CITY OF ALBUQUERQUE

December 8, 2016
Terry Brown, P.E.
P.O. Box 92051
Albuquerque, NM 87199

Re: Eagle Ranch Retail
(Irving and Eagle Ranch Rd.)
Traffic Impact Study
Engineer's Stamp dated 07-08-16 (B13-D002C)

Dear Mr. Brown,

The subject Traffic Impact Study received on August 22, 2016 has been reviewed and approved by the Transportation Development Section. All comments have been adequately addressed.

The final Traffic Impact Study shall be valid for a period of three years. Should significant modifications to the approved development proposal occur, the approved study shall be revised to incorporate the changes.

If you have any questions, please feel free to contact me at (505) 924-3991.

Sincerely,

Racquel M. Michel, P.E.
Traffic Engineer, Planning Dept.
Development Review Services

Via: email
C: Applicant, File

PO Box 1293
Albuquerque
New Mexico 87103
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Terry O. Brown P.E.

Eagle Ranch Retail

(Irving Blvd. / Eagle Ranch Rd.)

Traffic Impact Study

July 8, 2016

FINAL

Presented to:

City of Albuquerque
Transportation Development Section

Prepared for:

Brad Allen / Lance Sigmon
Allen Sigmon Real Estate Group
9201 Montgomery Blvd. NE Bldg.1
Albuquerque NM 87111

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Eagle Ranch Retail
(Irving Blvd. / Eagle Ranch Rd.)
TRAFFIC IMPACT STUDY

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Eagle Ranch Retail
(Irving Blvd. / Eagle Ranch Rd.)
TRAFFIC IMPACT STUDY

STUDY PURPOSE

This study is being conducted in conjunction with a request for approval of a mixed use development plan such as the one shown in the Appendix (Page A-3) 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 Section in association with the development of Eagle Ranch Retail located at the southwest corner of Westside Dr. / Eagle Ranch Rd.

STUDY PROCEDURES

A scoping meeting was held with City of Albuquerque Transportation staff (Racquel Michel) prior to beginning the study to discuss scope and methodology to be utilized within the report. Specific items included format, intersections to be studied, intersection analysis procedures, existing traffic counts, trip distribution methodology, and implementation year definition. See. Scoping Report Pages A-89 thru A-91.

The basic procedure followed is described below:

1) Calculate the generated trips for the proposed development consisting of the following described land uses (See more detailed table in Appendix Page A-7):
   a) Government Office Building (MVD)
   b) Shopping Center

2) Calculate trip distribution for the newly generated trips by this development. The new commercial trips will be distributed based on year 2018 population within a two (2) mile radius boundary of the proposed site as shown in Appendix on Page A-11 of this report. See Appendix Pages A-11 thru A-17.

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-18 thru A-20 of this report.

4) Acquire recent traffic counts for all intersections to be analyzed in this report. See Appendix Pages A-78 thru A-83.

5) Calculate growth rate for the area utilizing a historic linear growth trendline of MRCOG's Traffic Flow Data from 2005 to 2014 to define area traffic growth rate. See Appendix Pages A-21 thru A-33.

6) Determine 2018 NO BUILD Volumes by growing the existing turning movement counts to the year 2018 utilizing the calculated annual historic growth rate for the area, and then adding in generated traffic volumes from the other approved projects. See Appendix Pages A-34 thru A-49.

7) Apply a pass-by trip rate of 25% to the driveways. See Appendix Page A-20.

8) Add in data from Trip Assignments Maps and Tables to the 2018 NO BUILD Volumes to obtain 2018 BUILD Volumes for this project. See Appendix Pages A-34 thru A-49.

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

INTERSECTION	TYPE CONTROL	NO BUILD	BUILD
1) Irving Blvd. / Coors Blvd.	Traffic Signal	2018	2018
2) Paseo del Norte / Eagle Ranch Rd.	Traffic Signal	2018	2018
3) Eagle Ranch Rd. / Irving Blvd.	Traffic Signal	2018	2018
4) Coors By-Pass / Eagle Ranch Rd.	Traffic Signal	2018	2018
5) Irving Blvd. / Golf Course Rd.	Traffic Signal	2018	2018
6) Westside Dr. / Eagle Ranch Rd.	Stop Sign	2018	2018
7) Driveway "A" / Irving Blvd.	Stop Sign	N/A	2018

GENERAL AREA CHARACTERISTICS

The proposed development plan is located along the east side of Irving Blvd. west of Eagle Ranch Rd. as shown on the Vicinity Map on Page A-1 of the Appendix of this report. The property is located between Irving Blvd. and Eagle Ranch Rd. and bounded on the south by commercial property and on the north by an apartment complex. This project is located in a relatively active development area.

AREA STREET NETWORK

Paseo del Norte, Coors Bypass and Coors Blvd. are classified as Regional Principal Arterial roadways on the 2040 Long Range Roadway System Plan for the Albuquerque Urban Area (See Pages A-4 and A-5 in the Appendix). Paseo del Norte is an urban four lane paved divided roadway with raised medians and curbs and gutters on both sides of the street. The prevailing speed on Paseo del Norte is 45 M.P.H. Coors By-Pass near Eagle Ranch Rd. is a six lane paved urban street with curb and gutter on both sides of the street and raised medians in the center. The posted speed limit on Coors By-Pass near Eagle Ranch Rd. is 45 MPH. Coors Blvd. is a three and four-lane lane paved facility with a posted speed limit of 45 M.P.H.

Golf Course Rd. and Eagle Ranch Rd. are classified as Minor Arterial Streets on the 2040 Long Range Roadway System Plan for the Albuquerque Urban Area. They are primarily four lane paved urban roadways with speed limits of 35 MPH within the study area of this report.

Irving Blvd. is classified as a Community Principal Arterial Street on the 2040 Long Range Roadway System Plan for the Albuquerque Urban Area. It is generally a four lane paved urban roadway in the vicinity of Eagle Ranch Rd. The posted speed limit on Irving Blvd. near Eagle Ranch Rd. is 40 MPH.

Westside Dr. is not classified on the 2040 Long Range Roadway System Plan for the Albuquerque Urban Area. It is considered a local street with a speed limit of 25 MPH for the purpose of this report.

EXISTING TRAFFIC VOLUMES

2014 Average Weekday Traffic Volumes (AWDT) for major streets in the site plan area are shown on Page A-6 of the Appendix.

Existing AM and PM peak hour turning movement counts for the year 2016 were provided by the consulting engineer for the following intersections:

Irving Blvd. / Coors Blvd.
Paseo del Norte / Eagle Ranch Rd.
Eagle Ranch Rd. / Irving Blvd.
Coors By-Pass / Eagle Ranch Rd.
Irving Blvd. / Golf Course Rd.
Westside Dr. / Eagle Ranch Rd.

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The counts are included in the Appendix on Pages A-78 thru A-83.

EXISTING (2016) 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 levels-of-service were not calculated due to the fact that they would be less than two years from the NO BUILD analysis. Therefore, the NO BUILD levels-of-service closely approximate the existing levels-of-service.

PROPOSED DEVELOPMENT

The proposed conceptual site plan associated with this project consists of approximately 14,400 S.F. of retail commercial uses, 5,950 S.F New Mexico Department of Motor Vehicles and 30,090 S.F. health club. See Appendix Page A-3 for the proposed conceptual site plan.

TRIP GENERATION

Projected trips were calculated from data in the Institute of Transportation Engineers Trip Generation report (9th Edition, 2012). Trips for the development were determined based on land uses defined on the Conceptual Site Development Plan on Page A-3 in the Appendix of this report.

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

Eagle Ranch Retail Development (Eagle Ranch Rd. / Irving Blvd.)

Trip Generation Data (ITE Trip Generation Manual - 9th Edition)

COMMENT	USE (ITE CODE) DESCRIPTION		24 HR VOL GROSS	A. M. PEAK HR. ENTER	A. M. PEAK HR. EXIT	P. M. PEAK HR. ENTER	P. M. PEAK HR. EXIT
	Summary Sheet	Units					
NM DMV (Phase 1)	Government Office Building (730)	5.95	410	29	6	2	5
Phase 1 Retail	Shopping Center (820)	14.40	1,927	30	18	78	85
Phase 2 Retail	Shopping Center (820)	30.00	3,105	46	28	128	139
	Subtotal		**5,442**	**105**	**52**	**208**	**229**
	Pass-By Trips	25%		*-26*	*-13*	*-52*	*-57*
	Total Primary Trips			**79**	**39**	**156**	**172**

A Pass-by trip rate of 25 percent was used for the analysis.

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 2018 projected population of Data Analysis Subzones within a two-mile radius of the proposed development. Population data for the years 2005 and 2020 were taken from the 2035 Socioeconomic Forecasts by Data Analysis Subzones for the Mid-Region of New Mexico, supplied by the Mid Rio Grande Council of Governments (MRCOG). Population data from the years 2015 and 2025 was interpolated linearly to obtain 2018 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 on Pages A-11 thru A-16. The Trip Distribution Map is shown in the Appendix on Page A-17.

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 in the Appendix on Pages A-18 thru A-19. In addition, a 25% pass-by trip assignment was applied to this project as shown on Page A-20.

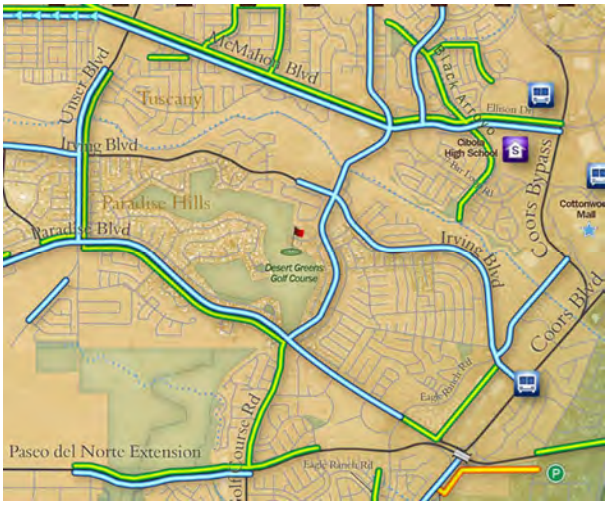
BACKGROUND TRAFFIC GROWTH

Background traffic growth rates were considered for each individual approach to an intersection that was targeted for analysis based on data from the 2005 thru 2014 Traffic Flow maps prepared by the Mid-Region Council of Governments. Almost all of the Traffic Flow Data for the years 2005 thru 2014 taken from the MRCOG Traffic Flow Maps were Standard Data. The data from those years for each approach was plotted on a graph and a linear "regression trend line" calculated using the equation format $y=mx+b$. The growth rate was determined by calculating the average volume increase per year during the time period considered and dividing that volume into the most recent AWDT used in the analysis from which future volumes will be calculated. The rate of growth of that trend line was utilized as the 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 or a generic growth rate of 0.5% was used. Historical Growth Rate Graphs with linear regression trendlines are shown in the Appendix on Pages A-21 thru A-33.

The growth rate utilized for each approach to an intersection is printed at the top of the Turning Movement sheets for each intersection (see Appendix Pages A-36 thru A-48).

AREA TRANSPORTATION

The following maps show the bicycle routes and ABQ Ride routes in the area.



See the Appendix for complete ABQ Ride route information.

PROJECTED PEAK HOUR TURNING MOVEMENTS FOR 2018 BUILDOUT

The calculated growth rates were applied to the most recent peak hour traffic counts furnished by the consulting engineer to establish the 2018 background traffic volumes. To these volumes, the generated trips based on implementation of the proposed Eagle Ranch Retail Development Plan were added to obtain BUILD volumes for the intersection analyses. See Appendix Pages A-34 thru A-49 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, 2010, using Synchro 9 software.

Capacity analyses were performed for the following traffic conditions.

2018 without development of the subject property (2018 NO BUILD)
2018 with total development as per the Proposed Site Plan (2018 BUILD)

Due to the fact that the implementation year is only two years in the future, no existing condition analysis was performed.

The results of the existing, 2018 NO BUILD and 2018 BUILD capacity analyses are summarized in the following sections - *Results of Signalized and Unsignalized Intersection Capacity Analyses*.

RESULTS OF SIGNALIZED INTERSECTION CAPACITY ANALYSES

IMPLEMENTATION YEAR (2018)

Intersection #1 - Irving Blvd. / Coors Blvd. (Appendix Pages A-50 thru A-77)

The results of the 2018 implementation year analysis of the signalized intersection of Irving Blvd. / Coors Blvd. are summarized in the following table:

Intersection: 1 - IRVING BLVD. / COORS BLVD.

		2018 AM Peak Hour BUILD (EXIST. GEOM.)					2018 PM Peak Hour BUILD (EXIST. GEOM.)				
		NO BUILD		BUILD			NO BUILD		BUILD		
		Lanes	LOS-Delay	Lanes	LOS-Delay		Lanes	LOS-Delay	Lanes	LOS-Delay	
EB	L	2	E - 71.2	2	E - 71.4	L	2	**F** - 211	2	**F** - 230	
	T	1	E - 69.5	1	E - 69.3	T	1	E - 61.5	1	E - 61.5	
	R	>	E - 69.5	>	E - 69.3	R	>	E - 61.5	>	E - 61.5	
WB	L	2	E - 70.8	2	E - 70.8	L	2	**F** - 125	2	**F** - 125	
	T	2	E - 67.8	2	E - 67.8	T	2	E - 70.9	2	E - 70.9	
	R	>	E - 68.6	>	E - 68.6	R	>	E - 73.3	>	E - 73.3	
NB	L	2	**F** - 174	2	**F** - 179	L	2	**F** - 509	2	**F** - 472	
	T	4	A - 6.1	4	A - 6.1	T	4	B - 13.8	4	B - 13.9	
	R	1	A - 3.6	1	A - 3.7	R	1	A - 5.3	1	A - 5.3	
SB	L	1	E - 68.2	1	E - 68.2	L	1	E - 75.8	1	E - 75.8	
	T	3	B - 10.3	3	B - 10.3	T	3	**F** - 731	3	**F** - 746	
	R	1	A - 4.8	1	A - 4.8	R	1	B - 10.2	1	B - 10.7	
Intersection:		***C - 25.6***		***C - 26.1***			***F - 489***		***F - 495***		

Note: ">" designates a shared right or left turn lane.

The analysis indicates that the signalized intersection of Irving Blvd. / Coors Blvd. operates at a less than desirable level-of-service for the 2018 PM Peak Hour NO BUILD and BUILD conditions. Excessive delays will also be experienced for specific movements during the AM Peak Hour NO BUILD and BUILD conditions. This intersection is completely built out and does not allow for any physical improvements. The excessive delays are an existing condition at the intersection and the proposed development only adds 9 vehicles to the existing 4,405 vehicles at the intersection during the AM Peak Hour and 32 vehicles to the existing 7,351 vehicles at the intersection during the PM Peak Hour. Therefore, no recommendations are made for the intersection of Irving Blvd. / Coors Blvd.

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

Queueing Analysis Summary Sheet

Project: Eagle Ranch Retail (Irving Blvd. / Eagle Ranch Rd.)

Intersection: **Irving Blvd. / Coors Blvd.**

2018

Approach	Left Turns			Thru Movements				Right Turns			
Eastbound	# Lanes	Vol.	Length	# Lanes	Vol.	Length		# Lanes	Vol.	Length	
Existing Lane Length	*2*	*88*	*235*	*1*	*33*	*Cont*		*0*	*744*	*0*	
AM NO BUILD Queue	2	89	100	1	33	75		0	751	>1,000	*
AM BUILD Queue	**2**	**91**	**100**	**1**	**33**	**75**		**0**	**753**	**>1,000**	*
Existing Lane Length	*2*	*204*	*235*	*1*	*39*	*Cont*		*0*	*432*	*0*	
PM NO BUILD Queue	2	206	200	1	39	100		0	436	600	
PM BUILD Queue	**2**	**214**	**200**	**1**	**40**	**100**		**0**	**444**	**600**	
Westbound	# Lanes	Vol.	Length	# Lanes	Vol.	Length		# Lanes	Vol.	Length	
Existing Lane Length	*2*	*60*	*140*	*2*	*17*	*Cont*		*0*	*14*	*0*	
AM NO BUILD Queue	2	61	75	2	17	50		0	14	50	
AM BUILD Queue	**2**	**61**	**75**	**2**	**17**	**50**		**0**	**14**	**50**	
Existing Lane Length	*2*	*109*	*140*	*2*	*109*	*Cont*		*0*	*48*	*0*	
PM NO BUILD Queue	2	110	125	2	110	125		0	48	100	
PM BUILD Queue	**2**	**110**	**125**	**2**	**111**	**125**		**0**	**48**	**100**	
Northbound	# Lanes	Vol.	Length	# Lanes	Vol.	Length		# Lanes	Vol.	Length	
Existing Lane Length	*2*	*292*	*515*	*4*	*1,333*	*Cont*		*1*	*59*	*505*	
AM NO BUILD Queue	2	295	275	4	1,346	550		1	60	125	
AM BUILD Queue	**2**	**298**	**275**	**4**	**1,346**	**550**		**1**	**60**	**125**	
Existing Lane Length	*2*	*937*	*515*	*4*	*3,171*	*Cont*		*1*	*100*	*505*	
PM NO BUILD Queue	2	946	700	4	3,203	>1,000	*	1	101	175	
PM BUILD Queue	**2**	**953**	**700**	**4**	**3,203**	**>1,000**	*	**1**	**101**	**175**	
Southbound	# Lanes	Vol.	Length	# Lanes	Vol.	Length		# Lanes	Vol.	Length	
Existing Lane Length	*1*	*17*	*230*	*3*	*1,673*	*Cont*		*1*	*32*	*270*	
AM NO BUILD Queue	1	17	50	3	1,690	850		1	32	75	
AM BUILD Queue	**1**	**17**	**50**	**3**	**1,690**	**850**		**1**	**36**	**100**	
Existing Lane Length	*1*	*41*	*230*	*3*	*1,909*	*Cont*		*1*	*181*	*270*	
PM NO BUILD Queue	1	41	100	3	1,928	>1,000	*	1	183	300	
PM BUILD Queue	**1**	**41**	**100**	**3**	**1,928**	**>1,000**	*	**1**	**190**	**300**	

	AM	PM
Cycle Length:	140	140

NOTE: Queue lengths are in feet.

Calculated Right Turn Queue Lengths can be reduced by 50% to account for right-turns-on-red and right turn overlaps.

The queuing analysis recommends lengthening the northbound left turn lane from 515 feet to 700 feet plus transition for both the NO BUILD and BUILD conditions. The northbound left turn lane cannot be lengthened without adversely affecting the northbound turn lane to the south. Therefore, no recommendations are made for the queuing at the intersection of Irving Blvd. / Coors Blvd.

Intersection #2 - Paseo del Norte / Eagle Ranch Rd. (Appendix Pages A-50 thru A-77)

The results of the 2018 implementation year analysis of the signalized intersection of Paseo del Norte / Eagle Ranch Rd. are summarized in the following table:

Intersection: 2 - PASEO DEL NORTE / EAGLE RANCH RD.

		2018 AM Peak Hour BUILD					**2018 PM Peak Hour BUILD**				
		(EXIST. GEOM.)					(EXIST. GEOM.)				
		NO BUILD		BUILD			NO BUILD		BUILD		
		Lanes	LOS-Delay	Lanes	LOS-Delay		Lanes	LOS-Delay	Lanes	LOS-Delay	
EB	L	1	C - 23.6	1	C - 23.8	L	1	**F** - 112	1	**F** - 111	
	T	2	**F** - 298	2	**F** - 298	T	2	B - 15.1	2	B - 15.4	
	R	1	A - 0.0	1	A - 0.0	R	1	A - 0.0	1	A - 0.0	
WB	L	1	B - 12.2	1	B - 12.2	L	1	B - 13.1	1	B - 13.7	
	T	2	B - 14.1	2	B - 14.1	T	2	D - 35.1	2	D - 38.2	
	R	1	A - 0.0	1	A - 0.0	R	1	A - 0.0	1	A - 0.0	
NB	L	1	B - 17.9	1	B - 17.9	L	1	D - 48.5	1	D - 50.4	
	T	2	C - 22.5	2	C - 22.5	T	2	E - 56.6	2	E - 56.7	
	R	1	A - 0.0	1	A - 0.0	R	1	A - 0.0	1	A - 0.0	
SB	L	2	**F** - 716	2	**F** - 717	L	2	**F** - 92.6	2	**F** - 99.8	
	T	2	C - 23.2	2	C - 23.4	T	2	E - 65.3	2	E - 63.4	
	R	>	C - 23.3	>	C - 23.4	R	>	E - 71.5	>	E - 68.8	
Intersection:		***F - 351***		***F - 350***			***D - 44.6***		***D - 47.0***		

Note: ">" designates a shared right or left turn lane.

This report indicates that the signalized intersection of Paseo del Norte / Eagle Ranch Rd. experiences excessive delays during the AM Peak Hour NO BUILD and BUILD conditions. Specific movements will also experience excessive delays during the PM Peak Hour NO BUILD and BULD conditions. The traffic generated from the proposed development does not increase the delay during the AM Peak Hour and only adds 2.4 seconds of delay during the PM Peak Hour. Therefore, no recommendations are made for the intersection of Paseo del Norte / Eagle Ranch Rd.

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

Queueing Analysis Summary Sheet

Project: Eagle Ranch Retail (Irving Blvd. / Eagle Ranch Rd.)

Intersection: **Paseo del Norte / Eagle Ranch Rd.**

2018

Approach	Left Turns			Thru Movements				Right Turns			
Eastbound	# Lanes	Vol.	Length	# Lanes	Vol.	Length		# Lanes	Vol.	Length	
Existing Lane Length	*1*	*48*	*185*	*2*	*1,623*	*Cont*		*1*	*47*	*340*	
AM NO BUILD Queue	1	50	75	2	1,685	600		1	49	75	
AM BUILD Queue	**1**	**56**	**75**	**2**	**1,685**	**600**		**1**	**49**	**75**	
Existing Lane Length	*1*	*133*	*185*	*2*	*737*	*Cont*		*1*	*57*	*340*	
PM NO BUILD Queue	1	138	225	2	765	550		1	59	125	
PM BUILD Queue	**1**	**150**	**225**	**2**	**765**	**550**		**1**	**59**	**125**	
Westbound	# Lanes	Vol.	Length	# Lanes	Vol.	Length		# Lanes	Vol.	Length	
Existing Lane Length	*1*	*36*	*230*	*2*	*383*	*Cont*		*1*	*288*	*460*	
AM NO BUILD Queue	1	36	50	2	387	175		1	291	225	
AM BUILD Queue	**1**	**36**	**50**	**2**	**387**	**175**		**1**	**294**	**225**	
Existing Lane Length	*1*	*100*	*230*	*2*	*1,598*	*Cont*		*1*	*972*	*460*	
PM NO BUILD Queue	1	101	175	2	1,614	>1,000	*	1	982	>1,000	*
PM BUILD Queue	**1**	**101**	**175**	**2**	**1,614**	**>1,000**	*	**1**	**988**	**>1,000**	*
Northbound	# Lanes	Vol.	Length	# Lanes	Vol.	Length		# Lanes	Vol.	Length	
Existing Lane Length	*1*	*28*	*170*	*2*	*63*	*Cont*		*1*	*125*	*140*	
AM NO BUILD Queue	1	29	50	2	66	50		1	131	125	
AM BUILD Queue	**1**	**29**	**50**	**2**	**69**	**50**		**1**	**131**	**125**	
Existing Lane Length	*1*	*109*	*170*	*2*	*203*	*Cont*		*1*	*37*	*140*	
PM NO BUILD Queue	1	114	200	2	213	200		1	39	100	
PM BUILD Queue	**1**	**114**	**200**	**2**	**219**	**200**		**1**	**39**	**100**	
Southbound	# Lanes	Vol.	Length	# Lanes	Vol.	Length		# Lanes	Vol.	Length	
Existing Lane Length	*2*	*896*	*210*	*2*	*140*	*Cont*		*0*	*15*	*0*	
AM NO BUILD Queue	2	905	350	2	141	100		0	15	25	
AM BUILD Queue	**2**	**906**	**350**	**2**	**143**	**100**		**0**	**18**	**25**	
Existing Lane Length	*2*	*401*	*210*	*2*	*218*	*Cont*		*0*	*168*	*0*	
PM NO BUILD Queue	2	405	325	2	220	200		0	170	**250**	
PM BUILD Queue	**2**	**411**	**325**	**2**	**227**	**200**		**0**	**183**	**275**	

	AM	PM
Cycle Length:	65	130

NOTE: Queue lengths are in feet.

Calculated Right Turn Queue Lengths can be reduced by 50% to account for right-turns-on-red and right turn overlaps.

The queuing analysis recommends lengthening the eastbound (from 185 feet to 225 feet plus transition), northbound (from 170 feet to 200 feet plus transition) and southbound (from 210 to 350 feet plus transition) left turn lanes for both the NO BUILD and BUILD conditions. The proposed development contributes a minimal amount of traffic to the eastbound left turn lane and the lengthening would only allow for two additional vehicles and therefore, the developer should not be required to do this lengthening. The northbound left turn lane cannot be lengthened without adversely affecting the adjacent left turn lane to the south and the

southbound left turn lane cannot be lengthened without adversely affecting the adjacent left turn lane to the north. Therefore, no recommendations are made for the queuing at the intersection of Paseo del Norte / Eagle Ranch Rd.

Intersection #3 - Irving Blvd. / Eagle Ranch Rd. (Appendix Pages A-50 thru A-77)

The results of the 2018 implementation year analysis of the signalized intersection of Irving Blvd. / Eagle Ranch Rd. are summarized in the following table:

Intersection: 3 - IRVING BLVD. / EAGLE RANCH RD.

		2018 AM Peak Hour BUILD				2018 PM Peak Hour BUILD			
		(EXIST. GEOM.)				(EXIST. GEOM.)			
		NO BUILD		BUILD		NO BUILD		BUILD	
		Lanes	LOS-Delay	Lanes	LOS-Delay	Lanes	LOS-Delay	Lanes	LOS-Delay
EB	L	1	E - 56.3	1	E - 56.2	1	D - 42.7	1	D - 42.8
	T	2	E - 65.8	2	E - 65.7	2	D - 53.5	2	D - 53.6
	R	1	A - 0.0	1	A - 0.0	1	A - 0.0	1	A - 0.0
WB	L	1	D - 54.6	1	D - 54.6	1	D - 43.6	1	D - 44.3
	T	2	E - 56.7	2	E - 56.8	2	D - 53.3	2	D - 53.7
	R	1	E - 56.9	1	E - 57.0	1	E - 74.6	1	E - 80.1
NB	L	1	A - 7.6	1	A - 7.8	1	B - 14.1	1	B - 14.0
	T	2	A - 8.8	2	A - 8.9	2	C - 24.8	2	C - 25.5
	R	>	A - 8.8	>	A - 8.9	>	C - 24.8	>	C - 25.5
SB	L	1	A - 6.7	1	A - 6.8	1	B - 18.3	1	B - 19.1
	T	2	B - 11.9	2	B - 12.0	2	B - 17.1	2	B - 18.1
	R	>	B - 11.9	>	B - 12.0	>	B - 17.1	>	B - 18.1
Intersection:		***C - 24.1***		***C - 24.0***		***D - 36.4***		***D - 37.0***	

Note: ">" designates a shared right or left turn lane.

The analysis indicates that the signalized intersection of Irving Blvd. / Eagle Ranch Rd. operates at acceptable levels-of-service and delays for the 2018 AM Peak Hour and PM Peak Hour NO BUILD and BUILD conditions for the overall intersection. Specific movements will experience excessive delays during the AM Peak Hour and PM Peak Hour NO BUILD and BUILD conditions. The traffic generated by the proposed development does not increase the delay at the intersection during the AM Peak Hour and increases the delay during the PM Peak Hour by only 0.6 seconds. Therefore, no recommendations are made for the intersection of Irving Blvd. / Eagle Ranch Rd.

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

Queueing Analysis Summary Sheet

Project: Eagle Ranch Retail (Irving Blvd. / Eagle Ranch Rd.)

Intersection: **Irving Blvd. / Eagle Ranch Rd.**

2018

Approach	Left Turns			Thru Movements			Right Turns		
Eastbound	# Lanes	Vol.	Length	# Lanes	Vol.	Length	# Lanes	Vol.	Length
Existing Lane Length	*1*	*35*	*100*	*2*	*153*	*Cont*	*1*	*47*	*240*
AM NO BUILD Queue	1	35	75	2	155	175	1	47	100
AM BUILD Queue	**1**	**35**	**75**	**2**	**157**	**175**	**1**	**54**	**125**
Existing Lane Length	*1*	*145*	*100*	*2*	*378*	*Cont*	*1*	*87*	*240*
PM NO BUILD Queue	1	146	250	2	382	325	1	88	**175**
PM BUILD Queue	**1**	**146**	**250**	**2**	**390**	**325**	**1**	**118**	**200**
Westbound	# Lanes	Vol.	Length	# Lanes	Vol.	Length	# Lanes	Vol.	Length
Existing Lane Length	*1*	*119*	*115*	*2*	*124*	*Cont*	*1*	*49*	*115*
AM NO BUILD Queue	1	120	200	2	125	150	1	49	100
AM BUILD Queue	**1**	**120**	**200**	**2**	**129**	**150**	**1**	**53**	**125**
Existing Lane Length	*1*	*163*	*115*	*2*	*389*	*Cont*	*1*	*246*	*115*
PM NO BUILD Queue	1	165	275	2	393	**325**	1	248	375
PM BUILD Queue	**1**	**165**	**275**	**2**	**400**	**350**	**1**	**255**	**375**
Northbound	# Lanes	Vol.	Length	# Lanes	Vol.	Length	# Lanes	Vol.	Length
Existing Lane Length	*1*	*26*	*160*	*2*	*208*	*Cont*	*0*	*51*	*0*
AM NO BUILD Queue	1	26	75	2	210	200	0	52	125
AM BUILD Queue	**1**	**40**	**100**	**2**	**224**	**225**	**0**	**52**	**125**
Existing Lane Length	*1*	*87*	*160*	*2*	*822*	*Cont*	*0*	*207*	*0*
PM NO BUILD Queue	1	88	**175**	2	830	**625**	0	209	325
PM BUILD Queue	**1**	**116**	**200**	**2**	**858**	**650**	**0**	**209**	**325**
Southbound	# Lanes	Vol.	Length	# Lanes	Vol.	Length	# Lanes	Vol.	Length
Existing Lane Length	*1*	*75*	*120*	*2*	*729*	*Cont*	*0*	*133*	*0*
AM NO BUILD Queue	1	76	150	2	736	575	0	134	225
AM BUILD Queue	**1**	**78**	**150**	**2**	**743**	**575**	**0**	**134**	**225**
Existing Lane Length	*1*	*123*	*120*	*2*	*378*	*Cont*	*0*	*54*	*0*
PM NO BUILD Queue	1	124	225	2	382	**325**	0	55	125
PM BUILD Queue	**1**	**132**	**225**	**2**	**412**	**350**	**0**	**55**	**125**

	AM	PM
Cycle Length:	140	140

NOTE: Queue lengths are in feet.

Calculated Right Turn Queue Lengths can be reduced by 50% to account for right-turns-on-red and right turn overlaps.

The queuing analysis recommends lengthening the eastbound (from 100 feet to 250 feet plus transition), westbound (from 115 feet to 275 feet plus transition), northbound (from 160 feet to 200 feet plus transition) and southbound (from 120 feet to 225 feet plus transition) left turn lanes for both the NO BUILD and BUILD conditions. These left turn lanes cannot be

lengthened without adversely affecting the adjacent left turn lanes; therefore, no recommendations are made for the queuing at the intersection of Irving Blvd. / Eagle Ranch Rd.

Intersection #4 - Coors By-pass / Eagle Ranch Rd. (Appendix Pages A-50 thru A-77)

The results of the 2018 implementation year analysis of the signalized intersection of Coors By-Pass / Eagle Ranch Rd. are summarized in the following table:

Intersection: 4 - COORS BYPASS / EAGLE RANCH RD.

		2018 AM Peak Hour BUILD					2018 PM Peak Hour BUILD			
		(EXIST. GEOM.)					(EXIST. GEOM.)			
		NO BUILD		BUILD			NO BUILD		BUILD	
		Lanes	LOS-Delay	Lanes	LOS-Delay		Lanes	LOS-Delay	Lanes	LOS-Delay
EB	L	2	C - 22.3	2	C - 22.3	L	2	D - 39.1	2	D - 39.1
	T	3	C - 24.7	3	C - 24.7	T	3	B - 18.4	3	B - 18.6
	R	1	A - 0.0	1	A - 0.0	R	1	A - 0.0	1	A - 0.0
WB	L	2	C - 23.0	2	C - 23.1	L	2	D - 41.5	2	D - 40.5
	T	3	B - 14.8	3	B - 14.8	T	3	D - 45.5	3	D - 45.3
	R	1	A - 0.0	1	A - 0.0	R	1	A - 0.0	1	A - 0.0
NB	L	2	C - 23.8	2	C - 23.8	L	2	E - 80.0	2	E - 79.7
	T	1	C - 23.0	1	C - 23.0	T	1	C - 30.9	1	C - 31.7
	R	1	A - 0.0	1	A - 0.0	R	1	A - 0.0	1	A - 0.0
SB	L	2	C - 22.3	2	C - 22.4	L	2	D - 41.1	2	D - 41.2
	T	2	C - 22.4	2	C - 22.4	T	2	D - 37.2	2	D - 37.3
	R	1	A - 0.0	1	A - 0.0	R	1	A - 0.0	1	A - 0.0
Intersection:		***C - 21.0***		***C - 21.1***			***D - 40.8***		***D - 40.7***	

Note: ">" designates a shared right or left turn lane.

The analysis indicates that the signalized intersection of Eagle Ranch Rd. / Coors By-pass will operate at acceptable levels-of-service and delays for the projected 2018 AM Peak Hour and PM Peak Hour NO BUILD and BUILD Conditions. The northbound left turn lane will experience marginally excessive delays during the PM Peak Hour NO BUILD and BUILD conditions; however, the traffic generated by the proposed development will not increase the delay at the intersection during the PM Peak Hour and will increase the delay by only 0.1 seconds during the AM Peak Hour. Therefore, no recommendations are made for the intersection of Coors By-pass / Eagle Ranch Rd.

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

Queueing Analysis Summary Sheet

Project: Eagle Ranch Retail (Irving Blvd. / Eagle Ranch Rd.)

Intersection: **Coors Bypass / Eagle Ranch Rd.**

2018

Approach	Left Turns			Thru Movements			Right Turns		
Eastbound	# Lanes	Vol.	Length	# Lanes	Vol.	Length	# Lanes	Vol.	Length
Existing Lane Length	*2*	*16*	*190*	*3*	*1,494*	*Cont*	*1*	*183*	*305*
AM NO BUILD Queue	2	16	25	3	1,509	400	1	185	175
AM BUILD Queue	**2**	**16**	**25**	**3**	**1,509**	**400**	**1**	**200**	**175**
Existing Lane Length	*2*	*145*	*190*	*3*	*1,113*	*Cont*	*1*	*230*	*305*
PM NO BUILD Queue	2	146	125	3	1,124	400	1	232	**250**
PM BUILD Queue	**2**	**146**	**125**	**3**	**1,124**	**400**	**1**	**261**	**275**
Westbound	# Lanes	Vol.	Length	# Lanes	Vol.	Length	# Lanes	Vol.	Length
Existing Lane Length	*2*	*61*	*430*	*3*	*952*	*Cont*	*1*	*23*	*450*
AM NO BUILD Queue	2	62	50	3	962	275	1	23	50
AM BUILD Queue	**2**	**66**	**50**	**3**	**962**	**275**	**1**	**23**	**50**
Existing Lane Length	*2*	*211*	*430*	*3*	*2,221*	*Cont*	*1*	*182*	*450*
PM NO BUILD Queue	2	213	150	3	2,243	725	1	184	200
PM BUILD Queue	**2**	**221**	**150**	**3**	**2,243**	**725**	**1**	**184**	**200**
Northbound	# Lanes	Vol.	Length	# Lanes	Vol.	Length	# Lanes	Vol.	Length
Existing Lane Length	*2*	*111*	*225*	*1*	*25*	*Cont*	*1*	*12*	*270*
AM NO BUILD Queue	2	112	**75**	1	25	50	1	12	25
AM BUILD Queue	**2**	**112**	**75**	**1**	**25**	**50**	**1**	**12**	**25**
Existing Lane Length	*2*	*431*	*225*	*1*	*147*	*Cont*	*1*	*34*	*270*
PM NO BUILD Queue	2	435	250	1	148	175	1	34	75
PM BUILD Queue	**2**	**435**	**250**	**1**	**148**	**175**	**1**	**34**	**75**
Southbound	# Lanes	Vol.	Length	# Lanes	Vol.	Length	# Lanes	Vol.	Length
Existing Lane Length	*2*	*6*	*340*	*2*	*16*	*Cont*	*1*	*3*	*180*
AM NO BUILD Queue	2	6	0	2	16	25	1	3	0
AM BUILD Queue	**2**	**13**	**25**	**2**	**16**	**25**	**1**	**5**	**0**
Existing Lane Length	*2*	*113*	*340*	*2*	*265*	*Cont*	*1*	*60*	*180*
PM NO BUILD Queue	2	114	**100**	2	268	175	1	61	100
PM BUILD Queue	**2**	**146**	**125**	**2**	**268**	**175**	**1**	**69**	**100**

	AM	PM
Cycle Length:	**65**	**90**

NOTE: Queue lengths are in feet.

Calculated Right Turn Queue Lengths can be reduced by 50% to account for right-turns-on-red and right turn overlaps.

No recommendations are made for the queuing at the intersection of Coors By-Pass / Eagle Ranch Rd.

Intersection #5 - Irving Blvd. / Golf Course Rd. (Appendix Pages A-50 thru A-77)

The results of the 2018 implementation year analysis of the signalized intersection of Irving Blvd. / Golf Course Rd. are summarized in the following table:

Intersection: 5 - IRVING BLVD. / GOLF COURSE RD.

2018 AM Peak Hour BUILD

		(EXIST. GEOM.) NO BUILD		(EXIST. GEOM.) BUILD		(MIT. GEOM.) BUILD	
		Lanes	LOS-Delay	Lanes	LOS-Delay	Lanes	LOS-Delay
EB	L	2	C - 29.3	2	C - 29.3	2	C - 32.5
	T	2	D - 35.4	2	D - 35.7	2	D - 44.2
	R	>	D - 36.2	>	D - 36.4	>	D - 45.3
WB	L	1	C - 27.8	1	C - 28.0	1	C - 30.9
	T	2	B - 19.2	2	B - 19.2	2	C - 21.4
	R	1	C - 22.5	1	C - 22.8	1	B - 14.1
NB	L	1	B - 16.9	1	B - 16.9	1	B - 19.3
	T	2	C - 28.3	2	C - 28.9	2	D - 36.9
	R	>	C - 28.1	>	C - 28.7	>	D - 36.6
SB	L	2	**F** - 251	2	**F** - 264	2	E - 64.6
	T	2	**F** - 100	2	**F** - 101	2	D - 45.6
	R	1	B - 16.6	1	B - 16.6	1	B - 12.4
Intersection:			***F - 90.7***		***F - 93.5***		***D - 43.7***

2018 PM Peak Hour BUILD

		(EXIST. GEOM.) NO BUILD		(EXIST. GEOM.) BUILD		(MIT. GEOM.) BUILD	
		Lanes	LOS-Delay	Lanes	LOS-Delay	Lanes	LOS-Delay
EB	L	2	E - 69.3	2	**F** - 81.7	2	D - 38.8
	T	2	C - 27.3	2	C - 29.5	2	C - 29.7
	R	>	C - 27.4	>	C - 29.6	>	C - 29.9
WB	L	1	E - 64.7	1	E - 70.2	1	E - 59.7
	T	2	C - 27.4	2	C - 28.8	2	C - 31.8
	R	1	**F** - 176	1	**F** - 183	1	F - 270
NB	L	1	C - 27.2	1	C - 29.3	1	B - 15.3
	T	2	E - 69.3	2	E - 78.6	2	D - 39.6
	R	>	E - 68.7	>	E - 78.1	>	D - 39.2
SB	L	2	**F** - 109	2	**F** - 107	2	D - 36.9
	T	2	C - 33.8	2	D - 35.6	2	B - 17.8
	R	1	C - 28.0	1	C - 29.6	1	B - 12.1
Intersection:			***E - 73.1***		***E - 78.7***		***E - 72.6***

Note: ">" designates a shared right or left turn lane.

Mitigation includes adding traffic signal equipment to make the WB and SB right turns permitted plus overlap.

The analysis demonstrates that the intersection of Irving Blvd. / Golf Course Rd. will experience excessive delays during both the AM Peak hour and PM Peak Hour NO BUILD and BUILD conditions. The intersection may be mitigated by adding traffic signal equipment to make the westbound and southbound right turns permitted plus protected.

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

Queueing Analysis Summary Sheet

Project: Eagle Ranch Retail (Irving Blvd. / Eagle Ranch Rd.)

Intersection: **Irving Blvd. / Golf Course Rd.**

2018

Approach	Left Turns			Thru Movements			Right Turns		
Eastbound	# Lanes	Vol.	Length	# Lanes	Vol.	Length	# Lanes	Vol.	Length
Existing Lane Length	*2*	*103*	*115*	*2*	*484*	*Cont*	*0*	*124*	*0*
AM NO BUILD Queue	2	107	75	2	504	225	0	129	125
AM BUILD Queue	**2**	**107**	**75**	**2**	**507**	**225**	**0**	**129**	**125**
Existing Lane Length	*2*	*88*	*115*	*2*	*200*	*Cont*	*0*	*56*	*0*
PM NO BUILD Queue	2	92	100	2	208	150	0	58	100
PM BUILD Queue	**2**	**92**	**100**	**2**	**214**	**150**	**0**	**58**	**100**
Westbound	# Lanes	Vol.	Length	# Lanes	Vol.	Length	# Lanes	Vol.	Length
Existing Lane Length	*1*	*14*	*170*	*2*	*70*	*Cont*	*1*	*178*	*250*
AM NO BUILD Queue	1	14	25	2	71	50	1	180	175
AM BUILD Queue	**1**	**17**	**25**	**2**	**73**	**50**	**1**	**186**	**175**
Existing Lane Length	*1*	*61*	*170*	*2*	*388*	*Cont*	*1*	*690*	*250*
PM NO BUILD Queue	1	62	**100**	2	392	250	1	697	**675**
PM BUILD Queue	**1**	**74**	**125**	**2**	**399**	**250**	**1**	**724**	**700**
Northbound	# Lanes	Vol.	Length	# Lanes	Vol.	Length	# Lanes	Vol.	Length
Existing Lane Length	*1*	*26*	*180*	*2*	*589*	*Cont*	*0*	*15*	*0*
AM NO BUILD Queue	1	26	50	2	595	275	0	15	25
AM BUILD Queue	**1**	**26**	**50**	**2**	**595**	**275**	**0**	**21**	**50**
Existing Lane Length	*1*	*115*	*180*	*2*	*1,095*	*Cont*	*0*	*28*	*0*
PM NO BUILD Queue	1	116	150	2	1,106	600	0	28	**50**
PM BUILD Queue	**1**	**116**	**150**	**2**	**1,106**	**600**	**0**	**39**	**75**
Southbound	# Lanes	Vol.	Length	# Lanes	Vol.	Length	# Lanes	Vol.	Length
Existing Lane Length	*2*	*574*	*190*	*2*	*1,098*	*Cont*	*1*	*51*	*115*
AM NO BUILD Queue	2	580	275	2	1,109	450	1	52	75
AM BUILD Queue	**2**	**592**	**275**	**2**	**1,109**	**450**	**1**	**52**	**75**
Existing Lane Length	*2*	*268*	*190*	*2*	*816*	*Cont*	*1*	*178*	*115*
PM NO BUILD Queue	2	271	200	2	824	475	1	180	225
PM BUILD Queue	**2**	**296**	**200**	**2**	**824**	**475**	**1**	**180**	**225**

	AM	PM
Cycle Length:	70	100

NOTE: Queue lengths are in feet.

Calculated Right Turn Queue Lengths can be reduced by 50% to account for right-turns-on-red and right turn overlaps.

The queuing analysis recommends lengthening the westbound right turn lane from 250 feet to 350 feet and the southbound left turn lane from 190 feet to 275 feet plus transition for both the NO BUILD and BUILD conditions. The westbound right turn lane cannot be lengthened due to inadequate right-of-way and the southbound left turn lane cannot be lengthened without adversely affecting the adjacent left turn lane to the north. Therefore, no recommendations are made for the queuing at the intersection of Irving Blvd. / Golf Course Rd.

RESULTS OF UNSIGNALIZED INTERSECTION CAPACITY ANALYSES

IMPLEMENTATION YEAR (2018)

Intersection #6 - Westside Dr. / Eagle Ranch Rd. (Appendix Pages A-50 thru A-77)

The results of the analysis of the unsignalized intersection of Westside Dr. / Eagle Ranch Rd. are summarized in the following table:

Intersection: 6 - WESTSIDE DR. / EAGLE RANCH RD.

		2018 AM Peak Hour BUILD					2018 PM Peak Hour BUILD				
		(EXIST. GEOM.)					(EXIST. GEOM.)				
		NO BUILD		BUILD			NO BUILD		BUILD		
		Lanes	LOS-Delay	Lanes	LOS-Delay		Lanes	LOS-Delay	Lanes	LOS-Delay	
EB	L	>	B - 14.2	>	C - 16.3	L	>	B - 14.5	>	**F** - 85.4	
	T	1	B - 14.2	1	C - 16.3	T	1	B - 14.5	1	**F** - 85.4	
	R	>	B - 14.2	>	C - 16.3	R	>	B - 14.5	>	**F** - 85.4	
WB	L	>	B - 13.1	>	B - 13.8	L	>	D - 29.1	>	E - 40.1	
	T	1	B - 13.1	1	B - 13.8	T	1	D - 29.1	1	E - 40.1	
	R	>	B - 13.1	>	B - 13.8	R	>	D - 29.1	>	E - 40.1	
NB	L	1	A - 8.5	1	A - 8.6	L	1	A - 9.5	1	A - 9.9	
	T	2	A - 0.0	2	A - 0.0	T	2	A - 0.0	2	A - 0.0	
	R	>	A - 0.0	>	A - 0.0	R	>	A - 0.0	>	A - 0.0	
SB	L	1	A - 8.2	1	A - 8.2	L	1	A - 9.2	1	A - 9.2	
	T	2	A - 0.0	2	A - 0.0	T	2	A - 0.0	2	A - 0.0	
	R	>	A - 0.0	>	A - 0.0	R	>	A - 0.0	>	A - 0.0	
Intersection:		***u - 1.8***		***u - 2.4***			***u - 2.2***		***u - 8.7***		

Note: ">" designates a shared right or left turn lane.

The analysis demonstrates that the eastbound and westbound movements will experience excessive delays during the PM Peak Hour BUILD condition. However, there is a traffic signal to the south at Irving Blvd. / Eagle Ranch Rd. and a traffic signal to the north at Coors By-Pass / Eagle Ranch Rd. which will create gaps in traffic allowing the eastbound and westbound vehicles turning left to turn with greater ease onto Eagle Ranch Rd. than what is demonstrated in the table above. Therefore, no recommendations are made for the intersection of Westside Dr. / Eagle Ranch Rd.

The 60 or more vehicle per hour requirement to provide a right turn deceleration lane per the City of Albuquerque Process is not met at the intersection of Westside Dr. / Eagle Ranch Rd.

Intersection #7 - Driveway "A" / Irving Blvd. (Appendix Pages A-50 thru A-77a)

The results of the analysis of the unsignalized intersection of Driveway "A" / Irving Blvd. are summarized in the following table:

Intersection: 7 - IRVING BLVD. / DRIVEWAY "A"

2018 AM Peak Hour BUILD

		(EXIST. GEOM.) NO BUILD		(EXIST. GEOM.) BUILD		(MIT. GEOM.) BUILD	
		Lanes	LOS-Delay	Lanes	LOS-Delay	Lanes	LOS-Delay
WB	L	1	A - 0.0	1	C - 15.6	1	C - 20.8
	R	>	A - 0.0	>	C - 15.6	1	A - 9.4
NB	T	2	A - 0.0	2	A - 0.0	2	A - 0.0
	R	>	A - 0.0	>	A - 0.0	>	A - 0.0
SB	L	>	A - 0.0	>	A - 8.1	>	A - 0.1
	T	2	A - 0.0	2	A - 0.3	2	A - 0.3
Intersection:			***u - 0.0***		***u - 0.8***		***u - 0.8***

2018 PM Peak Hour BUILD

		(EXIST. GEOM.) NO BUILD		(EXIST. GEOM.) BUILD		(MIT. GEOM.) BUILD	
		Lanes	LOS-Delay	Lanes	LOS-Delay	Lanes	LOS-Delay
WB	L	1	A - 0.0	1	**F** - 120	1	**F** - 144
	R	>	A - 0.0	>	**F** - 120	1	C - 15.8
NB	T	2	A - 0.0	2	A - 0.0	2	A - 0.0
	R	>	A - 0.0	>	A - 0.0	>	A - 0.0
SB	L	>	A - 0.0	>	B - 12.9	>	B - 12.9
	T	2	A - 0.0	2	A - 0.9	2	A - 0.9
Intersection:			***u - 0.0***		***u - 7.8***		***u - 4.7***

Note: ">" designates a shared right or left turn lane.

Mitigation includes constructing a separate westbound left turn lane.

The analysis demonstrates that the westbound shared left / right turn movements will experience excessive delays during the PM Peak Hour BUILD condition. However, there is a traffic signal to the south at Irving Blvd. / Eagle Ranch Rd. and a traffic signal to the north at Irving Blvd. / Golf Course Rd. which will create gaps in traffic allowing the westbound vehicles turning left and right to turn with greater ease onto Irving Blvd. than what is demonstrated in the table above. The westbound right turn movement may be mitigated by constructing separate westbound left and right turn lanes.

The 60 or more vehicle per hour requirement to provide a right turn deceleration lane per the City of Albuquerque Process is not met at the intersection of Westside Dr. / Eagle Ranch Rd.

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 SIGNALIZED INTERSECTIONS

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

LEVEL-OF-SERVICE CRITERIA FOR UNSIGNALIZED INTERSECTIONS

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

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

CONCLUSIONS

This analysis was conducted using the following methodology: Trip Generation was established using the Institute of Transportation Engineers' (ITE's) Trip Generation Manual (9th Edition). Generated Trips were distributed proportionately based on the Population Data Analysis Subzones within a two-mile radius of the proposed development for commercial properties; growth rate of background traffic volumes was established from DASZ Traffic Flow data from 2005 through 2014; and the intersection analyses were performed in accordance with the 2010 Highway Capacity Manual. The Traffic Impact Study showed a minimal impact on the adjacent transportation network based on 100% buildout of the proposed project.

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

RECOMMENDATIONS

- All design and construction for this project shall comply with City of Albuquerque requirements and shall insure that adequate site distances at the proposed access points.
- Driveways shall be constructed using a minimum of 25-foot radius curb returns. The driveways (Driveway "A" onto Irving Blvd. and Westside Dr. onto Eagle Ranch Rd.) shall be constructed with one exiting lane and one entering lane.
- **Irving Blvd. / Golf Course Rd.** – Install traffic signal equipment to make the westbound and southbound right turns permitted plus protected.
- **Driveway "A" / Irving Blvd.** – Construct separate westbound left and right turn lanes.

