

F11D009

Western Trail Subd. (Argus Development)

(Western Trail / Coors Blvd.)

Traffic Analysis

— ♦ —
October 8, 2003

FINAL

Terry O. Brown, P.E.



Presented to:

Transportation Development Division

City of Albuquerque

&

District 3 Traffic Engineer

New Mexico State Highway & Transportation Department

Developers:

Argus Development

6400 Uptown Blvd. NE Ste. 510-W

Albuquerque, NM 87110

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

Terry O. Brown, P.E.

P. O. Box 92051
Albuquerque, NM 87199-2051
(505) 883-8807 - Voice
(208) 975-6132 - FAX
e-mail: tobe@swcp.com

Monday, August 19, 2002

Tony Loyd

City of Albuquerque Transportation Development Section
600 2nd St. NW
Albuquerque, NM 87102

Re: Western Trail Subdivision – Argus Development (Western Trail / Coors Blvd.)

Dear Tony:

In accordance with the City of Albuquerque Transportation Development Section's requirements, this analysis is submitted for approval associated with the proposed Western Trail Subdivision – Argus Development located at the northwest corner of Western Trail / Coors Blvd. as depicted on the attached Site Plan. The project is a proposed residential subdivision containing approximately 135 single-family detached homes.

There are two intersections proposed for access to the development. The first intersection (Bridgeport Rd. / Coors) is a right-turn-in, right-turn-out driveway onto Coors Blvd. approximately 800 feet north of Western Trail. The second driveway (Western Trail / McFarland Dr.) is onto Western Trail approximately 310 feet west of Coors Blvd.

There are two issues to address related to access on this project:

- 1) Does the Coors Driveway conform to the Coors Corridor Plan.
- 2) What is the recommended access configuration at McFarland Dr. that will best accommodate projected queues at Western Trail / Coors Blvd.

The proposed intersection of Bridgeport Rd. / Coors Blvd. is located approximately 800 feet north of Western Trail. The Coors Corridor Plan states that:

"Vehicular access to Coors Boulevard shall be limited to protect its primary function as a major traffic carrier. Driveways shall not be permitted within 400 feet on the approach to a major signalized intersection and within 150 feet on the departure side."

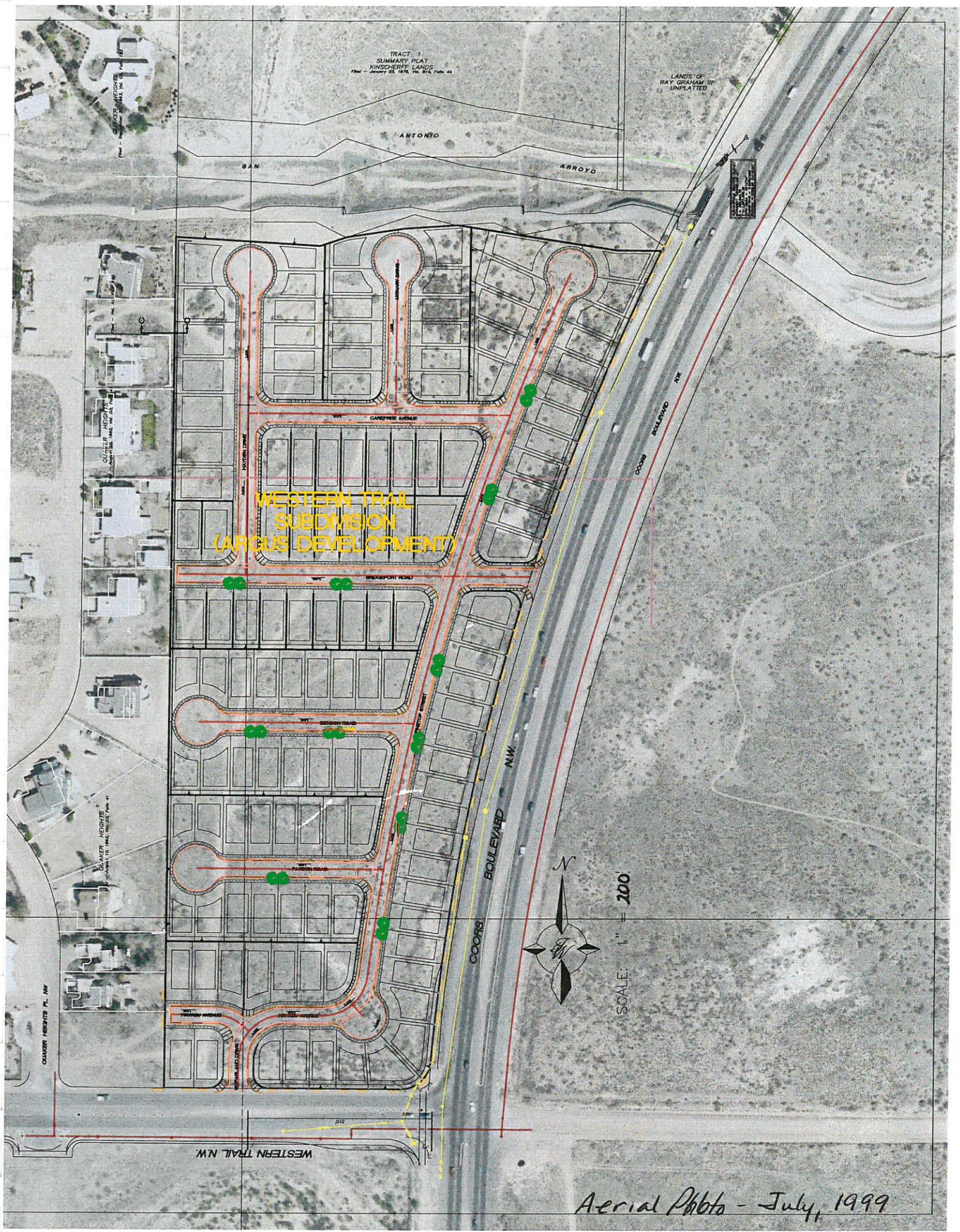
Since the proposed right-turn-in, right-turn-out intersection of Bridgeport Rd. / Coors Blvd. is located about 800 feet north of the future signalized intersection of Western Trail / Coors Blvd., then the proposed intersection meets the intent of the Coors Corridor Plan. It should be noted that a southbound right turn deceleration lane will be required on Coors Blvd. at Bridgeport Rd.

The second issue is a bit more complicated. To address the issue, the following steps were followed:

- 1) The number of AM and PM Peak Hour Trips generated by the subdivision was calculated using ITE's Trip Generation Manual, 6th Edition – 1997.

Re: Western Trail Subdivision – Argus Development (Western Trail / Coors Blvd.)

- 2) Trip Distribution percentages for the new trips were distributed proportionally to the 2005 projected employment of Subareas citywide. Employment data for 1995 and 2005 were taken from the 2020 Socioeconomic Forecasts for Data Analysis Subzones in State Planning and Development District 3, TR-125 (March, 1997), Appendix B, supplied by the Middle Rio Grande Council of Governments (MRGCOG). Employment Data was interpolated linearly between the 1995 and 2005 data to obtain 2005 values and adjusted for distance from the proposed new facility.
- 3) Annual growth rates were determined for Western Trail and for Coors Blvd. at the project based on data from the 1996, 1997, 1998, 1999, and 2000 Traffic Flow maps prepared by the Middle Rio Grande Council of Governments. Almost all of the Traffic Flow Data for the years 1996, 1997, 1998, 1999, and 2000 taken from the MRGCOG Traffic Flow Maps were Standard Data. The data from those years for each approach was plotted on a graph and a linear “regression trend line” calculated using the equation format $y=mx+b$. The growth rate was determined by calculating the average volume increase per year during the time period considered and dividing that volume into the most recent AWDT used in the analysis from which future volumes will be calculated. The rate of growth of that trend line was utilized as the growth rate for each approach if that calculated rate appeared feasible. However, there were some instances where the rate indicated a negative growth trend. In those cases, an appropriate growth rate from an adjacent segment of the same roadway was considered or a generic growth rate of 3.0% was used. 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.
- 4) New AM and PM Peak Hour Traffic Counts were conducted at the intersection of Western Trail / Coors Blvd. to determine existing volumes.
- 5) Existing AM and PM Peak Hour traffic count data were grown at the historical annual growth rate to determine 2005 NO BUILD Volumes, and then the new trips from Western Trail Subdivision (Argus Development) were added to project 2005 BUILD Volumes. Also, 2015 forecasts (from MRGCOG) from the A. G. Spanos Traffic Impact Study (southwest corner of Western Trail / Coors) were used as base volumes, and the new trips from Western Trail Subdivision (Argus Development) were added to project 2015 BUILD Volumes.
- 6) Both the 2005 and the 2015 BUILD Volumes were applied to the intersection of Western Trail / Coors Blvd. to determine the projected queue length of eastbound traffic at the intersection. Access to this site from Western Trail needs to consider not only the short term volumes, but horizon year volumes also. A Traffic Impact Study was performed in 1996 for a proposed A. G. Spanos mixed use development at the southwest corner of Western Trail / Coors Blvd. The study required horizon year analysis for the year 2015. The Middle Rio Grande Council of Governments (MRGCOG) developed 2015 forecasts for the intersection of Western Trail / Coors Blvd. Those volumes will be utilized as 2015 NO BUILD Volumes with which to develop and analyze the 2015 BUILD horizon year volumes for Western Trail Subdivision (Argus Development).



Western Trail Subdivision (Argus Development) - Western Trail / Coors Blvd.

Trip Generation Data

USE (ITE CODE)	24 HOUR TWO-WAY VOLUME	A.M. PEAK HOUR		P.M. PEAK HOUR	
		GROSS	ENTER	EXIT	ENTER
Single-Family Detached Housing (210)	135.00	1,366	26	78	90
Dwelling Units					51

ITE Trip Generation Equations:

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

$$\ln(T) = 0.92 \ln(X) + 2.707$$

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)

$$T = 0.7 (X) + 9.477$$

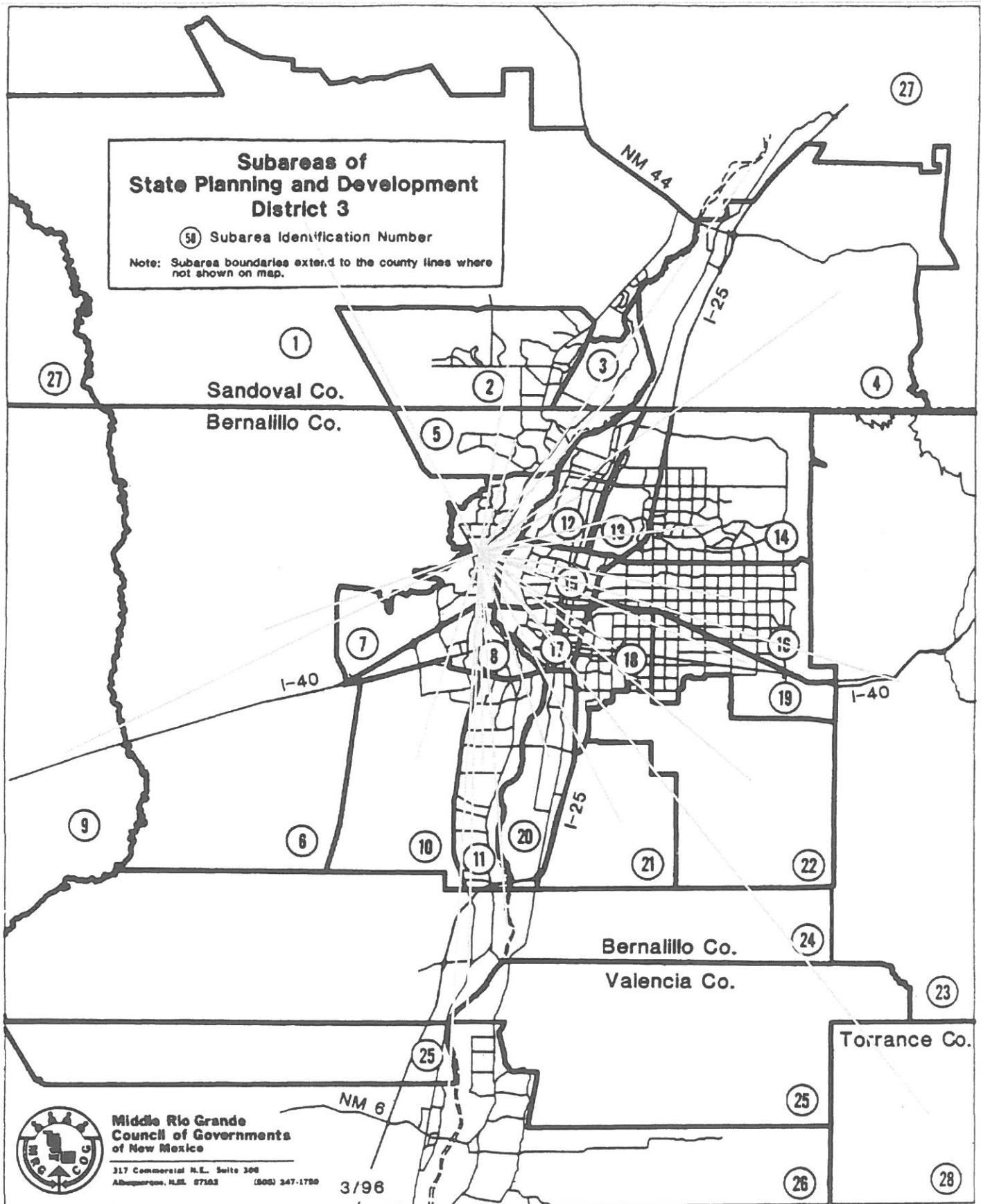
25% Enter, 75% Exit

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

$$\ln(T) = 0.901 \ln(X) + 0.527$$

64% Enter, 36% Exit

Comments:
Tract No.



Western Trail Subdivision - Argus (Western Trail / Coors Blvd.) Trip Distribution - Subarea Map

Figure 4

Trip Distribution Table

Western Trail Subdivision (Argus Development) - Western Tr

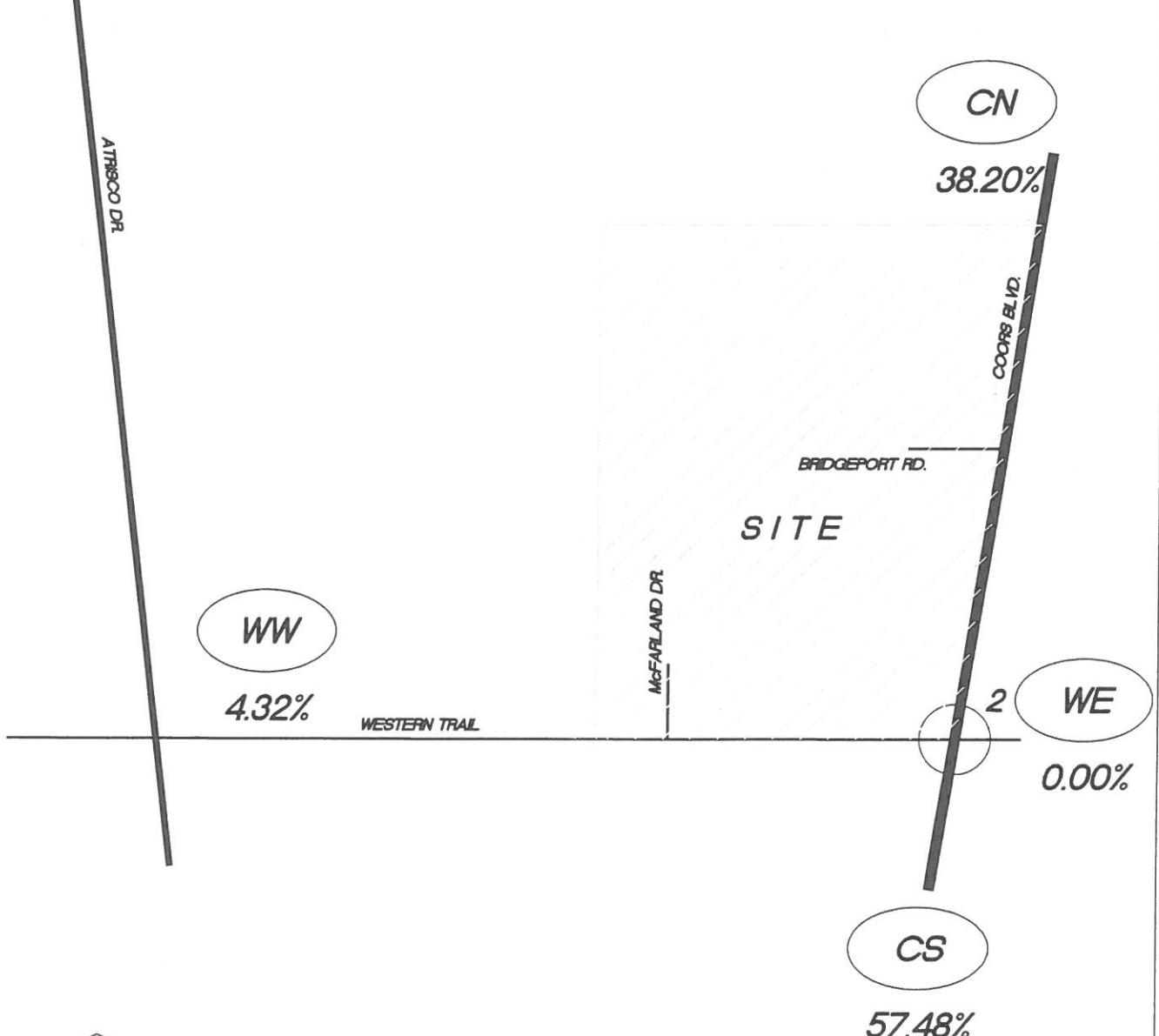
Sub Area Employment Data:

For determination of Trip Distribution for Proposed Residential De

*Data Taken from Middle Rio Grande Council of Government
for Data Analysis Subzones in State Planning and Developmen*

