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Valero Station (NW Corner of Rio Bravo Blvd. / Broadway Blvd.)

Traffic Impact Analysis

July 30, 2012

FINAL

Presented to:

Bernalillo County Public Works Department & New Mexico Department of Transportation District 3 Office

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Contents	
Introduction	1
Study Procedures	1
Study Area Characteristics	2
Description of Proposed Development	3
Trip Generation Rates	3
Trip Distribution / Trip Assignments	4
Commercial Land Use	
Analysis of Existing Conditions	
Background Traffic Growth	5
Projected Peak Hour Turning Movements for 2014 Buildout	5
Implementation Year Traffic Analysis (2014)	6
Intersection #1 Rio Bravo Blvd. / I-25 E. Ramp - Pages A-49 thru A-52	
Intersection #2 – Rio Bravo Blvd. / I-25 W. Ramp - Pages A-57 thru A-60	
Intersection #3 – Rio Bravo Blvd. / Broadway Blvd Pages A-65 thru A-70	
Intersection #4 – Rio Bravo Blvd. / Prince St Pages A-77 thru A-80	
Intersection #5 – Rio Bravo Blvd. /2 nd St Pages A-85 thru A-90	
Intersection #6 – Broadway Blvd. / Poco Loco - Pages A-152 thru A-155	
Intersection #7 – Rio Bravo Blvd. / Isleta Blvd Pages A-97 thru A-100	
Intersection #8 –Driveway 'A' / Broadway Blvd Pages A-107 thru A-108 Intersection #9 –Rio Bravo Blvd. / Driveway 'B' - Pages A-111 thru A-112	
Horizon Year Traffic Analysis	
Intersection #1 – Rio Bravo Blvd. / I-25 E. Ramp - Pages A-53 thru A-56	
Intersection #2 – Rio Bravo Blvd. / I-25 W. Ramp - Pages A-53 thru A-56	
Intersection #3 – Rio Bravo Blvd. / Broadway Blvd Pages A-71 thru A-76	
Intersection #4 – Rio Bravo Blvd. / Prince St Pages A-81 thru A-84	
Intersection #5 – Rio Bravo Blvd. / 2 nd St Pages A-91 thru A-96	
Intersection #6 – Rio Bravo Blvd. / Poco Loco - Pages A-154 thru A-155	27
Intersection #7 – Rio Bravo Blvd. / Isleta Blvd Pages A-162 thru A-167	27
Intersection #8 –Driveway 'A' / Broadway Blvd Pages A-109 thru A-110	
Intersection #9 –Rio Bravo Blvd. / Driveway 'B' - Pages A-113 thru A-114	
Access Design Specifications	30
Findings and Conclusions	31
Recommendations	32
APPENDIX	34
	35-1-2-0

July 30, 2012

Rio Bravo / Broadway Commercial Development (NW Corner) Traffic Impact Analysis Page i

July 30, 2012

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Rio Bravo / Broadway Commercial Development (NW Corner of Rio Bravo / Broadway) Traffic Impact Analysis

Introduction

The purpose of this study is to evaluate the transportation conditions before and after implementation of the proposed Valero Station at the northwest corner of Rio Bravo / Broadway and determine the impact of the development on the adjacent transportation system. The recommendations of this study will provide measures to mitigate the impact of the development of the site plan on critical intersections and street segments. This study is prepared to meet the requirements of the New Mexico Department of Transportation (District #3) and Bernalillo County associated with its review of the Valero Station Development as shown on the plan on Page A-3 in the Appendix of this report.

Study Procedures

A scoping study was submitted to Bernalillo County Transportation staff (Richard Mobarak) prior to beginning the study to discuss scope and methodology to be utilized within the proposed Valero Station Traffic Impact Study. Specific items included format, intersections to be studied, intersection analysis procedures, existing traffic counts, trip distribution methodology, and implementation year definition. A copy of the Scoping Study was sent to Antonio Jaramillo, District 3 Traffic Engineer for the New Mexico Department of Transportation.

Intersection capacity analyses were performed in accordance with the procedures for signalized and unsignalized intersections in the Highway Capacity Manual, Special Report 209, Transportation Research Board, 2000, using Trafficware's Synchro version 7 Highway Capacity Software for signalized and unsignalized intersections. For signalized intersections, the operational method of analysis was used for 2014 and 2024 conditions (NO BUILD and BUILD).

It should be noted that Synchro 8 (using HCM 2010 methodology) was not utilized in this analysis since there are numerous problematic issues related to the new software. Synchro 8 was recently released, but there have been problems with the software that Trafficware is trying to address, but have not yet done so. Therefore, Synchro 7 was utilized for this study as required by the New Mexico Department of Transportation.

Intersections targeted for analysis in this study include Rio Bravo Blvd / I-25 E. ramp, Rio Bravo Blvd / I-25 W. ramp, Rio Bravo Blvd / Broadway Blvd, Rio Bravo Blvd / Prince St, Rio Bravo Blvd / Second St, and Rio Bravo Blvd / Isleta Blvd. In addition, the proposed driveways for the site will be analyzed.



Study Area Characteristics

The subject area of land discussed in this report is bound on the east by Broadway Blvd and on the south by Rio Bravo Blvd. See the Valero Vicinity Map on Page A-1 in the Appendix of this report. The total area encompassed by this project is approximately 1.5 acres. The project consists of a 20 fueling position Gas Station with a Convenience Market.

Generally, the adjacent land uses in the area of this project are M-2. The property on which this project is proposed is also zoned M-2. Commercial development is an allowable use on M-2 zoned property.

The expected year of full implementation of the Valero Station is 2014. A horizon year of 2024 will also be analyzed in this study in compliance with the New Mexico Department of Transportation's *State Access Management Manual* which is also enforced to a large degree by the Bernalillo County Public Works Department.

Access to this new site will be proposed Driveway "B" on Rio Bravo Blvd (as a right-in, right-out driveway) and existing Driveway "A" on Broadway Blvd. (as a right-in, right-out driveway). The proposed Driveway "B" on Rio Bravo Blvd. was proposed and approved by the New Mexico Department of Transportation in a letter from the former District 3 Traffic Engineer dated December 1, 2009 (See copy of letter on pages A-130 thru A-131 in the Appendix of this study). It has been deemed by the current District 3 Traffic Engineer that the approval issued in the letter is no longer valid.

Rio Bravo Blvd, Broadway Blvd & Isleta Blvd are classified as a Principal Arterial Roadways on the Long Range Roadway Plan for the Albuquerque Urban Area. Rio Bravo Blvd is generally a four lane urban facility with raised medians. It will ultimately be a six lane roadway facility. The posted speed limit along Rio Bravo Blvd in the vicinity of the project is 45 MPH. Broadway Blvd is generally a four lane urban facility with raised medians. The posted speed limit along Broadway Blvd in the vicinity of this project is 55 MPH. Isleta Blvd is generally a two lane urban facility with raised medians. The posted speed limit along Broadway Blvd in the vicinity of this project is 55 MPH. Isleta Blvd is generally a two lane urban facility with raised medians. The posted speed limit along Blvd in the vicinity of Rio Bravo Blvd. is 45 MPH.

Second St is classified as a Minor Arterial Roadway on the Long Range Roadway Plan for the Albuquerque Urban Area. It is generally a two lane urban facility with raised medians. The posted speed limit along Second St in the vicinity of Rio Bravo Blvd. is 30 MPH.

Interstate 25 is classified as an Urban Interstate on the Long Range Roadway Plan for the Albuquerque Urban Area. It is generally a four lane urban facility with raised medians. The posted speed limit along Interstate 25 in the vicinity of Rio Bravo Blvd. is 65 MPH.

The Long Range Roadway Plan for the Albuquerque Urban Area Map is included in the report on Page A-4 of the Appendix.

Description of Proposed Development

The Rio Bravo / Broadway Commercial Development is a proposed mixed use commercial project. There is an existing building on-site which will have to be removed.

The proposed development is expected to consist of a 20 fueling position Gas Station w/a Convenience Market. Proposed uses are speculative and, hence, are subject to change. The proposed land use scenario, though, should provide a representative traffic generation rate for most development scenarios associated with development of this property. If the property were to develop in a manner significantly different than the propose plan considered in this report such that the number of generated trips are significantly greater, then an update to this study may be required by the County or the State.

Access to the existing property is via a right-in, right-out driveway on Broadway Blvd. only. There is no existing access on Rio Bravo Blvd. The developer of this project will apply for approval of a new driveway on Rio Bravo Blvd. to serve this project. The new access on Rio Bravo Blvd. will require approval of the Transportation Coordinating Committee (T.C.C.) at the Mid-Region Council of Governments (MRCOG). The Access Justification Study to make the case for the new access on Rio Bravo will be a separate report.

If approved by the Transportation Coordinating Committee, access to this project will be via a limited access driveway on Rio Bravo Blvd. and a full access driveway on Broadway Blvd.

Trip Generation Rates

Trip generation rates for this proposed development were projected based on data contained in the Institute of Transportation Engineers (ITE) Trip Generation Manual, 8th Edition published in 2008. The following table lists the proposed assumed land uses in the project plan along with the calculated daily, AM, and PM Peak Hour trip generation rates resulting from application of the trip generation rate equations contained in the ITE Trip Generation Manual:

Valero Station (Rio Bravo Blvd. / Broadway Blvd.)

Trip Generation Data (ITE Trip Generation Manual - 8th Edition)

USE (ITE CODE)	24 HR VOL	A. M. PE	AK HR.	P. M. PE	AK HR.	
DESCRIPTION		GROSS	ENTER	EXIT	ENTER	EXIT
Summary Sheet	Units					
Gasoline / Service Station w/ Convenience Market (945)	20.00	3,256	102	102	134	134
Pass-by Trip Adjustment	50%	(1,628)	(51)	(51)	(67)	(67)
Net New Trips		1,628	51	51	67	67

The preceding table demonstrates the calculated trip generation rate based on the proposed plan and the projected use for the site. A 50% adjustment was made to account for pass-by trips or mixed use (internal capture) traffic reductions. Trip Generation Rate Summary Table and Individual Trip Generation Rate Worksheets for individual land uses are contained on Pages A-7 thru A-8 in the Appendix.

Trip Distribution / Trip Assignments

Primary and Diverted Linked Trips:

Commercial Land Use

Primary and diverted linked trips for the commercial land use development were distributed proportionally to the 2010 projected population of Data Analysis Subzones within a three-mile radius of the proposed development. Population data for the years 2015 and 2025 were taken from the <u>2035 Socioeconomic Forecasts by Data Analysis Subzones for the MRCOG Region</u>, supplied by the Mid-Region Council of Governments (MRCOG). Population data from the years 2015 and 2025 was interpolated linearly to obtain 2015 population data to utilize for this analysis. Population Subzones were grouped based on the most likely major street(s) or route(s) to the subject development. The trip distribution worksheets and associated map of subareas and data analysis subzones is shown on Appendix Pages A-10 thru A-20.

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-21 thru A-23.

Analysis of Existing Conditions

2010 Average Weekday Traffic Volumes (AWDT) for major streets in the site plan area are shown on Page A-7 of the Appendix.

An analysis of the existing conditions of the transportation system was not provided in this report for two primary reasons:

- 1) The implementation year analysis (2014) is only about two years into the future and significantly represents existing conditions considering approved nearby developments that have not been implemented.
- 2) The existing volumes do not reflect new volumes that will be present shortly resulting from land development projects that have been approved by the County and / or the State within the last few years, but have not yet been implemented. Therefore, an existing condition analysis would under-report the delays present at the intersections.

Background Traffic Growth

Background traffic growth rates for the implementation & horizon years (2014 & 2024) were calculated so as to approximate the 2035 AM and PM Peak Hour link volumes in the Mid-Region Council of Governments' regional transportation model. The worksheets for calculation of the annual growth rates associated with each intersection for the horizon year are contained under the Intersection Turning Movements Volumes Worksheets (Appendix Pages A-31 thru A-48r). The calculated growth rate should result in approach volumes (NO BUILD) at each intersection that closely approximate the link volumes for the upstream roadway segment. If, however, the calculated growth rate based on the MRCOG regional model results in a negative growth rate, then this report assumes that the growth rate for that leg of the intersection is three. Consequently, the projected horizon year volumes in this report will not match the MRCOG regional model volumes in those cases, but will be somewhat higher.

Projected Peak Hour Turning Movements for 2014 Buildout

The calculated annual growth rates were applied to the most recent peak hour traffic count volumes and trips were added for Neilsen Industrial Park, KAN Industrial Park, Neilsen Commercial Development, and Rio Bravo Commerce Center to account for trips generated by projects that are planned to be constructed in the near future. The sum of the existing volumes plus growth plus other proposed projects constitute the 2014 NO BUILD volumes utilized in this report. To these volumes, the generated trips based on implementation of the proposed Rio Bravo / Broadway (NW Corner) were added to obtain the 2014 BUILD Volumes utilized for the 2014 BUILD Condition analyses. See Appendix Pages A-43 thru A-73 for further information regarding the 2014 turning movement volumes.

NOTE: The implementation year and the horizon year volumes utilized in this study were calculated in similar manner with the following exception:

1. Other approved projects in the area were added to the implementation year background volumes but not the horizon year background volumes. It was assumed in this study

that the Mid-Region Council of Governments' regional model already contains traffic generated by the other developments that are currently approved.

Implementation Year Traffic Analysis (2014)

Classification of levels-of-service and delay for signalized and unsignalized intersections will be made based on criteria established by Synchro, Version 7 (Build 773 Rev 8) computer modeling software which approximates the 2000 Highway Capacity Manual methodology. The average control delay is calculated for each intersection and for each lane group of each leg of the intersection. The control delay then determines the level-of-service based on the following tables:

LEVEL-OF-SERVICE CRITERIA FOR SIGNALIZED INTERSECTIONS

<u>Average Delay</u>	Level-of-Service
<u>(secs)</u>	
≤ 10	A
> 10 and ≤ 20	В
> 20 and ≤ 35	С
> 35 and ≤ 55	D
> 55 and ≤ 80	E
> 80	F

LEVEL-OF-SERVICE CRITERIA FOR UNSIGNALIZED INTERSECTIONS

Average Delay	Level-of-Service
(secs)	
≤ 10	Α
> 10 and ≤ 15	В
> 15 and ≤ 25	С
> 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.

Following is a summary of the results of the Synchro Analysis for each of the intersections targeted for evaluation in this report:

Intersection #1 – Rio Bravo Blvd. / I-25 E. Ramp - Pages A-49 thru A-52

The following table provides a summary of the Levels-of-Service / delays associated with each case analyzed in this study:

		<u>2014</u>	AM Peal	<u>(Hou</u>	Ir BUILD		<u>2014</u>	PM Peal	<u>k Hou</u>	Ir BUILD			
			(EXIST.	GEON	1.)			(EXIST.	GEON	1.)			
		N	O BUILD		BUILD		N	O BUILD		BUILD			
		Lanes	LOS-Delay	Lanes	LOS-Delay		Lanes LOS-Delay Lanes LOS-D						
	L	2	A - 3.1	2	A - 3.5	L	2	A - 3.9	2	A - 4.2			
8	Т	2	A - 1.5	2	A - 1.6	Т	2	A - 0.4	2	A - 0.4			
Γ	R	0	A - 0.0	0	A - 0.0	R	0	A - 0.0	0	A - 0.0			
	L	0	A - 0.0	0	A - 0.0	L	0	A - 0.0	0	A - 0.0			
MB	T	2	B - 20.0	2	C - 22.0	Т	2	A - 9.0	2	A - 9.8			
Γ	R	1	B - 17.9	1	B - 19.5	R	1	A - 8.0	1	A - 8.7			
Γ	L	>	E - 61.0	>	E - 60.7	L	>	E - 59.3	>	E - 59.6			
B	T	1	A - 0.0	1	A - 0.0	Т	1	A - 0.0	1	A - 0.0			
Γ	R	>	E - 61.0	>	E - 60.7	R	>	E - 59.3	>	E - 59.6			
Γ	L	0	A - 0.0	0	A - 0.0	L	0	A - 0.0	0	A - 0.0			
SB	Т	0	A - 0.0	0	A - 0.0	Т	0	A - 0.0	0	A - 0.0			
	R	0	A - 0.0	0	A - 0.0	R	0	A - 0.0	0	A - 0.0			
Int	ntersection: B - 13.4 B - 13.4							A - 9.1		A - 9.5			
N	ote:	">" de	signates a s	hared	right or left tu	rn l	ane ne	ext to a thru l	ane.				

Intersection: 1 - Rio Bravo Blvd. / I-25 E. Ramp

The analysis of the intersection of Rio Bravo Blvd. / I-25 East Ramp in this report demonstrates that the projected levels-of-service and delays are acceptable for all conditions analyzed. Therefore, no recommendations are made with regard to measures to increase capacity at the existing signalized intersection. Also, the Rio Bravo Blvd. / I-25 Interchange is currently under study and redesign to accommodate future traffic flows. The new design should provide acceptable levels-of-service and delays though the year 2035.