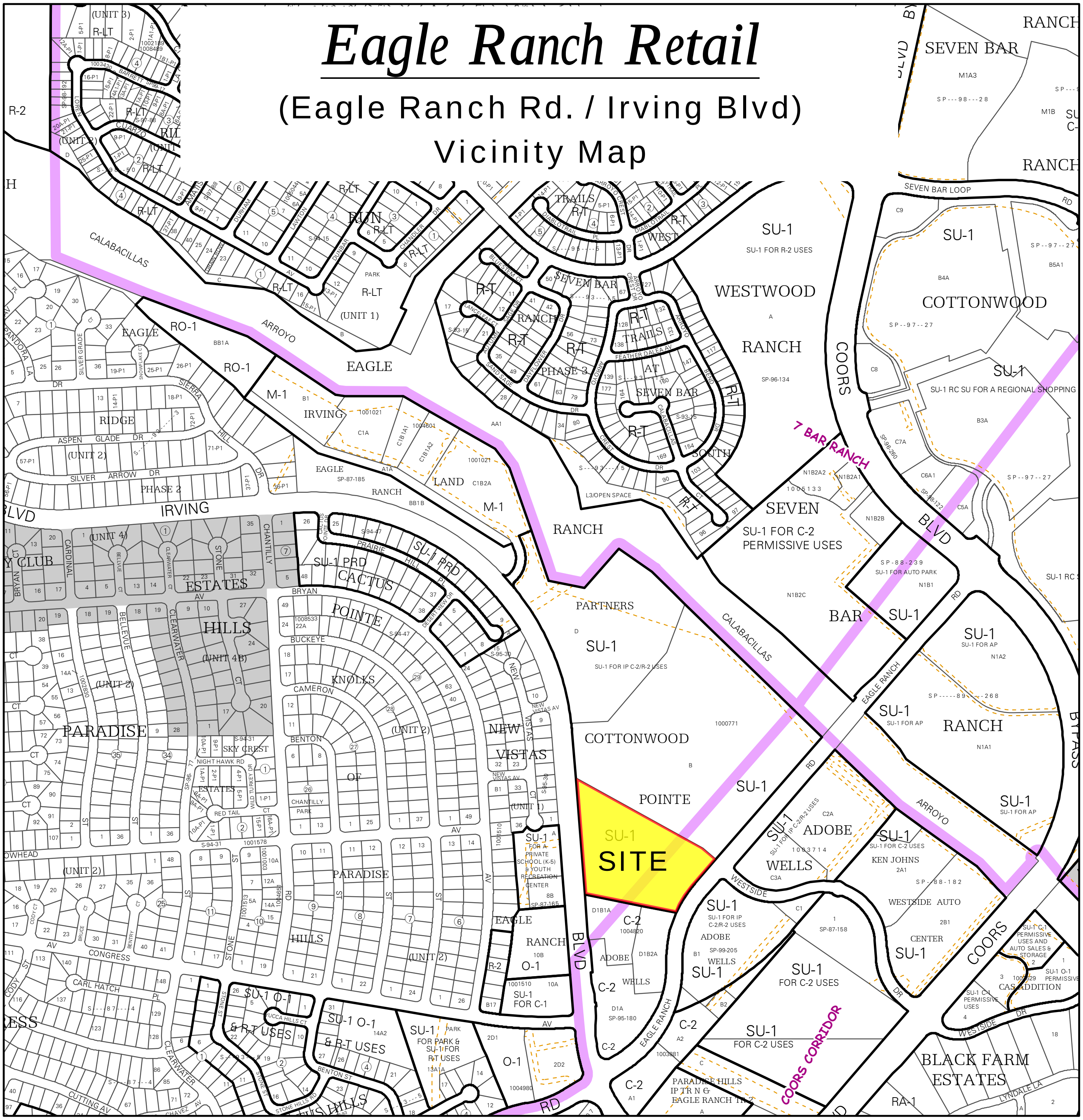
Appendix

APPENDIX

Eagle Ranch Retail

(Eagle Ranch Rd. / Irving Blvd)

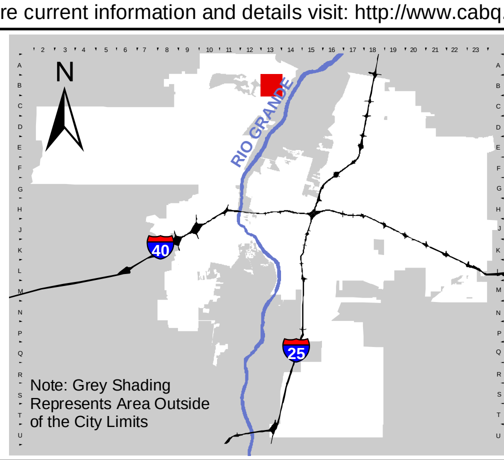
Vicinity Map



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

AGIS
Albuquerque Geographic Information System

Map amended through: 1/28/2016



Note: Grey Shading Represents Area Outside of the City Limits

Zone Atlas Page:

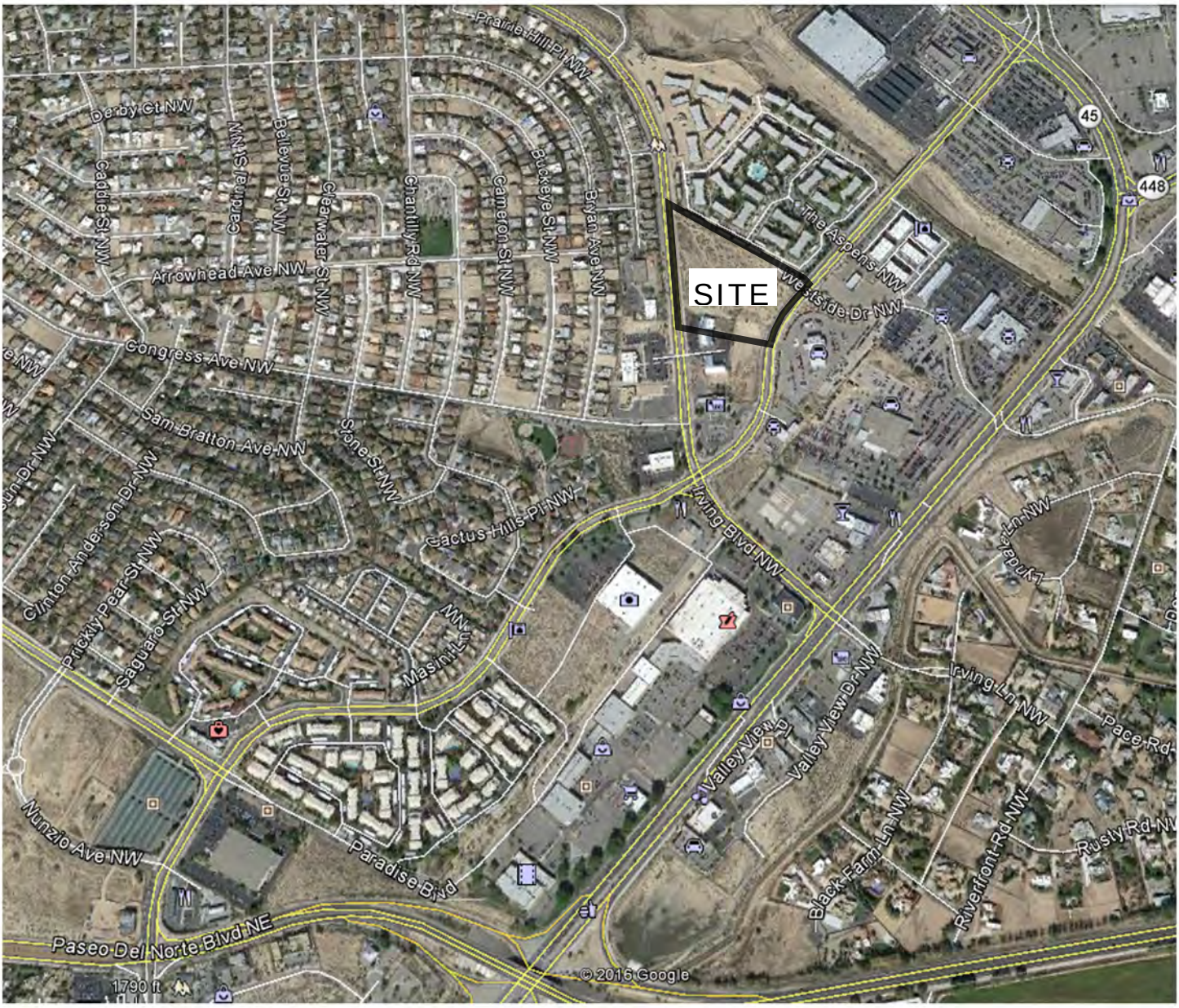
B-13-Z

Selected Symbols

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

0 750 1,500 Feet

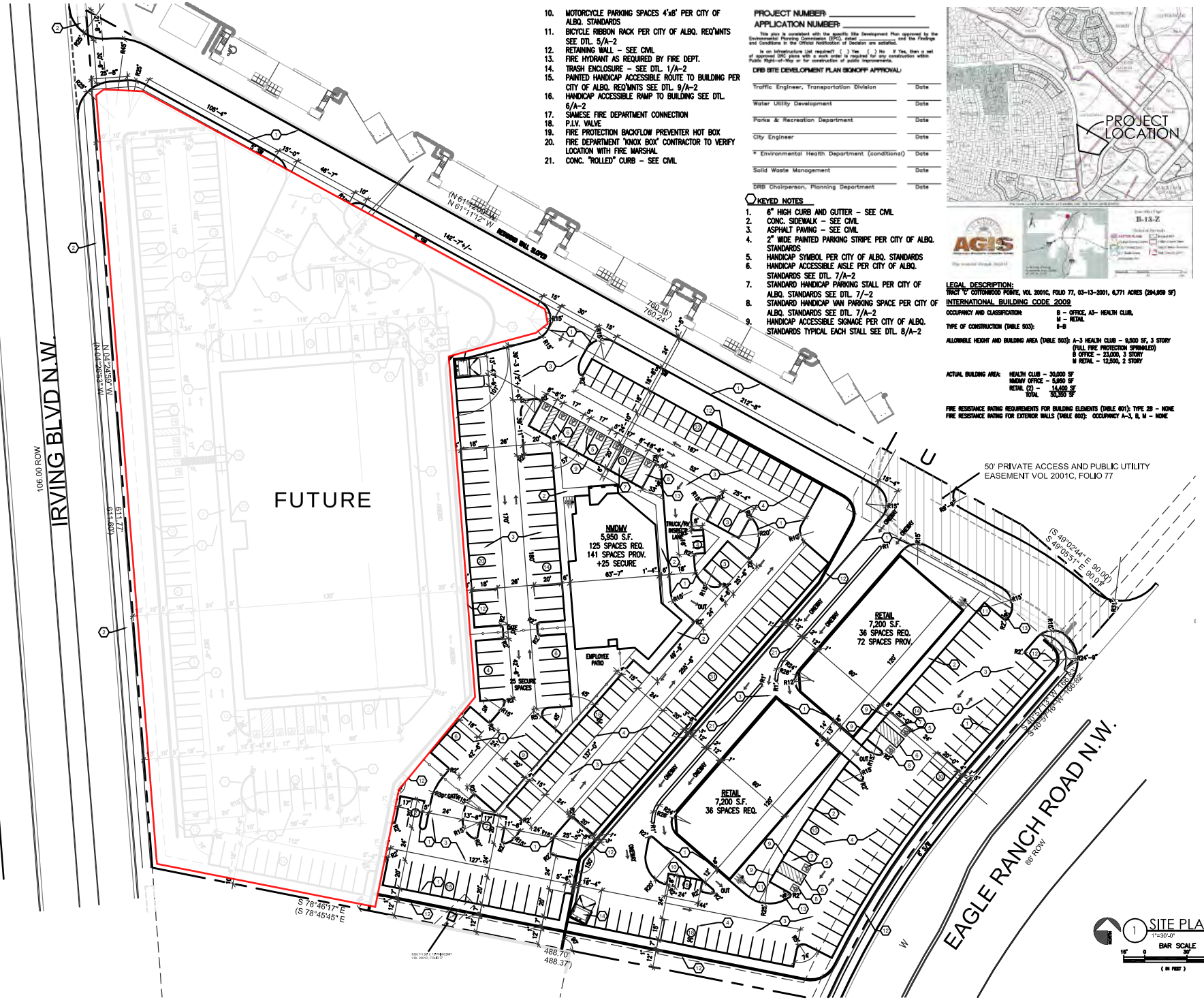
A-1



Eagle Ranch Retail

(Eagle Ranch Rd. / Irving Blvd)

Aerial Map



10. MOTORCYCLE PARKING SPACES 4'x8' PER CITY OF ALBQ. STANDARDS
11. BICYCLE RIBBON RACK PER CITY OF ALBQ. REQ'MNTS SEE DTL. 5/A-2
12. RETAINING WALL – SEE CIVIL
13. FIRE HYDRANT AS REQUIRED BY FIRE DEPT.
14. TRASH ENCLOSURE – SEE DTL. 1/A-2
15. PAINTED HANDICAP ACCESSIBLE ROUTE TO BUILDING PER CITY OF ALBQ. REQ'MNTS SEE DTL. 9/A-2
16. HANDICAP ACCESSIBLE RAMP TO BUILDING SEE DTL. 6/A-2
17. SIAMESE FIRE DEPARTMENT CONNECTION
18. P.I.V. VALVE
19. FIRE PROTECTION BACKFLOW PREVENTER HOT BOX
20. FIRE DEPARTMENT "KNOX BOX" CONTRACTOR TO VERIFY LOCATION WITH FIRE MARSHAL
21. CONC. "ROLLED" CURB – SEE CIVIL

PROJECT NUMBER: _____

APPLICATION NUMBER: _____

This plan is consistent with the specific Site Development Plan approved by the Environmental Planning Commission (EPC), dated _____, and the Findings and Conditions in the Official Notification of Decision are satisfied.

Is an Infrastructure List required? ( ) Yes ( ) No If Yes, then a set of approved DRC plans with a work order is required for any construction within Public Right-of-Way or for construction of public improvements.

DRB SITE DEVELOPMENT PLAN SIGNOFF APPROVAL:

Traffic Engineer, Transportation Division	Date
Water Utility Development	Date
Parks & Recreation Department	Date
City Engineer	Date
* Environmental Health Department (conditional)	Date
Solid Waste Management	Date
DRB Chairperson, Planning Department	Date

KEYED NOTES

1. 6" HIGH CURB AND GUTTER – SEE CIVIL
2. CONC. SIDEWALK – SEE CIVIL
3. ASPHALT PAVING – SEE CIVIL
4. 2" WIDE PAINTED PARKING STRIPE PER CITY OF ALBQ. STANDARDS
5. HANDICAP SYMBOL PER CITY OF ALBQ. STANDARDS
6. HANDICAP ACCESSIBLE AISLE PER CITY OF ALBQ. STANDARDS SEE DTL. 7/A-2
7. STANDARD HANDICAP PARKING STALL PER CITY OF ALBQ. STANDARDS SEE DTL. 7/-2
8. STANDARD HANDICAP VAN PARKING SPACE PER CITY OF ALBQ. STANDARDS SEE DTL. 7/A-2
9. HANDICAP ACCESSIBLE SIGNAGE PER CITY OF ALBQ. STANDARDS TYPICAL EACH STALL SEE DTL. 8/A-2

LEGAL DESCRIPTION:
TRACT 'C' COTTONWOOD POINTE, VOL 2001C, FOLIO 77, 03-13-2001, 6.771 ACRES (294,959 SF)

INTERNATIONAL BUILDING CODE 2009

OCCUPANCY AND CLASSIFICATION: B – OFFICE, A3– HEALTH CLUB, M – RETAIL

TYPE OF CONSTRUCTION (TABLE 503): II-B

ALLOWABLE HEIGHT AND BUILDING AREA (TABLE 503): A-3 HEALTH CLUB – 9,500 SF, 3 STORY (FULL FIRE PROTECTION SPRINKLED); B OFFICE – 23,000, 3 STORY; M RETAIL – 12,500, 2 STORY

ACTUAL BUILDING AREA:

HEALTH CLUB –	30,000 SF
NMDMV OFFICE –	5,950 SF
RETAIL (2) –	14,400 SF
TOTAL	50,350 SF

FIRE RESISTANCE RATING REQUIREMENTS FOR BUILDING ELEMENTS (TABLE 601): TYPE 2B – NONE
FIRE RESISTANCE RATING FOR EXTERIOR WALLS (TABLE 602): OCCUPANCY A-3, B, M – NONE

EAGLE RANCH RETAIL
OVERALL ARCHITECTURAL SITE PLAN
ALBUQUERQUE, NEW MEXICO
PROJECT #1555

REVISION DATE

STATE OF NEW MEXICO
RICHARD P. BENNETT
No. 1240
2/24/16
REGISTERED ARCHITECT

RBA ARCHITECTURE, PC

DATE
02-24-2016

SHEET NUMBER
AS-1.0

A-3

Futures 2040 Metropolitan Transportation Plan

MRMPO
Mid-Region Metropolitan Planning Organization

2040 Long Range Roadway System

- Interchange/Crossing
- Interchange/Crossing, Post 2040
- Freeways
- Regional Principal Arterial
- Community Principal Arterial
- Minor Arterial
- Major Collector
- Minor Collector
- Proposed Regional Principal Arterial
- Proposed Community Principal Arterial
- Proposed Minor Arterial
- Proposed Major Collector
- Proposed Minor Collector
- Proposed Regional Principal Arterial, Post 2040
- Proposed Community Principal Arterial, Post 2040
- Proposed Minor Arterial, Post 2040
- Proposed Major Collector, Post 2040
- Proposed Minor Collector, Post 2040
- Classification TBD, Post 2040

The Long Range Roadway System (LRRS) provides future recommended roadways and their regional role. This network includes roadways that are not expected to be constructed in the timeframe of the 2040 MTP, however they are included to in order to identify future needed connections.

The LRRS builds upon functional classification, by considering the character of the roadway, its role in the regional network, the types of trips taken, and the needs to all users.

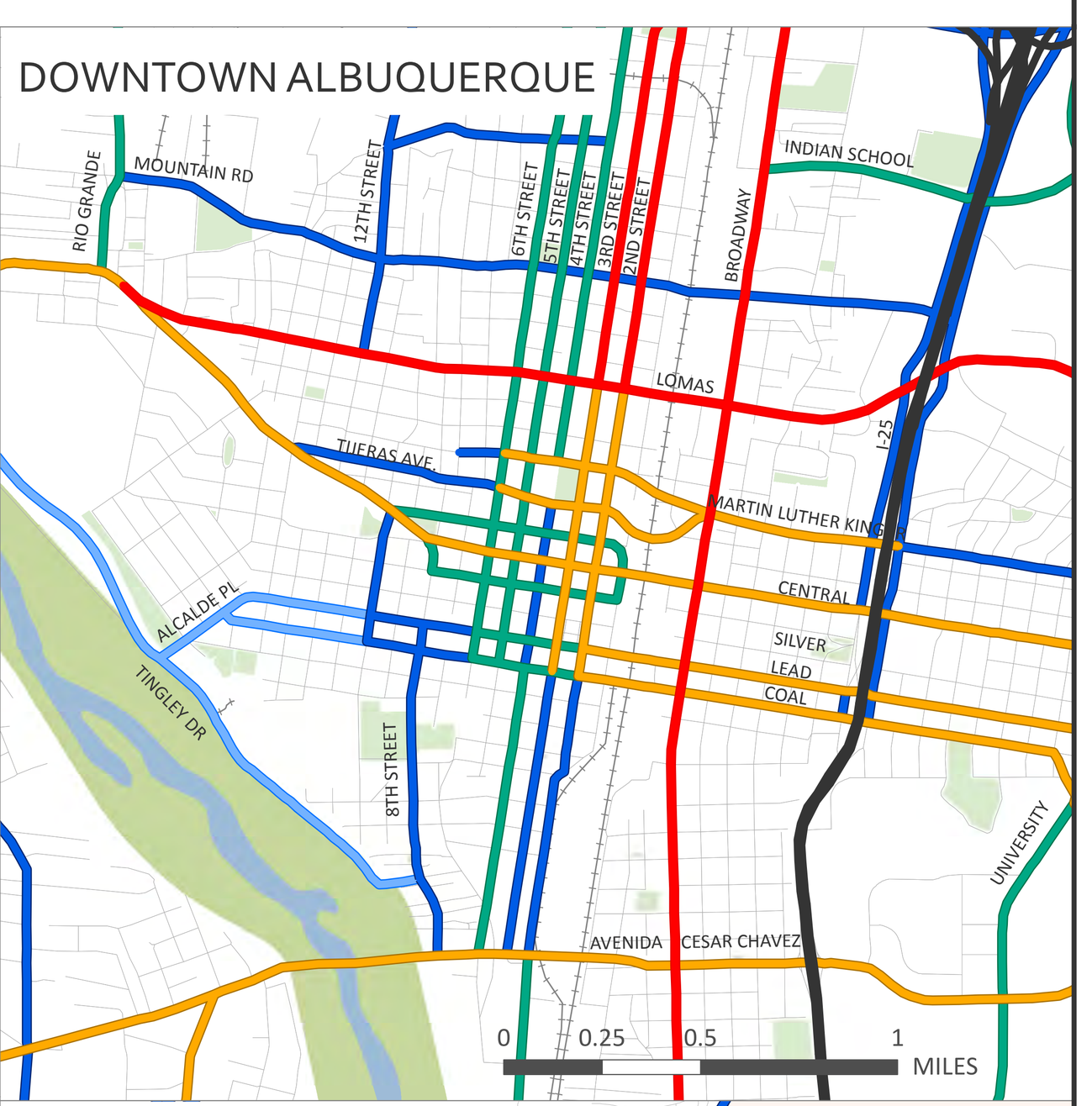
REGIONAL PRINCIPAL ARTERIAL
Trips on regional principal arterials are primarily for traveling longer distances across the region. Regional principal arterials prioritize passenger vehicles and freight. These roadways should have high levels of access management.

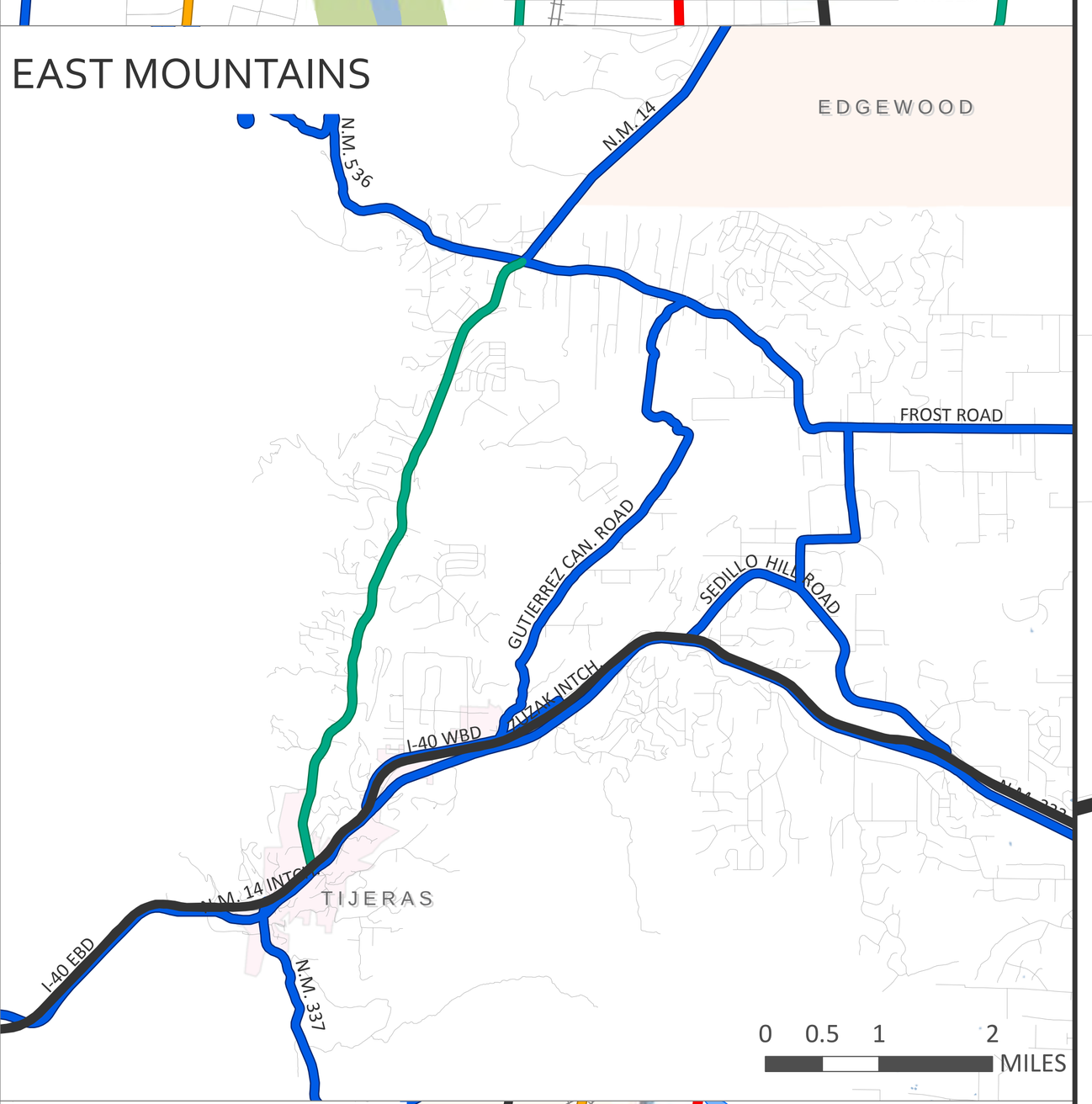
COMMUNITY PRINCIPAL ARTERIAL
Community principal arterial include many destinations with direct access from the arterial. Travel on community principal arterials tends to be over relatively short distances. Community principal arterials do not prioritize one mode over another; instead, they strive to achieve a balance for different user needs.

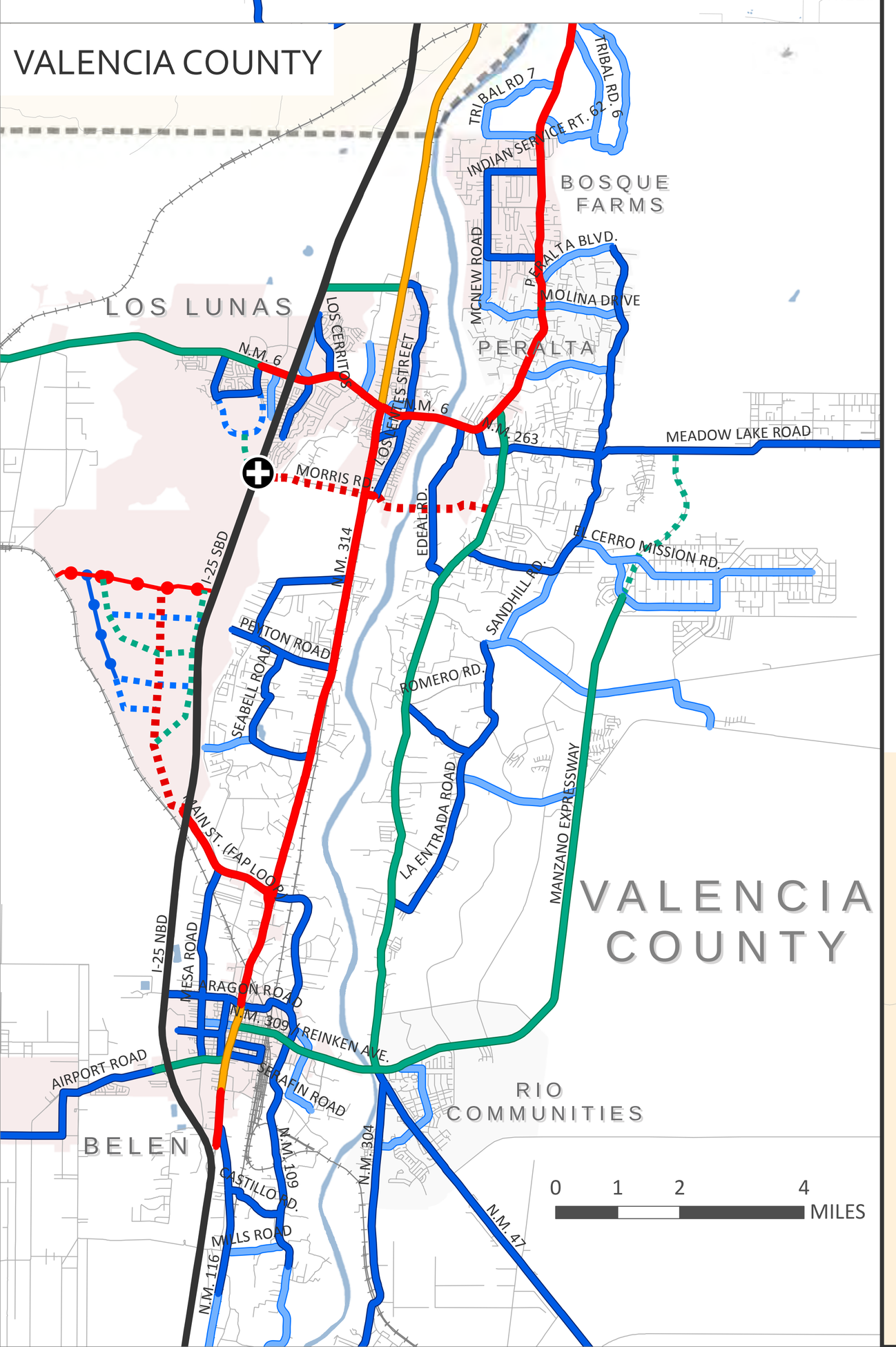
MINOR ARTERIAL
Minor arterials provide the connectivity of principal arterials, but they prioritize slower moving traffic, including bicyclists and pedestrians, to allow these modes additional options to reach destinations without needing to be on a principal arterial.

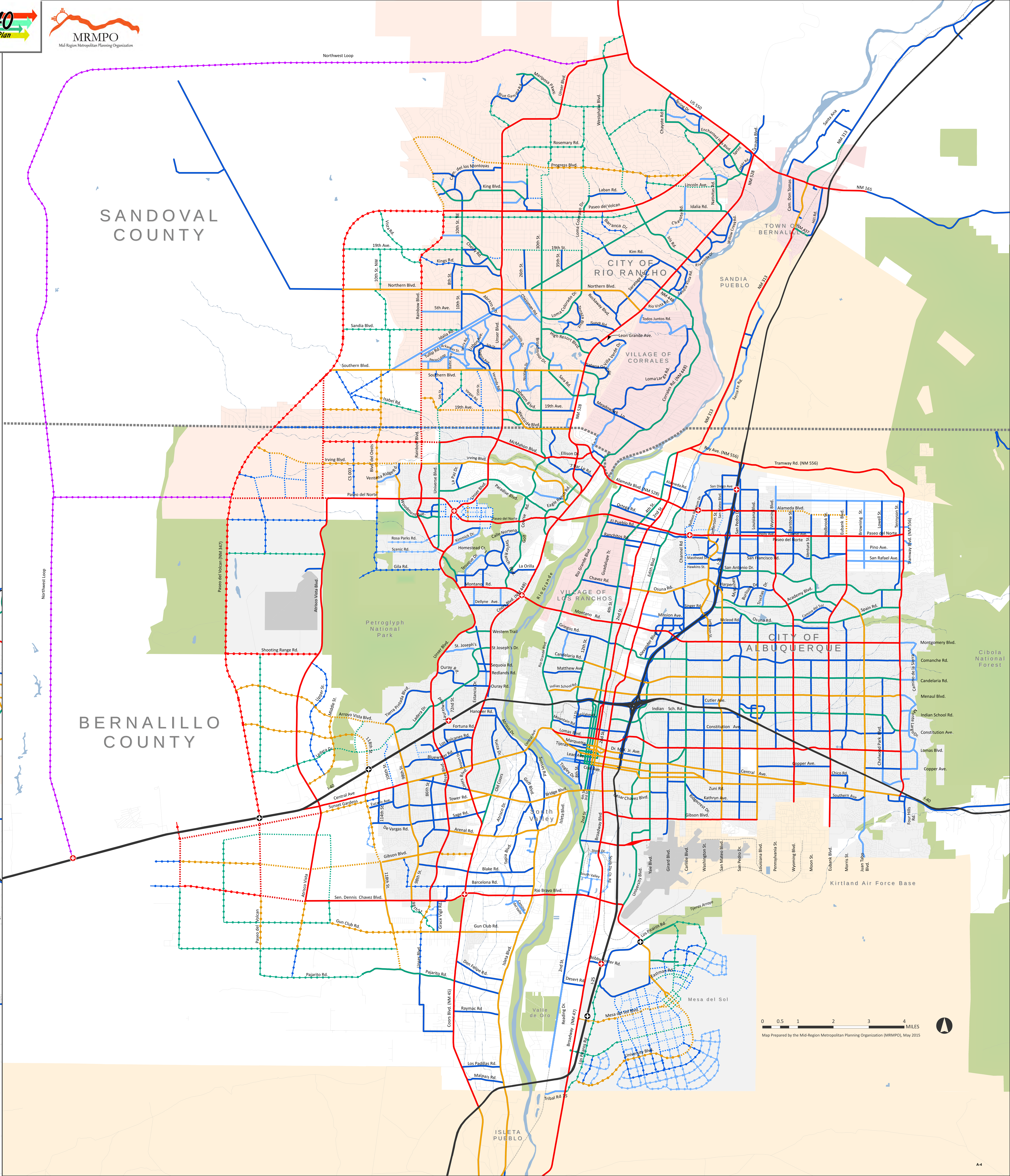
MAJOR COLLECTOR
Major collectors provide additional connectivity between destinations on arterials and neighborhoods. They prioritize bicyclists and pedestrians. Bicyclists should be able to use collectors for long segments of their trips while motorists primarily use them for short segments of their trips.

MINOR COLLECTOR
Minor collectors provide additional connectivity between destinations on arterials and neighborhoods.

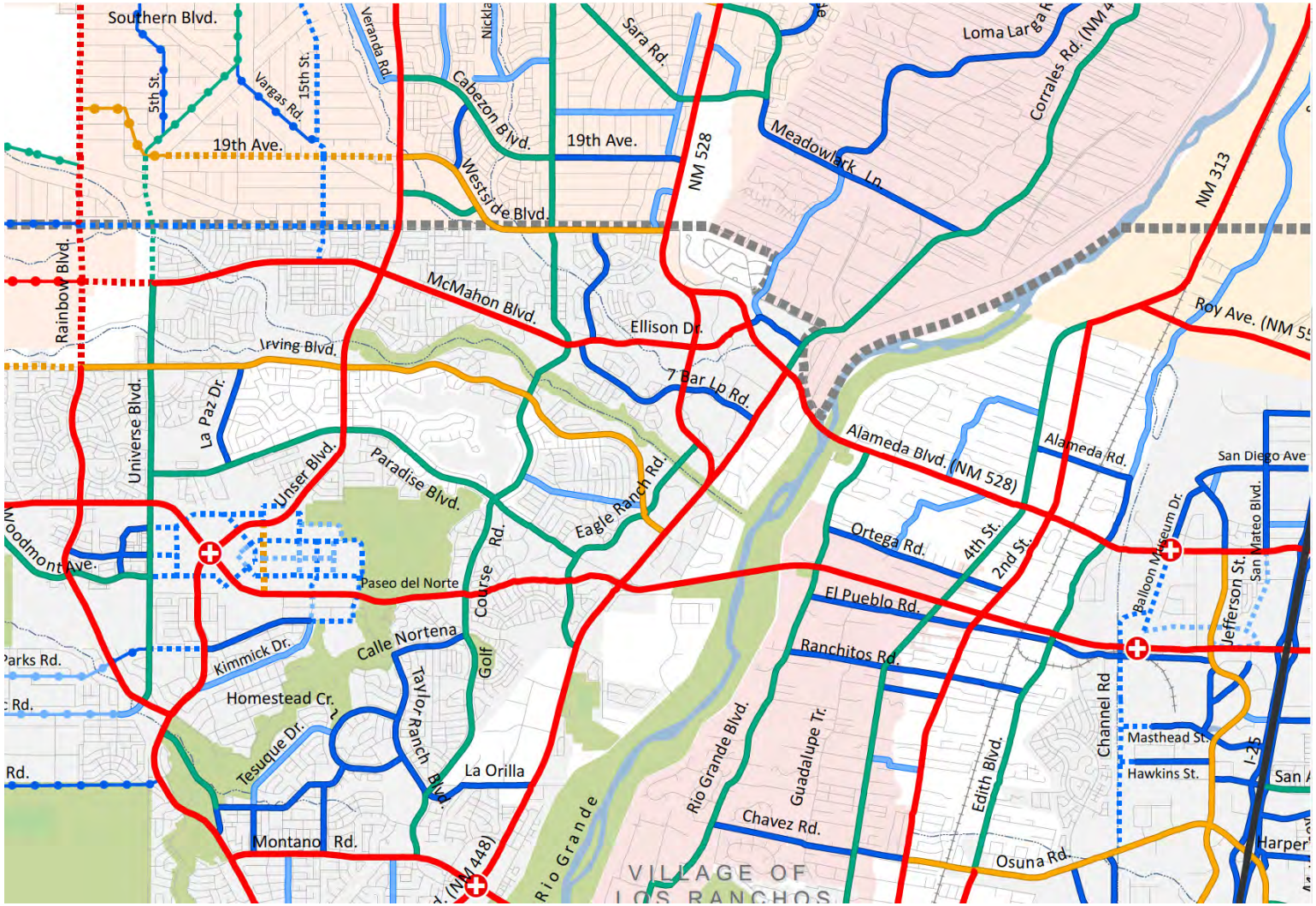








A-4



Excerpt from 2040 Long Range Roadway System

2014 Traffic Flows

for the Greater Albuquerque Area

Map prepared by the Mid-Region Council of Governments (MRCOG) in cooperation with the New Mexico Department of Transportation, the local governments in the Albuquerque Metropolitan Planning Area, and the U.S. Department of Transportation, Federal Highway Administration. Map prepared July 2015.

An online version of this map with complete and historic traffic count information and additional maps can be found at: www.mrcog-nm.gov

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

MRMPO
Mid-Region Metropolitan Planning Organization

Note:
Caution should be used when evaluating trends in annual average weekday traffic due to the reconstruction of the Paseo del Norte and I-25 Interchange. This interchange project began in October 2013 and ended in December 2014. Average weekday traffic is derived by applying seasonal factors and growth factors to observed counts. However, no correctional factors were applied to offset the variations in traffic due to this large construction project.

Uptown Inset

Downtown Inset

Average Weekday Traffic

- 0 - 2999
- 3000 - 7999
- 8000 - 14999
- 15000 - 24999
- 25000 - 34999
- 35000 - 49999
- > 50000

Standard Data
9500

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

Non-Standard Data
9500

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

Link volumes have been rounded to the nearest 10th, with some count volumes being the average of two shorter segments.

0 0.75 1.5 3 MILES

Eagle Ranch Retail Development (Eagle Ranch Rd. / Irving Blvd.)

Trip Generation Data (ITE Trip Generation Manual - 9th Edition)

COMMENT	USE (ITE CODE) DESCRIPTION		24 HR VOL GROSS	A. M. PEAK HR. ENTER	A. M. PEAK HR. EXIT	P. M. PEAK HR. ENTER	P. M. PEAK HR. EXIT
	Summary Sheet	Units					
NM DMV (Phase 1)	Government Office Building (730)	5.95	410	29	6	2	5
Phase 1 Retail	Shopping Center (820)	14.40	1,927	30	18	78	85
Phase 2 Retail	Shopping Center (820)	30.00	3,105	46	28	128	139
	Subtotal		**5,442**	**105**	**52**	**208**	**229**
	Pass-By Trips	25%		*-26*	*-13*	*-52*	*-57*
	Total Primary Trips			**79**	**39**	**156**	**172**

Eagle Ranch Retail Development (Eagle Ranch Rd. / Irving Blvd.)
Trip Generation Data (ITE Trip Generation Manual - 9th Edition)

USE (ITE CODE)		24 HOUR TWO-WAY VOLUME	A. M. PEAK HOUR		P. M. PEAK HOUR	
		GROSS	ENTER	EXIT	ENTER	EXIT
	Units					
Government Office Building (730)	*5.95*	410	29	6	2	5
	1,000 S.F.					

ITE Trip Generation Equations:

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

T = ***68.93*** **(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 = ***5.88*** **(X) +** ***0***

84% Enter, ***16%*** Exit

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

T = ***1.21*** **(X) +** ***0***

31% Enter, ***69%*** Exit

Comments:

NM DMV (Phase 1)

Based on ITE Trip Generation Manual - 9th Edition

Eagle Ranch Retail Development (Eagle Ranch Rd. / Irving Blvd.)
Trip Generation Data (ITE Trip Generation Manual - 9th Edition)

USE (ITE CODE)		24 HOUR TWO-WAY VOLUME	A. M. PEAK HOUR		P. M. PEAK HOUR	
		GROSS	ENTER	EXIT	ENTER	EXIT
	Units					
Shopping Center (820)	***14.40***	1,927	30	18	78	85
	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) = ***0.61*** **Ln(X) +** ***2.24***
62% Enter, ***38%*** 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) = ***0.67*** **Ln(X) +** ***3.31***
48% Enter, ***52%*** Exit

Comments:
Phase 1 Retail

Based on ITE Trip Generation Manual - 9th Edition

Eagle Ranch Retail Development (Eagle Ranch Rd. / Irving Blvd.)
Trip Generation Data (ITE Trip Generation Manual - 9th Edition)

USE (ITE CODE)		24 HOUR TWO-WAY VOLUME	A. M. PEAK HOUR		P. M. PEAK HOUR	
		GROSS	ENTER	EXIT	ENTER	EXIT
	Units					
Shopping Center (820)	*30.00*	3,105	46	28	128	139
	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) = *0.61* Ln(X) + *2.24*

62% Enter, *38%* Exit

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

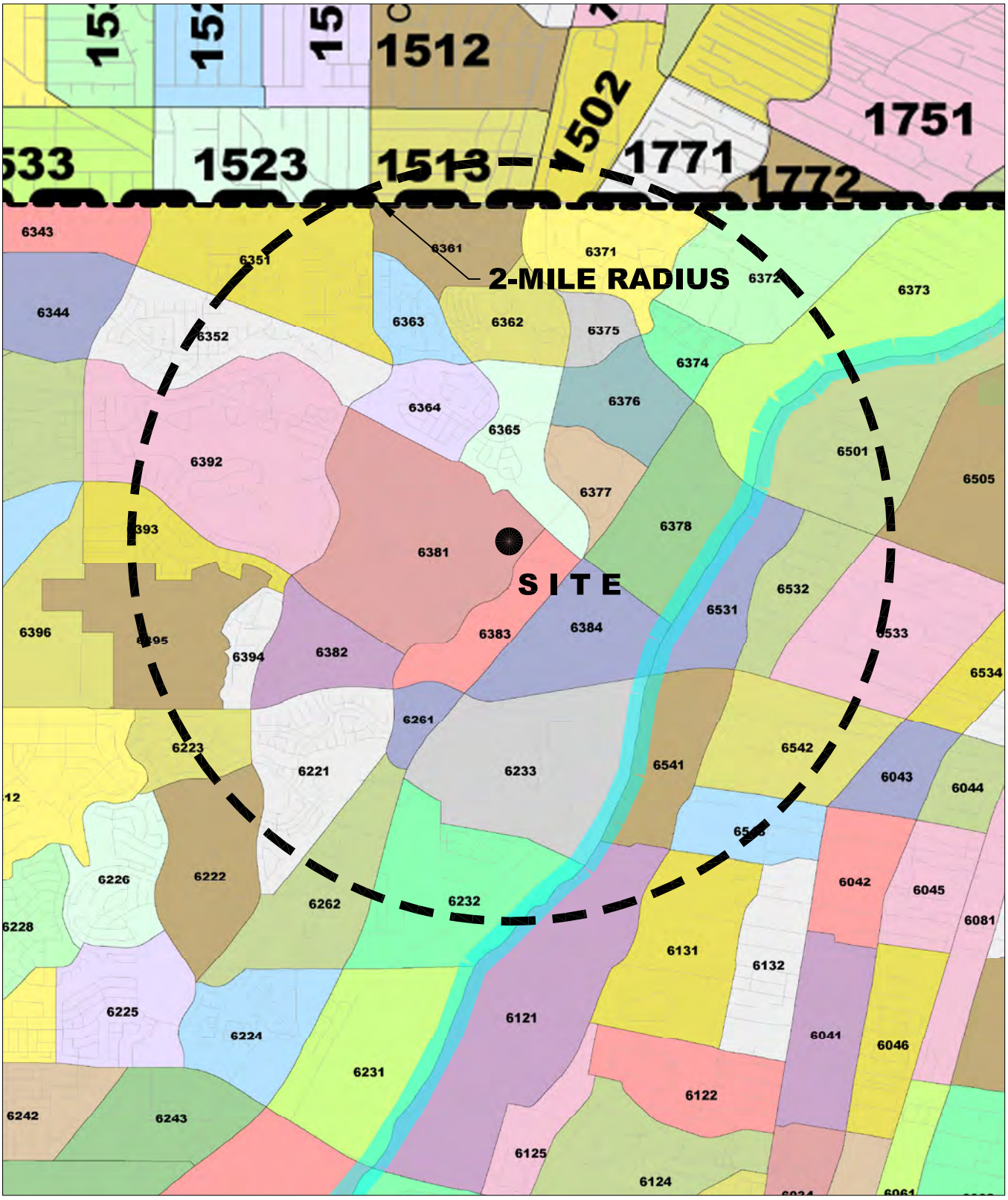
Ln(T) = *0.67* Ln(X) + *3.31*

48% Enter, *52%* Exit

Comments:

Phase 2 Retail

Based on ITE Trip Generation Manual - 9th Edition



DATA ANALYSIS SUBZONE (DASZ) MAP

Eagle Ranch Retail (Eagle Ranch Rd. / Irving Blvd.)

Trip Distribution Table

Eagle Ranch Retail (Irving Blvd. / Eagle Ranch Rd.)

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

2015 and 2025 Data Taken from Mid-Region Council of Governments'
2035 Socioeconomic Forecasts by Data Analysis Subzones for the Mid-Region of New Mexico

							(EN) Eagle Ranch North			(CE) Coors Bypass East			(IE) Irving East		
DASZ #	% Sub Area in Study	2015 Population	2025 Population	Interpolated Population for the Year	Population in Study	**Percent Population**	% Utilizing	% Population Utilizing	Population	% Utilizing	% Population Utilizing	Population	% Utilizing	% Population Utilizing	Population
		2015	**2025**	**2018**											
Boundary Specified on DASZ Map															
1502	10%	10	1169	358	36	**0.10%**	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
1513	35%	1071	1073	1,072	375	**1.04%**	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
1771	5%	604	597	602	30	**0.08%**	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
6121	15%	737	723	733	110	**0.30%**	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
6131	10%	610	595	606	61	**0.17%**	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
6221	95%	2555	2512	2,542	2,415	**6.69%**	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
6222	10%	3194	3144	3,179	318	**0.88%**	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
6223	50%	996	962	986	493	**1.37%**	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
6232	65%	714	699	710	462	**1.28%**	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
6233	100%	968	1069	998	998	**2.76%**	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
6261	100%	521	515	519	519	**1.44%**	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
6262	45%	124	117	122	55	**0.15%**	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
6351	55%	3458	3372	3,432	1,888	**5.23%**	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
6352	50%	2515	2501	2,511	1,256	**3.48%**	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
6361	100%	1493	1448	1,480	1,480	**4.10%**	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
6362	100%	3164	3184	3,170	3,170	**8.78%**	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
6363	100%	821	795	813	813	**2.25%**	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
6364	100%	1465	1419	1,451	1,451	**4.02%**	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
6365	100%	1309	1269	1,297	1,297	**3.59%**	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
6371	100%	415	407	413	413	**1.14%**	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
6372	45%	362	425	381	171	**0.47%**	0%	0.00%	0	100%	0.47%	171	0%	0.00%	0
6373	40%	332	411	356	142	**0.39%**	0%	0.00%	0	50%	0.20%	71	0%	0.00%	0
6374	100%	1082	1045	1,071	1,071	**2.97%**	0%	0.00%	0	50%	1.48%	536	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%	781	753	773	773	**2.14%**	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
6377	100%	0	0	0	0	**0.00%**	100%	0.00%	0	0%	0.00%	0	0%	0.00%	0
6378	100%	258	248	255	255	**0.71%**	0%	0.00%	0	50%	0.35%	128	0%	0.00%	0
6381	100%	7037	6856	6,983	6,983	**19.33%**	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
6382	100%	964	930	954	954	**2.64%**	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
6383	100%	699	673	691	691	**1.91%**	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
6384	100%	260	248	256	256	**0.71%**	0%	0.00%	0	0%	0.00%	0	50%	0.35%	128
6392	85%	3930	3830	3,900	3,315	**9.18%**	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
6393	70%	1477	1427	1,462	1,023	**2.83%**	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
6394	100%	465	450	461	461	**1.28%**	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
6395	60%	15	15	15	9	**0.02%**	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
6501	45%	825	802	818	368	**1.02%**	0%	0.00%	0	50%	0.51%	184	0%	0.00%	0
6531	100%	122	122	122	122	**0.34%**	0%	0.00%	0	50%	0.17%	61	0%	0.00%	0
6532	100%	406	396	403	403	**1.12%**	0%	0.00%	0	50%	0.56%	202	0%	0.00%	0
6533	40%	1348	1363	1,353	541	**1.50%**	0%	0.00%	0	25%	0.37%	135	0%	0.00%	0
6541	100%	166	159	164	164	**0.45%**	0%	0.00%	0	50%	0.23%	82	0%	0.00%	0
6542	75%	667	725	684	513	**1.42%**	0%	0.00%	0	25%	0.36%	128	0%	0.00%	0
6543	55%	451	533	476	262	**0.73%**	0%	0.00%	0	25%	0.18%	66	0%	0.00%	0
				48,572	36,117	100.00%			-			1,763			128
									0.00%			4.88%			0.35%

Trip Distribution Table

Eagle Ranch Retail (Irving Blvd. / Eagle Ranch Rd.)

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

2015 and 2025 Data Taken from Mid-Region Council of Governments'
2035 Socioeconomic Forecasts by Data Analysis Subzones for the Mid-Region of New Mexico

							(PE) Paseo del Norte East			(ES) Eagle Ranch South			(PW) Paseo del Norte West		
DASZ #	% Sub Area in Study	2015 Population	2025 Population	Interpolated Population for the Year	Population in Study	**Percent Population**	% Utilizing	% Population Utilizing	Population	% Utilizing	% Population Utilizing	Population	% Utilizing	% Population Utilizing	Population
		2015	**2025**	**2018**											
Boundary Specified on DASZ Map															
1502	10%	10	1169	358	36	**0.10%**	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
1513	35%	1071	1073	1,072	375	**1.04%**	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
1771	5%	604	597	602	30	**0.08%**	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
6121	15%	737	723	733	110	**0.30%**	100%	0.30%	110	0%	0.00%	0	0%	0.00%	0
6131	10%	610	595	606	61	**0.17%**	100%	0.17%	61	0%	0.00%	0	0%	0.00%	0
6221	95%	2555	2512	2,542	2,415	**6.69%**	0%	0.00%	0	50%	3.34%	1,208	50%	3.34%	1,208
6222	10%	3194	3144	3,179	318	**0.88%**	0%	0.00%	0	0%	0.00%	0	100%	0.88%	318
6223	50%	996	962	986	493	**1.37%**	0%	0.00%	0	0%	0.00%	0	100%	1.37%	493
6232	65%	714	699	710	462	**1.28%**	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
6233	100%	968	1069	998	998	**2.76%**	50%	1.38%	499	0%	0.00%	0	0%	0.00%	0
6261	100%	521	515	519	519	**1.44%**	0%	0.00%	0	50%	0.72%	260	0%	0.00%	0
6262	45%	124	117	122	55	**0.15%**	0%	0.00%	0	50%	0.08%	28	0%	0.00%	0
6351	55%	3458	3372	3,432	1,888	**5.23%**	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
6352	50%	2515	2501	2,511	1,256	**3.48%**	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
6361	100%	1493	1448	1,480	1,480	**4.10%**	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
6362	100%	3164	3184	3,170	3,170	**8.78%**	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
6363	100%	821	795	813	813	**2.25%**	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
6364	100%	1465	1419	1,451	1,451	**4.02%**	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
6365	100%	1309	1269	1,297	1,297	**3.59%**	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
6371	100%	415	407	413	413	**1.14%**	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
6372	45%	362	425	381	171	**0.47%**	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
6373	40%	332	411	356	142	**0.39%**	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
6374	100%	1082	1045	1,071	1,071	**2.97%**	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%	781	753	773	773	**2.14%**	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	100%	258	248	255	255	**0.71%**	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
6381	100%	7037	6856	6,983	6,983	**19.33%**	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
6382	100%	964	930	954	954	**2.64%**	0%	0.00%	0	0%	0.00%	0	50%	1.32%	477
6383	100%	699	673	691	691	**1.91%**	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
6384	100%	260	248	256	256	**0.71%**	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
6392	85%	3930	3830	3,900	3,315	**9.18%**	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
6393	70%	1477	1427	1,462	1,023	**2.83%**	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
6394	100%	466	450	461	461	**1.28%**	0%	0.00%	0	0%	0.00%	0	50%	0.64%	231
6395	60%	15	15	15	9	**0.02%**	0%	0.00%	0	0%	0.00%	0	100%	0.02%	9
6501	45%	825	802	818	368	**1.02%**	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
6531	100%	122	122	122	122	**0.34%**	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
6532	100%	406	396	403	403	**1.12%**	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
6533	40%	1348	1363	1,353	541	**1.50%**	50%	0.75%	271	0%	0.00%	0	0%	0.00%	0
6541	100%	166	159	164	164	**0.45%**	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
6542	75%	667	725	684	513	**1.42%**	50%	0.71%	257	0%	0.00%	0	0%	0.00%	0
6543	55%	451	533	476	262	**0.73%**	50%	0.36%	131	0%	0.00%	0	0%	0.00%	0
				48,572	36,117	100.00%			**1,328**			**1,495**			**2,735**
									3.68%			**4.14%**			**7.57%**

Trip Distribution Table

Eagle Ranch Retail (Irving Blvd. / Eagle Ranch Rd.)