Sub Area I.D.#	% Sub Area in Study	East			(CS) Coors Blvd. South		
		1995		2005	Interpolatent Employment for the Year	Employment	% Utilizing
		1995	2005	2005			% Employment / Dist. Utilizing
1	100%	659	4,763	4,763	4.7%	0	0.00%
2	100%	14,925	22,575	22,575	22.5%	0	0.00%
3	100%	985	1,222	1,222	1.2%	0	0.00%
4	100%	2,463	2,694	2,694	2.6%	0	0.00%
5	100%	4,784	12,928	12,928	12.9%	0	0.00%
6	100%	114	147	147	1%	0	0.00%
7	100%	5,845	10,257	10,257	10.2%	0	35%
8	100%	5,415	8,137	8,137	8.1%	0	100%
9	100%	62	69	69	6%	0	100%
10	100%	1,555	2,680	2,680	2.6%	0	100%
11	100%	4,680	5,776	5,776	5.7%	0	100%
12	100%	5,680	6,883	6,883	6.8%	0	0%
13	100%	28,380	45,105	45,105	45.1%	0	0%
14	100%	29,501	36,361	36,361	36.3%	0	0%
15	100%	15,159	19,266	19,266	19.2%	0	70%
16	100%	64,446	78,155	78,155	78.1%	0	70%
17	100%	36,775	39,496	39,496	39.4%	0	100%
18	100%	40,093	49,531	49,531	49.5%	0	100%
19	100%	28,365	31,549	31,549	31.5%	0	100%
20	100%	5,451	7,979	7,979	7.9%	0	100%
21	100%	23	29	29	4%	0	100%
22	100%	23,886	23,679	23,679	23.6%	0	100%
23	100%	1,547	2,308	2,308	2.3%	0	100%
24	100%	888	2,351	2,351	2.3%	0	100%
25	100%	91	128	128	12%	0	100%
26	100%	12,362	19,073	19,073	19.0%	0	100%
27	100%	2,431	3,291	3,291	3.2%	0	0%
28	100%	2,581	3,344	3,344	3.3%	0	100%
		339,146	439,776	439,776	439,7%	0	57.48%
						0.00%	41,131
							57.48%

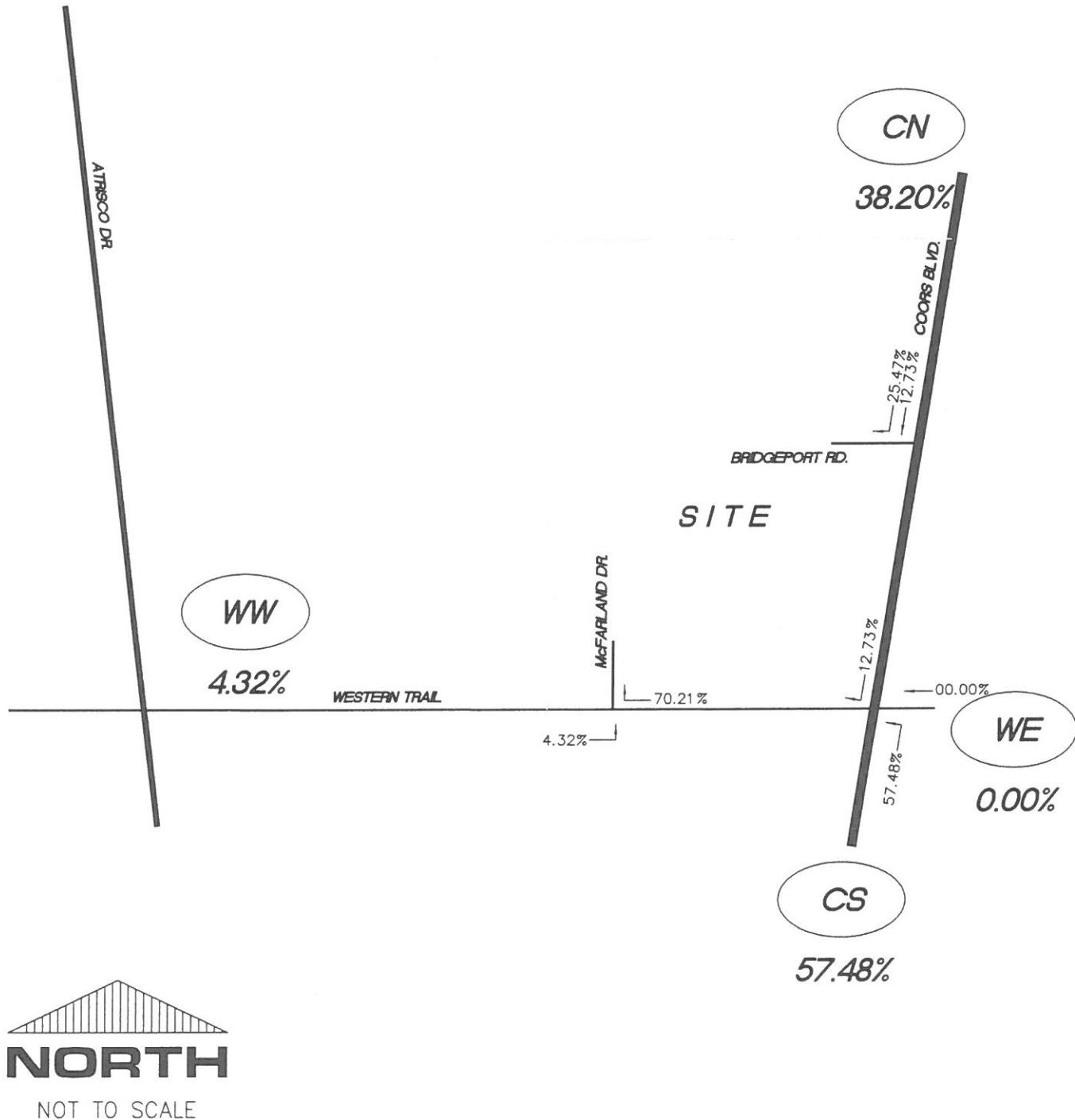
* - Subarea in which the site is located.

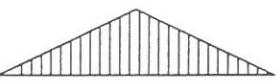


NOT TO SCALE

WESTERN TRAIL SUBDIVISION

WESTERN TRAIL / COORS BLVD.
TRIP DISTRIBUTION (%) – RESIDENTIAL

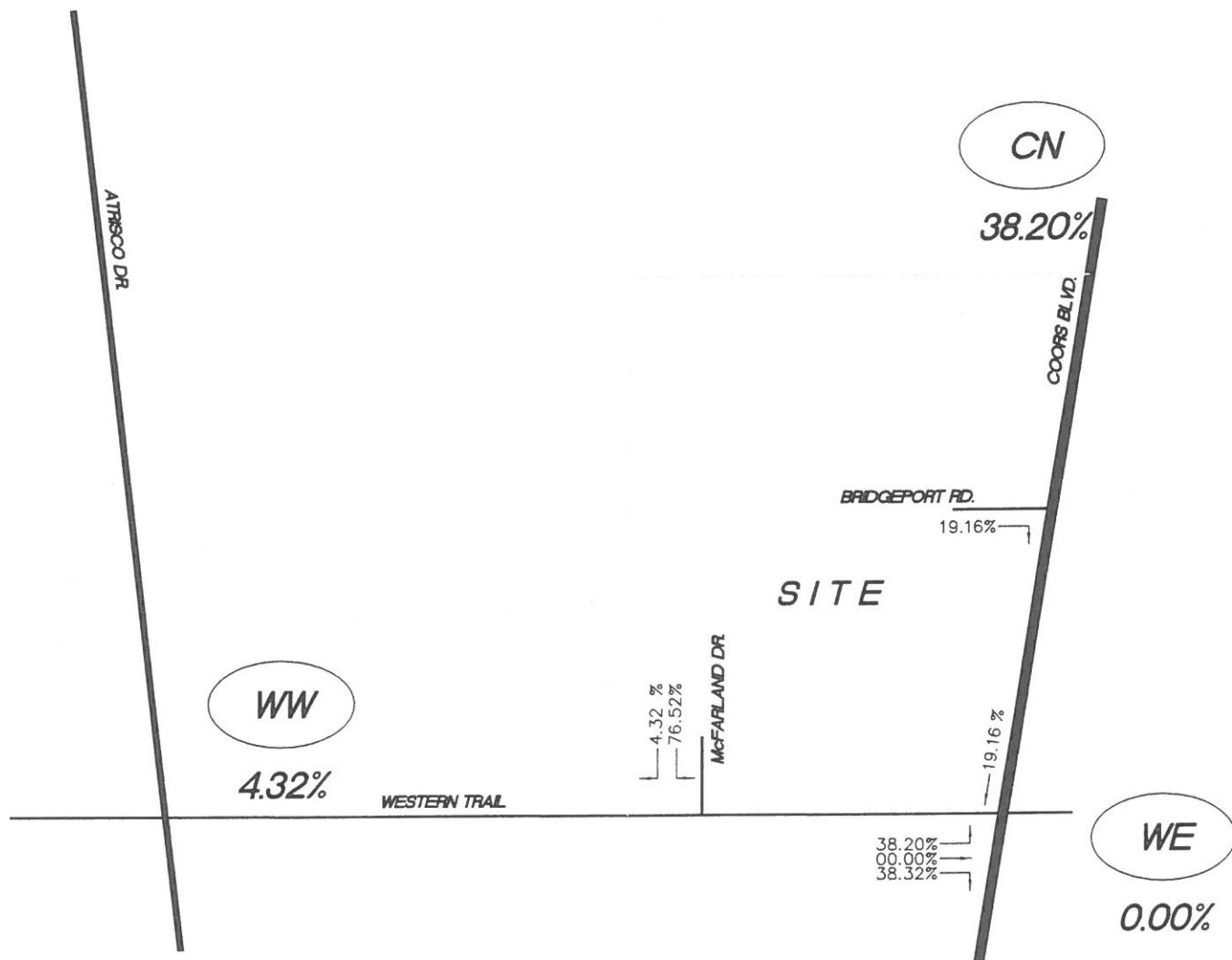



NORTH

NOT TO SCALE

WESTERN TRAIL SUBDIVISION

WESTERN TRAIL / COORS BLVD.
TRIP ASSIGNMENTS (% ENTERING) – RESIDENTIAL




NORTH

NOT TO SCALE

WESTERN TRAIL SUBDIVISION

WESTERN TRAIL / COORS BLVD.
TRIP ASSIGNMENTS (% EXITING) – RESIDENTIAL

SIGNALIZED INTERSECTION PLANNING APPLICATION WORKSHEET

Intersection: Coors Blvd. / Western Trail
Analyst: TOB
Project: A. G. Spanos Development (Coors / Western Tr.)
Condition: BUILD

Date: 16-Aug-02
Time Period Analyzed: AM Peak Hr.
City / State: Albuquerque, NM

			Coors Blvd.					
			N-S STREET					
			Y					
			TR?					
SB TOTAL			R	T	L	140		
	3,100		0	4	1	RIGHT		
80		40				40		
RIGHT	2,980	LEFT				THRU		
THRU						140		
						LEFT		
							320	
							WB TOTAL	

NO. LANES

2 L

2 T

TR? N

1 R

360		
LEFT		
910		
10		
THRU		
540		
RIGHT		

2	4	0
L	T	R
		TR?
		<input type="checkbox"/> Y

Western Trail		
E-W STREET		
		1,570
110	THRU	30
LEFT		RIGHT
		1,710
		NB TOTAL

EB LT = <u>180</u>	MAXIMUM SUM OF CRITICAL VALUES	CAPACITY LEVEL	NB LT = <u>55</u>
WB TH = <u>180</u>			SB TH = <u>765</u>
<u>360</u> *	0 TO 1,200	UNDER	<u>820</u> *
WB LT = <u>140</u>	1,201 TO 1,400	NEAR	SB LT = <u>40</u>
EB TH = <u>5</u>	>1,400	OVER	NB TH = <u>400</u>
<u>145</u>			<u>440</u>

360 + 820 = 1,180 STATUS? UNDER
E-W CRITICAL N-S CRITICAL

NOTES: Base Geometry which will work for NO BUILD Condition plus additional NB LT Lane.

2015 Forecast Volumes from 1995 A.G. Spanos TIS

**SIGNALIZED INTERSECTION
PLANNING APPLICATION WORKSHEET**

Intersection: Coors Blvd. / Western Trail
 Analyst: TOB
 Project: A. G. Spanos Development (Coors / Western Tr.)
 Condition: BUILD

Date: 16-Aug-02
 Time Period Analyzed: PM Peak Hr.
 City / State: Albuquerque, NM

SB TOTAL	<u>2,880</u>
350	<u>150</u>
RIGHT	<u>2,380</u>
THRU	<u>LEFT</u>

Coors Blvd. N-S STREET		
R	T	L
0	4	1

50	
RIGHT	
50	
THRU	
50	
LEFT	

0 R
TR? Y
1 T

1 L
NO. LANES

NO. LANES
2 L
2 T
TR? N
1 R

250	
LEFT	
50	
THRU	
370	
RIGHT	

2	4	0
L	T	R
TR? <input type="checkbox"/> Y		

Western Trail E-W STREET		
3,150		
450		
THRU		
150		
RIGHT		
3,750		
NB TOTAL		

EB LT = 125
 WB TH = 100
225*
 WB LT = 50
 EB TH = 25
75

MAXIMUM SUM
OF CRITICAL VALUES
0 TO 1,200
1,201 TO 1,400
>1,400

CAPACITY
LEVEL
UNDER
NEAR
OVER

NB LT = 225
 SB TH = 683
908
 SB LT = 150
 NB TH = 825
975*

225 + 975 = 1,200 STATUS? UNDER
E-W CRITICAL N-S CRITICAL

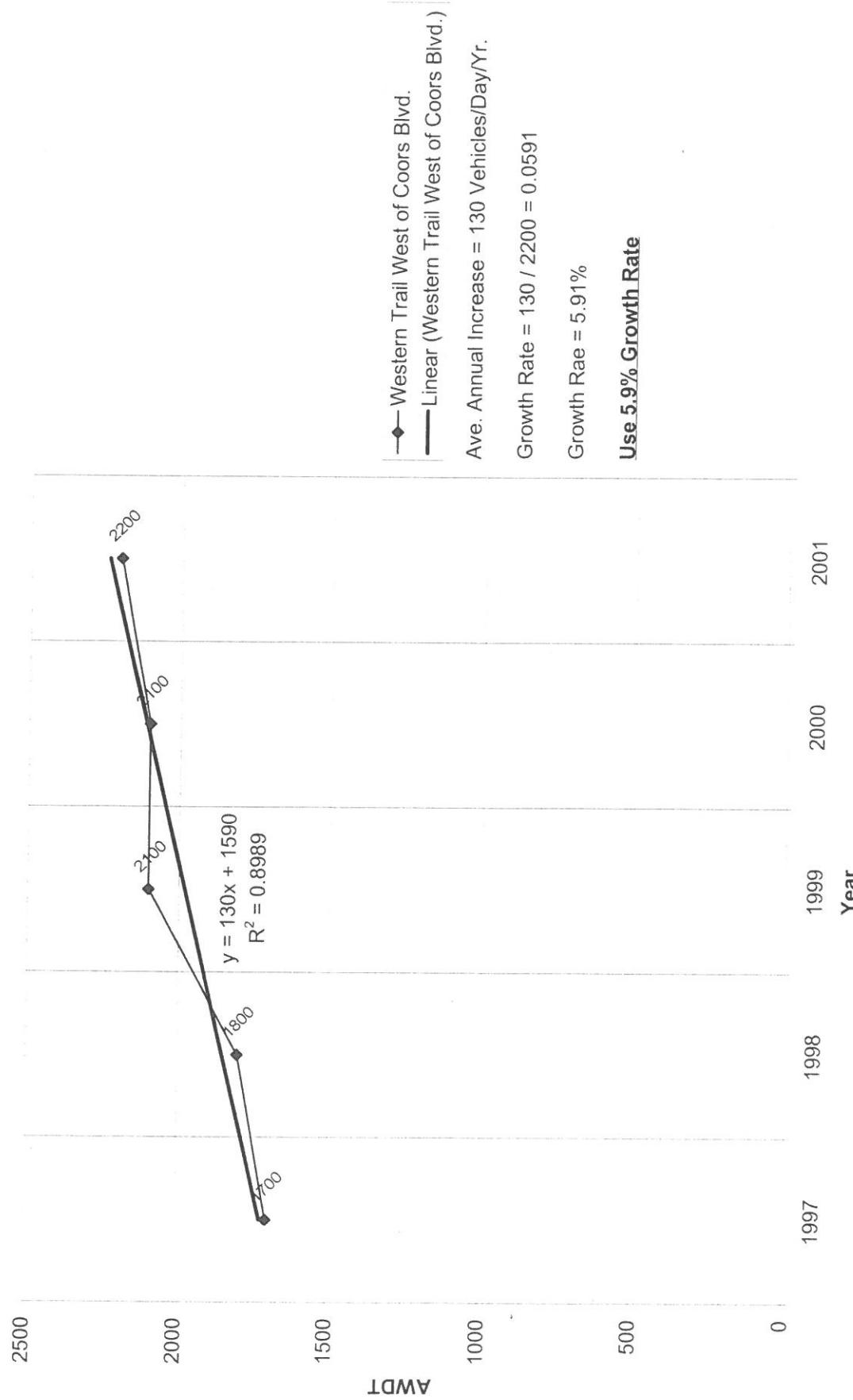
NOTES: Base Geometry which will work for NO BUILD Condition plus additional EB LT Lane.