The results of the queuing analysis for the intersection of Rio Bravo Blvd. / I-25 East Ramp are summarized in the following table:

Queueing Analysis Summary Sheet

Project:

Intersection:

Valero Station (NW Corner of Rio Bravo / Broadway)

Rio Bravo Blvd / I-25 E. ramp

Approach		eft Tur	ms	Thru	Move	ments	Rie	ght Tu	rns
Eastbound	# Lanes	Vol.	Length	# Lanes	Vol.	Length	# Lanes	Vol.	Lenath
Existing Lane Length	2	1.040	250	2	556	Cont	0	0	0
AM NO BUILD Queue	2	1,159	775	2	598	450	0	0	0
AM BUILD Queue	2	1,169	775	2	607	450	0	0	0
Existing Lane Length	2	670	250	2	272	Cont	0	0	0
PM NO BUILD Queue	2	866	600	2	350	300	0	0	0
PM BUILD Queue	2	879	625	2	361	300	0	0	0
Westbound	# Lanes	Vol.	Length	# Lanes	Vol.	Length	# Lanes	Vol.	Length
Existing Lane Length	0	0	0	2	93	Cont	1	10	300
AM NO BUILD Queue	0	0	0	2	273	225	1	21	50
AM BUILD Queue	0	0	0	2	288	250	1	21	50
Existing Lane Length	0	0	0	2	274	Cont	1	81	300
PM NO BUILD Queue	0	0	0	2	453	350	1	124	200
PM BUILD Queue	0	0	0	2	473	375	1	124	200
Northbound	# Lanes	Vol.	Length	# Lanes	Vol.	Length	# Lanes	Vol.	Length
Existing Lane Length	0	31	0	1	1	Cont	0	151	0
AM NO BUILD Queue	0	50	100	1	2	0	0	229	325
AM BUILD Queue	0	53	100	1	2	0	0	229	325
Existing Lane Length	0	22	0	1	1	Cont	0	48	0
PM NO BUILD Queue	0	43	100	1	2	0	0	93	175
PM BUILD Queue	0	46	100	1	2	0	0	93	175
Southbound	# Lanes	Vol.	Length	# Lanes	Vol.	Length	# Lanes	Vol.	Length
Existing Lane Length	0	0	0	0	0	Cont	0	0	0
AM NO BUILD Queue	0	0	0	0	0	0	0	0	0
AM BUILD Queue	0	0	0	0	0	0	0	0	0
Existing Lane Length	0	0	0	0	0	Cont	0	0	0
PM NO BUILD Queue	0	0	0	0	0	0	0	0	0
PM BUILD Queue	0	0	0	0	0	0	0	0	0

Cycle Length: 130

130

Reconstruction of the Rio Bravo / I-25 Interchange should meet the above queuing requirements to the extent possible.

July 30, 2012

		<u>2014</u>	AM	Peak	<u>(Hor</u>	ır B	UILD		<u>2014</u>	I PM	Peal	<u>k Ho</u> l	ur BU	ILD
			(E	EXIST.	GEON	A.)]		(EXIST.	GEON	M.)	
		N	o Buii	D		BUIL	D		N	o Bui	LD		BUILD)
		Lanes	LOS-I	Delay	Lanes	LOS	-Delay		Lanes	LOS-	Delay	Lanes	LOS-	Delay
	L	0	Α-	0.0	0	A	- 0.0	L	0	A -	0.0	0	A -	0.0
T 3 A - 7.1 3 A - 8.0									3	Α-	3.6	3	A -	3.9
	R	>	Α-	7.1	>	A	- 8.0	R	>	A -	3.6	>	Α-	3.9
Γ	L	1	C -	31.6	1	С	- 31.4	L	1	A -	9.0	1	A -	10.0
WB	Т	2	Β-	14.3	2	В	- 15.6	Т	2	Α-	2.0	2	A -	2.0
	R	0	Α-	0.0	0	A	- 0.0	R	0	Α-	0.0	0	Α-	0.0
	L	0	Α-	0.0	0	A	- 0.0	L	0	Α-	0.0	0	A -	0.0
NB	Т	0	Α-	0.0	0	A	- 0.0	Т	0	A -	0.0	0	A -	0.0
	R	0	Α-	0.0	0	A	- 0.0	R	0	Α-	0.0	0	A -	0.0
Π	L	>	D -	54.3	>	D	- 54.3	Ĺ	>	Ε-	58.1	>	Ε-	58.1
SB	Т	1	D -	54.3	1	D	- 54.3	T	1	Ε-	58.1	1	Ε-	58.1
	R	1	Α-	1.5	1	A٠	· 1.9	R	1	Β-	10.5	1	В-	12.6
		ction:	_					A -	8.1		A -	9.1		

Intersection: 2 - Rio Bravo Blvd. / I-25 W. Ramp

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

The analysis of the intersection of Rio Bravo Blvd. / I-25 W. Ramp in this report demonstrates that the projected levels-of-service and delays are acceptable for all conditions analyzed. Therefore, no recommendations are made with regard to measures to increase capacity at the existing signalized intersection. As previously mentioned, the Rio Bravo Blvd. / I-25 Interchange is currently under study and redesign to accommodate future traffic flows. The new design should provide acceptable levels-of-service and delays though the year 2035.

The results of the queuing analysis for the intersection of Rio Bravo Blvd. / I-25 West Ramp are summarized in the following table:

Queueing Analysis Summary Sheet

Project:

Intersection:

Valero Station (NW Corner of Rio Bravo / Broadway)

Rio Bravo Blvd / I-25 W. ramp

2014	1 .						-		
Approach		eft Tu			Move			ght Tu	
Eastbound	# Lanes		Length	# Lanes		Length	# Lanes		Length
Existing Lane Length	0	0	0	2	1,596	Cont	1	8	50
AM NO BUILD Queue	0	0	0	2	1,697	>1,000	* 1	8	25
AM BUILD Queue	0	0	0	2	1,715	>1,000	* 1	8	25
Existing Lane Length	0	0	0	2	891	Cont	1	22	50
PM NO BUILD Queue	0	0	0	2	1,122	750	1	24	75
PM BUILD Queue	0	0	0	2	1,146	775	1	24	75
Westbound	# Lanes	Vol.	Length	# Lanes	Vol.	Length	# Lanes	Vol.	Length
Existing Lane Length	1	11	100	2	82	Cont	0	0	0
AM NO BUILD Queue	1	19	50	2	149	150	0	0	0
AM BUILD Queue	1	19	50	2	167	175	0	0	0
Existing Lane Length	1	54	100	2	220	Cont	0	0	0
PM NO BUILD Queue	1	95	175	2	345	275	0	0	0
PM BUILD Queue	1	95	175	2	368	300	0	0	0
Northbound	# Lanes	Vol.	Length	# Lanes	Vol.	Length	# Lanes	Vol.	Length
Existing Lane Length	0	0	0	0	0	Cont	0	0	0
AM NO BUILD Queue	0	0	0	0	0	0	0	0	0
AM BUILD Queue	0	0	0	0	0	0	0	0	0
Existing Lane Length	0	0	0	0	0	Cont	0	0	0
PM NO BUILD Queue	0	0	0	0	0	0	0	0	0
PM BUILD Queue	0	0	0	0	0	0	0	0	0
Southbound	# Lanes	Vol.	Length	# Lanes	Vol.	Length	# Lanes	Vol.	Length
Existing Lane Length	0	280	0	1	1	Cont	1	675	500
AM NO BUILD Queue	0	294	400	1	71	125	1	815	>1,000
AM BUILD Queue	0	294	400	1	71	125	1	838	>1,000
Existing Lane Length	0	51	0	1	1	Cont	1	1,148	500
PM NO BUILD Queue	0	53	100	1	30	75	1	1,246	>1,000
PM BUILD Queue	0	53	100	1	30	75	1	1,276	>1,000

Cycle Length: 130

130

Reconstruction of the Rio Bravo / I-25 Interchange should meet the above queuing requirements to the extent possible.

July 30, 2012

Intersection #3 – Rio Bravo Blvd. / Broadway Blvd. - Pages A-65 thru A-70

The following table provides a summary of the Levels-of-Service / delays associated with each case analyzed in this study:

2014 PM Peak Hour BUILD

Intersection: 3 - Rio Bravo Blvd. / Broadway Blvd.

2014 AM Peak Hour BUILD

			(E)	(IST.	GEOM	l.)		(MI	T. GE	OM.)]		(EXIST	GEON	l.)		(MI	r. ge	OM.)
		N	D BUILD)		BUII	D		BUILD			N	NO BUILD BUILD			D	BUILD			
		Lanes	LOS-D	elay	Lanes	LOS	S-Delay	Lanes	LOS	-Delay		Lanes	LOS	-Delay	Lanes	LOS	-Delay	Lanes	LOS	-Delay
Γ	L	1	Α-	4.4	1	Α	- 4.2	1	A	- 4.3	L	1	F۰	93.0	1	F -	114	1	F	114
	T	2	B - 1	16.5	2	С	- 24.7	2	C ·	- 24.7	T	2	D -	42.5	2	D -	42.5	2	D -	39.4
	R	1	Α-	5.6	1	Α	- 5.4	1	A ·	- 5.4	R	1	Α-	7.0	1	À -	· 7.2	1	Α-	· 7.2
Γ	L	2	F - 8	39.9	2	F	- 89.7	2	F	- 89.7	L	2	F-	94.4	2	F -	93.8	2	F -	93.8
WB	T	2	B - 1	14.8	2	В	- 15.4	2	B·	- 15.4	T	2	F -	133	2	F -	149	2	F-	136
	R	1	B - 1	10.3	1	В	- 11.4	1	В·	- 11.4	R	1	Β-	19.2	1	Β-	19.0	1	Β.	18.4
	Ĺ	1	F -	108	1	F	- 114	2	F	- 114	L	1	F-	188	1	F -	192	2	F۰	204
NB	Т	2	D - 5	54.8	2	D	- 55.0	2	D	- 55.0	Т	2	С-	23.1	2	С-	23.1	2	С-	23.8
_	R	1	D - 4	15.4	1	D	- 45.4	1	D.	45.4	R	1	С-	24.6	1	С-	24.6	1	С-	25.8
	L	1	D - 4	16.1	1	D	- 48.1	1	D۰	- 48.1	L	1	D -	45.6	1	D-	47.3	1	D-	47.3
SB	Т	2	D - 5	52.9	2	D	- 53.1	2	D	- 53.1	Т	2	F-	105	2	F-	110	2	F -	110
	R	1	D - 3	39.2	1	D	- 39.3	1	D·	- 38.9	R	1	F -	111	1	F -	120	1	D-	47.8
Int	erse	ection:	C - 3	4.2		D	- 37.3		D-	37.3			F -	91.4		F -	97.0		F -	91.3

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

The analysis of the intersection of Rio Bravo Blvd. / Broadway Blvd. in this report demonstrates that the projected levels-of-service and delays are moderately increased from the 2014 PM NO BUILD to the BUILD conditions analyzed. The initial analysis in this report is based on existing geometry. It should be noted, though, that it does not count the existing third westbound thru / right turn lane as a thru lane, but as an exclusive right turn lane since the extension of the westbound thru movement is too short to be functional. The 2024 Horizon Year analysis will consider the third westbound thru lane since the Rio Bravo / I-25 Interchange Study / Redesign will provide the additional third westbound thru lane all the way to 2nd St.

Mitigation of the increased delay resulting from this project can be accomplished by constructing a southbound right turn lane on Broadway Blvd. between Driveway "A" and Rio Bravo Blvd., thus providing dual southbound right turn lanes.

The results of the queuing analysis for the intersection of Rio Bravo Blvd. / Broadway Blvd. are summarized in the following table:

Queueing Analysis Summary Sheet

Project: Intersection: Valero Station (NW Corner of Rio Bravo / Broadway)

Rio Bravo Blvd / Broadway Blvd

Approach	L	eft Tu	rns	Thru	Move	nents		Right Turns					
Eastbound	# Lanes		Length	# Lanes		Length		# Lanes		Length			
Existing Lane Length	2	151	275	2	1,400	Cont		1	104	230			
AM NO BUILD Queue	2	157	150	2	1,538	>1,000	*	1	382	500			
AM BUILD Queue	2	163	150	2	1,538	>1,000	*	1	382	500			
Existing Lane Length	2	105	275	2	766	Cont		1	114	230			
PM NO BUILD Queue	2	108	125	2	815	575		1	399	525			
PM BUILD Queue	2	116	125	2	815	575		1	399	525			
Westbound	# Lanes	Vol.	Length	# Lanes	Vol.	Length		# Lanes	Vol.	Length			
Existing Lane Length	2	155	375	3	562	Cont		1	26	999			
AM NO BUILD Queue	2	397	325	3	623	350		1	29	75			
AM BUILD Queue	2	397	325	3	659	350		1	34	75			
Existing Lane Length	2	214	375	3	1,223	Cont		1	24	999			
PM NO BUILD Queue	2	283	250	3	1,247	600		1	24	75			
PM BUILD Queue	2	283	250	3	1,295	625		1	30	75			
Northbound	# Lanes	Vol.	Length	# Lanes	Vol.	Length	1	# Lanes	Vol.	Length			
Existing Lane Length	2	60	575	2	176	Cont		1	220	550			
AM NO BUILD Queue	2	212	200	2	310	250	Ĩ	1	340	450			
AM BUILD Queue	2	215	200	2	311	275		1	340	450			
Existing Lane Length	2	174	575	2	163	Cont		1	260	550			
PM NO BUILD Queue	2	710	525	2	306	250		1	530	675			
PM BUILD Queue	2	714	525	2	307	250		1	530	675			
Southbound	# Lanes	Vol.	Length	# Lanes	Vol.	Length	1	# Lanes	Vol.	Length			
Existing Lane Length	1	15	135	2	87	Cont		1	65	250			
AM NO BUILD Queue	1	31	75	2	145	150		1	72	125			
AM BUILD Queue	1	54	100	2	149	150		1	78	150			
Existing Lane Length	1	15	135	2	246	Cont		1	219	250			
PM NO BUILD Queue	1	33	75	2	381	300		1	296	400			
PM BUILD Queue	1	64	125	2	387	300		1	304	425			
Cycle Length	<u>AM</u> n: 130	<u>PM</u> 130	- <u>1</u>	NOTE: Q	ueue lei	ngths are in	n fee	et.					

Right turn calculated queues can be reduced by 50% to account for right turn on red and overlap phasing. No recommendation is made for this intersection with regard to modification of existing auxiliary turn lanes.

July 30, 2012

Intersection: 4 - Rio Bravo Blvd. / Prince St.

2014 AM Peak Hour BUILD

2014 PM Peak Hour BUILD

			(EXIST.	GEON	l.)						(E	XIST.	GEON	l.)		
		N	o Bui	LD		BUI	LC)		N	D Bl	٦I	D		BUILD		
		Lanes	LOS	Delay	Lanes	LO	S-	Delay		Lanes	LOS	S-C)elay	Lanes	LO	S-I	Delay
	L	1	Α-	2.1	1	A		1.7	L	1	D	-	42.6	1	D	-	44.6
EB	Т	2	D -	36.3	2	Α	-	5.8	Т	2	Α	-	5.1	2	Α	-	5.2
	R	1	Α-	0.8	1	Α	-	0.3	R	1	Α	-	1.0	1	A	-	1.0
	L	1	C -	29.2	1	В	-	15.1	L	1	А	-	3.7	1	A	-	3.7
WB	Т	2	В-	12.2	2	В		12.0	Т	2	В	-	13.5	2	В	-	14.3
	R	1	C -	21.8	1	С	-	20.6	R	1	А	-	2.1	1	Α	-	2.1
	L	1	Ε-	60.8	1	Ε	-	60.3	L	1	Е	-	74.3	1	Ε	-	74.3
NB	Т	1	Ε-	57.9	1	E	-	57.7	Т	1	Е	-	57.6	1	Ε	-	57.8
	R	>	Ε-	57.9	>	E	-	57.7	R	>	E	-	57.6	>	Е	-	57.8
Γ	L	1	D -	52.1	1	D	-	52.7	L	1	E	-	55.3	1	E	-	55.3
SB	Т	1	Ε-	56.6	1	Е	-	57.1	Т	1	E	-	57.6	1	Ε	-	57.6
	R	>	Ε-	56.6	>	Е	-	57.1	R	>	Е	-	57.6	>	E	-	57.6
Int	ntersection: C - 31.6 B - 11.									B - 14.6 B - 15.						15.1	
N	ote:	">" de	signa	ites a s	hared	righ	to	r left tu	rn l	ane ne	extto	a	thru l	ane.			

The analysis of the intersection of Rio Bravo Blvd. / Prince St. in this report demonstrates that the projected levels-of-service and delays are acceptable for all conditions analyzed. Since the volumes on the side street are very minor, the signal timing creates longer delays for those movements in order to optimize the signal. The LOS "E" on the side street could be eliminated by reducing green time on Rio Bravo. The author of this study considers the LOS / delays report above to be acceptable given the low side street volumes. Therefore, no recommendations are made with regard to measures to increase capacity at the existing signalized intersection.