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

2015 and 2025 Data Taken from Mid-Region Council of Governments'
2035 Socioeconomic Forecasts by Data Analysis Subzones for the Mid-Region of New Mexico

							(IC) Irving Central			(IW) Irving West			(GS) Golf Course South		
DASZ #	% Sub Area in Study	2015 Population	2025 Population	Interpolated Population for the Year	Population in Study	**Percent Population**	% Utilizing	% Population Utilizing	Population	% Utilizing	% Population Utilizing	Population	% Utilizing	% Population Utilizing	Population
		2015	**2025**	**2018**											
Boundary Specified on DASZ Map															
1502	10%	10	1169	358	36	**0.10%**	0%	0.00%	**0**	0%	0.00%	0	0%	0.00%	**0**
1513	35%	1071	1073	1,072	375	**1.04%**	0%	0.00%	**0**	0%	0.00%	0	0%	0.00%	**0**
1771	5%	604	597	602	30	**0.08%**	0%	0.00%	**0**	0%	0.00%	0	0%	0.00%	**0**
6121	15%	737	723	733	110	**0.30%**	0%	0.00%	**0**	0%	0.00%	0	0%	0.00%	**0**
6131	10%	610	595	606	61	**0.17%**	0%	0.00%	**0**	0%	0.00%	0	0%	0.00%	**0**
6221	95%	2555	2512	2,542	2,415	**6.69%**	0%	0.00%	**0**	0%	0.00%	0	0%	0.00%	**0**
6222	10%	3194	3144	3,179	318	**0.88%**	0%	0.00%	**0**	0%	0.00%	0	0%	0.00%	**0**
6223	50%	996	962	986	493	**1.37%**	0%	0.00%	**0**	0%	0.00%	0	0%	0.00%	**0**
6232	65%	714	699	710	462	**1.28%**	0%	0.00%	**0**	0%	0.00%	0	0%	0.00%	**0**
6233	100%	968	1069	998	998	**2.76%**	0%	0.00%	**0**	0%	0.00%	0	0%	0.00%	**0**
6261	100%	521	515	519	519	**1.44%**	0%	0.00%	**0**	0%	0.00%	0	0%	0.00%	**0**
6262	45%	124	117	122	55	**0.15%**	0%	0.00%	**0**	0%	0.00%	0	0%	0.00%	**0**
6351	55%	3458	3372	3,432	1,888	**5.23%**	0%	0.00%	**0**	0%	0.00%	0	0%	0.00%	**0**
6352	50%	2515	2501	2,511	1,256	**3.48%**	0%	0.00%	**0**	50%	1.74%	628	0%	0.00%	**0**
6361	100%	1493	1448	1,480	1,480	**4.10%**	0%	0.00%	**0**	0%	0.00%	0	0%	0.00%	**0**
6362	100%	3164	3184	3,170	3,170	**8.78%**	0%	0.00%	**0**	0%	0.00%	0	0%	0.00%	**0**
6363	100%	821	795	813	813	**2.25%**	0%	0.00%	**0**	0%	0.00%	0	0%	0.00%	**0**
6364	100%	1465	1419	1,451	1,451	**4.02%**	0%	0.00%	**0**	0%	0.00%	0	0%	0.00%	**0**
6365	100%	1309	1269	1,297	1,297	**3.59%**	0%	0.00%	**0**	0%	0.00%	0	0%	0.00%	**0**
6371	100%	415	407	413	413	**1.14%**	0%	0.00%	**0**	0%	0.00%	0	0%	0.00%	**0**
6372	45%	362	425	381	171	**0.47%**	0%	0.00%	**0**	0%	0.00%	0	0%	0.00%	**0**
6373	40%	332	411	356	142	**0.39%**	0%	0.00%	**0**	0%	0.00%	0	0%	0.00%	**0**
6374	100%	1082	1045	1,071	1,071	**2.97%**	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%	781	753	773	773	**2.14%**	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	100%	258	248	255	255	**0.71%**	0%	0.00%	**0**	0%	0.00%	0	0%	0.00%	**0**
6381	100%	7037	6856	6,983	6,983	**19.33%**	25%	4.83%	**1,746**	0%	0.00%	0	25%	4.83%	**1,746**
6382	100%	964	930	954	954	**2.64%**	0%	0.00%	**0**	0%	0.00%	0	0%	0.00%	**0**
6383	100%	699	673	691	691	**1.91%**	0%	0.00%	**0**	0%	0.00%	0	0%	0.00%	**0**
6384	100%	260	248	256	256	**0.71%**	0%	0.00%	**0**	0%	0.00%	0	0%	0.00%	**0**
6392	85%	3930	3830	3,900	3,315	**9.18%**	0%	0.00%	**0**	25%	2.29%	829	25%	2.29%	**829**
6393	70%	1477	1427	1,462	1,023	**2.83%**	0%	0.00%	**0**	0%	0.00%	0	0%	0.00%	**0**
6394	100%	465	450	461	461	**1.28%**	0%	0.00%	**0**	0%	0.00%	0	0%	0.00%	**0**
6395	60%	15	15	15	9	**0.02%**	0%	0.00%	**0**	0%	0.00%	0	0%	0.00%	**0**
6501	45%	825	802	818	368	**1.02%**	0%	0.00%	**0**	0%	0.00%	0	0%	0.00%	**0**
6531	100%	122	122	122	122	**0.34%**	0%	0.00%	**0**	0%	0.00%	0	0%	0.00%	**0**
6532	100%	406	396	403	403	**1.12%**	0%	0.00%	**0**	0%	0.00%	0	0%	0.00%	**0**
6533	40%	1348	1363	1,353	541	**1.50%**	0%	0.00%	**0**	0%	0.00%	0	0%	0.00%	**0**
6541	100%	166	159	164	164	**0.45%**	0%	0.00%	**0**	0%	0.00%	0	0%	0.00%	**0**
6542	75%	667	725	684	513	**1.42%**	0%	0.00%	**0**	0%	0.00%	0	0%	0.00%	**0**
6543	55%	451	533	476	262	**0.73%**	0%	0.00%	**0**	0%	0.00%	0	0%	0.00%	**0**
				48,572	36,117	100.00%			**1,746**			**1,457**			**2,575**
									4.83%			4.03%			7.13%

Trip Distribution Table

Eagle Ranch Retail (Irving Blvd. / Eagle Ranch Rd.)

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

2015 and 2025 Data Taken from Mid-Region Council of Governments'
2035 Socioeconomic Forecasts by Data Analysis Subzones for the Mid-Region of New Mexico

							(GN) Golf Course North			(CW) Coors Bypass West			(CS) Coors Blvd. South		
DASZ #	% Sub Area in Study	2015 Population	2025 Population	Interpolated Population for the Year	Population in Study	**Percent Population**	% Utilizing	% Population Utilizing	Population	% Utilizing	% Population Utilizing	Population	% Utilizing	% Population Utilizing	Population
		2015	**2025**	**2018**											
Boundary Specified on DASZ Map															
1502	10%	10	1169	358	36	**0.10%**	0%	0.00%	0	100%	0.10%	36	0%	0.00%	0
1513	35%	1071	1073	1,072	375	**1.04%**	50%	0.52%	188	50%	0.52%	188	0%	0.00%	0
1771	5%	604	597	602	30	**0.08%**	0%	0.00%	0	100%	0.08%	30	0%	0.00%	0
6121	15%	737	723	733	110	**0.30%**	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
6131	10%	610	595	606	61	**0.17%**	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
6221	95%	2555	2512	2,542	2,415	**6.69%**	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
6222	10%	3194	3144	3,179	318	**0.88%**	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
6223	50%	996	962	986	493	**1.37%**	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
6232	65%	714	699	710	462	**1.28%**	0%	0.00%	0	0%	0.00%	0	100%	1.28%	462
6233	100%	968	1069	998	998	**2.76%**	0%	0.00%	0	0%	0.00%	0	50%	1.38%	499
6261	100%	521	515	519	519	**1.44%**	0%	0.00%	0	0%	0.00%	0	50%	0.72%	260
6262	45%	124	117	122	55	**0.15%**	0%	0.00%	0	0%	0.00%	0	50%	0.08%	28
6351	55%	3458	3372	3,432	1,888	**5.23%**	100%	5.23%	1,888	0%	0.00%	0	0%	0.00%	0
6352	50%	2515	2501	2,511	1,256	**3.48%**	50%	1.74%	628	0%	0.00%	0	0%	0.00%	0
6361	100%	1493	1448	1,480	1,480	**4.10%**	50%	2.05%	740	50%	2.05%	740	0%	0.00%	0
6362	100%	3164	3184	3,170	3,170	**8.78%**	0%	0.00%	0	100%	8.78%	3,170	0%	0.00%	0
6363	100%	821	795	813	813	**2.25%**	100%	2.25%	813	0%	0.00%	0	0%	0.00%	0
6364	100%	1465	1419	1,451	1,451	**4.02%**	100%	4.02%	1,451	0%	0.00%	0	0%	0.00%	0
6365	100%	1309	1269	1,297	1,297	**3.59%**	0%	0.00%	0	100%	3.59%	1,297	0%	0.00%	0
6371	100%	415	407	413	413	**1.14%**	0%	0.00%	0	100%	1.14%	413	0%	0.00%	0
6372	45%	362	425	381	171	**0.47%**	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
6373	40%	332	411	356	142	**0.39%**	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
6374	100%	1082	1045	1,071	1,071	**2.97%**	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
6375	100%	0	0	0	0	**0.00%**	0%	0.00%	0	100%	0.00%	0	0%	0.00%	0
6376	100%	781	753	773	773	**2.14%**	0%	0.00%	0	100%	2.14%	773	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	100%	258	248	255	255	**0.71%**	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
6381	100%	7037	6856	6,983	6,983	**19.33%**	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
6382	100%	964	930	954	954	**2.64%**	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
6383	100%	699	673	691	691	**1.91%**	0%	0.00%	0	0%	0.00%	0	50%	0.96%	346
6384	100%	260	248	256	256	**0.71%**	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
6392	85%	3930	3830	3,900	3,315	**9.18%**	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
6393	70%	1477	1427	1,462	1,023	**2.83%**	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
6394	100%	465	450	461	461	**1.28%**	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
6395	60%	15	15	15	9	**0.02%**	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
6501	45%	825	802	818	368	**1.02%**	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
6531	100%	122	122	122	122	**0.34%**	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
6532	100%	406	396	403	403	**1.12%**	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
6533	40%	1348	1363	1,353	541	**1.50%**	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
6541	100%	166	159	164	164	**0.45%**	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
6542	75%	667	725	684	513	**1.42%**	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
6543	55%	451	533	476	262	**0.73%**	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
				48,572	36,117	100.00%			**5,708**			**6,647**			**1,594**
									15.80%			18.40%			4.41%

Trip Distribution Table

Eagle Ranch Retail (Irving Blvd. / Eagle Ranch Rd.)

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

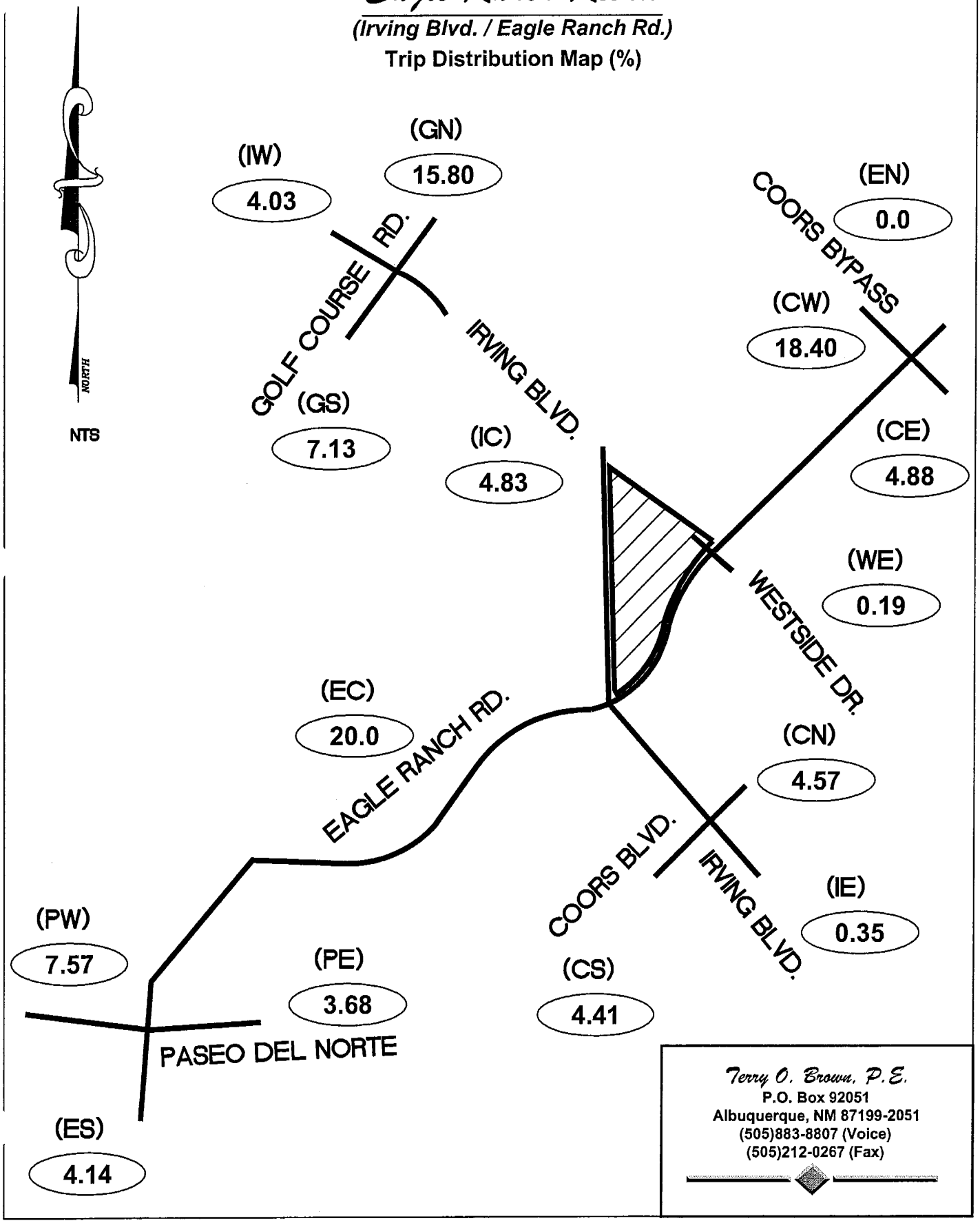
2015 and 2025 Data Taken from Mid-Region Council of Governments'
2035 Socioeconomic Forecasts by Data Analysis Subzones for the Mid-Region of New Mexico

							(CN) Coors Blvd. North			(EC) Eagle Ranch Central		
DASZ #	% Sub Area in Study	2015 Population	2025 Population	Interpolated Population for the Year	**Population in Study**	**Percent Population**	% Utilizing	% Population Utilizing	Population	% Utilizing	% Population Utilizing	Population
		2015	**2025**	**2018**								
Boundary Specified on DASZ Map												
1502	10%	10	1169	358	36	**0.10%**	0%	0.00%	0	0%	0.00%	0
1513	35%	1071	1073	1,072	375	**1.04%**	0%	0.00%	0	0%	0.00%	0
1771	5%	604	597	602	30	**0.08%**	0%	0.00%	0	0%	0.00%	0
6121	15%	737	723	733	110	**0.30%**	0%	0.00%	0	0%	0.00%	0
6131	10%	610	595	606	61	**0.17%**	0%	0.00%	0	0%	0.00%	0
6221	95%	2555	2512	2,542	2,415	**6.69%**	0%	0.00%	0	0%	0.00%	0
6222	10%	3194	3144	3,179	318	**0.88%**	0%	0.00%	0	0%	0.00%	0
6223	50%	996	962	986	493	**1.37%**	0%	0.00%	0	0%	0.00%	0
6232	65%	714	699	710	462	**1.28%**	0%	0.00%	0	0%	0.00%	0
6233	100%	968	1069	998	998	**2.76%**	0%	0.00%	0	0%	0.00%	0
6261	100%	521	515	519	519	**1.44%**	0%	0.00%	0	0%	0.00%	0
6262	45%	124	117	122	55	**0.15%**	0%	0.00%	0	0%	0.00%	0
6351	55%	3458	3372	3,432	1,888	**5.23%**	0%	0.00%	0	0%	0.00%	0
6352	50%	2515	2501	2,511	1,256	**3.48%**	0%	0.00%	0	0%	0.00%	0
6361	100%	1493	1448	1,480	1,480	**4.10%**	0%	0.00%	0	0%	0.00%	0
6362	100%	3164	3184	3,170	3,170	**8.78%**	0%	0.00%	0	0%	0.00%	0
6363	100%	821	795	813	813	**2.25%**	0%	0.00%	0	0%	0.00%	0
6364	100%	1465	1419	1,451	1,451	**4.02%**	0%	0.00%	0	0%	0.00%	0
6365	100%	1309	1269	1,297	1,297	**3.59%**	0%	0.00%	0	0%	0.00%	0
6371	100%	415	407	413	413	**1.14%**	0%	0.00%	0	0%	0.00%	0
6372	45%	362	425	381	171	**0.47%**	0%	0.00%	0	0%	0.00%	0
6373	40%	332	411	356	142	**0.39%**	50%	0.20%	71	0%	0.00%	0
6374	100%	1082	1045	1,071	1,071	**2.97%**	50%	1.48%	536	0%	0.00%	0
6375	100%	0	0	0	0	**0.00%**	0%	0.00%	0	0%	0.00%	0
6376	100%	781	753	773	773	**2.14%**	0%	0.00%	0	0%	0.00%	0
6377	100%	0	0	0	0	**0.00%**	0%	0.00%	0	0%	0.00%	0
6378	100%	258	248	255	255	**0.71%**	50%	0.35%	128	0%	0.00%	0
6381	100%	7037	6856	6,983	6,983	**19.33%**	0%	0.00%	0	50%	9.67%	3,492
6382	100%	964	930	954	954	**2.64%**	0%	0.00%	0	50%	1.32%	477
6383	100%	699	673	691	691	**1.91%**	0%	0.00%	0	50%	0.96%	346
6384	100%	260	248	256	256	**0.71%**	50%	0.35%	128	0%	0.00%	0
6392	85%	3930	3830	3,900	3,315	**9.18%**	0%	0.00%	0	50%	4.59%	1,658
6393	70%	1477	1427	1,462	1,023	**2.83%**	0%	0.00%	0	100%	2.83%	1,023
6394	100%	465	450	461	461	**1.28%**	0%	0.00%	0	50%	0.64%	231
6395	60%	15	15	15	9	**0.02%**	0%	0.00%	0	0%	0.00%	0
6501	45%	825	802	818	368	**1.02%**	50%	0.51%	184	0%	0.00%	0
6531	100%	122	122	122	122	**0.34%**	50%	0.17%	61	0%	0.00%	0
6532	100%	406	396	403	403	**1.12%**	50%	0.56%	202	0%	0.00%	0
6533	40%	1348	1363	1,353	541	**1.50%**	25%	0.37%	135	0%	0.00%	0
6541	100%	166	159	164	164	**0.45%**	50%	0.23%	82	0%	0.00%	0
6542	75%	667	725	684	513	**1.42%**	25%	0.36%	128	0%	0.00%	0
6543	55%	451	533	476	262	**0.73%**	25%	0.18%	66	0%	0.00%	0
				48,572	36,117	100.00%			**1,720**			**7,225**
									4.76%			20.00%

Eagle Ranch Retail

(Irving Blvd. / Eagle Ranch Rd.)

Trip Distribution Map (%)



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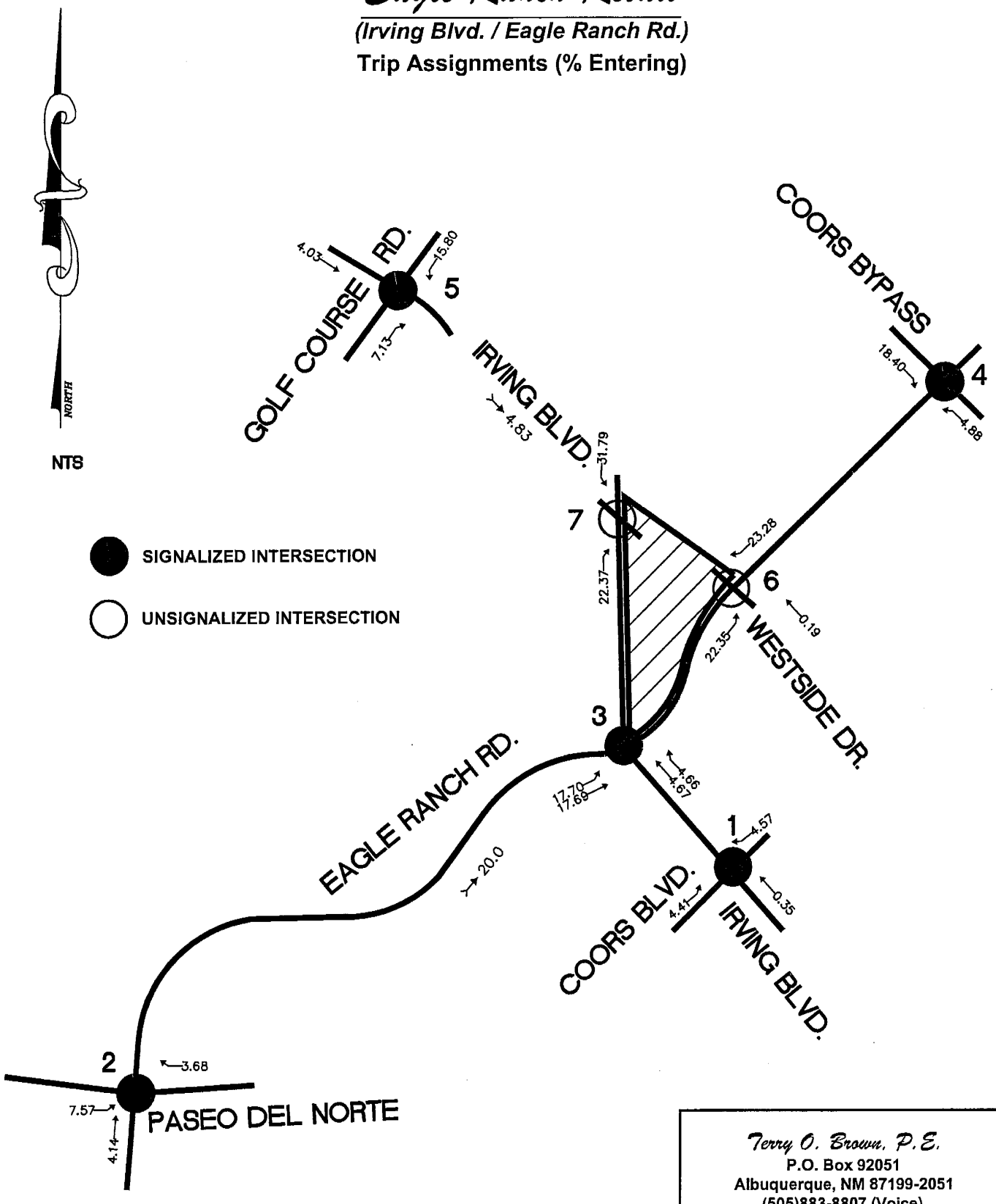
(505)212-0267 (Fax)

Eagle Ranch Retail

(Irving Blvd. / Eagle Ranch Rd.)

Trip Assignments (% Entering)



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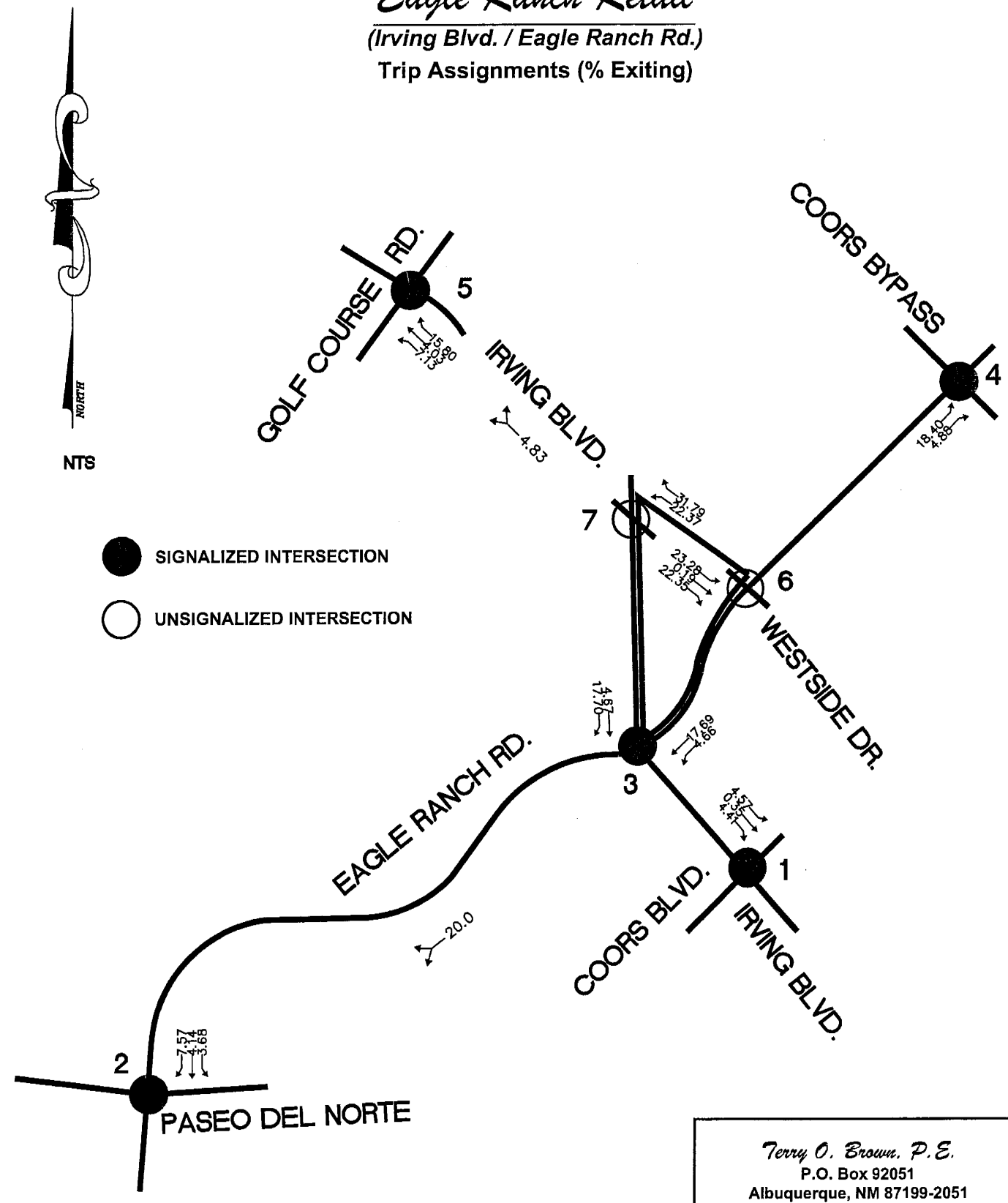
Eagle Ranch Retail

(Irving Blvd. / Eagle Ranch Rd.)

Trip Assignments (% Exiting)



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Eagle Ranch Retail

(Irving Blvd. / Eagle Ranch Rd.)

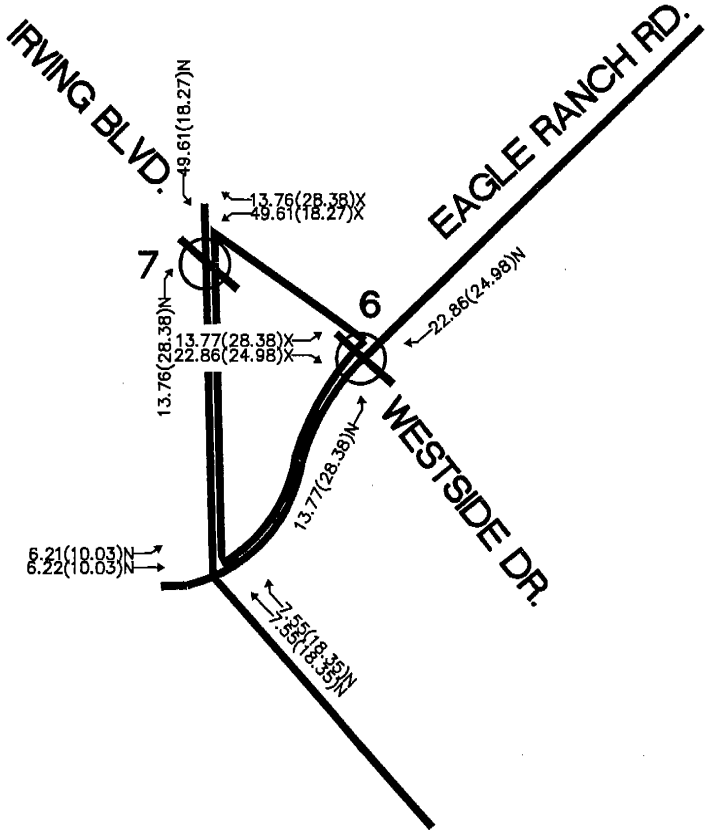
Passby Trips (% eNtering / eXiting)

NORTH

NTS

SIGNALIZED INTERSECTION

UNSIGNALIZED INTERSECTION



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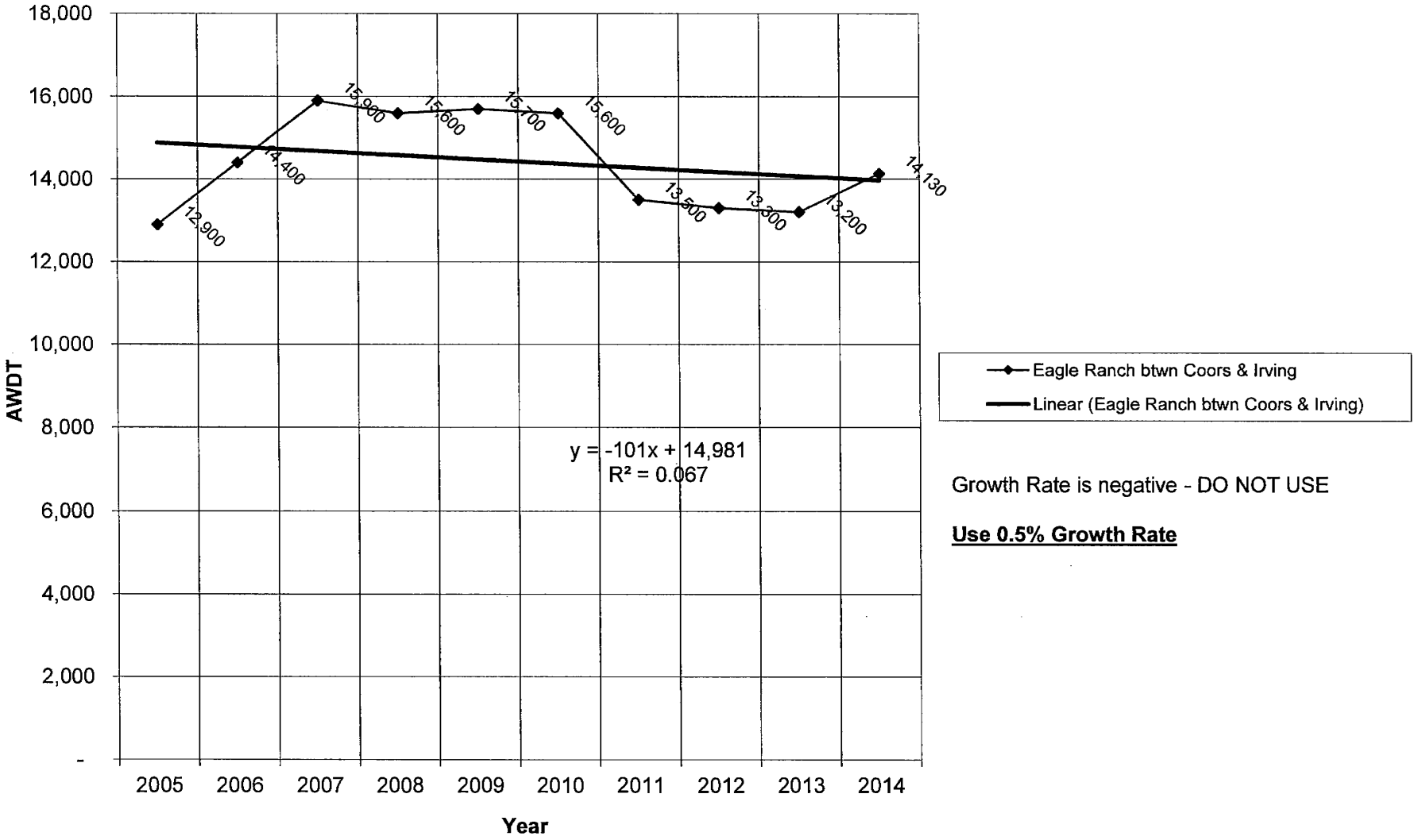
Eagle Ranch Retail (Eagle Ranch Rd. / Irving Blvd.)

Historic Growth Rate Table

Traffic Flows from MRCOG Map

	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
Eagle Ranch btwn Coors & Irving	12,900	14,400	15,900	15,600	15,700	15,600	13,500	13,300	13,200	14,130
Coors Blvd. btwn Eagle Ranch & Irving	65,800	67,200	68,900	60,000	60,200	60,200	59,100	58,500	58,100	54,640
Coors Blvd. South of Irving Blvd.	68,300	69,800	71,500	70,400	70,600	37,500	66,400	65,900	67,500	67,790
Paseo del Norte East of Eagle Ranch Rd.	36,700	37,500	38,500	35,400	35,500	38,600	38,000	38,000	37,400	37,590
Eagle Ranch Rd. South of Paseo del Norte	7,000	7,200	7,400	8,400	8,500	10,300	10,100	10,000	7,900	7,940
Paseo del Norte West of Eagle Ranch Rd.	23,800	24,400	25,000	27,900	28,000	27,700	37,200	26,700	26,900	27,030
Eagle Ranch btwn PdN & Irving	14,900	15,200	15,600	14,500	14,500	13,900	13,600	13,500	15,500	15,550
Irving Blvd. West of Eagle Ranch Rd.	14,700	15,100	15,400	15,300	15,300	15,300	18,900	18,700	18,200	15,110
Coors Bypass West of Eagle Ranch Rd.	57,400	58,700	60,100	44,500	44,600	44,500	43,600	36,900	55,400	55,590
Golf Course Rd. South of Irving Blvd.	17,400	17,800	18,200	20,200	20,300	20,300	21,200	20,900	20,800	20,850
Irving Blvd. West of Golf Course Rd.	9,300	9,500	9,800	9,900	9,900	9,900	9,700	9,600	9,600	9,590
Golf Course Rd. North of Irving Blvd.	23,000	23,500	24,100	21,900	22,000	21,900	33,500	33,100	32,900	27,910

Historic Growth Chart Eagle Ranch btwn Coors & Irving (2005-2014)

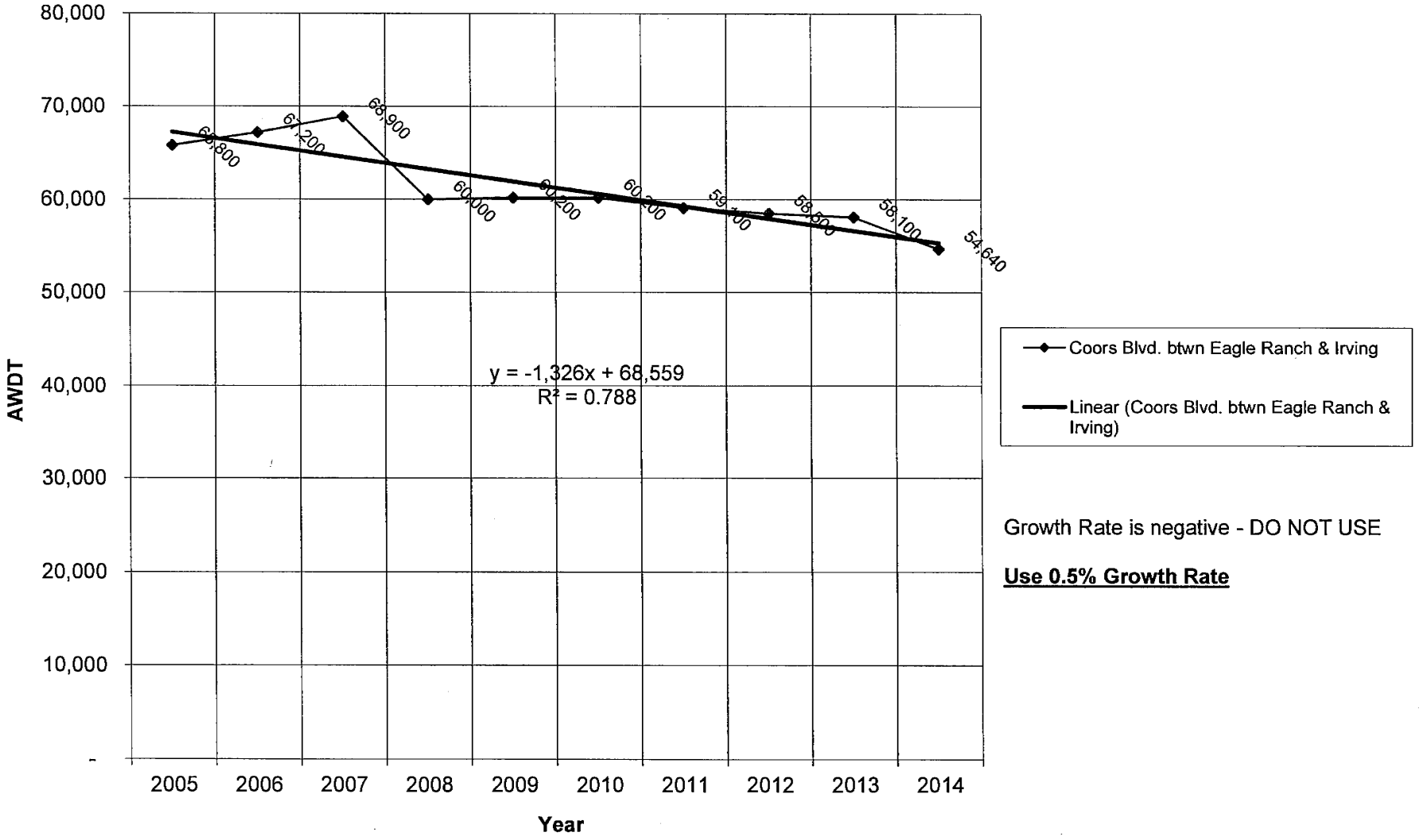


Growth Rate is negative - DO NOT USE

Use 0.5% Growth Rate

ER_Retail_Growth.xlsx

Historic Growth Chart Coors Blvd. btwn Eagle Ranch & Irving (2005-2014)

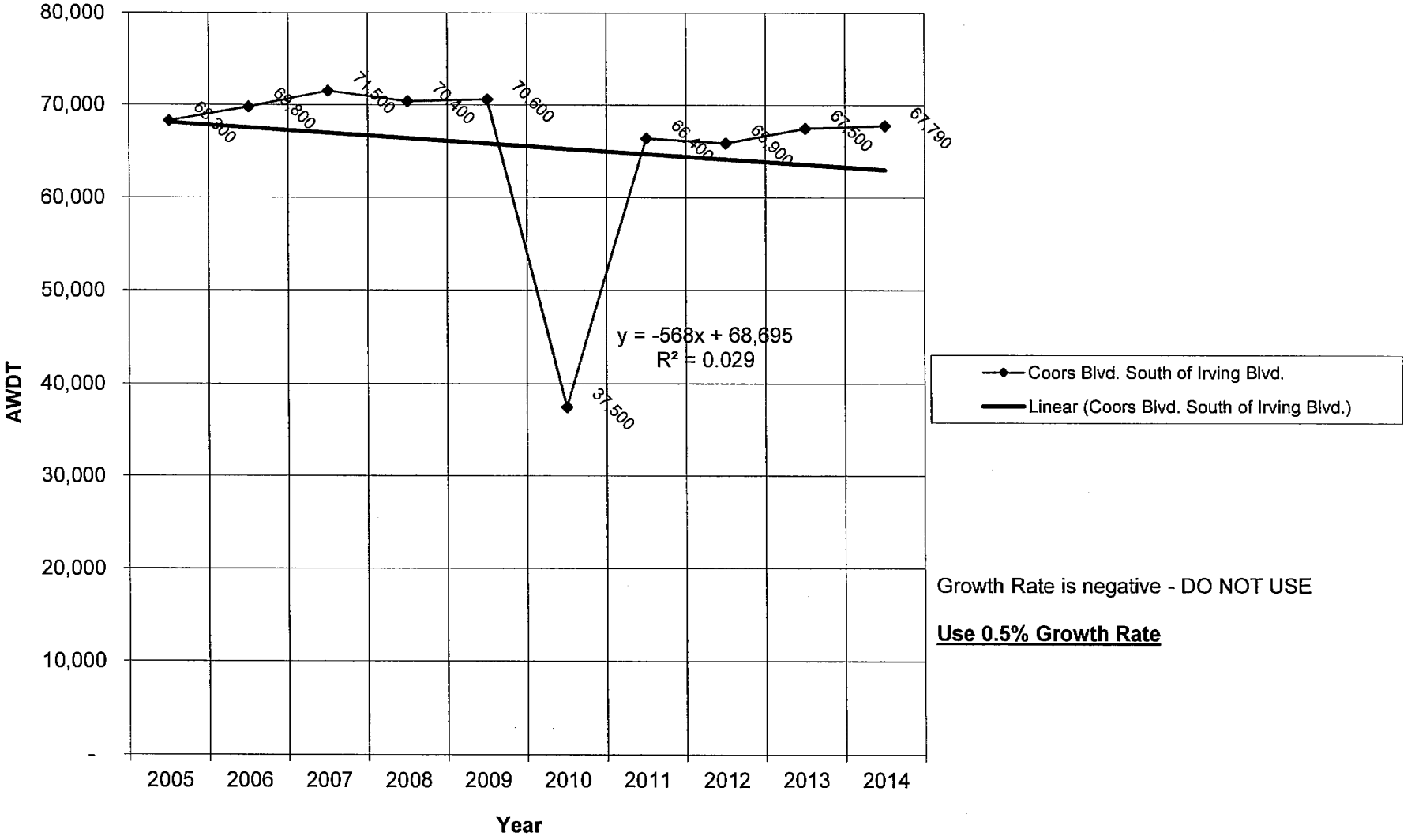


Growth Rate is negative - DO NOT USE

Use 0.5% Growth Rate

ER_Retail_Growth.xlsx

Historic Growth Chart Coors Blvd. South of Irving Blvd. (2005-2014)

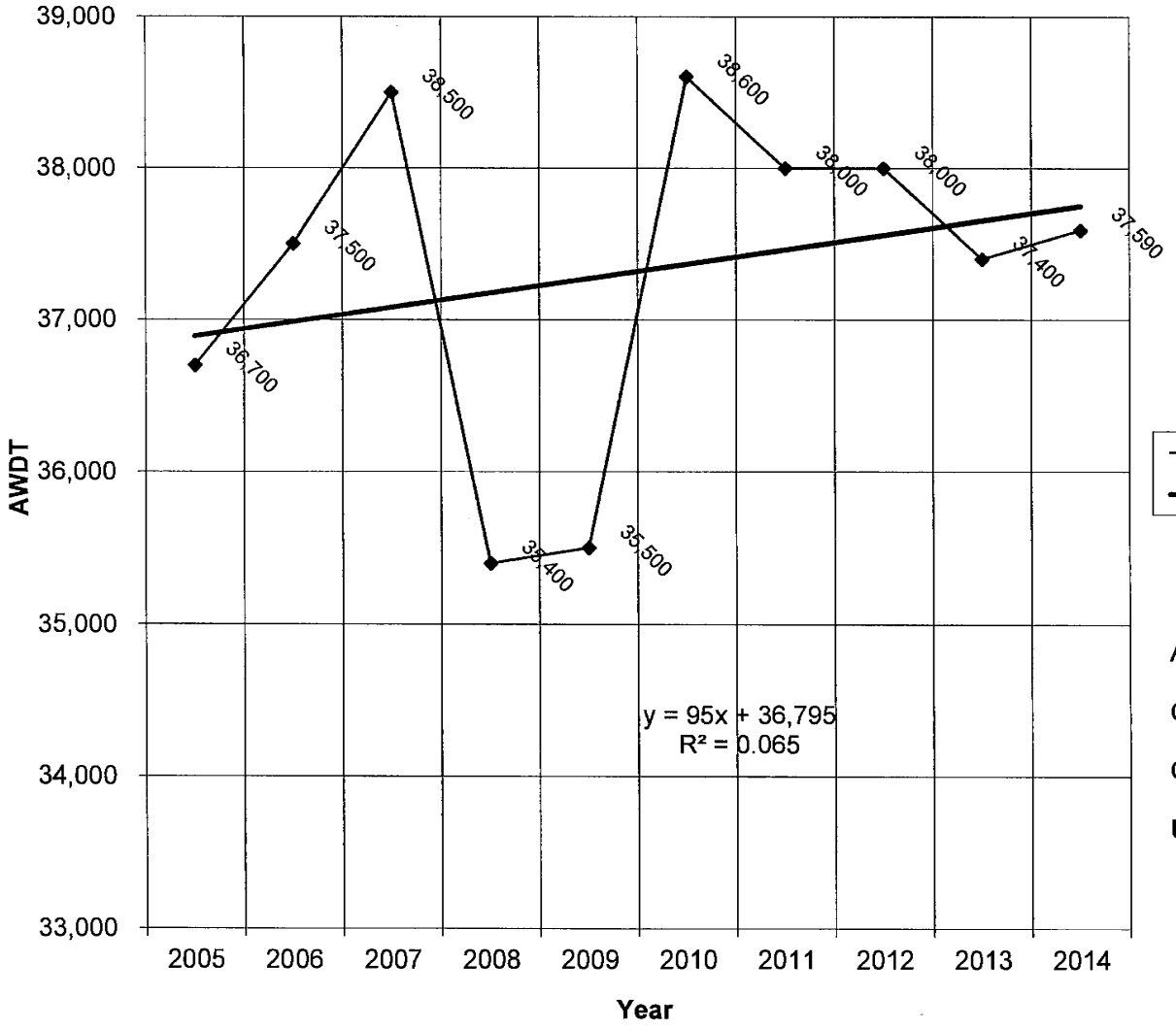


Growth Rate is negative - DO NOT USE

Use 0.5% Growth Rate

ER_Retail_Growth.xlsx

Historic Growth Chart Paseo del Norte East of Eagle Ranch Rd. (2005-2014)



Annual Increase (Trendline) = 95 veh./day

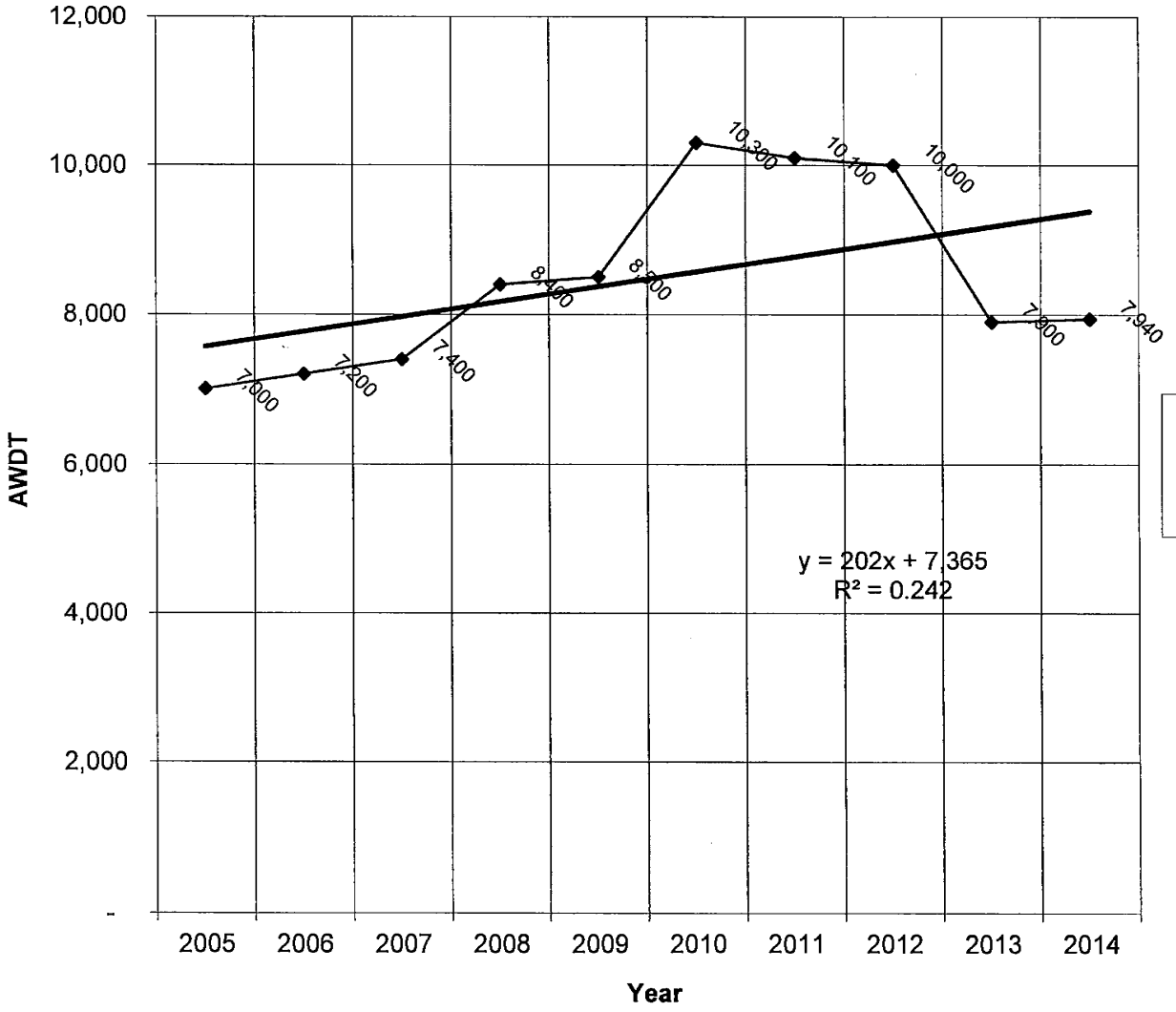
Growth Rate = 95 / 37590

Growth Rate = .0.0025 - too low

Use 0.5% Growth Rate

ER_Retail_Growth.xlsx

Historic Growth Chart Eagle Ranch Rd. South of Paseo del Norte (2005-2014)



Annual Increase (Trendline) = 202 veh./day

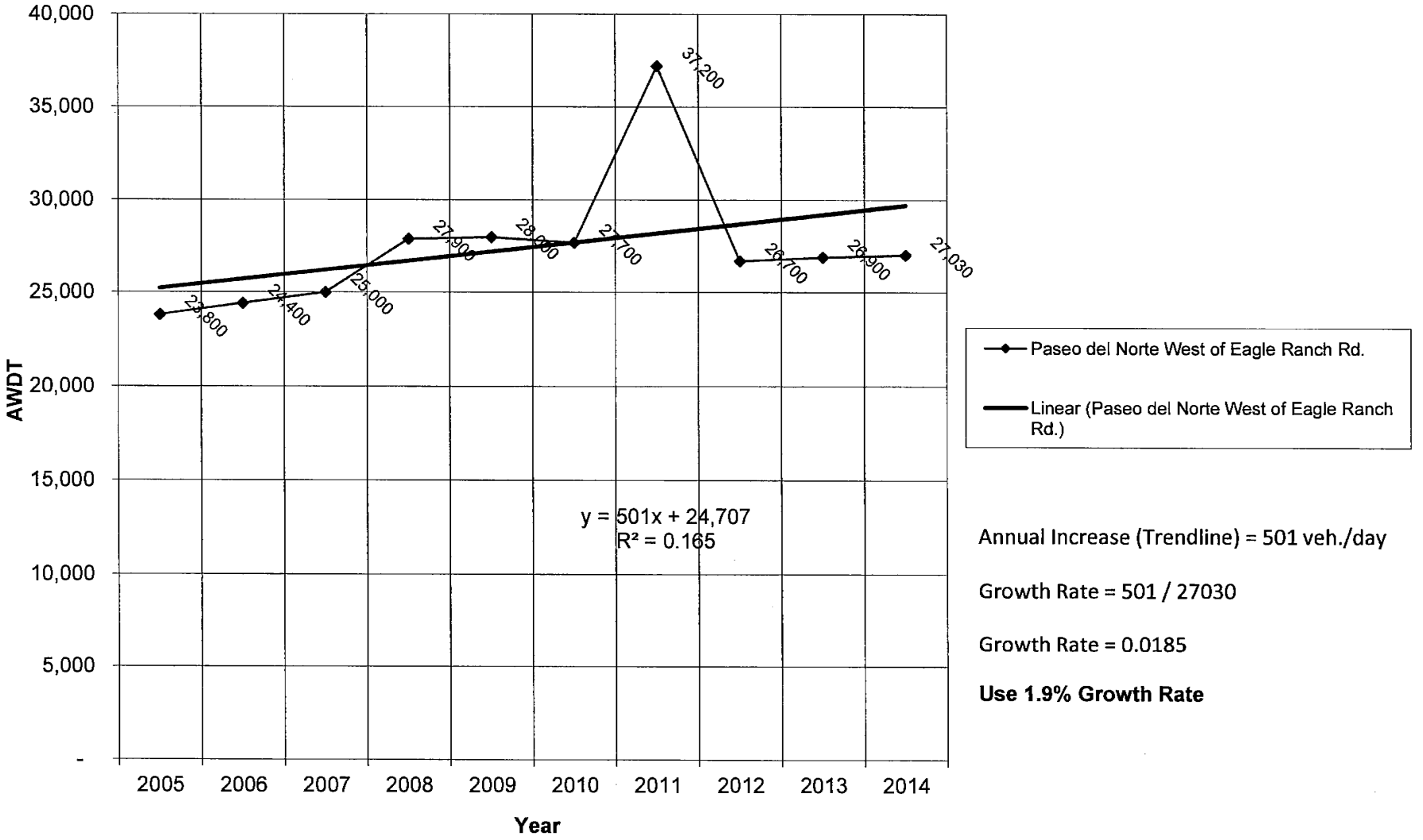
Growth Rate = 202 / 7940

Growth Rate = 0.0254

Use 2.5% Growth Rate

ER_Retail_Growth.xlsx

Historic Growth Chart Paseo del Norte West of Eagle Ranch Rd. (2005-2014)



Annual Increase (Trendline) = 501 veh./day

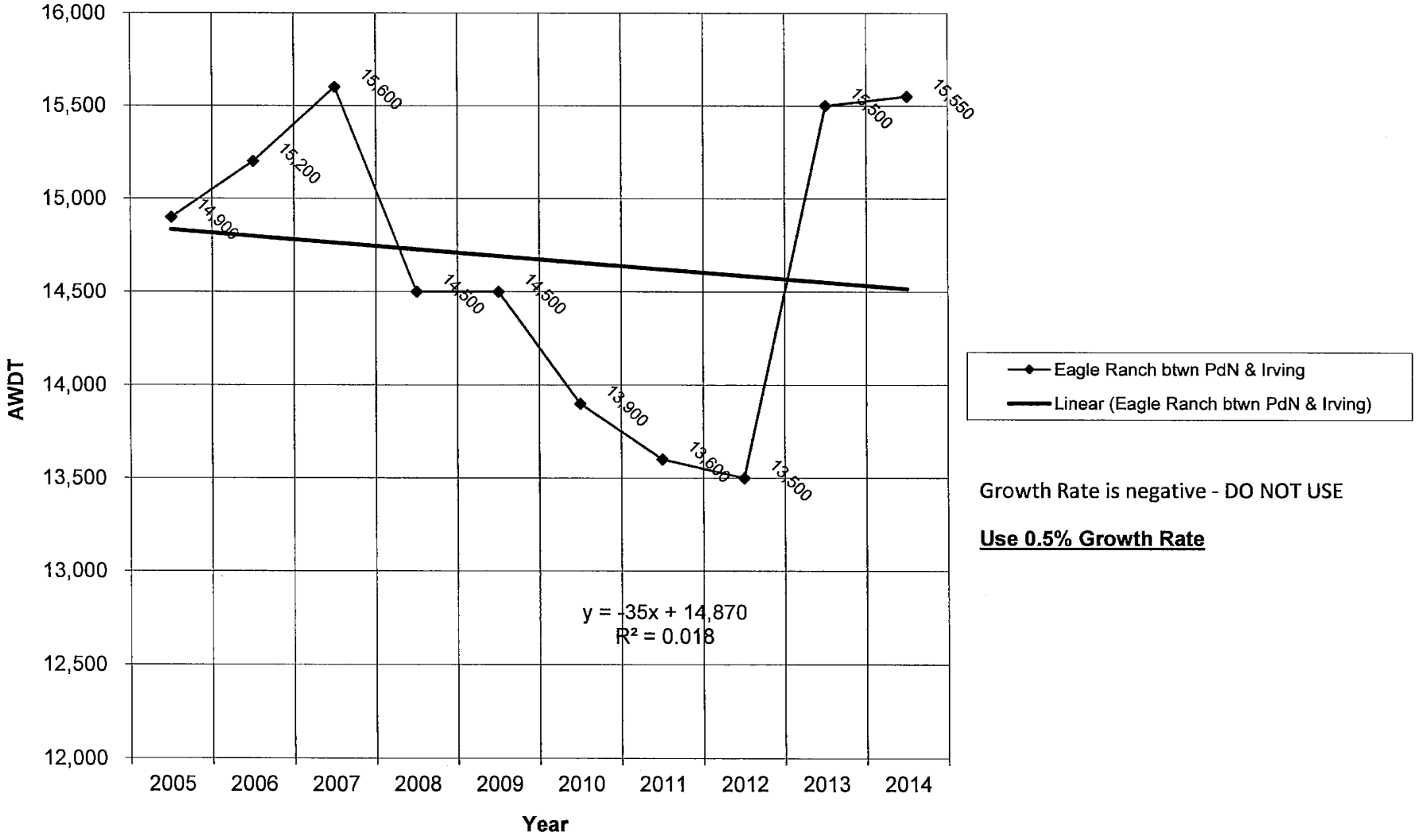
Growth Rate = 501 / 27030

Growth Rate = 0.0185

Use 1.9% Growth Rate

ER_Retail_Growth.xlsx

Historic Growth Chart Eagle Ranch btwn PdN & Irving (2005-2014)