2015 Forecast volumes from 1995 A.G. Spanos T15.

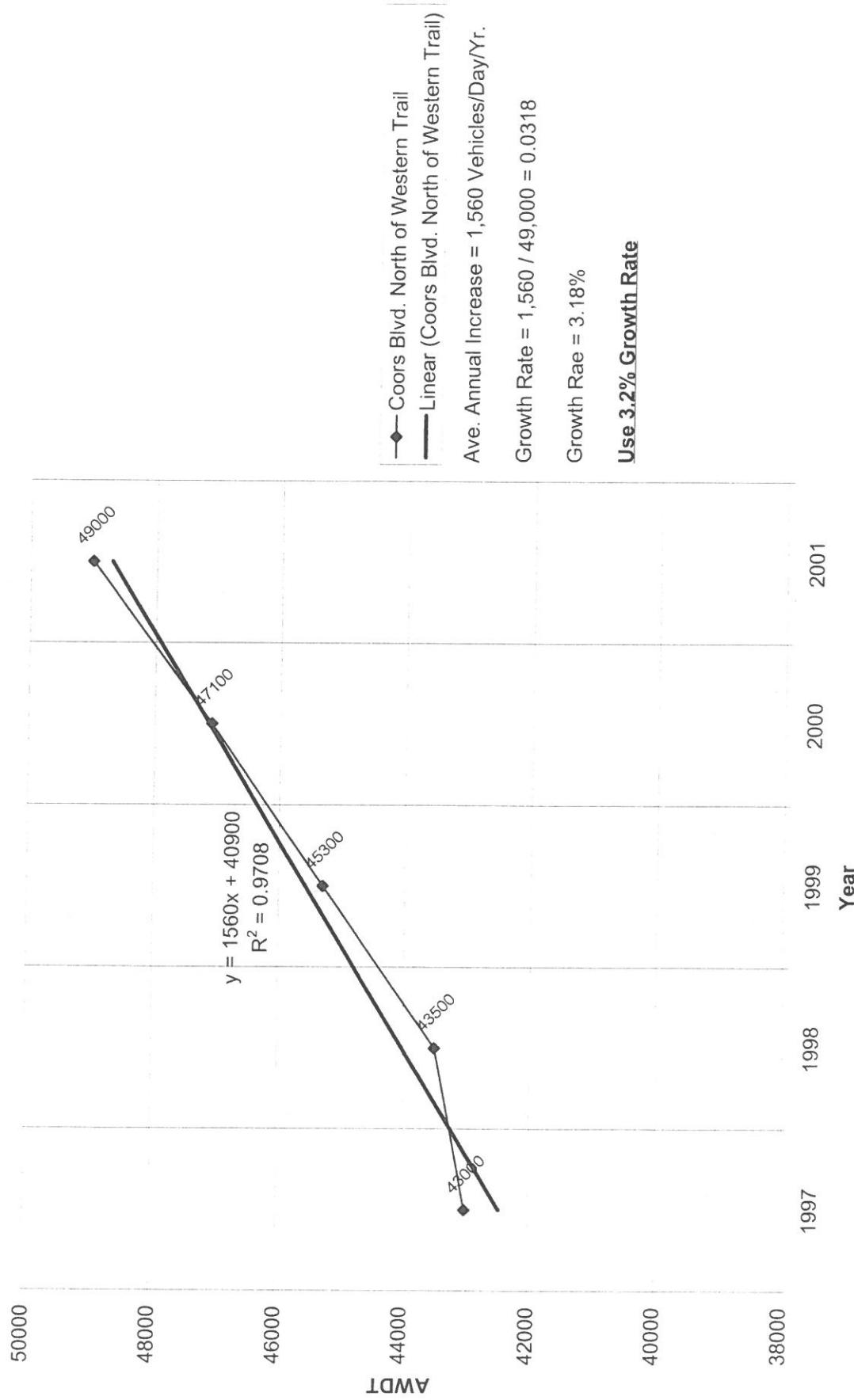
Western Trail Subdivision (Argus Development) - Western Trail / Coors Blvd.
Historic Growth Data Table

	1997	1998	1999	2000	2001
Western Trail West of Coors Blvd.	1,700	1,800	2,100	2,100	2,200
Coors Blvd. North of Western Trail	43,000	43,500	45,300	47,100	49,000
Coors Blvd. South of Western Trail	41,400	43,100	44,900	46,700	48,600

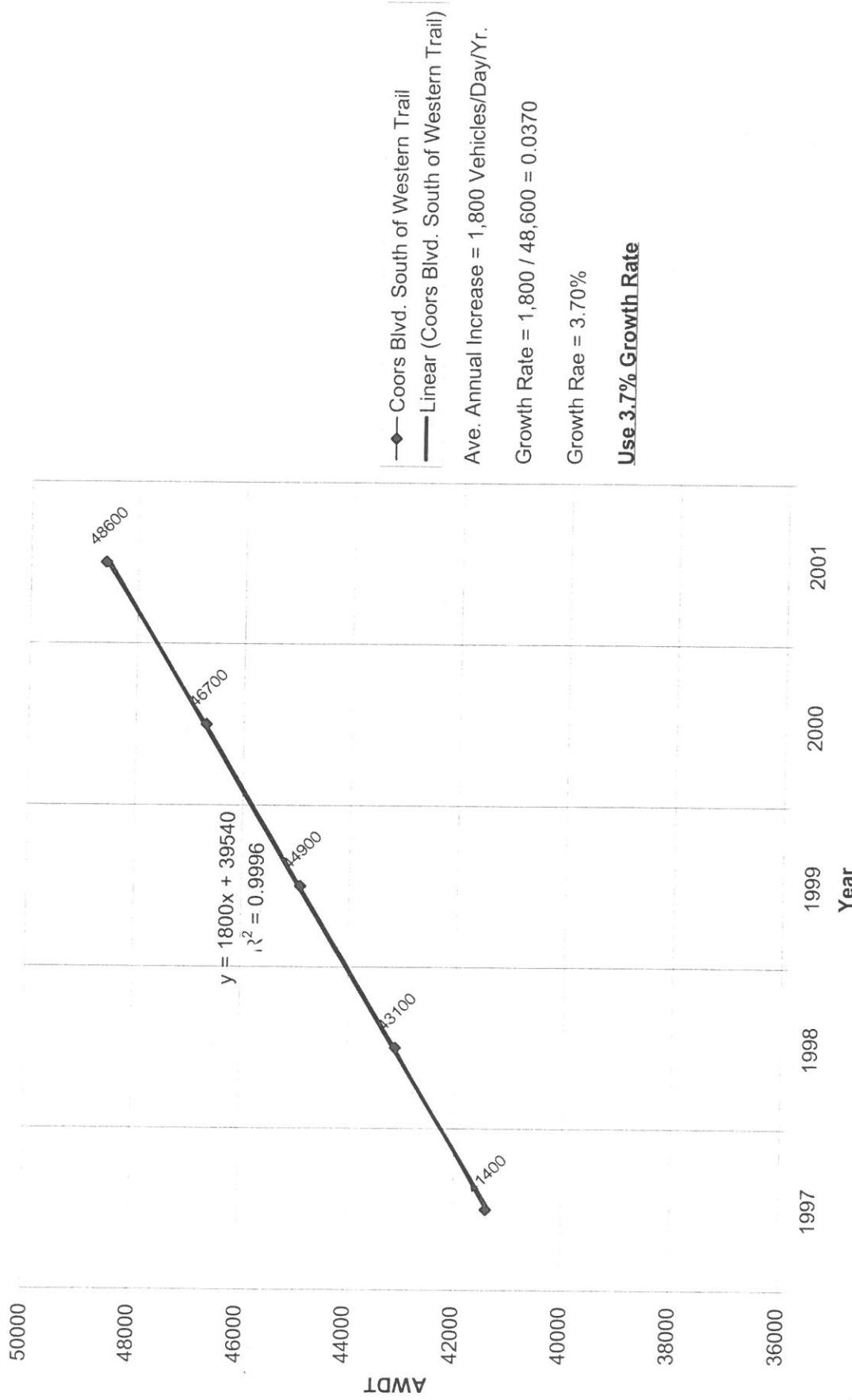
Historic Growth Trend for Western Trail West of Coors Blvd.



Historic Growth Trend for Coors Blvd. North of Western Trail



Historic Growth Trend for Coors Blvd. South of Western Trail



*Western Trail Subdivision (Argus Development) - Western Trail / Coors Blvd.*Projected Turning Movements SUMMARY
PROPOSED DEVELOPMENT (2005) - 100% Development

INTERSECTION:

S u m m a r yWestern Trail / Coors Blvd.

			0.80			0.80			0.70			0.80			PHF
			Eastbound (Western Trail)			Westbound (Western Trail)			Northbound (Coors Blvd.)			Southbound (Coors Blvd.)			
			Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
(1)	3.0% Truck		45	0	41	1	0	0	33	1,650	2	16	2,818	43	
Existing			53	0	48	1	0	0	37	1,833	2	18	3,089	47	
2005 (NO BUILD - A.M.)			83	0	78	1	0	0	52	1,833	2	18	3,104	50	
			0.80			0.80			0.87			0.89			PHF
			Eastbound (Western Trail)			Westbound (Western Trail)			Northbound (Coors Blvd.)			Southbound (Coors Blvd.)			
			Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
Existing			27	1	28	1	0	7	83	3,040	1	1	2,298	92	
2005 (NO BUILD - P.M.)			32	1	33	1	0	8	92	3,377	1	1	2,519	101	
2005 (BUILD - P.M.)			51	1	53	1	0	8	144	3,377	1	1	2,529	112	

Bridgeport Rd. / Coors Blvd.

			0.80			0.80			0.70			0.80			PHF
			Eastbound (Bridgeport Rd.)			Westbound (Bridgeport Rd.)			Northbound (Coors Blvd.)			Southbound (Coors Blvd.)			
			Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
(2)	3.0% Truck		0	0	0	0	0	0	0	1,695	0	0	2,877	0	
Existing			0	0	0	0	0	0	0	1,858	0	0	2,880	0	
2005 (NO BUILD - A.M.)			0	0	15	0	0	0	0	1,858	0	0	2,883	7	
			0.80			0.80			0.87			0.89			PHF
			Eastbound (Bridgeport Rd.)			Westbound (Bridgeport Rd.)			Northbound (Coors Blvd.)			Southbound (Coors Blvd.)			
			Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
Existing			0	0	0	0	0	0	0	3,074	0	0	2,391	0	
2005 (NO BUILD - P.M.)			0	0	0	0	0	0	0	3,369	0	0	2,393	0	
2005 (BUILD - P.M.)			0	0	10	0	0	0	0	3,369	0	0	2,404	23	

Western Trail / McFarland Dr.

			0.80			0.80			0.80			0.80			PHF
			Eastbound (Western Trail)			Westbound (Western Trail)			Northbound (McFarland Dr.)			Southbound (McFarland Dr.)			
			Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
(3)	3.0% Truck		0	86	0	0	76	0	0	0	0	0	0	0	
Existing			0	101	0	0	89	0	0	0	0	0	0	0	
2005 (NO BUILD - A.M.)			1	101	0	0	89	18	0	0	0	60	0	3	
			0.80			0.80			0.80			0.80			PHF
			Eastbound (Western Trail)			Westbound (Western Trail)			Northbound (McFarland Dr.)			Southbound (McFarland Dr.)			
			Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
Existing			0	56	0	0	175	0	0	0	0	0	0	0	
2005 (NO BUILD - P.M.)			0	66	0	0	206	0	0	0	0	0	0	0	
2005 (BUILD - P.M.)			4	66	0	0	206	63	0	0	0	39	0	2	

Western Trail / Coors Blvd.

			0.80			0.80			0.85			0.85			PHF
			Eastbound (Western Trail)			Westbound (Western Trail)			Northbound (Coors Blvd.)			Southbound (Coors Blvd.)			
			Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
(4)	3.0% Truck		360	10	540	140	40	140	110	1,570	30	40	2,980	80	
Existing			360	10	540	140	40	140	110	1,570	30	40	2,980	80	
2015 (NO BUILD - A.M.)			390	10	570	140	40	140	125	1,570	30	40	2,995	83	
			0.80			0.80			0.90			0.90			PHF
			Eastbound (Western Trail)			Westbound (Western Trail)			Northbound (Coors Blvd.)			Southbound (Coors Blvd.)			
			Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
Existing			250	50	370	50	50	50	450	3,150	150	150	2,380	350	
2015 (NO BUILD - P.M.)			250	50	370	50	50	450	3,150	150	150	2,380	350		
2015 (BUILD - P.M.)			269	50	390	50	50	50	502	3,150	150	150	2,390	361	

Western Trail Subdivision (Argus Development) - Western Trail / Coors Blvd.
Projected Turning Movements Worksheet
Western Trail / Coors Blvd.

INTERSECTION :

E-W Street: Western Trail
N-S Street: Coors Blvd.
2002

Year of Existing Counts
Implementation Year
2005

Growth Rates

Eastbound (Western Trail)			Westbound (Western Trail)			Northbound (Coors Blvd.)			Southbound (Coors Blvd.)		
Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
45	0	41	1	0	0	33	1,650	2	16	2,818	43
8	0	7	0	0	0	4	183	0	2	271	4
53	0	48	1	0	0	37	1,833	2	18	3,089	47
0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	57.48%	0.00%	0.00%	0.00%	0.00%	12.73%
38.20%	0.00%	38.32%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	19.16%	0.00%
30	0	30	0	0	0	15	0	0	0	15	3
83	0	78	1	0	0	52	1,833	2	18	3,104	50

5.90% Growth Rates

Eastbound (Western Trail)			Westbound (Western Trail)			Northbound (Coors Blvd.)			Southbound (Coors Blvd.)		
Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
45	0	41	1	0	0	33	1,650	2	16	2,818	43
8	0	7	0	0	0	4	183	0	2	271	4
53	0	48	1	0	0	37	1,833	2	18	3,089	47
0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	57.48%	0.00%	0.00%	0.00%	0.00%	12.73%
38.20%	0.00%	38.32%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	19.16%	0.00%
30	0	30	0	0	0	15	0	0	0	15	3
83	0	78	1	0	0	52	1,833	2	18	3,104	50

5.80% Growth Rates

Eastbound (Western Trail)			Westbound (Western Trail)			Northbound (Coors Blvd.)			Southbound (Coors Blvd.)		
Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
45	0	41	1	0	0	33	1,650	2	16	2,818	43
8	0	7	0	0	0	4	183	0	2	271	4
53	0	48	1	0	0	37	1,833	2	18	3,089	47
0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	57.48%	0.00%	0.00%	0.00%	0.00%	12.73%
38.20%	0.00%	38.32%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	19.16%	0.00%
30	0	30	0	0	0	15	0	0	0	15	3
83	0	78	1	0	0	52	1,833	2	18	3,104	50

3.70% Growth Rates

Eastbound (Western Trail)			Westbound (Western Trail)			Northbound (Coors Blvd.)			Southbound (Coors Blvd.)		
Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
45	0	41	1	0	0	33	1,650	2	16	2,818	43
8	0	7	0	0	0	4	183	0	2	271	4
53	0	48	1	0	0	37	1,833	2	18	3,089	47
0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	57.48%	0.00%	0.00%	0.00%	0.00%	12.73%
38.20%	0.00%	38.32%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	19.16%	0.00%
30	0	30	0	0	0	15	0	0	0	15	3
83	0	78	1	0	0	52	1,833	2	18	3,104	50

3.20% Growth Rates

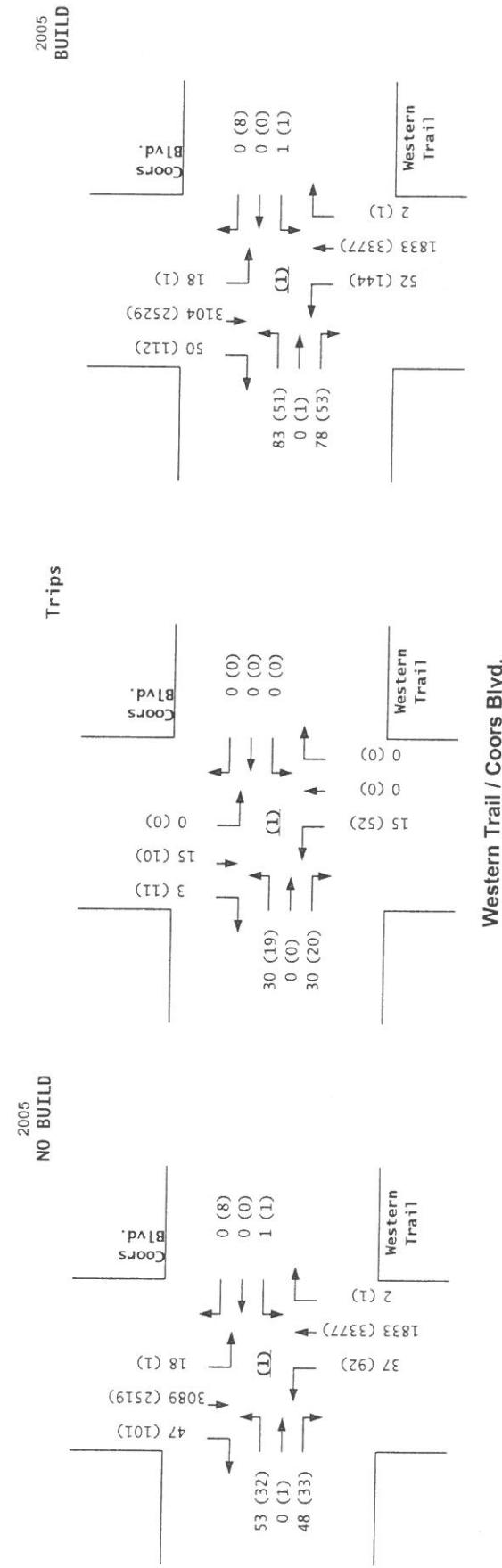
Eastbound (Western Trail)			Westbound (Western Trail)			Northbound (Coors Blvd.)			Southbound (Coors Blvd.)		
Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
45	0	41	1	0	0	33	1,650	2	16	2,818	43
8	0	7	0	0	0	4	183	0	2	271	4
53	0	48	1	0	0	37	1,833	2	18	3,089	47
0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	57.48%	0.00%	0.00%	0.00%	0.00%	12.73%
38.20%	0.00%	38.32%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	19.16%	0.00%
30	0	30	0	0	0	15	0	0	0	15	3
83	0	78	1	0	0	52	1,833	2	18	3,104	50

Eastbound (Western Trail)			Westbound (Western Trail)			Northbound (Coors Blvd.)			Southbound (Coors Blvd.)		
Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
27	1	28	1	0	7	83	3,040	1	1	2,298	92
5	0	5	0	0	1	9	337	0	0	221	9
32	1	33	1	0	8	92	3,377	1	1	2,519	101
0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	57.48%	0.00%	0.00%	0.00%	0.00%	12.73%
38.20%	0.00%	38.32%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	19.16%	0.00%
19	0	20	0	0	0	52	0	0	0	10	11
51	1	53	1	0	8	144	3,377	1	1	2,529	112

Entering	Exiting	A.M.	P.M.	100% Residential Development
26	78	51		
90				

Number of Residential Trips Generated

8/17/2002



WesternTrail_Coors_TURNS.xls - Int_1

Western Trail Subdivision (Argus Development) - Western Trail / Coors Blvd.
 Projected Turning Movements Worksheet
Bridgeport Rd. / Coors Blvd.

INTERSECTION:

E-W Street: Bridgeport Rd.
 N-S Street: Coors Blvd.