The results of the queuing analysis for the intersection of Rio Bravo Blvd. / Prince St. are summarized in the following table:

Queueing Analysis Summary Sheet

Project:

Valero Station (NW Corner of Rio Bravo / Broadway)

Intersection:

Rio Bravo Blvd / Prince St

Approach	L	eft Tu	rns	Thru	Move	nents		Rig	ght Tu	rns
Eastbound	# Lanes	Vol.	Length	# Lanes		Length		# Lanes		Length
Existing Lane Length	1	41	70	2	1,537	Cont		1	37	200
AM NO BUILD Queue	1	43	100	2	1,914	>1,000	*	1	39	100
AM BUILD Queue	1	43	100	2	1,920	>1,000	*	1	39	100
Existing Lane Length	1	19	70	2	774	Cont		1	94	200
PM NO BUILD Queue	1	20	50	2	1,102	750		1	98	175
PM BUILD Queue	1	20	50	2	1,109	750		1	98	175
Westbound	# Lanes	Vol.	Length	# Lanes	Vol.	Length		# Lanes	Vol.	Length
Existing Lane Length	1	35	120	2	576	Cont		1	43	550
AM NO BUILD Queue	1	39	100	2	741	525		1	47	100
AM BUILD Queue	1	40	100	2	764	550		1	47	100
Existing Lane Length	1	106	120	2	1,443	Cont		1	28	550
PM NO BUILD Queue	1	120	200	2	1,961	>1,000	*	1	31	75
PM BUILD Queue	1	121	200	2	1,991	>1,000	*	1	31	75
Northbound	# Lanes	Vol.	Length	# Lanes	Vol.	Length		# Lanes	Vol.	Length
Existing Lane Length	1	75	250	1	2	Cont		0	78	0
AM NO BUILD Queue	1	80	150	1	2	0		0	88	150
AM BUILD Queue	1	80	150	1	2	0		0	88	150
Existing Lane Length	1	87	250	1	4	Cont		0	63	0
PM NO BUILD Queue	1	92	175	1	4	25		0	69	125
PM BUILD Queue	1	92	175	1	4	25		0	69	125
Southbound	# Lanes	Vol.	Length	# Lanes	Vol.	Length		# Lanes	Vol.	Length
Existing Lane Length	1	13	250	1	0	Cont		0	10	0
AM NO BUILD Queue	1	15	50	1	0	0		0	11	50
AM BUILD Queue	1	15	50	1	0	0		0	11	50
Existing Lane Length	1	44	250	1	3	Cont		0	48	0
PM NO BUILD Queue	1	48	100	1	3	25		0	51	100
PM BUILD Queue	1	48	100	1	3	25		0	51	100
	AM	PM		NOTE: Q	ueue lei	ngths are i	n fee	et.		

There are no significant needs for auxiliary lane lengthening at this intersection. Therefore, no recommendation is made with regard to the modification of existing auxiliary turn lanes.

July 30, 2012

Intersection: 5 - Rio Bravo Blvd. / Second St.

2014 PM Peak Hour BUILD

			(EXIST.	GEON	1.)	(Mi	T. GEOM.)	1	[]	(EXIST.	GEON	1.)	(MI	T. GEOM.)
		N	O BUILD		BUILD		BUILD		N	O BUILD		BUILD		BUILD
		Lanes	LOS-Delay	Lanes	LOS-Delay	Lanes	LOS-Delay		Lanes	LOS-Delay	Lanes	LOS-Delay	Lanes	LOS-Delay
Г	L	1	B - 17.1	1	B - 18.4	1	B - 19.8	L	1	F - 134	1	F - 134	1	D - 38.9
E	Т	2	B - 19.9	2	B - 20.0	2	C - 21.7	Т	2	C - 25.7	2	C - 25.7	2	B - 11.5
	R	1	A - 0.0	1	A - 0.0	1	A - 0.0	R	1	C - 34.1	1	C - 33.9	1	B - 16.5
Γ	L	1	C - 33.8	1	D - 35.3	1	D - 35.9	L	1	C - 27.9	1	C - 28.5	1	B - 16.5
R	Т	2	B - 19.2	2	B - 19.8	2	C - 22.1	Т	2	F - 144	2	F - 150	2	E - 66.6
Γ	R	1	B - 10.4	1	B - 10.7	1	B - 10.9	R	1	B - 16.6	1	B - 16.8	1	B - 12.6
	L	1	D - 50.7	1	D - 50.7	1	D - 40.6	L	1	F - 242	1	F - 242	1	F - 209
B	Т	1	F - 86.4	1	F - 87.0	1	F - 87.0	Т	1	D - 39.4	1	D - 39.5	1	F - 107
	R	>	F - 86.4	>	F - 87.0	>	F - 87.0	R	>	D - 39.4	>	D - 39.5	>	F - 107
Γ	L	1	F - 105	1	F - 107	1	F - 85.6	L	1	C - 30.8	1	C - 30.9	1	F - 124
SB	Т	1	D - 52.5	1	D - 52.5	1	D - 51.1	Т	1	F - 236	1	F - 236	1	E - 55.5
	R	>	D - 52.5	>	D - 52.5	1	C - 33.6	R	>	F - 236	>	F - 236	1	F - 141
Int	erse	ction:	C - 29.5		C - 29.9		C - 29.5			F - 119		F - 122		E - 73.3
N	ote:	">" de	signates a sl	hared	right or left tu	rn lane	e next to a th	ru l	ane. •					

The impact to the intersection of Rio Bravo Blvd. / 2nd St. as a result of full implementation of the Valero Project is moderately small. The resulting increases in delay resulting from this project a none to three seconds. Mitigation of the increase in delay could be accomplished by constructing a new southbound right turn lane on 2nd St. That would reduce the delay at the

intersection of Rio Bravo / 2nd St. by almost 50 seconds, well below the delay associated with the 2014 NO BUILD condition. Recommendation is made to construct the southbound right turn lane on Broadway Blvd. at Rio Bravo.

The results of the queuing analysis for the intersection of Rio Bravo Blvd. / 2nd St. are summarized in the following table:

Queueing Analysis Summary Sheet

Project:

Valero Station (NW Corner of Rio Bravo / Broadway) Rio Bravo Blvd / Second St

Intersection:

Approach	L	eft Tu	rns	Thru	Move	ments	Ri	ght Tu	rns
Eastbound	# Lanes	Vol.	Length	# Lanes		Length	# Lanes	Vol.	Length
Existing Lane Length	1	329	190	2	1,333	Cont	1	162	275
AM NO BUILD Queue	1	366	475	2	1,708	>1,000	* 1	180	275
AM BUILD Queue	1	366	475	2	1,712	>1,000	* 1	180	275
Existing Lane Length	1	116	190	2	569	Cont	1	131	275
PM NO BUILD Queue	1	137	225	2	903	625	1	155	250
PM BUILD Queue	1	137	225	2	908	625	1	155	250
Westbound	# Lanes	Vol.	Length	# Lanes	Vol.	Length	# Lanes	Vol.	Length
Existing Lane Length	1	45	225	2	529	Cont	1	69	230
AM NO BUILD Queue	1	68	125	2	650	475	1	97	175
AM BUILD Queue	1	73	150	2	665	475	1	100	175
Existing Lane Length	1	30	225	2	1,296	Cont	1	57	230
PM NO BUILD Queue	1	98	175	2	1,691	>1,000	* 1	133	225
PM BUILD Queue	1	105	175	2	1,710	>1,000	* 1	137	225
Northbound	# Lanes	Vol.	Length	# Lanes	Vol.	Length	# Lanes	Vol.	Length
Existing Lane Length	1	128	125	1	110	Cont	0	52	0
AM NO BUILD Queue	1	182	275	1	157	250	0	113	200
AM BUILD Queue	1	182	275	1	157	250	0	114	200
Existing Lane Length	1	213	125	1	74	Cont	0	58	0
PM NO BUILD Queue	1	281	400	1	97	175	0	128	200
PM BUILD Queue	1	281	400	1	97	175	0	130	200
Southbound	# Lanes	Vol.	Length	# Lanes	Vol.	Length	# Lanes	Vol.	Length
Existing Lane Length	1	79	200	1	65	Cont	0	63	0
AM NO BUILD Queue	1	141	225	1	74	150	0	71	125
AM BUILD Queue	1	142	225	1	74	150	0	71	125
Existing Lane Length	1	112	200	1	98	Cont	0	399	0
PM NO BUILD Queue	1	162	250	1	118	200	0	481	600
PM BUILD Queue	1	163	250	1	118	200	0	481	600
Cycle Lengti	AM 130	<u>PM</u> 130		NOTE: Q	ueue lei	ngths are ir	n feet.		

The northbound left turn lane deficit will be remedied by the developer of Las Estancias. No recommendation is made for lengthening existing auxiliary lanes at this intersection.

July 30, 2012

Intersection #6 - Broadway Blvd. / Poco Loco - Pages A-152 thru A-155

Analysis of the existing intersection of Rio Bravo Blvd. / Poco Loco has been visited numerous times in the past seven or eight years. The intersection of Rio Bravo Blvd. / Poco Loco serves as an access to the Rio Bravo Commons Residential and Commercial Development approved by Bernalillo County around the year 2000. There is secondary access to the development off of 2nd St. The residential component of the project has been fully implemented, but the proposed commercial component of the development has not been implemented at all. Previous analysis of the intersection of Rio Bravo Blvd. / Poco Loco in prior Traffic Impact Analyses have demonstrated 1) that the intersection fails as an unsignalized intersection due to heavy traffic volumes on Rio Bravo Blvd., and 2) the volumes at the intersection do not meet the Peak Hour Warrant for a traffic signal.

Previous Peak Hour Warrant analyses have shown that there are sufficient volumes of traffic on Rio Bravo Blvd., but not sufficient traffic volumes on Poco Loco to meet the minimum criteria for the Peak Hour Signal Warrant. Development of a significant portion of the commercial component of the Rio Bravo Commons along Rio Bravo Blvd. will be necessary to generate enough traffic so that the intersection of Rio Bravo Blvd. / Poco Loco meets the peak hour warrant.

Since the Traffic Impact Analysis for the Rio Bravo Commons project is in excess of ten years old, it is anticipated that future development of the commercial component of that project will be required to perform a new Traffic Impact Analysis to determine if a signal is warranted at the intersection of Rio Bravo Blvd. / Poco Loco. Upon meeting the warrant for a traffic signal, then the County will likely require the developer to install it.

No specific analysis of the intersection of Rio Bravo Blvd. / Poco Loco was performed for this study since it is certain that the results will be the same as those of previous analyses.

		<u>2014</u>	AM Peal	<u>k Hou</u>	Ir BUILD		<u>2014</u>	PM Peal	(Hou	r BUILD
			(EXIST.	GEON	1.)			(EXIST.	GEON	1.)
		N	o Build		BUILD		N	o Build		BUILD
		Lanes	LOS-Delay	Lanes	LOS-Delay		Lanes	LOS-Delay	Lanes	LOS-Delay
	L	1	C - 21.3	1	C - 21.3	L	1	D - 35.5	1	D - 36.0
EB	Т	2	D - 49.3	2	D - 49.4	Т	2	D - 45.5	2	D - 46.0
	R	1	B - 18.4	1	B - 18.4	R	1	C - 28.1	1	C - 28.4
	L	1	D - 38.9	1	D - 39.5	L	1	B - 14.7	1	B - 14.9
WB	Т	2	B - 19.4	2	B - 19.6	Т	2	B - 18.7	2	B - 18.8
Γ	R	1	A - 10.0	1	A - 10.0	R	1	A - 8.6	1	A - 8.9
Γ	L	1	D - 46.6	1	D - 46.6	L	1	D - 47.4	1	D - 47.4
NB	Т	2	E - 58.9	2	E - 58.9	T	2	E - 58.3	2	E - 58.3
	R	1	E - 65.8	1	E - 66.1	R	1	C - 21.3	1	C - 21.1
	L	2	E - 78.2	2	E - 79.2	L	2	E - 65.5	2	E - 65.9
SB	Т	2	D - 45.4	2	D - 45.4	Т	2	D - 50.0	2	D - 50.0
	R	1	D - 37.6	1	D - 37.6	R	1	D - 37.3	1	D - 37.3
Int	erse	ection:	D - 46.3		D - 46.4			C - 31.3		C - 31.4
M	ato.	">" do	cionatas a s	horod	right or left tu	rn l	200 00	xt to a thru l	200	

Intersection: 7 - Rio Bravo Blvd. / Isleta Blvd.

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

The intersection of Rio Bravo Blvd. / Isleta Blvd. was reconstructed in 2007 by Bernalillo County. The analysis of the signalized intersection above demonstrates that the levels-of-service and associated delays are marginally acceptable for the 2014 AM and PM Peak Hour periods considered in this report.

The results of the queuing analysis for the intersection of Rio Bravo Blvd. / Isleta Blvd. are summarized in the following table:

Queueing Analysis Summary Sheet

Project:

Valero Station (NW Corner of Rio Bravo / Broadway)

Intersection: Rio Bravo Blvd / Isleta Blvd

Approach	L	eft Tu	ms	Thru	Move	ments	Rig	<u>ht Tu</u>	<u>rns</u>
Eastbound	# Lanes	Vol.	Length	# Lanes	Vol.	Length	# Lanes	Vol.	Length
Existing Lane Length	1	112	220	2	910	Cont	1	62	200
AM NO BUILD Queue	1	135	225	2	1,098	750	1	74	150
AM BUILD Queue	1	135	225	2	1,099	750	1	74	150
Existing Lane Length	1	114	220	2	314	Cont	1	97	200
PM NO BUILD Queue	1	164	250	2	464	350	1	140	225
PM BUILD Queue	1	164	250	2	465	350	1	140	225
Westbound	# Lanes	Vol.	Length	# Lanes	Vol.	Length	# Lanes	Vol.	Length
Existing Lane Length	1	167	780	2	207	Cont	1	146	270
AM NO BUILD Queue	1	265	375	2	312	275	1	257	375
AM BUILD Queue	1	269	375	2	315	275	1	264	375
Existing Lane Length	1	417	780	2	791	Cont	1	305	270
PM NO BUILD Queue	1	594	725	2	1,040	700	1	524	650
PM BUILD Queue	1	600	750	2	1,045	725	1	533	675
Northbound	# Lanes	Vol.	Length	# Lanes	Vol.	Length	# Lanes	Vol.	Length
Existing Lane Length	1	72	90	2	190	Cont	1	346	125
AM NO BUILD Queue	1	92	175	2	243	225	1	462	600
AM BUILD Queue	1	92	175	2	243	225	1	463	600
Existing Lane Length	1	152	90	2	224	Cont	1	143	125
PM NO BUILD Queue	1	171	275	2	251	225	1	210	300
PM BUILD Queue	1	171	275	2	251	225	1	211	300
Southbound	# Lanes	Vol.	Length	# Lanes	Vol.	Length	# Lanes	Vol.	Length
Existing Lane Length	2	255	175	2	133	Cont	1	48	200
AM NO BUILD Queue	2	394	325	2	180	175	1	65	125
AM BUILD Queue	2	396	325	2	180	175	1	65	125
Existing Lane Length	2	253	175	2	253	Cont	1	135	200
PM NO BUILD Queue	2	432	350	2	312	275	1	166	250
PM BUILD Queue	2	434	350	2	312	275	1	166	250
	AM	PM		NATE O		ngths are in	P		

Since this is a relatively new reconstructed signalized intersection, no recommendation is made due to the fact that it is assumed that design of the new intersection was adequate to provide capacity and storage where possible for the projected 2014 AM and PM Peak Hour BUILD volumes associated with this project.

July 30, 2012

Intersection #8 –Driveway 'A' / Broadway Blvd. - Pages A-107 thru A-108

The following table provides a summary of the Levels-of-Service / delays associated with each case analyzed in this study:

		<u>2014</u>	AM F	Peak	<u> Hou</u>	I <mark>r BU</mark>	LD		<u>2014</u>	PM I	Peak	Hou	Ir BUIL	D
			(E	XIST.	GEON	l.)				(E	XIST.	GEON	1.)	
		N) BUIL	D		BUILD			N	o Buil	D		BUILD	
		Lanes	LOS-D	elay	Lanes	LOS-[Delay		Lanes	LOS-D	elay	Lanes	LOS-Del	ay
	L	0	Α-	0.0	0	Α-	0.0	L	0	Α -	0.0	0	A - (0.0
B	Т	0	Α-	0.0	0	Α-	0.0	Т	0	Α-	0.0	0	A - (0.0
	R	1	Α-	0.0	1	Α-	9.5	R	1	Α-	0.0	1	B - 11	1.9
	L	0	A -	0.0	0	Α-	0.0	L	0	Α-	0.0	0	A - (0.C
NB	Т	2	A -	0.0	2	Α -	0.0	Т	2	Α-	0.0	2	A - (0.0
	R	0	Α-	0.0	0	Α-	0.0	R	0	Α-	0.0	0	A - (0.0
Γ	L	0	Α-	0.0	0	Α-	0.0	L	0	A -	0.0	0	A - (0.0
SB	Т	2	A -	0.0	2	Α-	0.0	Т	2	Α-	0.0	2	A - (0.C
	R	1	Α-	0.0	1	Α-	0.0	R	1	Α-	0.0	1	A - 0	0.C
Int	erse	ection:	u - M	V/A		u - I	N/A			u - I	V/A		u - N//	A
N	ote:	">" de	signate	es a s	hared	right o	r left tu	rn	ane ne	exttoa	thru la	ane.		

Intersection: 8 - Driveway "A" / Broadway Blvd.

Driveway "A" on Broadway Blvd. is proposed as a right-in / right-out only unsignalized intersection. The summaries in the preceding table indicate that the projected delays at the unsignalized driveway are acceptable.

