gm, e	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Arrival typ, AT	3	3	3	3	3	3	3	3
Red vol, vped	0		0		0		0	
Bike vol, vbic	0		0		0		0	
Parking locatns	NO		NO		NO		NO	
Park mnvrs, Nm	0		0		0		0	
Bus stops, NB	0		0		0		0	
Grade, %G	.0		.0		0		0	

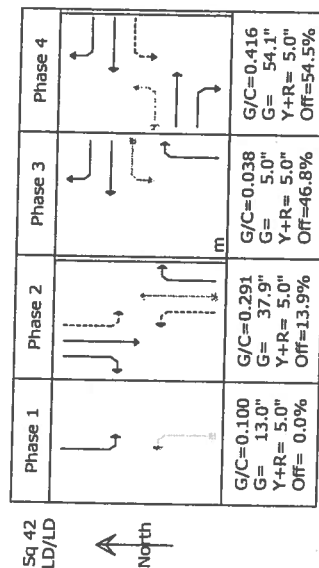
Sq 42 LD/LD	Phase 1	Phase 2	Phase 3	Phase 4	Phase 5	Phase 6
						<p><math>G = 13.0"</math> <math>Y+R = 5.0"</math></p> <p><math>G = 37.9"</math> <math>Y+R = 5.0"</math></p> <p><math>G = 5.0"</math> <math>Y+R = 5.0"</math></p> <p><math>G = 54.1"</math> <math>Y+R = 5.0"</math></p> <p><math>G = 0.0"</math> <math>Y+R = 0.0"</math></p> <p><math>G = 0.0"</math> <math>Y+R = 0.0"</math></p>

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**SIGNAL2000/TEAPAC[Ver 2.80.00] - Capacity Analysis Summary**

Intersection Averages for Int # 2 - Westside Blvd / Golf Course  
V/C 0.569 (Critical V/C 0.699) Control Delay 33.8

Level of Service C



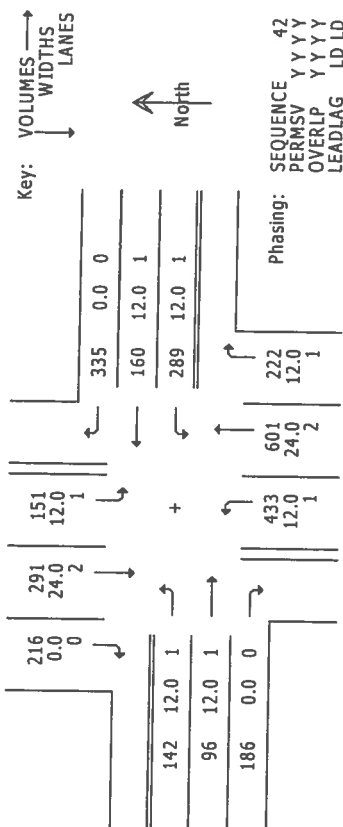
C=130 sec	G=110.0 sec = 84.6%	Y=20.0 sec = 15.4%
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Ped= 0.0 sec = 0.0%

Lane Group	Width/ Lanes	g/C Req'd	g/C Used	Service Rate @C (vph) @E	Adj Volume	v/c	HCM Delay	L S	Queue Model 1
<b>N Approach</b>									
RT+TH LT	24/2	0.330	0.291	212	519	0.545	36.4	D+	377 ft
	12/1	0.052	0.100	240	149	0.460	39.4	D+	184 ft
							25.8	C+	
<b>S Approach</b>									
RT TH LT	12/1	0.312	0.368	347	173	0.299	38.0	D+	205 ft
	24/2	0.333	0.291	228	580	0.566	29.4	C	422 ft
	12/1	0.109	0.100	261	347	0.796	39.8	*D+	425 ft
<b>E Approach</b>									
RT+TH LT	12/1	0.453	0.493	674	582	0.712	26.8	C+	723 ft
	12/1	0.000	0.038	435	222	0.394	28.7	C	236 ft
							22.0	*C+	
<b>N Approach</b>									
RT+TH LT	12/1	0.301	0.416	494	142	0.205	32.5	C	153 ft
	12/1	0.439	0.416	149	165	0.693	24.4	C+	245 ft
							39.5	*D+	

**SIGNAL2000/TEAPAC[Ver 2.80.00] - Capacity Analysis Summary**

Intersection Averages for Int # 2 -- Westside Blvd / Golf Course  
V/C 0.822 (Critical V/C 1.039)  
Control Delay 62.0  
Level of Service E+



SEQUENCE	42
PERMSV	Y Y Y Y
OVERLP	Y Y Y Y
LEADLAG	LD LD

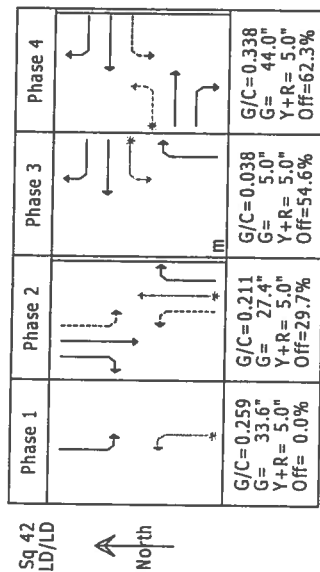
	N		E		S		W	
	RT	LT	RT	LT	RT	LT	RT	LT
Heavy veh, %HV	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
PK-hr fact, PHF	.90	.90	.85	.85	.93	.93	.85	.85
Pretimed or Act	A	A	A	A	A	A	A	A
Strut posn, I1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Text ext grn, e	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Arrival typ, AT	3	3	3	3	3	3	3	3
Red vol, vped	0		0		0		0	
Bike vol, vbic	0		0		0		0	
Parking locatns	NO		NO		NO		NO	
Park mnvrs, Nm	0		0		0		0	
Bus stops, NB	0		0		0		0	
Grade, %G	.0		.0		.0		.0	

Sq 42 LD/LD	Phase 1	Phase 2	Phase 3	Phase 4	Phase 5	Phase 6
	$G = 33.6"$ $Y+R = 5.0"$	$G = 27.4"$ $Y+R = 5.0"$	$G = 5.0"$ $Y+R = 5.0"$	$G = 44.0"$ $Y+R = 5.0"$	$G = 0.0"$ $Y+R = 0.0"$	$G = 0.0"$ $Y+R = 0.0"$

 $C=130^{\text{m}}$ 

**SIGNAL2000/TEAPAC[Ver 2.80.00] - Capacity Analysis Summary**

Intersection Averages for Int # 2 -- Westside Blvd / Golf Course  
V/C 0.822 (Critical V/C 1.039)  
Control Delay 62.0  
Level of Service E+



C=130 sec	G=110.0 sec = 84.6%	Y=20.0 sec = 15.4%
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Ped= 0.0 sec = 0.0%