2002

2005

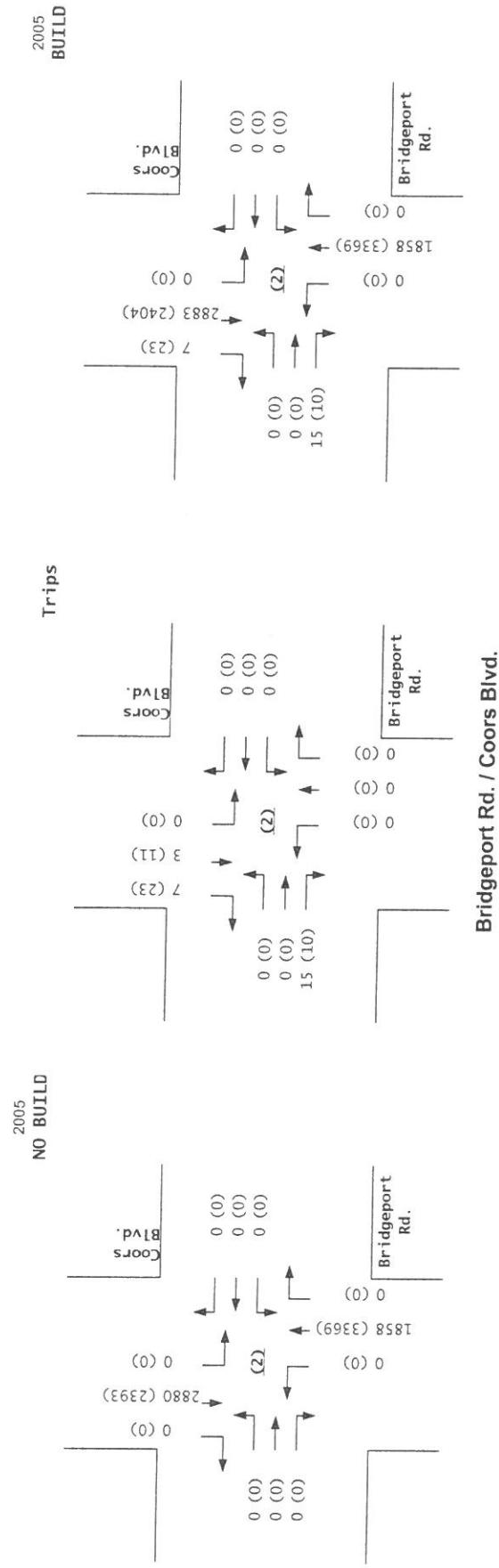
Growth Rates

			3.00%			3.00%			3.20%			3.20%		
			Eastbound (Bridgeport Rd.)			Westbound (Bridgeport Rd.)			Northbound (Coors Blvd.)			Southbound (Coors Blvd.)		
			Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing Volumes			0	0	0	0	0	0	0	1,695	0	0	2,877	0
Background Traffic Growth			0	0	0	0	0	0	0	163	0	0	3	0
Subtotal (NO BUILD - A.M.)			0	0	0	0	0	0	1,858	0	0	2,880	0	0
Percent Residential Trips Generated(Entering)			0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	12.73%	25.47%
Percent Residential Trips Generated(Exiting)			0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Total Trips Generated			0	0	15	0	0	0	0	0	0	0	3	7
Total AM Peak Hour BUILD Volumes			0	0	15	0	0	0	1,858	0	0	0	2,883	7

			3.00%			3.00%			3.20%			3.20%		
			Eastbound (Bridgeport Rd.)			Westbound (Bridgeport Rd.)			Northbound (Coors Blvd.)			Southbound (Coors Blvd.)		
			Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing Volumes			0	0	0	0	0	0	0	3,074	0	0	2,391	0
Background Traffic Growth			0	0	0	0	0	0	0	295	0	0	2	0
Subtotal (NO BUILD - P.M.)			0	0	0	0	0	0	3,369	0	0	2,393	0	0
Percent Residential Trips Generated(Entering)			0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	12.73%	25.47%
Percent Residential Trips Generated(Exiting)			0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Total Trips Generated			0	0	10	0	0	0	0	3,369	0	0	11	23
Total PM Peak Hour BUILD Volumes			0	0	10	0	0	0	3,369	0	0	0	2,404	23

Number of Residential Trips Generated
 Entering 26
 Exiting 90

A.M. 78
 P.M. 51
 100% Residential Development



Bridgeport Rd. / Coors Blvd.

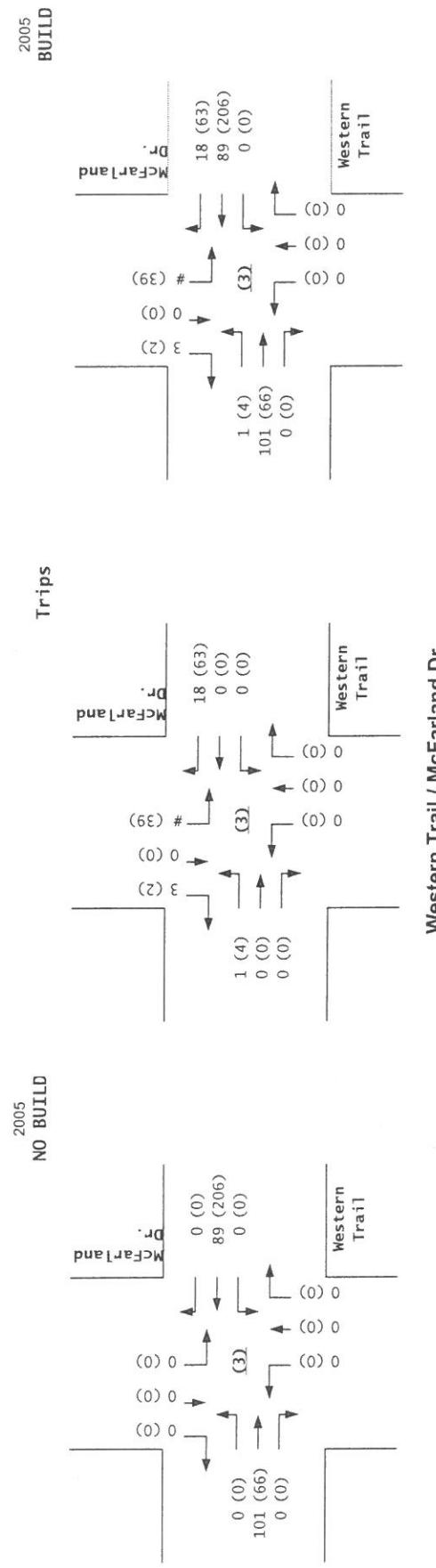
Western Trail Subdivision (Argus Development) - Western Trail / Coors Blvd.
 Projected Turning Movements Worksheet
Western Trail / McFarland Dr.

INTERSECTION:		E-W Street: Western Trail	N-S Street: McFarland Dr.
Year of Existing Counts	(3)	Implementation Year	2002
		Growth Rates	2005
Existing Volumes			
Background Traffic Growth			
Subtotal (NO BUILD - A.M.)			
Percent Residential Trips Generated(Entering)			
Percent Residential Trips Generated(Exiting)			
Total Trips Generated			
Total AM Peak Hour BUILD Volumes	1	101	0
Existing Volumes			
Background Traffic Growth			
Subtotal (NO BUILD - P.M.)			
Percent Residential Trips Generated(Entering)			
Percent Residential Trips Generated(Exiting)			
Total Trips Generated			
Total PM Peak Hour BUILD Volumes	4	66	0

Eastbound (Western Trail)		Westbound (Western Trail)		Northbound (McFarland Dr.)		Southbound (McFarland Dr.)	
Left	Thru	Right	Left	Thru	Right	Left	Thru
0	86	0	0	76	0	0	0
0	15	0	0	13	0	0	0
0	101	0	0	89	0	0	0
4.32%	0.00%	0.00%	0.00%	70.21%	0.00%	0.00%	0.00%
0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	76.52%	0.00%
1	0	0	0	18	0	0	0
1	101	0	0	89	18	0	0
Total AM Peak Hour BUILD Volumes	1	101	0	89	18	0	0
Eastbound (Western Trail)		Westbound (Western Trail)		Northbound (McFarland Dr.)		Southbound (McFarland Dr.)	
Left	Thru	Right	Left	Thru	Right	Left	Thru
0	56	0	0	175	0	0	0
0	10	0	0	31	0	0	0
0	66	0	0	206	0	0	0
4.32%	0.00%	0.00%	0.00%	70.21%	0.00%	0.00%	0.00%
0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	76.52%	0.00%
4	66	0	0	206	63	0	0
4	66	0	0	206	63	0	0
Total PM Peak Hour BUILD Volumes	4	66	0	206	63	0	0

Eastbound (Western Trail)		Westbound (Western Trail)		Northbound (McFarland Dr.)		Southbound (McFarland Dr.)	
Left	Thru	Right	Left	Thru	Right	Left	Thru
0	56	0	0	175	0	0	0
0	10	0	0	31	0	0	0
0	66	0	0	206	0	0	0
4.32%	0.00%	0.00%	0.00%	70.21%	0.00%	0.00%	0.00%
0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	76.52%	0.00%
4	66	0	0	206	63	0	0
4	66	0	0	206	63	0	0

Number of Residential Trips Generated
 Entering 26
 Exiting 78
 A.M. 90
 P.M. 51
 100% Residential Development



Western Trail / McFarland Dr.

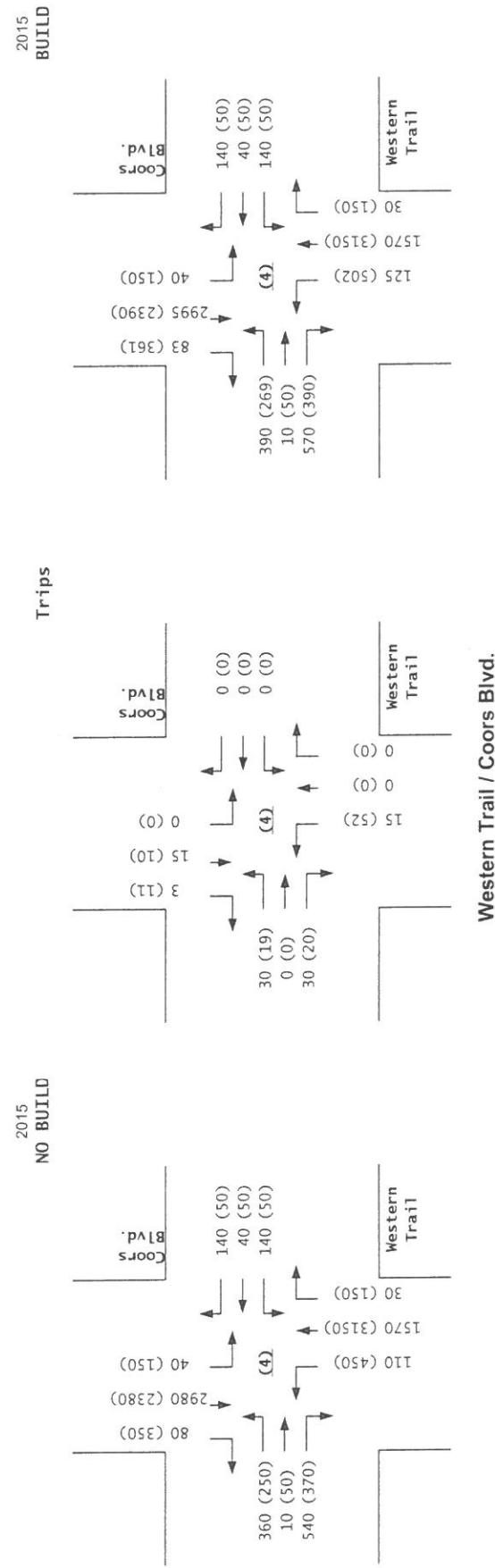
Western Trail Subdivision (Argus Development) - Western Trail / Coors Blvd.
 Projected Turning Movements Worksheet
Western Trail / Coors Blvd.

INTERSECTION : E-W Street: Western Trail
 N-S Street: Coors Blvd.
 Year of Existing Counts 2015
 Horizon Year 2015
 Growth Rates 0.00%

Existing Volumes				Background Traffic Growth				Subtotal (NO BUILD - A.M.)				Percent Residential Trips Generated(Entering)				Percent Residential Trips Generated(Exiting)				Total AM Peak Hour BUILD Volumes					
Eastbound (Western Trail)	Westbound (Western Trail)	Eastbound (Western Trail)	Westbound (Western Trail)	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
Left	Thru	Right	Left	Left	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
360	10	540	140	40	40	140	110	1,570	30	40	40	40	40	40	40	40	40	40	2,980	0	80	0	0	0	
Subtotal (NO BUILD - A.M.)	10	540	140	40	40	140	110	1,570	30	40	40	40	40	40	40	40	40	40	2,980	80	0	0	0	0	
Percent Residential Trips Generated(Entering)	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	57.48%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	
Percent Residential Trips Generated(Exiting)	38.20%	0.00%	38.32%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	19.16%	0.00%	12.73%	0.00%	0.00%	0.00%
Total Trips Generated	390	0	390	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	15	0	3	0	0	0
Total AM Peak Hour BUILD Volumes	390	10	570	140	40	140	125	1,570	30	40	40	40	40	40	40	40	40	40	2,995	83	0	0	0	0	

Existing Volumes				Background Traffic Growth				Subtotal (NO BUILD - P.M.)				Percent Residential Trips Generated(Entering)				Percent Residential Trips Generated(Exiting)				Total PM Peak Hour BUILD Volumes					
Eastbound (Western Trail)	Westbound (Western Trail)	Eastbound (Western Trail)	Westbound (Western Trail)	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
Left	Thru	Right	Left	Left	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
250	50	370	50	50	50	50	50	50	50	450	3,150	150	150	150	150	150	150	150	150	150	150	150	150	150	
Subtotal (NO BUILD - P.M.)	50	370	50	50	50	50	50	450	3,150	150	150	150	150	150	150	150	150	150	150	150	150	150	150		
Percent Residential Trips Generated(Entering)	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	57.48%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	
Percent Residential Trips Generated(Exiting)	38.20%	0.00%	38.32%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	19.16%	0.00%	12.73%	0.00%	0.00%	0.00%
Total Trips Generated	269	50	390	50	50	50	50	502	3,150	150	150	150	150	150	150	150	150	150	150	150	150	150	150	150	
Total PM Peak Hour BUILD Volumes	269	50	390	50	50	50	50	502	3,150	150	150	150	150	150	150	150	150	150	150	150	150	150	150		

Number of Residential Trips Generated
 Entering 26
 Exiting 78
 A.M. 90
 P.M. 51
 100% Residential Development



Western Trail / Coors Blvd.

Queueing Analysis Summary Sheet

Project: Western Trail Subdivision (Argus Development) - Western Trail / Coors Blvd.
 Intersection: Western Trail / Coors Blvd.

Eastbound Left Turn Lane

	# Lanes	Vol.	Queue Length
Existing Conditions	2	360	200
AM NO BUILD Condition	2	360	275
AM BUILD Condition	2	390	300
Existing Conditions	2	360	200
PM NO BUILD Condition	2	250	225
PM BUILD Condition	2	269	225

Eastbound Right Turn Lane

	# Lanes	Vol.	Queue Length
Existing Conditions	1	540	300
AM NO BUILD Condition	1	540	625
AM BUILD Condition	1	570	650
Existing Conditions	1	540	300
PM NO BUILD Condition	1	370	500
PM BUILD Condition	1	390	525

Westbound Left Turn Lane

	# Lanes	Vol.	Queue Length
Existing Conditions	1	140	N/A
AM NO BUILD Condition	1	140	200
AM BUILD Condition	1	140	200
Existing Conditions	1	50	N/A
PM NO BUILD Condition	1	50	100
PM BUILD Condition	1	50	100

Westbound Right Turn Lane

	# Lanes	Vol.	Queue Length
Existing Conditions	1	140	N/A
AM NO BUILD Condition	1	140	200
AM BUILD Condition	1	140	200
Existing Conditions	1	50	N/A
PM NO BUILD Condition	1	50	100
PM BUILD Condition	1	50	100

Northbound Left Turn Lane

	# Lanes	Vol.	Queue Length
Existing Conditions	1	110	Unk
AM NO BUILD Condition	1	110	175
AM BUILD Condition	1	125	200
Existing Conditions	1	450	Unk
PM NO BUILD Condition	1	450	575
PM BUILD Condition	1	502	625

Northbound Right Turn Lane

	# Lanes	Vol.	Queue Length
Existing Conditions	0	30	Unk
AM NO BUILD Condition	0	30	75
AM BUILD Condition	0	30	75
Existing Conditions	0	150	Unk
PM NO BUILD Condition	0	150	225
PM BUILD Condition	0	150	225

Southbound Left Turn Lane

	# Lanes	Vol.	Queue Length
Existing Conditions	1	40	Unk
AM NO BUILD Condition	1	40	75
AM BUILD Condition	1	40	75
Existing Conditions	1	150	Unk
PM NO BUILD Condition	1	150	225
PM BUILD Condition	1	150	225

Southbound Right Turn Lane

	# Lanes	Vol.	Queue Length
Existing Conditions	1	80	Unk
AM NO BUILD Condition	1	80	150
AM BUILD Condition	1	83	150
Existing Conditions	1	350	Unk
PM NO BUILD Condition	1	350	475
PM BUILD Condition	1	361	475

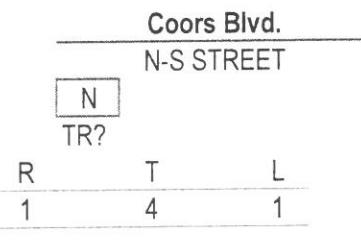
AM PM

Cycle Length: 120 130

SIGNALIZED INTERSECTION
PLANNING APPLICATION WORKSHEET

Intersection: Western Trail / Coors Blvd.Date: 17-Aug-02Analyst: TOBTime Period Analyzed: AM Peak Hr.Project: Western Trail Subdivision (Argus Development) - Western Trail / City / State:Albuquerque, NMCondition: 2015 NO BUILD

SB TOTAL	<u>3,100</u>
RIGHT	<u>2,980</u>
LEFT	<u>40</u>
THRU	



140	
RIGHT	
40	
THRU	
140	
LEFT	

WB TOTAL 320

NO. LANES

2 L

1 T

TR? N

1 R

<u>360</u>	
LEFT	
<u>10</u>	
THRU	
<u>540</u>	
RIGHT	

<u>1</u>	<u>4</u>	<u>0</u>
L	T	R
TR?		<u>Y</u>

Western Trail	E-W STREET
<u>1,570</u>	
THRU	
<u>110</u>	<u>30</u>
LEFT	RIGHT
<u>1,710</u>	
NB TOTAL	

EB LT = <u>180</u>	
WB TH = <u>40</u>	
<u>220</u> *	
WB LT = <u>140</u>	
EB TH = <u>10</u>	
<u>150</u>	

MAXIMUM SUM
OF CRITICAL VALUES0 TO 1,200
1,201 TO 1,400
>1,400CAPACITY
LEVELUNDER
NEAR
OVERNB LT = 110
SB TH = 745855*SB LT = 40
NB TH = 400
440

220 + 855 = 1,075

STATUS? UNDER

E-W CRITICAL Existing Geometry

**SIGNALIZED INTERSECTION
PLANNING APPLICATION WORKSHEET**

Intersection: Western Trail / Coors Blvd.
Analyst: TOB
Project: Western Trail Subdivision (Argus Development) - Western Trail / City / State:
Condition: 2015 BUILD

Date: 17-Aug-02
Time Period Analyzed: AM Peak Hr.
Albuquerque, NM

			Coors Blvd. N-S STREET					
			N	TR?		140	RIGHT	
SB TOTAL						40		
						THRU		
3,118						140		
83			R	T	L	LEFT		
RIGHT	2,995	LEFT	1	4	1	140		
		THRU				320		
						WB TOTAL		

NO. LANES

2 L

1 T

TR? N

1 R

970	390
EB TOTAL	LEFT
	10
	THRU
	570
	RIGHT

125	1,570
LEFT	THRU
	30

1,725	NB TOTAL
-------	----------

EB LT = <u>195</u> WB TH = <u>40</u> <u>235</u> *	MAXIMUM SUM OF CRITICAL VALUES 0 TO 1,200 1,201 TO 1,400 >1,400	CAPACITY LEVEL UNDER NEAR OVER	NB LT = <u>125</u> SB TH = <u>749</u> <u>874</u> *
WB LT = <u>140</u> EB TH = <u>10</u> <u>150</u>			SB LT = <u>40</u> NB TH = <u>400</u> <u>440</u>

235 + 874 = 1,109 STATUS? UNDER

E-W CRITICAL

N-S CRITICAL

NOTES: Existing Geometry

SIGNALIZED INTERSECTION PLANNING APPLICATION WORKSHEET

Intersection: Western Trail / Coors Blvd.