		<u>2014</u>	AM I	Peak	Hou	Ir B	UILD		<u>2014</u>	PM I	Peal	<u>k Hou</u>	ir BUI	LD
			(E	XIST.	GEON	l.)]		(E	XIST.	GEON	1.)	
		N	D BUIL	D		BUIL	.D		N	O BUIL	D		BUILD	[
		Lanes	LOS-D	elay	Lanes	LOS	-Delay		Lanes	LOS-D)elay	Lanes	LOS-D	elay
	L	0	Α-	0.0	0	A	- 0.0	L	0	A -	0.0	0	Α-	0.0
EB	Т	2	A -	0.0	2	A ·	- 0.0	Т	2	Α-	0.0	2	A -	0.0
	R	0	Α-	0.0	0	A	- 0.0	R	0	A -	0.0	0	A -	0.0
	L	0	Α-	0.0	0	A	- 0.0	L	0	Α-	0.0	0	Α-	0.0
NB	Т	3	Α-	0.0	3	A	- 0.0	Т	3	Α-	0.0	3	A -	0.0
Γ	R	1	Α-	0.0	1	A	- 0.0	R	1	A -	0.0	1	Α-	0.0
Г	L	0	Α-	0.0	0	A	- 0.0	L	0	Α-	0.0	0	Α-	0.0
SB	Т	0	Α-	0.0	0	Α	- 0.0	Т	0	A -	0.0	0	Α -	0.0
	R	1	Α-	0.0	1	A	- 9.9	R	1	Α-	0.0	1	C - 3	21.7
Int	erse	ection:	u - I	I/A		u ·	- N/A			u - 1	V/A		u - M	V/A
N	ote:	">" de	signate	es a sl	nared	right	or left t	Irn	lane ne	extboa	thru l	ane.		

Intersection: 9 - Rio Bravo Blvd. / Driveway "B"

The preceding table demonstrates that the projected delay at the proposed Driveway "B" on Rio Bravo Blvd. is acceptable for the 2014 AM and PM Peak Hour periods considered in this study.

A companion report to this Traffic Impact Analysis provides justification for the proposed Driveway "B" access on Rio Bravo Blvd. west of Broadway Blvd. It is recommended that Driveway "B" be located as far to the west from Broadway Blvd. on the project as possible to provide a safe transportation condition.

Driveway "B" will be subject to approval of the Mid-Region Council of Governments' Transportation Coordination Committee.

Horizon Year Traffic Analysis

Intersection #1 – Rio Bravo Blvd. / I-25 E. Ramp - Pages A-53 thru A-56

The following table provides a summary of the Levels-of-Service / delays associated with each case analyzed in this study:

		<u>2024</u>	AM	Peal	(Hou	r B	UI	LD		<u>2024</u>	PM	Peal	<u>(Hou</u>	ir BU	ILD
		· · · ·	(E	XIST.	GEON	l.)					(E	XIST.	GEON	l.)	
		N	O BUIL	.D		BUIL	D			N	O BUII	D		BUILD	
		Lanes	LOS-I	Delay	Lanes	LOS	5-D	elay		Lanes	LOS-	Delay	Lanes	LOS-	Delay
	L	2	F -	164	2	F	L	2	F -	118	2	F -	123		
	Т	2	Α-	6.2	2	Α	- 1	6.2	Т	2	Α-	3.5	2	Α -	3.4
	R	0	Α-	0.0	0	Α	-	0.0	R	0	Α-	0.0	0	A -	0.0
Γ	L	0	Α-	0.0	0	Α	-	0.0	L	0	Α-	0.0	0	Α-	0.0
B	T	2	F -	107	2	F	-	114	Т	2	F -	92.9	2	F -	99.5
Γ	R	1	D -	43.1	1	D	- 4	43.2	R	1	D -	39.3	1	D -	39.4
Γ	L	>	F -	201	>	F	-	207	L	>	F -	139	>	F -	143
NB	T,	1	F -	201	1	F	-	207	Т	1	F -	139	1	F -	143
	R	>	F -	201	>	F	-	207	R	>	F -	139	>	F -	143
Γ	L	0	Α-	0.0	0	Α	-	0.0	L	0	Α-	0.0	0	Α-	0.0
SB	T	0	A -	0.0	0	Α	-	0.0	Т	0	Α-	0.0	0	Α-	0.0
–	R	0	A -	0.0	0	Α	-	0.0	R	0	Α-	0.0	0	Α-	0.0
Int	ers	ection:	F-	126		F	-	130			F -	90.3		F -	94.2
Ν	ote:	">" de	esignat	es a s	hared	right	or	left tu	rn	ane ne	extitota	a thru l	ane.		

Intersection: 1 - Rio Bravo Blvd. / I-25 E. Ramp

The horizon year analysis of the intersection of Rio Bravo Blvd. / I-25 East Ramp demonstrates excessive delays for all conditions analyzed in this study (2024 AM and PM Peak Hour NO BUILD and BUILD conditions). Also, the Rio Bravo Blvd. / I-25 Interchange is currently under study and redesign to accommodate future traffic flows. The new design should provide acceptable levels-of-service and delays though the year 2035. Therefore, no recommendation is made for this intersection.

		<u>2024</u>	AM	Peal	<u>k Hou</u>	ır E	U	ILD		<u>2024</u>	PM	Peak	<u>κ Ηοι</u>	ır BU	ILD
			(E	XIST.	GEON	1.)					(1	EXIST.	GEON	<i>I</i> .)	
		N) BUII	D		BUI	LC)		N	O BUI	LD		BUILD)
		Lanes	LOS-	Delay	Lanes	LO	S-	Delay		Lanes	LOS-	Delay	Lanes	LOS-	Delay
	L	0	Α-	0.0	0	Α	0.0	L	0	Α-	0.0	0	Α-	0.0	
EB	Т	3	Β -	12.0	3	В	-	12.7	T	3	Α-	8.4	3	A -	8.7
	R	>	В -	12.0	>	В	-	12.7	R	>	Α-	8.4	>	A -	8.7
	L	1	Ε-	56.0	1	E	-	56.2	L	1	C -	32.1	1	C -	33.1
WB	Т	2	C -	23.4	2	С	•	23.6	T	2	Α-	6.7	2	A -	6.8
[R	0	Α-	0.0	0	Α	-	0.0	R	0	Α-	0.0	0	Α-	0.0
	L	0	Α-	0.0	0	Α	-	0.0	L	0	Α-	0.0	0	A -	0.0
NB	Т	0	Α-	0.0	0	Α	-	0.0	Т	0	Α-	0.0	0	A -	0.0
	R	0	Α-	0.0	0	Α	-	0.0	R	0	Α-	0.0	0	Α-	0.0
	L	>	Ε-	57.0	>	Е	-	57.0	L	>	Ε-	63.7	>	Ε-	63.7
SB	T	1	Ε-	57.0	1	Е	-	57.0	Т	1	Ε-	63.7	1	E -	63.7
	R	1	Α-	2.6	1	A	-	2.8	R	1	F -	112	1	F -	120
		ection:	_				_	17.1			_	48.2		D-	51.1

Intersection: 2 - Rio Bravo Blvd. / I-25 W. Ramp

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

The horizon year analysis of the intersection of Rio Bravo Blvd. / I-25 West Ramp demonstrates excessive delays for some individual turning movements for the 2024 PM Peak Hour conditions analyzed in this study. As previously noted, the Rio Bravo Blvd. / I-25 Interchange is currently under study and redesign to accommodate future traffic flows. The new design should provide acceptable levels-of-service and delays though the year 2035. Therefore, no recommendation is made for this intersection.

Intersection #3 – Rio Bravo Blvd. / Broadway Blvd. - Pages A-71 thru A-76

The following table provides a summary of the Levels-of-Service / delays associated with each case analyzed in this study:

2024 PM Peak Hour BUILD

Intersection: 3 - Rio Bravo Blvd. / Broadway Blvd.

2024	AM	Pea	k	Hour	BUILD

				(E	XIST.	GEON	l.)			(MI	г. с	BEC	DM.)				(1	EXIST.	GEON	l.)			(MI	г. с	EC	DM.)
		N) B	UIL	D		BUI	LC)		BUI	LC)		N N	O B	UII	LD		BUI	LD			BUI	LD)
		Lanes	LO	S-I	Delay	Lanes	LO	S-	Delay	Lanes	LO	S-	Delay		Lanes	LO	S-	Delay	Lanes	LO	S-D	elay	Lanes	LO	S-I	Delay
	L	1	Α	-	9.8	1	В	-	13.9	1	В	-	13.9	L	1	F	-	138	1	F	-	161	1	F	-	162
田田	Т	2	F	-	131	2	F	-	131	2	F	-	131	Т	2	F	-	173	2	F	-	173	2	F	-	146
	R	1	Α	-	8.6	1	Α	-	8.6	1	A	-	8.6	R	1	В	-	16.8	1	В	-	16.9	1	В	-	13.3
	L	2	F	-	234	2	F	-	234	2	F	-	234	L	2	F	-	279	2	F	-	279	2	F	-	220
WB	Т	3	С	-	25.0	3	С	-	25.6	3	С	-	25.6	T	3	F	-	144	3	F	-16	165	3	F	-	122
	R	>	С	-	25.0	>	С	-	25.6	>	С	-	25.6	R	>	F	-	144	>	F	-	165	>	F	-	122
	L	1	Е	-	66.6	1	E	-	69.1	1	Е	-	72.1	L	1	F	-	337	1	F	-	340	1	F	-	283
NB	Т	2	Е	-	55.8	2	Е	-	55.9	2	Ε	•	55.9	Т	2	В	-	17.9	2	В	-	17.9	2	В	-	19.6
	R	1	F	-	191	1	F	-	191	1	F	-	191	R	1	С	-	32.9	1	С	-	32.9	1	D	-	37.3
	L	1	D	-	51.4	1	D	-	53.6	1	D	-	52.8	L	1	D	-	36.1	1	D		37.3	1	D	-	43.1
SB	Т	2	E	-	58.7	2	Е	-	58.9	2	Ε	-	57.7	Т	2	F	-	96.1	2	F	- 9	98.4	2	F		205
	R	1	D	-	41.3	1	D	-	41.5	2	D	-	39.3	R	1	F	-	288	1	F	-	296	2	F	-	84.5
Int	erse	ection:	F	-	101		F		100		F	-	100			F	-	128		F	-	163		F	-	133
N	nta:	">" do	eiar	nat	00 2 0	harod	riah	to	r loft tu	rn land	nc	vt	to a th	eu l	200											

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

The results of the horizon year analysis for the intersection of Rio Bravo Blvd. / Broadway Blvd. are similar to the results of the implementation year analysis in that all conditions in the analysis demonstrated long delays (LOS "F").

Mitigation of the excessive delays at the intersection consists of construction of a second southbound right turn lane on Broadway Blvd. at Rio Bravo (the same mitigation as the Implementation Year mitigation recommendation).

The results of the horizon year analysis demonstrate that the recommended mitigation measure associated with the implementation year analysis will also work for the horizon year.

2024 PM Peak Hour BUILD

Intersection: 4 - Rio Bravo Blvd. / Prince St.

			Amrour	1100										
			(EXIST.	GEON	l.)			(EXIST. GEOM.)						
		N	O BUILD		BUILD	- 1	N	D BUILD	BUILD					
		Lanes	LOS-Delay	Lanes	LOS-Delay		Lanes	LOS-Delay	Lanes	LOS-Delay				
Γ	L	1	A - 1.9	1	A - 1.9	L	1	F - 87.6	1	F - 93.7				
EB	T	2	B - 12.5	2	B - 13.0	Т	2	A - 4.0	2	A - 4.0				
	R	1	A - 0.1	1	A - 0.1	R	1	A - 0.1	1	A - 0.1				
Γ	L	1	C - 27.2	1	C - 30.4	L	1	B - 11.7	1	B - 12.6				
WB	T	2	B - 12.3	2	B - 12.1	Т	2	D - 45.6	2	B - 17.8				
ſ	R	1	B - 17.8	1	B - 16.1	R	1	A - 1.9	1	A - 1.9				
	L	1	E - 68.4	1	E - 68.4	L	1	F - 121	1	F - 121				
NB	Т	1	E - 63.4	1	E - 63.4	Т	1	E - 62.7	1	E - 62.7				
	R	>	E - 63.4	>	E - 63.4	R	>	E - 62.7	>	E - 62.7				
	L	1	E - 56.5	1	E - 56.5	L	1	E - 62.5	1	E - 62.5				
SB	Т	1	E - 60.7	1	E - 60.7	Т	1	E - 62.5	1	E - 62.5				
	R	>	E - 60.7	>	E - 60.7	R	>	E - 62.5	>	E - 62.5				
Int	Intersection: B - 16.0 B - 16.3							B - 17.3		B - 18.6				
M	oto.	">" do	eignatos a s	hared	right or left tu	rn l	ano no	ext to a thru I	ane					

2024 AM Peak Hour BUILD

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

The horizon year analysis of the intersection of Rio Bravo Blvd. / Prince St. demonstrates a future capacity shortfall for limited turning movements, but overall an acceptable level-ofservice, especially for the 2024 PM Peak Hour period NO BUILD and BUILD conditions. The overall increase in average delay at Rio Bravo / Prince is only slightly greater than 1 second for the PM Peak Hour period. Since the impact on this intersection resulting from implementation of the new Valero Station is so small, no recommendation is made.

Intersection #5 – Rio Bravo Blvd. / 2nd St. - Pages A-91 thru A-96

The following table provides a summary of the Levels-of-Service / delays associated with each case analyzed in this study:

2024 PM Peak Hour BUILD

Intersection: 5 - Rio Bravo Blvd. / Second St.

2024 AM Peak Hour BUILD

				(EXIST	GEON	1.)			(MIT. GEOM.)					(EXIST. GEON					VI.)			(MIT. GEOM.)			M.)
		NO BUILD			BUILD			BUILD					N	NO BUILD		BUILD			BUILD						
		Lanes	LOS	-Delay	Lanes	LO	S-C	Delay	Lanes	LO	S-	Delay		Lanes	LO	S-	Delay	Lanes	LO	S-C)elay	Lanes	LOS	3-D)elay
	L	1	F	100	1	F	-	101	1	F	-	89.5	L	1	F	-	381	1	F	-	381	1	F	-	400
B	Т	2	F	- 243	2	F	-	244	2	F	-	244	Т	2	F	-	149	2	F	-	151	2	E	-	76.5
	R	1	Α.	- 1.9	1	Α	-	1.9	1	Α	-	1.2	R	1	E	-	60.9	1	Е	-	60.5	1	D	-	38.9
	L	1	E.	- 56.6	1	Е	-	63.7	1	E	-	64.2	L	1	E	-	76.2	1	F	-	92.9	1	F	-	86.7
VB	Т	2	D-	- 51.7	2	D	-	55.0	2	E	-	61.9	Т	2	F		451	2	F	-	459	2	F	-	331
ſ	R	1	С-	- 22.0	1	С	-	22.4	1	С	-	23.2	R	1	С	-	21.4	1	С	-	21.5	1	В	-	16.6
	L	1	F·	- 273	1	F	-	273	1	F	-	117	L	1	F	-	624	1	F	-	624	1	F	-	288
NB	Т	1	F -	- 262	1	F	-	263	1	F	-	263	Т	1	D	-	53.9	1	D	-	54.6	1	F		89.6
	R	>	F۰	- 262	>	F	-	263	>	F	-	263	R	>	D	-	53.9	>	D	-	54.6	>	F	-	89.6
	L	1	Γ·	- 270	1	F	-	272	1	F	-	276	Ł	1	D	-	41.4	1	D	-	42.9	1	F	-	87.5
SB	T	1	E۰	- 74.5	1	Е	-	74.5	1	Е	-	62.0	Т	1	F	-	573	1	F	-	573	1	D		36.7
	R	>	E۰	- 74.5	>	Е	-	74.5	1	С	-	27.6	R	>	F	-	573	>	F	-	573	1	F	-	436
Int	erse	ection:	F-	181		F	-	182		F	-	169			F	-	347		F	-	349		F	-	231
М	ata :	1.1	oign	ator a r	harad	right	tor	· loft tu	irn land		vt	to a th	ru l	ano											

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

The preceding table demonstrates that the intersection of Rio Bravo Blvd. / 2nd St. will operate at unsatisfactory levels-of-service for all conditions analyzed in this study.

The proposed Valero Station at the northwest corner of Rio Bravo Blvd. / Broadway Blvd. does have a minor impact at this intersection. The increase in calculated delay at the signalized intersection is about 1 second during the AM Peak Hour period and about 2 seconds during the PM Peak Hour period.

Consistent with the recommendations for the implementation year analysis, this report recommends construction of a new southbound right turn lane on 2nd St. at Rio Bravo to mitigate the minor impact of the Valero Station.