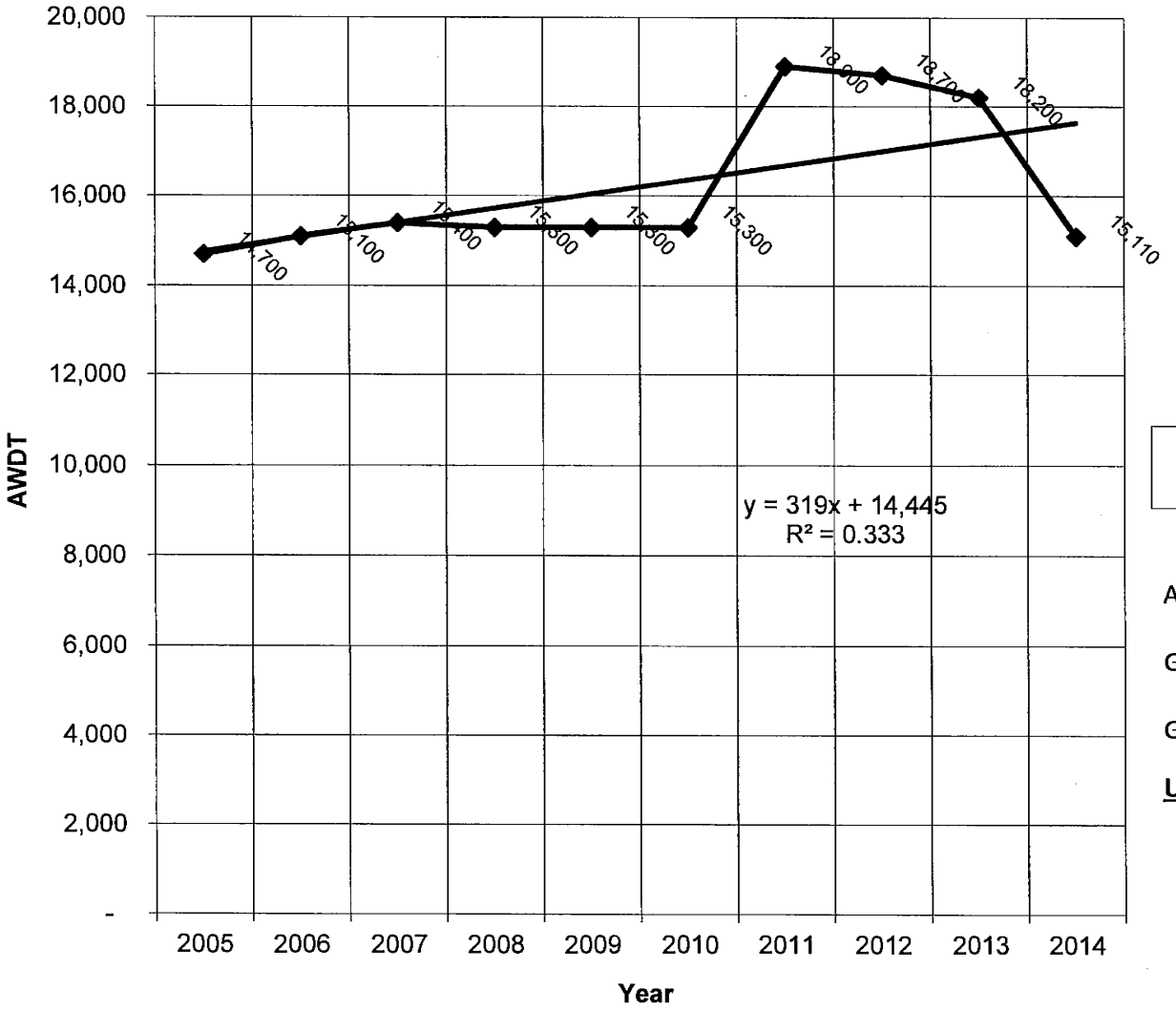


Growth Rate is negative - DO NOT USE

Use 0.5% Growth Rate

ER_Retail_Growth.xlsx

Historic Growth Chart Irving Blvd. West of Eagle Ranch Rd. (2005-2014)



Annual Increase (Trendline) = 319 veh./day

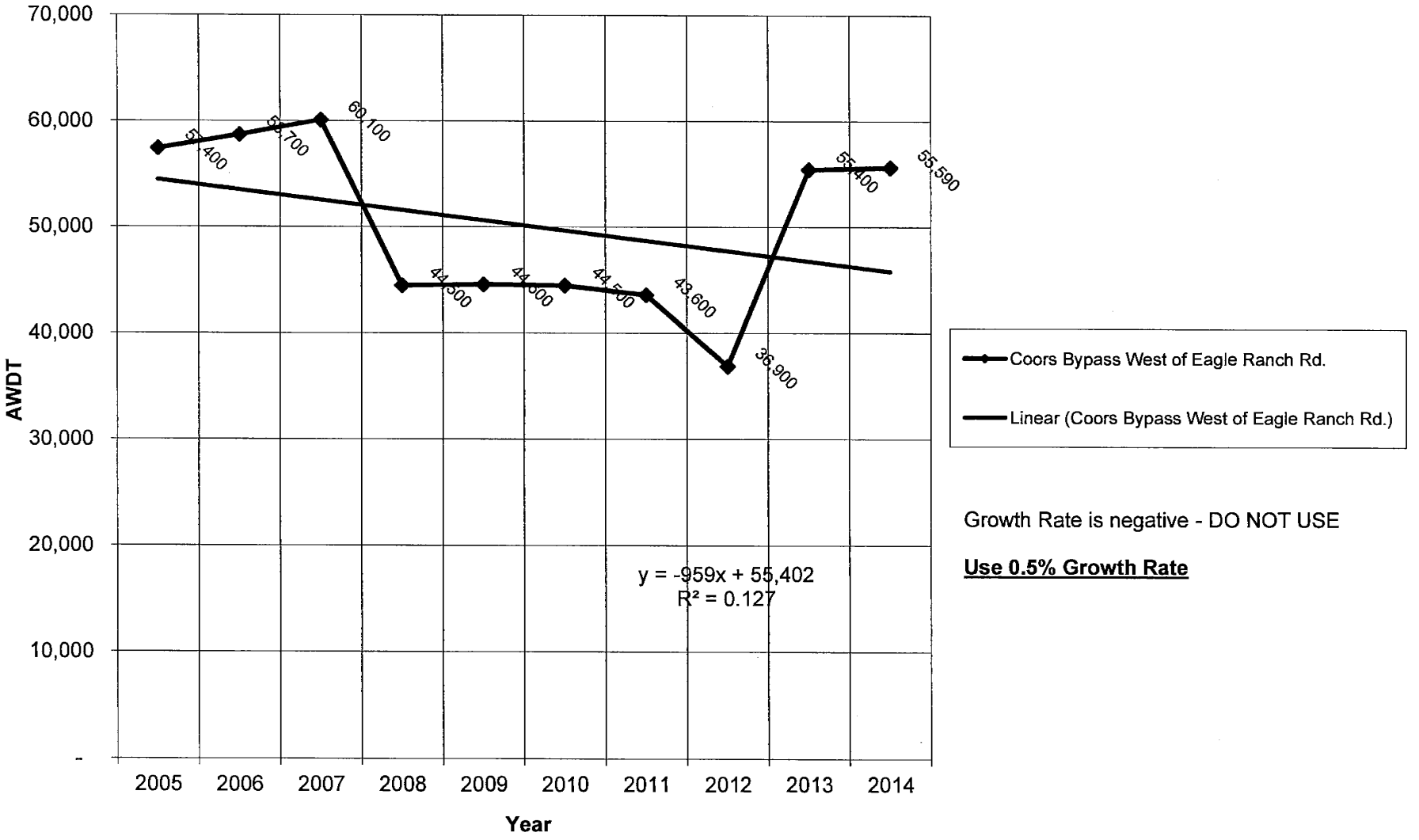
Growth Rate = 319 / 15110

Growth Rate = 0.0211

Use 2.1% Growth Rate

ER_Retail_Growth.xlsx

Historic Growth Chart Coors Bypass West of Eagle Ranch Rd. (2005-2014)

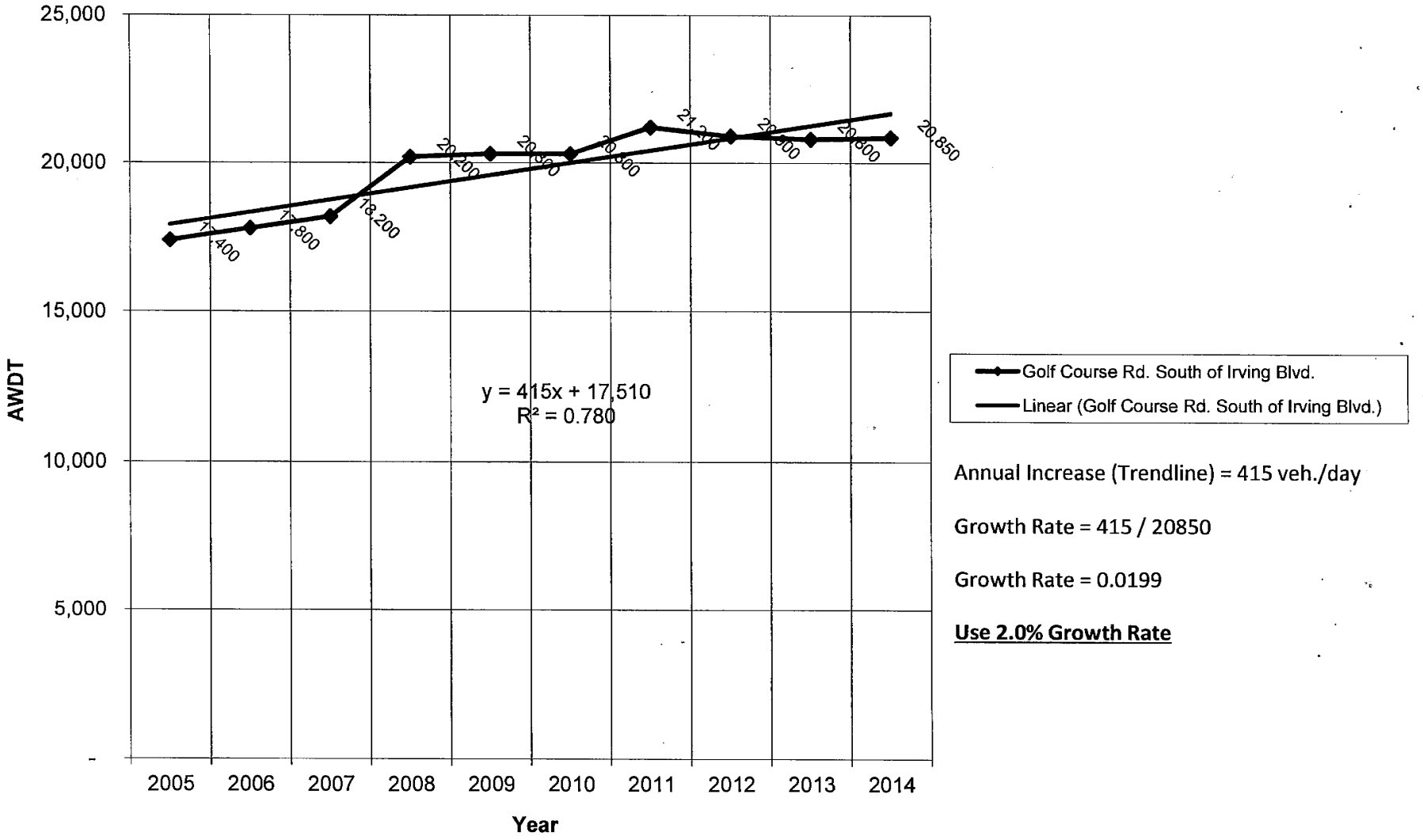


Growth Rate is negative - DO NOT USE

Use 0.5% Growth Rate

ER_Retail_Growth.xlsx

Historic Growth Chart Golf Course Rd. South of Irving Blvd. (2005-2014)



Annual Increase (Trendline) = 415 veh./day

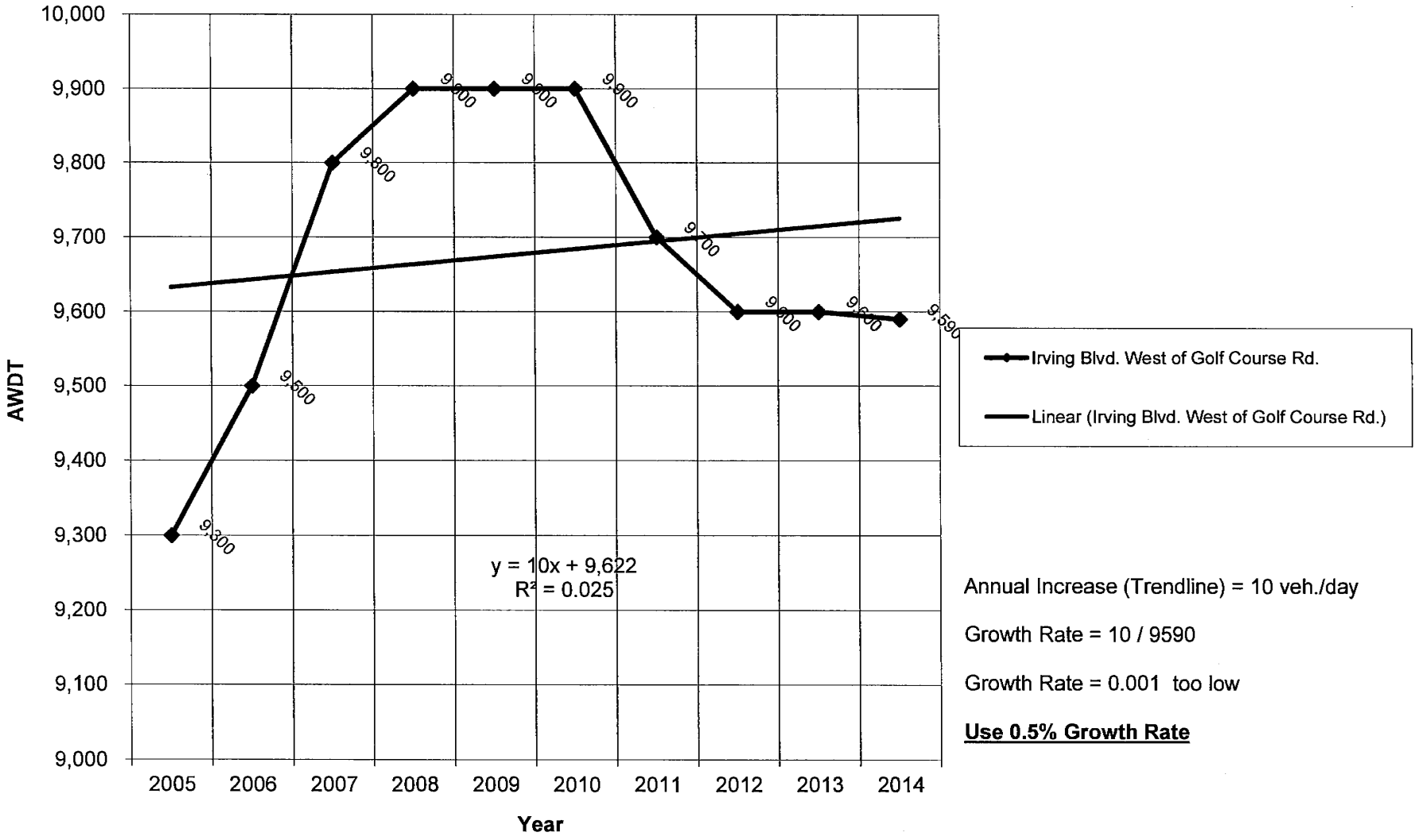
Growth Rate = 415 / 20850

Growth Rate = 0.0199

Use 2.0% Growth Rate

ER_Retail_Growth.xlsx

Historic Growth Chart Irving Blvd. West of Golf Course Rd. (2005-2014)



Annual Increase (Trendline) = 10 veh./day

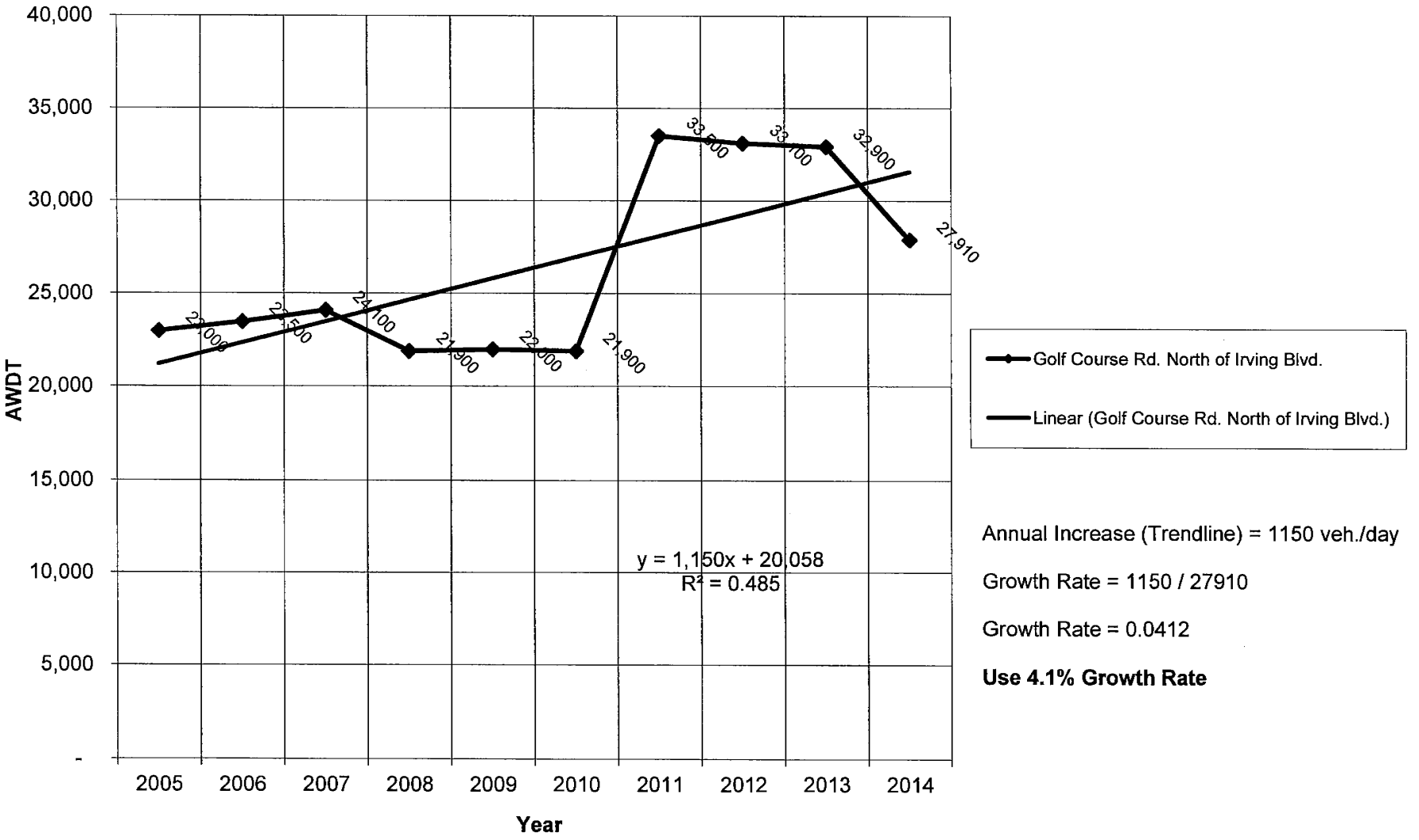
Growth Rate = 10 / 9590

Growth Rate = 0.001 too low

Use 0.5% Growth Rate

ER_Retail_Growth.xlsx

Historic Growth Chart Golf Course Rd. North of Irving Blvd. (2005-2014)



Annual Increase (Trendline) = 1150 veh./day

Growth Rate = 1150 / 27910

Growth Rate = 0.0412

Use 4.1% Growth Rate

ER_Retail_Growth.xlsx

Eagle Ranch Retail (Irving Blvd. / Eagle Ranch Rd.)

Projected Turning Movements SUMMARY

PROPOSED DEVELOPMENT (2018) - 100% Development

INTERSECTION: **Summary**

Irving Blvd. / Coors Blvd.

(1)

3.0% Truck

	0.94			0.94			0.94			0.94		PHF
	Eastbound (Irving Blvd.)			Westbound (Irving Blvd.)			Northbound (Coors Blvd.)			Southbound (Coors Blvd.)		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing (2016)	88	33	744	60	17	14	292	1,333	59	17	1,673	32
2018 (NO BUILD - A.M.)	*89*	*33*	*751*	*61*	*17*	*14*	*295*	*1,346*	*60*	*17*	*1,690*	*32*
2018 (BUILD - A.M.)	***91***	***33***	***753***	***61***	***17***	***14***	***298***	***1,346***	***60***	***17***	***1,690***	***36***

	0.98			0.98			0.98			0.98		PHF
	Eastbound (Irving Blvd.)			Westbound (Irving Blvd.)			Northbound (Coors Blvd.)			Southbound (Coors Blvd.)		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing (2016)	204	39	432	109	109	48	937	3,171	100	41	1,909	181
2018 (NO BUILD - P.M.)	*206*	*39*	*436*	*110*	*110*	*48*	*946*	*3,203*	*101*	*41*	*1,928*	*183*
2018 (BUILD - P.M.)	***214***	***40***	***444***	***110***	***111***	***48***	***953***	***3,203***	***101***	***41***	***1,928***	***190***

Paseo del Norte / Eagle Ranch Rd.

(2)

3.0% Truck

	0.93			0.93			0.93			0.93		PHF
	Eastbound (Paseo del Norte)			Westbound (Paseo del Norte)			Northbound (Eagle Ranch Rd.)			Southbound (Eagle Ranch Rd.)		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing (2016)	48	1,623	47	36	383	288	28	63	125	896	140	15
2018 (NO BUILD - A.M.)	*50*	*1,685*	*49*	*36*	*387*	*291*	*29*	*66*	*131*	*905*	*141*	*15*
2018 (BUILD - A.M.)	***56***	***1,685***	***49***	***36***	***387***	***294***	***29***	***69***	***131***	***906***	***143***	***18***

	0.95			0.95			0.95			0.95		PHF
	Eastbound (Paseo del Norte)			Westbound (Paseo del Norte)			Northbound (Eagle Ranch Rd.)			Southbound (Eagle Ranch Rd.)		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing (2016)	133	737	57	100	1,598	972	109	203	37	401	218	168
2018 (NO BUILD - P.M.)	*138*	*765*	*59*	*101*	*1,614*	*982*	*114*	*213*	*39*	*405*	*220*	*170*
2018 (BUILD - P.M.)	***150***	***765***	***59***	***101***	***1,614***	***988***	***114***	***219***	***39***	***411***	***227***	***183***

Eagle Ranch Rd. / Irving Blvd.

(3)

3.0% Truck

	0.91			0.91			0.91			0.91		PHF
	Eastbound (Eagle Ranch Rd.)			Westbound (Eagle Ranch Rd.)			Northbound (Irving Blvd.)			Southbound (Irving Blvd.)		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing (2016)	35	153	47	119	124	49	26	208	51	75	729	133
2018 (NO BUILD - A.M.)	*35*	*155*	*47*	*120*	*125*	*49*	*26*	*210*	*52*	*76*	*736*	*134*
2018 (BUILD - A.M.)	***35***	***157***	***54***	***120***	***129***	***53***	***40***	***224***	***52***	***78***	***743***	***134***

	0.96			0.96			0.96			0.96		PHF
	Eastbound (Eagle Ranch Rd.)			Westbound (Eagle Ranch Rd.)			Northbound (Irving Blvd.)			Southbound (Irving Blvd.)		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing (2016)	145	378	87	163	389	246	87	822	207	123	378	54
2018 (NO BUILD - P.M.)	*146*	*382*	*88*	*165*	*393*	*248*	*88*	*830*	*209*	*124*	*382*	*55*
2018 (BUILD - P.M.)	***146***	***390***	***118***	***165***	***400***	***255***	***116***	***858***	***209***	***132***	***412***	***55***

Coors Bypass / Eagle Ranch Rd.

(4)

3.0% Truck

	0.93			0.93			0.93			0.93		PHF
	Eastbound (Coors Bypass)			Westbound (Coors Bypass)			Northbound (Eagle Ranch Rd.)			Southbound (Eagle Ranch Rd.)		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing (2016)	16	1,494	183	61	952	23	111	25	12	6	16	3
2018 (NO BUILD - A.M.)	*16*	*1,509*	*185*	*62*	*962*	*23*	*112*	*25*	*12*	*6*	*16*	*3*
2018 (BUILD - A.M.)	***16***	***1,509***	***200***	***66***	***962***	***23***	***112***	***25***	***12***	***13***	***16***	***5***

	0.97			0.97			0.97			0.97		PHF
	Eastbound (Coors Bypass)			Westbound (Coors Bypass)			Northbound (Eagle Ranch Rd.)			Southbound (Eagle Ranch Rd.)		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing (2016)	145	1,113	230	211	2,221	182	431	147	34	113	265	60
2018 (NO BUILD - P.M.)	*146*	*1,124*	*232*	*213*	*2,243*	*184*	*435*	*148*	*34*	*114*	*268*	*61*
2018 (BUILD - P.M.)	***146***	***1,124***	***261***	***221***	***2,243***	***184***	***435***	***148***	***34***	***146***	***268***	***69***

Eagle Ranch Retail (Irving Blvd. / Eagle Ranch Rd.)

Projected Turning Movements SUMMARY

PROPOSED DEVELOPMENT (2018) - 100% Development

INTERSECTION: **Summary**

Irving Blvd. / Golf Course Rd.

(5)

3.0% Truck

	0.93			0.93			0.93			0.93			PHF
	Eastbound (Irving Blvd.)			Westbound (Irving Blvd.)			Northbound (Golf Course Rd.)			Southbound (Golf Course Rd.)			
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
Existing (2016)	103	484	124	14	70	178	26	589	15	574	1,098	51	
2018 (NO BUILD - A.M.)	*107*	*504*	*129*	*14*	*71*	*180*	*26*	*595*	*15*	*580*	*1,109*	*52*	
2018 (BUILD - A.M.)	***107***	***507***	***129***	***17***	***73***	***186***	***26***	***595***	***21***	***592***	***1,109***	***52***	

	0.95			0.95			0.95			0.95			PHF
	Eastbound (Irving Blvd.)			Westbound (Irving Blvd.)			Northbound (Golf Course Rd.)			Southbound (Golf Course Rd.)			
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
Existing (2016)	88	200	56	61	388	690	115	1,095	28	268	816	178	
2018 (NO BUILD - P.M.)	*92*	*208*	*58*	*62*	*392*	*697*	*116*	*1,106*	*28*	*271*	*824*	*180*	
2018 (BUILD - P.M.)	***92***	***214***	***58***	***74***	***399***	***724***	***116***	***1,106***	***39***	***296***	***824***	***180***	

Westside Dr. / Eagle Ranch Rd.

(6)

3.0% Truck

	0.82			0.82			0.82			0.82			PHF
	Eastbound (Westside Dr.)			Westbound (Westside Dr.)			Northbound (Eagle Ranch Rd.)			Southbound (Eagle Ranch Rd.)			
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
Existing (2016)	11	7	33	13	0	24	10	255	55	24	407	1	
2018 (NO BUILD - A.M.)	*11*	*7*	*33*	*13*	*0*	*24*	*10*	*258*	*56*	*24*	*411*	*1*	
2018 (BUILD - A.M.)	***22***	***7***	***45***	***13***	***0***	***24***	***32***	***254***	***56***	***24***	***405***	***25***	

	0.96			0.96			0.96			0.96			PHF
	Eastbound (Westside Dr.)			Westbound (Westside Dr.)			Northbound (Eagle Ranch Rd.)			Southbound (Eagle Ranch Rd.)			
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
Existing (2016)	1	1	16	31	5	54	27	643	32	29	728	3	
2018 (NO BUILD - P.M.)	*1*	*1*	*16*	*31*	*5*	*55*	*27*	*649*	*32*	*29*	*735*	*3*	
2018 (BUILD - P.M.)	***57***	***1***	***68***	***31***	***5***	***55***	***77***	***634***	***32***	***29***	***722***	***52***	

Driveway "A" / Irving Blvd.

(7)

3.0% Truck

	0.91			0.91			0.91			0.91			PHF
	Eastbound (Driveway "A")			Westbound (Driveway "A")			Northbound (Irving Blvd.)			Southbound (Irving Blvd.)			
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
Existing (2016)	0	0	0	0	0	0	0	0	0	0	0	0	
2018 (NO BUILD - A.M.)	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*294*	*0*	*0*	*946*	*0*	
2018 (BUILD - A.M.)	***0***	***0***	***0***	***15***	***0***	***14***	***0***	***290***	***22***	***38***	***933***	***0***	

	0.96			0.96			0.96			0.96			PHF
	Eastbound (Driveway "A")			Westbound (Driveway "A")			Northbound (Irving Blvd.)			Southbound (Irving Blvd.)			
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
Existing (2016)	0	0	0	0	0	0	0	0	0	0	0	0	
2018 (NO BUILD - P.M.)	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*1,224*	*0*	*0*	*561*	*0*	
2018 (BUILD - P.M.)	***0***	***0***	***0***	***48***	***0***	***71***	***0***	***1,209***	***50***	***60***	***551***	***0***	

Eagle Ranch Retail (Irving Blvd. / Eagle Ranch Rd.)

Projected Turning Movements Worksheet

Irving Blvd. / Coors Blvd.

INTERSECTION: E-W Street: **Irving Blvd.** (1)

N-S Street: **Coors Blvd.**

Year of Existing Counts 2016

Implementation Year **2018**

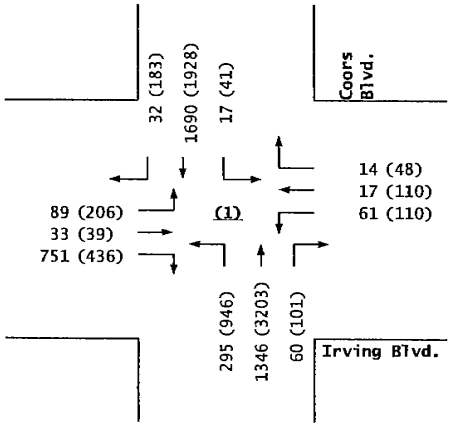
Growth Rates	0.50%			0.50%			0.50%			0.50%		
	Eastbound (Irving Blvd.)			Westbound (Irving Blvd.)			Northbound (Coors Blvd.)			Southbound (Coors Blvd.)		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing Volumes	88	33	744	60	17	14	292	1,333	59	17	1,673	32
Background Traffic Growth	1	0	7	1	0	0	3	13	1	0	17	0
Subtotal (NO BUILD - A.M.)	***89***	***33***	***751***	***61***	***17***	***14***	***295***	***1,346***	***60***	***17***	***1,690***	***32***
Percent Commercial Trips Generated(Entering)	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.35%*	*0.00%*	*4.41%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*4.57%*
Percent Commercial Trips Generated(Exiting)	*4.57%*	*0.35%*	*4.41%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*
Total Trips Generated	2	0	2	0	0	0	3	0	0	0	0	4
Total AM Peak Hour BUILD Volumes	**91**	**33**	**753**	**61**	**17**	**14**	**298**	**1,346**	**60**	**17**	**1,690**	**36**

	Eastbound (Irving Blvd.)			Westbound (Irving Blvd.)			Northbound (Coors Blvd.)			Southbound (Coors Blvd.)		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing Volumes	204	39	432	109	109	48	937	3,171	100	41	1,909	181
Background Traffic Growth	2	0	4	1	1	0	9	32	1	0	19	2
Subtotal (NO BUILD - P.M.)	***206***	***39***	***436***	***110***	***110***	***48***	***946***	***3,203***	***101***	***41***	***1,928***	***183***
Percent Commercial Trips Generated(Entering)	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.35%*	*0.00%*	*4.41%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*4.57%*
Percent Commercial Trips Generated(Exiting)	*4.57%*	*0.35%*	*4.41%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*
Total Trips Generated	8	1	8	0	1	0	7	0	0	0	0	7
Total PM Peak Hour BUILD Volumes	**214**	**40**	**444**	**110**	**111**	**48**	**953**	**3,203**	**101**	**41**	**1,928**	**190**

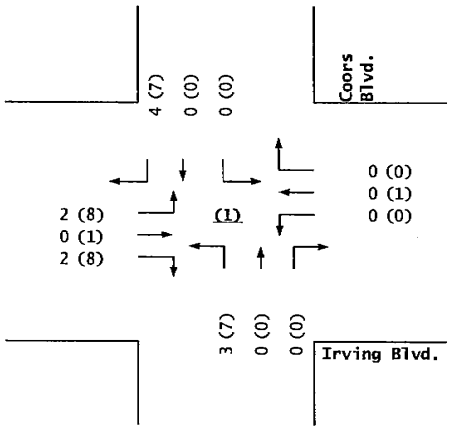
	Entering	Exiting		
Number of Commercial Trips Generated	**79**	**39**	A.M.	100% Commercial Development
	156	**172**	P.M.	

	Eastbound (Irving Blvd.)			Westbound (Irving Blvd.)			Northbound (Coors Blvd.)			Southbound (Coors Blvd.)		
2016 AM Peak Hr. Volumes	88	33	744	60	17	14	292	1,333	59	17	1,673	32
2016 PM Peak Hr. Volumes	204	39	432	109	109	48	937	3,171	100	41	1,909	181

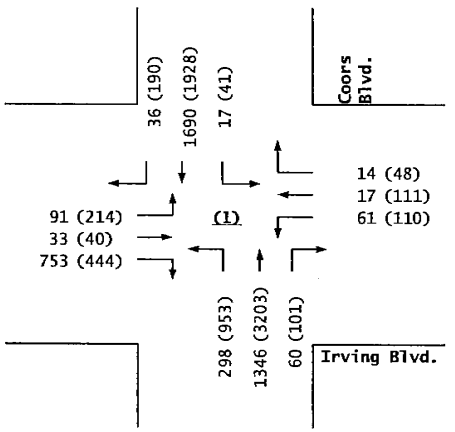
2018
NO BUILD



Trips



2018
BUILD



Irving Blvd. / Coors Blvd.

Eagle Ranch Retail (Irving Blvd. / Eagle Ranch Rd.)

Projected Turning Movements Worksheet

Paseo del Norte / Eagle Ranch Rd.

INTERSECTION: E-W Street: **Paseo del Norte** (2)

N-S Street: **Eagle Ranch Rd.**

Year of Existing Counts 2016

Implementation Year **2018**

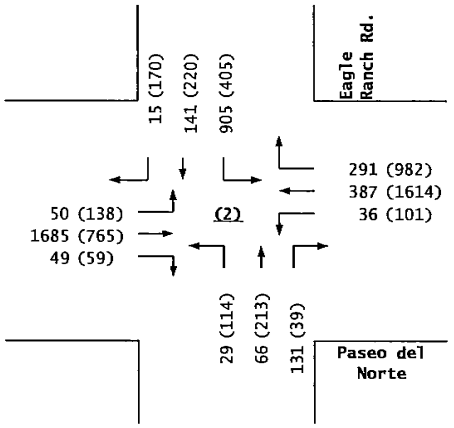
Growth Rates	1.90%			0.50%			2.50%			0.50%		
	Eastbound (Paseo del Norte)			Westbound (Paseo del Norte)			Northbound (Eagle Ranch Rd.)			Southbound (Eagle Ranch Rd.)		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing Volumes	48	1,623	47	36	383	288	28	63	125	896	140	15
Background Traffic Growth	2	62	2	0	4	3	1	3	6	9	1	0
Subtotal (NO BUILD - A.M.)	***50***	***1,685***	***49***	***36***	***387***	***291***	***29***	***66***	***131***	***905***	***141***	***15***
Percent Commercial Trips Generated(Entering)	***7.57%***	*0.00%*	*0.00%*	*0.00%*	*0.00%*	***3.68%***	*0.00%*	***4.14%***	*0.00%*	*0.00%*	*0.00%*	*0.00%*
Percent Commercial Trips Generated(Exiting)	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	***3.68%***	***4.14%***	***7.57%***
Total Trips Generated	6	0	0	0	0	3	0	3	0	1	2	3
Total AM Peak Hour BUILD Volumes	56	1,685	49	36	387	294	29	69	131	906	143	18

	Eastbound (Paseo del Norte)			Westbound (Paseo del Norte)			Northbound (Eagle Ranch Rd.)			Southbound (Eagle Ranch Rd.)		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing Volumes	133	737	57	100	1,598	972	109	203	37	401	218	168
Background Traffic Growth	5	28	2	1	16	10	5	10	2	4	2	2
Subtotal (NO BUILD - P.M.)	***138***	***765***	***59***	***101***	***1,614***	***982***	***114***	***213***	***39***	***405***	***220***	***170***
Percent Commercial Trips Generated(Entering)	***7.57%***	*0.00%*	*0.00%*	*0.00%*	*0.00%*	***3.68%***	*0.00%*	***4.14%***	*0.00%*	*0.00%*	*0.00%*	*0.00%*
Percent Commercial Trips Generated(Exiting)	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	***3.68%***	***4.14%***	***7.57%***
Total Trips Generated	12	0	0	0	0	6	0	6	0	6	7	13
Total PM Peak Hour BUILD Volumes	150	765	59	101	1,614	988	114	219	39	411	227	183

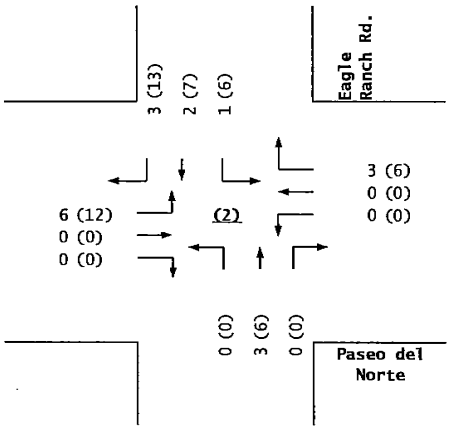
	Entering	Exiting		
Number of Commercial Trips Generated	**79**	**39**	A.M.	100% Commercial Development
	156	**172**	P.M.	

	Eastbound (Paseo del Norte)			Westbound (Paseo del Norte)			Northbound (Eagle Ranch Rd.)			Southbound (Eagle Ranch Rd.)		
2016 AM Peak Hr. Volumes	48	1623	47	36	383	288	28	63	125	896	140	15
2016 PM Peak Hr. Volumes	133	737	57	100	1,598	972	109	203	37	401	218	168

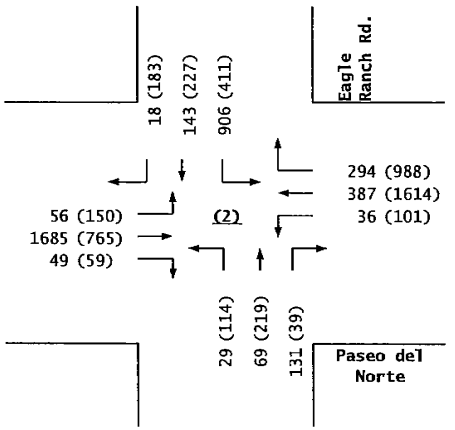
2018
NO BUILD



Trips



2018
BUILD



Paseo del Norte / Eagle Ranch Rd.

Eagle Ranch Retail (Irving Blvd. / Eagle Ranch Rd.)

Projected Turning Movements Worksheet

Irving Blvd. / Eagle Ranch Rd.

INTERSECTION: E-W Street: **Irving Blvd.** (3)

N-S Street: **Eagle Ranch Rd.**

Year of Existing Counts 2016

Implementation Year **2018**

Growth Rates 0.50% 0.50% 0.50% 0.50%

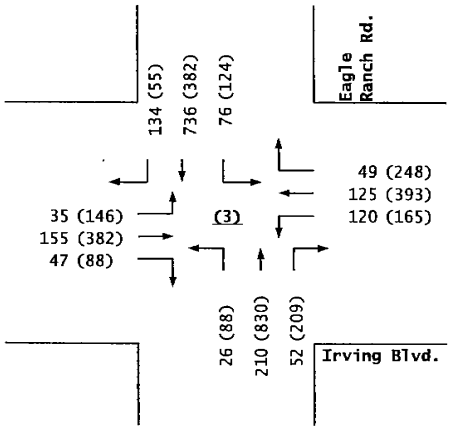
	Eastbound (Irving Blvd.)			Westbound (Irving Blvd.)			Northbound (Eagle Ranch Rd.)			Southbound (Eagle Ranch Rd.)		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing Volumes	35	153	47	119	124	49	26	208	51	75	729	133
Background Traffic Growth	0	2	0	1	1	0	0	2	1	1	7	1
Subtotal (NO BUILD - A.M.)	***35***	***155***	***47***	***120***	***125***	***49***	***26***	***210***	***52***	***76***	***736***	***134***
Percent Commercial Trips Generated(Entering)	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*4.67%*	*4.66%*	*17.70%*	*17.69%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*
Percent Commercial Trips Generated(Exiting)	*0.00%*	*4.67%*	*17.70%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*4.66%*	*17.69%*	*0.00%*
Total Trips Generated	0	2	7	0	4	4	14	14	0	2	7	0
Total AM Peak Hour BUILD Volumes	**35**	**157**	**54**	**120**	**129**	**53**	**40**	**224**	**52**	**78**	**743**	**134**

	Eastbound (Irving Blvd.)			Westbound (Irving Blvd.)			Northbound (Eagle Ranch Rd.)			Southbound (Eagle Ranch Rd.)		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing Volumes	145	378	87	163	389	246	87	822	207	123	378	54
Background Traffic Growth	1	4	1	2	4	2	1	8	2	1	4	1
Subtotal (NO BUILD - P.M.)	***146***	***382***	***88***	***165***	***393***	***248***	***88***	***830***	***209***	***124***	***382***	***55***
Percent Commercial Trips Generated(Entering)	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*4.67%*	*4.66%*	*17.70%*	*17.69%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*
Percent Commercial Trips Generated(Exiting)	*0.00%*	*4.67%*	*17.70%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*4.66%*	*17.69%*	*0.00%*
Total Trips Generated	0	8	30	0	7	7	28	28	0	8	30	0
Total PM Peak Hour BUILD Volumes	**146**	**390**	**118**	**165**	**400**	**255**	**116**	**858**	**209**	**132**	**412**	**55**

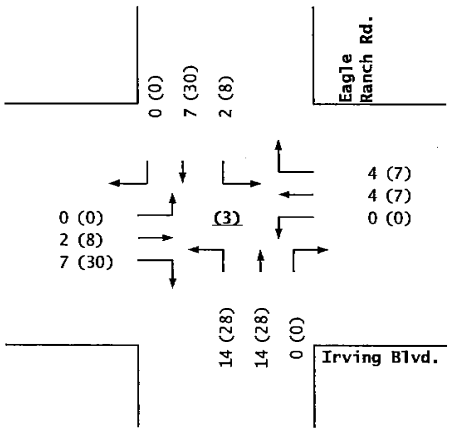
	Entering	Exiting		
Number of Commercial Trips Generated	**79**	**39**	A.M.	100% Commercial Development
	156	**172**	P.M.	

	Eastbound (Irving Blvd.)			Westbound (Irving Blvd.)			Northbound (Eagle Ranch Rd.)			Southbound (Eagle Ranch Rd.)		
2016 AM Peak Hr. Volumes	35	153	47	119	124	49	26	208	51	75	729	133
2016 PM Peak Hr. Volumes	145	378	87	163	389	246	87	822	207	123	378	54

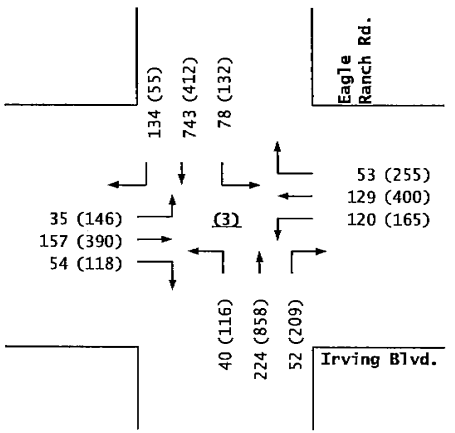
2018
NO BUILD



Trips



2018
BUILD



Irving Blvd. / Eagle Ranch Rd.

Eagle Ranch Retail (Irving Blvd. / Eagle Ranch Rd.)

Projected Turning Movements Worksheet

Coors Bypass / Eagle Ranch Rd.

INTERSECTION: E-W Street: **Coors Bypass** (4)

N-S Street: **Eagle Ranch Rd.**

Year of Existing Counts 2016

Implementation Year **2018**

Growth Rates 0.50% 0.50% 0.50% 0.50%

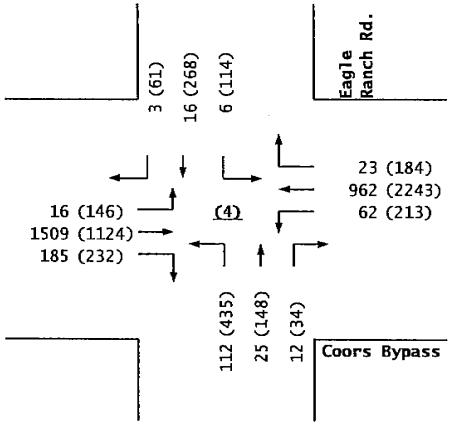
	Eastbound (Coors Bypass)			Westbound (Coors Bypass)			Northbound (Eagle Ranch Rd.)			Southbound (Eagle Ranch Rd.)		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing Volumes	16	1,494	183	61	952	23	111	25	12	6	16	3
Background Traffic Growth	0	15	2	1	10	0	1	0	0	0	0	0
Subtotal (NO BUILD - A.M.)	***16***	***1,509***	***185***	***62***	***962***	***23***	***112***	***25***	***12***	***6***	***16***	***3***
Percent Commercial Trips Generated(Entering)	*0.00%*	*0.00%*	*18.40%*	*4.88%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*
Percent Commercial Trips Generated(Exiting)	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*18.40%*	*0.00%*	*4.88%*
Total Trips Generated	0	0	15	4	0	0	0	0	0	7	0	2
Total AM Peak Hour BUILD Volumes	**16**	**1,509**	**200**	**66**	**962**	**23**	**112**	**25**	**12**	**13**	**16**	**5**

	Eastbound (Coors Bypass)			Westbound (Coors Bypass)			Northbound (Eagle Ranch Rd.)			Southbound (Eagle Ranch Rd.)		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing Volumes	145	1,113	230	211	2,221	182	431	147	34	113	265	60
Background Traffic Growth	1	11	2	2	22	2	4	1	0	1	3	1
Subtotal (NO BUILD - P.M.)	***146***	***1,124***	***232***	***213***	***2,243***	***184***	***435***	***148***	***34***	***114***	***268***	***61***
Percent Commercial Trips Generated(Entering)	*0.00%*	*0.00%*	*18.40%*	*4.88%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*
Percent Commercial Trips Generated(Exiting)	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*18.40%*	*0.00%*	*4.88%*
Total Trips Generated	0	0	29	8	0	0	0	0	0	32	0	8
Total PM Peak Hour BUILD Volumes	**146**	**1,124**	**261**	**221**	**2,243**	**184**	**435**	**148**	**34**	**146**	**268**	**69**

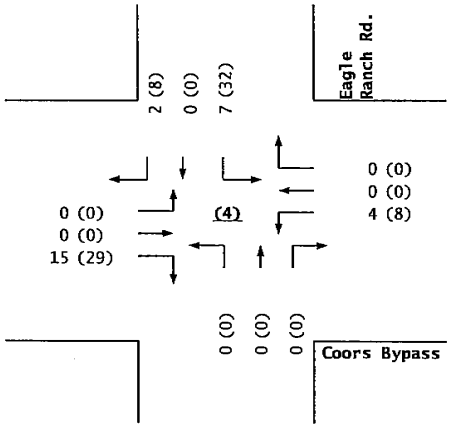
	Entering	Exiting		
Number of Commercial Trips Generated	**79**	**39**	A.M.	100% Commercial Development
	156	**172**	P.M.	

	Eastbound (Coors Bypass)			Westbound (Coors Bypass)			Northbound (Eagle Ranch Rd.)			Southbound (Eagle Ranch Rd.)		
2016 AM Peak Hr. Volumes	16	1494	183	61	952	23	111	25	12	6	16	3
2016 PM Peak Hr. Volumes	145	1,113	230	211	2,221	182	431	147	34	113	265	60

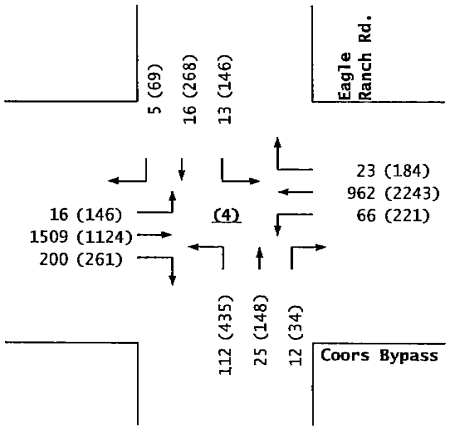
2018
NO BUILD



Trips



2018
BUILD



Coors Bypass / Eagle Ranch Rd.

Eagle Ranch Retail (Irving Blvd. / Eagle Ranch Rd.)

Projected Turning Movements Worksheet

Irving Blvd. / Golf Course Rd.

INTERSECTION: E-W Street: **Irving Blvd.** (5)

N-S Street: **Golf Course Rd.**

Year of Existing Counts 2016

Implementation Year **2018**

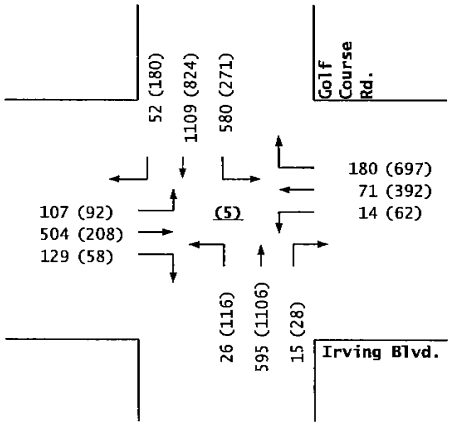
Growth Rates	**2.10%**			**0.50%**			**0.50%**			**0.50%**		
	Eastbound (Irving Blvd.)			Westbound (Irving Blvd.)			Northbound (Golf Course Rd.)			Southbound (Golf Course Rd.)		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing Volumes	103	484	124	14	70	178	26	589	15	574	1,098	51
Background Traffic Growth	4	20	5	0	1	2	0	6	0	6	11	1
Subtotal (NO BUILD - A.M.)	***107***	***504***	***129***	***14***	***71***	***180***	***26***	***595***	***15***	***580***	***1,109***	***52***
Percent Commercial Trips Generated(Entering)	*0.00%*	*4.03%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*7.13%*	*15.80%*	*0.00%*	*0.00%*
Percent Commercial Trips Generated(Exiting)	*0.00%*	*0.00%*	*0.00%*	*7.13%*	*4.03%*	*15.80%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*
Total Trips Generated	0	3	0	3	2	6	0	0	6	12	0	0
Total AM Peak Hour BUILD Volumes	**107**	**507**	**129**	**17**	**73**	**186**	**26**	**595**	**21**	**592**	**1,109**	**52**

	Eastbound (Irving Blvd.)			Westbound (Irving Blvd.)			Northbound (Golf Course Rd.)			Southbound (Golf Course Rd.)		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing Volumes	88	200	56	61	388	690	115	1,095	28	268	816	178
Background Traffic Growth	4	8	2	1	4	7	1	11	0	3	8	2
Subtotal (NO BUILD - P.M.)	***92***	***208***	***58***	***62***	***392***	***697***	***116***	***1,106***	***28***	***271***	***824***	***180***
Percent Commercial Trips Generated(Entering)	*0.00%*	*4.03%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*7.13%*	*15.80%*	*0.00%*	*0.00%*
Percent Commercial Trips Generated(Exiting)	*0.00%*	*0.00%*	*0.00%*	*7.13%*	*4.03%*	*15.80%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*
Total Trips Generated	0	6	0	12	7	27	0	0	11	25	0	0
Total PM Peak Hour BUILD Volumes	**92**	**214**	**58**	**74**	**399**	**724**	**116**	**1,106**	**39**	**296**	**824**	**180**

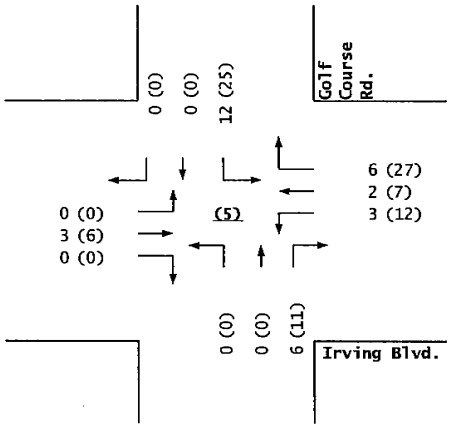
	Entering	Exiting		
Number of Commercial Trips Generated	**79**	**39**	A.M.	100% Commercial Development
	156	**172**	P.M.	