Date: 17-Aug-02

Analyst: TOB

Time Period Analyzed: PM Peak Hr.

Project: Western Trail Subdivision (Argus Development) - Western Trail / City / State:

Albuquerque, NM

Condition: 2015 NO BUILD

SB TOTAL
2,880

350	150
RIGHT	LEFT
2,380	
THRU	

Coors Blvd.

N-S STREET

N
TR?

R	T	L
1	4	1

50
RIGHT
50
THRU
50
LEFT

150
WB TOTAL

NO. LANES

2 L

1 T

TR? N

1 R

670

EB TOTAL

250
LEFT
50
THRU
370
RIGHT

1	4	0
L	T	R

TR?

Y

Western Trail
E-W STREET

3,150
THRU
150

450
LEFT

RIGHT
3,750

NB TOTAL

EB LT =	125
WB TH =	50
	175*
WB LT =	50
EB TH =	50
	100

MAXIMUM SUM
OF CRITICAL VALUES

0 TO 1,200
1,201 TO 1,400
>1,400

CAPACITY
LEVEL

UNDER
NEAR
OVER

NB LT =	450
SB TH =	595

1,045*

SB LT =	150
NB TH =	825

975

175

+

1,045

=

1,220

STATUS?

NEAR

E-W CRITICAL

N-S CRITICAL

NOTES: Existing Geometry

**SIGNALIZED INTERSECTION
PLANNING APPLICATION WORKSHEET**

Intersection: Western Trail / Coors Blvd.
Analyst: TOB
Project: Western Trail Subdivision (Argus Development) - Western Trail / City / State:
Condition: 2015 BUILD

Date: 17-Aug-02
Time Period Analyzed: PM Peak Hr.
Albuquerque, NM

SB TOTAL	2,901
361	150
RIGHT	2,390
THRU	

Coors Blvd.
N-S STREET

N	TR?	
R	T	L
1	4	1

50	RIGHT
50	THRU
50	LEFT
WB TOTAL	
150	

NO. LANES
2 L

1 R	TR?	N
1 T		
1 L		

1 T	TR?	N
1 R		
269		
709	LEFT	
50		
THRU		
390		
RIGHT		

1	4	0
L	T	R
TR?		Y

Western Trail
E-W STREET

3,150	THRU	150
502		RIGHT
3,802		
NB TOTAL		

EB LT =	135
WB TH =	50
	185*
WB LT =	50
EB TH =	50
	100

MAXIMUM SUM
OF CRITICAL VALUES

0 TO 1,200
1,201 TO 1,400
>1,400

CAPACITY
LEVEL

UNDER
NEAR
OVER

NB LT =	502
SB TH =	598
	1,100*
SB LT =	150
NB TH =	825
	975

185 + 1,100 = 1,284

STATUS? NEAR

E-W CRITICAL

NOTES: Existing Geometry

Western Trail Subdivision (Argus Development) -	
Western Trail/ Coors Blvd.	Western Trail/ Coors Blvd.

EASTBOUND Left Turn

Turn Direction	
EB LT	AM NO BLD.
EB LT	AM BUILD
EB LT	PM NO BLD.
EB LT	PM BUILD

Vehicles in Queue	Poisson Ind. Terms	Cumulative Poisson Queue	Turnbay Length(ft)	Veh. in Queue	Poisson Ind. Terms	Cum. Poisson Queue	Turnbay Length(ft)	Veh. in Queue	Poisson Ind. Terms	Cum. Poisson Queue	Turnbay Length(ft)	Veh. in Queue	Poisson Ind. Terms	Cum. Poisson Queue	Turnbay Length(ft)
0	.0014	0.1%		0	.0008	0.1%		0	.0070	0.7%		0	.0048	0.5%	
1	.0090	1.0%		1	.0056	0.6%		1	.0346	4.2%		1	.0256	3.0%	
2	.0296	4.0%		2	.0201	2.6%		2	.0860	12.8%		2	.0683	9.9%	
3	.0652	10.5%		3	.0478	7.4%		3	.1423	27.0%		3	.1216	22.0%	
4	.1076	21.3%		4	.0855	16.0%		4	.1767	44.7%		4	.1624	38.3%	
5	.1420	35.5%		5	.1222	28.2%		5	.1754	62.2%		5	.1735	55.6%	
6	.1562	51.1%		6	.1456	42.8%		6	.1452	76.7%		6	.1545	71.1%	
7	.1472	65.8%		7	.1488	57.6%		7	.1030	87.0%		7	.1179	82.8%	
8	.1215	78.0%		8	.1330	70.9%		8	.0639	93.4%		8	.0787	90.7%	
9	.0891	86.9%		9	.1056	81.5%		9	.0353	96.9%		9	.0467	95.4%	
10	.0588	92.7%		10	.0755	89.0%		10	.0175	98.7%		10	.0250	97.9%	
11	.0353	96.3%		11	.0491	94.0%		11	.0079	99.5%		11	.0121	99.1%	
12	.0194	98.2%		12	.0293	96.9%		12	.0033	99.8%		12	.0054	99.6%	
13	.0099	99.2%		13	.0161	98.5%		13	.0012	99.9%		13	.0022	99.9%	
14	.0046	99.7%		14	.0082	99.3%		14	.0004			14	.0008	100.0%	
15	.0020	99.9%		15	.0039	99.7%		15	.0001			15	.0003		
16	.0008	99.9%		16	.0018	99.9%		16	.0000			16	.0001		
17	.0003			17	.0007	100.0%		17	.0000			17	.0000		
18	.0001			18	.0003			18	.0000			18	.0000		
19	.0000			19	.0001			19	.0000			19	.0000		
20	.0000			20	.0000			20	.0000			20	.0000		
21	.0000			21	.0000			21	.0000			21	.0000		
22	.0000			22	.0000			22	.0000			22	.0000		
23	.0000			23	.0000			23	.0000			23	.0000		
24	.0000			24	.0000			24	.0000			24	.0000		
25	.0000			25	.0000			25	.0000			25	.0000		
26	.0000			26	.0000			26	.0000			26	.0000		
27	.0000			27	.0000			27	.0000			27	.0000		
28	.0000			28	.0000			28	.0000			28	.0000		
29	.0000			29	.0000			29	.0000			29	.0000		
30	.0000			30	.0000			30	.0000			30	.0000		
31	.0000			31	.0000			31	.0000			31	.0000		
32	.0000			32	.0000			32	.0000			32	.0000		
33	.0000			33	.0000			33	.0000			33	.0000		
34	.0000			34	.0000			34	.0000			34	.0000		
35	.0000			35	.0000			35	.0000			35	.0000		
36	.0000			36	.0000			36	.0000			36	.0000		

Western Trail Subdivision (Argus Development) -		
Western Trail / Coors Blvd.		
Western Trail / Coors Blvd.		

WESTBOUND Left Turn

WB LT			WB LT			WB LT			WB LT		
WB LT AM NO BLD.			WB LT AM BUILD			WB LT AM BUILD			WB LT AM BUILD		
			Vehicles in Queue	Poisson Ind. Terms	Cumulative Poisson Queue	Turnbay Length(ft)	Veh. in Queue	Poisson Ind. Terms	Veh. in Queue	Poisson Ind. Terms	WB LT
0	.0094	0.9%	0	.0094	0.9%		0	.1644	16.4%	0	.1644
1	.0439	5.3%	1	.0439	5.3%		1	.2968	46.1%	1	.2968
2	.1024	15.6%	2	.1024	15.6%		2	.2679	72.9%	2	.2679
3	.1593	31.5%	3	.1593	31.5%		3	.1613	89.0%	3	.1613
4	.1858	50.1%	4	.1858	50.1%		4	.0728	96.3%	4	.0728
5	.1734	67.4%	5	.1734	67.4%	125	5	.0263	98.9%	5	.0263
6	.1349	80.9%	6	.1349	80.9%	150	6	.0079	99.7%	6	.0079
7	.0899	89.9%	7	.0899	89.9%	175	7	.0020	99.9%	7	.0020
8	.0525	95.2%	200	.0525	95.2%	200	8	.0005		8	.0005
9	.0272	97.9%	225	.0272	97.9%	225	9	.0001		9	.0001
10	.0127	99.1%	250	.0127	99.1%	250	10	.0000		10	.0000
11	.0054	99.7%	11	.0054	99.7%		11	.0000		11	.0000
12	.0021	99.9%	12	.0021	99.9%		12	.0000		12	.0000
13	.0008	100.0%	13	.0008	100.0%		13	.0000		13	.0000
14	.0003		14	.0003			14	.0000		14	.0000
15	.0001		15	.0001			15	.0000		15	.0000
16	.0000		16	.0000			16	.0000		16	.0000
17	.0000		17	.0000			17	.0000		17	.0000
18	.0000		18	.0000			18	.0000		18	.0000
19	.0000		19	.0000			19	.0000		19	.0000
20	.0000		20	.0000			20	.0000		20	.0000
21	.0000		21	.0000			21	.0000		21	.0000
22	.0000		22	.0000			22	.0000		22	.0000
23	.0000		23	.0000			23	.0000		23	.0000
24	.0000		24	.0000			24	.0000		24	.0000
25	.0000		25	.0000			25	.0000		25	.0000
26	.0000		26	.0000			26	.0000		26	.0000
27	.0000		27	.0000			27	.0000		27	.0000
28	.0000		28	.0000			28	.0000		28	.0000
29	.0000		29	.0000			29	.0000		29	.0000
30	.0000		30	.0000			30	.0000		30	.0000
31	.0000		31	.0000			31	.0000		31	.0000
32	.0000		32	.0000			32	.0000		32	.0000
33	.0000		33	.0000			33	.0000		33	.0000
34	.0000		34	.0000			34	.0000		34	.0000
35	.0000		35	.0000			35	.0000		35	.0000
36	.0000		36	.0000			36	.0000		36	.0000

Turn Direction			Peak Hour	# Left Turn Lanes	# of Left Turns	Cycle Length	Lane Dist. Factor	Vehicle Length	Ave. Veh. per Cycle
WB LT	AM NO BLD.	1	140	120	1	25	25	25	4.7
WB LT	AM BUILD	1	140	120	1	25	25	25	4.7
WB LT	PM NO BLD.	1	50	130	1	25	25	25	1.8
WB LT	PM BUILD	1	50	130	1	25	25	25	1.8
Vehicles in Queue	Poisson Ind. Terms	Cumulative Poisson Queue	Turnbay Length(ft)	Veh. in Queue	Poisson Ind. Terms	Cum. Poisson Queue	Turnbay Length(ft)	Veh. in Queue	Poisson Ind. Terms
0	.0094	0.9%	0	.0094	0.9%	0	.1644	16.4%	0
1	.0439	5.3%	1	.0439	5.3%	1	.2968	46.1%	1
2	.1024	15.6%	2	.1024	15.6%	2	.2679	72.9%	2
3	.1593	31.5%	3	.1593	31.5%	3	.1613	89.0%	3
4	.1858	50.1%	4	.1858	50.1%	4	.0728	96.3%	4
5	.1734	67.4%	5	.1734	67.4%	125	5	.0263	98.9%
6	.1349	80.9%	6	.1349	80.9%	150	6	.0079	99.7%
7	.0899	89.9%	7	.0899	89.9%	175	7	.0020	99.9%
8	.0525	95.2%	200	.0525	95.2%	200	8	.0005	
9	.0272	97.9%	225	.0272	97.9%	225	9	.0001	
10	.0127	99.1%	250	.0127	99.1%	250	10	.0000	
11	.0054	99.7%	11	.0054	99.7%		11	.0000	
12	.0021	99.9%	12	.0021	99.9%		12	.0000	
13	.0008	100.0%	13	.0008	100.0%		13	.0000	
14	.0003		14	.0003			14	.0000	
15	.0001		15	.0001			15	.0000	
16	.0000		16	.0000			16	.0000	
17	.0000		17	.0000			17	.0000	
18	.0000		18	.0000			18	.0000	
19	.0000		19	.0000			19	.0000	
20	.0000		20	.0000			20	.0000	
21	.0000		21	.0000			21	.0000	
22	.0000		22	.0000			22	.0000	
23	.0000		23	.0000			23	.0000	
24	.0000		24	.0000			24	.0000	
25	.0000		25	.0000			25	.0000	
26	.0000		26	.0000			26	.0000	
27	.0000		27	.0000			27	.0000	
28	.0000		28	.0000			28	.0000	
29	.0000		29	.0000			29	.0000	
30	.0000		30	.0000			30	.0000	
31	.0000		31	.0000			31	.0000	
32	.0000		32	.0000			32	.0000	
33	.0000		33	.0000			33	.0000	
34	.0000		34	.0000			34	.0000	
35	.0000		35	.0000			35	.0000	
36	.0000		36	.0000			36	.0000	

Western Trail Subdivision (Argus Development) -		
Western Trail/ Coors Blvd.		
Western Trail/ Coors Blvd.		
NORTHBOUND Left Turn		

NB LT AM NO BLD.		
1 Lane(s)		
NB LT	AM BUILD	1 Lane(s)
Vehicles in Queue	Poisson Ind. Terms	Cumulative Poisson Queue
0	.0256	2.6%
1	.0937	11.9%
2	.1718	29.1%
3	.2100	50.1%
4	.1925	69.4%
5	.1412	83.5%
6	.0863	92.1%
7	.0452	96.6%
8	.0207	98.7%
9	.0084	99.5%
10	.0031	99.9%
11	.0010	100.0%
12	.0003	
13	.0001	
14	.0000	
15	.0000	
16	.0000	
17	.0000	
18	.0000	
19	.0000	
20	.0000	
21	.0000	
22	.0000	
23	.0000	
24	.0000	
25	.0000	
26	.0000	
27	.0000	
28	.0000	
29	.0000	
30	.0000	
31	.0000	
32	.0000	
33	.0000	
34	.0000	
35	.0000	
36	.0000	

Turn Direction	Peak Hour	# Left Turn Lanes	# of Left Turns	Cycle Length	Lane Dist. Factor	Vehicle Length	Ave. Veh. per Cycle
NB LT AM NO BLD.		1	110	120	1	25	3.7
NB LT AM BUILD		1	125	120	1	25	4.2
NB LT PM NO BLD.		1	450	130	1	25	16.3
NB LT PM BUILD		1	502	130	1	25	18.1
NB LT	AM BUILD	1 Lane(s)	NB LT	AM BUILD	1 Lane(s)	NB LT	AM BUILD
Veh. in Queue	Poisson Ind. Terms	Cumulative Poisson Queue	Veh. in Queue	Poisson Ind. Terms	Cumulative Poisson Queue	Veh. in Queue	Poisson Ind. Terms
0	.0155	1.6%	0	.0000	0.0%	0	.0000
1	.0646	8.0%	1	.0000	0.0%	1	.0000
2	.1346	21.5%	2	.0000	0.0%	2	.0000
3	.1869	40.2%	3	.0001	0.0%	3	.0000
4	.1947	59.6%	4	.0003	0.0%	4	.0001
5	.1623	75.9%	5	.0008	0.1%	5	.0002
6	.1127	87.1%	6	.0022	0.3%	6	.0007
7	.0671	93.8%	7	.0052	0.9%	7	.0017
8	.0349	97.3%	8	.0106	1.9%	8	.0039
9	.0162	98.9%	9	.0191	3.8%	9	.0078
10	.0067	99.6%	10	.0310	6.9%	10	.0142
11	.0026	99.9%	11	.0458	11.5%	11	.0233
12	.0009	100.0%	12	.0620	17.7%	12	.0352
13	.0003		13	.0775	25.5%	13	.0491
14	.0001		14	.0900	34.5%	14	.0636
15	.0000		15	.0975	44.2%	15	.0769
16	.0000		16	.0990	54.1%	16	.0871
17	.0000		17	.0947	63.6%	17	.0929
18	.0000		18	.0855	72.1%	18	.0936
19	.0000		19	.0731	79.4%	19	.0893
20	.0000		20	.0594	85.4%	20	.0809
21	.0000		21	.0450	90.0%	21	.0698
22	.0000		22	.0339	93.4%	22	.0575
23	.0000		23	.0240	95.8%	23	.0454
24	.0000		24	.0162	97.4%	24	.0343
25	.0000		25	.0106	98.4%	25	.0248
26	.0000		26	.0066	99.1%	26	.0173
27	.0000		27	.0040	99.5%	27	.0116
28	.0000		28	.0023	99.7%	28	.0075
29	.0000		29	.0013	99.9%	29	.0047
30	.0000		30	.0007	99.9%	30	.0028
31	.0000		31	.0004		31	.0017
32	.0000		32	.0002		32	.0009
33	.0000		33	.0001		33	.0005
34	.0000		34	.0000		34	.0003
35	.0000		35	.0000		35	.0001
36	.0000		36	.0000		36	.0001

Western Trail Subdivision (Argus Development) -	
Western Trail/ Coors Blvd.	Western Trail/ Coors Blvd.