Intersection #6 – Rio Bravo Blvd. / Poco Loco - Pages A-154 thru A-155

(See discussion on Page 17 in the implementation year analysis section)

Intersection #7 - Rio Bravo Blvd. / Isleta Blvd. - Pages A-162 thru A-167

The following table provides a summary of the Levels-of-Service / delays associated with each case analyzed in this study:

Intersection: 7	7 - Rio	Bravo	Blvd.	/ Isleta	Blvd.
-----------------	---------	-------	-------	----------	-------

2024 AM Peak Hour BUILD

2024 PM Peak Hour BUILD

			(E	EXIST.	GEON	l.)				(EXIST. GEOM.)						
		N	O BUII	LD		BUILD				N	O BU	ILD	BUILD			
		Lanes LOS-Delay Lanes LOS-Delay								Lanes LOS-Delay Lar				es LOS-Delay		
Г	L	1	C -	22.7	1	С	-	22.7	L	1	F-	146	1	F -	146	
	T	2	F -	162	2	F	-	162	Т	2	F -	125	2	F -	126	
1	R	1	В-	19.7	1	В	-	19.7	R	1	D -	35.9	1	D -	35.9	
	L	1	F -	124	1	F	-	128	L	1	F-	187	1	F -	190	
M	Т	2	C -	29.6	2	С	-	29.7	Т	2	E۰	57.3	2	Ε-	58.6	
Γ	R	1	C -	29.9	1	С	-	30.2	R	1	С-	22.5	1	C -	22.9	
Γ	L	1	D -	50.2	1	D	-	50.2	L	1	F۰	92.4	1	F -	92.4	
NB	Т	2	F -	99.3	2	F	-	99.3	Т	2	Ε·	73.6	2	Ε-	73.6	
Γ	R	1	F -	220	1	F	-	221	R	1	С.	20.1	1	C -	20.1	
Γ	L	2	F -	200	2	F	-	202	L	2	F۰	219	2	F -	222	
SB	T	2	D -	51.5	2	D	-	51.5	Т	2	F-	90.2	2	F -	90.2	
ľ	R	1	D -	37.9	1	D	-	37.9	R	1	D-	43.5	1	D -	43.5	
Int	erse	ection:	F -	124		F	-	124			F -	98.3		F -	99.4	
NI.	Note: ">" designates a shared right or left turn lane next to a thru lane															

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

The implementation year analysis demonstrated that the intersection of Rio Bravo Blvd. / Isleta Blvd. was at or near capacity. The horizon year analysis demonstrates that the intersection is beyond capacity. The impact of the proposed Valero Station on this intersection is minimal. The impact to the 2024 AM Peak Hour is not measurable while the impact to the 2024 PM Peak Hour operation is about 1 second of increase in the average delay. In consideration of the significant improvement to the operation at the intersection of Rio Bravo Blvd. / 2nd St. with the recommended construct of a new southbound right turn lane, there is no recommendation at the intersection of Rio Bravo / Isleta Blvd.

2024 PM Peak Hour BUILD

			_												
			(E	XIST.	GEON	1.)		1	(EXIST. GEOM.)						
		N	D BUIL	D	BUILD				N	O BUIL	D)		
		Lanes	LOS-D	elay	Lanes	LOS-D)elay		Lanes	LOS-D	elay	Lanes	LOS-	Delay	
	L	0	Α-	0.0	0	Α-	0.0	L	0	Α-	0.0	0	Α -	0.0	
EB	Т	0	Α-	0.0	0	Α-	0.0	Т	0	Α-	0.0	0	A -	0.0	
	R	1	Α-	0.0	1	Α-	9.9	R	1	Α-	0.0	1	C -	21.7	
	L	0	Α-	0.0	0	Α-	0.0	L	0	Α-	0.0	0	A -	0.0	
NB	Т	2	Α-	0.0	2	Α-	0.0	Т	2	Α-	0.0	2	A -	0.0	
	R	0	Α-	0.0	0	Α-	0.0	R	0	Α-	0.0	0	A -	0.0	
	L	0	Α-	0.0	0	Α-	0.0	L	0	Α-	0.0	0	A -	0.0	
SB	Т	2	Α-	0.0	2	Α-	0.0	T	2	Α-	0.0	2	Α-	0.0	
	R	1	Α-	0.0	1	Α-	0.0	R	1	Α-	0.0	1	Α-	0.0	
Int	erse	ection:	u - 1	V/A		u - I	V/A			u - 1	V/A		и -	N/A	
N	ote:	">" de	signate	es a sl	hared	right or	lefttu	Irn	lane ne	extboa	thru l	ane.			

Intersection: 8 - Driveway "A" / Broadway Blvd.

2024 AM Peak Hour BUILD

Driveway "A" on Broadway Blvd. is proposed as a right-in / right-out only unsignalized intersection. The summary in the preceding table indicate that the projected delays at the

unsignalized driveway are acceptable.

		<u>2024</u>	AM	Peał	<u>ς Ηοι</u>	ır Bl	JILD		2024 PM Peak Hour BUILD						
			(E	XIST.	GEON	1.)			(EXIST. GEOM.)						
		N	o Buil	.D	BUILD				N	O BUIL	D		BUILD		
		Lanes LOS-Delay Lanes LOS-Delay							Lanes	LOS-D)elay	Lanes	LOS-D)elay	
	L	0	Α-	0.0	0	Α-	0.0	L	0	Α-	0.0	0	Α-	0.0	
EB	Т	2	Α-	0.0	2	Α-	0.0	Т	2	Α -	0.0	2	Α-	0.0	
	R	0	Α-	0.0	0	A -	0.0	R	0	Α-	0.0	0	Α-	0.0	
	L	2	Α-	0.0	2	Α-	0.0	L	2	Α-	0.0	2	Α-	0.0	
WB	Т	3	Α-	0.0	3	Α-	0.0	Т	3	Α -	0.0	3	Α-	0.0	
	R	1	Α-	0.0	1	Α-	0.0	R	1	Α-	0.0	1	Α-	0.0	
	L	0	Α-	0.0	0	Α-	0.0	L	0	Α-	0.0	0	Α-	0.0	
SB	Т	0	Α-	0.0	0	Α-	0.0	Т	0	Α-	0.0	0	Α-	0.0	
	R	1	Α-	0.0	1	В -	11.1	R	1	Α-	0.0	1	Α-	9.9	
Int	erse	ection: u - N/A				u - N/A				u - 1	V/A		u - 1	V/A	
N	ote:	">" de	signate	es a sl	hared	right	or left tu	rn l	ane ne	extboa	thru la	ane.			

Intersection: 9 - Rio Bravo Blvd. / Driveway "B"

Note: ">" designates a shared right or leit turn lane next to a thru lane.

The preceding table demonstrates that the projected delay at the proposed Driveway "B" on Rio Bravo Blvd. is acceptable for the 2024 AM and PM Peak Hour periods considered in this study.

A companion report to this Traffic Impact Analysis provides justification for the proposed Driveway "B" access on Rio Bravo Blvd. west of Broadway Blvd. It is recommended that Driveway "B" be located as far to the west from Broadway Blvd. on the project as possible to provide a safe transportation condition.

Driveway "B" will be subject to approval of the Mid-Region Council of Governments' Transportation Coordination Committee.

Access Design Specifications

Access along the Rio Bravo Blvd. and along Broadway Blvd. will be required to comply with Table 18.C-1 of the New Mexico Department of Transportation's <u>State Access Management</u> <u>Manual</u> to the degree possible. Rio Bravo Blvd. and Broadway Blvd. are both considered as Urban Principal Arterial Roadways. Spacing of signalized intersections along Rio Bravo Blvd. is required to be 2,640 feet minimum with full access points spaced at a minimum of 1,230 feet and partial access points spaced at 370 feet minimum (based on posted speed of 45 MPH). Spacing of partial access driveways on Broadway Blvd. is required to be a minimum of 625 feet (based on posted speed of 55 MPH).

Also, right turn and left turn deceleration lanes are warranted at both Driveway "A" on Broadway Blvd. and at Driveway "B" on Rio Bravo Blvd. The proposed deceleration lanes should be constructed as recommended in this analysis.

The southbound right turn deceleration lane on Broadway Blvd. at Driveway "A" is required to be constructed to a length of 525 feet plus transition based on the New Mexico Department of Transportation's *State Access Management Manual*. However, there is an existing drainage channel located approximately 350 feet north of the proposed driveway location. Therefore, this report recommends that the southbound right turn deceleration lane be constructed to an approximate length of 300 feet plus a 150'-150' radii reverse curve transition (or the maximum distance that will fit between the driveway and the drainage channel).

A westbound right turn deceleration lane is warranted on Rio Bravo Blvd. at Driveway "B". The westbound right turn deceleration lane should be constructed to a length of approximately 130 feet plus transition (or the maximum distance possible between Broadway Blvd. and the approved location of Driveway "B".

Findings and Conclusions

The proposed retail commercial development at the northwest corner of Rio Bravo Blvd. / Broadway Blvd. is a relatively small project. As such, it has impact in the immediate area, but no significant overall impact to the extended areas in this analysis. The capacity problems occurring along Rio Bravo Blvd. from Isleta Blvd. east to the I-25 E. Ramp are regional issues mostly attributable to large background traffic volumes that exist today and are forecast into the future. This analysis indicated that, generally speaking, the Rio Bravo Blvd. corridor in the study area would be at approximately capacity (or below) during the 2014 AM and PM Peak Hour periods (implementation year) and beyond capacity for the 2024 AM and PM Peak Hour periods (horizon year).

Strict compliance with minimum spacing requirements of the New Mexico Department of Transportation's *State Access Management Manual* would leave this project with no access. If the existing right-in, right-out driveway were the only one serving the property, then only southbound traffic on Broadway Blvd. (about 15%) will be able to access the project without having to make a U-Turn. All the traffic approaching the Valero Station from Broadway to the south, Rio Bravo to the east, and Rio Bravo to the west will be required to turn north on Broadway Blvd., travel north approximately 800 feet, then execute a U-Turn on Broadway to access this facility. Both driveways are needed to provide reasonable access to this site, and to maintain safe travel conditions on Broadway Blvd. (by minimizing the need to execute U-Turns). Both proposed driveways, if approved, should be located as far from the intersection of Rio Bravo Blvd. / Broadway Blvd. as is feasibly possible. Please refer to the companion Access Justification Study for the proposed driveway on Rio Bravo Blvd. The proposed Rio Bravo driveway (Driveway "B") will require approval from the Mid-Region Council of Governments' Transportation Coordinating Committed.

A mixed use retail commercial project at this same location was proposed in 2009. The 2009 project proposed a driveway on Rio Bravo Blvd. that was in the same location as the one being proposed with the Valero Station project. The Valero Station generates slightly less traffic than the 2009 project. On December, 1, 2009, the New Mexico Department of Transportation District 3 Traffic Engineer at the time wrote a letter approving the new driveway (right-in, right-out) on Rio Bravo Blvd. (See letter on Page A-130 and A-131). On January 17, 2012, the current District 3 Traffic Engineer has judged the December 1, 2009 approval letter to be null and void due to the fact that it was issued a number of years ago (see e-mail on Page A-312). Therefore, a new access study is required to justify the Rio Bravo driveway.

This report finds that the impact of the proposed Valero Station at the northwest corner of Rio Bravo Blvd. / Broadway Blvd. is moderate and that the impact to the transportation system can be mitigated by the following recommended measures.

Recommendations

All constructed improvements to proposed driveways and existing intersections shall be designed and built to maintain adequate safe sight distances to the degree possible.

Recommendations for improvements to the adjacent transportation system include:

Rio Bravo Blvd. / Broadway Blvd. – construct dual southbound right turn lanes on Broadway Blvd. at Rio Bravo. The second (outside) southbound right turn lane should be constructed between Rio Bravo Blvd. and Driveway "A". Associated signal modifications may be required.

Rio Bravo Blvd. / 2nd St. – construct a new southbound right turn lane on 2nd St. at Rio Bravo Blvd. if sufficient right-of-way exists. The new southbound right turn lane should be constructed between Rio Bravo Blvd. and the existing Driveway to the Giant Station at the northwest corner of the intersection of Rio Bravo / 2nd St.

Access – it is recommended that two driveways be constructed to access this project. Driveway "A" on Broadway Blvd. is recommended as a right-in, right-out access unsignalized driveway. Driveway "B" on Rio Bravo Blvd. is recommended as a right-in, right-out access unsignalized driveway. It should be located as far to the west along the frontage of the project as possible to maximize the distance of the driveway from Broadway Blvd. The South Diversion Channel presents a barrier along the west side of this project that limits where the driveway can be constructed.

Driveway "A" / Broadway Blvd. – construct Driveway "A" as a right-in, right-out unsignalized driveway approximately 300 feet (centerline to centerline) north of Rio Bravo Blvd. A southbound right turn deceleration lane on Broadway Blvd. at Driveway "A" is warranted. The design and construction of the southbound right turn lane on Broadway Blvd. should comply with the recommendations on Page 30 of this report and with the requirements of the New Mexico Department of Transportation's *State Access Management Manual.*

Driveway "B" / Rio Bravo Blvd. – construct Driveway "B" as a right-in, right-out only unsignalized driveway as far to the west along the frontage of the project as is possible. A westbound right turn deceleration lane on Rio Bravo Blvd. at Driveway "B" is warranted. The design and construction of the westbound right turn lane on Rio Bravo Blvd. should comply with the recommendations on Page 30 of this report and with the requirements of the New Mexico Department of Transportation's *State Access Management Manual.*

Improvements on Bernalillo County streets and intersections should comply with requirements of the Bernalillo County Public Works Department. Improvements on State Roads should comply with the requirements of the New Mexico Department of Transportation's State Access Management Manual.

Appendix

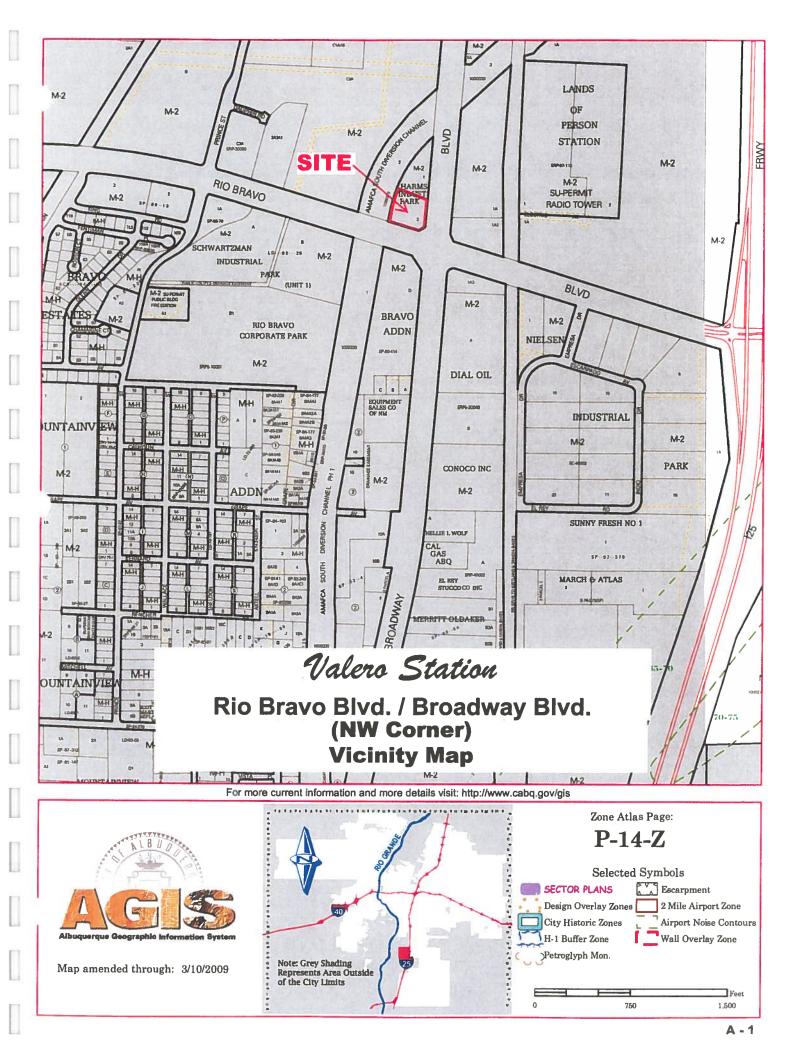
SITE INFORMATION	
Vicinity Map	A – 1
Aerial Photo of Adjacent Transportation System	A-2
Conceptual Site Development Plan	A-3
Long Range Roadway Map for the Albuquerque Metropolitan Area	A-4
Long Range Bikeway System Map of Albuquerque Metropolitan Area	A-5 thru A-6
2010 Traffic Flow Map	A-7
TRIP GENERATION	
ITE Trip Generation Rate Summary Sheet	A-8
Trip Generation Worksheets	A-9
TRIP DISTRIBUTION / TRIP ASSIGNEMENTS	
Data Analysis Subzone Map – Commercial Trips	A-10
Trip Distribution Worksheets – Commercial Trips	A-11 thru A-20
Trip Distribution Map – Commercial Trips	A-21
Trip Assignments Maps - Commercial Trips	A-22 thru A-23
Pass-by Trip Assignments	A-24
GROWTH RATES	
Mid-Region Council of Government Regional Model Transp. Link Volumes Maps	
TURNING MOVEMENT COUNTS	
IMPLEMENTATION YEAR (2014 & 2024)	
2014 and 2024 AM / PM Peak Hour Turning Movements Summary Table	A-25 thru A-30
Individual Intersection Turning Movement Volumes Worksheets – 2014	A-31 thru A-48
Individual Intersection Turning Movement Volumes Worksheets - 2024	A-48a thru A-48r
SIGNALIZED / UNSIGNALIZED INTERSECTION ANALYSES	
IMPLEMENTATION YEAR (2014) and HORIZON YEAR (2024)	
1 - Signalized Intersection Analyses (Rio Bravo Blvd. / I-25 E. Ramp)	A-49 thru A-56
2 - Signalized Intersection Analyses (Rio Bravo Blvd. / I-25 E. Ramp)	A-57 thru A-64
3 - Signalized Intersection Analyses (Rio Bravo Blvd. / Broadway Blvd.)	A-65 thru A-76
4 - Signalized Intersection Analyses (Rio Bravo Blvd. / Prince St.)	A-77 thru A-84
5 - Signalized Intersection Analyses (Rio Bravo Blvd. / 2nd St.)	A-85 thru A-96
6 - Unsignalized Intersection Analyses (Rio Bravo Blvd. / Poco Loco)	N/A
7 - Signalized Intersection Analyses (Rio Bravo Blvd. / Isleta Blvd.)	A-97 thru A-106
8 - Unsignalized Intersection Analyses (Driveway "A" / Broadway Blvd.)	A-107 thru A-110
9 - Unsignalized Intersection Analyses (Driveway "B" / Rio Bravo Blvd.)	A-111 thru A-114
2035 Link Volume Data from MRCOG Regional Model	A-115 thru A-116
Blank Page	A-117
Traffic Count Data	A-118 thru A-123
Transit Route Sheets	A-124 thru A-125
Determination of Warrants for Deceleration Lanes - Driveway "A" / Broadway Blvd.	A-125a thru A-125b
Determination of Warrants for Deceleration Lanes - Driveway "B" / Rio Bravo Blvd.	A-126 thru A-127
Table 17.B-2 from the New Mexico Department of Transportation's State Access	A-128
Management Manual	
Table 18.K-1 from the New Mexico Department of Transportation's <u>State Access</u> Management Manual	A-129
December 1, 2009 Approval Letter from NM DOT District Traffic Engineer	A-130 thru A-131
January 17, 2012 E-Mail from NM DOT District Traffic Engineer	A-132 thru A-133