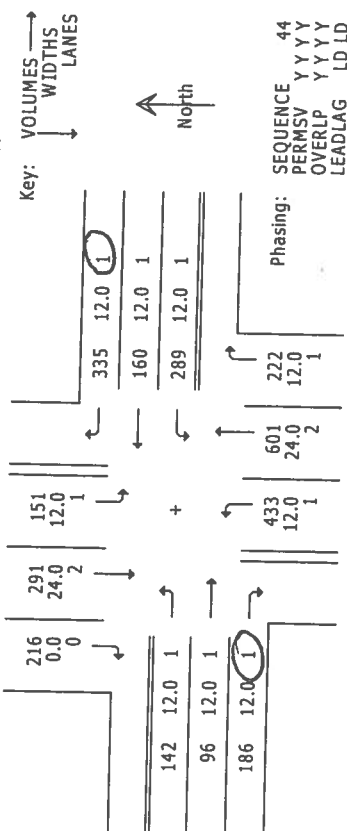
Lane Group	Width/ Lanes	q/C Reqd	Used	Service Rate @C (vph) @E	Adj Volume	v/c	HCM Delay	L	Queue Model 1
<b>N Approach</b>									
RT+TH LT	24/2	0.336	0.211	1	563	0.812	56.2	E+	547 ft
	12/1	0.124	0.259	359	168	0.329	20.5	C+	195 ft
							48.0	D	
<b>S Approach</b>									
RT TH LT	12/1	0.331	0.288	83	239	0.530	40.1	D+	377 ft
	24/2	0.342	0.211	1	729	0.872	60.7	*E+	642 ft
	12/1	0.296	0.259	406	466	0.879	47.6	*D	790 ft
E Approach							52.5	D	
							67.4	E	
RT+TH LT	12/1	0.453	0.415	490	582	0.846	43.9	D+	939 ft
	12/1	0.110	0.038	174	340	1.126	132.2	*F	845 ft
<b>W Approach</b>									
RT+TH LT	12/1	0.355	0.338	282	561	0.591	37.2	D+	502 ft
	12/1	0.536	0.338	59	125	1.168	170.5	*F	483 ft
							81.8	F	

**SIGNAL2000/TEAPAC[Ver 2.80.00] - HCM Input Worksheet**

Intersection # 2 - - Westside Blvd / Golf Course

Area Location Type: NONCBD

Key: VOLUMES  
WIDTHS  
LANES



SEQUENCE 44  
PERMSV Y Y Y Y  
OVERLP Y Y Y Y  
LEADLAG LD LD LD

Phasing:  
222 12.0 1  
601 24.0 2  
433 12.0 1

	N			E			S			W		
	RT	TH	LT	RT	TH	LT	RT	TH	LT	RT	TH	LT
Heavy veh, %HV	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Pk-hr fact, PHF	.90	.90	.90	.85	.85	.85	.93	.93	.93	.85	.85	.85
Pretimed or Act	A	A	A	A	A	A	A	A	A	A	A	A
Strutp lost, l1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Ext eff gm, e	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Arrival typ, AT	3	3	3	3	3	3	3	3	3	3	3	3
Ped vol, vped	0	0	0	0	0	0	0	0	0	0	0	0
Bike vol, vbic	0	0	0	0	0	0	0	0	0	0	0	0
Parking locatns	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
Park mnvrs, Nm	0	0	0	0	0	0	0	0	0	0	0	0
Bus stops, NB	0	0	0	0	0	0	0	0	0	0	0	0
Grade, %G	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0

Sq 44 LD/LD	Phase 1	Phase 2	Phase 3	Phase 4	Phase 5	Phase 6
	G= 28.4" Y+R= 5.0"	G= 38.2" Y+R= 5.0"	G= 12.0" Y+R= 5.0"	G= 31.4" Y+R= 5.0"	G= 0.0" Y+R= 0.0"	G= 0.0" Y+R= 0.0"

C=130"

**SIGNAL2000/TEAPAC[Ver 2.80.00] - Capacity Analysis Summary**

Intersection Averages for Int # 2 - - Westside Blvd / Golf Course  
V/C 0.563 (Critical V/C 0.789) Control Delay 33.9

Level of Service C

Sq 44 LD/LD	Phase 1	Phase 2	Phase 3	Phase 4
	G/C=0.219 G= 28.4" Y+R= 5.0" Off= 0.0"	G/C=0.294 G= 38.2" Y+R= 5.0" Off=25.7"	G/C=0.092 G= 12.0" Y+R= 5.0" Off=58.9"	G/C=0.241 G= 31.4" Y+R= 5.0" Off=72.0"

C=130 sec G=110.0 sec = 84.6% Y=20.0 sec = 15.4% Ped= 0.0 sec = 0.0%

Lane Group	Width/ Lanes	Reqd	q/C	Used	Service Rate @C (vph) @E	Adj Volume	v/c	HCM Delay	L	Queue Model 1
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N Approach

RT+TH LT	24/2 12/1	0.336 0.070	0.294 0.219	232 424	966 509	563 168	0.583 0.330	40.0 17.1	D+ B	464 ft 183 ft
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S Approach

RT TH LT	12/1 24/2 12/1	0.331 0.342 0.217	0.425 0.294 0.219	483 249 470	666 1032 541	239 646 466	0.359 0.626 0.861	25.7 40.9 34.1	C+ *D+ *C	305 ft 534 ft 758 ft
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E Approach

RT TH LT	12/1 12/1 12/1	0.387 0.308 0.116	0.498 0.241 0.092	645 1 284	781 426 448	394 188 340	0.504 0.422 0.754	22.4 40.3 41.8	C+ *D+ *D+	481 ft 300 ft 560 ft
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W Approach

RT TH LT	12/1 12/1 12/1	0.325 0.291 0.058	0.498 0.241 0.092	645 1 248	781 426 381	219 113 167	0.280 0.254 0.430	19.2 40.2 29.7	B D+ C	244 ft 177 ft 243 ft
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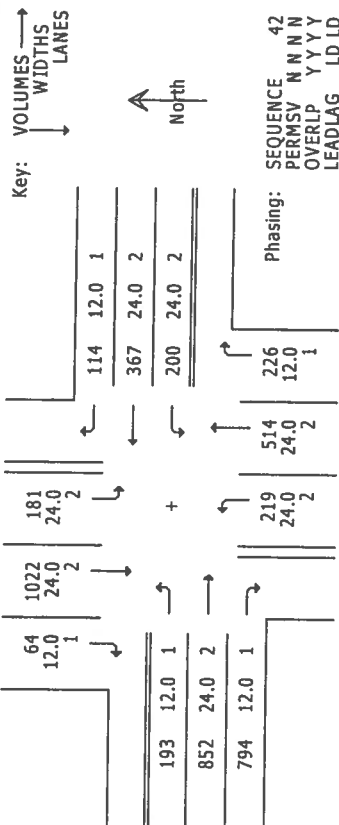
**Analysis of Intersection #3**  
**McMahon Rd / Golf Course Rd**



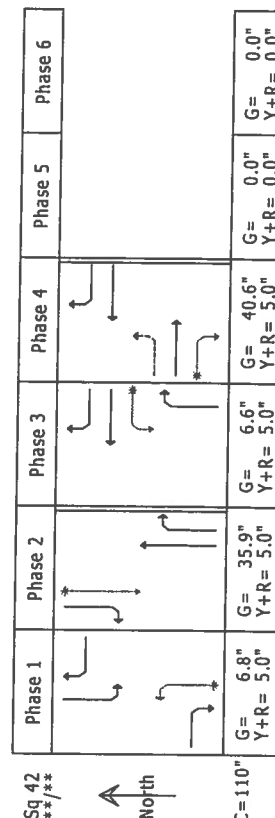
**SIGNAL2000/TEAPAC[Ver 2.71.07] - HCM Input Worksheet**