SOUTHBOUND Left Turn

Western Trail Subdivision (Argus Development) -	
Turn Direction	Peak Hour
SB LT AM/NO BLD.	1
SB LT AM BUILD	1
SB LT PM/NO BLD.	1
SB LT PM BUILD	1

Vehicles in Queue	Poisson Ind. Terms	Cumulative Poisson Queue	Turnbay Length(ft)	Veh. in Queue	Poisson Ind. Terms	Cum. Poisson Queue	Turnbay Length(ft)	Veh. in Queue	Poisson Ind. Terms	Cum. Poisson Queue	Turnbay Length(ft)	Veh. in Queue	Poisson Ind. Terms	Cum. Poisson Queue	Turnbay Length(ft)	
0	.2636	26.4%		0	.2636	26.4%		0	.0044	0.4%		0	.0044	0.4%		
1	.3515	61.5%	1	.3515	61.5%	61.5%	1	.0241	2.9%		1	.0241	2.9%			
2	.2343	84.9%	50	2	.2343	84.9%	50	2	.0652	9.4%		2	.0652	9.4%		
3	.1041	95.4%	75	3	.1041	95.4%	75	3	.1177	21.1%		3	.1177	21.1%		
4	.0347	98.8%	100	4	.0347	98.8%	100	4	.1593	37.1%		4	.1593	37.1%		
5	.0093	99.7%	5	.0093	99.7%	99.7%	5	.1726	54.3%		5	.1726	54.3%			
6	.0021	100.0%	6	.0021	100.0%	100.0%	6	.1558	69.9%		6	.1558	69.9%			
7	.0004		7	.0004			7	.1206	82.0%		7	.1206	82.0%			
8	.0001		8	.0001			8	.0816	90.1%		8	.0816	90.1%			
9	.0000		9	.0000			9	.0491	95.0%		9	.0491	95.0%			
10	.0000		10	.0000			10	.0266	97.7%		10	.0266	97.7%			
11	.0000		11	.0000			11	.0131	99.0%		11	.0131	99.0%			
12	.0000		12	.0000			12	.0059	99.6%		12	.0059	99.6%			
13	.0000		13	.0000			13	.0025	99.9%		13	.0025	99.9%			
14	.0000		14	.0000			14	.0010	99.9%		14	.0010	99.9%			
15	.0000		15	.0000			15	.0003			15	.0003				
16	.0000		16	.0000			16	.0001			16	.0001				
17	.0000		17	.0000			17	.0000			17	.0000				
18	.0000		18	.0000			18	.0000			18	.0000				
19	.0000		19	.0000			19	.0000			19	.0000				
20	.0000		20	.0000			20	.0000			20	.0000				
21	.0000		21	.0000			21	.0000			21	.0000				
22	.0000		22	.0000			22	.0000			22	.0000				
23	.0000		23	.0000			23	.0000			23	.0000				
24	.0000		24	.0000			24	.0000			24	.0000				
25	.0000		25	.0000			25	.0000			25	.0000				
26	.0000		26	.0000			26	.0000			26	.0000				
27	.0000		27	.0000			27	.0000			27	.0000				
28	.0000		28	.0000			28	.0000			28	.0000				
29	.0000		29	.0000			29	.0000			29	.0000				
30	.0000		30	.0000			30	.0000			30	.0000				
31	.0000		31	.0000			31	.0000			31	.0000				
32	.0000		32	.0000			32	.0000			32	.0000				
33	.0000		33	.0000			33	.0000			33	.0000				
34	.0000		34	.0000			34	.0000			34	.0000				
35	.0000		35	.0000			35	.0000			35	.0000				
36	.0000		36	.0000			36	.0000			36	.0000				

Western Trail Subdivision (Argus Development) -	
Western Trail / Coors Blvd.	Western Trail / Coors Blvd.

EASTBOUND Right Turn

EB RT	AM NO BLD.	1 Lane(s)	EB RT	AM BUILD	1 Lane(s)	EB RT	PM NO BLD.	1 Lane(s)	EB RT	PM BUILD	1 Lane(s)
Vehicles in Queue	Poisson Ind. Terms	Cumulative Poisson Length(ft)	Veh. in Queue	Poisson Ind. Terms	Cum. Poisson Length(ft)	Veh. in Queue	Poisson Ind. Terms	Cum. Poisson Length(ft)	Veh. in Queue	Poisson Ind. Terms	Cum. Poisson Length(ft)
0	.0000	0.0%	0	.0000	0.0%	0	.0000	0.0%	0	.0000	0.0%
1	.0000	0.0%	1	.0000	0.0%	1	.0000	0.0%	1	.0000	0.0%
2	.0000	0.0%	2	.0000	0.0%	2	.0001	0.0%	2	.0001	0.0%
3	.0000	0.0%	3	.0000	0.0%	3	.0006	0.1%	3	.0004	0.0%
4	.0001	0.0%	4	.0000	0.0%	4	.0021	0.3%	4	.0013	0.2%
5	.0002	0.0%	5	.0001	0.0%	5	.0056	0.8%	5	.0035	0.5%
6	.0007	0.1%	6	.0004	0.1%	6	.0124	2.1%	6	.0083	1.4%
7	.0019	0.3%	7	.0010	0.2%	7	.0238	4.5%	7	.0167	3.0%
8	.0042	0.7%	8	.0024	0.4%	8	.0397	8.4%	8	.0294	6.0%
9	.0083	1.5%	9	.0050	0.9%	9	.0589	14.3%	9	.0459	10.6%
10	.0150	3.0%	10	.0095	1.8%	10	.0787	22.2%	10	.0647	17.0%
11	.0245	5.5%	11	.0164	3.5%	11	.0956	31.8%	11	.0828	25.3%
12	.0368	9.2%	12	.0259	6.1%	12	.1064	42.4%	12	.0972	35.0%
13	.0509	14.3%	13	.0378	9.8%	13	.1094	53.3%	13	.1053	45.6%
14	.0655	20.8%	14	.0514	15.0%	14	.1044	63.8%	14	.1060	56.2%
15	.0786	28.7%	15	.0650	21.5%	15	.0930	73.1%	15	.0995	66.1%
16	.0884	37.5%	16	.0772	29.2%	16	.0777	80.8%	16	.0876	74.9%
17	.0936	46.9%	17	.0863	37.8%	17	.0610	87.0%	17	.0725	82.1%
18	.0936	56.2%	18	.0911	46.9%	18	.0453	91.5%	18	.0568	87.8%
19	.0887	65.1%	19	.0911	56.1%	19	.0319	94.7%	19	.0421	92.0%
20	.0798	73.1%	500	.0866	64.7%	20	.0213	96.8%	20	.0296	95.0%
21	.0684	79.9%	525	.0783	72.5%	21	.0135	98.2%	21	.0199	97.0%
22	.0560	85.5%	550	.0676	79.3%	550	.0082	99.0%	550	.0127	98.2%
23	.0438	89.9%	575	.0559	84.9%	575	.0048	99.5%	575	.0078	99.0%
24	.0328	93.2%	600	.0442	89.3%	600	.0027	99.7%	24	.0046	99.5%
25	.0237	95.5%	625	.0336	92.7%	625	.0014	99.9%	25	.0026	99.7%
26	.0164	97.2%	650	.0246	95.1%	650	.0007	99.9%	26	.0014	99.9%
27	.0109	98.3%	675	.0173	96.9%	675	.0004		27	.0007	99.9%
28	.0070	99.0%	700	.0117	98.0%	700	.0002		28	.0004	
29	.0044	99.4%	725	.0077	98.8%	725	.0001		29	.0002	
30	.0026	99.7%	30	.0049	99.3%	750	.0000		30	.0001	
31	.0015	99.8%	31	.0030	99.6%	31	.0000		31	.0000	
32	.0009	99.9%	32	.0018	99.8%	32	.0000		32	.0000	
33	.0005		33	.0010	99.9%	33	.0000		33	.0000	
34	.0002		34	.0006	99.9%	34	.0000		34	.0000	
35	.0001		35	.0003		35	.0000		35	.0000	
36	.0001		36	.0002		36	.0000		36	.0000	

Turn Direction	Peak Hour	# Right Turn Lanes	# of Left Turns	Cycle Length	Lane Dist. Factor	Vehicle Length	Ave. Veh. per Cycle
EB RT AM/NO BLD.	1	540	120	1	25	25	18.0
EB RT AM BUILD	1	570	120	1	25	25	19.0
EB RT PM/NO BLD.	1	370	130	1	25	25	13.4
EB RT PM BUILD	1	390	130	1	25	25	14.1
EB RT AM NO BLD.	1 Lane(s)	EB RT	AM BUILD	1 Lane(s)	EB RT	PM NO BLD.	1 Lane(s)
Vehicles in Queue	Poisson Ind. Terms	Cumulative Poisson Length(ft)	Veh. in Queue	Poisson Ind. Terms	Cum. Poisson Length(ft)	Veh. in Queue	Poisson Ind. Terms
0	.0000	0.0%	0	.0000	0.0%	0	.0000
1	.0000	0.0%	1	.0000	0.0%	1	.0000
2	.0000	0.0%	2	.0000	0.0%	2	.0001
3	.0000	0.0%	3	.0000	0.0%	3	.0004
4	.0001	0.0%	4	.0000	0.0%	4	.0013
5	.0002	0.0%	5	.0001	0.0%	5	.0035
6	.0007	0.1%	6	.0004	0.1%	6	.0083
7	.0019	0.3%	7	.0010	0.2%	7	.0167
8	.0042	0.7%	8	.0024	0.4%	8	.0294
9	.0083	1.5%	9	.0050	0.9%	9	.0459
10	.0150	3.0%	10	.0095	1.8%	10	.0647
11	.0245	5.5%	11	.0164	3.5%	11	.0828
12	.0368	9.2%	12	.0259	6.1%	12	.0972
13	.0509	14.3%	13	.0378	9.8%	13	.1053
14	.0655	20.8%	14	.0514	15.0%	14	.1060
15	.0786	28.7%	15	.0650	21.5%	15	.0995
16	.0884	37.5%	16	.0772	29.2%	16	.0876
17	.0936	46.9%	17	.0863	37.8%	17	.0725
18	.0936	56.2%	18	.0911	46.9%	18	.0668
19	.0887	65.1%	19	.0911	56.1%	19	.0668
20	.0798	73.1%	500	.0866	64.7%	20	.0296
21	.0684	79.9%	525	.0783	72.5%	21	.0199
22	.0560	85.5%	550	.0676	79.3%	550	.0127
23	.0438	89.9%	575	.0559	84.9%	575	.0078
24	.0328	93.2%	600	.0442	89.3%	600	.0046
25	.0237	95.5%	625	.0336	92.7%	625	.0026
26	.0164	97.2%	650	.0246	95.1%	650	.0014
27	.0109	98.3%	675	.0173	96.9%	675	.0007
28	.0070	99.0%	700	.0117	98.0%	700	.0004
29	.0044	99.4%	725	.0077	98.8%	725	.0002
30	.0026	99.7%	30	.0049	99.3%	750	.0001
31	.0015	99.8%	31	.0030	99.6%	31	.0000
32	.0009	99.9%	32	.0018	99.8%	32	.0000
33	.0005		33	.0010	99.9%	33	.0000
34	.0002		34	.0006	99.9%	34	.0000
35	.0001		35	.0003		35	.0000
36	.0001		36	.0002		36	.0000

Western Trail Subdivision (Argus Development) -		
Western Trail / Coors Blvd.	Western Trail / Coors Blvd.	Western Trail / Coors Blvd.

WESTBOUND Right Turn

WB RT	AM NO BLD.	1 Lane(s)	WB RT	AM BUILD	1 Lane(s)	WB RT	AM BUILD	1 Lane(s)	WB RT	AM NO BLD.	1 Lane(s)	WB RT	AM BUILD	1 Lane(s)
Vehicles in Queue	Poisson Ind. Terms	Cumulative Poisson Length(ft)	Veh. in Queue	Poisson Ind. Terms	Cum. Poisson Length(ft)	Veh. in Queue	Poisson Ind. Terms	Cum. Poisson Length(ft)	Veh. in Queue	Poisson Ind. Terms	Cum. Poisson Length(ft)	Veh. in Queue	Poisson Ind. Terms	Cum. Poisson Length(ft)
0	.0094	0.9%	0	.0094	0.9%	0	.0094	16.4%	0	.0094	16.4%	0	.0094	16.4%
1	.0439	5.3%	1	.0439	5.3%	1	.0439	46.1%	1	.0439	46.1%	1	.0439	46.1%
2	.1024	15.6%	2	.1024	15.6%	2	.1024	72.9%	2	.1024	72.9%	2	.1024	72.9%
3	.1593	31.5%	3	.1593	31.5%	3	.1593	89.0%	3	.1593	89.0%	3	.1593	89.0%
4	.1858	50.1%	4	.1858	50.1%	4	.1858	96.3%	4	.1858	96.3%	4	.1858	96.3%
5	.1734	67.4%	5	.1734	67.4%	5	.1734	125	5	.1734	125	5	.1734	125
6	.1349	80.9%	6	.1349	80.9%	6	.1349	150	6	.1349	150	6	.1349	150
7	.0899	89.9%	7	.0899	89.9%	7	.0899	175	7	.0899	175	7	.0899	175
8	.0525	95.2%	8	.0525	95.2%	8	.0525	200	8	.0525	200	8	.0525	200
9	.0272	97.9%	9	.0272	97.9%	9	.0272	225	9	.0272	225	9	.0272	225
10	.0127	99.1%	10	.0127	99.1%	10	.0127	250	10	.0127	250	10	.0127	250
11	.0054	99.7%	11	.0054	99.7%	11	.0054	250	11	.0054	250	11	.0054	250
12	.0021	99.9%	12	.0021	99.9%	12	.0021	100.0%	12	.0021	100.0%	12	.0021	100.0%
13	.0008	100.0%	13	.0008	100.0%	13	.0008	100.0%	13	.0008	100.0%	13	.0008	100.0%
14	.0003		14	.0003		14	.0003		14	.0003		14	.0003	
15	.0001		15	.0001		15	.0001		15	.0001		15	.0001	
16	.0000		16	.0000		16	.0000		16	.0000		16	.0000	
17	.0000		17	.0000		17	.0000		17	.0000		17	.0000	
18	.0000		18	.0000		18	.0000		18	.0000		18	.0000	
19	.0000		19	.0000		19	.0000		19	.0000		19	.0000	
20	.0000		20	.0000		20	.0000		20	.0000		20	.0000	
21	.0000		21	.0000		21	.0000		21	.0000		21	.0000	
22	.0000		22	.0000		22	.0000		22	.0000		22	.0000	
23	.0000		23	.0000		23	.0000		23	.0000		23	.0000	
24	.0000		24	.0000		24	.0000		24	.0000		24	.0000	
25	.0000		25	.0000		25	.0000		25	.0000		25	.0000	
26	.0000		26	.0000		26	.0000		26	.0000		26	.0000	
27	.0000		27	.0000		27	.0000		27	.0000		27	.0000	
28	.0000		28	.0000		28	.0000		28	.0000		28	.0000	
29	.0000		29	.0000		29	.0000		29	.0000		29	.0000	
30	.0000		30	.0000		30	.0000		30	.0000		30	.0000	
31	.0000		31	.0000		31	.0000		31	.0000		31	.0000	
32	.0000		32	.0000		32	.0000		32	.0000		32	.0000	
33	.0000		33	.0000		33	.0000		33	.0000		33	.0000	
34	.0000		34	.0000		34	.0000		34	.0000		34	.0000	
35	.0000		35	.0000		35	.0000		35	.0000		35	.0000	
36	.0000		36	.0000		36	.0000		36	.0000		36	.0000	

WB RT	Turn direction	Peak Hour	# Right Turn Lanes	# of Left Turns	Cycle Length	Lane Dist. Factor	Vehicle Length	Ave. Veh. per Cycle
WB RT	AM NO BLD.	1	140	120	1	25	25	4.7
WB RT	AM BUILD	1	140	120	1	25	25	4.7
WB RT	PM NO BLD.	1	50	130	1	25	25	1.8
WB RT	PM BUILD	1	50	130	1	25	25	1.8
WESTBOUND Right Turn								
WB RT	1 Lane(s)	WB RT	AM BUILD	1 Lane(s)	WB RT	AM BUILD	1 Lane(s)	WB RT
Vehicles in Queue	Poisson Ind. Terms	Cumulative Poisson Length(ft)	Veh. in Queue	Poisson Ind. Terms	Cum. Poisson Length(ft)	Veh. in Queue	Poisson Ind. Terms	Cum. Poisson Length(ft)
0	.0094	0.9%	0	.0094	0.9%	0	.0094	16.4%
1	.0439	5.3%	1	.0439	5.3%	1	.0439	46.1%
2	.1024	15.6%	2	.1024	15.6%	2	.1024	72.9%
3	.1593	31.5%	3	.1593	31.5%	3	.1593	89.0%
4	.1858	50.1%	4	.1858	50.1%	4	.1858	96.3%
5	.1734	67.4%	5	.1734	67.4%	5	.1734	125
6	.1349	80.9%	6	.1349	80.9%	6	.1349	150
7	.0899	89.9%	7	.0899	89.9%	7	.0899	175
8	.0525	95.2%	8	.0525	95.2%	8	.0525	200
9	.0272	97.9%	9	.0272	97.9%	9	.0272	225
10	.0127	99.1%	10	.0127	99.1%	10	.0127	250
11	.0054	99.7%	11	.0054	99.7%	11	.0054	250
12	.0021	99.9%	12	.0021	99.9%	12	.0021	100.0%
13	.0008	100.0%	13	.0008	100.0%	13	.0008	100.0%
14	.0003		14	.0003		14	.0003	
15	.0001		15	.0001		15	.0001	
16	.0000		16	.0000		16	.0000	
17	.0000		17	.0000		17	.0000	
18	.0000		18	.0000		18	.0000	
19	.0000		19	.0000		19	.0000	
20	.0000		20	.0000		20	.0000	
21	.0000		21	.0000		21	.0000	
22	.0000		22	.0000		22	.0000	
23	.0000		23	.0000		23	.0000	
24	.0000		24	.0000		24	.0000	
25	.0000		25	.0000		25	.0000	
26	.0000		26	.0000		26	.0000	
27	.0000		27	.0000		27	.0000	
28	.0000		28	.0000		28	.0000	
29	.0000		29	.0000		29	.0000	
30	.0000		30	.0000		30	.0000	
31	.0000		31	.0000		31	.0000	
32	.0000		32	.0000		32	.0000	
33	.0000		33	.0000		33	.0000	
34	.0000		34	.0000		34	.0000	
35	.0000		35	.0000		35	.0000	
36	.0000		36	.0000		36	.0000	

Western Trail Subdivision (Argus Development)-
Western Trail / Coors Blvd.
Western Trail / Coors Blvd.