APPENDIX

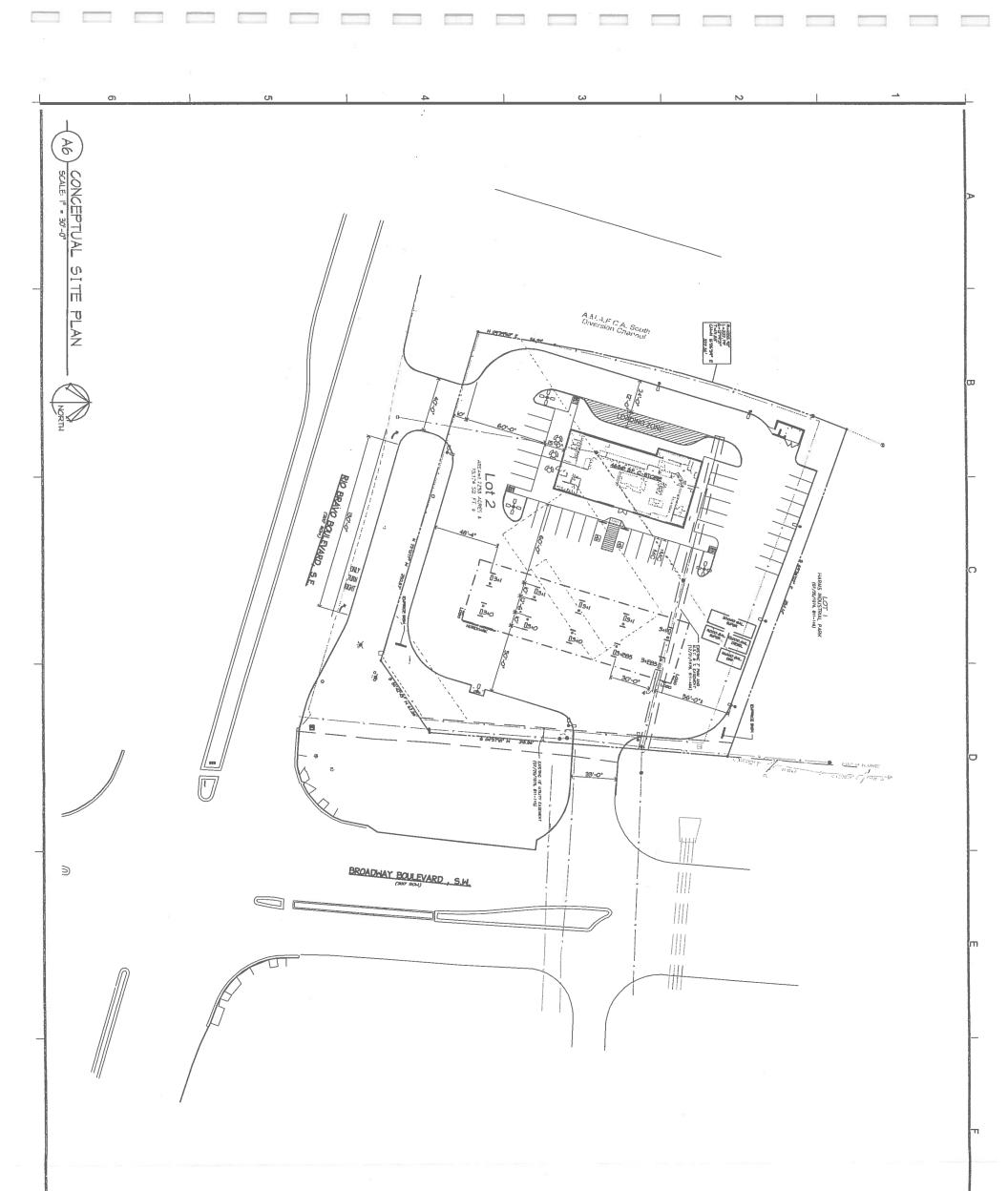
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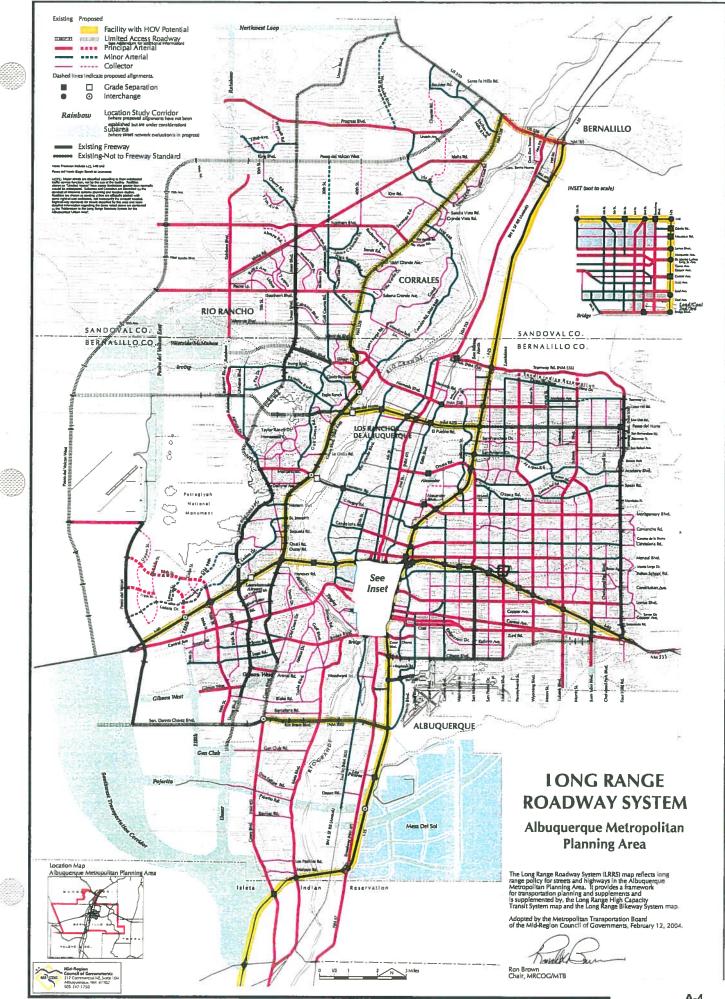


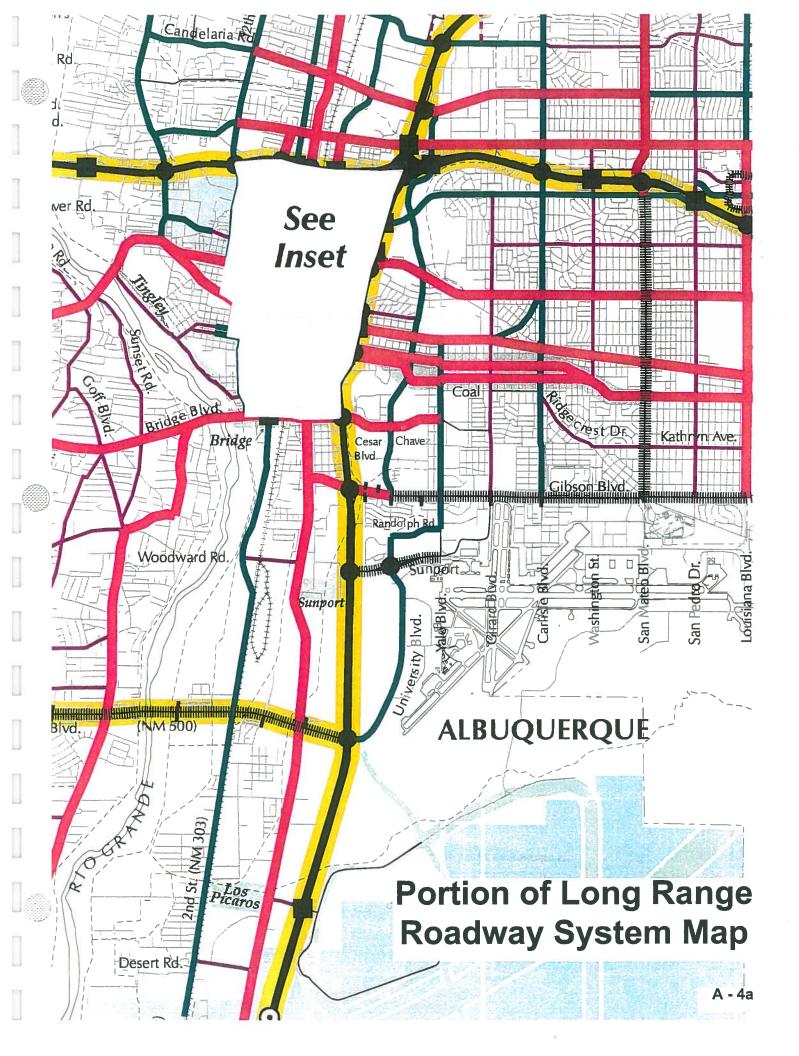


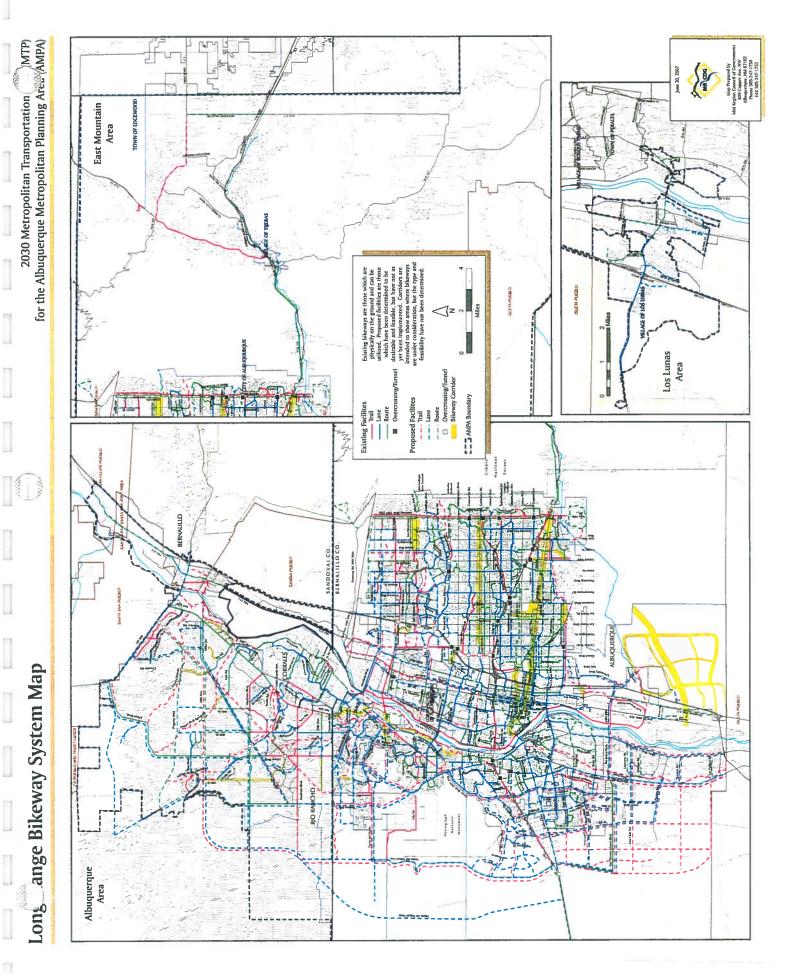


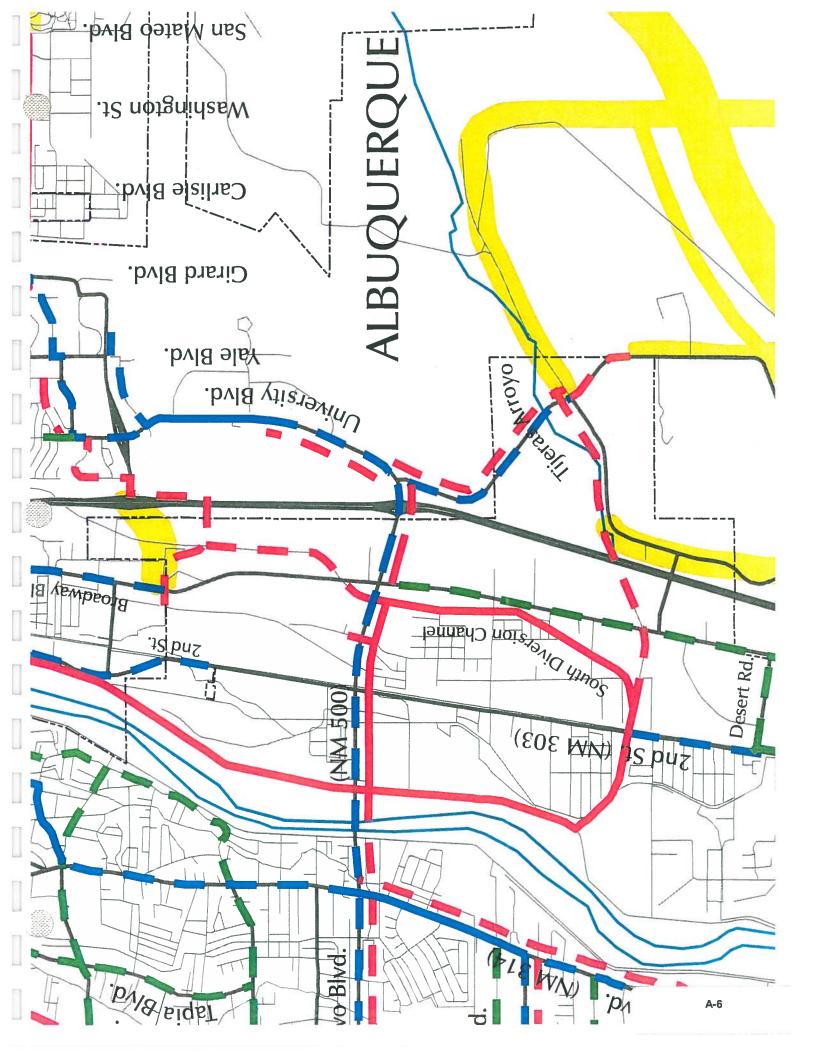
SHEET TITLE CONCEPTUAL SITE PLAN REPARED FOR ISSUE REVISION REVISION ADDED DECEL LANE Valero Retali Holdings, Inc. One Valero Way San Antonio, TX 78249-1616 PROJECT NO. -SHEET NO. 3436 New Castle Dr. Loveland, CO 80538 phone: 970.988.6302 DIAMOND SHAMROCK STATIONS, INC. DBA: VALERO CORNER STORE #1252 555 RIO BRAVO BLVD. SE ALBUQUERQUE, NEW MEXICO CORNER A-3 DATE 1-21-12 1-28-12 2-16-12

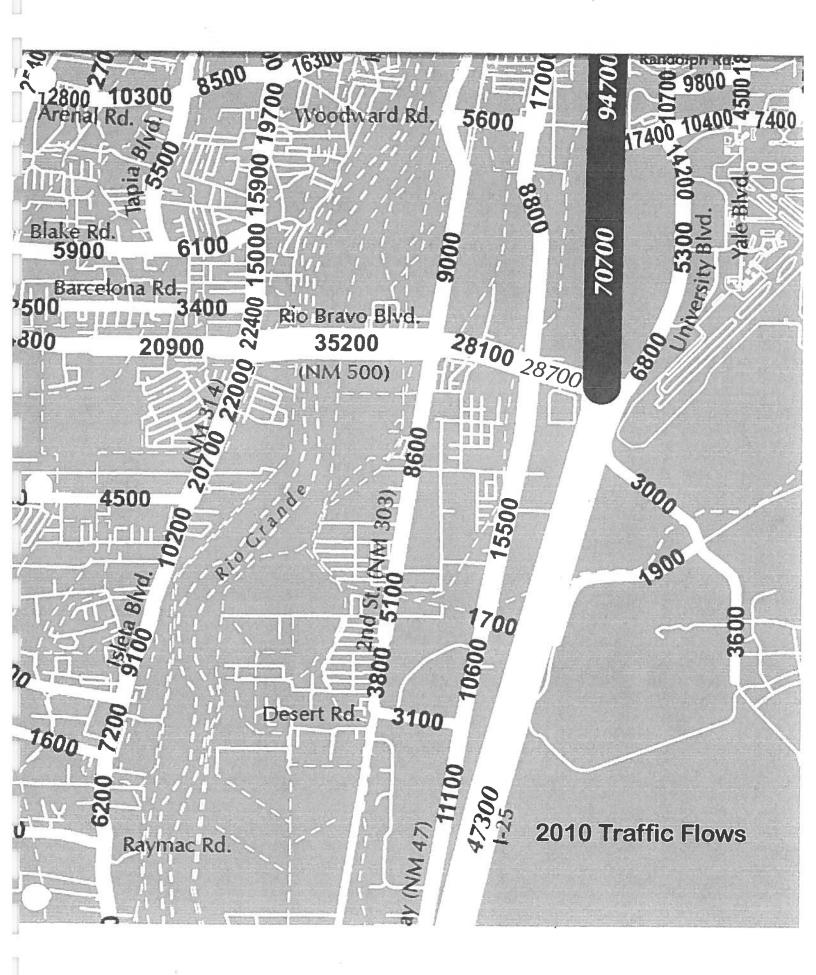
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3/7/201~

Trip Generation Data (ITE Trip Generation Manual - 8th Edition) Valero Station (Rio Bravo Blvd. / Broadway Blvd.)