	Eastbound (Irving Blvd.)			Westbound (Irving Blvd.)			Northbound (Golf Course Rd.)			Southbound (Golf Course Rd.)		
2016 AM Peak Hr. Volumes	103	484	124	14	70	178	26	589	15	574	1,098	51
2016 PM Peak Hr. Volumes	88	200	56	61	388	690	115	1,095	28	268	816	178

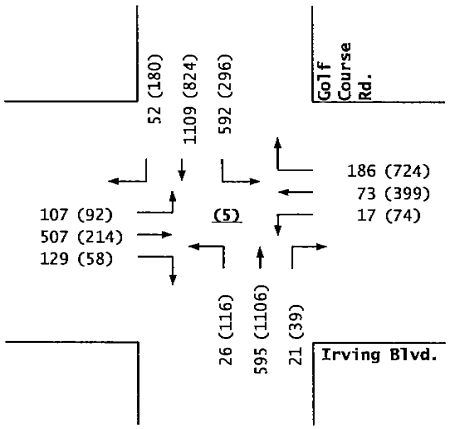
2018
NO BUILD



Trips



2018
BUILD



Irving Blvd. / Golf Course Rd.

Eagle Ranch Retail (Irving Blvd. / Eagle Ranch Rd.)

Projected Turning Movements Worksheet

Westside Dr. / Eagle Ranch Rd.

INTERSECTION: E-W Street: **Westside Dr.** (6)

N-S Street: **Eagle Ranch Rd.**

Year of Existing Counts 2016

Implementation Year **2018**

Growth Rates	0.50%			0.50%			0.50%			0.50%		
	Eastbound (Westside Dr.)			Westbound (Westside Dr.)			Northbound (Eagle Ranch Rd.)			Southbound (Eagle Ranch Rd.)		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing Volumes	11	7	33	13	0	24	10	255	55	24	407	1
Background Traffic Growth	0	0	0	0	0	0	0	3	1	0	4	0
Subtotal (NO BUILD - A.M.)	***11***	***7***	***33***	***13***	***0***	***24***	***10***	***258***	***56***	***24***	***411***	***1***
Percent Commercial Trips Generated(Entering)	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.19%*	*0.00%*	*22.35%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*23.28%*
Percent Commercial Trips Generated(Exiting)	*23.28%*	*0.19%*	*22.35%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*
Total Trips Generated	9	0	9	0	0	0	18	0	0	0	0	18
Subtotal AM Pk Hr. BUILD Volumes	**20**	**7**	**42**	**13**	**0**	**24**	**28**	**258**	**56**	**24**	**411**	**19**
Pass-by Trip Adjustments	*2*	*0*	*3*	*0*	*0*	*0*	*4*	*-4*	*0*	*0*	*-6*	*6*
Total AM Peak Hour BUILD Volumes	22	7	45	13	0	24	32	254	56	24	405	25

	Eastbound (Westside Dr.)			Westbound (Westside Dr.)			Northbound (Eagle Ranch Rd.)			Southbound (Eagle Ranch Rd.)		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing Volumes	1	1	16	31	5	54	27	643	32	29	728	3
Background Traffic Growth	0	0	0	0	0	1	0	6	0	0	7	0
Subtotal (NO BUILD - P.M.)	***1***	***1***	***16***	***31***	***5***	***55***	***27***	***649***	***32***	***29***	***735***	***3***
Percent Commercial Trips Generated(Entering)	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.19%*	*0.00%*	*22.35%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*23.28%*
Percent Commercial Trips Generated(Exiting)	*23.28%*	*0.19%*	*22.35%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*
Total Trips Generated	40	0	38	0	0	0	35	0	0	0	0	36
Subtotal PM Pk Hr. BUILD Volumes	**41**	**1**	**54**	**31**	**5**	**55**	**62**	**649**	**32**	**29**	**735**	**39**
Pass-by Trip Adjustments	*16*	*0*	*14*	*0*	*0*	*0*	*15*	*-15*	*0*	*0*	*-13*	*13*
Total PM Peak Hour BUILD Volumes	57	1	68	31	5	55	77	634	32	29	722	52

	Entering	Exiting		
Number of Commercial Trips Generated	**79**	**39**	A.M.	100% Commercial Development
	156	**172**	P.M.	

	Eastbound (Westside Dr.)			Westbound (Westside Dr.)			Northbound (Eagle Ranch Rd.)			Southbound (Eagle Ranch Rd.)		
2016 AM Peak Hr. Volumes	11	7	33	13	0	24	10	255	55	24	407	1
2016 PM Peak Hr. Volumes	1	1	16	31	5	54	27	643	32	29	728	3

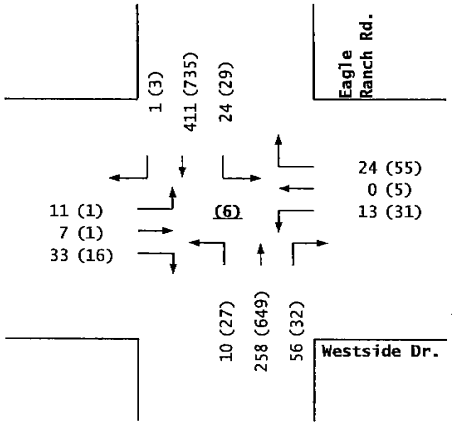
Pass-by Trip Calculations:

AM Pass-by Trips	*Eastbound (Westside Dr.)*			*Westbound (Westside Dr.)*			*Northbound (Eagle Ranch Rd.)*			*Southbound (Eagle Ranch Rd.)*		
Percent Entering	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*13.77%*	*-13.77%*	*0.00%*	*0.00%*	*-22.86%*	*22.86%*
Volume Entering	*0*	*0*	*0*	*0*	*0*	*0*	*4*	*-4*	*0*	*0*	*-6*	*6*
Percent Exiting	*13.77%*	*0.00%*	*22.86%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*
Volume Exiting	*2*	*0*	*3*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*
Net AM Passby Trips	***2***	***0***	***3***	***0***	***0***	***0***	***4***	***-4***	***0***	***0***	***-6***	***6***

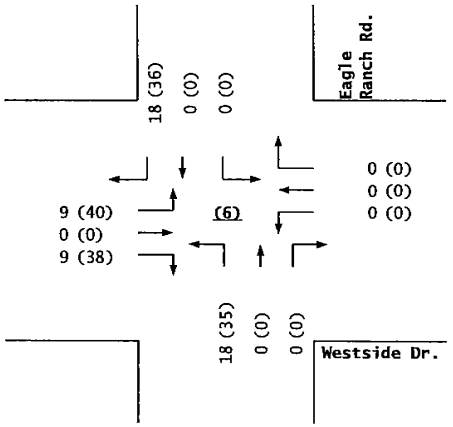
PM Pass-by Trips	*Eastbound (Westside Dr.)*			*Westbound (Westside Dr.)*			*Northbound (Eagle Ranch Rd.)*			*Southbound (Eagle Ranch Rd.)*		
Percent Entering	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*28.38%*	*-28.38%*	*0.00%*	*0.00%*	*-24.98%*	*24.98%*
Growth Rate to Apply to *Volume Entering*	*0*	*0*	*0*	*0*	*0*	*0*	*15*	*-15*	*0*	*0*	*-13*	*13*
Percent Exiting	*28.38%*	*0.00%*	*24.98%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*
Volume Exiting	*16*	*0*	*14*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*
Net PM Passby Trips	***16***	***0***	***14***	***0***	***0***	***0***	***15***	***-15***	***0***	***0***	***-13***	***13***

	Entering	*Exiting*	
Pass-by Trips	***26***	***13***	*AM*
	52	***57***	*PM*

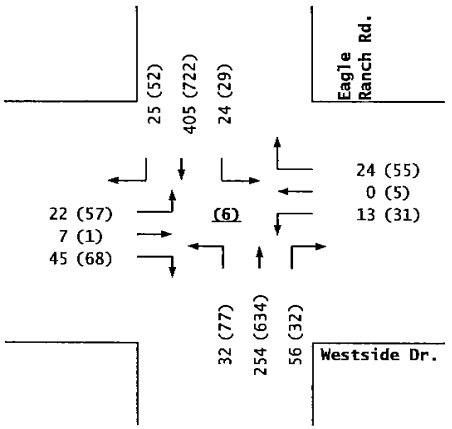
2018
NO BUILD



Trips



2018
BUILD



Westside Dr. / Eagle Ranch Rd.

Eagle Ranch Retail (Irving Blvd. / Eagle Ranch Rd.)

Projected Turning Movements Worksheet

Driveway "A" / Irving Blvd.

INTERSECTION: E-W Street: Driveway "A" (7)

N-S Street: Irving Blvd.

Year of Existing Counts 2016

Implementation Year **2018**

Growth Rates 0.00% 0.00% 0.00% 0.00%

	Eastbound (Driveway "A")			Westbound (Driveway "A")			Northbound (Irving Blvd.)			Southbound (Irving 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
Background Traffic Growth	0	0	0	0	0	0	0	0	0	0	0	0
Subtotal (NO BUILD - A.M.)	***0***	***0***	***0***	***0***	***0***	***0***	***0***	**294**	***0***	***0***	***946***	***0***
Percent Commercial Trips Generated(Entering)	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	**22.37%**	**31.79%**	*0.00%*	*0.00%*
Percent Commercial Trips Generated(Exiting)	*0.00%*	*0.00%*	*0.00%*	**22.37%**	*0.00%*	**31.79%**	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*
Total Trips Generated	0	0	0	9	0	12	0	0	18	25	0	0
Subtotal AM Pk Hr. BUILD Volumes	**0**	**0**	**0**	**9**	**0**	**12**	**0**	**294**	**18**	**25**	**946**	**0**
Pass-by Trip Adjustments	*0*	*0*	*0*	*6*	*0*	*2*	*0*	*-4*	*4*	*13*	*-13*	*0*
Total AM Peak Hour BUILD Volumes	0	0	0	15	0	14	0	290	22	38	933	0

	Eastbound (Driveway "A")			Westbound (Driveway "A")			Northbound (Irving Blvd.)			Southbound (Irving 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 (NO BUILD - P.M.)	***0***	***0***	***0***	***0***	***0***	***0***	***0***	**1,224**	***0***	***0***	***561***	***0***
Percent Commercial Trips Generated(Entering)	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	**22.37%**	**31.79%**	*0.00%*	*0.00%*
Percent Commercial Trips Generated(Exiting)	*0.00%*	*0.00%*	*0.00%*	**22.37%**	*0.00%*	**31.79%**	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*
Total Trips Generated	0	0	0	38	0	55	0	0	35	50	0	0
Subtotal PM Pk Hr. BUILD Volumes	**0**	**0**	**0**	**38**	**0**	**55**	**0**	**1,224**	**35**	**50**	**561**	**0**
Pass-by Trip Adjustments	*0*	*0*	*0*	*10*	*0*	*16*	*0*	*-15*	*15*	*10*	*-10*	*0*
Total PM Peak Hour BUILD Volumes	0	0	0	48	0	71	0	1,209	50	60	551	0

	Entering	Exiting		
Number of Commercial Trips Generated	**79**	**39**	A.M.	100% Commercial Development
	156	**172**	P.M.	

	Eastbound (Driveway "A")			Westbound (Driveway "A")			Northbound (Irving Blvd.)			Southbound (Irving Blvd.)		
2016 AM Peak Hr. Volumes	0	0	0	0	0	0	0	0	0	0	0	0
2016 PM Peak Hr. Volumes	0	0	0	0	0	0	0	0	0	0	0	0

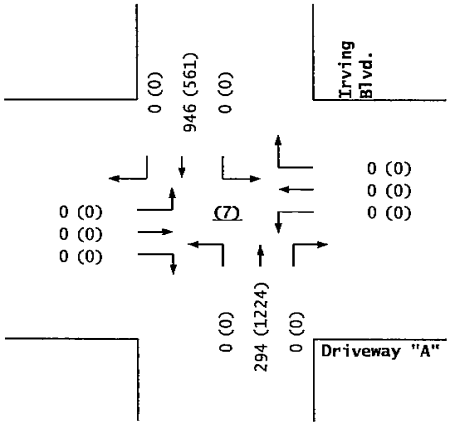
Pass-by Trip Calculations:

AM Pass-by Trips	Eastbound (Driveway "A")			Westbound (Driveway "A")			Northbound (Irving Blvd.)			Southbound (Irving Blvd.)		
Percent Entering	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*-13.78%*	*13.78%*	*49.61%*	*-49.61%*	*0.00%*
Volume Entering	***0***	***0***	***0***	***0***	***0***	***0***	***0***	***-4***	***4***	***13***	***-13***	***0***
Percent Exiting	*0.00%*	*0.00%*	*0.00%*	*49.61%*	*0.00%*	*13.76%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*
Volume Exiting	***0***	***0***	***0***	***6***	***0***	***2***	***0***	***0***	***0***	***0***	***0***	***0***
Net AM Passby Trips	***0***	***0***	***0***	***6***	***0***	***2***	***0***	***-4***	***4***	***13***	***-13***	***0***

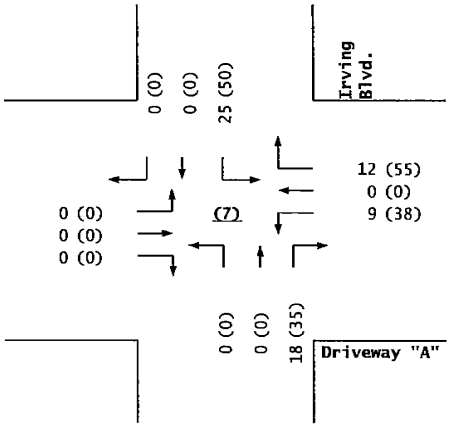
PM Pass-by Trips	Eastbound (Driveway "A")			Westbound (Driveway "A")			Northbound (Irving Blvd.)			Southbound (Irving Blvd.)		
Percent Entering	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*-28.38%*	*28.38%*	*18.27%*	*-18.27%*	*0.00%*
Growth Rate to Apply to *Volume Entering*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*-15*	*15*	*10*	*-10*	*0*
Percent Exiting	*0.00%*	*0.00%*	*0.00%*	*18.27%*	*0.00%*	*28.38%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*
Volume Exiting	*0*	*0*	*0*	*10*	*0*	*16*	*0*	*0*	*0*	*0*	*0*	*0*
Net PM Passby Trips	***0***	***0***	***0***	***10***	***0***	***16***	***0***	***-15***	***15***	***10***	***-10***	***0***

	Entering	*Exiting*	
Pass-by Trips	***26***	***13***	*AM*
	52	***57***	*PM*

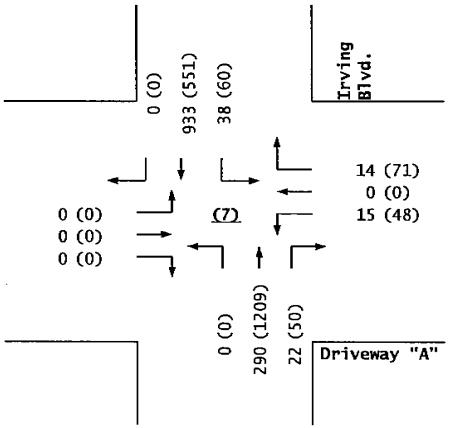
2018
NO BUILD



Trips



2018
BUILD

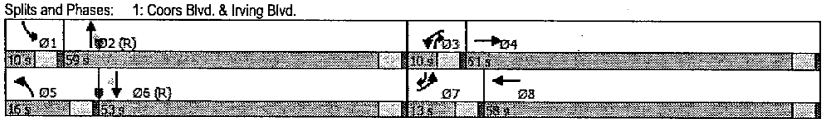


Driveway "A" / Irving Blvd.

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations										
Traffic Volume (vph)	89	33	61	17	295	1346	60	17	1690	32
Future Volume (vph)	89	33	61	17	295	1346	60	17	1690	32
Turn Type	Prot	NA	Prot	NA	Prot	NA	pm+ov	Prot	NA	pm+ov
Protected Phases	7	4	3	8	5	2	3	1	6	7
Permitted Phases							2			6
Detector Phase	7	4	3	8	5	2	3	1	6	7
Switch Phase										
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	10.0	21.0	10.0	21.0	10.0	21.0	10.0	10.0	21.0	10.0
Total Split (s)	13.0	61.0	10.0	58.0	16.0	59.0	10.0	10.0	53.0	13.0
Total Split (%)	9.3%	43.6%	7.1%	41.4%	11.4%	42.1%	7.1%	7.1%	37.9%	9.3%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Lead/Lag	Lead	Lag	Lead	Lag	Lead	Lag	Lead	Lead	Lag	Lead
Lead-Lag Optimize?										
Recall Mode	Min	Min	Min	Min	Min	C-Min	Min	Min	C-Min	Min
Act Effct Green (s)	7.7	56.0	5.0	53.3	11.0	54.0	64.0	5.0	48.0	60.7
Actuated g/C Ratio	0.06	0.40	0.04	0.38	0.08	0.39	0.46	0.04	0.34	0.43
v/c Ratio	0.51	1.19	0.54	0.03	1.18	0.59	0.09	0.29	1.04	0.05
Control Delay	66.9	128.0	82.8	17.7	165.2	35.3	5.1	77.8	77.9	0.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	66.9	128.0	82.8	17.7	165.2	35.3	5.1	77.8	77.9	0.1
LOS	E	F	F	B	F	D	A	E	E	A
Approach Delay		121.8		60.9		56.8			76.5	
Approach LOS		F		E		E			E	

Intersection Summary	
Cycle Length: 140	
Actuated Cycle Length: 140	
Offset: 81 (58%), Referenced to phase 2:NBT and 6:SBT, Start of Green	
Natural Cycle: 120	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 1.19	
Intersection Signal Delay: 77.5	Intersection LOS: E
Intersection Capacity Utilization 101.8%	ICU Level of Service G
Analysis Period (min) 15	

Splits and Phases: 1: Coors Blvd. & Irving Blvd.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	89	33	751	61	17	14	295	1346	60	17	1690	32
Future Volume (veh/h)	89	33	751	61	17	14	295	1346	60	17	1690	32
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1900	1845	1845	1900	1845	1845	1845	1845	1845	1845
Adj Flow Rate, veh/h	95	35	0	65	18	15	314	1432	64	18	1798	34
Adj No. of Lanes	2	1	0	2	2	0	2	4	1	1	3	1
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	143	78	0	122	69	51	268	4719	1222	63	3529	1165
Arrive On Green	0.04	0.04	0.00	0.04	0.04	0.04	0.08	0.74	0.74	0.04	0.70	0.70
Sat Flow, veh/h	3408	1845	0	3408	1926	1420	3408	6346	1568	1757	5036	1568
Grp Volume(v), veh/h	95	35	0	65	16	17	314	1432	64	18	1798	34
Grp Sat Flow(s),veh/h/ln	1704	1845	0	1704	1752	1594	1704	1586	1568	1757	1679	1568
Q Serve(g_s), s	3.8	2.6	0.0	2.6	1.3	1.4	11.0	10.5	1.3	1.4	23.3	0.8
Cycle Q Clear(g_c), s	3.8	2.6	0.0	2.6	1.3	1.4	11.0	10.5	1.3	1.4	23.3	0.8
Prop In Lane	1.00		0.00	1.00		0.89	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	143	78	0	122	63	57	268	4719	1222	63	3529	1165
V/C Ratio(X)	0.66	0.45	0.00	0.53	0.26	0.30	1.17	0.30	0.05	0.29	0.51	0.03
Avail Cap(c_a), veh/h	195	738	0	122	663	603	268	4719	1222	63	3529	1165
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	66.1	66.5	0.0	66.4	65.7	65.8	64.5	5.9	3.6	65.8	9.7	4.7
Incr Delay (d2), s/veh	5.2	4.1	0.0	4.5	2.1	2.8	109.9	0.2	0.1	2.5	0.5	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.9	1.4	0.0	1.3	0.6	0.7	9.3	4.6	0.6	0.7	10.8	0.4
LnGrp Delay(d),s/veh	71.2	69.5	0.0	70.8	67.8	68.6	174.4	6.1	3.6	68.2	10.3	4.8
LnGrp LOS	E	E		E	E	E	F	A	A	E	B	A
Approach Vol, veh/h		130			98			1810			1850	
Approach Delay, s/veh		70.8			70.0			35.2			10.7	
Approach LOS		E			E			D			B	

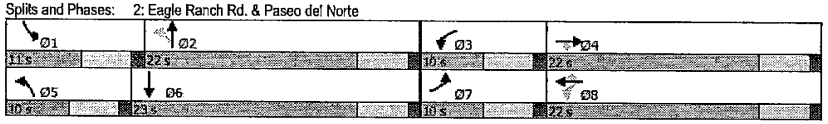
Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	10.0	109.1	10.0	10.9	16.0	103.1	10.9	10.0
Change Period (Y+Rc), s	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Max Green Setting (Gmax), s	5.0	54.0	5.0	56.0	11.0	48.0	8.0	53.0
Max Q Clear Time (g_c+I1), s	3.4	12.5	4.8	4.6	13.0	25.3	5.8	3.4
Green Ext Time (p_c), s	0.0	36.5	0.0	0.4	0.0	21.1	0.0	0.4

Intersection Summary		
HCM 2010 Ctrl Delay	25.6	
HCM 2010 LOS	C	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Configurations											
Traffic Volume (vph)	50	1685	49	36	387	291	29	66	131	905	141
Future Volume (vph)	50	1685	49	36	387	291	29	66	131	905	141
Turn Type	Prot	NA	Perm	pm+pt	NA	Perm	pm+pt	NA	Free	Prot	NA
Protected Phases	7	4		3	8		5	2		1	6
Permitted Phases			4	8		8	2		Free		
Detector Phase	7	4	4	3	8	8	5	2		1	6
Switch Phase											
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0		5.0	5.0
Minimum Split (s)	10.0	21.0	21.0	10.0	21.0	21.0	10.0	21.0		10.0	21.0
Total Split (s)	10.0	22.0	22.0	10.0	22.0	22.0	10.0	22.0		11.0	23.0
Total Split (%)	15.4%	33.8%	33.8%	15.4%	33.8%	33.8%	15.4%	33.8%		16.9%	35.4%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0		4.0	4.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0		1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0
Total Lost Time (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0		5.0	5.0
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag		Lead	Lag
Lead-Lag Optimize?											
Recall Mode	Min	Min	Min	Min	Min	Min	Min	Min		Min	Min
Act Effct Green (s)	5.0	17.0	17.0	22.0	17.0	17.0	11.9	6.9	64.9	6.0	7.9
Actuated g/C Ratio	0.09	0.31	0.31	0.40	0.31	0.31	0.22	0.13	1.00	0.11	0.14
v/c Ratio	0.34	1.67	0.08	0.13	0.38	0.45	0.10	0.16	0.09	2.62	0.33
Control Delay	30.1	326.8	0.3	9.0	16.4	4.6	13.7	22.1	0.1	755.6	20.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	30.1	326.8	0.3	9.0	16.4	4.6	13.7	22.1	0.1	755.6	20.8
LOS	C	F	A	A	B	A	B	C	A	F	C
Approach Delay		309.4			11.2			8.3			647.4
Approach LOS		F			B			A			F

Intersection Summary
Cycle Length: 65
Actuated Cycle Length: 54.9
Natural Cycle: 130
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 2.62
Intersection Signal Delay: 329.9 Intersection LOS: F
Intersection Capacity Utilization 87.4% ICU Level of Service E
Analysis Period (min) 15

Splits and Phases: 2: Eagle Ranch Rd. & Paseo del Norte



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	50	1685	49	36	387	291	29	66	131	905	141	15
Future Volume (veh/h)	50	1685	49	36	387	291	29	66	131	905	141	15
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845	1900
Adj Flow Rate, veh/h	54	1812	0	39	416	0	31	71	0	973	152	16
Adj No. of Lanes	1	2	1	1	2	1	1	2	1	2	2	0
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	166	1124	503	302	1124	503	384	331	148	386	363	38
Arrive On Green	0.09	0.32	0.00	0.09	0.32	0.00	0.09	0.09	0.00	0.11	0.11	0.11
Sat Flow, veh/h	1757	3505	1568	1757	3505	1568	1757	3505	1568	3408	3205	333
Grp Volume(v), veh/h	54	1812	0	39	416	0	31	71	0	973	82	86
Grp Sat Flow(s),veh/h/ln	1757	1752	1568	1757	1752	1568	1757	1752	1568	1704	1752	1786
Q Serve(g_s), s	1.5	17.0	0.0	0.7	4.8	0.0	0.8	1.0	0.0	6.0	2.3	2.4
Cycle Q Clear(g_c), s	1.5	17.0	0.0	0.7	4.8	0.0	0.8	1.0	0.0	6.0	2.3	2.4
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.19
Lane Grp Cap(c), veh/h	166	1124	503	302	1124	503	384	331	148	386	198	202
V/C Ratio(X)	0.33	1.61	0.00	0.13	0.37	0.00	0.08	0.21	0.00	2.52	0.41	0.42
Avail Cap(c_a), veh/h	166	1124	503	302	1124	503	384	1124	503	386	595	607
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	22.4	18.0	0.0	12.0	13.9	0.0	17.8	22.2	0.0	23.5	21.9	21.9
Incr Delay (d2), s/veh	1.1	279.5	0.0	0.2	0.2	0.0	0.1	0.3	0.0	692.4	1.4	1.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.8	51.8	0.0	0.3	2.3	0.0	0.4	0.5	0.0	39.9	1.2	1.2
LnGrp Delay(d),s/veh	23.6	297.5	0.0	12.2	14.1	0.0	17.9	22.5	0.0	715.9	23.2	23.3
LnGrp LOS	C	F		B	B		B	C		F	C	C
Approach Vol, veh/h		1866			455			102			1141	
Approach Delay, s/veh		289.5			13.9			21.1			614.0	
Approach LOS		F			B			C			F	

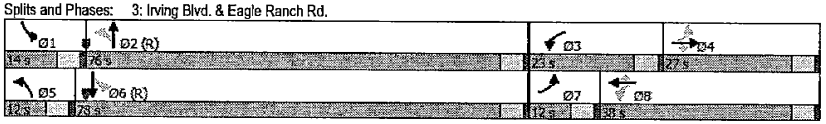
Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	11.0	10.0	10.0	22.0	10.0	11.0	10.0	22.0
Change Period (Y+Rc), s	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Max Green Setting (Gmax), s	6.0	17.0	5.0	17.0	5.0	18.0	5.0	17.0
Max Q Clear Time (g_c+I1), s	8.0	3.0	2.7	19.0	2.8	4.4	3.5	6.8
Green Ext Time (p_c), s	0.0	1.1	0.0	0.0	0.0	1.1	0.0	8.9

Intersection Summary
HCM 2010 Ctrl Delay 350.5
HCM 2010 LOS F

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT
Lane Configurations										
Traffic Volume (vph)	35	155	47	120	125	49	26	210	76	736
Future Volume (vph)	35	155	47	120	125	49	26	210	76	736
Turn Type	pm+pt	NA	Perm	pm+pt	NA	Perm	pm+pt	NA	pm+pt	NA
Protected Phases	7	4		3	8		5	2	1	6
Permitted Phases	4		4	8		8	2		6	
Detector Phase	7	4	4	3	8	8	5	2	1	6
Switch Phase										
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	10.0	21.0	21.0	10.0	21.0	21.0	10.0	21.0	10.0	21.0
Total Split (s)	12.0	27.0	27.0	23.0	38.0	38.0	12.0	76.0	14.0	78.0
Total Split (%)	8.6%	19.3%	19.3%	16.4%	27.1%	27.1%	8.6%	54.3%	10.0%	55.7%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lead	Lag
Lead-Lag Optimize?										
Recall Mode	Min	Min	Min	Min	Min	Min	Min	C-Min	Min	C-Min
Act Effct Green (s)	18.8	12.1	12.1	30.9	19.4	19.4	92.4	86.1	96.3	87.6
Actuated g/C Ratio	0.13	0.09	0.09	0.22	0.14	0.14	0.66	0.62	0.68	0.63
v/c Ratio	0.10	0.56	0.20	0.50	0.28	0.18	0.08	0.14	0.11	0.44
Control Delay	41.5	68.3	1.8	51.2	54.2	2.7	2.7	6.2	7.8	14.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	41.5	68.3	1.8	51.2	54.2	2.7	2.7	6.2	7.8	14.9
LOS	D	E	A	D	D	A	A	A	A	B
Approach Delay		51.8			44.4			5.9		14.3
Approach LOS		D			D			A		B

Intersection Summary
Cycle Length: 140
Actuated Cycle Length: 140
Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green
Natural Cycle: 65
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.56
Intersection Signal Delay: 22.7 Intersection LOS: C
Intersection Capacity Utilization 56.4% ICU Level of Service B
Analysis Period (min) 15

Splits and Phases: 3: Irving Blvd. & Eagle Ranch Rd.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	35	155	47	120	125	49	26	210	52	76	736	134
Future Volume (veh/h)	35	155	47	120	125	49	26	210	52	76	736	134
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1845	1845	1845	1845	1845	1845	1900	1845	1845	1900
Adj Flow Rate, veh/h	19	170	0	132	137	54	29	231	57	84	809	147
Adj No. of Lanes	1	2	1	1	2	1	1	2	0	1	2	0
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	201	258	116	229	423	189	426	1862	450	797	1970	358
Arrive On Green	0.04	0.07	0.00	0.08	0.12	0.12	0.04	0.66	0.66	0.04	0.66	0.66
Sat Flow, veh/h	1757	3505	1568	1757	3505	1568	1757	2800	677	1757	2964	538
Grp Volume(v), veh/h	19	170	0	132	137	54	29	143	145	84	478	478
Grp Sat Flow(s),veh/h/ln	1757	1752	1568	1757	1752	1568	1757	1752	1725	1757	1752	1750
Q Serve(g_s), s	1.4	6.6	0.0	9.4	5.0	4.4	0.7	4.2	4.3	2.1	17.6	17.6
Cycle Q Clear(g_c), s	1.4	6.6	0.0	9.4	5.0	4.4	0.7	4.2	4.3	2.1	17.6	17.6
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.39	1.00		0.31
Lane Grp Cap(c), veh/h	201	258	116	229	423	189	426	1165	1147	797	1165	1163
V/C Ratio(X)	0.09	0.66	0.00	0.58	0.32	0.29	0.07	0.12	0.13	0.11	0.41	0.41
Avail Cap(c_a), veh/h	226	551	246	309	826	370	451	1165	1147	847	1165	1163
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.93	0.93	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	55.1	63.1	0.0	52.3	56.3	56.0	7.5	8.6	8.6	6.7	10.8	10.8
Incr Delay (d2), s/veh	0.2	2.6	0.0	2.3	0.4	0.8	0.1	0.2	0.2	0.1	1.1	1.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.7	3.3	0.0	4.7	2.5	1.9	0.3	2.1	2.1	1.0	8.9	8.8
LnGrp Delay(d),s/veh	55.3	65.8	0.0	54.6	56.7	56.9	7.6	8.8	8.8	6.7	11.9	11.9
LnGrp LOS	E	E		D	E	E	A	A	A	A	B	B
Approach Vol, veh/h		189			323			317			1040	
Approach Delay, s/veh		64.8			55.9			8.7			11.5	
Approach LOS		E			E			A			B	

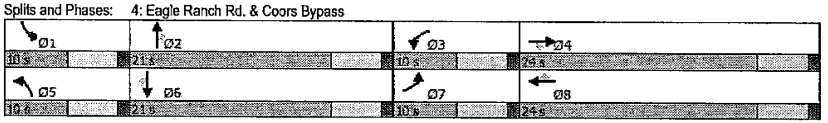
Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	10.0	98.1	16.6	15.3	10.0	98.1	10.0	21.9
Change Period (Y+Rc), s	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Max Green Setting (Gmax), s	9.0	71.0	18.0	22.0	7.0	73.0	7.0	33.0
Max Q Clear Time (g_c+I1), s	4.1	6.3	11.4	8.6	2.7	19.6	3.4	7.0
Green Ext Time (p_c), s	0.1	11.1	0.2	1.7	0.0	10.9	0.0	2.2

Intersection Summary
HCM 2010 Ctrl Delay 24.1
HCM 2010 LOS C

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	16	1509	185	62	962	23	112	25	12	6	16	3
Future Volume (vph)	16	1509	185	62	962	23	112	25	12	6	16	3
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases			4			8			2			6
Detector Phase	7	4	4	3	8	8	5	2	2	1	6	6
Switch Phase												
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	10.0	21.0	21.0	10.0	21.0	21.0	10.0	21.0	21.0	10.0	21.0	21.0
Total Split (s)	10.0	24.0	24.0	10.0	24.0	24.0	10.0	21.0	21.0	10.0	21.0	21.0
Total Split (%)	15.4%	36.9%	36.9%	15.4%	36.9%	36.9%	15.4%	32.3%	32.3%	15.4%	32.3%	32.3%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?												
Recall Mode	Min	Min	Min	Min	Min	Min	Min	Min	Min	Min	Min	Min
Act Effct Green (s)	5.0	19.0	19.0	5.0	19.0	19.0	5.0	6.4	6.4	5.0	6.4	6.4
Actuated g/C Ratio	0.09	0.34	0.34	0.09	0.34	0.34	0.09	0.12	0.12	0.09	0.12	0.12
v/c Ratio	0.03	0.94	0.30	0.22	0.60	0.04	0.39	0.13	0.04	0.02	0.04	0.01
Control Delay	23.8	31.0	3.9	25.6	16.9	0.1	28.1	23.4	0.2	23.7	21.8	0.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	23.8	31.0	3.9	25.6	16.9	0.1	28.1	23.4	0.2	23.7	21.8	0.0
LOS	C	C	A	C	B	A	C	C	A	C	C	A
Approach Delay		28.0			17.0			25.0			19.7	
Approach LOS		C			B			C			B	

Intersection Summary
Cycle Length: 65
Actuated Cycle Length: 55.4
Natural Cycle: 70
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.94
Intersection Signal Delay: 23.9 Intersection LOS: C
Intersection Capacity Utilization 50.0% ICU Level of Service A
Analysis Period (min) 15

Splits and Phases: 4: Eagle Ranch Rd. & Coors Bypass



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	16	1509	185	62	962	23	112	25	12	6	16	3
Future Volume (veh/h)	16	1509	185	62	962	23	112	25	12	6	16	3
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845
Adj Flow Rate, veh/h	9	1623	0	67	1034	0	120	27	0	6	17	0
Adj No. of Lanes	2	3	1	2	3	1	2	1	1	2	2	1
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	316	1771	551	316	1771	551	316	171	145	316	325	145
Arrive On Green	0.09	0.35	0.00	0.09	0.35	0.00	0.09	0.09	0.00	0.09	0.09	0.00
Sat Flow, veh/h	3408	5036	1568	3408	5036	1568	3408	1845	1568	3408	3505	1568
Grp Volume(v), veh/h	9	1623	0	67	1034	0	120	27	0	6	17	0
Grp Sat Flow(s),veh/h/ln	1704	1679	1568	1704	1679	1568	1704	1845	1568	1704	1752	1568
Q Serve(g_s), s	0.1	16.6	0.0	1.0	9.0	0.0	1.8	0.7	0.0	0.1	0.2	0.0
Cycle Q Clear(g_c), s	0.1	16.6	0.0	1.0	9.0	0.0	1.8	0.7	0.0	0.1	0.2	0.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	316	1771	551	316	1771	551	316	171	145	316	325	145
V/C Ratio(X)	0.03	0.92	0.00	0.21	0.58	0.00	0.38	0.16	0.00	0.02	0.05	0.00
Avail Cap(c_a), veh/h	316	1772	552	316	1772	552	316	547	465	316	1039	465
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	22.3	16.7	0.0	22.7	14.3	0.0	23.0	22.6	0.0	22.3	22.3	0.0
Incr Delay (d2), s/veh	0.0	8.0	0.0	0.3	0.5	0.0	0.8	0.4	0.0	0.0	0.1	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.1	9.0	0.0	0.5	4.2	0.0	0.9	0.4	0.0	0.0	0.1	0.0
LnGrp Delay(d),s/veh	22.3	24.7	0.0	23.0	14.8	0.0	23.8	23.0	0.0	22.3	22.4	0.0
LnGrp LOS	C	C		C	B		C	C		C	C	
Approach Vol, veh/h		1632			1101			147			23	
Approach Delay, s/veh		24.7			15.3			23.6			22.4	
Approach LOS		C			B			C			C	

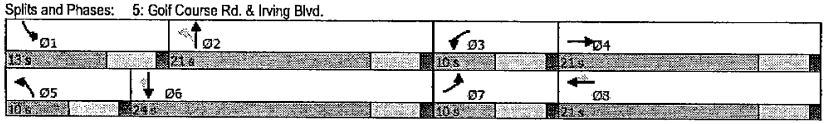
Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	10.0	10.0	10.0	24.0	10.0	10.0	10.0	24.0
Change Period (Y+Rc), s	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Max Green Setting (Gmax), s	5.0	16.0	5.0	19.0	5.0	16.0	5.0	19.0
Max Q Clear Time (g_c+I1), s	2.1	2.7	3.0	18.6	3.8	2.2	2.1	11.0
Green Ext Time (p_c), s	0.0	0.1	0.0	0.3	0.0	0.1	0.0	7.3

Intersection Summary
HCM 2010 Ctrl Delay 21.0
HCM 2010 LOS C

Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Configurations										
Traffic Volume (vph)	107	504	14	71	180	26	595	580	1109	52
Future Volume (vph)	107	504	14	71	180	26	595	580	1109	52
Turn Type	Prot	NA	Prot	NA	Perm	pm+pt	NA	Prot	NA	Perm
Protected Phases	7	4	3	8		5	2	1	6	
Permitted Phases					8	2				6
Detector Phase	7	4	3	8	8	5	2	1	6	6
Switch Phase										
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	10.0	21.0	10.0	21.0	21.0	10.0	21.0	10.0	21.0	21.0
Total Split (s)	10.0	21.0	10.0	21.0	21.0	10.0	21.0	13.0	24.0	24.0
Total Split (%)	15.4%	32.3%	15.4%	32.3%	32.3%	15.4%	32.3%	20.0%	36.9%	36.9%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Lead/Lag	Lead	Lag	Lead	Lag	Lag	Lead	Lag	Lead	Lag	Lag
Lead-Lag Optimize?										
Recall Mode	Min	Min	Min	Min	Min	Min	Min	Min	Min	Min
Act Effct Green (s)	5.0	15.3	5.0	15.3	15.3	21.0	16.0	8.0	19.0	19.0
Actuated g/C Ratio	0.08	0.24	0.08	0.24	0.24	0.33	0.25	0.12	0.30	0.30
v/c Ratio	0.44	0.81	0.11	0.09	0.37	0.11	0.75	1.48	1.15	0.09
Control Delay	34.2	30.5	29.9	19.3	5.6	11.8	29.0	253.0	104.2	0.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	34.2	30.5	29.9	19.3	5.6	11.8	29.0	253.0	104.2	0.3
LOS	C	C	C	B	A	B	C	F	F	A
Approach Delay		31.0		10.5			28.3		150.7	
Approach LOS		C		B			C		F	

Intersection Summary
Cycle Length: 65
Actuated Cycle Length: 64.3
Natural Cycle: 70
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 1.48
Intersection Signal Delay: 90.5 Intersection LOS: F
Intersection Capacity Utilization 65.4% ICU Level of Service C
Analysis Period (min) 15

Splits and Phases: 5: Golf Course Rd. & Irving Blvd.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	107	504	129	14	71	180	26	595	15	580	1109	52
Future Volume (veh/h)	107	504	129	14	71	180	26	595	15	580	1109	52
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1900	1845	1845	1845	1845	1845	1900	1845	1845	1845
Adj Flow Rate, veh/h	115	542	139	15	76	194	28	640	16	624	1192	56
Adj No. of Lanes	2	2	0	1	2	1	1	2	0	2	2	1
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	266	651	166	137	825	369	249	872	22	425	1039	465
Arrive On Green	0.08	0.24	0.24	0.08	0.24	0.24	0.08	0.25	0.25	0.12	0.30	0.30
Sat Flow, veh/h	3408	2766	707	1757	3505	1568	1757	3494	87	3408	3505	1568
Grp Volume(v), veh/h	115	343	338	15	76	194	28	321	335	624	1192	56
Grp Sat Flow(s),veh/h/ln	1704	1752	1720	1757	1752	1568	1757	1752	1829	1704	1752	1568
Q Serve(g_s), s	2.1	11.9	12.0	0.5	1.1	6.9	0.7	10.8	10.8	8.0	19.0	1.7
Cycle Q Clear(g_c), s	2.1	11.9	12.0	0.5	1.1	6.9	0.7	10.8	10.8	8.0	19.0	1.7
Prop In Lane	1.00		0.41	1.00		1.00	1.00		0.05	1.00		1.00
Lane Grp Cap(c), veh/h	266	413	405	137	825	369	249	437	457	425	1039	465
V/C Ratio(X)	0.43	0.83	0.84	0.11	0.09	0.53	0.11	0.73	0.73	1.47	1.15	0.12
Avail Cap(c_a), veh/h	266	437	429	137	875	391	249	437	457	425	1039	465
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	28.2	23.3	23.3	27.5	19.1	21.4	16.7	22.1	22.1	28.0	22.5	16.4
Incr Delay (d2), s/veh	1.1	12.2	12.8	0.3	0.0	1.2	0.2	6.3	6.0	222.6	77.7	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.0	7.1	7.1	0.3	0.5	3.1	0.3	5.9	6.2	16.9	20.3	0.7
LnGrp Delay(d),s/veh	29.3	35.4	36.2	27.8	19.2	22.5	16.9	28.3	28.1	250.6	100.3	16.6
LnGrp LOS	C	D	D	C	B	C	B	C	C	F	F	B
Approach Vol, veh/h		796			285			684			1872	
Approach Delay, s/veh		34.9			21.9			27.8			147.9	
Approach LOS		C			C			C			F	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	13.0	21.0	10.0	20.1	10.0	24.0	10.0	20.1				
Change Period (Y+Rc), s	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0				
Max Green Setting (Gmax), s	8.0	16.0	5.0	16.0	5.0	19.0	5.0	16.0				
Max Q Clear Time (g_c+I1), s	10.0	12.8	2.5	14.0	2.7	21.0	4.1	8.9				
Green Ext Time (p_c), s	0.0	2.8	0.0	1.1	0.0	0.0	0.0	3.1				

Intersection Summary
HCM 2010 Ctrl Delay 90.7
HCM 2010 LOS F

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	11	7	33	13	1	24	10	258	56	24	411	1
Future Volume (vph)	11	7	33	13	1	24	10	258	56	24	411	1
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		0	115		0	115		0
Storage Lanes	0		0	0		0	1		0	1		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	1.00	0.95	0.95
Frt		0.913			0.915			0.973				
Flt Protected		0.990			0.983		0.950			0.950		
Satd. Flow (prot)	0	1667	0	0	1659	0	1752	3410	0	1752	3505	0
Flt Permitted		0.990			0.983		0.950			0.950		
Satd. Flow (perm)	0	1667	0	0	1659	0	1752	3410	0	1752	3505	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		403			478			1120			1127	
Travel Time (s)		9.2			10.9			25.5			25.6	
Peak Hour Factor	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82
Adj. Flow (vph)	13	9	40	16	1	29	12	315	68	29	501	1
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	62	0	0	46	0	12	383	0	29	502	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Stop			Stop			Free			Free	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 28.4%		ICU Level of Service A	
Analysis Period (min) 15			

Intersection	
Int Delay, s/veh	1.8

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Vol, veh/h	11	7	33	13	1	24	10	258	56	24	411	1
Future Vol, veh/h	11	7	33	13	1	24	10	258	56	24	411	1
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	115	-	-	115	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	82	82	82	82	82	82	82	82	82	82	82	82
Heavy Vehicles, %	3	3	3	3	3	3	3	3	3	3	3	3
Mvmt Flow	13	9	40	16	1	29	12	315	68	29	501	1

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	742	967	251	686	934	191	502	0	0	383	0	0
Stage 1	560	560	-	373	373	-	-	-	-	-	-	-
Stage 2	182	407	-	313	561	-	-	-	-	-	-	-
Critical Hdwy	7.56	6.56	6.96	7.56	6.56	6.96	4.16	-	-	4.16	-	-
Critical Hdwy Stg 1	6.56	5.56	-	6.56	5.56	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.56	5.56	-	6.56	5.56	-	-	-	-	-	-	-
Follow-up Hdwy	3.53	4.03	3.33	3.53	4.03	3.33	2.23	-	-	2.23	-	-
Pot Cap-1 Maneuver	302	251	746	332	263	815	1052	-	-	1165	-	-
Stage 1	478	506	-	617	614	-	-	-	-	-	-	-
Stage 2	799	593	-	670	506	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	282	242	746	297	254	815	1052	-	-	1165	-	-
Mov Cap-2 Maneuver	282	242	-	297	254	-	-	-	-	-	-	-
Stage 1	473	493	-	610	607	-	-	-	-	-	-	-
Stage 2	760	586	-	607	493	-	-	-	-	-	-	-

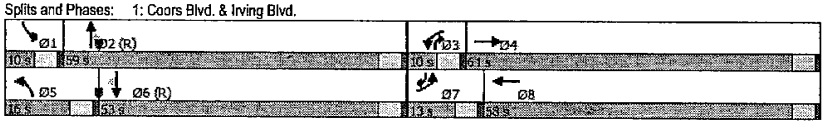
Approach	EB	WB	NB	SB
HCM Control Delay, s	14.2	13.1	0.3	0.4
HCM LOS	B	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1052	-	-	455	493	1165	-	-
HCM Lane V/C Ratio	0.012	-	-	0.137	0.094	0.025	-	-
HCM Control Delay (s)	8.5	-	-	14.2	13.1	8.2	-	-
HCM Lane LOS	A	-	-	B	B	A	-	-
HCM 95th %tile Q(veh)	0	-	-	0.5	0.3	0.1	-	-

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations										
Traffic Volume (vph)	91	33	61	17	298	1346	60	17	1690	36
Future Volume (vph)	91	33	61	17	298	1346	60	17	1690	36
Turn Type	Prot	NA	Prot	NA	Prot	NA	pm+ov	Prot	NA	pm+ov
Protected Phases	7	4	3	8	5	2	3	1	6	7
Permitted Phases							2			6
Detector Phase	7	4	3	8	5	2	3	1	6	7
Switch Phase										
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	10.0	21.0	10.0	21.0	10.0	21.0	10.0	10.0	21.0	10.0
Total Split (s)	13.0	61.0	10.0	58.0	16.0	59.0	10.0	10.0	53.0	13.0
Total Split (%)	9.3%	43.6%	7.1%	41.4%	11.4%	42.1%	7.1%	7.1%	37.9%	9.3%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Lead/Lag	Lead	Lag	Lead	Lag	Lead	Lag	Lead	Lead	Lag	Lead
Lead-Lag Optimize?										
Recall Mode	Min	Min	Min	Min	Min	C-Min	Min	Min	C-Min	Min
Act Effct Green (s)	7.8	56.0	5.0	53.2	11.0	54.0	64.0	5.0	48.0	60.8
Actuated g/C Ratio	0.06	0.40	0.04	0.38	0.08	0.39	0.46	0.04	0.34	0.43
v/c Ratio	0.52	1.19	0.54	0.03	1.19	0.59	0.09	0.29	1.04	0.05
Control Delay	68.0	128.8	82.8	17.7	168.9	35.3	5.1	77.8	77.9	0.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	68.0	128.8	82.8	17.7	168.9	35.3	5.1	77.8	77.9	0.1
LOS	E	F	F	B	F	D	A	E	E	A
Approach Delay		122.5		60.9		57.6			76.3	
Approach LOS		F		E		E			E	

Intersection Summary			
Cycle Length: 140			
Actuated Cycle Length: 140			
Offset: 82 (59%), Referenced to phase 2:NBT and 6:SBT, Start of Green			
Natural Cycle: 130			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 1.19			
Intersection Signal Delay: 77.9		Intersection LOS: E	
Intersection Capacity Utilization 102.0%		ICU Level of Service G	
Analysis Period (min) 15			

Splits and Phases: 1: Coors Blvd. & Irving Blvd.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	91	33	753	61	17	14	298	1346	60	17	1690	36
Future Volume (veh/h)	91	33	753	61	17	14	298	1346	60	17	1690	36
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1900	1845	1845	1900	1845	1845	1845	1845	1845	1845
Adj Flow Rate, veh/h	97	35	0	65	18	15	317	1432	64	18	1798	38
Adj No. of Lanes	2	1	0	2	2	0	2	4	1	1	3	1
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	145	79	0	122	69	51	268	4715	1221	63	3526	1165
Arrive On Green	0.04	0.04	0.00	0.04	0.04	0.04	0.08	0.74	0.74	0.04	0.70	0.70
Sat Flow, veh/h	3408	1845	0	3408	1926	1420	3408	6346	1568	1757	5036	1568
Grp Volume(v), veh/h	97	35	0	65	18	17	317	1432	64	18	1798	38
Grp Sat Flow(s),veh/h/ln	1704	1845	0	1704	1752	1594	1704	1586	1568	1757	1679	1568
Q Serve(g_s), s	3.9	2.6	0.0	2.6	1.3	1.4	11.0	10.5	1.3	1.4	23.3	0.9
Cycle Q Clear(g_c), s	3.9	2.6	0.0	2.6	1.3	1.4	11.0	10.5	1.3	1.4	23.3	0.9
Prop In Lane	1.00		0.00	1.00		0.89	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	145	79	0	122	63	57	268	4715	1221	63	3526	1165
V/C Ratio(X)	0.67	0.44	0.00	0.53	0.26	0.30	1.18	0.30	0.05	0.29	0.51	0.03
Avail Cap(c_a), veh/h	195	738	0	122	663	603	268	4715	1221	63	3526	1165
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	66.0	65.4	0.0	66.4	65.7	65.8	64.5	6.0	3.6	65.8	9.8	4.7
Incr Delay (d2), s/veh	5.2	3.9	0.0	4.5	2.1	2.8	114.1	0.2	0.1	2.5	0.5	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.0	1.4	0.0	1.3	0.6	0.7	9.4	4.6	0.6	0.7	10.8	0.4
LnGrp Delay(d),s/veh	71.2	69.3	0.0	70.8	67.8	68.6	178.6	6.1	3.7	68.2	10.3	4.8
LnGrp LOS	E	E		E	E	E	F	A	A	E	B	A
Approach Vol, veh/h		132			98			1813			1854	
Approach Delay, s/veh		70.7			70.0			36.2			10.8	
Approach LOS		E			E			D			B	

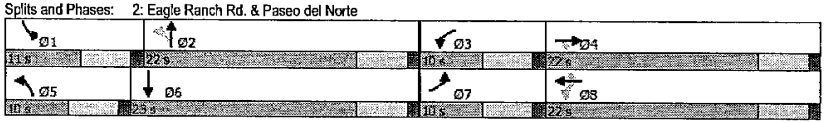
Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	10.0	109.0	10.0	11.0	16.0	103.0	11.0	10.0
Change Period (Y+Rc), s	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Max Green Setting (Gmax), s	5.0	54.0	5.0	56.0	11.0	48.0	8.0	53.0
Max Q Clear Time (g_c+I1), s	3.4	12.5	4.6	4.6	13.0	25.3	5.9	3.4
Green Ext Time (p_c), s	0.0	36.4	0.0	0.4	0.0	21.0	0.0	0.4

Intersection Summary		
HCM 2010 Ctrl Delay	26.1	
HCM 2010 LOS	C	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Configurations											
Traffic Volume (vph)	56	1685	49	36	387	294	29	69	131	906	143
Future Volume (vph)	56	1685	49	36	387	294	29	69	131	906	143
Turn Type	Prot	NA	Perm	pm+pt	NA	Perm	pm+pt	NA	Free	Prot	NA
Protected Phases	7	4		3	8		5	2		1	6
Permitted Phases			4	8		8	2		Free		
Detector Phase	7	4	4	3	8	8	5	2		1	6
Switch Phase											
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0		5.0	5.0
Minimum Split (s)	10.0	21.0	21.0	10.0	21.0	21.0	10.0	21.0		10.0	21.0
Total Split (s)	10.0	22.0	22.0	10.0	22.0	22.0	10.0	22.0		11.0	23.0
Total Split (%)	15.4%	33.8%	33.8%	15.4%	33.8%	33.8%	15.4%	33.8%		16.9%	35.4%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0		4.0	4.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0		1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0
Total Lost Time (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0		5.0	5.0
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag		Lead	Lag
Lead-Lag Optimize?											
Recall Mode	Min	Min	Min	Min	Min	Min	Min	Min		Min	Min
Act Effct Green (s)	5.0	17.0	17.0	22.0	17.0	17.0	11.9	6.9	54.9	6.0	7.9
Actuated g/C Ratio	0.09	0.31	0.31	0.40	0.31	0.31	0.22	0.13	1.00	0.11	0.14
v/c Ratio	0.38	1.67	0.08	0.13	0.38	0.45	0.10	0.17	0.09	2.63	0.34
Control Delay	31.3	327.0	0.3	9.0	16.4	4.6	13.7	22.2	0.1	756.8	20.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	31.3	327.0	0.3	9.0	16.4	4.6	13.7	22.2	0.1	756.8	20.6
LOS	C	F	A	A	B	A	B	C	A	F	C
Approach Delay		308.8			11.2			8.5			645.8
Approach LOS		F			B			A			F

Intersection Summary
Cycle Length: 65
Actuated Cycle Length: 54.9
Natural Cycle: 130
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 2.63
Intersection Signal Delay: 329.2 Intersection LOS: F
Intersection Capacity Utilization 87.4% ICU Level of Service E
Analysis Period (min) 15

Splits and Phases: 2: Eagle Ranch Rd. & Paseo del Norte



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	56	1685	49	36	387	294	29	69	131	906	143	18
Future Volume (veh/h)	56	1685	49	36	387	294	29	69	131	906	143	18
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845	1900
Adj Flow Rate, veh/h	60	1812	0	39	416	0	31	74	0	974	154	19
Adj No. of Lanes	1	2	1	1	2	1	1	2	1	2	2	0
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	166	1124	503	302	1124	503	382	331	148	386	356	43
Arrive On Green	0.09	0.32	0.00	0.09	0.32	0.00	0.09	0.09	0.00	0.11	0.11	0.11
Sat Flow, veh/h	1757	3505	1568	1757	3505	1568	1757	3505	1568	3408	3147	383
Grp Volume(v), veh/h	60	1812	0	39	416	0	31	74	0	974	85	88
Grp Sat Flow(s),veh/h/ln	1757	1752	1568	1757	1752	1568	1757	1752	1568	1704	1752	1777
Q Serve(g_s), s	1.7	17.0	0.0	0.7	4.8	0.0	0.8	1.0	0.0	6.0	2.4	2.5
Cycle Q Clear(g_c), s	1.7	17.0	0.0	0.7	4.8	0.0	0.8	1.0	0.0	6.0	2.4	2.5
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.22
Lane Grp Cap(c), veh/h	166	1124	503	302	1124	503	382	331	148	386	198	201
V/C Ratio(X)	0.36	1.61	0.00	0.13	0.37	0.00	0.08	0.22	0.00	2.52	0.43	0.44
Avail Cap(c_a), veh/h	166	1124	503	302	1124	503	382	1124	503	386	595	604
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	22.5	18.0	0.0	12.0	13.9	0.0	17.8	22.2	0.0	23.5	21.9	21.9
Incr Delay (d2), s/veh	1.3	279.5	0.0	0.2	0.2	0.0	0.1	0.3	0.0	693.6	1.5	1.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.9	51.8	0.0	0.3	2.3	0.0	0.4	0.5	0.0	40.0	1.2	1.3
LnGrp Delay(d),s/veh	23.8	297.5	0.0	12.2	14.1	0.0	17.9	22.5	0.0	717.1	23.4	23.4
LnGrp LOS	C	F		B	B		B	C		F	C	C
Approach Vol, veh/h		1872			455			105			1147	
Approach Delay, s/veh		288.7			13.9			21.2			612.5	
Approach LOS		F			B			C			F	

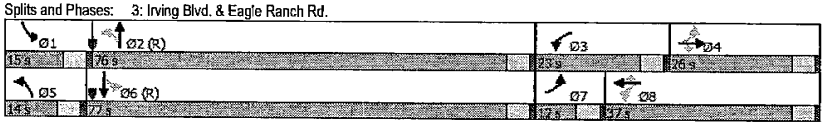
Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	11.0	10.0	10.0	22.0	10.0	11.0	10.0	22.0
Change Period (Y+Rc), s	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Max Green Setting (Gmax), s	6.0	17.0	5.0	17.0	5.0	18.0	5.0	17.0
Max Q Clear Time (g_c+I1), s	8.0	3.0	2.7	19.0	2.8	4.5	3.7	6.8
Green Ext Time (p_c), s	0.0	1.1	0.0	0.0	0.0	1.1	0.0	8.9

Intersection Summary
HCM 2010 Ctrl Delay 349.7
HCM 2010 LOS F

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT
Lane Configurations										
Traffic Volume (vph)	35	157	54	120	129	53	40	224	78	743
Future Volume (vph)	35	157	54	120	129	53	40	224	78	743
Turn Type	pm+pt	NA	Perm	pm+pt	NA	Perm	pm+pt	NA	pm+pt	NA
Protected Phases	7	4		3	8		5	2	1	6
Permitted Phases	4		4	8		8	2		6	
Detector Phase	7	4	4	3	8	8	5	2	1	6
Switch Phase										
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	10.0	21.0	21.0	10.0	21.0	21.0	10.0	21.0	10.0	21.0
Total Split (s)	12.0	26.0	26.0	23.0	37.0	37.0	14.0	76.0	15.0	77.0
Total Split (%)	8.6%	18.6%	18.6%	16.4%	26.4%	26.4%	10.0%	54.3%	10.7%	55.0%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lead	Lag
Lead-Lag Optimize?										
Recall Mode	Min	Min	Min	Min	Min	Min	Min	C-Min	Min	C-Min
Act Effct Green (s)	18.9	12.2	12.2	31.0	19.5	19.5	92.6	86.0	94.9	87.1
Actuated g/C Ratio	0.14	0.09	0.09	0.22	0.14	0.14	0.66	0.61	0.68	0.62
v/c Ratio	0.10	0.57	0.23	0.50	0.29	0.19	0.12	0.14	0.12	0.45
Control Delay	41.5	68.3	2.1	51.2	54.3	3.7	3.7	6.9	7.8	15.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	41.5	68.3	2.1	51.2	54.3	3.7	3.7	6.9	7.8	15.2
LOS	D	E	A	D	D	A	A	A	A	B
Approach Delay		50.7			44.2			6.5		14.6
Approach LOS		D			D			A		B

Intersection Summary
Cycle Length: 140
Actuated Cycle Length: 140
Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green
Natural Cycle: 65
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.57
Intersection Signal Delay: 22.7 Intersection LOS: C
Intersection Capacity Utilization 56.6% ICU Level of Service B
Analysis Period (min) 15

Splits and Phases: 3: Irving Blvd. & Eagle Ranch Rd.