Intersection # 3 - - McMahon Blvd / Golf Course

Area Location Type: NONCBD



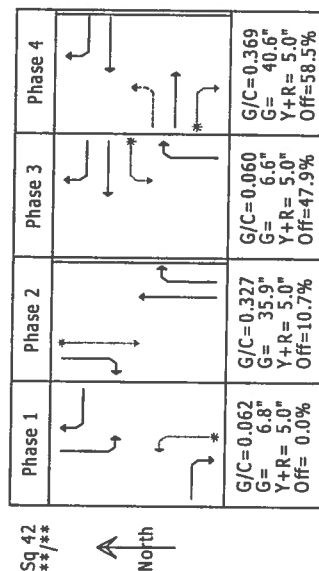
	N		E		S		W	
	RT	LT	RT	LT	RT	LT	RT	LT
Heavy veh, %HV	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Pk-hr fact, PHF	.76	.76	.83	.83	.89	.89	.92	.92
Pretimed or Act	A	A	A	A	A	A	A	A
Startup lost, l1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Ext eff grm, e	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Arrival typ, AT	3	3	3	3	3	3	3	3
Ped vol, vped	0	0	0	0	0	0	0	0
Bike vol, vbic	0	0	0	0	0	0	0	0
Parking locatns	NO	NO	NO	NO	NO	NO	NO	NO
Park mnvrs, Nm	0	0	0	0	0	0	0	0
Bus stops, NB	0	0	0	0	0	0	0	0
Grade, %G	.0	.0	.0	.0	.0	.0	.0	.0



	N		E		S		W	
	RT	LT	RT	LT	RT	LT	RT	LT
Heavy veh, %HV	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Pk-hr fact, PHF	.76	.76	.83	.83	.89	.89	.92	.92
Pretimed or Act	A	A	A	A	A	A	A	A
Startup lost, l1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Ext eff grm, e	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Arrival typ, AT	3	3	3	3	3	3	3	3
Ped vol, vped	0	0	0	0	0	0	0	0
Bike vol, vbic	0	0	0	0	0	0	0	0
Parking locatns	NO	NO	NO	NO	NO	NO	NO	NO
Park mnvrs, Nm	0	0	0	0	0	0	0	0
Bus stops, NB	0	0	0	0	0	0	0	0
Grade, %G	.0	.0	.0	.0	.0	.0	.0	.0

**SIGNAL2000/TEAPAC[Ver 2.71.07] - Capacity Analysis Summary**

Intersection Averages for Int # 3 - - McMahon Blvd / Golf Course  
V/C 0.852 (Critical V/C 1.163) Control Delay 81.4 Level of Service F



C=110 sec G= 90.0 sec = 81.8% Y=20.0 sec = 18.2% Ped= 0.0 sec = 0.0%

Lane Group	Width/Lanes	Reqd g/c	Used	Service Rate @C (vph) @E	Adj Volume	v/c	HCM Delay	Queue Model 1
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N Approach

Lane Group	Width/Lanes	Reqd g/c	Used	Service Rate @C (vph) @E	Adj Volume	v/c	HCM Delay	Queue Model 1
RT	12/1	0.228	0.327	340	512	0.164	26.5	C+ 87 ft
TH	24/2	0.434	0.327	833	1148	1.172	123.8	*F 1401 ft
LT	24/2	0.233	0.062	1	182	1.133	154.2	*F 285 ft

S Approach

Lane Group	Width/Lanes	Reqd g/c	Used	Service Rate @C (vph) @E	Adj Volume	v/c	HCM Delay	Queue Model 1
RT	12/1	0.287	0.433	553	678	0.375	21.5	C+ 243 ft
TH	24/2	0.281	0.327	833	1148	0.503	30.2	C 342 ft
LT	24/2	0.234	0.062	1	182	1.171	167.7	*F 306 ft

E Approach

Lane Group	Width/Lanes	Reqd g/c	Used	Service Rate @C (vph) @E	Adj Volume	v/c	HCM Delay	Queue Model 1
RT	12/1	0.244	0.582	841	913	0.150	10.6	B+ 92 ft
TH	24/2	0.259	0.475	1526	1669	0.265	17.4	B 198 ft
LT	24/2	0.233	0.060	1	178	1.170	167.8	*F 300 ft

W Approach

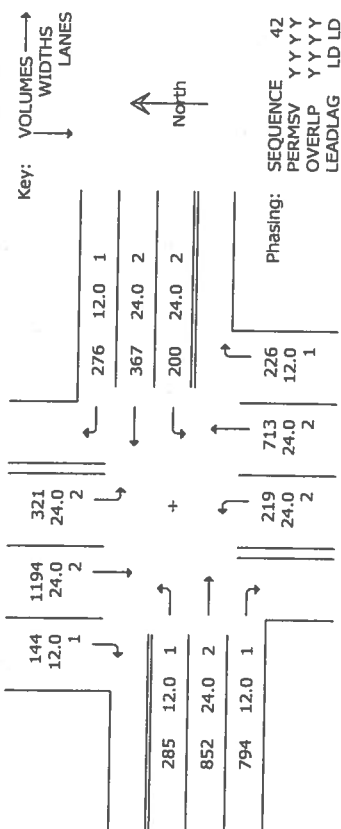
Lane Group	Width/Lanes	Reqd g/c	Used	Service Rate @C (vph) @E	Adj Volume	v/c	HCM Delay	Queue Model 1
RT	12/1	0.594	0.476	639	747	1.155	113.5	*F 1642 ft
TH	24/2	0.345	0.369	1046	1297	0.714	31.6	C 576 ft
LT	12/1	0.350	0.369	232	334	0.621	31.9	C 255 ft



**SIGNAL2000/TEAPAC[Ver 2.71.07] - HCM Input Worksheet**

Intersection # 3 - - McMahon Blvd / Golf Course

Area Location Type: NONCBD



	N			E			S			W		
	RT	TH	LT	RT	TH	LT	RT	TH	LT	RT	TH	LT
Heavy veh, %HV	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Pk-hr fact, PHF	.76	.76	.76	.83	.83	.83	.89	.89	.89	.92	.92	.92
Pretimed or Act	A	A	A	A	A	A	A	A	A	A	A	A
Strtup lost, l1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Ext eff grm, e	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Arrival typ, AT	3	3	3	3	3	3	3	3	3	3	3	3
Ped vol, vped	0	0	0	0	0	0	0	0	0	0	0	0
Bike vol, vbic	0	0	0	0	0	0	0	0	0	0	0	0
Parking locatns	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
Park mnvrs, Nm	0	0	0	0	0	0	0	0	0	0	0	0
Bus stops, NB	0	0	0	0	0	0	0	0	0	0	0	0
Grade, %G	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0

Sq 42 LD/LD	Phase 1	Phase 2	Phase 3	Phase 4	Phase 5	Phase 6
G= 13.2" Y+R= 5.0"	G= 13.2" Y+R= 5.0"	G= 47.8" Y+R= 5.0"	G= 7.6" Y+R= 5.0"	G= 41.4" Y+R= 5.0"	G= 0.0" Y+R= 0.0"	G= 0.0" Y+R= 0.0"

C=130"

**SIGNAL2000/TEAPAC[Ver 2.71.07] - Capacity Analysis Summary**

Intersection Averages for Int # 3 - - McMahon Blvd / Golf Course  
V/C 0.899 (Critical V/C 1.208) Control Delay 94.1 Level of Service F

Sq 42 LD/LD	Phase 1	Phase 2	Phase 3	Phase 4
	G/C=0.102 G= 13.2" Y+R= 5.0" Off= 0.0%	G/C=0.367 G= 47.8" Y+R= 5.0" Off=14.0%	G/C=0.058 G= 7.6" Y+R= 5.0" Off=54.6%	G/C=0.319 G= 41.4" Y+R= 5.0" Off=64.3%

C=130 sec G=110.0 sec = 84.6% Y=20.0 sec = 15.4% Ped= 0.0 sec = 0.0%

Lane Group	Width/ Lanes	Reqd g/c	Used g/c	Service Rate @C (vph) @E	Adj Volume	v/c	HCM Delay	L Queue Model 1
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N Approach