USE (ITE CODE)		24 HR VOL	A. M. PEAK HR.	AK HR.	P. M. PEAK HR.	AK HR.
DESCRIPTION		GROSS	ENTER	EXIT	ENTER	EXIT
Summary Sheet	Units					
Gasoline / Service Station w/ Convenience Market (945)	20.00	3,256	102	102	134	134
Pass-by Trip Adjustment	50%	(1,628)	(51)	(21)	(67)	
Net New Trips		1,628	51	51	67	67

Valero_RB_Broadway_TRIPS8.xls - Summary

3/7/2012

Trip Generation Data (ITE Trip Generation Manual - 8th Edition) Valero Station (Rio Bravo Blvd. / Broadway Blvd.)

USE (ITE CODE)		VOLUME 74 HOUR 24 HOUR	.M.A	PEAK HOUR	'W 'd	PEAK PLAK
		GROSS	ENTER	EXIT	ENTER	EXIT
	Units					
Gasoline / Service Station w/ Convenience Market (945)	20.00	3,256	102	102	134	134

Fueling Positions

ITE Trip Generation Equations:

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

0 162.78 (X) + Ë

50% Exit 50% Enter,

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

10.16 (X) +

0

50% Exit T = 10.1 50% Enter,

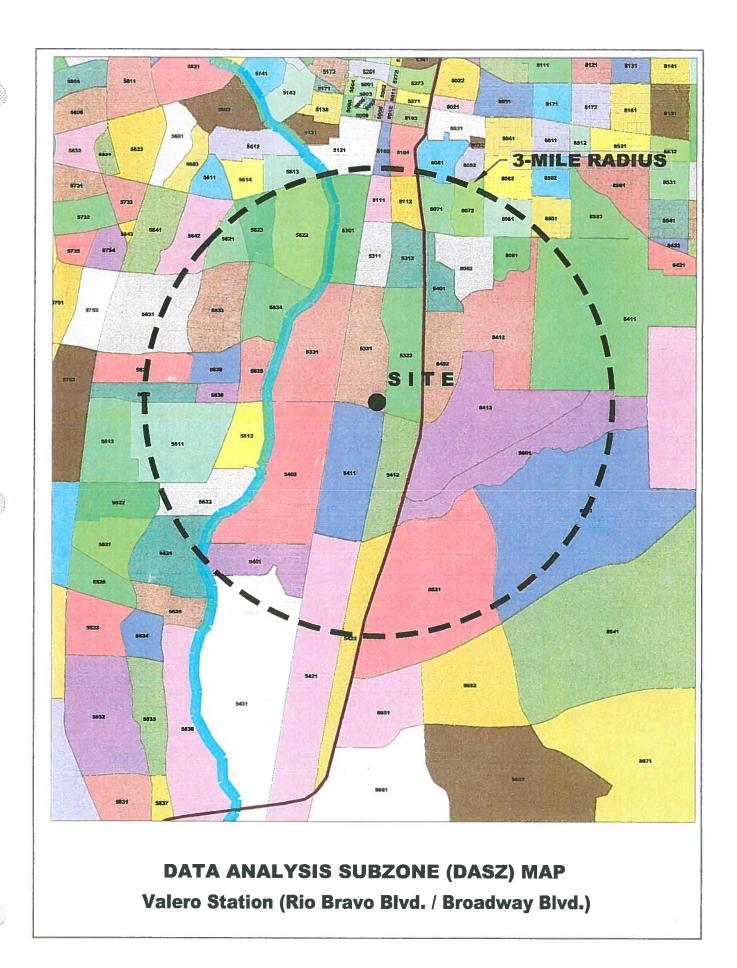
Average Vehicle Trip Ends on a Weekday, Peak Hour of Adjacent Street Traffic, One Hour Between 4pm and 6pm (P.M. PEAK HOUR)

50% Exit 13.38 (X) + 50% Enter, " F

0

Based on ITE Trip Generation Manual - 8th Edition

Comments: Tract No. Valero_RB_Broadway_TRIPS8.xls - LandUse (1)



3/8/2012

Trip Distribution Table Valero Station Development - Rio Bravo / Broadway

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

2015 and 2025 Dala Takan irom Mid-Region Council of Governments⁴ 2035 Socioeconomic Forecasis by Dala Analysis Subzonas for the Mid-Region of New Mexico

							2	Rio Bravo West	ť	<u>v</u> 1	(ISN) Isleta Bivd North	th	Po	Poco Loco Rd North	wth
#ZSYO	% Sub Area in Study	2015 Population 2025 Population	2025 Population	Interpolated Population for the Year	Population in Study	Percent	% Utilizing	% Population Utilizing	Population	% Utilizing	% Population Utilizing	Population	% Utilizing	% Population Utilizing	Population
		2015	2025	2015											
oundary Spi	Boundary Specified on DASZ Map	Z Map													
5101	30%	2009	2146	2,009	603	1.65%	%0	%00'0	0	%0	%00.0		%0	0.00%	
5102	35%	569	558	569	199	0.54%	%0	%00.0	0	%0	%00.0	Q	%0	%00.0	
5111	100%	1294	1249	1,294	1,294	3.53%	%0	%00.0	0	%0	00.00%				0
5112	100%	1839	1963	1,839	1,839	5.02%	%0	%00.0	0	%0	0.00%		%0	0.00%	0
5121	20%	2930	3948	2,930	586	1.60%	%0	0.00%	0	%0	%00.0	Ō	%0	0.00%	0
5301	100%	19	21	19	19	0.05%	%0	0.00%	0	%0	%00.0				0
5311	100%	1425	1393	1,425	1,425	3.89%		%00.0	0	%0					0
5312	100%	223	214	223	223	0.61%		0.00%	0	%0	%00.0	Q		0.00%	0
5321	100%	0	230	0	0	%00.0	%0	%00.0	0	%0	%00.0		%0	0.00%	0
5322	100%	0	0	0	0	%00°%	%0	%00.0	0	%0	%00.0		%0	0.00%	
5331	100%	354	343	354	354	0.97%	%0	0.00%	0	%0			4		35
5401	95%	769	748	769	731	2.00%	%0	%00.0	0	%0	%00.0			%00.0	
5402	100%	941	1302	941	941	2.57%	%0	%00.0	0	%0	0.00%			%00'0	0
5411	100%	1920	3917	1,920	1,920	5.24%	%0	0.00%	o	%0	0.00%		%0	0.00%	0
5412	100%	25	27	25	25	0.07%	%0	0.00%	0	%0	0.00%			0.00%	0
5421	30%	123	119	123	37	0.10%	0%0	%00.0	0	%0	%00.0		%0	%00.0	0
5422	40%	55	55		22			%00.0	0	%0	%00.0		%0	0.00%	0
5431	85%	549	617	549	467	1.28%	%0	%00.0	0	%0	%00.0		%0	%00.0	0
5511	85%	2231	2233	2,231	1,896	5.18%		2.59%	948	%0				0.00%	0
5512	100%	804	825	804	804	2.20%	%0	%00.0	0	%0	0.00%		%0	0.00%	0
5523	95%	529	546	529	503	1.37%	%0	%00.0	0	%0	%00.0		%0	0.00%	0
5524	20%	1028	1043	1,028	206	0.56%	%0	0.00%	0	%0	0.00%		%0	0.00%	0
5613	15%	1107	1094	1,107	166	0.45%	0%0	%00.0	0	100%	0.45%	166	%0	%00.0	0
5621	100%	305	873	305	905	2.47%	%0	%00.0	0	100%	2.47%	906		0.00%	0
5622	10007	0440	1110	1111	070 0	TOOD B									

Trip Distribution Table Valero Station Development - Rio Bravo / Broadway

Data Analysis Subzone Population Data for determination of Loc:al Trip Distribution for Proposed Retail Commercial Trips

2015 and 2025 Data Taken from MidRegion Ceuncil of Govern nents' 2035 Socioeconomic Forecests by Dita Analysis Suhzones for i'he Mid-Region of New Mexico

4	Population			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	o	Ô	0	0	0	0	35 0.10%
(PLN) Poco I oco Rd Nodh	% Population Utilizing			0.00%	0.00%	%00.0	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	
d	% Utilizing			0%0	%0	%0	%0	%0	%0	%0	%0	%0	%0	%0	%0	%0	%0	%0	%0	%0	%0	%0	%0	%0	%0	%0	%0	%0	
	Population			1.413	0	0	3,027	2,408	1,007	145	o	449	178	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	12,474 34.06%
(IsN) Isleta Blvd North	% Population Utilizing			3.86%	%00.0	0.00%	8.27%	6.57%	2.75%	0.40%	%00.0	1.23%	0.48%	0.00%	0.00%	%00.0	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	%00.0	%00.0	0.00%	0.00%	
	% Utilizing			100%	%0	%0	100%	100%	100%	50%	%0	50%	50%	%0	0%0	%0	%0	%0	%0	%0	%0	%0	%0	%0	%0	%0	%0	%0	
	Population			0	1,035	471	0	0	0	145	468	449	178	0	0	0	0	0	0	0	0	0	0	o	0	0	0	0	3,694 10.08%
(RW) Rio Bravo West	% Population Utilizing			0.00%	2.83%	1.29%	%00.0	0.00%	0.00%	0.40%	1.28%	1.23%	0.48%	0.00%	%00'0	%00.0	0.00%	0.00%	%00.0	0.00%	%00.0	%00.0	%00.0	%00.0	0.00%	%00.0	%00.0	%00.0	
~	% Utilizing			%0	100%	100%	%0	%0	%0	20%	100%	50%	50%	%0	%0	%0	%0	%0	%0	%0	%0	%0	%0	%0	%0	%0	%0	%0	
	Percent Population			3.86%	2.83%	1.29%	8.27%	6.57%	2.76%	0.79%	1.28%	2.45%	%76.0	%00.0	2.76%	2.11%	3.18%	0.11%	2.99%	%00.0	%00.0	0.55%	%00.0	%00.0	0.51%	%00.0	7.76%	%00.0	100.00%
	Population in Study			1,413	1,035	471	3,027	2,408	1,007	290	468	898	355	0	1,010	773	1,166	39	1,095	0	0	200	0	0	185	0	2,843	0	36,624
	Interpolated Population for the Year	2015		1,487	2,300	857	3,027	2,408	1,007	290	935	898	1,777	ō	1,188	773	1,227	39	1,095	0	0	501	0	0	1,847	o	3,345	o	49,425
		202(5		1479	2322	837	3040	2411	1078	288	972	866	1802	0	1265	2580	1397	38	1055	0	0	496	0	753	1951	784	4935	1-0060	
	2115 Population 2025 Population	2015	Map	1487	2300	857	3027	2408	1007	290	935	868	1777	0	1188	773	1227	39	1095	0	0	501	0	0	1847	0	3345	0	
	% Sub Area in Study		fied on DASZ	95%	45%	55%	100%	100%	100%	100%	50%	100%	20%	15%	85%	100%	95%	100%	100%	100%	100%	40%	100%	100%	10%	80%	85%	50%	
	DASZ #		Boundary Specified on DASZ Map	5623	5631	5632	5633	5634	5635	5636	5637	5638	5642	8051	8061	8071	8072	808-1	8082	8401	8402	8411	8412	8413	8501	8601	8621	8691	

Trip Distribution Tabile Valero Station Development - Rio Bravo / Broadway

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

2015 and 1025 Data Taken from Mid-Region Council of Governments' 2013 Sociesconomic Francests for Data Analysis Subzones for the Mid

Population % Utilizing % Population Population % Utilizing								ű	(2N) Second St North	-	_	(PrN) Prince St North		Bro	(BN) Broadway Blyd North	h
Q16 Z025 Z015 Q16 Q16 </th <th>DASZ#</th> <th>% Sub Area in Study</th> <th></th> <th>2025 Population</th> <th>Interpolated Population for the Year</th> <th>Poputation in Study</th> <th>Percent Population</th> <th></th> <th>% Population Utilizing</th> <th>Population</th> <th>1</th> <th>% Population Utilizing</th> <th></th> <th>% Utilizing</th> <th>% Population Utilizing</th> <th>Population</th>	DASZ#	% Sub Area in Study		2025 Population	Interpolated Population for the Year	Poputation in Study	Percent Population		% Population Utilizing	Population	1	% Population Utilizing		% Utilizing	% Population Utilizing	Population
			2015	2025	2015											
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	Boundary Sp	scified on DAS	SZ Map													
35% 568 569 198 0.54% 0% 0.00% 0 0% 0.00% 0 1 100% 11339 11633 1,294 1,294 1,294 0.00% 0 0% 0.00% 0 1 1 100% 11339 1953 1,839 1,839 1,839 1,839 0.00% 0 0% 0.00% 0 1	5101	30%	l I		2,009	603		%0	0.00%	0	%0		0	100%	1.65%	603
$ \begin{array}{ c c c c c c c c c c c c c c c c c c c$	5102	35%	569		569	199	0.54%	%0	%00.0	0	%0		0	100%	0.54%	199
$ \begin{array}{ c c c c c c c c c c c c c c c c c c c$	5111	100%	1294		1,294	1,294	3.53%	%0	0.00%	0	%0		0	100%	3.53%	1.294
$ \begin{array}{ c c c c c c c c c c c c c c c c c c c$	5112	100%	1839		1,839	1,839		%0	0.00%	0	%0		0	100%	5.02%	1.839
	5121	20%	2930		2,930	586		100%	1.60%	586	%0			%0	%00.0	
$ \begin{array}{ c c c c c c c c c c c c c c c c c c c$	5301	100%	19		19	19		100%	0.05%	19	%0			%0	0.00%	
	5311	100%	1425		1,425	1,425		%0	%00.0	0	%0		0	100%	3.89%	1.425
$ \begin{array}{ c c c c c c c c c c c c c c c c c c c$	5312	100%	223		223	223		%0	%00.0	0	%0		0	100%	0.61%	223
$ \begin{array}{ c c c c c c c c c c c c c c c c c c c$	5321	100%	0		0	0		35%	0.00%	0	30%		0	35%	0.00%	
	5322	100%	0		0	0		%0	0.00%	0	%0		0	100%	0.00%	
	5331	100%	354		354	354	%26.0	90% 80%	0.87%	319	%0		0	%0		0
	5401	95%	769		769	731		%0	0.00%	0	%0		0	%0		¢
	5402	100%	941		941	941		%0	0.00%	0	%0		0	%0		0
	5411	100%	1920		1,920	1,920		%0	%00.0	0	%0		0	%0		0
	5412	100%	25		25	25		%0	%00.0	0	%0		0	%0	0.00%	0
$ \begin{array}{ c c c c c c c c c c c c c c c c c c c$	5421	30%	123		123	37		%0	%00.0	0	%0		0	%0		0
$ \begin{array}{ c c c c c c c c c c c c c c c c c c c$	5422	40%	55		55	22		%0	%00.0	0	%0		0	%0		0
$ \begin{array}{ c c c c c c c c c c c c c c c c c c c$	5431	85%	549		549	467		%0	%00.0	0	%0		0	%0		0
100% 804 825 804 804 2.20% 0% 0.00% 0 0% 0.00% 0 0 95% 529 546 529 503 1.37% 0% 0.00% 0 0% 0.00% 0 0 20% 1028 1043 1,028 206 0.56% 0% 0.00% 0 0 0% 0.00% 0 0 1 1 1 1 1 1 1 1 1 1 0 0 0% 0.00% 0 </td <td>5511</td> <td>85%</td> <td>2231</td> <td>2233</td> <td>2,231</td> <td>1,896</td> <td>5.18%</td> <td>%0</td> <td>%00.0</td> <td>0</td> <td>%0</td> <td></td> <td>0</td> <td>%0</td> <td>0.00%</td> <td>0</td>	5511	85%	2231	2233	2,231	1,896	5.18%	%0	%00.0	0	%0		0	%0	0.00%	0
95% 529 546 529 503 1.37% 0% 0.00% 0 0% 0.00% 0 20% 1028 1043 1,028 206 0.56% 0% 0.00% 0 0% 0.00% 0 0 15% 1107 1107 1,028 206 0.45% 0% 0.00% 0 0 100% 905 905 905 247% 0% 0.00% 0 0 0 0 0 1 0 1 0 1 0	5512	100%	804		804	804		%0	0.00%	0	%0		0	%0	0.00%	0
20% 1028 1043 1,028 206 0.56% 0% 0.00% 0 0% 0.00% 0 0 15% 1107 1094 1,107 166 0.45% 0% 0.00% 0 0% 0.00% 0 0 10 0 0% 0.00% 0 0 10 10 10 10 10 10 10 0 0 0% 0.00% 0 0 0 0 10 <	5523	95%	529		529	503		%0	%00.0	0	%0		0	%0	%00.0	
15% 1107 1094 1,107 166 0.45% 0% 0.00% 0 0% 0.00% 0 100% 905 873 905 905 2.47% 0% 0.00% 0 0% 0.00% 0 100% 2.776 2.776 2.776 2.776 7.58% 0% 0.00% 0 0% 0.00% 0	5524	20%	1028		1,028	206		%0	%00'0	0	%0		0	%0	%00.0	0
100% 905 873 805 905 2.47% 0% 0.00% 0 0% 0.00% 0 100% 2.776 2.776 2.776 7.58% 0% 0.00% 0 0% 0.00% 0	5613	15%	1107		1,107	166	0.45%	%0	%00.0	0	%0		0	%0	%00.0	
100% 2776 2776 2,776 2,778 7.58% 0% 0.00% 0 0% 0.00% 0	5621	100%	905		805	905		%0	0.00%	0	%0	0.00%	0	%0	0.00%	
	5622	100%	2776		2,776	2,776		%0	0.00%	0	%0	0.00%	0	%0	0.00%	