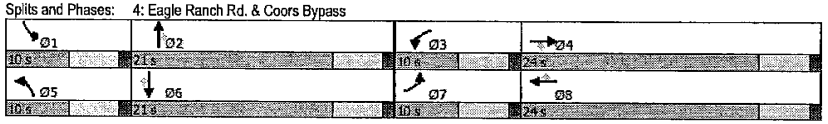
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	35	157	54	120	129	53	40	224	52	78	743	134
Future Volume (veh/h)	35	157	54	120	129	53	40	224	52	78	743	134
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1845	1845	1845	1845	1845	1845	1900	1845	1845	1900
Adj Flow Rate, veh/h	19	173	0	132	142	58	44	246	57	86	816	147
Adj No. of Lanes	1	2	1	1	2	1	1	2	0	1	2	0
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	201	261	117	228	426	191	423	1885	429	785	1971	355
Arrive On Green	0.04	0.07	0.00	0.06	0.12	0.12	0.04	0.66	0.66	0.04	0.66	0.66
Sat Flow, veh/h	1757	3505	1568	1757	3505	1568	1757	2838	646	1757	2968	535
Grp Volume(v), veh/h	19	173	0	132	142	58	44	150	153	86	482	481
Grp Sat Flow(s),veh/h/ln	1757	1752	1568	1757	1752	1568	1757	1752	1731	1757	1752	1750
Q Serve(g_s), s	1.4	6.7	0.0	9.4	5.2	4.7	1.1	4.4	4.6	2.2	17.8	17.8
Cycle Q Clear(g_c), s	1.4	6.7	0.0	9.4	5.2	4.7	1.1	4.4	4.6	2.2	17.8	17.8
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.37	1.00		0.31
Lane Grp Cap(c), veh/h	201	261	117	228	426	191	423	1164	1150	785	1164	1163
V/C Ratio(X)	0.09	0.66	0.00	0.58	0.33	0.30	0.10	0.13	0.13	0.11	0.41	0.41
Avail Cap(c_a), veh/h	226	526	235	309	801	358	473	1164	1150	847	1164	1163
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.93	0.93	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	56.0	53.1	0.0	52.3	56.3	56.1	7.7	8.6	8.7	6.7	10.9	10.9
Incr Delay (d2), s/veh	0.2	2.7	0.0	2.3	0.5	0.9	0.1	0.2	0.2	0.1	1.1	1.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.7	3.4	0.0	4.7	2.6	2.1	0.5	2.2	2.2	1.0	8.9	8.9
LnGrp Delay(d),s/veh	56.2	55.7	0.0	54.6	56.8	57.0	7.8	8.9	8.9	6.8	12.0	12.0
LnGrp LOS	E	E		D	E	E	A	A	A	A	B	B
Approach Vol, veh/h		192			332			347			1049	
Approach Delay, s/veh		64.8			55.9			8.7			11.5	
Approach LOS		E			E			A			B	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	10.0	98.0	16.6	15.4	10.0	98.0	10.0	22.0				
Change Period (Y+Rc), s	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0				
Max Green Setting (Gmax), s	10.0	71.0	18.0	21.0	9.0	72.0	7.0	32.0				
Max Q Clear Time (g_c+I1), s	4.2	6.6	11.4	8.7	3.1	19.8	3.4	7.2				
Green Ext Time (p_c), s	0.1	11.4	0.2	1.7	0.0	11.1	0.0	2.2				

Intersection Summary
HCM 2010 Ctrl Delay 24.0
HCM 2010 LOS C

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	16	1509	200	66	962	23	112	25	12	13	16	5
Future Volume (vph)	16	1509	200	66	962	23	112	25	12	13	16	5
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases			4			8			2			6
Detector Phase	7	4	4	3	8	8	5	2	2	1	6	6
Switch Phase												
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	10.0	21.0	21.0	10.0	21.0	21.0	10.0	21.0	21.0	10.0	21.0	21.0
Total Split (s)	10.0	24.0	24.0	10.0	24.0	24.0	10.0	21.0	21.0	10.0	21.0	21.0
Total Split (%)	15.4%	36.9%	36.9%	15.4%	36.9%	36.9%	15.4%	32.3%	32.3%	15.4%	32.3%	32.3%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?												
Recall Mode	Min	Min	Min	Min	Min	Min	Min	Min	Min	Min	Min	Min
Act Effct Green (s)	5.0	19.0	19.0	5.0	19.0	19.0	5.0	6.4	6.4	5.0	6.4	6.4
Actuated g/C Ratio	0.09	0.34	0.34	0.09	0.34	0.34	0.09	0.12	0.12	0.09	0.12	0.12
v/c Ratio	0.03	0.94	0.32	0.23	0.60	0.04	0.39	0.13	0.04	0.05	0.04	0.01
Control Delay	23.8	31.0	3.9	25.8	16.9	0.1	28.1	23.4	0.2	23.8	21.8	0.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	23.8	31.0	3.9	25.8	16.9	0.1	28.1	23.4	0.2	23.8	21.8	0.0
LOS	C	C	A	C	B	A	C	C	A	C	C	A
Approach Delay		27.8			17.1			25.0			19.6	
Approach LOS		C			B			C			B	

Intersection Summary			
Cycle Length: 65			
Actuated Cycle Length: 55.4			
Natural Cycle: 70			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.94			
Intersection Signal Delay: 23.8		Intersection LOS: C	
Intersection Capacity Utilization 50.0%		ICU Level of Service A	
Analysis Period (min) 15			

Splits and Phases: 4: Eagle Ranch Rd. & Coors Bypass



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	16	1509	200	66	962	23	112	25	12	13	16	5
Future Volume (veh/h)	16	1509	200	66	962	23	112	25	12	13	16	5
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845
Adj Flow Rate, veh/h	9	1623	0	71	1034	0	120	27	0	14	17	0
Adj No. of Lanes	2	3	1	2	3	1	2	1	1	2	2	1
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	316	1771	551	316	1771	551	316	171	145	316	325	145
Arrive On Green	0.09	0.35	0.00	0.09	0.35	0.00	0.09	0.09	0.00	0.09	0.09	0.00
Sat Flow, veh/h	3408	5036	1568	3408	5036	1568	3408	1845	1568	3408	3505	1568
Grp Volume(v), veh/h	9	1623	0	71	1034	0	120	27	0	14	17	0
Grp Sat Flow(s),veh/h/ln	1704	1679	1568	1704	1679	1568	1704	1845	1568	1704	1752	1568
Q Serve(g_s), s	0.1	16.6	0.0	1.0	9.0	0.0	1.8	0.7	0.0	0.2	0.2	0.0
Cycle Q Clear(g_c), s	0.1	16.6	0.0	1.0	9.0	0.0	1.8	0.7	0.0	0.2	0.2	0.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	316	1771	551	316	1771	551	316	171	145	316	325	145
V/C Ratio(X)	0.03	0.92	0.00	0.22	0.58	0.00	0.38	0.16	0.00	0.04	0.05	0.00
Avail Cap(c_a), veh/h	316	1772	552	316	1772	552	316	547	465	316	1039	465
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	22.3	16.7	0.0	22.7	14.3	0.0	23.0	22.6	0.0	22.3	22.3	0.0
Incr Delay (d2), s/veh	0.0	8.0	0.0	0.4	0.5	0.0	0.8	0.4	0.0	0.1	0.1	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.1	9.0	0.0	0.5	4.2	0.0	0.9	0.4	0.0	0.1	0.1	0.0
LnGrp Delay(d),s/veh	22.3	24.7	0.0	23.1	14.8	0.0	23.8	23.0	0.0	22.4	22.4	0.0
LnGrp LOS	C	C		C	B		C	C		C	C	
Approach Vol, veh/h		1632			1105			147			31	
Approach Delay, s/veh		24.7			15.3			23.6			22.4	
Approach LOS		C			B			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	10.0	10.0	10.0	24.0	10.0	10.0	10.0	24.0
Change Period (Y+Rc), s	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Max Green Setting (Gmax), s	5.0	16.0	5.0	19.0	5.0	16.0	5.0	19.0
Max Q Clear Time (g_c+I1), s	2.2	2.7	3.0	18.6	3.8	2.2	2.1	11.0
Green Ext Time (p_c), s	0.0	0.1	0.0	0.3	0.0	0.1	0.0	7.3

Intersection Summary		
HCM 2010 Ctrl Delay	21.1	
HCM 2010 LOS	C	

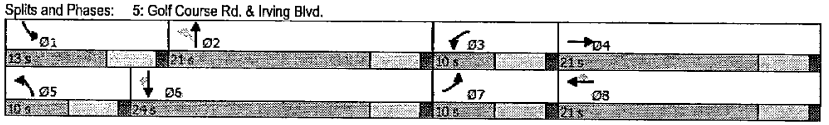
Timings
5: Golf Course Rd. & Irving Blvd.

Terry O. Brown, P.E.
5/10/2016

Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Configurations										
Traffic Volume (vph)	107	507	17	73	186	26	595	592	1109	52
Future Volume (vph)	107	507	17	73	186	26	595	592	1109	52
Turn Type	Prot	NA	Prot	NA	Perm	pm+pt	NA	Prot	NA	Perm
Protected Phases	7	4	3	8		5	2	1	6	
Permitted Phases					8	2				6
Detector Phase	7	4	3	8	8	5	2	1	6	6
Switch Phase										
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	10.0	21.0	10.0	21.0	21.0	10.0	21.0	10.0	21.0	21.0
Total Split (s)	10.0	21.0	10.0	21.0	21.0	10.0	21.0	13.0	24.0	24.0
Total Split (%)	15.4%	32.3%	15.4%	32.3%	32.3%	15.4%	32.3%	20.0%	36.9%	36.9%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Lead/Lag	Lead	Lag	Lead	Lag	Lag	Lead	Lag	Lead	Lag	Lag
Lead-Lag Optimize?										
Recall Mode	Min	Min	Min	Min	Min	Min	Min	Min	Min	Min
Act Effct Green (s)	5.0	15.3	5.0	15.3	15.3	21.0	16.0	8.0	19.0	19.0
Actuated g/C Ratio	0.08	0.24	0.08	0.24	0.24	0.33	0.25	0.12	0.30	0.30
v/c Ratio	0.44	0.81	0.13	0.09	0.38	0.11	0.76	1.51	1.15	0.09
Control Delay	34.2	30.7	30.4	19.3	5.9	11.8	29.4	266.1	104.2	0.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	34.2	30.7	30.4	19.3	5.9	11.8	29.4	266.1	104.2	0.3
LOS	C	C	C	B	A	B	C	F	F	A
Approach Delay		31.2		10.9			28.7		155.8	
Approach LOS		C		B			C		F	

Intersection Summary
Cycle Length: 65
Actuated Cycle Length: 64.3
Natural Cycle: 70
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 1.51
Intersection Signal Delay: 93.1 Intersection LOS: F
Intersection Capacity Utilization 65.5% ICU Level of Service C
Analysis Period (min) 15

Splits and Phases: 5: Golf Course Rd. & Irving Blvd.



HCM 2010 Signalized Intersection Summary
5: Golf Course Rd. & Irving Blvd.

Terry O. Brown, P.E.
5/10/2016

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	107	507	129	17	73	186	26	595	21	592	1109	52
Future Volume (veh/h)	107	507	129	17	73	186	26	595	21	592	1109	52
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1900	1845	1845	1845	1845	1845	1900	1845	1845	1845
Adj Flow Rate, veh/h	115	545	139	18	78	200	28	640	23	637	1192	56
Adj No. of Lanes	2	2	0	1	2	1	1	2	0	2	2	1
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	266	653	166	137	827	370	249	861	31	425	1038	465
Arrive On Green	0.08	0.24	0.24	0.08	0.24	0.24	0.08	0.25	0.25	0.12	0.30	0.30
Sat Flow, veh/h	3408	2769	704	1757	3505	1568	1757	3451	124	3408	3505	1568
Grp Volume(v), veh/h	115	344	340	18	78	200	28	325	338	637	1192	56
Grp Sat Flow(s),veh/h/ln	1704	1752	1720	1757	1752	1568	1757	1752	1823	1704	1752	1568
Q Serve(g_s), s	2.1	12.0	12.1	0.6	1.1	7.2	0.7	10.9	11.0	8.0	19.0	1.7
Cycle Q Clear(g_c), s	2.1	12.0	12.1	0.6	1.1	7.2	0.7	10.9	11.0	8.0	19.0	1.7
Prop In Lane	1.00		0.41	1.00		1.00	1.00		0.07	1.00		1.00
Lane Grp Cap(c), veh/h	266	413	406	137	827	370	249	437	455	425	1038	465
V/C Ratio(X)	0.43	0.83	0.84	0.13	0.09	0.54	0.11	0.74	0.74	1.50	1.15	0.12
Avail Cap(c_a), veh/h	266	437	429	137	874	391	249	437	455	425	1038	465
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	28.2	23.3	23.3	27.5	19.1	21.5	16.7	22.2	22.2	28.1	22.6	16.5
Incr Delay (d2), s/veh	1.1	12.4	13.0	0.4	0.0	1.3	0.2	6.7	6.5	236.3	78.0	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.0	7.2	7.1	0.3	0.5	3.2	0.3	6.0	6.3	17.7	20.3	0.7
LnGrp Delay(d),s/veh	29.3	35.7	36.4	28.0	19.2	22.8	16.9	28.9	28.7	264.4	100.6	16.6
LnGrp LOS	C	D	D	C	B	C	B	C	C	F	F	B
Approach Vol, veh/h		799			296			691			1885	
Approach Delay, s/veh		35.1			22.2			28.3			153.4	
Approach LOS		D			C			C			F	

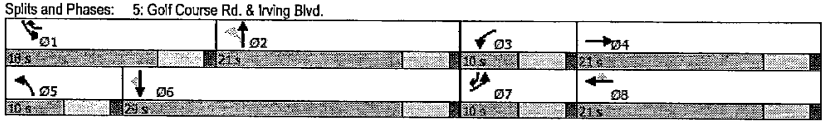
Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	13.0	21.0	10.0	20.1	10.0	24.0	10.0	20.1
Change Period (Y+Rc), s	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Max Green Setting (Gmax), s	8.0	16.0	5.0	16.0	5.0	19.0	5.0	16.0
Max Q Clear Time (g_c+I1), s	10.0	13.0	2.6	14.1	2.7	21.0	4.1	9.2
Green Ext Time (p_c), s	0.0	2.6	0.0	1.1	0.0	0.0	0.0	3.1

Intersection Summary
HCM 2010 Ctrl Delay 93.5
HCM 2010 LOS F

Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Configurations										
Traffic Volume (vph)	107	507	17	73	186	26	595	592	1109	52
Future Volume (vph)	107	507	17	73	186	26	595	592	1109	52
Turn Type	Prot	NA	Prot	NA	pm+ov	pm+pt	NA	Prot	NA	pm+ov
Protected Phases	7	4	3	8	1	5	2	1	6	7
Permitted Phases					8	2				6
Detector Phase	7	4	3	8	1	5	2	1	6	7
Switch Phase										
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	10.0	21.0	10.0	21.0	10.0	10.0	21.0	10.0	21.0	10.0
Total Split (s)	10.0	21.0	10.0	21.0	18.0	10.0	21.0	18.0	29.0	10.0
Total Split (%)	14.3%	30.0%	14.3%	30.0%	25.7%	14.3%	30.0%	25.7%	41.4%	14.3%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Lead/Lag	Lead	Lag	Lead	Lag	Lead	Lead	Lag	Lead	Lag	Lead
Lead-Lag Optimize?										
Recall Mode	Min	Min	Min	Min	Min	Min	Min	Min	Min	Min
Act Effct Green (s)	5.0	15.6	5.0	15.6	33.6	21.0	16.0	13.0	24.0	34.0
Actuated g/C Ratio	0.07	0.22	0.07	0.22	0.48	0.30	0.23	0.19	0.34	0.49
v/c Ratio	0.47	0.86	0.14	0.10	0.25	0.12	0.82	1.00	0.99	0.07
Control Delay	38.0	37.5	33.3	21.8	5.9	12.0	35.8	67.7	47.5	0.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	38.0	37.5	33.3	21.8	5.9	12.0	35.8	67.7	47.5	0.7
LOS	D	D	C	C	A	B	D	E	D	A
Approach Delay		37.6		11.7			34.8		53.0	
Approach LOS		D		B			C		D	

Intersection Summary	
Cycle Length: 70	
Actuated Cycle Length: 69.6	
Natural Cycle: 70	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 1.00	
Intersection Signal Delay: 42.9	Intersection LOS: D
Intersection Capacity Utilization 65.5%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 5: Golf Course Rd. & Irving Blvd.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	107	507	129	17	73	186	26	595	21	592	1109	52
Future Volume (veh/h)	107	507	129	17	73	186	26	595	21	592	1109	52
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1900	1845	1845	1845	1845	1845	1900	1845	1845	1845
Adj Flow Rate, veh/h	115	545	139	18	78	200	28	640	23	637	1192	56
Adj No. of Lanes	2	2	0	1	2	1	1	2	0	2	2	1
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	244	624	159	126	790	646	232	792	28	636	1207	652
Arrive On Green	0.07	0.23	0.23	0.07	0.23	0.23	0.07	0.23	0.23	0.19	0.34	0.34
Sat Flow, veh/h	3408	2769	704	1757	3505	1568	1757	3451	124	3408	3505	1568
Grp Volume(v), veh/h	115	344	340	18	78	200	28	325	338	637	1192	56
Grp Sat Flow(s),veh/h/ln	1704	1752	1720	1757	1752	1568	1757	1752	1823	1704	1752	1568
Q Serve(g_s), s	2.3	13.2	13.3	0.7	1.2	6.0	0.8	12.2	12.2	13.0	23.6	1.5
Cycle Q Clear(g_c), s	2.3	13.2	13.3	0.7	1.2	6.0	0.8	12.2	12.2	13.0	23.6	1.5
Prop In Lane	1.00		0.41	1.00		1.00	1.00		0.07	1.00		1.00
Lane Grp Cap(c), veh/h	244	395	388	126	790	646	232	402	418	636	1207	652
V/C Ratio(X)	0.47	0.87	0.88	0.14	0.10	0.31	0.12	0.81	0.81	1.00	0.99	0.09
Avail Cap(c_a), veh/h	244	402	395	126	805	652	232	402	418	636	1207	652
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	31.1	26.0	26.1	30.3	21.4	13.8	19.1	25.4	25.4	28.4	22.7	12.3
Incr Delay (d2), s/veh	1.4	18.2	19.2	0.5	0.1	0.3	0.2	11.6	11.2	36.2	22.9	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.1	8.3	8.4	0.3	0.6	2.6	0.4	7.2	7.4	9.2	15.1	0.7
LnGrp Delay(d),s/veh	32.5	44.2	45.3	30.9	21.4	14.1	19.3	36.9	36.6	64.6	45.6	12.4
LnGrp LOS	C	D	D	C	C	B	B	D	D	F	D	B
Approach Vol, veh/h		799			296			691			1885	
Approach Delay, s/veh		43.0			17.0			36.1			51.0	
Approach LOS		D			B			D			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	18.0	21.0	10.0	20.7	10.0	29.0	10.0	20.7
Change Period (Y+Rc), s	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Max Green Setting (Gmax), s	13.0	16.0	5.0	16.0	5.0	24.0	5.0	16.0
Max Q Clear Time (g_c+I1), s	15.0	14.2	2.7	15.3	2.8	25.6	4.3	8.0
Green Ext Time (p_c), s	0.0	1.6	0.0	0.4	0.0	0.0	0.0	3.4

Intersection Summary	
HCM 2010 Ctrl Delay	43.7
HCM 2010 LOS	D

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔			↔			↑↑↱			↑↑↱	
Traffic Volume (vph)	22	7	45	13	1	24	32	254	56	24	405	25
Future Volume (vph)	22	7	45	13	1	24	32	254	56	24	405	25
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		0	115		0	115		0
Storage Lanes	0		0	0		0	1		0	1		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	1.00	0.95	0.95
Frt		0.918			0.915			0.973			0.991	
Flt Protected		0.985			0.983		0.950			0.950		
Satd. Flow (prot)	0	1668	0	0	1659	0	1752	3410	0	1752	3473	0
Flt Permitted		0.985			0.983		0.950			0.950		
Satd. Flow (perm)	0	1668	0	0	1659	0	1752	3410	0	1752	3473	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		403			478			1120			1127	
Travel Time (s)		9.2			10.9			25.5			25.6	
Peak Hour Factor	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82
Adj. Flow (vph)	27	9	55	16	1	29	39	310	68	29	494	30
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	91	0	0	46	0	39	378	0	29	524	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Stop			Stop			Free			Free	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 30.8%		ICU Level of Service A	
Analysis Period (min) 15			

Intersection												
Int Delay, s/veh	2.4											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Vol, veh/h	22	7	45	13	1	24	32	254	56	24	405	25
Future Vol, veh/h	22	7	45	13	1	24	32	254	56	24	405	25
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	115	-	-	115	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	82	82	82	82	82	82	82	82	82	82	82	82
Heavy Vehicles, %	3	3	3	3	3	3	3	3	3	3	3	3
Mvmt Flow	27	9	55	16	1	29	39	310	68	29	494	30

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	802	1024	262	732	1005	189	524	0	0	378	0	0
Stage 1	568	568	-	422	422	-	-	-	-	-	-	-
Stage 2	234	456	-	310	583	-	-	-	-	-	-	-
Critical Hdwy	7.56	6.56	6.96	7.56	6.56	6.96	4.16	-	-	4.16	-	-
Critical Hdwy Stg 1	6.56	5.56	-	6.56	5.56	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.56	5.56	-	6.56	5.56	-	-	-	-	-	-	-
Follow-up Hdwy	3.53	4.03	3.33	3.53	4.03	3.33	2.23	-	-	2.23	-	-
Pot Cap-1 Maneuver	273	232	734	307	238	818	1032	-	-	1170	-	-
Stage 1	472	502	-	577	584	-	-	-	-	-	-	-
Stage 2	745	564	-	672	494	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	250	218	734	263	223	818	1032	-	-	1170	-	-
Mov Cap-2 Maneuver	250	218	-	263	223	-	-	-	-	-	-	-
Stage 1	454	490	-	555	562	-	-	-	-	-	-	-
Stage 2	690	543	-	596	482	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	16.3	13.8	0.6	0.4
HCM LOS	C	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1032	-	-	408	456	1170	-	-
HCM Lane V/C Ratio	0.038	-	-	0.221	0.102	0.025	-	-
HCM Control Delay (s)	8.6	-	-	16.3	13.8	8.2	-	-
HCM Lane LOS	A	-	-	C	B	A	-	-
HCM 95th %tile Q(veh)	0.1	-	-	0.8	0.3	0.1	-	-

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	15	14	290	22	38	933
Future Volume (vph)	15	14	290	22	38	933
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	0.95	0.95	0.95	0.95
Frt	0.935		0.990			
Flt Protected	0.975					0.998
Satd. Flow (prot)	1682	0	3470	0	0	3498
Flt Permitted	0.975					0.998
Satd. Flow (perm)	1682	0	3470	0	0	3496
Link Speed (mph)	30		30			30
Link Distance (ft)	425		1400			358
Travel Time (s)	9.7		31.8			8.1
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91
Adj. Flow (vph)	16	15	319	24	42	1025
Shared Lane Traffic (%)						
Lane Group Flow (vph)	31	0	343	0	0	1067
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(ft)	12		12			12
Link Offset(ft)	0		0			0
Crosswalk Width(ft)	16		16			16
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9		9	15	
Sign Control	Stop		Free			Free

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 48.9%		ICU Level of Service A	
Analysis Period (min) 15			

Intersection	
Int Delay, s/veh	0.8

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Traffic Vol, veh/h	15	14	290	22	38	933
Future Vol, veh/h	15	14	290	22	38	933
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None		None		None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	91	91	91	91	91	91
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	16	15	319	24	42	1025

Major/Minor	Minor1			Major1		Major2	
Conflicting Flow All	927	171		0	0	343	0
Stage 1	331	-		-	-	-	-
Stage 2	596	-		-	-	-	-
Critical Hdwy	6.86	6.96		-	-	4.16	-
Critical Hdwy Stg 1	5.86	-		-	-	-	-
Critical Hdwy Stg 2	5.86	-		-	-	-	-
Follow-up Hdwy	3.53	3.33		-	-	2.23	-
Pot Cap-1 Maneuver	265	840		-	-	1206	-
Stage 1	697	-		-	-	-	-
Stage 2	510	-		-	-	-	-
Platoon blocked, %				-	-		-
Mov Cap-1 Maneuver	244	840		-	-	1206	-
Mov Cap-2 Maneuver	244	-		-	-	-	-
Stage 1	697	-		-	-	-	-
Stage 2	469	-		-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	15.6	0	0.3
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	371	1206	-
HCM Lane V/C Ratio	-	-	0.086	0.035	-
HCM Control Delay (s)	-	-	15.6	8.1	0.3
HCM Lane LOS	-	-	C	A	A
HCM 95th %tile Q(veh)	-	-	0.3	0.1	-

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	15	14	290	22	38	933
Future Volume (vph)	15	14	290	22	38	933
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	0.95	0.95	0.95	0.95
Frt		0.850	0.990			
Flt Protected	0.950					0.998
Satd. Flow (prot)	1752	1568	3470	0	0	3498
Flt Permitted	0.950					0.998
Satd. Flow (perm)	1752	1568	3470	0	0	3498
Link Speed (mph)	30		30			30
Link Distance (ft)	425		1400			358
Travel Time (s)	9.7		31.8			8.1
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91
Adj. Flow (vph)	16	15	319	24	42	1025
Shared Lane Traffic (%)						
Lane Group Flow (vph)	16	15	343	0	0	1067
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(ft)	12		12			12
Link Offset(ft)	0		0			0
Crosswalk Width(ft)	16		16			16
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9		9	15	
Sign Control	Stop		Free			Free

Intersection Summary

Area Type: Other
Control Type: Unsignalized
Intersection Capacity Utilization 48.9% ICU Level of Service A
Analysis Period (min) 15

Intersection

Int Delay, s/veh 0.8

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	15	14	290	22	38	933
Future Vol, veh/h	15	14	290	22	38	933
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	0	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	91	91	91	91	91	91
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	16	15	319	24	42	1025

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	927	171	0	0	343	0
Stage 1	331	-	-	-	-	-
Stage 2	596	-	-	-	-	-
Critical Hdwy	6.86	6.96	-	-	4.16	-
Critical Hdwy Stg 1	5.86	-	-	-	-	-
Critical Hdwy Stg 2	5.86	-	-	-	-	-
Follow-up Hdwy	3.53	3.33	-	-	2.23	-
Pot Cap-1 Maneuver	265	840	-	-	1206	-
Stage 1	697	-	-	-	-	-
Stage 2	510	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	244	840	-	-	1206	-
Mov Cap-2 Maneuver	244	-	-	-	-	-
Stage 1	697	-	-	-	-	-
Stage 2	469	-	-	-	-	-

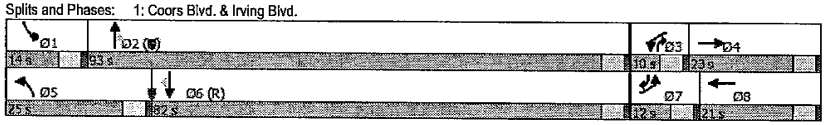
Approach	WB	NB	SB
HCM Control Delay, s	15.3	0	0.6
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	WBLn2	SBL	SBT
Capacity (veh/h)	-	-	244	840	1206	-
HCM Lane V/C Ratio	-	-	0.068	0.018	0.035	-
HCM Control Delay (s)	-	-	20.8	9.4	8.1	0.3
HCM Lane LOS	-	-	C	A	A	A
HCM 95th %tile Q(veh)	-	-	0.2	0.1	0.1	-

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations										
Traffic Volume (vph)	206	39	110	110	946	3203	101	41	1928	183
Future Volume (vph)	206	39	110	110	946	3203	101	41	1928	183
Turn Type	Prot	NA	Prot	NA	Prot	NA	pm+ov	Prot	NA	pm+ov
Protected Phases	7	4	3	8	5	2	3	1	6	7
Permitted Phases							2			6
Detector Phase	7	4	3	8	5	2	3	1	6	7
Switch Phase										
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	10.0	21.0	10.0	21.0	10.0	21.0	10.0	10.0	21.0	10.0
Total Split (s)	12.0	23.0	10.0	21.0	25.0	93.0	10.0	14.0	82.0	12.0
Total Split (%)	8.6%	16.4%	7.1%	15.0%	17.9%	66.4%	7.1%	10.0%	58.6%	8.6%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Lead/Lag	Lead	Lag	Lead	Lag	Lead	Lag	Lead	Lead	Lag	Lead
Lead-Lag Optimize?										
Recall Mode	Min	Min	Min	Min	Min	C-Min	Min	Min	C-Min	Min
Act Effct Green (s)	7.0	18.0	5.0	16.0	20.0	89.1	99.1	7.9	77.0	89.0
Actuated g/C Ratio	0.05	0.13	0.04	0.11	0.14	0.64	0.71	0.06	0.55	0.64
v/c Ratio	1.24	1.38	0.93	0.39	1.99	0.81	0.09	0.43	2.79	0.18
Control Delay	199.0	219.8	129.9	45.9	482.8	21.3	1.3	76.7	822.2	5.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	199.0	219.8	129.9	45.9	482.8	21.3	1.3	76.7	822.2	5.5
LOS	F	F	F	D	F	C	A	E	F	A
Approach Delay		213.5		80.3		123.6			799.0	
Approach LOS		F		F		F			F	

Intersection Summary
Cycle Length: 140
Actuated Cycle Length: 140
Offset: 8 (6%), Referenced to phase 2:NBT and 6:SBT, Start of Green
Natural Cycle: 130
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 2.79
Intersection Signal Delay: 532.4 Intersection LOS: F
Intersection Capacity Utilization 114.1% ICU Level of Service H
Analysis Period (min) 15

Splits and Phases: 1: Coors Blvd. & Irving Blvd.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	206	39	436	110	110	48	946	3203	101	41	1928	183
Future Volume (veh/h)	206	39	436	110	110	48	946	3203	101	41	1928	183
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1900	1845	1845	1900	1845	1845	1845	1845	1845	1845
Adj Flow Rate, veh/h	210	40	0	112	112	49	965	3268	103	42	7712	187
Adj No. of Lanes	2	1	0	2	2	0	2	4	1	1	3	1
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.25	0.98
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	170	149	0	122	160	67	487	4461	1158	67	3012	1016
Arrive On Green	0.05	0.08	0.00	0.04	0.07	0.07	0.14	0.70	0.70	0.04	0.60	0.60
Sat Flow, veh/h	3408	1845	0	3408	2415	1005	3408	6346	1568	1757	5036	1568
Grp Volume(v), veh/h	210	40	0	112	80	81	965	3268	103	42	7712	187
Grp Sat Flow(s),veh/h/ln	1704	1845	0	1704	1752	1667	1704	1586	1568	1757	1679	1568
Q Serve(g_s), s	7.0	2.9	0.0	4.6	6.2	6.7	20.0	44.2	2.6	3.3	83.7	6.7
Cycle Q Clear(g_c), s	7.0	2.9	0.0	4.6	6.2	6.7	20.0	44.2	2.6	3.3	83.7	6.7
Prop In Lane	1.00		0.00	1.00		0.60	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	170	149	0	122	116	110	487	4461	1158	67	3012	1016
V/C Ratio(X)	1.23	0.27	0.00	0.92	0.69	0.74	1.98	0.73	0.09	0.63	2.56	0.18
Avail Cap(c_a), veh/h	170	237	0	122	200	191	487	4461	1158	113	3012	1016
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	66.5	60.5	0.0	67.3	63.9	64.2	60.0	12.7	5.1	66.4	28.1	9.8
Incr Delay (d2), s/veh	144.9	1.0	0.0	57.4	7.0	9.1	449.2	1.1	0.2	9.4	703.3	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	6.7	1.5	0.0	3.1	3.2	3.4	39.8	19.4	1.2	1.8	234.6	3.0
LnGrp Delay(d),s/veh	211.4	61.5	0.0	124.7	70.9	73.3	509.2	13.8	5.3	75.8	731.4	10.2
LnGrp LOS	F	E		F	E	E	F	B	A	E	F	B
Approach Vol, veh/h		250			273			4336			7941	
Approach Delay, s/veh		187.5			93.7			123.9			710.9	
Approach LOS		F			F			F			F	

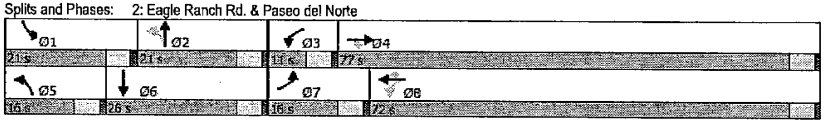
Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	10.3	103.4	10.0	16.3	25.0	88.7	12.0	14.3
Change Period (Y+Rc), s	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Max Green Setting (Gmax), s	9.0	88.0	5.0	18.0	20.0	77.0	7.0	16.0
Max Q Clear Time (g_c+I1), s	5.3	46.2	6.6	4.9	22.0	85.7	9.0	8.7
Green Ext Time (p_c), s	0.0	41.6	0.0	0.8	0.0	0.0	0.0	0.6

Intersection Summary
HCM 2010 Ctrl Delay 488.7
HCM 2010 LOS F

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Configurations											
Traffic Volume (vph)	138	765	59	101	1614	982	114	213	39	405	220
Future Volume (vph)	138	765	59	101	1614	982	114	213	39	405	220
Turn Type	Prot	NA	Perm	pm+pt	NA	Perm	pm+pt	NA	Free	Prot	NA
Protected Phases	7	4		3	8		5	2		1	6
Permitted Phases			4	8		8	2		Free		
Detector Phase	7	4	4	3	8	8	5	2		1	6
Switch Phase											
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0		5.0	5.0
Minimum Split (s)	10.0	21.0	21.0	10.0	21.0	21.0	10.0	21.0		10.0	21.0
Total Split (s)	16.0	77.0	77.0	11.0	72.0	72.0	16.0	21.0		21.0	26.0
Total Split (%)	12.3%	59.2%	59.2%	8.5%	55.4%	55.4%	12.3%	16.2%		16.2%	20.0%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0		4.0	4.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0		1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0
Total Lost Time (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0		5.0	5.0
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag		Lead	Lag
Lead-Lag Optimize?											
Recall Mode	Min	Min	Min	Min	Min	Min	Min	Min		Min	Min
Act Effct Green (s)	11.0	72.0	72.0	73.0	67.0	67.0	23.4	13.2	127.2	16.0	18.9
Actuated g/C Ratio	0.09	0.57	0.57	0.57	0.53	0.53	0.18	0.10	1.00	0.13	0.15
v/c Ratio	0.96	0.41	0.07	0.28	0.92	1.00	0.57	0.62	0.03	1.00	0.69
Control Delay	121.1	16.5	0.7	10.9	37.4	47.6	48.5	62.3	0.0	98.3	41.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	121.1	16.5	0.7	10.9	37.4	47.6	48.5	62.3	0.0	98.3	41.5
LOS	F	B	A	B	D	D	D	E	A	F	D
Approach Delay		30.5			40.1			51.4			70.4
Approach LOS		C			D			D			E

Intersection Summary			
Cycle Length: 130			
Actuated Cycle Length: 127.2			
Natural Cycle: 130			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 1.00			
Intersection Signal Delay: 44.0		Intersection LOS: D	
Intersection Capacity Utilization 86.8%		ICU Level of Service E	
Analysis Period (min) 15			

Splits and Phases: 2: Eagle Ranch Rd. & Paseo del Norte



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	138	765	59	101	1614	982	114	213	39	405	220	170
Future Volume (veh/h)	138	765	59	101	1614	982	114	213	39	405	220	170
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845	1900
Adj Flow Rate, veh/h	145	805	0	106	1699	0	120	224	0	426	232	179
Adj No. of Lanes	1	2	1	1	2	1	1	2	1	2	2	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	154	2002	896	430	1848	827	218	345	154	434	287	212
Arrive On Green	0.09	0.57	0.00	0.04	0.53	0.00	0.08	0.10	0.00	0.13	0.15	0.15
Sat Flow, veh/h	1757	3505	1568	1757	3505	1568	1757	3505	1568	3408	1923	1423
Grp Volume(v), veh/h	145	805	0	106	1699	0	120	224	0	426	210	201
Grp Sat Flow(s),veh/h/ln	1757	1752	1568	1757	1752	1568	1757	1752	1568	1704	1752	1594
Q Serve(g_s), s	10.3	16.1	0.0	3.5	55.8	0.0	7.6	7.7	0.0	15.6	14.6	15.4
Cycle Q Clear(g_c), s	10.3	16.1	0.0	3.5	55.8	0.0	7.5	7.7	0.0	15.6	14.6	15.4
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.89
Lane Grp Cap(c), veh/h	154	2002	896	430	1848	827	218	345	154	434	261	238
V/C Ratio(X)	0.94	0.40	0.00	0.25	0.92	0.00	0.55	0.65	0.00	0.98	0.80	0.84
Avail Cap(c_a), veh/h	154	2010	899	437	1871	837	237	447	200	434	293	267
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	56.9	15.0	0.0	12.8	27.2	0.0	46.2	54.5	0.0	54.6	51.6	52.0
Incr Delay (d2), s/veh	55.3	0.1	0.0	0.3	7.8	0.0	2.3	2.1	0.0	38.0	13.7	19.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	7.4	7.8	0.0	1.7	28.9	0.0	3.8	3.8	0.0	9.6	8.1	8.1
LnGrp Delay(d),s/veh	112.3	15.1	0.0	13.1	35.1	0.0	48.5	56.6	0.0	92.6	65.3	71.5
LnGrp LOS	F	B		B	D		D	E		F	E	E
Approach Vol, veh/h		950			1805			344			837	
Approach Delay, s/veh		29.9			33.8			53.8			80.7	
Approach LOS		C			C			D			F	

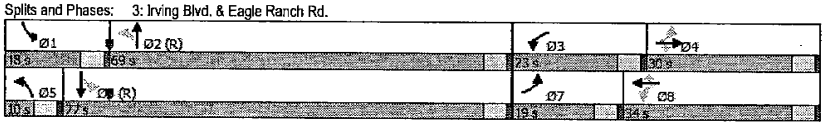
Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	21.0	17.4	10.5	76.7	14.6	23.7	16.0	71.2
Change Period (Y+Rc), s	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Max Green Setting (Gmax), s	16.0	16.0	6.0	72.0	11.0	21.0	11.0	67.0
Max Q Clear Time (g_c+I1), s	17.6	9.7	5.5	18.1	9.6	17.4	12.3	57.8
Green Ext Time (p_c), s	0.0	2.1	0.0	36.6	0.0	1.4	0.0	8.3

Intersection Summary		
HCM 2010 Ctrl Delay	44.6	
HCM 2010 LOS	D	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT
Lane Configurations										
Traffic Volume (vph)	146	382	88	165	393	248	88	830	124	382
Future Volume (vph)	146	382	88	165	393	248	88	830	124	382
Turn Type	pm+pt	NA	Perm	pm+pt	NA	Perm	pm+pt	NA	pm+pt	NA
Protected Phases	7	4		3	8		5	2	1	6
Permitted Phases	4		4	8		8	2		6	
Detector Phase	7	4	4	3	6	8	5	2	1	6
Switch Phase										
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	10.0	21.0	21.0	10.0	21.0	21.0	10.0	21.0	10.0	21.0
Total Split (s)	19.0	30.0	30.0	23.0	34.0	34.0	10.0	69.0	18.0	77.0
Total Split (%)	13.6%	21.4%	21.4%	16.4%	24.3%	24.3%	7.1%	49.3%	12.9%	55.0%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lead	Lag
Lead-Lag Optimize?										
Recall Mode	Min	Min	Min	Min	Min	Min	Min	C-Min	Min	C-Min
Act Effct Green (s)	35.3	21.4	21.4	38.4	22.9	22.9	80.7	73.4	85.1	75.9
Actuated g/C Ratio	0.25	0.15	0.15	0.27	0.16	0.16	0.58	0.52	0.61	0.54
v/c Ratio	0.60	0.74	0.26	0.65	0.71	0.59	0.17	0.60	0.45	0.24
Control Delay	46.7	65.4	4.1	48.6	62.3	16.3	2.0	12.6	16.8	17.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	46.7	65.4	4.1	48.6	62.3	16.3	2.0	12.6	16.8	17.5
LOS	D	E	A	D	E	B	A	B	B	B
Approach Delay		52.2			45.3			11.8		17.4
Approach LOS		D			D			B		B

Intersection Summary
Cycle Length: 140
Actuated Cycle Length: 140
Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green
Natural Cycle: 65
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.74
Intersection Signal Delay: 29.5 Intersection LOS: C
Intersection Capacity Utilization 72.9% ICU Level of Service C
Analysis Period (min) 15

Splits and Phases: 3: Irving Blvd. & Eagle Ranch Rd.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	146	382	88	165	393	248	88	830	209	124	382	55
Future Volume (veh/h)	146	382	88	165	393	248	88	830	209	124	382	55
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1845	1845	1845	1845	1845	1845	1900	1845	1845	1900
Adj Flow Rate, veh/h	152	398	0	172	409	258	92	865	218	129	398	57
Adj No. of Lanes	1	2	1	1	2	1	1	2	0	1	2	0
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	263	633	283	291	668	299	556	1481	373	302	1684	239
Arrive On Green	0.08	0.18	0.00	0.09	0.19	0.19	0.04	0.53	0.53	0.05	0.55	0.55
Sat Flow, veh/h	1757	3505	1568	1757	3505	1568	1757	2775	699	1757	3081	438
Grp Volume(v), veh/h	152	398	0	172	409	258	92	546	537	129	225	230
Grp Sat Flow(s),veh/h/ln	1757	1752	1568	1757	1752	1568	1757	1752	1721	1757	1752	1767
Q Serve(g_s), s	9.7	14.7	0.0	11.0	15.0	22.3	3.3	29.6	29.6	4.6	9.4	9.5
Cycle Q Clear(g_c), s	9.7	14.7	0.0	11.0	15.0	22.3	3.3	29.6	29.6	4.6	9.4	9.5
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.41	1.00		0.25
Lane Grp Cap(c), veh/h	263	633	283	291	668	299	556	935	919	302	958	966
V/C Ratio(X)	0.58	0.63	0.00	0.59	0.61	0.86	0.17	0.58	0.58	0.43	0.24	0.24
Avail Cap(c_a), veh/h	291	633	283	351	726	325	556	935	919	380	958	966
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.23	0.23	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	42.2	53.0	0.0	41.7	51.9	54.9	13.9	22.1	22.1	17.4	16.5	16.6
Incr Delay (d2), s/veh	0.5	0.5	0.0	1.9	1.3	19.6	0.1	2.7	2.7	1.0	0.6	0.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.7	7.2	0.0	5.5	7.4	11.3	1.6	15.0	14.7	2.3	4.7	4.8
LnGrp Delay(d),s/veh	42.7	53.5	0.0	43.6	53.3	74.5	14.1	24.8	24.8	18.3	17.1	17.1
LnGrp LOS	D	D		D	D	E	B	C	C	B	B	B
Approach Vol, veh/h		550			839			1175			584	
Approach Delay, s/veh		50.5			57.8			24.0			17.4	
Approach LOS		D			E			C			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	11.8	79.7	18.2	30.3	10.0	81.5	16.8	31.7
Change Period (Y+Rc), s	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Max Green Setting (Gmax), s	13.0	64.0	18.0	25.0	5.0	72.0	14.0	29.0
Max Q Clear Time (g_c+I1), s	6.6	31.6	13.0	16.7	5.3	11.5	11.7	24.3
Green Ext Time (p_c), s	0.2	13.2	0.2	3.9	0.0	15.5	0.1	2.4

Intersection Summary
HCM 2010 Ctrl Delay 36.4
HCM 2010 LOS D

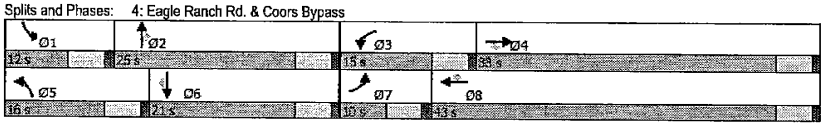
Timings
4: Eagle Ranch Rd. & Coors Bypass

Terry O. Brown, P.E.
5/10/2016

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	146	1124	232	213	2243	184	435	148	34	114	268	61
Future Volume (vph)	146	1124	232	213	2243	184	435	148	34	114	268	61
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases			4			8			2			6
Detector Phase	7	4	4	3	8	8	5	2	2	1	6	6
Switch Phase												
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	10.0	21.0	21.0	10.0	21.0	21.0	10.0	21.0	21.0	10.0	21.0	21.0
Total Split (s)	10.0	38.0	38.0	15.0	43.0	43.0	16.0	25.0	25.0	12.0	21.0	21.0
Total Split (%)	11.1%	42.2%	42.2%	16.7%	47.8%	47.8%	17.8%	27.8%	27.8%	13.3%	23.3%	23.3%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?												
Recall Mode	Min	Min	Min	Min	Min	Min	Min	Min	Min	Min	Min	Min
Act Effct Green (s)	5.0	33.6	33.6	9.4	38.0	38.0	11.0	16.2	16.2	6.8	12.1	12.1
Actuated g/C Ratio	0.06	0.39	0.39	0.11	0.44	0.44	0.13	0.19	0.19	0.08	0.14	0.14
v/c Ratio	0.38	0.59	0.32	0.59	1.04	0.24	1.03	0.44	0.08	0.44	0.56	0.18
Control Delay	45.8	22.8	4.0	43.8	55.8	3.3	90.9	35.2	0.4	43.8	39.1	1.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	45.8	22.8	4.0	43.8	55.8	3.3	90.9	35.2	0.4	43.8	39.1	1.2
LOS	D	C	A	D	E	A	F	D	A	D	D	A
Approach Delay		20.9			51.2			72.5			35.1	
Approach LOS		C			D			E			D	

Intersection Summary
Cycle Length: 90
Actuated Cycle Length: 86.1
Natural Cycle: 90
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 1.04
Intersection Signal Delay: 43.9 Intersection LOS: D
Intersection Capacity Utilization 84.2% ICU Level of Service E
Analysis Period (min) 15

Splits and Phases: 4: Eagle Ranch Rd. & Coors Bypass



HCM 2010 Signalized Intersection Summary
4: Eagle Ranch Rd. & Coors Bypass

Terry O. Brown, P.E.
5/10/2016

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	146	1124	232	213	2243	184	435	148	34	114	268	61
Future Volume (veh/h)	146	1124	232	213	2243	184	435	148	34	114	268	61
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845
Adj Flow Rate, veh/h	75	1159	0	220	2312	0	448	153	0	118	276	0
Adj No. of Lanes	2	3	1	2	3	1	2	1	1	2	2	1
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	203	2131	663	303	2279	710	446	351	298	203	416	186
Arrive On Green	0.06	0.42	0.00	0.09	0.45	0.00	0.13	0.19	0.00	0.06	0.12	0.00
Sat Flow, veh/h	3408	5036	1568	3408	5036	1568	3408	1845	1568	3408	3505	1568
Grp Volume(v), veh/h	75	1159	0	220	2312	0	448	153	0	118	276	0
Grp Sat Flow(s),veh/h/ln	1704	1679	1568	1704	1679	1568	1704	1845	1568	1704	1752	1568
Q Serve(g_s), s	1.8	14.5	0.0	5.3	38.0	0.0	11.0	6.2	0.0	2.8	6.3	0.0
Cycle Q Clear(g_c), s	1.8	14.5	0.0	5.3	38.0	0.0	11.0	6.2	0.0	2.8	6.3	0.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	203	2131	663	303	2279	710	446	351	298	203	416	186
V/C Ratio(X)	0.37	0.54	0.00	0.73	1.01	0.00	1.00	0.44	0.00	0.58	0.66	0.00
Avail Cap(c_a), veh/h	203	2131	663	406	2279	710	446	439	373	284	668	299
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	38.0	18.2	0.0	37.3	23.0	0.0	36.5	30.0	0.0	38.5	35.4	0.0
Incr Delay (d2), s/veh	1.1	0.3	0.0	4.3	22.5	0.0	43.5	0.9	0.0	2.6	1.8	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.9	6.7	0.0	2.7	22.3	0.0	7.8	3.2	0.0	1.4	3.2	0.0
LnGrp Delay(d),s/veh	39.1	18.4	0.0	41.5	45.5	0.0	80.0	30.9	0.0	41.1	37.2	0.0
LnGrp LOS	D	B		D	F		F	C		D	D	
Approach Vol, veh/h		1234			2532			601			394	
Approach Delay, s/veh		19.7			45.2			67.5			38.4	
Approach LOS		B			D			E			D	

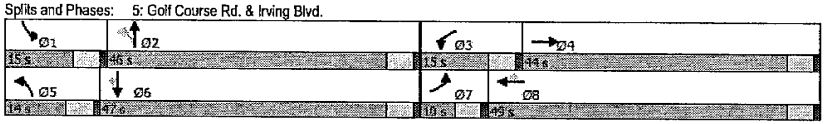
Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	10.0	21.0	12.5	40.5	16.0	15.0	10.0	43.0
Change Period (Y+Rc), s	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Max Green Setting (Gmax), s	7.0	20.0	10.0	33.0	11.0	16.0	5.0	38.0
Max Q Clear Time (g_c+I1), s	4.8	8.2	7.3	16.5	13.0	8.3	3.8	40.0
Green Ext Time (p_c), s	0.1	2.1	0.2	15.9	0.0	1.6	0.0	0.0