NORTHBOUND Right Turn

		Turn Direction		Peak Hour	# Right Turn Lanes	# of Left Turns	Cycle Length	Lane Dist. Factor	Vehicle Length	Ave. Veh. per Cycle
NB RT	AM NO BLD.	NB RT	AM BUILD	0	30	120	1	25	1.0	
NB RT	AM BUILD	NB RT	PM NO BLD.	0	30	120	1	25	1.0	
NB RT	PM BUILD	NB RT	PM BUILD	0	150	130	1	25	5.4	
NB RT	AM NO BLD.	NB RT	AM BUILD	0	Lane(s)	NB RT	PM NO BLD.	0 Lane(s)	NB RT	PMBUILD
0	.3679	0	Veh. in Queue	Poisson Ind. Terms	Cum. Poisson	Veh. in Queue	Poisson Ind. Terms	Cum. Poisson	Veh. in Queue	Poisson Ind. Terms
1	.3679	1	.3679	.3679	36.8%	0	.0044	0.4%	0	.0044
2	.1839	2	.1839	.1839	73.6%	25	1	2.9%	1	.0241
3	.0613	3	.0613	.0613	92.0%	50	2	9.4%	2	.0652
4	.0153	4	.0153	.0153	98.1%	75	3	21.1%	3	.1177
5	.0031	5	.0031	.0031	99.6%	4	4	37.1%	4	.1593
6	.0005	6	.0005	.0005	99.9%	5	5	54.3%	5	.1726
7	.0001	7	.0001	.0001	100.0%	6	6	69.9%	6	.1558
8	.0000	8	.0000	.0000		7	7	82.0%	7	.1206
9	.0000	9	.0000	.0000		8	.0816	90.1%	8	.0816
10	.0000	10	.0000	.0000		9	.0491	95.0%	9	.0491
11	.0000	11	.0000	.0000		10	.0266	97.7%	10	.0266
12	.0000	12	.0000	.0000		11	.0131	99.0%	11	.0131
13	.0000	13	.0000	.0000		12	.0059	99.6%	12	.0059
14	.0000	14	.0000	.0000		13	.0025	99.9%	13	.0025
15	.0000	15	.0000	.0000		14	.0010	99.9%	14	.0010
16	.0000	16	.0000	.0000		15	.0003		15	.0003
17	.0000	17	.0000	.0000		16	.0001		16	.0001
18	.0000	18	.0000	.0000		17	.0000		17	.0000
19	.0000	19	.0000	.0000		18	.0000		18	.0000
20	.0000	20	.0000	.0000		19	.0000		19	.0000
21	.0000	21	.0000	.0000		20	.0000		20	.0000
22	.0000	22	.0000	.0000		21	.0000		21	.0000
23	.0000	23	.0000	.0000		22	.0000		22	.0000
24	.0000	24	.0000	.0000		23	.0000		23	.0000
25	.0000	25	.0000	.0000		24	.0000		24	.0000
26	.0000	26	.0000	.0000		25	.0000		25	.0000
27	.0000	27	.0000	.0000		26	.0000		26	.0000
28	.0000	28	.0000	.0000		27	.0000		27	.0000
29	.0000	29	.0000	.0000		28	.0000		28	.0000
30	.0000	30	.0000	.0000		29	.0000		29	.0000
31	.0000	31	.0000	.0000		30	.0000		30	.0000
32	.0000	32	.0000	.0000		31	.0000		31	.0000
33	.0000	33	.0000	.0000		32	.0000		32	.0000
34	.0000	34	.0000	.0000		33	.0000		33	.0000
35	.0000	35	.0000	.0000		34	.0000		34	.0000
36	.0000	36	.0000	.0000		35	.0000		35	.0000
						36	.0000		36	.0000

		Turn Direction	Peak Hour	# Right Turn Lanes	# of Left Turns	Cycle Length	Lane Dist. Factor	Vehicle Length	Ave. Veh. per Cycle	0 Lane(s)
NB RT	AM NO BLD.	NB RT	AM BUILD	0	30	120	1	25	1.0	Turnbay Length(ft)
NB RT	AM BUILD	NB RT	PM NO BLD.	0	30	120	1	25	1.0	Turnbay Length(ft)
NB RT	PM BUILD	NB RT	PM BUILD	0	150	130	1	25	5.4	Turnbay Length(ft)
NB RT	AM NO BLD.	NB RT	AM BUILD	0	Lane(s)	NB RT	PM NO BLD.	0 Lane(s)	NB RT	PMBUILD
0	.3679	0	Veh. in Queue	Poisson Ind. Terms	Cum. Poisson	Veh. in Queue	Poisson Ind. Terms	Cum. Poisson	Veh. in Queue	Poisson Ind. Terms
1	.3679	1	.3679	.3679	36.8%	0	.0044	0.4%	0	.0044
2	.1839	2	.1839	.1839	73.6%	25	1	2.9%	1	.0241
3	.0613	3	.0613	.0613	92.0%	50	2	9.4%	2	.0652
4	.0153	4	.0153	.0153	98.1%	75	3	21.1%	3	.1177
5	.0031	5	.0031	.0031	99.6%	4	4	37.1%	4	.1593
6	.0005	6	.0005	.0005	99.9%	5	5	54.3%	5	.1726
7	.0001	7	.0001	.0001	100.0%	6	6	69.9%	6	.1558
8	.0000	8	.0000	.0000		7	7	82.0%	7	.1206
9	.0000	9	.0000	.0000		8	.0816	90.1%	8	.0816
10	.0000	10	.0000	.0000		9	.0491	95.0%	9	.0491
11	.0000	11	.0000	.0000		10	.0266	97.7%	10	.0266
12	.0000	12	.0000	.0000		11	.0131	99.0%	11	.0131
13	.0000	13	.0000	.0000		12	.0059	99.6%	12	.0059
14	.0000	14	.0000	.0000		13	.0025	99.9%	13	.0025
15	.0000	15	.0000	.0000		14	.0010	99.9%	14	.0010
16	.0000	16	.0000	.0000		15	.0003		15	.0003
17	.0000	17	.0000	.0000		16	.0001		16	.0001
18	.0000	18	.0000	.0000		17	.0000		17	.0000
19	.0000	19	.0000	.0000		18	.0000		18	.0000
20	.0000	20	.0000	.0000		19	.0000		19	.0000
21	.0000	21	.0000	.0000		20	.0000		20	.0000
22	.0000	22	.0000	.0000		21	.0000		21	.0000
23	.0000	23	.0000	.0000		22	.0000		22	.0000
24	.0000	24	.0000	.0000		23	.0000		23	.0000
25	.0000	25	.0000	.0000		24	.0000		24	.0000
26	.0000	26	.0000	.0000		25	.0000		25	.0000
27	.0000	27	.0000	.0000		26	.0000		26	.0000
28	.0000	28	.0000	.0000		27	.0000		27	.0000
29	.0000	29	.0000	.0000		28	.0000		28	.0000
30	.0000	30	.0000	.0000		29	.0000		29	.0000
31	.0000	31	.0000	.0000		30	.0000		30	.0000
32	.0000	32	.0000	.0000		31	.0000		31	.0000
33	.0000	33	.0000	.0000		32	.0000		32	.0000
34	.0000	34	.0000	.0000		33	.0000		33	.0000
35	.0000	35	.0000	.0000		34	.0000		34	.0000
36	.0000	36	.0000	.0000		35	.0000		35	.0000

Western Trail Subdivision (Argus Development) -
Western Trail / Coors Blvd.
Western Trail / Coors Blvd.

SOUTHBOUND Right Turn

Turn		Peak Hour	# Right Turn Lanes	# of Left Turns	Cycle Length	Lane Dist. Factor	Vehicle Length	Ave. Veh. per Cycle
Direction	SB RT	AM NO BLD.	1	80	120	1	25	2.7
SB RT	AM BUILD	1	83	120	1	25	2.8	2.8
SB RT	PM NO BLD.	1	350	130	1	25	12.6	12.6
SB RT	PM BUILD	1	361	130	1	25	13.0	13.0
SB RT	AM NO BLD.	1 Lane(s)	SB RT	1 Lane(s)	SB RT	PM NO BLD.	1 Lane(s)	SB RT
Vehicles in Queue	Poisson Ind. Terms	Cumulative Poisson Length(ft)	Veh. in Queue	Poisson Ind. Terms	Cum. Poisson Length(ft)	Veh. in Queue	Poisson Ind. Terms	Veh. in Queue
0	.0695	6.9%	0	.0629	6.3%	0	.0000	0.0%
1	.1853	25.5%	1	.1739	23.7%	1	.0000	0.0%
2	.2471	50.2%	2	.2406	47.7%	2	.0003	0.0%
3	.2196	72.1%	3	.2219	69.9%	3	.0011	0.1%
4	.1464	86.8%	4	.1535	85.3%	4	.0034	0.5%
5	.0781	94.6%	5	.0849	93.8%	5	.0087	1.4%
6	.0347	98.1%	6	.0392	97.7%	6	.0184	3.2%
7	.0132	99.4%	7	.0155	99.2%	7	.0332	6.5%
8	.0044	99.8%	8	.0054	99.8%	8	.0524	11.7%
9	.0013	100.0%	9	.0016	99.9%	9	.0736	19.1%
10	.0003		10	.0005		10	.0930	28.4%
11	.0001		11	.0001		11	.1068	39.1%
12	.0000		12	.0000		12	.1125	50.3%
13	.0000		13	.0000		13	.1094	61.3%
14	.0000		14	.0000		14	.0987	71.1%
15	.0000		15	.0000		15	.0832	79.5%
16	.0000		16	.0000		16	.0657	86.0%
17	.0000		17	.0000		17	.0489	90.9%
18	.0000		18	.0000		18	.0343	94.4%
19	.0000		19	.0000		19	.0228	96.6%
20	.0000		20	.0000		20	.0144	98.1%
21	.0000		21	.0000		21	.0087	98.9%
22	.0000		22	.0000		22	.0050	99.4%
23	.0000		23	.0000		23	.0027	99.7%
24	.0000		24	.0000		24	.0014	99.9%
25	.0000		25	.0000		25	.0007	99.9%
26	.0000		26	.0000		26	.0004	
27	.0000		27	.0000		27	.0002	
28	.0000		28	.0000		28	.0001	
29	.0000		29	.0000		29	.0000	
30	.0000		30	.0000		30	.0000	
31	.0000		31	.0000		31	.0000	
32	.0000		32	.0000		32	.0000	
33	.0000		33	.0000		33	.0000	
34	.0000		34	.0000		34	.0000	
35	.0000		35	.0000		35	.0000	
36	.0000		36	.0000		36	.0000	

Terry O. Brown, P.E.

P. O. Box 92051
Albuquerque, NM 87199-2051
(505) 883-8807 - Voice
(208) 975-6132 - FAX
e-mail: tobe@swcp.com

Tuesday, October 22, 2002

Richard Dourte

City of Albuquerque Transp Dev Section
600 2nd St. NW
Albuquerque, NM 87102

Re: Western Trails Estates (Western Trail NW / Coors Blvd.)

Dear Richard:

This letter is to address your final set of concerns regarding the transportation issues associated with the proposed Western Trails Estates development at the northwest corner of Western Trail NW / Coors Blvd. Your concerns and their resolutions are as follows:

- 1) **The queue length for the eastbound left turn lane on Western Trail NW / Coors Blvd. is of sufficient length** – When I stated the calculated queue length of the eastbound dual left turn lanes on Western Trail / Coors this afternoon, I read to you the projected PM Peak Hour volume of 390 vehicles per hour. Actually, the calculated queue length associated with 390 vehicles per hour and a 130-second cycle length is 300 feet – not 390 feet. The proposed access drive into the Western Trails Estates is 310 feet west of the eastbound stop bar on Western Trail NW at Coors Blvd. Therefore, the analysis demonstrates that there is sufficient queuing for the eastbound dual left turn lanes on Western Trail at Coors Blvd.
- 2) **The eastbound left turn lane on Western Trail NW at McFarland Dr. is of sufficient length** – The trip distribution analysis contained in the queuing analysis dated August 19, 2002 demonstrated that only about 5% of the traffic generated by this development would enter the subdivision from the west on Western Trail Subdivision. The maximum entering volume projected for this development is 90 vehicles per hour during the PM Peak Hour. About five percent of this volume (of about 5 vehicles per hour) will enter from the east on Western Trail NW and then turn left into McFarland Dr. The average arrival rate is 5/60 (or .0833) vehicles per minute. A three-minute queue is still less than one vehicle. Therefore, the eastbound left turn lane on Western Trail NW at McFarland Dr. is required to be 25 feet long to hold one vehicle of queue.
- 3) **The westbound left turn lane on Western Trail into the old Monolith Site is not shortened** – Attached is a plan drawing showing the improvements proposed to construct the new intersection of Western Trail NW / McFarland Dr. The drawing demonstrates that the eastbound left turn lane on Western Tr. NW at McFarland Dr. can be constructed to a length of approximately 50' (to the centerline of McFarland Dr.) without having to shorten the existing westbound left turn lane on Western Tr. NW at the old Monolith driveway.

Page 2 of 2
Tuesday, October 22, 2002
Richard Dourte

Re: Western Trails Estates

I believe that this should address your recent comments.

Please call if you have questions or need additional information.

Sincerely Yours,

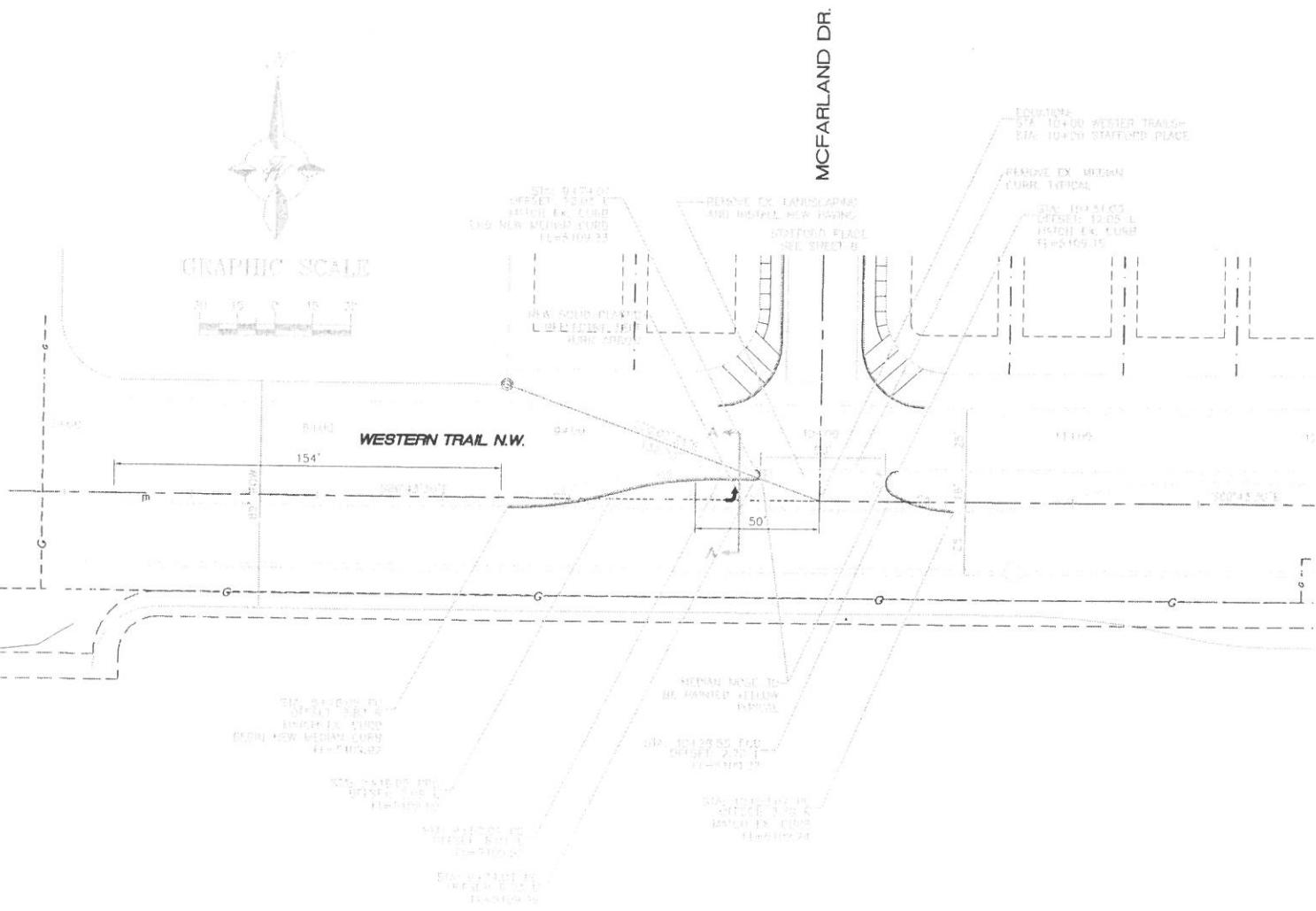


Terry O. Brown

cc: Sara Lavy, Tierra West, LLC
Ron Bohannan, Tierra West, LLC
Tony Loyd, City of Albuquerque Transportation Development Section

attachment as noted

MONO I II SII I DHIVEWAYI
CU. HEI RD.