RT	12/1	0.317	0.367	344	576	189	0.328	29.9	C	226 ft
TH	24/2	0.503	0.367	822	1291	1571	1.217	146.0	*F	1872 ft
LT	24/2	0.316	0.102	1	307	422	1.216	179.1	*F	570 ft

S Approach

RT	12/1	0.335	0.464	572	728	254	0.349	22.6	C+	269 ft
TH	24/2	0.364	0.367	822	1291	801	0.620	34.6	C	552 ft
LT	24/2	0.295	0.102	1	307	246	0.709	63.1	E+	222 ft

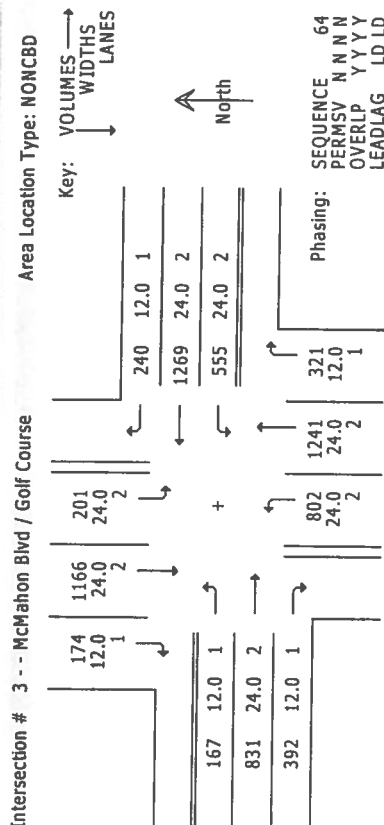
E Approach

RT	12/1	0.363	0.556	764	871	333	0.382	16.6	B	311 ft
TH	24/2	0.316	0.415	1115	1459	442	0.303	25.5	C+	256 ft
LT	24/2	0.294	0.058	1	158	241	1.217	195.9	*F	346 ft

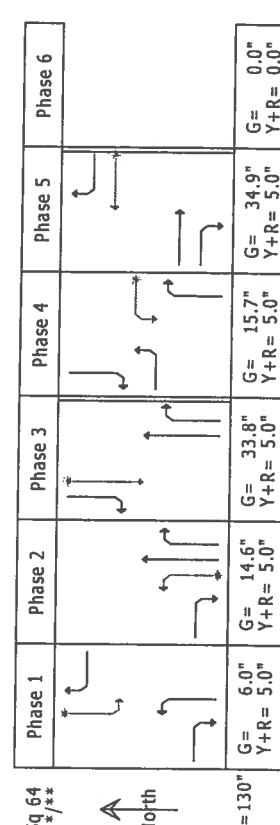
W Approach

RT	12/1	0.606	0.459	560	720	863	1.199	137.7	*F	1913 ft
TH	24/2	0.384	0.319	463	1119	926	0.828	46.3	D	743 ft
LT	12/1	0.462	0.319	109	275	310	1.062	114.2	F	660 ft

**SIGNAL2000/TEAPAC[Ver 2.80.00] - HCM Input Worksheet**



	N			E			S			W		
	RT	TH	LT	RT	TH	LT	RT	TH	LT	RT	TH	LT
Heavy veh, %HV	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Pk-hr fact, PHF	.92	.92	.92	.97	.97	.97	.91	.91	.91	.78	.78	.78
Prelimed or Act	A	A	A	A	A	A	A	A	A	A	A	A
Startup lost, lt	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Ext eff grn, e	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Arrival typ, AT	3	3	3	3	3	3	3	3	3	3	3	3
Ped vol, vped	0	0	0	0	0	0	0	0	0	0	0	0
Bike vol, vbic	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
Parking locatns	0	0	0	0	0	0	0	0	0	0	0	0
Park mnvrs, Nm	0	0	0	0	0	0	0	0	0	0	0	0
Bus stops, NB	0	0	0	0	0	0	0	0	0	0	0	0
Grade, %G	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0



**SIGNAL2000/TEAPAC[Ver 2.80.00] - Capacity Analysis Summary**

Intersection Averages for Int # 3 -- McMahon Blvd / Golf Course  
V/C 1.120 (Critical V/C 1.371) Control Delay 149.5 Level of Service F

Sq 64 **/**	Phase 1	Phase 2	Phase 3	Phase 4	Phase 5
	G/C=0.046 G= 6.0" Y+R= 5.0" Off= 0.0%	G/C=0.113 G= 14.6" Y+R= 5.0" Off= 8.5%	G/C=0.260 G= 33.8" Y+R= 5.0" Off= 23.6%	G/C=0.121 G= 15.7" Y+R= 5.0" Off= 53.4%	G/C=0.268 G= 34.9" Y+R= 5.0" Off= 69.3%

C=130 sec G=105.0 sec = 80.8% Y=25.0 sec = 19.2% Ped= 0.0 sec = 0.0%

Lane Group	Width/ Lanes	Reqd g/C	Used g/C	Service Rate @C (vph) @E	Adj Volume	v/c	HCM Delay	L	Queue Model 1
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N Approach

RT	12/1	0.317	0.419	470	657	189	0.288	25.2	C+ 208 ft
TH	24/2	0.443	0.260	1	912	1267	1.389	230.1	*F 1795 ft
LT	24/2	0.291	0.046	1	119	218	1.389	271.1	*F 362 ft

S Approach

RT	12/1	0.371	0.570	793	894	353	0.395	15.8	B 323 ft
TH	24/2	0.462	0.411	1089	1443	1364	0.945	49.8	D 1165 ft
LT	24/2	0.382	0.197	1	654	881	1.313	203.5	*F 1192 ft

E Approach

RT	12/1	0.333	0.353	305	553	247	0.447	32.9	C 313 ft
TH	24/2	0.451	0.268	19	942	1308	1.389	229.0	*F 1848 ft
LT	24/2	0.334	0.121	1	375	572	1.388	246.3	*F 860 ft

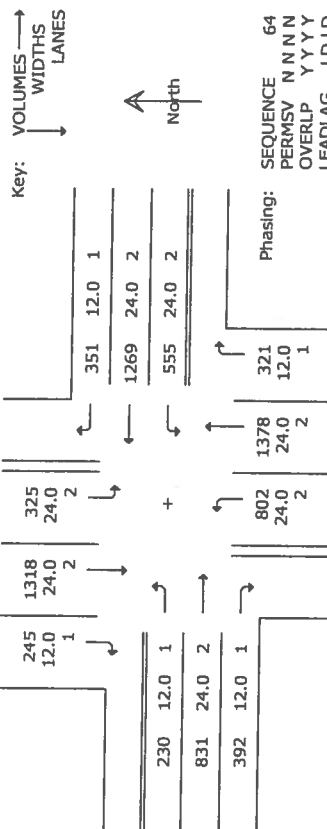
W Approach

RT	12/1	0.434	0.504	657	790	503	0.637	25.3	C+ 589 ft
TH	24/2	0.407	0.268	19	942	1065	1.131	119.8	F 1196 ft
LT	12/1	0.317	0.121	1	178	214	1.009	121.4	F 451 ft