Intersection Summary
HCM 2010 Ctrl Delay 40.8
HCM 2010 LOS D

Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Configurations										
Traffic Volume (vph)	92	208	62	392	697	116	1106	271	824	180
Future Volume (vph)	92	208	62	392	697	116	1106	271	824	180
Turn Type	Prot	NA	Prot	NA	Perm	pm+pt	NA	Prot	NA	Perm
Protected Phases	7	4	3	8		5	2	1	6	
Permitted Phases					8	2				6
Detector Phase	7	4	3	8	8	5	2	1	6	6
Switch Phase										
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	10.0	21.0	10.0	21.0	21.0	10.0	21.0	10.0	21.0	21.0
Total Split (s)	10.0	44.0	15.0	49.0	49.0	14.0	46.0	15.0	47.0	47.0
Total Split (%)	8.3%	36.7%	12.5%	40.8%	40.8%	11.7%	38.3%	12.5%	39.2%	39.2%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Lead/Lag	Lead	Lag	Lead	Lag	Lag	Lead	Lag	Lead	Lag	Lag
Lead-Lag Optimize?										
Recall Mode	Min	Min	Min	Min	Min	Min	Min	Min	Min	Min
Act Effct Green (s)	5.0	40.2	8.8	44.0	44.0	49.6	41.0	10.0	42.4	42.4
Actuated g/C Ratio	0.04	0.34	0.07	0.37	0.37	0.41	0.34	0.08	0.35	0.35
v/c Ratio	0.69	0.24	0.50	0.32	1.06	0.53	1.00	1.01	0.70	0.30
Control Delay	81.1	26.4	66.9	28.2	78.0	27.3	65.5	110.1	37.1	13.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	81.1	26.4	66.9	28.2	78.0	27.3	65.5	110.1	37.1	13.5
LOS	F	C	E	C	E	C	E	F	D	B
Approach Delay		40.5		60.4			62.0		49.3	
Approach LOS		D		E			E		D	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Natural Cycle: 120	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 1.06	
Intersection Signal Delay: 55.6	Intersection LOS: E
Intersection Capacity Utilization 91.3%	ICU Level of Service F
Analysis Period (min) 15	

Splits and Phases: 5: Golf Course Rd. & Irving Blvd.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	92	208	58	62	392	697	116	1106	28	271	824	180
Future Volume (veh/h)	92	208	58	62	392	697	116	1106	28	271	824	180
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1900	1845	1845	1845	1845	1845	1900	1845	1845	1845
Adj Flow Rate, veh/h	97	219	61	65	413	734	122	1164	29	285	867	189
Adj No. of Lanes	2	2	0	1	2	1	1	2	0	2	2	1
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	142	967	263	94	1285	575	249	1194	30	284	1274	570
Arrive On Green	0.04	0.36	0.36	0.05	0.37	0.37	0.06	0.34	0.34	0.08	0.36	0.36
Sat Flow, veh/h	3408	2725	741	1757	3505	1568	1757	3495	87	3408	3505	1568
Grp Volume(v), veh/h	97	139	141	65	413	734	122	584	609	285	867	189
Grp Sat Flow(s),veh/h/ln	1704	1752	1714	1757	1752	1568	1757	1752	1829	1704	1752	1568
Q Serve(g_s), s	3.4	6.7	6.9	4.4	10.2	44.0	5.3	39.4	39.5	10.0	25.1	10.5
Cycle Q Clear(g_c), s	3.4	6.7	6.9	4.4	10.2	44.0	5.3	39.4	39.5	10.0	25.1	10.5
Prop In Lane	1.00		0.43	1.00		1.00	1.00		0.05	1.00		1.00
Lane Grp Cap(c), veh/h	142	622	608	94	1285	575	249	599	625	284	1274	570
V/C Ratio(X)	0.68	0.22	0.23	0.69	0.32	1.28	0.49	0.97	0.98	1.00	0.68	0.33
Avail Cap(c_a), veh/h	142	622	608	146	1285	575	273	599	625	284	1274	570
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	55.7	27.1	27.2	55.8	27.3	36.0	25.7	39.0	39.0	55.0	32.3	27.6
Incr Delay (d2), s/veh	12.6	0.2	0.2	8.9	0.1	137.6	1.5	30.3	29.7	54.3	1.5	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.8	3.2	3.3	2.4	5.0	41.0	2.6	24.0	25.0	6.8	12.4	4.6
LnGrp Delay(d),s/veh	69.3	27.3	27.4	64.7	27.4	175.6	27.2	69.3	68.7	109.3	33.8	28.0
LnGrp LOS	E	C	C	E	C	F	C	E	E	F	C	C
Approach Vol, veh/h		377			1212			1315			1341	
Approach Delay, s/veh		38.1			119.2			65.1			49.0	
Approach LOS		D			F			E			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	15.0	46.0	11.4	47.6	12.4	48.6	10.0	49.0
Change Period (Y+Rc), s	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Max Green Setting (Gmax), s	10.0	41.0	10.0	39.0	9.0	42.0	5.0	44.0
Max Q Clear Time (g_c+I1), s	12.0	41.5	6.4	8.9	7.3	27.1	5.4	46.0
Green Ext Time (p_c), s	0.0	0.0	0.0	9.1	0.0	11.6	0.0	0.0

Intersection Summary		
HCM 2010 Ctrl Delay	73.1	
HCM 2010 LOS	E	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔			↔			↑↑			↑↑	
Traffic Volume (vph)	1	1	16	31	5	55	27	649	32	29	735	3
Future Volume (vph)	1	1	16	31	5	55	27	649	32	29	735	3
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		0	115		0	115		0
Storage Lanes	0		0	0		0	1		0	1		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	1.00	0.95	0.95
Frt		0.879			0.918			0.993			0.999	
Flt Protected		0.997			0.983		0.950			0.950		
Satd. Flow (prot)	0	1617	0	0	1665	0	1752	3480	0	1752	3501	0
Flt Permitted		0.997			0.983		0.950			0.950		
Satd. Flow (perm)	0	1617	0	0	1665	0	1752	3480	0	1752	3501	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		403			478			1120			1127	
Travel Time (s)		9.2			10.9			25.5			25.6	
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Adj. Flow (vph)	1	1	17	32	5	57	28	676	33	30	766	3
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	19	0	0	94	0	28	709	0	30	769	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Stop			Stop			Free			Free	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 42.8%		ICU Level of Service A	
Analysis Period (min) 15			

Intersection	
Int Delay, s/veh	2.2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Vol, veh/h	1	1	16	31	5	55	27	649	32	29	735	3
Future Vol, veh/h	1	1	16	31	5	55	27	649	32	29	735	3
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	115	-	-	115	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	96	96	96	96	96	96	96	96	96	96	96	96
Heavy Vehicles, %	3	3	3	3	3	3	3	3	3	3	3	3
Mvmt Flow	1	1	17	32	5	57	28	676	33	30	766	3

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	1225	1594	384	1193	1578	355	769	0	0	709	0	0
Stage 1	828	828	-	749	749	-	-	-	-	-	-	-
Stage 2	397	766	-	444	829	-	-	-	-	-	-	-
Critical Hdwy	7.56	6.56	6.96	7.56	6.56	6.96	4.16	-	-	4.16	-	-
Critical Hdwy Stg 1	6.56	5.56	-	6.56	5.56	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.56	5.56	-	6.56	5.56	-	-	-	-	-	-	-
Follow-up Hdwy	3.53	4.03	3.33	3.53	4.03	3.33	2.23	-	-	2.23	-	-
Pot Cap-1 Maneuver	134	105	611	141	107	638	834	-	-	879	-	-
Stage 1	329	381	-	368	415	-	-	-	-	-	-	-
Stage 2	597	408	-	560	381	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	111	98	611	129	100	638	834	-	-	879	-	-
Mov Cap-2 Maneuver	111	98	-	129	100	-	-	-	-	-	-	-
Stage 1	318	368	-	356	401	-	-	-	-	-	-	-
Stage 2	518	394	-	525	368	-	-	-	-	-	-	-

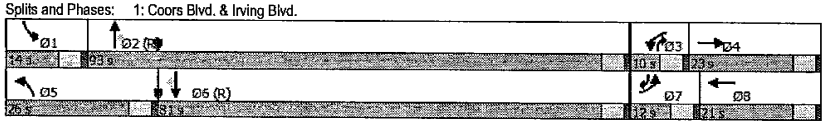
Approach	EB	WB	NB	SB
HCM Control Delay, s	14.5	29.1	0.4	0.3
HCM LOS	B	D		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	834	-	-	396	242	879	-	-
HCM Lane V/C Ratio	0.034	-	-	0.047	0.392	0.034	-	-
HCM Control Delay (s)	9.5	-	-	14.5	29.1	9.2	-	-
HCM Lane LOS	A	-	-	B	D	A	-	-
HCM 95th %tile Q(veh)	0.1	-	-	0.1	1.8	0.1	-	-

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations										
Traffic Volume (vph)	214	40	110	111	953	3203	101	41	1928	190
Future Volume (vph)	214	40	110	111	953	3203	101	41	1928	190
Turn Type	Prot	NA	Prot	NA	Prot	NA	pm+ov	Prot	NA	pm+ov
Protected Phases	7	4	3	8	5	2	3	1	6	7
Permitted Phases							2			6
Detector Phase	7	4	3	8	5	2	3	1	6	7
Switch Phase										
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	10.0	21.0	10.0	21.0	10.0	21.0	10.0	10.0	21.0	10.0
Total Split (s)	12.0	23.0	10.0	21.0	26.0	93.0	10.0	14.0	81.0	12.0
Total Split (%)	8.6%	16.4%	7.1%	15.0%	18.6%	66.4%	7.1%	10.0%	57.9%	8.6%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Lead/Lag	Lead	Lag	Lead	Lag	Lead	Lag	Lead	Lead	Lag	Lead
Lead-Lag Optimize?										
Recall Mode	Min	Min	Min	Min	Min	C-Min	Min	Min	C-Min	Min
Act Effct Green (s)	7.0	18.0	5.0	16.0	21.0	89.1	99.1	7.9	76.0	88.0
Actuated g/C Ratio	0.05	0.13	0.04	0.11	0.15	0.64	0.71	0.06	0.54	0.63
v/c Ratio	1.28	1.36	0.93	0.39	1.91	0.81	0.09	0.43	2.82	0.19
Control Delay	215.0	212.6	129.9	46.0	446.3	21.3	1.3	76.7	838.6	5.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	215.0	212.6	129.9	46.0	446.3	21.3	1.3	76.7	838.6	5.9
LOS	F	F	F	D	F	C	A	E	F	A
Approach Delay		213.4		80.3		116.0			814.2	
Approach LOS		F		F		F			F	

Intersection Summary			
Cycle Length: 140			
Actuated Cycle Length: 140			
Offset: 31 (22%), Referenced to phase 2:NBT and 6:SBT, Start of Green			
Natural Cycle: 130			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 2.82			
Intersection Signal Delay: 538.5		Intersection LOS: F	
Intersection Capacity Utilization 114.8%		ICU Level of Service H	
Analysis Period (min) 15			

Splits and Phases: 1: Coors Blvd. & Irving Blvd.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	214	40	444	110	111	48	953	3203	101	41	1928	190
Future Volume (veh/h)	214	40	444	110	111	48	953	3203	101	41	1928	190
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1900	1845	1845	1900	1845	1845	1845	1845	1845	1845
Adj Flow Rate, veh/h	218	41	0	112	113	49	972	3268	103	42	7712	194
Adj No. of Lanes	2	1	0	2	2	0	2	4	1	1	3	1
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.25	0.98
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	170	149	0	122	161	66	511	4459	1158	67	2974	1004
Arrive On Green	0.05	0.08	0.00	0.04	0.07	0.07	0.15	0.70	0.70	0.04	0.59	0.59
Sat Flow, veh/h	3408	1845	0	3408	2421	999	3408	6346	1568	1757	5036	1568
Grp Volume(v), veh/h	218	41	0	112	80	82	972	3268	103	42	7712	194
Grp Sat Flow(s),veh/h/ln	1704	1845	0	1704	1752	1668	1704	1586	1568	1757	1679	1568
Q Serve(g_s), s	7.0	2.9	0.0	4.6	6.3	6.7	21.0	44.2	2.6	3.3	82.7	7.1
Cycle Q Clear(g_c), s	7.0	2.9	0.0	4.6	6.3	6.7	21.0	44.2	2.6	3.3	82.7	7.1
Prop In Lane	1.00		0.00	1.00		0.60	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	170	149	0	122	117	111	511	4459	1158	67	2974	1004
V/C Ratio(X)	1.28	0.28	0.00	0.92	0.69	0.74	1.90	0.73	0.09	0.63	2.59	0.19
Avail Cap(c_a), veh/h	170	237	0	122	200	191	511	4459	1158	113	2974	1004
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	66.5	60.5	0.0	67.3	63.9	64.1	59.5	12.8	5.1	66.4	28.7	10.3
Incr Delay (d2), s/veh	163.0	1.0	0.0	57.4	7.0	9.1	412.9	1.1	0.2	9.4	717.8	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	7.1	1.5	0.0	3.1	3.3	3.4	39.2	19.4	1.2	1.8	235.7	3.2
LnGrp Delay(d),s/veh	229.5	61.5	0.0	124.7	70.9	73.3	472.4	13.9	5.3	75.8	746.4	10.7
LnGrp LOS	F	E		F	E	E	F	B	A	E	F	B
Approach Vol, veh/h		259			274			4343			7948	
Approach Delay, s/veh		202.9			93.6			116.3			724.9	
Approach LOS		F			F			F			F	

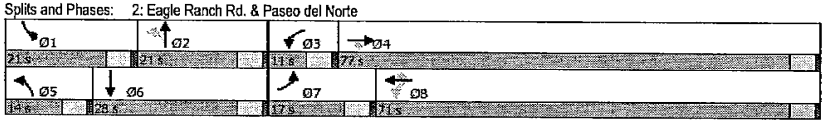
Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	10.3	103.4	10.0	16.3	26.0	87.7	12.0	14.3
Change Period (Y+Rc), s	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Max Green Setting (Gmax), s	9.0	88.0	5.0	18.0	21.0	76.0	7.0	16.0
Max Q Clear Time (g_c+I1), s	5.3	46.2	6.6	4.9	23.0	84.7	9.0	8.7
Green Ext Time (p_c), s	0.0	41.5	0.0	0.8	0.0	0.0	0.0	0.6

Intersection Summary		
HCM 2010 Ctrl Delay	494.8	
HCM 2010 LOS	F	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Configurations											
Traffic Volume (vph)	150	765	59	101	1614	988	114	219	39	411	227
Future Volume (vph)	150	765	59	101	1614	988	114	219	39	411	227
Turn Type	Prot	NA	Perm	pm+pt	NA	Perm	pm+pt	NA	Free	Prot	NA
Protected Phases	7	4		3	8		5	2		1	6
Permitted Phases			4	8		8	2		Free		
Detector Phase	7	4	4	3	8	8	5	2		1	6
Switch Phase											
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0		5.0	5.0
Minimum Split (s)	10.0	21.0	21.0	10.0	21.0	21.0	10.0	21.0		10.0	21.0
Total Split (s)	17.0	77.0	77.0	11.0	71.0	71.0	14.0	21.0		21.0	28.0
Total Split (%)	13.1%	59.2%	59.2%	8.5%	54.6%	54.6%	10.8%	16.2%		16.2%	21.5%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0		4.0	4.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0		1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0
Total Lost Time (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0		5.0	5.0
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag		Lead	Lag
Lead-Lag Optimize?											
Recall Mode	Min	Min	Min	Min	Min	Min	Min	Min		Min	Min
Act Effct Green (s)	12.0	72.0	72.0	72.0	66.0	66.0	22.2	13.4	127.4	16.0	20.6
Actuated g/C Ratio	0.09	0.57	0.57	0.57	0.52	0.52	0.17	0.11	1.00	0.13	0.16
v/c Ratio	0.96	0.41	0.07	0.28	0.94	1.03	0.62	0.63	0.03	1.01	0.68
Control Delay	118.3	16.6	0.1	11.0	39.9	54.4	52.3	62.6	0.0	102.3	40.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	118.3	16.6	0.1	11.0	39.9	54.4	52.3	62.6	0.0	102.3	40.0
LOS	F	B	A	B	D	D	D	E	A	F	D
Approach Delay		31.3			44.1			52.9			71.2
Approach LOS		C			D			D			E

Intersection Summary
Cycle Length: 130
Actuated Cycle Length: 127.4
Natural Cycle: 130
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 1.03
Intersection Signal Delay: 46.8 Intersection LOS: D
Intersection Capacity Utilization 88.1% ICU Level of Service E
Analysis Period (min) 15

Splits and Phases: 2: Eagle Ranch Rd. & Paseo del Norte



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	150	765	59	101	1614	988	114	219	39	411	227	183
Future Volume (veh/h)	150	765	59	101	1614	988	114	219	39	411	227	183
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845	1900
Adj Flow Rate, veh/h	158	805	0	106	1699	0	120	231	0	433	239	193
Adj No. of Lanes	1	2	1	1	2	1	1	2	1	2	2	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	167	1993	892	428	1815	812	210	361	161	431	298	231
Arrive On Green	0.09	0.57	0.00	0.04	0.52	0.00	0.07	0.10	0.00	0.13	0.16	0.16
Sat Flow, veh/h	1757	3505	1568	1757	3505	1568	1757	3505	1568	3408	1881	1458
Grp Volume(v), veh/h	158	805	0	106	1699	0	120	231	0	433	222	210
Grp Sat Flow(s),veh/h/ln	1757	1752	1568	1757	1752	1568	1757	1752	1568	1704	1752	1587
Q Serve(g_s), s	11.3	16.3	0.0	3.6	57.4	0.0	7.7	8.0	0.0	16.0	15.4	16.2
Cycle Q Clear(g_c), s	11.3	16.3	0.0	3.6	57.4	0.0	7.7	8.0	0.0	16.0	15.4	16.2
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.92
Lane Grp Cap(c), veh/h	167	1993	892	428	1815	812	210	361	161	431	277	251
V/C Ratio(X)	0.95	0.40	0.00	0.25	0.94	0.00	0.57	0.64	0.00	1.00	0.80	0.84
Avail Cap(c_a), veh/h	167	1994	892	434	1828	818	210	443	198	431	319	289
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	57.0	15.3	0.0	13.4	28.6	0.0	46.7	54.5	0.0	55.3	51.3	51.7
Incr Delay (d2), s/veh	54.5	0.1	0.0	0.3	9.7	0.0	3.7	2.2	0.0	44.5	12.0	17.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	8.0	7.9	0.0	1.7	30.0	0.0	3.9	4.0	0.0	10.1	8.4	8.3
LnGrp Delay(d),s/veh	111.4	15.4	0.0	13.7	38.2	0.0	50.4	56.7	0.0	99.8	63.4	68.8
LnGrp LOS	F	B		B	D		D	E		F	E	E
Approach Vol, veh/h		963			1805			351			865	
Approach Delay, s/veh		31.2			36.8			54.5			82.9	
Approach LOS		C			D			D			F	

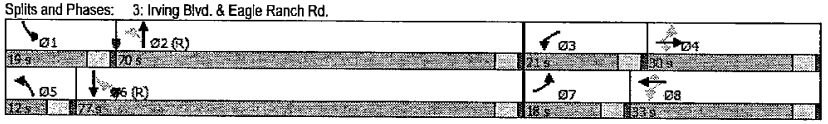
Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	21.0	18.0	10.6	76.9	14.0	25.0	17.0	70.5
Change Period (Y+Rc), s	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Max Green Setting (Gmax), s	16.0	16.0	6.0	72.0	9.0	23.0	12.0	66.0
Max Q Clear Time (g_c+I1), s	18.0	10.0	5.6	18.3	9.7	18.2	13.3	59.4
Green Ext Time (p_c), s	0.0	2.1	0.0	36.5	0.0	1.8	0.0	6.1

Intersection Summary
HCM 2010 Ctrl Delay 47.0
HCM 2010 LOS D

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT
Lane Configurations										
Traffic Volume (vph)	146	390	118	165	400	255	116	858	132	412
Future Volume (vph)	146	390	118	165	400	255	116	858	132	412
Turn Type	pm+pt	NA	Perm	pm+pt	NA	Perm	pm+pt	NA	pm+pt	NA
Protected Phases	7	4		3	8		5	2	1	6
Permitted Phases	4		4	8		8	2		6	
Detector Phase	7	4	4	3	8	8	5	2	1	6
Switch Phase										
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	10.0	21.0	21.0	10.0	21.0	21.0	10.0	21.0	10.0	21.0
Total Split (s)	18.0	30.0	30.0	21.0	33.0	33.0	12.0	70.0	19.0	77.0
Total Split (%)	12.9%	21.4%	21.4%	15.0%	23.6%	23.6%	8.6%	50.0%	13.6%	55.0%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lead	Lag
Lead-Lag Optimize?										
Recall Mode	Min	Min	Min	Min	Min	Min	Min	C-Min	Min	C-Min
Act Effct Green (s)	35.4	21.8	21.8	38.2	23.1	23.1	81.5	73.1	84.6	74.8
Actuated g/C Ratio	0.25	0.16	0.16	0.27	0.16	0.16	0.58	0.52	0.60	0.53
v/c Ratio	0.61	0.74	0.35	0.66	0.72	0.60	0.23	0.62	0.49	0.26
Control Delay	47.5	65.1	9.4	49.6	62.5	17.4	2.6	12.4	17.7	18.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	47.5	65.1	9.4	49.6	62.5	17.4	2.6	12.4	17.7	18.5
LOS	D	E	A	D	E	B	A	B	B	B
Approach Delay		51.1			45.9			11.5		18.3
Approach LOS		D			D			B		B

Intersection Summary
Cycle Length: 140
Actuated Cycle Length: 140
Offset: 20 (14%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green
Natural Cycle: 70
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.74
Intersection Signal Delay: 29.3 Intersection LOS: C
Intersection Capacity Utilization 74.3% ICU Level of Service D
Analysis Period (min) 15

Splits and Phases: 3: Irving Blvd. & Eagle Ranch Rd.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	146	390	118	165	400	255	116	858	209	132	412	55
Future Volume (veh/h)	146	390	118	165	400	255	116	858	209	132	412	55
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1845	1845	1845	1845	1845	1845	1900	1845	1845	1900
Adj Flow Rate, veh/h	152	406	0	172	417	266	121	894	218	138	429	57
Adj No. of Lanes	1	2	1	1	2	1	1	2	0	1	2	0
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	260	634	283	287	667	299	546	1485	362	297	1671	221
Arrive On Green	0.08	0.18	0.00	0.09	0.19	0.19	0.05	0.53	0.53	0.05	0.54	0.54
Sat Flow, veh/h	1757	3505	1568	1757	3505	1568	1757	2796	681	1757	3113	411
Grp Volume(v), veh/h	152	406	0	172	417	266	121	560	552	138	240	246
Grp Sat Flow(s),veh/h/ln	1757	1752	1568	1757	1752	1568	1757	1752	1724	1757	1752	1772
Q Serve(g_s), s	9.7	15.0	0.0	11.0	15.3	23.2	4.4	30.8	30.9	5.0	10.3	10.4
Cycle Q Clear(g_c), s	9.7	15.0	0.0	11.0	15.3	23.2	4.4	30.8	30.9	5.0	10.3	10.4
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.40	1.00		0.23
Lane Grp Cap(c), veh/h	260	634	283	287	667	299	546	931	916	297	941	951
V/C Ratio(X)	0.58	0.64	0.00	0.60	0.62	0.89	0.22	0.60	0.60	0.47	0.26	0.26
Avail Cap(c_a), veh/h	275	634	283	323	701	314	554	931	916	382	941	951
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.19	0.19	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	42.3	53.1	0.0	41.8	52.1	55.3	13.8	22.6	22.6	17.9	17.4	17.4
Incr Delay (d2), s/veh	0.6	0.4	0.0	2.5	1.6	24.9	0.2	2.9	2.9	1.1	0.7	0.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.7	7.3	0.0	5.5	7.6	12.1	2.1	15.7	15.5	2.5	5.2	5.3
LnGrp Delay(d),s/veh	42.8	53.6	0.0	44.3	53.7	80.1	14.0	25.5	25.5	19.1	18.1	18.1
LnGrp LOS	D	D		D	D	F	B	C	C	B	B	B
Approach Vol, veh/h		558			855			1233			624	
Approach Delay, s/veh		50.6			60.0			24.4			18.3	
Approach LOS		D			E			C			B	

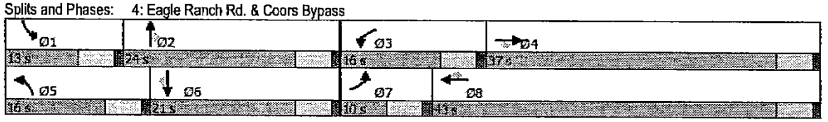
Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	12.2	79.4	18.1	30.3	11.4	80.1	16.8	31.7
Change Period (Y+Rc), s	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Max Green Setting (Gmax), s	14.0	65.0	16.0	25.0	7.0	72.0	13.0	28.0
Max Q Clear Time (g_c+I1), s	7.0	32.9	13.0	17.0	6.4	12.4	11.7	25.2
Green Ext Time (p_c), s	0.2	13.8	0.1	3.9	0.0	16.5	0.0	1.5

Intersection Summary
HCM 2010 Ctrl Delay 37.0
HCM 2010 LOS D

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	146	1124	261	221	2243	184	435	148	34	146	268	69
Future Volume (vph)	146	1124	261	221	2243	184	435	148	34	146	268	69
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases			4			8			2			6
Detector Phase	7	4	4	3	8	8	5	2	2	1	6	6
Switch Phase												
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	10.0	21.0	21.0	10.0	21.0	21.0	10.0	21.0	21.0	10.0	21.0	21.0
Total Split (s)	10.0	37.0	37.0	16.0	43.0	43.0	16.0	24.0	24.0	13.0	21.0	21.0
Total Split (%)	11.1%	41.1%	41.1%	17.8%	47.8%	47.8%	17.8%	26.7%	26.7%	14.4%	23.3%	23.3%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?												
Recall Mode	Min	Min	Min	Min	Min	Min	Min	Min	Min	Min	Min	Min
Act Effct Green (s)	5.0	32.9	32.9	10.1	38.0	38.0	11.0	15.4	15.4	7.7	12.1	12.1
Actuated g/C Ratio	0.06	0.38	0.38	0.12	0.44	0.44	0.13	0.18	0.18	0.09	0.14	0.14
v/c Ratio	0.38	0.60	0.35	0.57	1.04	0.24	1.03	0.47	0.08	0.50	0.56	0.18
Control Delay	45.8	23.5	4.1	42.3	55.8	3.3	90.9	36.7	0.4	43.8	39.1	1.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	45.8	23.5	4.1	42.3	55.8	3.3	90.9	36.7	0.4	43.8	39.1	1.0
LOS	D	C	A	D	E	A	F	D	A	D	D	A
Approach Delay		21.1			51.0			72.9			35.1	
Approach LOS		C			D			E			D	

Intersection Summary			
Cycle Length: 90			
Actuated Cycle Length: 86.1			
Natural Cycle: 90			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 1.04			
Intersection Signal Delay: 43.8		Intersection LOS: D	
Intersection Capacity Utilization 84.0%		ICU Level of Service E	
Analysis Period (min) 15			

Splits and Phases: 4: Eagle Ranch Rd. & Coors Bypass



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	146	1124	261	221	2243	184	435	148	34	146	268	69
Future Volume (veh/h)	146	1124	261	221	2243	184	435	148	34	146	268	69
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845	1845
Adj Flow Rate, veh/h	75	1159	0	228	2312	0	448	153	0	151	276	0
Adj No. of Lanes	2	3	1	2	3	1	2	1	1	2	2	1
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	203	2118	659	313	2281	710	447	334	284	232	414	185
Arrive On Green	0.06	0.42	0.00	0.09	0.45	0.00	0.13	0.18	0.00	0.07	0.12	0.00
Sat Flow, veh/h	3408	5036	1568	3408	5036	1568	3408	1845	1568	3408	3505	1568
Grp Volume(v), veh/h	75	1159	0	228	2312	0	448	153	0	151	276	0
Grp Sat Flow(s),veh/h/ln	1704	1679	1568	1704	1679	1568	1704	1845	1568	1704	1752	1568
Q Serve(g_s), s	1.8	14.5	0.0	5.5	38.0	0.0	11.0	6.2	0.0	3.6	6.3	0.0
Cycle Q Clear(g_c), s	1.8	14.5	0.0	5.5	38.0	0.0	11.0	6.2	0.0	3.6	6.3	0.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	203	2118	659	313	2281	710	447	334	284	232	414	185
V/C Ratio(X)	0.37	0.55	0.00	0.73	1.01	0.00	1.00	0.46	0.00	0.65	0.67	0.00
Avail Cap(c_a), veh/h	203	2118	659	447	2281	710	447	418	355	325	668	299
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	37.9	18.3	0.0	37.1	23.0	0.0	38.5	30.7	0.0	38.1	35.4	0.0
Incr Delay (d2), s/veh	1.1	0.3	0.0	3.5	22.3	0.0	43.2	1.0	0.0	3.0	1.9	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.9	6.7	0.0	2.7	22.0	0.0	7.8	3.2	0.0	1.8	3.2	0.0
LnGrp Delay(d),s/veh	39.1	18.6	0.0	40.5	45.3	0.0	79.7	31.7	0.0	41.2	37.3	0.0
LnGrp LOS	D	B		D	F		F	C		D	D	
Approach Vol, veh/h		1234			2540			601			427	
Approach Delay, s/veh		19.8			44.8			67.5			38.7	
Approach LOS		B			D			E			D	

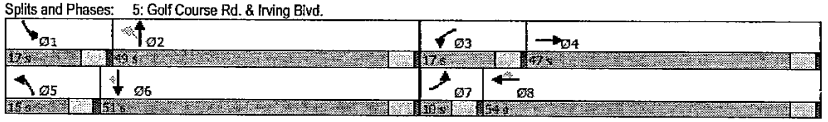
Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	10.7	20.2	12.7	40.3	16.0	14.9	10.0	43.0
Change Period (Y+Rc), s	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Max Green Setting (Gmax), s	8.0	19.0	11.0	32.0	11.0	16.0	5.0	38.0
Max Q Clear Time (g_c+I1), s	5.6	8.2	7.5	16.5	13.0	8.3	3.8	40.0
Green Ext Time (p_c), s	0.1	2.0	0.2	14.9	0.0	1.6	0.0	0.0

Intersection Summary		
HCM 2010 Ctrl Delay	40.7	
HCM 2010 LOS	D	

Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Configurations										
Traffic Volume (vph)	92	214	74	399	724	116	1106	296	824	180
Future Volume (vph)	92	214	74	399	724	116	1106	296	824	180
Turn Type	Prot	NA	Prot	NA	Perm	pm+pt	NA	Prot	NA	Perm
Protected Phases	7	4	3	8		5	2	1	6	
Permitted Phases					8	2				6
Detector Phase	7	4	3	8	8	5	2	1	6	6
Switch Phase										
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	10.0	21.0	10.0	21.0	21.0	10.0	21.0	10.0	21.0	21.0
Total Split (s)	10.0	47.0	17.0	54.0	54.0	15.0	49.0	17.0	51.0	51.0
Total Split (%)	7.7%	36.2%	13.1%	41.5%	41.5%	11.5%	37.7%	13.1%	39.2%	39.2%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Lead/Lag	Lead	Lag	Lead	Lag	Lag	Lead	Lag	Lead	Lag	Lag
Lead-Lag Optimize?										
Recall Mode	Min	Min	Min	Min	Min	Min	Min	Min	Min	Min
Act Effct Green (s)	5.0	43.7	10.3	49.0	49.0	53.3	44.0	12.0	46.7	46.7
Actuated g/C Ratio	0.04	0.34	0.08	0.38	0.38	0.41	0.34	0.09	0.36	0.36
v/c Ratio	0.75	0.25	0.57	0.32	1.07	0.52	1.02	1.00	0.69	0.29
Control Delay	93.7	29.1	73.3	29.5	83.5	28.4	73.5	108.7	39.1	9.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	93.7	29.1	73.3	29.5	83.5	28.4	73.5	108.7	39.1	9.7
LOS	F	C	E	C	F	C	E	F	D	A
Approach Delay		45.4		64.9			69.4		50.9	
Approach LOS		D		E			E		D	

Intersection Summary			
Cycle Length: 130			
Actuated Cycle Length: 130			
Natural Cycle: 130			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 1.07			
Intersection Signal Delay: 60.1		Intersection LOS: E	
Intersection Capacity Utilization 93.3%		ICU Level of Service F	
Analysis Period (min) 15			

Splits and Phases: 5: Golf Course Rd. & Irving Blvd.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	92	214	58	74	399	724	116	1106	39	296	824	180
Future Volume (veh/h)	92	214	58	74	399	724	116	1106	39	296	824	180
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1900	1845	1845	1845	1845	1845	1900	1845	1845	1845
Adj Flow Rate, veh/h	97	225	61	78	420	762	122	1164	41	312	867	189
Adj No. of Lanes	2	2	0	1	2	1	1	2	0	2	2	1
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	131	976	259	104	1321	591	248	1169	41	315	1297	580
Arrive On Green	0.04	0.36	0.36	0.06	0.38	0.38	0.06	0.34	0.34	0.09	0.37	0.37
Sat Flow, veh/h	3408	2742	727	1757	3505	1568	1757	3454	122	3408	3505	1568
Grp Volume(v), veh/h	97	142	144	78	420	762	122	590	615	312	867	189
Grp Sat Flow(s),veh/h/ln	1704	1752	1716	1757	1752	1568	1757	1752	1823	1704	1752	1568
Q Serve(g_s), s	3.7	7.4	7.7	5.7	11.0	49.0	5.8	43.7	43.7	11.9	26.9	11.2
Cycle Q Clear(g_c), s	3.7	7.4	7.7	5.7	11.0	49.0	5.8	43.7	43.7	11.9	26.9	11.2
Prop In Lane	1.00		0.42	1.00		1.00	1.00		0.07	1.00		1.00
Lane Grp Cap(c), veh/h	131	624	611	104	1321	591	248	593	617	315	1297	580
V/C Ratio(X)	0.74	0.23	0.24	0.75	0.32	1.29	0.49	1.00	1.00	0.99	0.67	0.33
Avail Cap(c_a), veh/h	131	624	611	162	1321	591	276	593	617	315	1297	580
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	61.9	29.3	29.4	60.2	28.7	40.5	27.8	42.9	42.9	59.0	34.3	29.3
Incr Delay (d2), s/veh	19.8	0.2	0.2	10.1	0.1	142.6	1.5	35.7	35.2	48.4	1.3	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.1	3.6	3.7	3.0	5.3	44.6	2.9	27.0	28.1	7.7	13.2	4.9
LnGrp Delay(d),s/veh	81.7	29.5	29.6	70.2	28.8	183.1	29.3	78.6	78.1	107.3	35.6	29.6
LnGrp LOS	F	C	C	E	C	F	C	E	E	F	D	C
Approach Vol, veh/h		383			1260			1327			1368	
Approach Delay, s/veh		42.8			124.7			73.8			51.1	
Approach LOS		D			F			E			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	17.0	49.0	12.7	51.3	12.9	53.1	10.0	54.0
Change Period (Y+Rc), s	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Max Green Setting (Gmax), s	12.0	44.0	12.0	42.0	10.0	46.0	5.0	49.0
Max Q Clear Time (g_c+I1), s	13.9	45.7	7.7	9.7	7.8	28.9	5.7	51.0
Green Ext Time (p_c), s	0.0	0.0	0.1	9.7	0.1	13.0	0.0	0.0

Intersection Summary		
HCM 2010 Ctrl Delay	78.7	
HCM 2010 LOS	E	

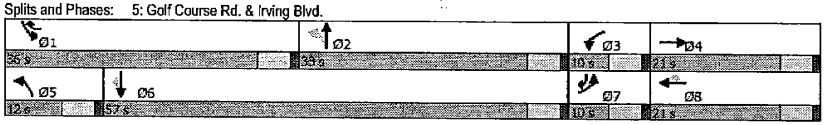
Timings
5: Golf Course Rd. & Irving Blvd.

Terry O. Brown, P.E.
5/10/2016

Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Configurations										
Traffic Volume (vph)	92	214	74	399	724	116	1106	296	824	180
Future Volume (vph)	92	214	74	399	724	116	1106	296	824	180
Turn Type	Prot	NA	Prot	NA	pm+ov	pm+pt	NA	Prot	NA	pm+ov
Protected Phases	7	4	3	8	1	5	2	1	6	7
Permitted Phases					8	2				6
Detector Phase	7	4	3	8	1	5	2	1	6	7
Switch Phase										
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	10.0	21.0	10.0	21.0	10.0	10.0	21.0	10.0	21.0	10.0
Total Split (s)	10.0	21.0	10.0	21.0	36.0	12.0	33.0	36.0	57.0	10.0
Total Split (%)	10.0%	21.0%	10.0%	21.0%	36.0%	12.0%	33.0%	36.0%	57.0%	10.0%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Lead/Lag	Lead	Lag	Lead	Lag	Lead	Lead	Lag	Lead	Lag	Lead
Lead-Lag Optimize?										
Recall Mode	Min	Min	Min	Min	Min	Min	Min	Min	Min	Min
Act Effct Green (s)	5.0	14.9	5.0	14.9	49.4	34.9	28.1	29.5	50.7	60.7
Actuated g/C Ratio	0.05	0.15	0.05	0.15	0.51	0.36	0.29	0.30	0.52	0.62
v/c Ratio	0.55	0.53	0.87	0.78	0.92	0.41	1.20	0.30	0.48	0.18
Control Delay	58.8	38.1	113.9	51.2	37.4	16.8	132.0	27.1	16.1	2.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	58.8	38.1	113.9	51.2	37.4	16.8	132.0	27.1	16.1	2.6
LOS	E	D	F	D	D	B	F	C	B	A
Approach Delay		43.4		46.8			121.4		16.8	
Approach LOS		D		D			F		B	

Intersection Summary	
Cycle Length	100
Actuated Cycle Length: 97.5	
Natural Cycle: 100	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 1.20	
Intersection Signal Delay: 59.9	Intersection LOS: E
Intersection Capacity Utilization 93.3%	ICU Level of Service F
Analysis Period (min) 15	

Splits and Phases: 5: Golf Course Rd. & Irving Blvd.



HCM 2010 Signalized Intersection Summary
5: Golf Course Rd. & Irving Blvd.

Terry O. Brown, P.E.
5/10/2016

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	92	214	58	74	399	724	116	1106	39	296	824	180
Future Volume (veh/h)	92	214	58	74	399	724	116	1106	39	296	824	180
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1900	1845	1845	1845	1845	1845	1900	1845	1845	1845
Adj Flow Rate, veh/h	97	225	61	78	420	762	122	1164	41	312	867	189
Adj No. of Lanes	2	2	0	1	2	1	1	2	0	2	2	1
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	208	535	142	107	684	503	335	1293	46	428	1519	775
Arrive On Green	0.06	0.20	0.20	0.06	0.20	0.20	0.07	0.37	0.37	0.13	0.43	0.43
Sat Flow, veh/h	3408	2742	727	1757	3505	1568	1757	3454	122	3408	3505	1568
Grp Volume(v), veh/h	97	142	144	78	420	762	122	590	615	312	867	189
Grp Sat Flow(s),veh/h/ln	1704	1752	1716	1757	1752	1568	1757	1752	1823	1704	1752	1568
Q Serve(g_s), s	2.3	5.8	6.0	3.6	9.0	16.0	3.4	26.1	26.1	7.2	15.3	5.7
Cycle Q Clear(g_c), s	2.3	5.8	6.0	3.6	9.0	16.0	3.4	26.1	26.1	7.2	15.3	5.7
Prop In Lane	1.00		0.42	1.00		1.00	1.00		0.07	1.00		1.00
Lane Grp Cap(c), veh/h	208	342	335	107	684	503	335	656	683	428	1519	775
V/C Ratio(X)	0.47	0.42	0.43	0.73	0.61	1.52	0.36	0.90	0.90	0.73	0.57	0.24
Avail Cap(c_a), veh/h	208	342	335	107	684	503	368	656	683	1289	2223	1090
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	37.2	28.9	29.0	37.8	30.2	27.9	14.6	24.2	24.2	34.5	17.5	11.9
Incr Delay (d2), s/veh	1.6	0.8	0.9	21.9	1.6	242.2	0.7	15.4	15.0	2.4	0.3	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.1	2.9	2.9	2.4	4.5	45.1	1.7	15.3	15.8	3.5	7.4	2.5
LnGrp Delay(d),s/veh	38.8	29.7	29.9	59.7	31.8	270.1	15.3	39.6	39.2	36.9	17.8	12.1
LnGrp LOS	D	C	C	E	C	F	B	D	D	D	B	B
Approach Vol, veh/h		383			1260			1327			1368	
Approach Delay, s/veh		32.1			177.6			37.2			21.4	
Approach LOS		C			F			D			C	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	15.3	35.7	10.0	21.0	10.5	40.5	10.0	21.0				
Change Period (Y+Rc), s	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0				
Max Green Setting (Gmax), s	31.0	28.0	5.0	16.0	7.0	52.0	5.0	16.0				
Max Q Clear Time (g_c+I1), s	9.2	28.1	5.6	8.0	5.4	17.3	4.3	18.0				
Green Ext Time (p_c), s	1.1	0.0	0.0	4.7	0.0	18.3	0.0	0.0				

Intersection Summary		
HCM 2010 Ctrl Delay	72.6	
HCM 2010 LOS	E	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	57	1	68	31	5	55	77	634	32	29	722	52
Future Volume (vph)	57	1	68	31	5	55	77	634	32	29	722	52
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		0	115		0	115		0
Storage Lanes	0		0	0		0	1		0	1		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	1.00	0.95	0.95
Frt		0.927			0.918			0.993			0.990	
Flt Protected		0.978			0.983		0.950			0.950		
Satd. Flow (prot)	0	1672	0	0	1665	0	1752	3480	0	1752	3470	0
Flt Permitted		0.978			0.983		0.950			0.950		
Satd. Flow (perm)	0	1672	0	0	1665	0	1752	3480	0	1752	3470	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		403			478			1120			1127	
Travel Time (s)		9.2			10.9			25.5			25.6	
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Adj. Flow (vph)	59	1	71	32	5	57	80	660	33	30	752	54
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	131	0	0	94	0	80	693	0	30	806	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Stop			Stop			Free			Free	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 46.8%		ICU Level of Service A	
Analysis Period (min) 15			

Intersection	
Int Delay, s/veh	8.7

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Vol, veh/h	57	1	68	31	5	55	77	634	32	29	722	52
Future Vol, veh/h	57	1	68	31	5	55	77	634	32	29	722	52
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	115	-	-	115	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	96	96	96	96	96	96	96	96	96	96	96	96
Heavy Vehicles, %	3	3	3	3	3	3	3	3	3	3	3	3
Mvmt Flow	59	1	71	32	5	57	80	660	33	30	752	54

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	1333	1694	403	1275	1705	347	806	0	0	694	0	0
Stage 1	840	840	-	838	838	-	-	-	-	-	-	-
Stage 2	493	854	-	437	867	-	-	-	-	-	-	-
Critical Hdwy	7.56	6.56	6.96	7.56	6.56	6.96	4.16	-	-	4.16	-	-
Critical Hdwy Stg 1	6.56	5.56	-	6.56	5.56	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.56	5.56	-	6.56	5.56	-	-	-	-	-	-	-
Follow-up Hdwy	3.53	4.03	3.33	3.53	4.03	3.33	2.23	-	-	2.23	-	-
Pot Cap-1 Maneuver	111	91	594	123	90	646	808	-	-	891	-	-
Stage 1	324	377	-	325	377	-	-	-	-	-	-	-
Stage 2	524	371	-	565	366	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	87	79	594	97	78	646	808	-	-	891	-	-
Mov Cap-2 Maneuver	87	79	-	97	78	-	-	-	-	-	-	-
Stage 1	292	364	-	293	340	-	-	-	-	-	-	-
Stage 2	424	334	-	479	354	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	85.4	40.1	1	1.1
HCM LOS	F	E		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	808	-	-	161	194	891	-	-
HCM Lane V/C Ratio	0.099	-	-	0.815	0.489	0.034	-	-
HCM Control Delay (s)	9.9	-	-	85.4	40.1	9.2	-	-
HCM Lane LOS	A	-	-	F	E	A	-	-
HCM 95th %tile Q(veh)	0.3	-	-	5.4	2.4	0.1	-	-

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	48	71	1209	50	60	551
Future Volume (vph)	48	71	1209	50	60	551
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	0.95	0.95	0.95	0.95
Frt	0.919		0.994			
Flt Protected	0.980					0.995
Satd. Flow (prot)	1661	0	3484	0	0	3487
Flt Permitted	0.980					0.995
Satd. Flow (perm)	1661	0	3484	0	0	3487
Link Speed (mph)	30		30			30
Link Distance (ft)	425		1400			358
Travel Time (s)	9.7		31.8			8.1
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96
Adj. Flow (vph)	50	74	1259	52	63	574
Shared Lane Traffic (%)						
Lane Group Flow (vph)	124	0	1311	0	0	637
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(ft)	12		12			12
Link Offset(ft)	0		0			0
Crosswalk Width(ft)	16		16			16
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9		9	15	
Sign Control	Stop		Free			Free

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization	69.0%	ICU Level of Service	C
Analysis Period (min)	15		

Intersection	
Int Delay, s/veh	7.8

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Traffic Vol, veh/h	48	71	1209	50	60	551
Future Vol, veh/h	48	71	1209	50	60	551
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	96	96	96	96	96	96
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	50	74	1259	52	63	574

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	1697	656	0	0	1311	0
Stage 1	1285	-	-	-	-	-
Stage 2	412	-	-	-	-	-
Critical Hdwy	6.86	6.96	-	-	4.16	-
Critical Hdwy Stg 1	5.86	-	-	-	-	-
Critical Hdwy Stg 2	5.86	-	-	-	-	-
Follow-up Hdwy	3.53	3.33	-	-	2.23	-
Pot Cap-1 Maneuver	83	406	-	-	518	-
Stage 1	221	-	-	-	-	-
Stage 2	634	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	68	406	-	-	518	-
Mov Cap-2 Maneuver	68	-	-	-	-	-
Stage 1	221	-	-	-	-	-
Stage 2	521	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	119.8	0	2.1
HCM LOS	F		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	135	518	-
HCM Lane V/C Ratio	-	-	0.918	0.121	-
HCM Control Delay (s)	-	-	119.8	12.9	0.9
HCM Lane LOS	-	-	F	B	A
HCM 95th %tile Q(veh)	-	-	6.2	0.4	-

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	48	71	1209	50	60	551
Future Volume (vph)	48	71	1209	50	60	551
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	0.95	0.95	0.95	0.95
Frt		0.850	0.994			
Flt Protected	0.950					0.995
Satd. Flow (prot)	1752	1568	3484	0	0	3487
Flt Permitted	0.950					0.995
Satd. Flow (perm)	1752	1568	3484	0	0	3487
Link Speed (mph)	30		30			30
Link Distance (ft)	425		1400			358
Travel Time (s)	9.7		31.8			8.1
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96
Adj. Flow (vph)	50	74	1259	52	63	574
Shared Lane Traffic (%)						
Lane Group Flow (vph)	50	74	1311	0	0	637
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(ft)	12		12			12
Link Offset(ft)	0		0			0
Crosswalk Width(ft)	16		16			16
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9		9	15	
Sign Control	Stop		Free			Free

Intersection Summary	
Area Type:	Other
Control Type: Unsignalized	
Intersection Capacity Utilization 65.3%	ICU Level of Service C
Analysis Period (min) 15	

Intersection	
Int Delay, s/veh	4.7

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	48	71	1209	50	60	551
Future Vol, veh/h	48	71	1209	50	60	551
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	0	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	96	96	96	96	96	96
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	50	74	1259	52	63	574

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	1697	656	0	0	1311	0
Stage 1	1285	-	-	-	-	-
Stage 2	412	-	-	-	-	-
Critical Hdwy	6.86	6.96	-	-	4.16	-
Critical Hdwy Stg 1	5.86	-	-	-	-	-
Critical Hdwy Stg 2	5.86	-	-	-	-	-
Follow-up Hdwy	3.53	3.33	-	-	2.23	-
Pot Cap-1 Maneuver	83	406	-	-	518	-
Stage 1	221	-	-	-	-	-
Stage 2	634	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	68	406	-	-	518	-
Mov Cap-2 Maneuver	68	-	-	-	-	-
Stage 1	221	-	-	-	-	-
Stage 2	521	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	67.3	0	2.1
HCM LOS	F		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	WBLn2	SBL	SBT
Capacity (veh/h)	-	-	68	406	518	-
HCM Lane V/C Ratio	-	-	0.735	0.182	0.121	-
HCM Control Delay (s)	-	-	143.5	15.8	12.9	0.9
HCM Lane LOS	-	-	F	C	B	A
HCM 95th %tile Q(veh)	-	-	3.3	0.7	0.4	-

Traffic Count Data Sheet

Year Counts Taken: **2016**

E-W Street: **Irving Blvd.**

N-S Street: **Coors Blvd.**

UNSIGNALIZED

Speed Limit (Irving Blvd.)= **40** MPH

Speed Limit (Coors Blvd.)= **45** MPH

3/31/16

Begin Time	End Time	Eastbound (Irving Blvd.)				Westbound (Irving Blvd.)				Northbound (Coors Blvd.)				Southbound (Coors Blvd.)			
		L	T	R	Pedestrians	L	T	R	Pedestrians	L	T	R	Pedestrians	L	T	R	Pedestrians
7:00 AM	7:15 AM	**18**	**7**	**213**	**0**	**12**	**4**	**3**	**0**	**76**	**239**	**9**	**0**	**2**	**505**	**6**	**0**
7:15 AM	7:30 AM	**20**	**6**	**223**	**0**	**22**	**2**	**1**	**2**	**80**	**328**	**13**	**0**	**5**	**454**	**6**	**0**
7:30 AM	7:45 AM	**26**	**8**	**186**	**0**	**12**	**2**	**5**	**4**	**84**	**409**	**18**	**0**	**5**	**363**	**7**	**1**
7:45 AM	8:00 AM	**24**	**12**	**122**	**0**	**14**	**9**	**5**	**0**	**52**	**357**	**19**	**0**	**5**	**351**	**13**	**0**
8:00 AM	8:15 AM	*32*	*7*	*121*	*0*	*21*	*11*	*3*	*1*	*54*	*323*	*13*	*0*	*8*	*334*	*98*	*4*
8:15 AM	8:30 AM	*25*	*13*	*128*	*0*	*14*	*9*	*5*	*0*	*61*	*380*	*9*	*0*	*4*	*439*	*18*	*0*
8:30 AM	8:45 AM	*24*	*13*	*109*	*0*	*3*	*9*	*6*	*3*	*72*	*388*	*9*	*0*	*9*	*401*	*25*	*1*
8:45 AM	9:00 AM	*27*	*17*	*110*	*1*	*12*	*16*	*10*	*0*	*66*	*338*	*15*	*0*	*16*	*399*	*26*	*0*
AM Peak Hour Volumes		**88**	**33**	**744**	**0**	**60**	**17**	**14**	**6**	**292**	**1333**	**59**	**0**	**17**	**1673**	**32**	**1**
% of Total Traffic		2.0%	0.8%	17.0%		1.4%	0.4%	0.3%		6.7%	30.5%	1.4%		0.4%	38.3%	0.0%	
% Directional			19.8%				2.1%		Intersection		38.5%				38.7%		
AM Peak Hour Factor			*0.87*				*0.81*		0.94		*0.82*				*0.84*		

Begin Time	End Time	Eastbound (Irving Blvd.)				Westbound (Irving Blvd.)				Northbound (Coors Blvd.)				Southbound (Coors Blvd.)			
		L	T	R	Pedestrians	L	T	R	Pedestrians	L	T	R	Pedestrians	L	T	R	Pedestrians
4:00 PM	4:15 PM	*70*	*11*	*103*	*2*	*22*	*31*	*12*	*2*	*242*	*754*	*28*	*0*	*11*	*484*	*57*	*0*
4:15 PM	4:30 PM	*45*	*17*	*95*	*1*	*24*	*26*	*13*	*6*	*214*	*772*	*22*	*1*	*13*	*503*	*45*	*0*
4:30 PM	4:45 PM	**52**	**10**	**124**	**0**	**35**	**34**	**20**	**0**	**219**	**751**	**17**	**0**	**13**	**525**	**51**	**3**
4:45 PM	5:00 PM	**57**	**9**	**114**	**1**	**29**	**26**	**13**	**2**	**224**	**727**	**29**	**0**	**8**	**468**	**50**	**3**
5:00 PM	5:15 PM	**50**	**13**	**120**	**1**	**27**	**20**	**8**	**9**	**218**	**876**	**23**	**0**	**9**	**461**	**40**	**2**
5:15 PM	5:30 PM	**45**	**7**	**74**	**0**	**18**	**29**	**7**	**0**	**276**	**817**	**31**	**0**	**11**	**455**	**40**	**0**
5:30 PM	5:45 PM	*49*	*13*	*79*	*0*	*19*	*29*	*11*	*1*	*157*	*676*	*20*	*0*	*9*	*468*	*34*	*1*
5:45 PM	6:00 PM	*12*	*3*	*40*	*0*	*4*	*4*	*2*	*0*	*81*	*258*	*8*	*0*	*2*	*161*	*19*	*0*
PM Peak Hour Volumes		**204**	**39**	**432**	**2**	**109**	**109**	**48**	**11**	**937**	**3171**	**100**	**0**	**41**	**1909**	**181**	**8**
% of Total Traffic		2.8%	0.5%	5.9%		1.5%	1.5%	0.7%		12.8%	43.5%	1.4%		0.6%	26.2%	2.5%	
% Directional			9.3%				3.6%		Intersection		57.7%				29.2%		
PM Peak Hour Factor			*0.91*				*0.75*		0.98		*0.94*				*0.90*		