Project: _____

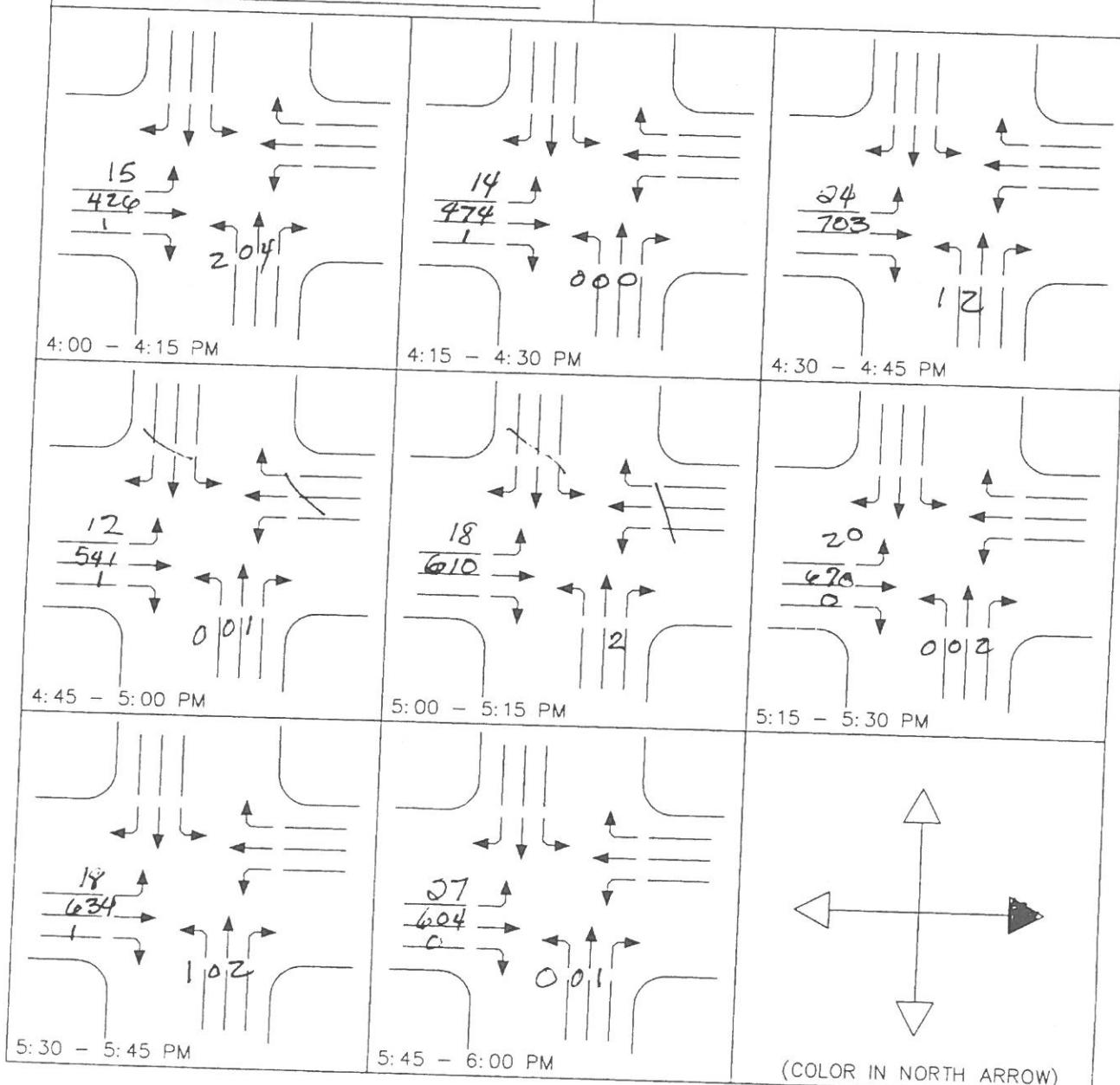
NOTES AND DIAGRAM:

Date: 8-15-02

Posted Speed (E-W Street): _____

Posted Speed (N-S Street): _____

Comments: Namaste - Coors



Project: _____

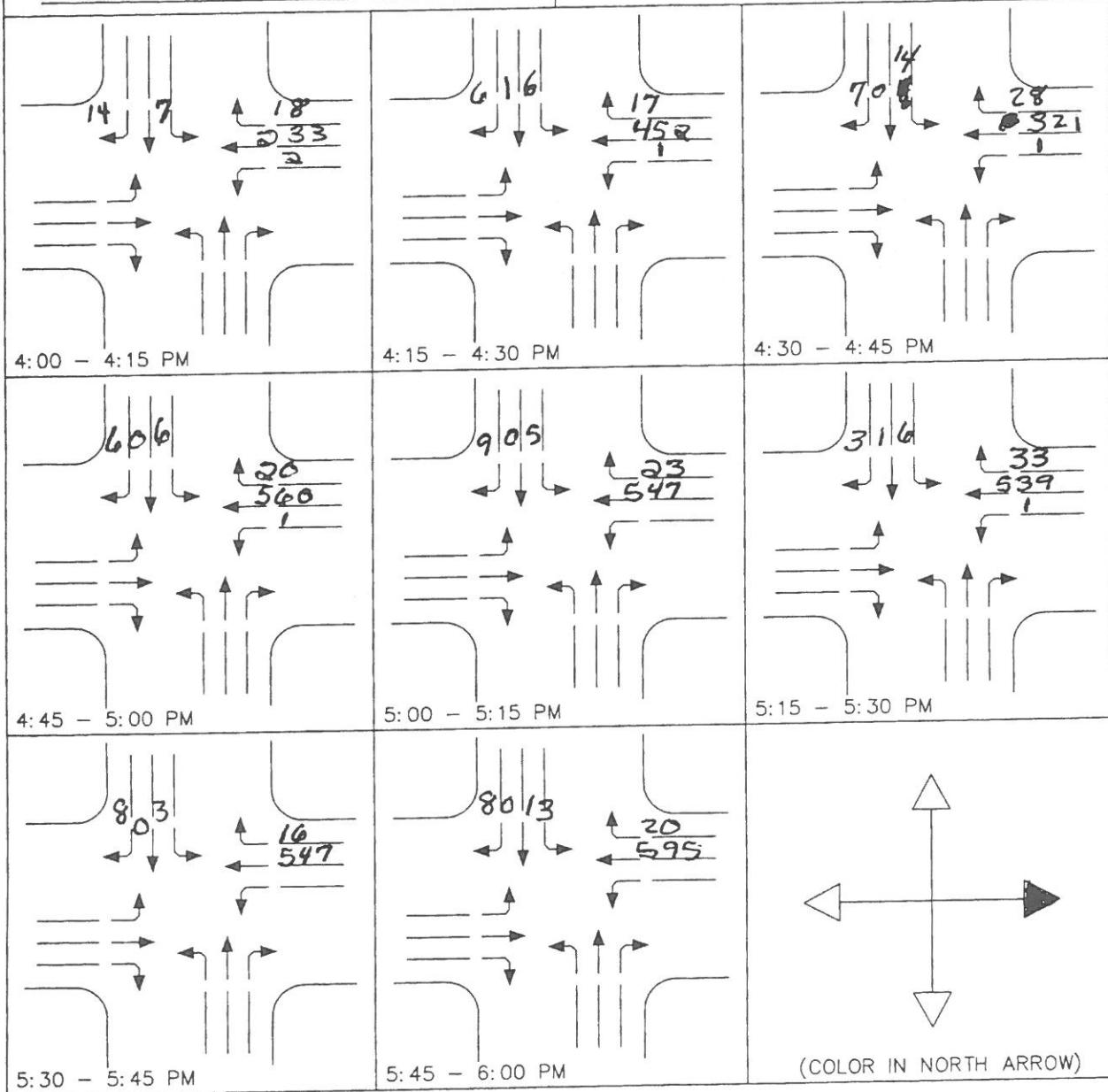
NOTES AND DIAGRAM:

Date: 8-15-02

Posted Speed (E-W Street): _____

Posted Speed (N-S Street): _____

Comments: Western Trails - COOS



Project: _____

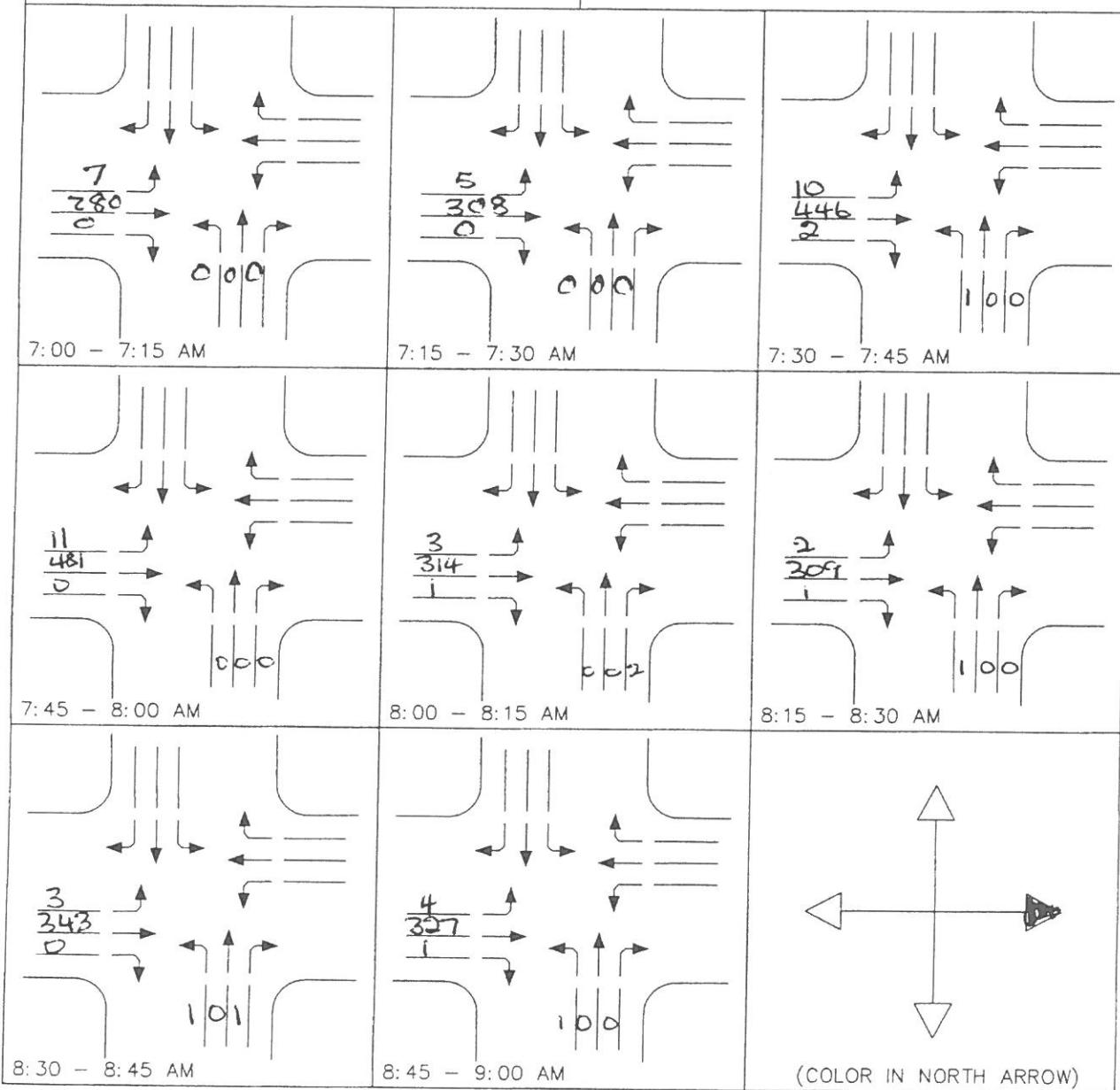
NOTES AND DIAGRAM:

Date: 8-14-02

Posted Speed (E-W Street): _____

Posted Speed (N-S Street): _____

Comments: Coors/Anamaste



Project: Western Trails - Spurce

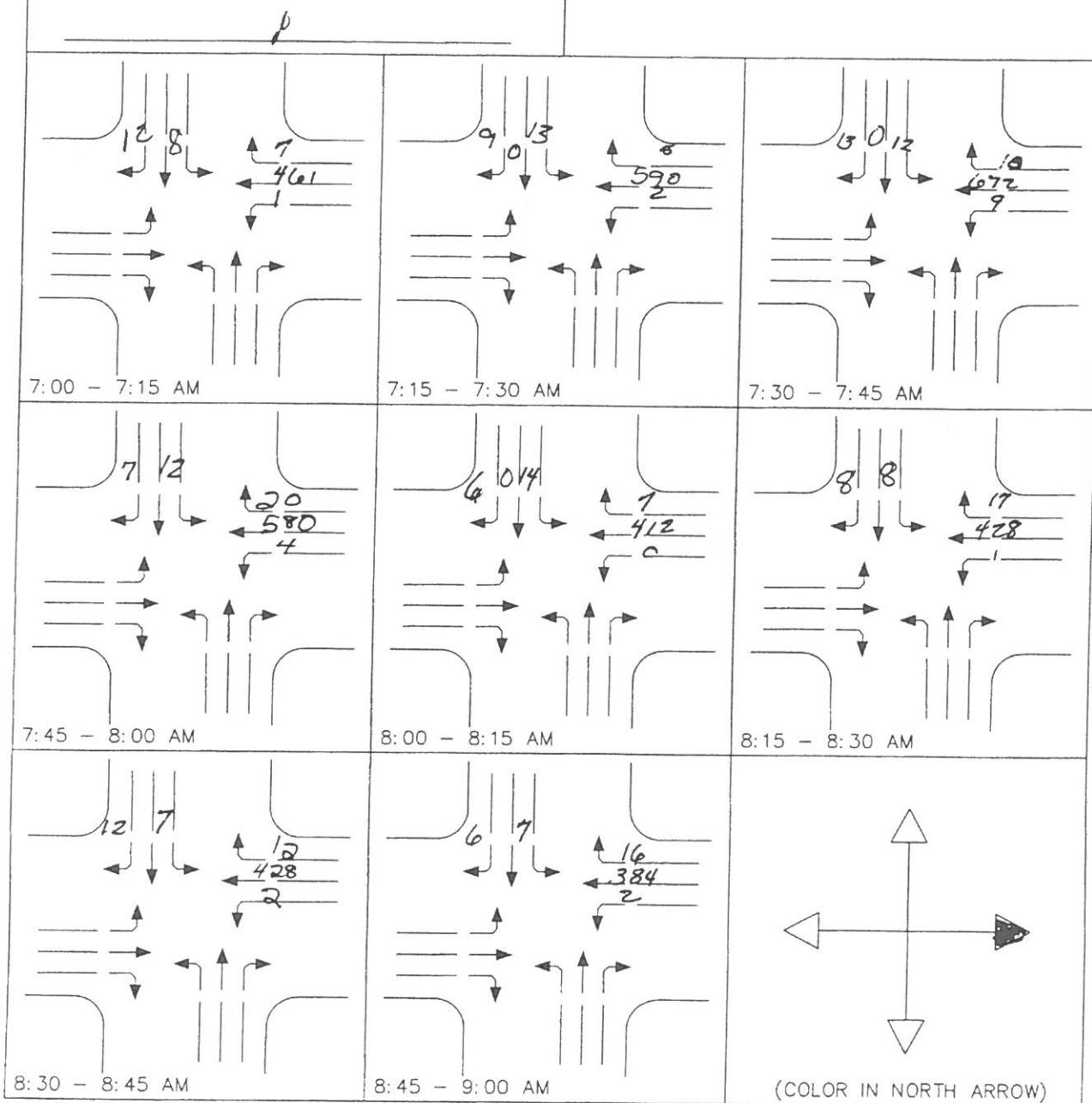
NOTES AND DIAGRAM:

Date: 2-16-02

Posted Speed (E-W Street): _____

Posted Speed (N-S Street): _____

Comments: Western trails - Coors



Trip Distribution Table

Western Trail Subdivision (Argus Development) - Western Trail / Coors Blvd.

Sub Area Employment Data:

For determination of Trip Distribution for Proposed Residential Development

Data Taken from Middle Rio Grande Council of Governments' 2020 Socioeconomic Forecasts
for Data Analysis Subzones in State Planning and Development District 3 (TR-125) - Appendix "B"

Sub Area I.D.#	% Sub Area in Study							(WW) Western Trail West			(CN) Coors Blvd. North			(WE) Western Trail East			(CS) Coors Blvd. South			
		1995 Employment	2005 Employment	Interpolated Employment for the Year	Employment in Study	Dist. (Mi.)	Employment / Distance	% Employment / Distance	% Utilizing	% Employment / Dist. Utilizing	Employment	% Utilizing	% Employment / Dist. Utilizing	Employment	% Utilizing	% Employment / Dist. Utilizing	Employment	% Utilizing	% Employment / Dist. Utilizing	Employment
1	100%	659	4,763	4,763	4,763	14	340	0.48%	0%	0.00%	0	100%	0.48%	340	0%	0.00%	0	0%	0.00%	0
2	100%	14,925	22,575	22,575	22,575	12.5	1,806	2.52%	0%	0.00%	0	100%	2.52%	1,806	0%	0.00%	0	0%	0.00%	0
3	100%	985	1,222	1,222	1,222	8.5	144	0.20%	0%	0.00%	0	100%	0.20%	144	0%	0.00%	0	0%	0.00%	0
4	100%	2,463	2,694	2,694	2,694	16.5	163	0.23%	0%	0.00%	0	100%	0.23%	163	0%	0.00%	0	0%	0.00%	0
5	100%	4,784	12,928	12,928	12,928	4.5	2,873	4.01%	0%	0.00%	0	100%	4.01%	2,873	0%	0.00%	0	0%	0.00%	0
6	100%	114	147	147	147	9	16	0.02%	100%	0.02%	16	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
7	100%	5,845	10,257	10,257	10,257	1	10,257	14.33%	30%	4.30%	3,077	35%	5.02%	3,590	0%	0.00%	0	0%	0.00%	0
8	100%	5,415	8,137	8,137	8,137	2.5	3,255	4.55%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
9	100%	62	69	69	69	17.5	4	0.01%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	35%	5.02%	3,590
10	100%	1,555	2,680	2,680	2,680	8.5	315	0.44%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	100%	4.55%	3,255
11	100%	4,680	5,776	5,776	5,776	8	722	1.01%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	100%	0.01%	4
12	100%	5,680	6,883	6,883	6,883	4	1,721	2.40%	0%	0.00%	0	100%	2.40%	1,721	0%	0.00%	0	100%	0.44%	315
13	100%	28,380	45,105	45,105	45,105	5.5	8,201	11.46%	0%	0.00%	0	100%	11.46%	8,201	0%	0.00%	0	100%	1.01%	722
14	100%	29,501	36,361	36,361	36,361	9	4,040	5.65%	0%	0.00%	0	100%	5.65%	4,040	0%	0.00%	0	0%	0.00%	0
15	100%	15,159	19,266	19,266	19,266	3	6,422	8.97%	0%	0.00%	0	30%	2.69%	1,927	0%	0.00%	0	0%	0.00%	0
16	100%	64,446	78,155	78,155	78,155	10	7,816	10.92%	0%	0.00%	0	30%	3.28%	2,345	0%	0.00%	0	70%	6.28%	4,495
17	100%	36,775	39,496	39,496	39,496	4.5	8,777	12.27%	0%	0.00%	0	30%	2.345	0%	0.00%	0	70%	7.65%	5,471	
18	100%	40,093	49,531	49,531	49,531	6.5	7,620	10.65%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	100%	12.27%	8,777
19	100%	28,365	31,549	31,549	31,549	11	2,868	4.01%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	100%	10.65%	8,777
20	100%	5,451	7,979	7,979	7,979	8.5	939	1.31%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	100%	4.01%	2,868
21	100%	23	29	29	29	11.5	3	0.00%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	100%	1.31%	939
22	100%	23,886	23,679	23,679	23,679	13.5	1,754	2.45%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	100%	0.00%	3
23	100%	1,547	2,308	2,308	2,308	16.5	140	0.20%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	100%	2.45%	1,754
24	100%	888	2,351	2,351	2,351	14.5	162	0.23%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	100%	0.20%	140
25	100%	91	128	128	128	17.5	7	0.01%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	100%	0.23%	162
26	100%	12,362	19,073	19,073	19,073	21.5	887	1.24%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	100%	0.01%	7
27	100%	2,431	3,291	3,291	3,291	18	183	0.26%	0%	0.00%	0	100%	0.26%	183	0%	0.00%	0	100%	1.24%	887
28	100%	2,581	3,344	3,344	3,344	27.5	122	0.17%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	100%	0.00%	0
		339,146	439,776	439,776	439,776	71,556	100.00%	4.32%	4.32%	3,093	38.20%	27,332	0.00%	0	0.00%	0	57.48%	41,131		
										4.32%	38.20%	38.20%	0.00%	0.00%	0.00%	0.00%	57.48%		57.48%	

* - Subarea in which the site is located.