**SIGNAL2000/TEAPAC[Ver 2.80.00] - HCM Input Worksheet**

Intersection # 3 - - McMahon Blvd / Golf Course

Area Location Type: NONCBD



	N			E			S			W		
	RT	TH	LT	RT	TH	LT	RT	TH	LT	RT	TH	LT
Heavy veh, %HV	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Pk-hr fact, PHF	.92	.92	.92	.97	.97	.97	.91	.91	.91	.78	.78	.78
Pretimed or Act	A	A	A	A	A	A	A	A	A	A	A	A
Startup lost, l1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Ext eff gm, e	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Arrival typ, AT	3	3	3	3	3	3	3	3	3	3	3	3
Ped vol, vped	0	0	0	0	0	0	0	0	0	0	0	0
Bike vol, vbic	0	0	0	0	0	0	0	0	0	0	0	0
Parking locatns	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
Park mnvrs, Nrm	0	0	0	0	0	0	0	0	0	0	0	0
Bus stops, NB	0	0	0	0	0	0	0	0	0	0	0	0
Grade, %G	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0

	Phase 1	Phase 2	Phase 3	Phase 4	Phase 5	Phase 6
G=	9.3"	10.5"	36.6"	15.1"	33.4"	0.0"
Y+R=	5.0"	5.0"	5.0"	5.0"	5.0"	0.0"
G=	9.3"	10.5"	36.6"	15.1"	33.4"	0.0"
Y+R=	5.0"	5.0"	5.0"	5.0"	5.0"	0.0"

C=130"

**SIGNAL2000/TEAPAC[Ver 2.80.00] - Capacity Analysis Summary**

Intersection Averages for Int # 3 - - McMahon Blvd / Golf Course  
V/C 1.192 (Critical V/C 1.427) Control Delay 174.3 Level of Service F

Sq 64 **/**	Phase 1	Phase 2	Phase 3	Phase 4	Phase 5
	G/C=0.072 G= 9.3" Y+R= 5.0" Off= 0.0%	G/C=0.081 G= 10.5" Y+R= 5.0" Off=11.0%	G/C=0.282 G= 36.6" Y+R= 5.0" Off=22.9%	G/C=0.116 G= 15.1" Y+R= 5.0" Off=55.0%	G/C=0.257 G= 33.4" Y+R= 5.0" Off=70.4%

C=130 sec G=105.0 sec = 80.8% Y=25.0 sec = 19.2% Ped= 0.0 sec = 0.0%

Lane Group	Width/ Lanes	Reqd g/c	Used g/c	Service Rate @C (vph) @E	Adj Volume	v/c	HCM Delay	L Queue Model 1
<b>N Approach</b>								
RT	12/1	0.339	0.437	510	685	0.388	25.2	C+
TH	24/2	0.475	0.282	142	990	1.447	253.8	*F
LT	24/2	0.307	0.072	1	202	1.447	282.9	*F
<b>S Approach</b>								
RT	12/1	0.371	0.556	764	871	0.405	16.9	B
TH	24/2	0.492	0.401	1030	1408	1.075	86.0	F
LT	24/2	0.382	0.191	1	630	1.357	223.4	*F
<b>E Approach</b>								
RT	12/1	0.375	0.367	344	576	0.628	36.0	D+
TH	24/2	0.451	0.257	1	904	1.447	255.6	*F
LT	24/2	0.334	0.116	1	358	1.444	271.3	F
<b>W Approach</b>								
RT	12/1	0.434	0.486	620	763	0.659	27.3	C+
TH	24/2	0.407	0.257	1	904	1.178	139.9	F
LT	12/1	0.337	0.116	1	169	1.446	283.6	*F

**Analysis of Intersection #4**  
**Westside Blvd / Unser Blvd**



Analysis of Intersection #5  
**Driveway 'A' / Golf Course Rd**

## CHAPTER 17 - TWSC - UNSIGNALIZED INTERSECTIONS WORKSHEET

### Analysis Summary

#### General Information

Analyst Nancy  
 Agency or Company Terry Brown, P.E.  
 Analysis Period/Year AM Peak Hour 2012  
 Comment 2012 AM Peak Hour BUILD Conditions

#### Site Information

Jurisdiction/Date City of ABQ 7/31/2007  
 Major Street Golf Course Rd  
 Minor Street Driveway 'A'

#### Input Data

Lane Configuration	NB			SB			WB			EB		
Lane 1 (curb)	TR			TR			TR			TR		
Lane 2	T			T			L			L		
Lane 3	L			L								
Lane 4												
Lane 5												
Movement	NB			SB			WB			EB		
	1 (LT)	2 (TH)	3 (RT)	4 (LT)	5 (TH)	6 (RT)	7 (LT)	8 (TH)	9 (RT)	10 (LT)	11 (TH)	12 (RT)
Volume (veh/h)	103	435	197	211	953	24	316	1	120	85	1	28
PHF	0.96	0.96	0.96	0.96	0.96	0.96	0.90	0.85	0.85	0.85	0.85	0.85
Percent of heavy vehicles, HV	3	3	3	3	3	3	3	3	3	3	3	3
Flow rate	107	453	205	220	993	25	351	1	141	100	1	33
Flare storage (# of vehs)												
Median storage (# of vehs)								1			1	
Signal upstream of Movement 2												
Length of study period (h)	0.25											

#### Output Data

	Lane	Movement	Flow Rate (veh/h)	Capacity (veh/h)	v/c	Queue Length (veh)	Control Delay (s)	LOS	Approach Delay and LOS
WB	1	TR	142	588	0.242	1	13.1	B	1243.3 F
	2	L	351	76	4.623	38	1741.0	F	
	3								
EB	1	TR	34	415	0.082	0	14.5	B	298.0 F
	2	L	100	67	1.503	9	394.3	F	
	3								
NB	①		107	671	0.160	1	11.4	B	
SB	④		220	919	0.239	1	10.1	B	

## CHAPTER 17 - TWSC - UNSIGNALIZED INTERSECTIONS WORKSHEET

### Analysis Summary

#### General Information

Analyst Nancy  
 Agency or Company Terry Brown, P.E.  
 Analysis Period/Year PM Peak Hour 2012  
 Comment 2012 PM Peak Hour BUILD Conditions - Alternate Access

#### Site Information

Jurisdiction/Date City of ABQ 7/31/2007  
 Major Street Golf Course Rd  
 Minor Street Driveway 'A'

#### Input Data

Lane Configuration	NB			SB			WB			EB		
Lane 1 (curb)	TR			TR			TR			TR		
Lane 2	T			T			L			L		
Lane 3	L			L								
Lane 4												
Lane 5												
Movement	NB			SB			WB			EB		
	1 (LT)	2 (TH)	3 (RT)	4 (LT)	5 (TH)	6 (RT)	7 (LT)	8 (TH)	9 (RT)	10 (LT)	11 (TH)	12 (RT)
Volume (veh/h)	85	987	219	164	537	30	228	1	183	88	1	38
PHF	0.93	0.93	0.93	0.93	0.93	0.93	0.90	0.85	0.85	0.85	0.85	0.85
Percent of heavy vehicles, HV	3	3	3	3	3	3	3	3	3	3	3	3
Flow rate	91	1061	235	176	577	32	253	1	215	104	1	45
Flare storage (# of vehs)												
Median storage (# of vehs)							1			1		
Signal upstream of Movement 2												
Length of study period (h)	0.25											

#### Output Data

	Lane	Movement	Flow Rate (veh/h)	Capacity (veh/h)	v/c	Queue Length (veh)	Control Delay (s)	LOS	Approach Delay and LOS
WB	1	TR	216	403	0.536	3	23.8	C	584.2 F
	2	L	253	81	3.115	25	1062.6	F	
	3								
EB	1	TR	46	688	0.067	0	10.6	B	10.6 B
	2	L	104						
	3								
NB	①		91	958	0.095	0	9.2	A	
SB	④		176	525	0.336	1	15.3	C	