Traffic Count Data Sheet

Year Counts Taken: **2015**

E-W Street: **Paseo del Norte**

N-S Street: **Eagle Ranch Rd.**

SIGNALIZED

Speed Limit (Paseo del Norte)= **25** MPH

Speed Limit (Eagle Ranch Rd.)= **35** MPH

6/3/15

Begin Time	End Time	Eastbound (Paseo del Norte)				Westbound (Paseo del Norte)				Northbound (Eagle Ranch Rd.)				Southbound (Eagle Ranch Rd.)			
		L	T	R	Pedestrians	L	T	R	Pedestrians	L	T	R	Pedestrians	L	T	R	Pedestrians
7:00 AM	7:15 AM	*13*	*395*	*12*	*0*	*4*	*53*	*48*	*0*	*9*	*16*	*16*	*0*	*210*	*26*	*3*	*0*
7:15 AM	7:30 AM	**5**	**439**	**14**	**0**	**5**	**87**	**53**	**0**	**7**	**11**	**34**	**0**	**220**	**43**	**2**	**0**
7:30 AM	7:45 AM	**6**	**459**	**8**	**0**	**5**	**90**	**74**	**0**	**9**	**16**	**37**	**0**	**253**	**34**	**3**	**0**
7:45 AM	8:00 AM	**13**	**384**	**12**	**0**	**11**	**114**	**90**	**0**	**6**	**20**	**28**	**0**	**230**	**33**	**6**	**0**
8:00 AM	8:15 AM	**24**	**341**	**13**	**0**	**15**	**92**	**71**	**0**	**6**	**16**	**26**	**0**	**193**	**30**	**4**	**0**
8:15 AM	8:30 AM	*19*	*334*	*17*	*0*	*5*	*96*	*79*	*0*	*6*	*15*	*20*	*0*	*165*	*39*	*7*	*0*
8:30 AM	8:45 AM	*20*	*354*	*12*	*0*	*8*	*111*	*69*	*0*	*5*	*22*	*32*	*0*	*182*	*32*	*4*	*0*
8:45 AM	9:00 AM	*30*	*315*	*28*	*0*	*13*	*110*	*66*	*0*	*13*	*17*	*23*	*0*	*161*	*35*	*9*	*0*
AM Peak Hour Volumes		**48**	**1623**	**47**	**0**	**36**	**383**	**288**	**0**	**28**	**63**	**125**	**0**	**896**	**140**	**15**	**0**
% of Total Traffic		1.3%	44.0%	1.3%		1.0%	10.4%	7.8%		0.8%	1.7%	3.4%		24.3%	3.8%	0.0%	
% Directional			46.5%				19.1%		Intersection		5.9%				28.1%		
AM Peak Hour Factor			*0.91*				*0.82*		0.93		*0.87*				*0.91*		

Begin Time	End Time	Eastbound (Paseo del Norte)				Westbound (Paseo del Norte)				Northbound (Eagle Ranch Rd.)				Southbound (Eagle Ranch Rd.)			
		L	T	R	Pedestrians	L	T	R	Pedestrians	L	T	R	Pedestrians	L	T	R	Pedestrians
4:00 PM	4:15 PM	*34*	*149*	*18*	*0*	*48*	*333*	*196*	*0*	*18*	*36*	*13*	*0*	*96*	*55*	*32*	*0*
4:15 PM	4:30 PM	*33*	*176*	*14*	*0*	*21*	*391*	*229*	*0*	*23*	*44*	*8*	*0*	*102*	*54*	*27*	*0*
4:30 PM	4:45 PM	*29*	*157*	*22*	*0*	*31*	*383*	*258*	*0*	*24*	*38*	*8*	*0*	*103*	*40*	*36*	*0*
4:45 PM	5:00 PM	**29**	**185**	**10**	**0**	**32**	**379**	**233**	**0**	**28**	**43**	**12**	**0**	**119**	**59**	**39**	**0**
5:00 PM	5:15 PM	**43**	**163**	**13**	**0**	**20**	**373**	**235**	**0**	**22**	**42**	**4**	**0**	**84**	**57**	**27**	**0**
5:15 PM	5:30 PM	**24**	**211**	**19**	**0**	**18**	**431**	**228**	**0**	**24**	**56**	**10**	**0**	**98**	**59**	**57**	**0**
5:30 PM	5:45 PM	**37**	**178**	**15**	**0**	**30**	**415**	**276**	**0**	**35**	**62**	**11**	**0**	**100**	**43**	**45**	**0**
5:45 PM	6:00 PM	*34*	*174*	*16*	*0*	*20*	*417*	*218*	*0*	*32*	*56*	*8*	*0*	*92*	*34*	*63*	*0*
PM Peak Hour Volumes		**133**	**737**	**57**	**0**	**100**	**1598**	**972**	**0**	**109**	**203**	**37**	**0**	**401**	**218**	**168**	**0**
% of Total Traffic		2.8%	15.6%	1.2%		2.1%	33.8%	20.5%		2.3%	4.3%	0.8%		8.5%	4.6%	3.5%	
% Directional			19.6%				56.4%		Intersection		7.4%				16.6%		
PM Peak Hour Factor			*0.91*				*0.93*		0.95		*0.81*				*0.91*		

Traffic Count Data Sheet

Year Counts Taken: **2016** E-W Street: **Eagle Ranch Rd.** Speed Limit (Eagle Ranch Rd.)= **35** MPH

N-S Street: **Irving Blvd.** Speed Limit (Irving Blvd.)= **40** MPH

SIGNALIZED 3/31/16

Begin Time	End Time	Eastbound (Eagle Ranch Rd.)				Westbound (Eagle Ranch Rd.)				Northbound (Irving Blvd.)				Southbound (Irving Blvd.)			
		L	T	R	Pedestrians	L	T	R	Pedestrians	L	T	R	Pedestrians	L	T	R	Pedestrians
7:00 AM	7:15 AM	**8**	**22**	**9**	**0**	**25**	**32**	**9**	**0**	**1**	**41**	**10**	**0**	**14**	**190**	**39**	**0**
7:15 AM	7:30 AM	**9**	**50**	**21**	**0**	**38**	**41**	**18**	**1**	**9**	**47**	**17**	**0**	**24**	**138**	**25**	**0**
7:30 AM	7:45 AM	**8**	**39**	**7**	**0**	**32**	**31**	**10**	**0**	**7**	**69**	**12**	**0**	**19**	**212**	**37**	**0**
7:45 AM	8:00 AM	**10**	**42**	**10**	**0**	**24**	**20**	**12**	**0**	**9**	**51**	**12**	**0**	**18**	**189**	**32**	**0**
8:00 AM	8:15 AM	~~16~~	~~28~~	~~11~~	~~0~~	~~23~~	~~35~~	~~15~~	~~0~~	~~4~~	~~54~~	~~13~~	~~0~~	~~17~~	~~144~~	~~13~~	~~0~~
8:15 AM	8:30 AM	~~11~~	~~45~~	~~14~~	~~0~~	~~28~~	~~39~~	~~15~~	~~1~~	~~6~~	~~60~~	~~19~~	~~0~~	~~21~~	~~156~~	~~10~~	~~0~~
8:30 AM	8:45 AM	~~8~~	~~45~~	~~16~~	~~0~~	~~21~~	~~36~~	~~13~~	~~0~~	~~10~~	~~53~~	~~13~~	~~0~~	~~17~~	~~147~~	~~14~~	~~0~~
8:45 AM	9:00 AM	~~11~~	~~44~~	~~13~~	~~0~~	~~25~~	~~32~~	~~11~~	~~0~~	~~11~~	~~56~~	~~18~~	~~0~~	~~27~~	~~151~~	~~11~~	~~0~~
AM Peak Hour Volumes		**35**	**153**	**47**	**0**	**119**	**124**	**49**	**1**	**26**	**208**	**51**	**0**	**75**	**729**	**133**	**0**
% of Total Traffic		2.0%	8.7%	2.7%		6.8%	7.1%	2.8%		1.5%	11.9%	2.9%		4.3%	41.7%	0.0%	
% Directional			13.4%				16.7%		Intersection		16.3%				45.9%		
AM Peak Hour Factor			*0.73*				*0.75*		0.91		*0.81*				*0.87*		

Begin Time	End Time	Eastbound (Eagle Ranch Rd.)				Westbound (Eagle Ranch Rd.)				Northbound (Irving Blvd.)				Southbound (Irving Blvd.)			
		L	T	R	Pedestrians	L	T	R	Pedestrians	L	T	R	Pedestrians	L	T	R	Pedestrians
4:00 PM	4:15 PM	~~27~~	~~63~~	~~14~~	~~0~~	~~37~~	~~67~~	~~46~~	~~0~~	~~27~~	~~194~~	~~37~~	~~0~~	~~47~~	~~120~~	~~17~~	~~0~~
4:15 PM	4:30 PM	~~44~~	~~73~~	~~21~~	~~0~~	~~48~~	~~80~~	~~65~~	~~0~~	~~24~~	~~192~~	~~44~~	~~0~~	~~34~~	~~102~~	~~19~~	~~2~~
4:30 PM	4:45 PM	**31**	**103**	**27**	**2**	**39**	**102**	**65**	**0**	**28**	**213**	**49**	**0**	**33**	**85**	**14**	**0**
4:45 PM	5:00 PM	**35**	**90**	**26**	**0**	**28**	**92**	**61**	**0**	**25**	**207**	**50**	**1**	**28**	**96**	**9**	**0**
5:00 PM	5:15 PM	**36**	**93**	**19**	**0**	**49**	**98**	**60**	**0**	**19**	**233**	**34**	**0**	**29**	**111**	**17**	**1**
5:15 PM	5:30 PM	**43**	**92**	**15**	**1**	**47**	**97**	**60**	**0**	**15**	**169**	**74**	**9**	**33**	**86**	**14**	**0**
5:30 PM	5:45 PM	~~43~~	~~98~~	~~17~~	~~0~~	~~33~~	~~75~~	~~60~~	~~0~~	~~17~~	~~208~~	~~40~~	~~0~~	~~25~~	~~96~~	~~18~~	~~0~~
5:45 PM	6:00 PM	~~51~~	~~82~~	~~28~~	~~0~~	~~42~~	~~84~~	~~45~~	~~0~~	~~23~~	~~176~~	~~41~~	~~0~~	~~30~~	~~98~~	~~17~~	~~0~~
PM Peak Hour Volumes		**145**	**378**	**87**	**3**	**163**	**389**	**246**	**0**	**87**	**822**	**207**	**10**	**123**	**378**	**54**	**1**
% of Total Traffic		4.7%	12.2%	2.8%		5.3%	12.6%	8.0%		2.8%	26.6%	6.7%		4.0%	12.2%	1.7%	
% Directional			19.7%				25.8%		Intersection		36.1%				17.9%		
PM Peak Hour Factor			*0.95*				*0.96*		0.96		*0.96*				*0.88*		

Traffic Count Data Sheet

Year Counts Taken: **2016** E-W Street: **Coors Bypass** Speed Limit (Coors Bypass)= **45** MPH

N-S Street: **Eagle Ranch Rd.** Speed Limit (Eagle Ranch Rd.)= **35** MPH

SIGNALIZED **3/31/16**

Begin Time	End Time	Eastbound (Coors Bypass)				Westbound (Coors Bypass)				Northbound (Eagle Ranch Rd.)				Southbound (Eagle Ranch Rd.)			
		L	T	R	Pedestrians	L	T	R	Pedestrians	L	T	R	Pedestrians	L	T	R	Pedestrians
7:00 AM	7:15 AM	2	382	36	0	9	173	5	0	13	1	2	0	2	6	1	0
7:15 AM	7:30 AM	2	483	51	0	11	196	1	0	24	5	1	0	2	2	0	0
7:30 AM	7:45 AM	3	342	52	0	11	290	7	0	31	6	5	0	0	5	3	0
7:45 AM	8:00 AM	3	328	44	0	20	271	7	0	27	9	2	1	0	1	0	0
8:00 AM	8:15 AM	8	341	36	0	19	195	8	0	29	5	4	0	4	8	0	0
8:15 AM	8:30 AM	3	359	41	0	17	230	7	1	34	4	4	1	4	6	0	0
8:30 AM	8:45 AM	3	354	44	0	17	220	9	0	33	12	7	0	5	6	3	1
8:45 AM	9:00 AM	9	336	42	0	20	280	18	0	47	5	9	0	9	11	1	0
AM Peak Hour Volumes		**16**	**1494**	**183**	**0**	**61**	**952**	**23**	**0**	**111**	**25**	**12**	**1**	**6**	**16**	**3**	**0**
% of Total Traffic		0.6%	51.5%	6.3%		2.1%	32.8%	0.8%		3.8%	0.9%	0.4%		0.2%	0.6%	0.0%	
% Directional			58.3%				35.7%	Intersection			5.1%				0.8%		
AM Peak Hour Factor			*0.79*				*0.84*	0.93			*0.88*				*0.52*		

Begin Time	End Time	Eastbound (Coors Bypass)				Westbound (Coors Bypass)				Northbound (Eagle Ranch Rd.)				Southbound (Eagle Ranch Rd.)			
		L	T	R	Pedestrians	L	T	R	Pedestrians	L	T	R	Pedestrians	L	T	R	Pedestrians
4:00 PM	4:15 PM	31	315	43	0	63	573	42	0	104	40	7	0	30	75	8	1
4:15 PM	4:30 PM	29	304	43	0	57	532	51	0	104	38	13	4	27	58	23	3
4:30 PM	4:45 PM	40	278	43	0	49	567	39	0	110	26	3	0	31	62	19	0
4:45 PM	5:00 PM	45	216	101	10	42	549	50	0	113	43	11	1	25	70	10	1
5:00 PM	5:15 PM	37	308	47	0	38	557	37	0	108	35	7	0	37	68	20	2
5:15 PM	5:30 PM	47	290	31	1	48	560	59	0	71	50	10	2	42	72	17	1
5:30 PM	5:45 PM	32	221	36	0	44	526	43	0	99	34	5	0	23	50	35	0
5:45 PM	6:00 PM	43	267	38	0	28	431	61	1	85	47	9	0	31	48	23	0
PM Peak Hour Volumes		**145**	**1113**	**230**	**10**	**211**	**2221**	**182**	**0**	**431**	**147**	**34**	**5**	**113**	**265**	**60**	**5**
% of Total Traffic		2.8%	21.5%	4.5%		4.1%	43.0%	3.5%		8.3%	2.8%	0.7%		2.2%	5.1%	1.2%	
% Directional			28.8%				50.6%	Intersection			11.8%				8.5%		
PM Peak Hour Factor			*0.96*				*0.96*	0.97			*0.92*				*0.97*		

Traffic Count Data Sheet

Year Counts Taken: **2016** E-W Street: **Irving Blvd.** Speed Limit (Irving Blvd.)= **40** MPH

N-S Street: **Golf Course Rd.** Speed Limit (Golf Course Rd.)= **35** MPH

UNSIGNALIZED **4/8/16**

Begin	End	Eastbound (Irving Blvd.)				Westbound (Irving Blvd.)				Northbound (Golf Course Rd.)				Southbound (Golf Course Rd.)			
Time	Time	L	T	R	Pedestrians	L	T	R	Pedestrians	L	T	R	Pedestrians	L	T	R	Pedestrians
7:00 AM	7:15 AM	**29**	**111**	**29**	**0**	**4**	**8**	**49**	**0**	**5**	**151**	**5**	**0**	**152**	**275**	**16**	**0**
7:15 AM	7:30 AM	**28**	**162**	**36**	**2**	**3**	**22**	**38**	**0**	**4**	**130**	**4**	**1**	**166**	**297**	**6**	**0**
7:30 AM	7:45 AM	**28**	**113**	**35**	**1**	**4**	**15**	**42**	**1**	**11**	**166**	**4**	**0**	**150**	**279**	**13**	**0**
7:45 AM	8:00 AM	**18**	**98**	**24**	**0**	**3**	**25**	**49**	**1**	**6**	**142**	**2**	**0**	**106**	**247**	**16**	**1**
8:00 AM	8:15 AM	*9*	*65*	*19*	*0*	*4*	*24*	*34*	*0*	*5*	*126*	*11*	*0*	*104*	*227*	*7*	*0*
8:15 AM	8:30 AM	*18*	*47*	*24*	*0*	*5*	*21*	*49*	*1*	*5*	*106*	*4*	*1*	*76*	*186*	*10*	*0*
8:30 AM	8:45 AM	*21*	*56*	*29*	*0*	*4*	*18*	*44*	*0*	*4*	*131*	*4*	*0*	*85*	*180*	*11*	*0*
8:45 AM	9:00 AM	*22*	*66*	*22*	*0*	*8*	*26*	*49*	*0*	*16*	*109*	*4*	*0*	*90*	*183*	*6*	*1*
AM Peak Hour Volumes		**103**	**484**	**124**	**3**	**14**	**70**	**178**	**2**	**26**	**589**	**15**	**1**	**574**	**1098**	**51**	**1**
% of Total Traffic		3.1%	14.5%	3.7%		0.4%	2.1%	5.3%		0.8%	17.7%	0.5%		17.2%	32.9%	0.0%	
% Directional			21.3%				7.9%	**Intersection**			18.9%				50.2%		
AM Peak Hour Factor			*0.79*				*0.85*	0.93			*0.87*				*0.92*		

Begin	End	Eastbound (Irving Blvd.)				Westbound (Irving Blvd.)				Northbound (Golf Course Rd.)				Southbound (Golf Course Rd.)			
Time	Time	L	T	R	Pedestrians	L	T	R	Pedestrians	L	T	R	Pedestrians	L	T	R	Pedestrians
4:00 PM	4:15 PM	*15*	*39*	*10*	*0*	*8*	*68*	*129*	*0*	*31*	*238*	*8*	*0*	*65*	*168*	*35*	*0*
4:15 PM	4:30 PM	*29*	*57*	*11*	*0*	*15*	*72*	*164*	*0*	*24*	*237*	*6*	*0*	*73*	*178*	*34*	*0*
4:30 PM	4:45 PM	*20*	*48*	*10*	*0*	*20*	*101*	*152*	*0*	*36*	*253*	*7*	*2*	*73*	*192*	*28*	*1*
4:45 PM	5:00 PM	**30**	**49**	**13**	**0**	**16**	**87**	**191**	**0**	**35**	**283**	**5**	**0**	**65**	**223**	**50**	**0**
5:00 PM	5:15 PM	**23**	**46**	**12**	**0**	**18**	**105**	**178**	**0**	**29**	**272**	**16**	**0**	**63**	**188**	**39**	**0**
5:15 PM	5:30 PM	**23**	**46**	**13**	**0**	**15**	**101**	**162**	**0**	**25**	**283**	**6**	**0**	**61**	**221**	**42**	**0**
5:30 PM	5:45 PM	**12**	**59**	**18**	**1**	**12**	**95**	**159**	**0**	**26**	**257**	**1**	**1**	**79**	**184**	**47**	**0**
5:45 PM	6:00 PM	*26*	*54*	*14*	*1*	*8*	*96*	*151*	*1*	*25*	*279*	*4*	*0*	*62*	*137*	*29*	*0*
PM Peak Hour Volumes		**88**	**200**	**56**	**1**	**61**	**388**	**690**	**0**	**115**	**1095**	**28**	**1**	**268**	**816**	**178**	**0**
% of Total Traffic		2.2%	5.0%	1.4%		1.5%	9.7%	17.3%		2.9%	27.5%	0.7%		6.7%	20.5%	4.5%	
% Directional			8.6%				28.6%	**Intersection**			31.1%				31.7%		
PM Peak Hour Factor			*0.93*				*0.95*	0.95			*0.96*				*0.93*		

Traffic Count Data Sheet

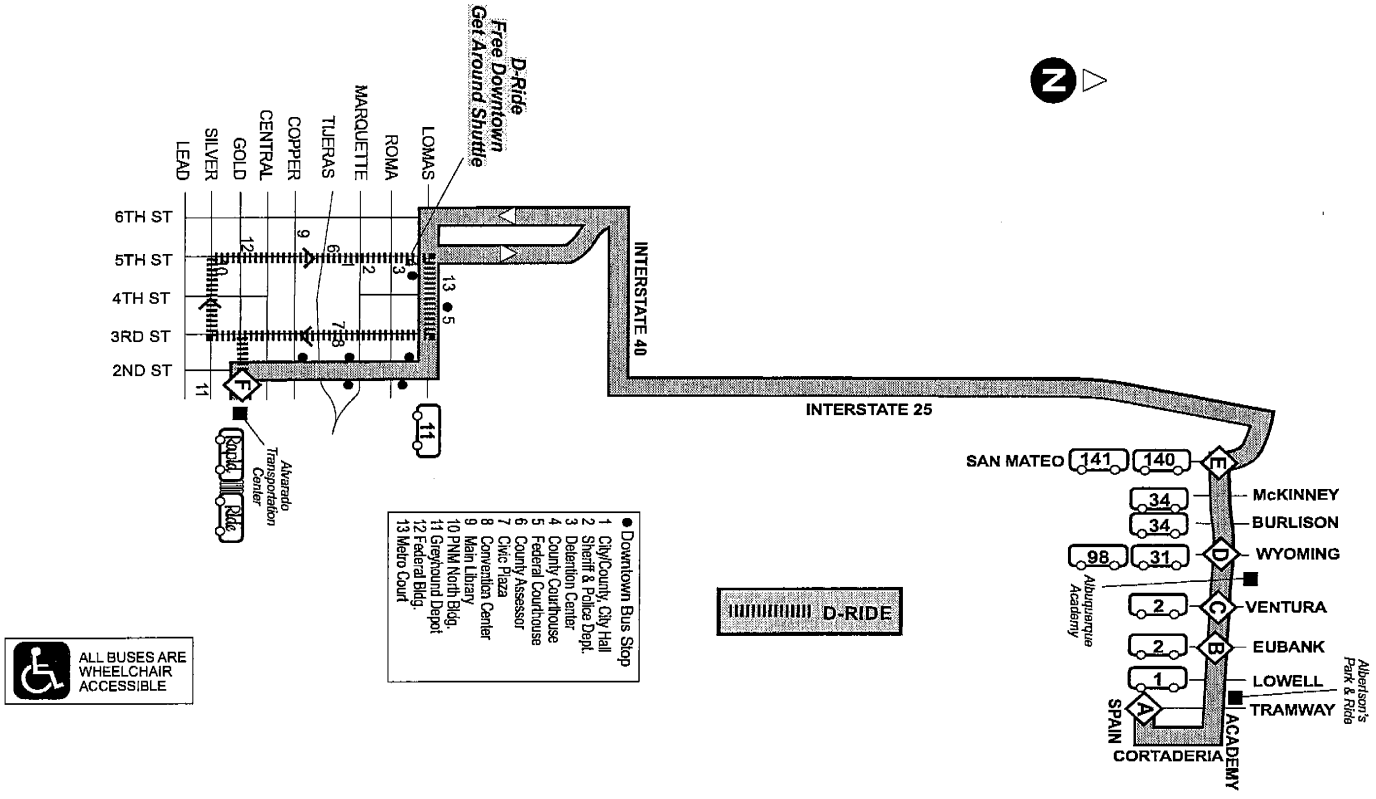
Year Counts Taken: **2016**
E-W Street: **Westside Dr.**
N-S Street: **Eagle Ranch Rd.**
UNSIGNALIZED
Speed Limit (Westside Dr.)= **25** MPH
Speed Limit (Eagle Ranch Rd.)= **35** MPH
4/8/16

Begin	End	Eastbound (Westside Dr.)				Westbound (Westside Dr.)				Northbound (Eagle Ranch Rd.)				Southbound (Eagle Ranch Rd.)			
Time	Time	L	T	R	Pedestrians	L	T	R	Pedestrians	L	T	R	Pedestrians	L	T	R	Pedestrians
7:00 AM	7:15 AM	**1**	**0**	**12**	**0**	**2**	**0**	**2**	**0**	**2**	**57**	**5**	**0**	**9**	**127**	**0**	**0**
7:15 AM	7:30 AM	**2**	**2**	**11**	**0**	**2**	**0**	**5**	**0**	**2**	**71**	**20**	**0**	**5**	**135**	**1**	**0**
7:30 AM	7:45 AM	**6**	**3**	**7**	**0**	**4**	**0**	**5**	**0**	**2**	**67**	**19**	**0**	**6**	**74**	**0**	**0**
7:45 AM	8:00 AM	**2**	**2**	**3**	**0**	**5**	**0**	**12**	**0**	**4**	**60**	**11**	**0**	**4**	**71**	**0**	**0**
8:00 AM	8:15 AM	*0*	*1*	*2*	*0*	*2*	*0*	*10*	*0*	*1*	*57*	*11*	*0*	*7*	*73*	*1*	*0*
8:15 AM	8:30 AM	*1*	*0*	*9*	*0*	*3*	*0*	*8*	*0*	*2*	*68*	*7*	*1*	*3*	*80*	*0*	*0*
8:30 AM	8:45 AM	*2*	*0*	*4*	*0*	*2*	*0*	*6*	*0*	*4*	*97*	*12*	*0*	*4*	*64*	*0*	*0*
8:45 AM	9:00 AM	*0*	*0*	*1*	*0*	*2*	*1*	*7*	*0*	*2*	*83*	*2*	*0*	*3*	*72*	*0*	*0*
AM Peak Hour Volumes		**11**	**7**	**33**	**0**	**13**	**0**	**24**	**0**	**10**	**255**	**55**	**0**	**24**	**407**	**1**	**0**
% of Total Traffic		1.3%	0.8%	3.9%		1.5%	0.0%	2.9%		1.2%	30.4%	6.5%		2.9%	48.5%	0.0%	
% Directional			6.1%				4.4%	Intersection			38.1%				51.3%		
AM Peak Hour Factor			*0.80*				*0.54*	0.82			*0.86*				*0.77*		

Begin	End	Eastbound (Westside Dr.)				Westbound (Westside Dr.)				Northbound (Eagle Ranch Rd.)				Southbound (Eagle Ranch Rd.)			
Time	Time	L	T	R	Pedestrians	L	T	R	Pedestrians	L	T	R	Pedestrians	L	T	R	Pedestrians
4:00 PM	4:15 PM	**0**	**0**	**6**	**0**	**4**	**2**	**14**	**0**	**5**	**161**	**11**	**0**	**10**	**166**	**1**	**0**
4:15 PM	4:30 PM	**0**	**0**	**0**	**0**	**6**	**1**	**14**	**0**	**9**	**155**	**10**	**0**	**4**	**181**	**0**	**0**
4:30 PM	4:45 PM	**1**	**1**	**6**	**0**	**9**	**0**	**11**	**0**	**8**	**162**	**5**	**0**	**7**	**192**	**1**	**0**
4:45 PM	5:00 PM	**0**	**0**	**4**	**0**	**12**	**2**	**15**	**0**	**5**	**165**	**6**	1	**8**	**189**	**1**	**0**
5:00 PM	5:15 PM	*3*	*0*	*4*	*0*	*11*	*0*	*10*	*0*	*5*	*156*	*11*	*0*	*8*	*159*	*0*	*0*
5:15 PM	5:30 PM	*0*	*0*	*2*	*0*	*7*	*0*	*10*	*0*	*10*	*156*	*3*	*0*	*1*	*157*	*4*	*0*
5:30 PM	5:45 PM	*1*	*0*	*4*	*0*	*5*	*2*	*12*	*0*	*4*	*159*	*6*	*0*	*1*	*147*	*3*	*0*
5:45 PM	6:00 PM	*1*	*0*	*5*	*0*	*5*	*1*	*10*	*0*	*11*	*156*	*2*	*0*	*1*	*170*	*3*	*0*
PM Peak Hour Volumes		1	1	**16**	**0**	**31**	**5**	**54**	**0**	**27**	**643**	**32**	**1**	**29**	**728**	**3**	**0**
% of Total Traffic		0.1%	0.1%	1.0%		2.0%	0.3%	3.4%		1.7%	40.9%	2.0%		1.8%	46.3%	0.2%	
% Directional			1.1%				5.7%	Intersection			44.7%				48.4%		
PM Peak Hour Factor			*0.56*				*0.78*	0.96			*0.99*				*0.95*		

Route 93 / Ruta 93
Academy Commuter

Effective: January 2015



Route 93 - Weekday West / Southbound

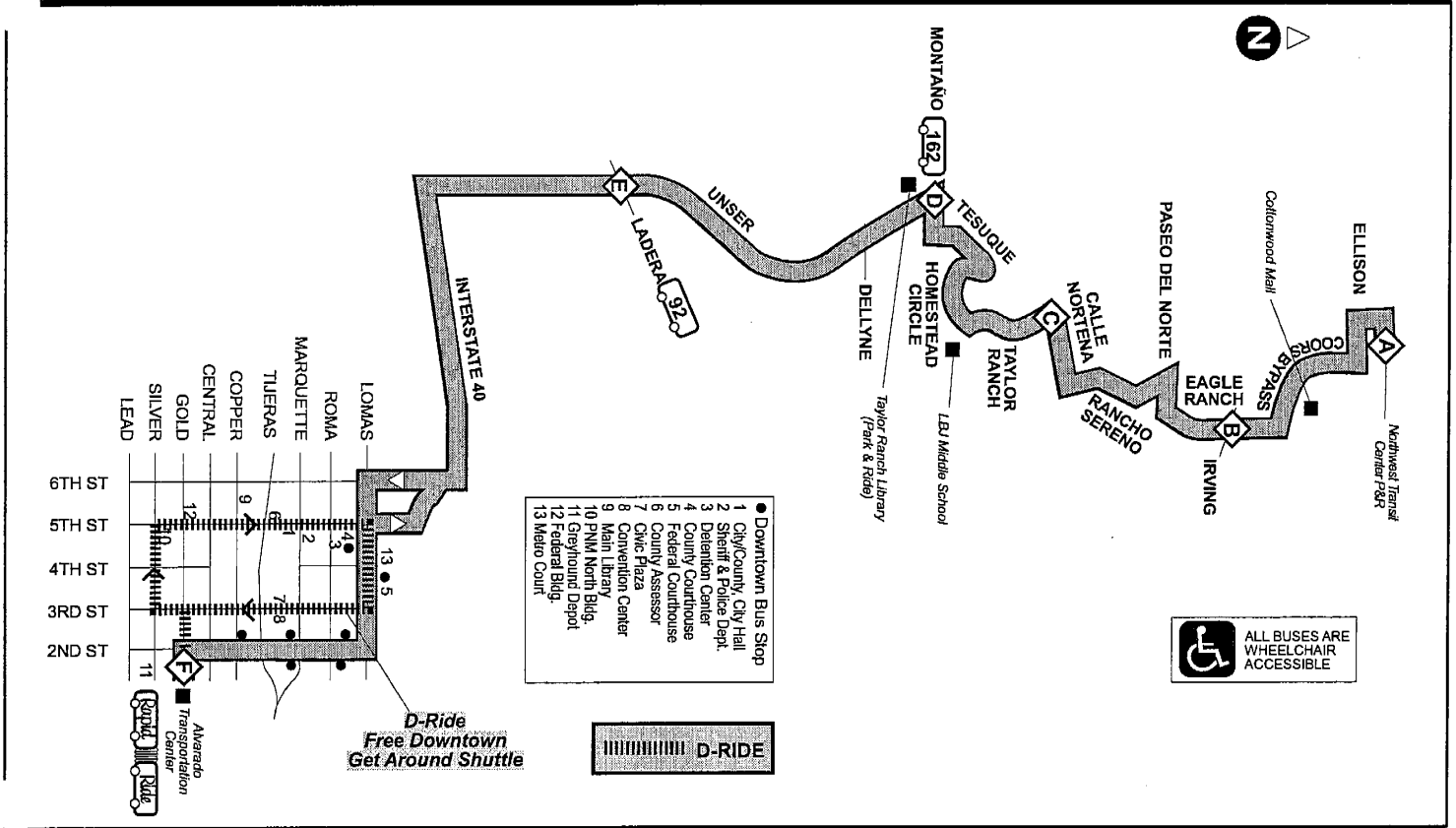
SPAIN & TRAMWAY (A)	ACADEMY & EUBANK (B)	ACADEMY & VENTURA (C)	ACADEMY & WYOMING (D)	ACADEMY & SAN MATEO (E)	ALVARADO TRANSPORTATION CENTER (F)
6:06a	6:13a	6:15a	6:18a	6:22a	6:41a
7:03a	7:11a	7:14a	7:17a	7:21a	7:41a

Route 93 - Weekday North / Eastbound

ALVARADO TRANSPORTATION CENTER (F)	ACADEMY & SAN MATEO (E)	ACADEMY & WYOMING (D)	ACADEMY & VENTURA (C)	ACADEMY & EUBANK (B)	SPAIN & TRAMWAY (A)
4:15p	4:34p	4:41p	4:43p	4:46p	4:54p
5:15p	5:35p	5:42p	5:44p	5:47p	5:55p

Route / Ruta 94
Unser Express

Effective: January 2015



Route 94 - Weekday Southbound

NORTHWEST TRANSIT CENTER P&R (A)	EAGLE RANCH & IRVING (B)	CALLE NORTENA & TAYLOR RANCH (C)	UNSER & MONTAÑO (D)	UNSER & LADERA (E)	ALVARADO TRANSPORTATION CENTER (F)
5:58a	6:02a	6:10a	6:20a	6:27a	6:43a
6:52a	6:56a	7:05a	7:15a	7:26a	7:46a

Route 94 - Weekday Northbound

ALVARADO TRANSPORTATION CENTER (F)	UNSER & LADERA (E)	UNSER & MONTAÑO (D)	CALLE NORTENA & TAYLOR RANCH (C)	EAGLE RANCH & IRVING (B)	NORTHWEST TRANSIT CENTER P&R (A)
4:41p	5:01p	5:09p	5:18p	5:27p	5:34p
5:11p	5:32p	5:40p	5:49p	5:57p	6:04p

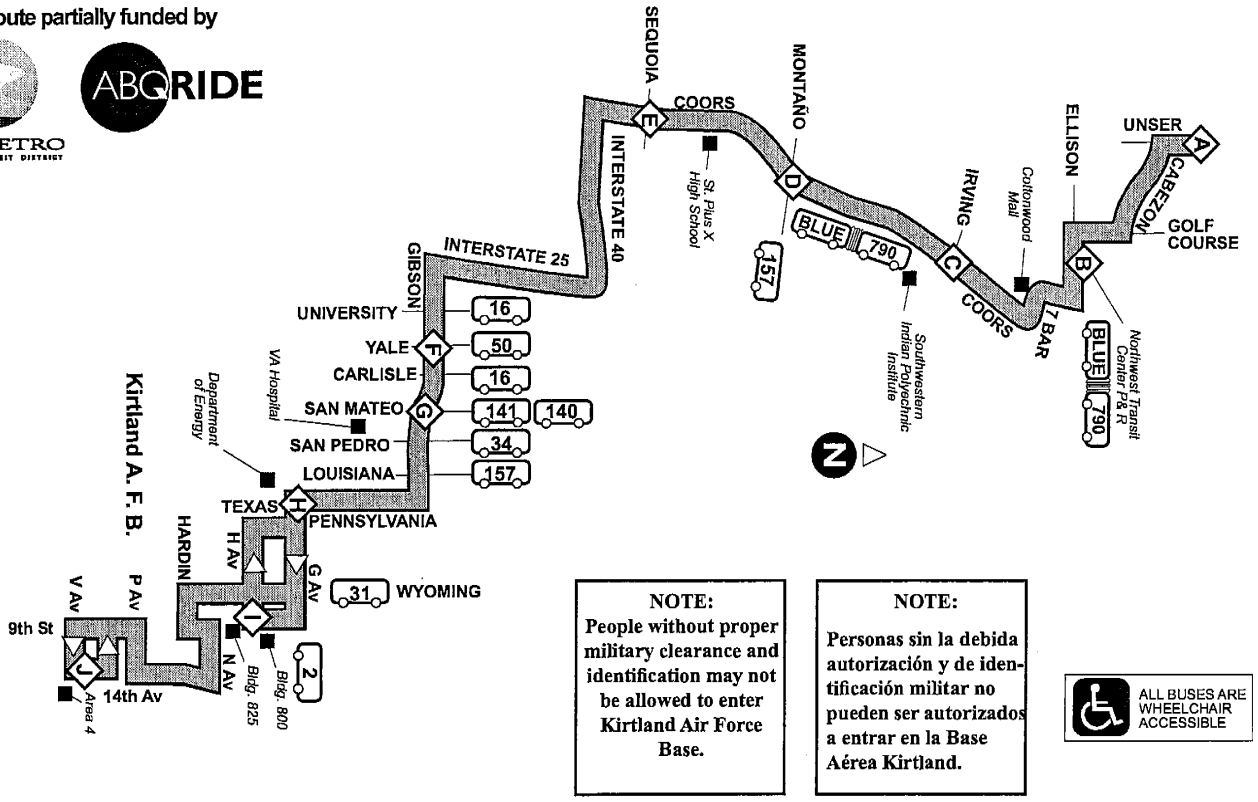
Route / Ruta 96
Crosstown Commuter

Effective: January 2015

Route partially funded by

RIO METRO REGIONAL TRANSIT DISTRICT

ABQRIDE



NOTE:
People without proper military clearance and identification may not be allowed to enter Kirtland Air Force Base.

NOTE:
Personas sin la debida autorización y de identificación militar no pueden ser autorizados a entrar en la Base Aérea Kirtland.

ALL BUSES ARE WHEELCHAIR ACCESSIBLE

Route 96 - Weekday Southbound

SOUTHERN & UNSER (A)	NORTHWEST TRANSIT CENTER P&R (B)	COORS & IRVING (C)	COORS & MONTAÑO (D)	COORS & SEQUOIA (E)	GIBSON & YALE (F)	GIBSON & SAN MATEO (G)	G STREET D.O.E. BLDG. (H)	BUILDING 800 (I)	AREA 4 (J)
5:16a	5:26a	5:37a	5:43a	5:48a	6:00a	6:04a	6:11a	6:15a	6:27a
5:30a	5:40a	5:51a	5:57a	6:02a	6:14a	6:18a	6:25a	6:29a	6:41a
5:55a	6:07a	6:17a	6:22a	6:27a	6:41a	6:46a	6:53a	6:57a	7:09a
6:25a	6:37a	6:47a	6:52a	6:57a	7:11a	7:16a	7:23a	7:27a	7:39a
6:46a	6:59a	7:11a	7:18a	7:24a	7:44a	7:49a	7:58a	8:01a	8:12a

Route 96 - Weekday Northbound

AREA 4 (J)	BUILDING 800 (I)	G STREET D.O.E. BLDG. (H)	GIBSON & SAN MATEO (G)	GIBSON & YALE (F)	COORS & SEQUOIA (E)	COORS & MONTAÑO (D)	COORS & IRVING (C)	NORTHWEST TRANSIT CENTER P&R (B)	SOUTHERN & UNSER (A)
3:51p	3:58p	4:02p	4:09p	4:16p	4:33p	4:39p	4:45p	4:56p	5:12p
4:02p	4:09p	4:13p	4:20p	4:27p	4:44p	4:50p	4:56p	5:07p	5:23p
4:19p	4:28p	4:32p	4:39p	4:46p	5:03p	5:09p	5:16p	5:27p	5:43p
4:35p	4:44p	4:48p	4:55p	5:02p	5:19p	5:25p	5:32p	5:43p	5:59p
5:15p	5:24p	5:28p	5:35p	5:42p	5:59p	6:05p	6:12p	6:23p	6:39p

IMPORTANT:

Due to varying military restrictions, access to Kirtland Air Force Base may be changed at any time. If you are traveling to KAFB please call 243-RIDE (243-7433) for current information.

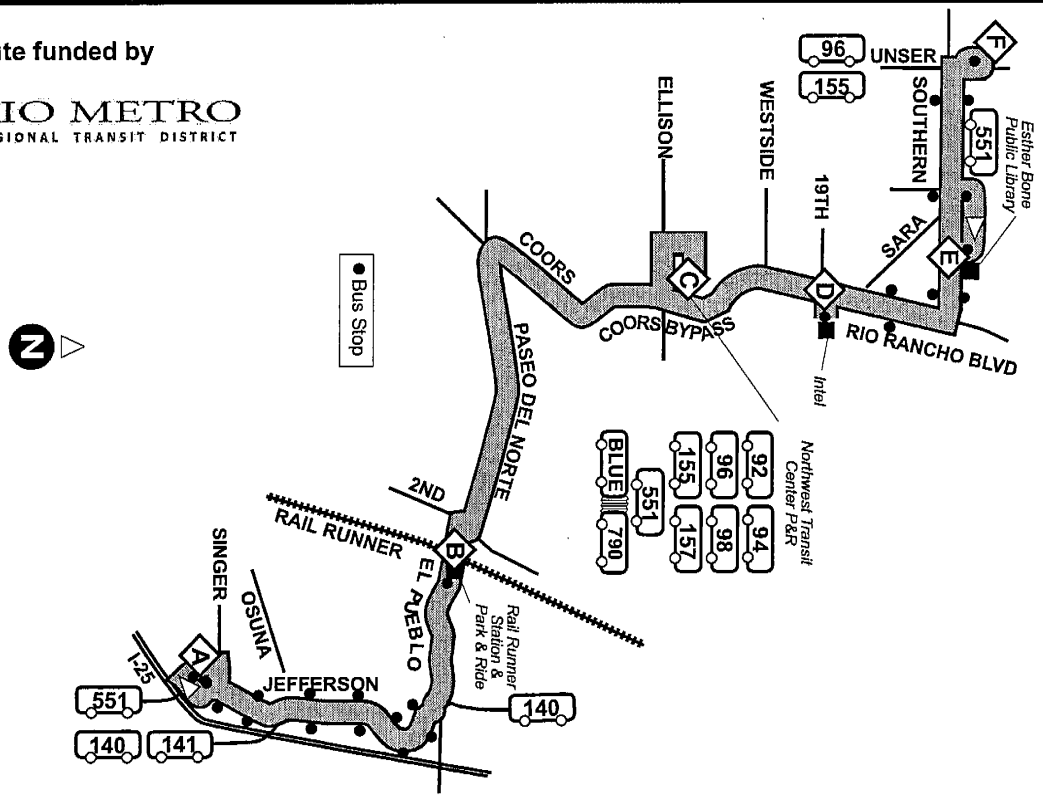
IMPORTANTE:

Debido a diferentes restricciones militares, el acceso a La Base Aerea Kirtland puede cambiar en cualquier momento. Si usted viaja hacia KAFB en autobùs, por favor llame al 243-RIDE (243-7433) para obtener información actualizada.

Route / Ruta 251 — Effective: January 2015
Rio Rancho-Albuquerque / Rail Runner Connection

Route funded by

RIO METRO
REGIONAL TRANSIT DISTRICT



ALL BUSES ARE WHEELCHAIR ACCESSIBLE

Route 251- Weekday North / Westbound

EL PUEBLO STATION (B)	CENTURY RIO 24 THEATER (A)	EL PUEBLO STATION (B) ARRIVAL	EL PUEBLO STATION (B) DEPARTURE	NORTHWEST TRANSIT CENTER P&R (C)	INTEL (D)	SOUTHERN & PINETREE (E)	SOUTHERN & UNSER (F)
.....	6:14a	6:28a	6:35a	6:49a	6:57a	7:03a	7:09a
.....	6:37a	6:51a	6:58a	7:12a	7:20a	7:26a	7:32a
.....	7:16a	7:30a	7:37a	7:51a	7:59a	8:05a	8:11a
.....	8:12a	8:26a	8:33a	8:47a	8:55a	9:01a	.....
.....	9:31a	9:45a	9:51a	10:05a	10:13a	10:19a	10:25a
.....	2:02p	2:16p	2:22p	2:36p	2:44p	2:50p	2:56p
4:09p	4:23p	4:35p	4:42p	5:01p	5:09p	5:16p	5:22p
4:55p	5:09p	5:26p	5:35p	5:55p	6:03p	6:10p	6:16p
.....	5:18p	5:37p	6:15p	6:35p	6:43p	6:50p	6:56p
.....	6:30p	6:44p	6:50p	7:04p	7:12p	7:18p	7:24p
.....	6:47p	7:01p	7:07p	7:21p	7:29p	7:35p	7:41p

For service to the 4:41p and 5:34p trains, use the southbound trips leaving the station at 4:09p and 4:55p and returning to the station at 4:35p and 5:26p respectively by a different route. Be sure to catch the bus at a southbound stop.

Para el servicio a la 4:41 y 5:34p trenes, utilice el sur viajes salir de la estación de 4:09 a 4:55p, y de regresar a la estación de 4:35 a 5:26p, respectivamente, por una ruta diferente. Asegúrese de coger el autobús en una parada hacia el sur.

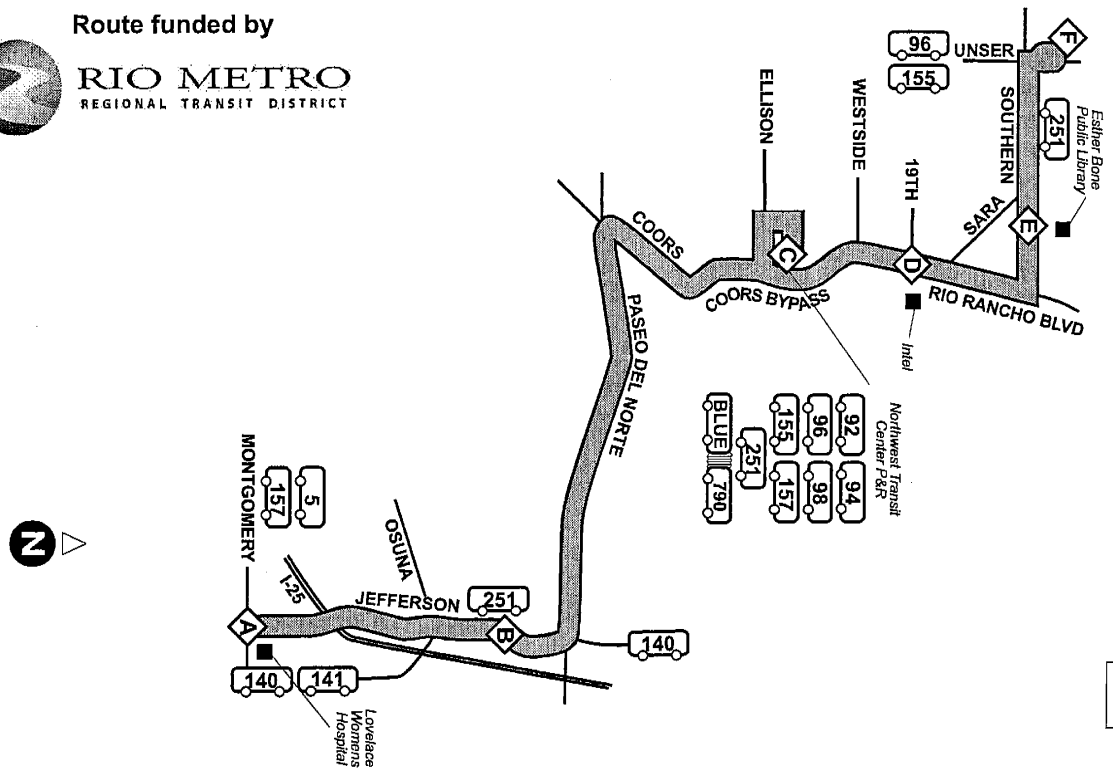
Route 251- Weekday East / Southbound

SOUTHERN & UNSER (F)	SOUTHERN & PINETREE (E)	INTEL (D)	NORTHWEST TRANSIT CENTER P&R (C)	EL PUEBLO STATION (B) ARRIVAL	EL PUEBLO STATION (B) DEPARTURE	CENTURY RIO 24 THEATER (A)
5:16a	5:24a	5:32a	5:38a	5:56a	6:05a	6:19a
5:44a	5:52a	6:00a	6:06a	6:26a	6:35a	6:49a
6:02a	6:10a	6:18a	6:24a	6:45a	6:58a	7:12a
6:38a	6:46a	6:55a	7:02a	7:24a	7:37a	7:51a
7:35a	7:43a	7:52a	7:59a	8:21a	8:33a	8:47a
.....	9:12a	9:20a	9:26a	9:44a	9:51a	10:05a
1:35p	1:43p	1:51p	1:57p	2:15p	2:22p	2:36p
3:52p	4:00p	4:08p	4:14p	4:30p	.....	.....
4:39p	4:48p	4:57p	5:04p	5:23p	5:35p	5:49p
4:59p	5:08p	5:17p	5:24p	5:43p	5:50p	6:04p
6:02p	6:10p	6:19p	6:25p	6:43p	6:50p	7:04p

Route/Ruta 551 Effective: January 2015
Jefferson - Paseo del Norte Express

Route funded by

RIO METRO
REGIONAL TRANSIT DISTRICT



ALL BUSES ARE WHEELCHAIR ACCESSIBLE

Route 551- Weekday East / Southbound

SOUTHERN & UNSER (F)	SOUTHERN & PINETREE (E)	INTEL (D)	NORTHWEST TRANSIT CENTER P&R (C)	JEFFERSON & MASTHEAD (B)	JEFFERSON & MONTGOMERY (A)
6:11a	6:17a	6:25a	6:32a	6:49a	7:01a
7:11a	7:17a	7:25a	7:32a	7:49a	8:01a

Route 551- Weekday North / Westbound

JEFFERSON & MONTGOMERY (A)	JEFFERSON & MASTHEAD (B)	NORTHWEST TRANSIT CENTER P&R (C)	INTEL (D)	SOUTHERN & PINETREE (E)	SOUTHERN & UNSER (F)
4:10p	4:17p	4:38p	4:45p	4:53p	4:59p
5:10p	5:17p	5:38p	5:45p	5:53p	5:59p

SCOPE OF TRAFFIC IMPACT STUDY (TIS)

TO: Terry O. Brown, P.E.
P. O. Box 92051
Albuquerque, NM 87199

MEETING DATE: April 1, 2016

ATTENDEES: Terry O. Brown, P.E.; Racquel Michel, P.E., City of Albuquerque Transportation Development Section of Planning Dept.

PROJECT: Eagle Ranch Retail Project (Eagle Ranch Rd. / Irving Blvd.)

REQUESTED CITY ACTION: ___Zone Change ___Site Development Plan

___Subdivision ___Building Permit ___Sector Plan ___Sector Plan Amendment

___Curb Cut Permit ___Conditional Use ___Annexation ___Site Plan Amendment

ASSOCIATED APPLICATION: Development of approximately 44,400 s.f. of retail commercial floor space plus 5,950 s.f. of Motor Vehicle Division office space. (NOTE: 30,000 s.f. of retail commercial is Phase 2 of the development).

SCOPE OF REPORT:
The Traffic Impact Study should follow the standard report format, which is outlined in the DPM. The following supplemental information is provided for the preparation of this specific study. As each item identified in the scoping letter is completed, check the appropriate (box).

1. Trip Generation - Use Trip Generation Manual, 9th Edition.
   Local data may be used for certain land use types as determined by staff.
   Consultant to provide.

2. Appropriate study area:
   Signalized Intersections:
   1) Eagle Ranch Rd. / Irving Blvd.
   2) Eagle Ranch Rd. / Paseo del Norte
   3) Eagle Ranch Rd. / Paradise Blvd.
   4) Eagle Ranch Rd. / Coors By-Pass Blvd.
   5) Irving Blvd. / Coors Blvd.
   6) Irving Blvd. / Golf Course Rd.

   Unsignalized Intersections:
   1) Westside Dr. / Eagle Ranch Rd.
   2) Driveways / Access (one driveway on Irving Blvd. and one driveway on Eagle Ranch Rd. at Westside Dr.)

3. Intersection turning movement counts (7-9 a.m. peak hour, 4-6 p.m. peak hour).
Intersections provided: consultant to provide for all intersections listed above; Intersections that need to be counted by developer: signalized and unsignalized listed above.

4. Type of intersection progression and factors to be used.
Type III arrival type (see "2010 Highway Capacity Manual" or equivalent as approved by staff). Unless otherwise justified, peak hour factors and % heavy commercial should be taken directly from the MRCOG turning movement data provided or as calculated from current count data by consultant.

5. Boundaries of area to be used for trip distribution.
   City Wide - residential, office or industrial;
   2 mile radius - commercial;
   Interstate or to be determined by consultant - motel/hotel.

6. Basis for trip distribution.

Residential – Use inverse relationship based upon distance and employment. Use employment data from 2040 Socioeconomic Forecasts, MRCOG – See MRCOG website for most current data.

Office/Industrial - Use inverse relationship based upon distance and population. Use population data from 2040 Socioeconomic Forecasts, MRCOG – See MRCOG website for most current data.

Commercial - Use relationship based upon population. Use population data from 2040 Socioeconomic Forecasts, MRCOG – See MRCOG website for most current data.

Residential - $Ts = (Tt) (Se / D) / (Se / D)$
Ts = Development to Individual Subarea Trips
Tt = Total Trips
Se = Subarea Employment
D = Distance from Development to Subarea

Office/Industrial - $Ts = (Tt) (Sp / D) / (Sp / D)$
Ts = Development to Individual Subarea Trips
Tt = Total Trips
Sp = Subarea Population
D = Distance from Development to Subarea

Commercial -
$Ts = (Tt) (Sp) / (Sp)$
Ts = Development to Individual Subarea Trips
Tt = Total Trips
Sp = Subarea Population

7. Traffic Assignment. Logical routing on the major street system.

8. Proposed developments which have been approved but not constructed that are to be Included in the analyses. None

9. Method of intersection capacity analysis - planning or operational (see "2010 Highway Capacity Manual" or equivalent [i.e. HCS, Synchro, Teapac, etc.] as approved by staff). Must use latest version of design software and/or current edition of design manual.
   Implementation Year: 2019

10. Traffic conditions for analysis:
    a. Existing analysis _x_yes ___no - year (2016);
    b. Phase implementation year(s) without proposed development – N/A
    c. Phase implementation year(s) with proposed development – N/A
    d. Project completion year without proposed development – 2019
    e. Project completion year with proposed development – 2019
    f. Other – N/A

11. Background traffic growth.
    Method: use 10-year historical growth based on standard data from the MRCOG Traffic Flow Maps. Minimum growth rate to be used is 1/2%.

12. Planned (programmed) traffic improvements.
    List planned CIP improvements in study area and projected project implementation year: Check with Debbie Bauman or John MacKenzie.

13. Items to be included in the study:
    a. Intersection analysis. Yes
    b. Signal progression - An analysis is required if the driveway analysis indicates a traffic signal is possibly warranted. Analysis Method: No
    c. Arterial LOS analysis; No
    d. Recommended street, intersection and signal improvements. Yes
    e. Site design features such as turning lanes, median cuts, queuing requirements and site circulation, including driveway signalization and visibility. Yes
    f. Transportation system impacts. Yes
    g. Other mitigating measures. As needed.
    h. Accident analyses ___yes _x__no; Location(s):
    i. Weaving analyses ___yes _x__no; Location(s):

14. Other: N/A

SUBMITTAL REQUIREMENTS:

1. Number of copies of report required
   a. 1 paper copy
   b. 1 digital copy
2. Submittal Fee – $150 per review

The Traffic Impact Study for this development proposal shall be performed in accordance with the above criteria. If there are any questions regarding the above items, please contact me at 924-3991.

Racquel Michel, P.E. Date
Principal Engineer for Transportation Development Section

via: email

C: TIS Task Force Attendees, file