Analysis of Intersection #6

**Westside Blvd / Driveway 'B'**



## CHAPTER 17 - TWSC - UNSIGNALIZED INTERSECTIONS WORKSHEET

### Analysis Summary

#### General Information

Analyst Nancy  
 Agency or Company Terry Brown, P.E.  
 Analysis Period/Year AM Peak Hour 2012  
 Comment 2012 AM Peak BUILD Conditions

#### Site Information

Jurisdiction/Date City of ABQ 7/31/2007  
 Major Street Westside Blvd  
 Minor Street Driveway 'B'

#### Input Data

Lane Configuration	EB			WB			NB			SB		
Lane 1 (curb)	TR			T			R					
Lane 2												
Lane 3												
Lane 4												
Lane 5												
	EB			WB			NB			SB		
Movement	1 (LT)	2 (TH)	3 (RT)	4 (LT)	5 (TH)	6 (RT)	7 (LT)	8 (TH)	9 (RT)	10 (LT)	11 (TH)	12 (RT)
Volume (veh/h)		697	99		270				53			
PHF		0.85	0.85		0.85				0.85			
Percent of heavy vehicles, HV		3	3		3				3			
Flow rate		820	116		318				62			
Flare storage (# of vehs)												
Median storage (# of vehs)							1					
Signal upstream of Movement 2												
Length of study period (h)	0.25											

#### Output Data

	Lane	Movement	Flow Rate (veh/h)	Capacity (veh/h)	v/c	Queue Length (veh)	Control Delay (s)	LOS	Approach Delay and LOS
NB	1	R	62	346	0.179	1	17.7	C	17.7 C
	2								
	3								
SB	1								
	2								
	3								
EB	①								
WB	④								

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## CHAPTER 17 - TWSC - UNSIGNALIZED INTERSECTIONS WORKSHEET

### Analysis Summary

#### General Information

Analyst Nancy  
 Agency or Company Terry Brown, P.E.  
 Analysis Period/Year PM Peak Hour 2012  
 Comment 2012 PM Peak BUILD Conditions

#### Site Information

Jurisdiction/Date City of ABQ 7/31/2007  
 Major Street Westside Blvd  
 Minor Street Driveway 'B'

#### Input Data

Lane Configuration	EB			WB			NB			SB		
Lane 1 (curb)	TR			T			R					
Lane 2												
Lane 3												
Lane 4												
Lane 5												
Movement	1 (LT)	2 (TH)	3 (RT)	4 (LT)	5 (TH)	6 (RT)	7 (LT)	8 (TH)	9 (RT)	10 (LT)	11 (TH)	12 (RT)
Volume (veh/h)		239	68		577				47			
PHF		0.85	0.85		0.85				0.85			
Percent of heavy vehicles, HV		3	3		3				3			
Flow rate		281	80		679				55			
Flare storage (# of vehs)												
Median storage (# of vehs)							1					
Signal upstream of Movement 2												
Length of study period (h)	0.25											

#### Output Data

	Lane	Movement	Flow Rate (veh/h)	Capacity (veh/h)	v/c	Queue Length (veh)	Control Delay (s)	LOS	Approach Delay and LOS
NB	1	R	55	717	0.077	0	10.4	B	10.4 B
	2								
	3								
SB	1								
	2								
	3								
EB	①								
WB	④								

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Analysis of Intersection #7

**Westside Blvd / Driveway 'C'**

## CHAPTER 17 - TWSC - UNSIGNALIZED INTERSECTIONS WORKSHEET

### Analysis Summary

#### General Information

Analyst Nancy  
 Agency or Company Terry Brown, P.E.  
 Analysis Period/Year AM Peak Hour 2012  
 Comment 2012 AM Peak Hour BUILD Conditions

#### Site Information

Jurisdiction/Date City of ABQ 7/31/2007  
 Major Street Westside Blvd  
 Minor Street Driveway 'C'

#### Input Data

Lane Configuration	EB			WB			NB			SB		
Lane 1 (curb)	TR			T			R					
Lane 2												
Lane 3												
Lane 4												
Lane 5												
Movement	EB			WB			NB			SB		
	1 (LT)	2 (TH)	3 (RT)	4 (LT)	5 (TH)	6 (RT)	7 (LT)	8 (TH)	9 (RT)	10 (LT)	11 (TH)	12 (RT)
Volume (veh/h)		1184	17		483				6			
PHF		0.85	0.85		0.85				0.85			
Percent of heavy vehicles, HV		3	3		3				3			
Flow rate		1393	20		568				7			
Flare storage (# of vehs)												
Median storage (# of vehs)							1					
Signal upstream of Movement 2												
Length of study period (h)	0.25											

#### Output Data

	Lane	Movement	Flow Rate (veh/h)	Capacity (veh/h)	v/c	Queue Length (veh)	Control Delay (s)	LOS	Approach Delay and LOS
NB	1	R	7	170	0.041	0	27.0	D	27.0  D
	2								
	3								
SB	1								
	2								
	3								
EB	①								
WB	④								

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## CHAPTER 17 - TWSC - UNSIGNALIZED INTERSECTIONS WORKSHEET

### Analysis Summary

#### General Information

Analyst Nancy  
 Agency or Company Terry Brown, P.E.  
 Analysis Period/Year PM Peak Hour 2012  
 Comment 2012 PM Peak Hour BUILD Conditions

#### Site Information

Jurisdiction/Date City of ABQ 7/31/2007  
 Major Street Westside Blvd  
 Minor Street Driveway 'C'

#### Input Data

Lane Configuration	EB			WB			NB			SB		
Lane 1 (curb)	TR			T			R					
Lane 2												
Lane 3												
Lane 4												
Lane 5												
Movement	EB			WB			NB			SB		
	1 (LT)	2 (TH)	3 (RT)	4 (LT)	5 (TH)	6 (RT)	7 (LT)	8 (TH)	9 (RT)	10 (LT)	11 (TH)	12 (RT)
Volume (veh/h)		841	12		911				5			
PHF		0.85	0.85		0.85				0.85			
Percent of heavy vehicles, HV		3	3		3				3			
Flow rate		989	14		1072				6			
Flare storage (# of vehs)												
Median storage (# of vehs)							1					
Signal upstream of Movement 2												
Length of study period (h)	0.25											

#### Output Data

	Lane	Movement	Flow Rate (veh/h)	Capacity (veh/h)	v/c	Queue Length (veh)	Control Delay (s)	LOS	Approach Delay and LOS
NB	1	R	6	295	0.020	0	17.4	C	17.4  C
	2								
	3								
SB	1								
	2								
	3								
EB	①								
WB	④								

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Analysis of Intersection #8

**Driveway 'D' / Golf Course Rd**

## CHAPTER 17 - TWSC - UNSIGNALIZED INTERSECTIONS WORKSHEET

### Analysis Summary

#### General Information

Analyst Nancy  
 Agency or Company Terry Brown, P.E.  
 Analysis Period/Year AM Peak Hour 2012  
 Comment 2012 AM Peak Hour BUILD Conditions

#### Site Information

Jurisdiction/Date City of ABQ 7/31/2007  
 Major Street Golf Course Rd  
 Minor Street Driveway 'D'

#### Input Data

Lane Configuration	NB			SB			WB			EB		
Lane 1 (curb)	TR			T			R					
Lane 2	T			T								
Lane 3												
Lane 4												
Lane 5												
Movement	1 (LT)	2 (TH)	3 (RT)	4 (LT)	5 (TH)	6 (RT)	7 (LT)	8 (TH)	9 (RT)	10 (LT)	11 (TH)	12 (RT)
Volume (veh/h)		587	169		1056				148			
PHF		0.96	0.96		0.96				0.85			
Percent of heavy vehicles, HV		3	3		3				3			
Flow rate		611	176		1100				174			
Flare storage (# of vehs)												
Median storage (# of vehs)							1					
Signal upstream of Movement 2												
Length of study period (h)	0.25											

#### Output Data

	Lane	Movement	Flow Rate (veh/h)	Capacity (veh/h)	v/c	Queue Length (veh)	Control Delay (s)	LOS	Approach Delay and LOS
WB	1	R	174	602	0.289	1	13.4	B	13.4 B
	2								
	3								
EB	1								
	2								
	3								
NB	①								
SB	④								

## CHAPTER 17 - TWSC - UNSIGNALIZED INTERSECTIONS WORKSHEET

### Analysis Summary

#### General Information

#### Site Information

Analyst <u>Nancy</u>	Jurisdiction/Date <u>City of ABQ</u> <u>7/31/2007</u>
Agency or Company <u>Terry Brown, P.E.</u>	Major Street <u>Golf Course Rd</u>
Analysis Period/Year <u>AM Peak Hour</u> <u>2012</u>	Minor Street <u>Driveway 'D'</u>
Comment <u>2012 AM Peak Hour BUILD Conditions - Alternate Access</u>	

#### Input Data

Lane Configuration	NB			SB			WB			EB		
Lane 1 (curb)	TR			T			R					
Lane 2	T			LT			L					
Lane 3												
Lane 4												
Lane 5												
	NB			SB			WB			EB		
Movement	1 (LT)	2 (TH)	3 (RT)	4 (LT)	5 (TH)	6 (RT)	7 (LT)	8 (TH)	9 (RT)	10 (LT)	11 (TH)	12 (RT)
Volume (veh/h)		587	169	95	1056		146		148			
PHF		0.96	0.96	0.96	0.96		0.85		0.85			
Percent of heavy vehicles, HV		3	3	3	3		3		3			
Flow rate		611	176	99	1100		172		174			
Flare storage (# of vehs)												
Median storage (# of vehs)							1					
Signal upstream of Movement 2												
Length of study period (h)	0.25											

#### Output Data

	Lane	Movement	Flow Rate (veh/h)	Capacity (veh/h)	v/c	Queue Length (veh)	Control Delay (s)	LOS	Approach Delay and LOS
WB	1	R	174	602	0.289	1	13.4	B	33.2 D
	2	L	172	235	0.732	5	53.2	F	
	3								
EB	1								
	2								
	3								
NB	①								
SB	④		99	821	0.121	0	10.0	A	

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## CHAPTER 17 - TWSC - UNSIGNALIZED INTERSECTIONS WORKSHEET

### Analysis Summary

#### General Information

Analyst Nancy  
 Agency or Company Terry Brown, P.E.  
 Analysis Period/Year PM Peak Hour 2012  
 Comment 2012 PM Peak Hour BUILD Conditions

#### Site Information

Jurisdiction/Date City of ABQ 7/31/2007  
 Major Street Golf Course Rd  
 Minor Street Driveway 'D'

#### Input Data

Lane Configuration	NB			SB			WB			EB		
Lane 1 (curb)	TR			T			R					
Lane 2	T			T								
Lane 3												
Lane 4												
Lane 5												
	NB			SB			WB			EB		
Movement	1 (LT)	2 (TH)	3 (RT)	4 (LT)	5 (TH)	6 (RT)	7 (LT)	8 (TH)	9 (RT)	10 (LT)	11 (TH)	12 (RT)
Volume (veh/h)		1094	186		746				196			
PHF		0.93	0.93		0.93				0.85			
Percent of heavy vehicles, HV		3	3		3				3			
Flow rate		1176	200		802				231			
Flare storage (# of vehs)												
Median storage (# of vehs)							1					
Signal upstream of Movement 2												
Length of study period (h)	0.25											

#### Output Data

	Lane	Movement	Flow Rate (veh/h)	Capacity (veh/h)	v/c	Queue Length (veh)	Control Delay (s)	LOS	Approach Delay and LOS
WB	1	R	231	386	0.598	4	27.3	D	27.3
	2								
	3								D
EB	1								
	2								
	3								
NB	①								
SB	④								

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Analysis of Intersection #9

**Driveway 'E' / Golf Course Rd**

## CHAPTER 17 - TWSC - UNSIGNALIZED INTERSECTIONS WORKSHEET

### Analysis Summary

#### General Information

Analyst Nancy  
 Agency or Company Terry Brown, P.E.  
 Analysis Period/Year AM Peak Hour 2012  
 Comment 2012 AM Peak Hour BUILD Conditions

#### Site Information

Jurisdiction/Date City of ABQ 7/27/2007  
 Major Street Golf Course Rd  
 Minor Street Driveway 'E'

#### Input Data

Lane Configuration	NB			SB			WB			EB		
Lane 1 (curb)	T			TR						R		
Lane 2	T			T								
Lane 3												
Lane 4												
Lane 5												
Movement	NB			SB			WB			EB		
	1 (LT)	2 (TH)	3 (RT)	4 (LT)	5 (TH)	6 (RT)	7 (LT)	8 (TH)	9 (RT)	10 (LT)	11 (TH)	12 (RT)
Volume (veh/h)		756			1131	71						61
PHF		0.96			0.96	0.96						0.85
Percent of heavy vehicles, HV		3			3	3						3
Flow rate		788			1178	74						72
Flare storage (# of vehs)												
Median storage (# of vehs)											1	
Signal upstream of Movement 2												
Length of study period (h)	0.25											

#### Output Data

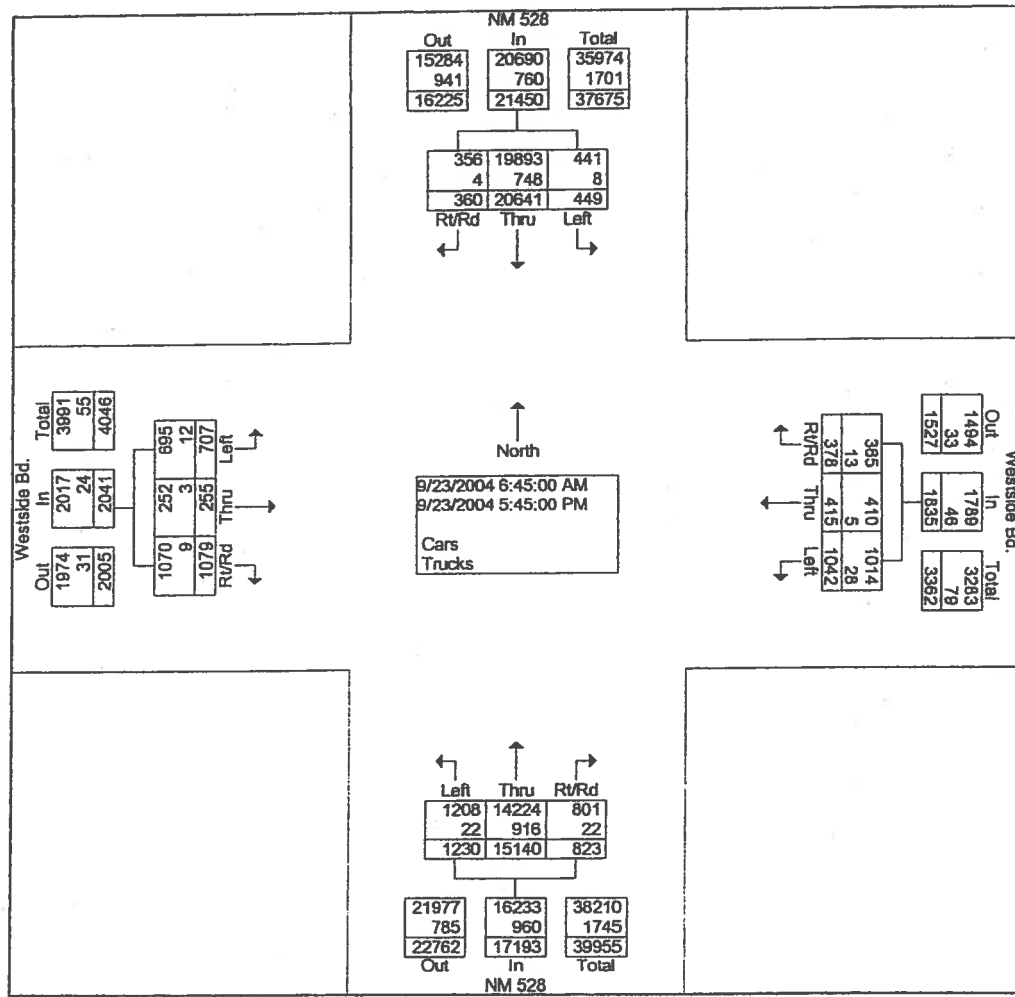
	Lane	Movement	Flow Rate (veh/h)	Capacity (veh/h)	v/c	Queue Length (veh)	Control Delay (s)	LOS	Approach Delay and LOS
WB	1								
	2								
	3								
EB	1	R	72	425	0.170	1	15.2	C	15.2
	2								C
	3								
NB		①							
SB		④							

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Mid-Region Council of Governments  
Intersection Turning Movement Analysis

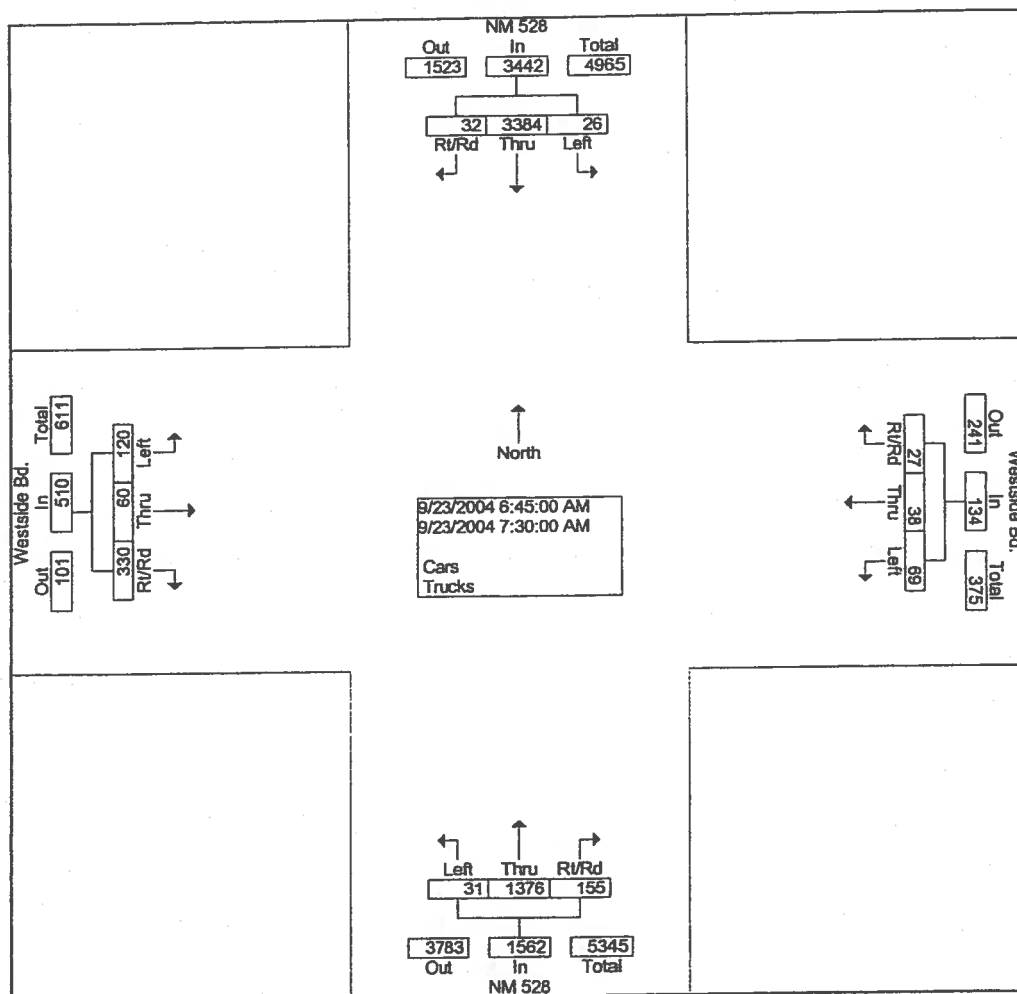
File Name : Westside Bd. and NM 52  
Site Code : 00025899  
Start Date : 09/23/2004  
Page No : 2



Mid-Region Council of Governments  
Intersection Turning Movement Analysis

File Name : Westside Bd. and NM 5  
Site Code : 00025899  
Start Date : 09/23/2004  
Page No : 3

	NM 528 From North					Westside Bd. From East					NM 528 From South					Westside Bd. From West					
Start Time	Left	Thru	Right	Rt/R d	App. Total	Left	Thru	Right	Rt/R d	App. Total	Left	Thru	Right	Rt/R d	App. Total	Left	Thru	Right	Rt/R d	App. Total	Int Total
Peak Hour From 06:45 to 09:30 - Peak 1 of 1																					
Intersection	06:45																				
Volume	26	3384	29	3	3442	69	38	13	14	134	31	1376	122	33	1562	120	60	190	140	510	564
Percent	0.8	98.3	0.8	0.1		51.5	28.4	9.7	10.4		2.0	88.1	7.8	2.1		23.5	11.8	37.3	27.5		564
Volume	26	3384	29	3	3442	69	38	13	14	134	31	1376	122	33	1562	120	60	190	140	510	564
Volume	5	1006	7	1	1019	18	7	4	5	34	8	280	20	8	316	19	9	104	31	163	153
Peak Factor																					0.922
High Int.	07:00					07:15					07:30					07:00					
Volume	5	1006	7	1	1019	34	21	5	5	65	7	453	34	1	495	19	9	104	31	163	
Peak Factor	0.844										0.515					0.789					0.782







**Signalized Intersection Information Sheet**Intersection: **ELLISON/MCMAHON & GOLF COURSE**Speed Limit - E-W Street: 40 M.P.H.Speed Limit - N-S Street: 40 M.P.H.Date:  
7/10/2007**East Bound Approach: ELLISON/MCMAHON**

	Left Turn Lanes	Thru / Lefts	Thru Lanes	Thru / Rights	Right Turn Lanes
	1	-	2	-	1
Length	10				13
	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: ELLISON/MCMAHON**

	Left Turn Lanes	Thru / Lefts	Thru Lanes	Thru / Rights	Right Turn Lanes
	2	-	2	-	1
Length	15				12
	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: GOLF COURSE**

	Left Turn Lanes	Thru / Lefts	Thru Lanes	Thru / Rights	Right Turn Lanes
	2	-	2	-	1
Length	13				6
	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: GOLF COURSE**

	Left Turn Lanes	Thru / Lefts	Thru Lanes	Thru / Rights	Right Turn Lanes
	2	-	2	-	1
Length	8				5
	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**NOTE:** Existing Geometry