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Trip Distribution Table Valero Station Development - Rio Bravo / Broadway Data Analysis Subzone Population Data for determination of Local Trip Distribution for Proposed Retail Commercial

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

th	Population		and the second	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5.583	15.24%
(BN) Broadway Blvd North	% Population Utifizing			0.00%	%000.0	0.00%	0.00%	0.00%	0.00%	0.00%	%00.0	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	%00.0	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	%00.0		
Broa	% Utilizing			%0	%0	%0	%0	%0	%0	%0	%0	%0	%0	%0	%0	%0	%0	%0	%0	%0	%0	%0	%0	%0	%0	%0	%0	%0		
	Population			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		M00%
(PrN) Prince St North	% Population Utilizing			0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	%00.0	%00.0	%00.0	0.00%	0.00%	0.00%	0.00%	%00.0	0.00%	0.00%	0.00%	%00.0	%00.0	%00.0	0.00%	%00.0	%00.0		
L	% Utilizing			%0	%0	%0	%0	%0	%0	%0	%0	%0	%0	%0	%0	%0	%0	%0	%0	%0	%0	%0	%0	%0	%0	%0	%0	%0		
-	Population			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	ö	0	0	0	0	0	0	0	0	924	2.52%
(2N) Second St North	% Population Utilizing			%00.0	%00.0	%00.0	%00.0	%00.0	%00.0	%00.0	0.00%	%00.0	%00.0	0.00%	0.00%	0.00%	0.00%	%00.0	%00.0	%00.0	0.00%	%00.0	%00'0	0.00%	0.00%	0.00%	0.00%	%00.0		
Ś	% Utilizing			%0	%0	%0	%0	%0	%0	%0	%0	%0	%0	%0	%0	%0	%0	%0	%0	%0	%0	%0	%0	%0	%0	%0	%0	%0		
	Percent Population			3.86%	2.83%	1.29%	8.27%	6.57%	2.75%	0.79%	1.28%	2.45%	0.97%	%00.0	2.76%	2.11%	3.18%	0.11%	2.99%	0.00%	%00.0	0.55%	%00.0	0.00%	0.51%	%00.0	7.76%	0.00%	100.00%	
	Population in Study			1,413	1,035	471	3,027	2,408	1,007	290	468	898	355	ō	1,010	773	1,166	39	1,095	0	0	200	0	ö	185	0	2,843	0	36,624	
	ъ. Ъ	2015		1,487	2,300	857	3,027	2,408	1,007	290	935	898	1,777	ō	1,188	773	1,227	39	1,095	0	0	501	0	0	1,847	0	3,345	0	49,425	
		2025		1479	2322	837	3040	2411	1078	288	972	866	1802	0	1265	2580	1397	38	1055	0	0	496	0	753	1951	784	4935	10060		
	2015 Population 2025 Population	2015	Map	1487	2300	857	3027	2408	1007	290	935	898	1777	0	1188	773	1227	39	1095	0	0	501	0	0	1847	0	3345	0		
	% Sub Area in Study		Boundary Specified on DASZ Map	95%	45%	55%	100%	100%	100%	100%	50%	100%	20%	15%	85%	100%	95%	100%	100%	100%	100%	40%	100%	100%	10%	%06	85%	50%		
	# ZSYD		oundary Speci	5623	5631	5632	5633	5634	5635	5636	5637	5638	5642	8051	8061	8071	8072	8081	3082	8401	8402	8411	8412	8413	8501	8601	8621	8691		

Valero_TD_Comm.xls

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Trip Distribution Table Valero Station Development - Rio Bravo / Broadway

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 Maxico

	ţi		T	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	ō	0	Ĩ	0	0	0	
df.	Populatio																											
(InS) Interstate 25 South	% Population Utilizing			0.00%	0.00%	0.00%	%00.0	0.00%	0.00%	0.00%	%00.0	%00.0	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	10000
atul	% Utilizing			%0	%0	%0	%0	%0	%0	%0	%0	0%0	0%0	%0	%0	0%0	%0	%0	%0	%0	%0	%0	%0	%0	%0	0%0	%0	/80
t set	Population			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	<
(RE) Rio Bravo Blvd Fast	% Population Utilizing			0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	%00.0	%00.0	%00.0	0.00%	%00.0	%00.0	0.00%	0.00%	0.00%	10000
Rio	% Utilizing			%0	%0	%0	%0	%0	%0	%0	%0	%0	%0	%0	%0	%0	%0	%0	%0	%0	%0	%0	%0	%0	%0	%0	%0	700
	opulation			0	ō	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	C
(InN) Interstate 25 North	% Population Utilizing			0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	%00.0	0.00%	0.00%	0.00%	%00'0	0.00%	0.00%	%00.0	%00.0	0.00%	0.00%	0.00%	0.00%	%00.0	0.00%	0.00%	70000
Inte	% Utilizing			%0	%0	0%	%0	%0	%0	%0	%0	%0	%0	%0	%0	%0	%0	%0	%0	%0	%0	%0	%0	%0	%0	%0	%0	700
	Percent Population			1.65%	0.54%	3.53%	5.02%	1.60%	0.05%	3.89%	0.61%	0.00%	0.00%	0.97%	2.00%	2.57%	5.24%	0.07%	0.10%	0.06%	1.28%	5.18%	2.20%	1.37%	0.56%	0.45%	2.47%	7 5007
	Population in Study			603	199	1,294	1,839	586	19	1,425	223	0	0	354	731	941	1,920	25	37	22	467	1,896	804	503	206	166	906	9 77 C
	Interpolated Population for the Year	2015		2,009	569	1,294	1,839	2,930	19	1,425	223	0	0	354	769	941	1,920	25	123	55	549	2,231	804	529	1,028	1,107	305	2 77G
		2025		2146	558	1249	1963	3948	21	1393	214	230	0	343	748	1302	3917	27	119	55	617	2233	825	546	1043	1094	873	2744
	2015 Population 2025 Population	2015	Map	2009	569	1294	1839	2930	19	1425	223	0	0	354	769	941	1920	25	123	55	549	2231	804	529	1028	1107	905	2776
	% Sub Area in Study		Boundary Specified on DASZ Map	30%	35%	100%	100%	20%	100%	100%	100%	100%	100%	100%	95%	100%	100%	100%	30%	40%	85%	85%	100%	95%	20%	15%	100%	100%
	DASZ #		3oundary Spec	5101	5102	5111	5112	5121	5301	5311	5312	5321	5322	5331	5401	5402	5411	5412	5421	5422	5431	5511	5512	5523	5524	5613	5621	5622

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Trip Distribution Table Valero Station Development - Rio Bravo / Broadway

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

2015 and 2025 Dala Taken from Mid-Region Council of Governments⁴ 2035 Socioeconomic Forecasts by Dala Analysis Subzores for the Mid-Region of Min-W Mexico

	th	Populatio			0	0	0	0	0	0	0	0	0	0	0	0	0	0	ō	0	0	0	0	0	0	0	0	0	0].	0.00%
(InS)	Interstate 25 South	% Population Utilizing			0.00%	0.00%	0.00%	0.00%	0.00%	%00.0	%00.0	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	%00.0	%00.0	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%		
	Inte	% Utilizing			%0	%0	%0	%0	%0	%0	%0	%0	%0	%0	%0	%0	%0	%0	%0	%0	%0	%0	%0	%0	%0	%0	%0	%0	%0		
	ast	Population			0	0	0	0	0	0	0	0	0	0	0	0	0	0	20	548	0	0	200	0	0	0	0	0	0	767	2.09%
(RE)	Rio Bravo Blvd East	% Population Utilizing			0.00%	%00.0	%00.0	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	%00.0	0.00%	0.05%	1.49%	0.00%	%00.0	0.55%	0.00%	0.00%	%00.0	0.00%	0.00%	0.00%		
	Rio	% Utilizing			%0	%0	%0	%0	%0	%0	%0	%0	%0	%0	%0	%0	%0	%0	50%	50%	25%	100%	100%	100%	100%	%0	%0	%0	%0		
	h	Population			0	0	ō	0	0	0	0	0	o	0	0	1,010	773	1,166	20	548	0	0	0	0	0	185	0	0	0	3.701	10.11%
(InN)	Interstate 25 North	% Population Utilizing			0.00%	0.00%	0.00%	0.00%	%00'0	%00'0	0.00%	0.00%	0.00%	0.00%	0.00%	2.76%	2.11%	3.18%	0.05%	1.49%	0.00%	0.00%	0.00%	0.00%	0.00%	0.51%	0.00%	0.00%	0.00%		
	inte	% Utilizing			%0	%0	%0	%0	%0	%0	%0	%0	%0	%0	100%	100%	100%	100%	50%	50%	75%	%0	%0	%0	%0	100%	%0	%0	%0		
		Percent Population			3.86%	2.83%	1.29%	8.27%	6.57%	2.75%	0.79%	1.28%	2.45%	0.97%	0.00%	2.76%	2.11%	3.18%	0.11%	2.99%	%00.0	0.00%	0.55%	0.00%	0.00%	0.51%	%00.0	7.76%	0.00%	100.00%	
		Population in Study			1,413	1,035	471	3,027	2,408	1,007	290	468	898	355	0	1,010	773	1,166	39	1,095	0	0	200	0	0	185	0	2,843	0	36.624	
		Interpolate d Population for the Year	2015		1,4187	2,300	857	3,027	2,4108	1,007	2390	535	8613	1,777	0	1,1188	7/73	1,227	39	1,095	0	0	501	0	0	1,8147	Q	3,345	0	49,4125	
		23 Population	2025		1479	2322	837	3040	2411	1078	288	972	866	1802	0	1265	2580	1397	38	1055	0	0	496	0	753	1951	784	4935	10060		
		2015 Population 2025 Population	2015	Мар	1487	2300	857	3027	2408	1007	290	935	898	1777	0	1188	773	1227	39	1095	Q	0	501	0	0	1847	0	3345	0		
		% Sub Area 2 in Study		Boundary Specified on DASZ Map	95%	45%	55%	100%	100%	100%	100%	50%	100%	20%	15%	85%	100%	95%	100%	100%	100%	100%	40%	100%	100%	10%	%06	85%	50%		
		DASZ #		Boundary Spec	5623	5631	5632	5633	5634	5635	5636	5637	5638	5642	8051	8061	8071	8072	8081	8082	8401	8402	8411	8412	8413	8501	8601	8621	8691		

Trip Distribution Table Valero Station Development - Rio Bravo / Broadway

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

DASZ #							Broa	(Broadway Blvd South	South	ŗ	Prince St South	th
	% Sub Area in Study	2015 Population	2015 Population 2025 Population	Interpolated Population for the Year	Population in Study	Percent Population	% Utiilzing	% Population Utilizing	Populatio n	% Utilizing	Population Utilizing	Populatio
		2015	2025	2015								
Boundary Specified on DASZ Map	fied on DAS2	Z Map										3
5101	30%	2009	2146	2,009	603	1.65%	%0		0	%0	%00.0	0
5102	35%	569		569	199	0.54%	%0	%00.0		%0	%00.0	0
5111	100%	1294		1,294	1,294	3.53%	%0		0	%0	0.00%	¢
5112	100%	1839		1,839	1,839	5.02%	%0		0	%0	%00.0	0
5121	20%	2930	3948	2,930	586	1.60%	%0	0.00%	0	%0	%00.0	0
5301	100%	19		19	19	0.05%	%0		0	%0	%00.0	0
5311	100%	1425	1393	1,425	1,425	3.89%	%0	%00'0	0	%0	%00.0	0
5312	100%	223		223	223	0.61%			0	%0	0.00%	0
5321	100%	0	230	0	0	%00.0	%0	%00.0	o	%0	%00.0	0
5322	100%	0	0	0	0	%00.0	%0		0	%0		0
5331	100%	354	343	354		0.97%			0	%0	0.00%	0
5401	95%	769	748	769		2.00%		%00.0		%0	0.00%	0
5402	100%	941	1302	941		2.57%				%0	%00.0	0
5411	100%	1920	3917	1,920	1,920	5.24%	60%		1,152	40%	2.10%	768
5412	100%	25	27	25		0.07%		0.07%		%0	%00.0	0
5421	30%	123	119	123		0.10%				%0	%00.0	0
5422	40%	55	55	55		0.08%	-			%0	0.00%	0
5431	85%	549	617	549		1.28%				%0	%00.0	0
5511	85%	2231	2233	2,231	1	5.18%	%0	0.00%		%0	0.00%	0
5512	100%	804	825	804		2.20%	%0			%0	%00.0	0
5523	95%	529	546	529		1.37%	%0			%0	0.00%	0
5524	20%	1028	1043	1,028		0.56%	%0		0	%0	0.00%	0
5613	15%	1107	1094	1,107	166	0.45%	%0		0	%0	%00.0	0
5621	100%	905		305	905	2.47%	%0		0	%0	0.00%	0
5622	100%	2776		2,776	2,776	7.58%	º/a0	0.00%	0	%0	%00.0	0

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

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Trip Distribution Table Valero Station Development - Rio Bravo / Broadway

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 Subtones for the Mid-Region of New Mexico

F	Populatio			0	0	0	0	0	0	0	0	0	0	0	0	0	0	Ó	0	0	0	0	0	0	0	0	0	0	768
(PrS) Prince St South	% Poputation Utitizing	B		0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	
Pri	Vtilizing			%0	%0	%0	%0	%0	%0	%0	%0	%0	%0	%0	%0	%0	%0	%0	%0	%0	%0	%0	%0	%0	%0	%0	%0	%0	
outh	Populatio			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	Q	0	0	0	0	0	0	0	2,843	0	4,064
(BS) Broadwav Blvd South	% Population Utilizing			0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	%00.0	0.00%	0.00%	0.00%	0.00%	%00.0	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	7.78%	0.00%	
Broac	% Utilizing			%0	%0	%0	%0	%0	%0	%0	%0	%0	%0	%0	%0	%0	%0	%0	%0	%0	%0	%0	%0	%0	%0	100%	100%	100%	
	Percent Population			3.86%	2.83%	1.29%	8.27%	6.57%	2.75%	0.79%	1.28%	2.45%	0.97%	0.00%	2.76%	2.11%	3.18%	0.11%	2.99%	%00.0	%00.0	0.55%	%00.0	0.00%	0.51%	%0000	7.76%	%00.0	100.00%
	Population In Study			1,413	1,035	471	3,027	2,408	1,007	290	468	898	355	0	1,010	773	1,166	39	1,095	0	0	200	0	0	185	0	2,843	0	36,624
	Interpolated Population for the Year	2015		1,487	2,300	857	3,027	2,408	1,007	290	935	898	1,777	0	1,188	773	1,227	39	1,095	0	0	501	0	0	1,847	0	3,345	0	49,425
		2025		1479	2322	837	3040	2411	1078	288	972	866	1802	0	1265	2580	1397	38	1055	0	0	496	0	753	1951	784	4935	10060	
	2015 Population 2025 Population	2015	Map	1487	2300	857	3027	2408	1007	290	935	898	1777	0	1188	773	1227	39	1095	0	0	501	0	¢	1847	0	3345	0	
	% Sub Area in Study		Boundary Specified on DASZ Map	95%	45%	55%	100%	100%	100%	100%	50%	100%	20%	15%	85%	100%	95%	100%	100%	100%	100%	40%	100%	100%	10%	80%	85%	50%	
	pASZ #		Boundary Spet	5623	5631	5632	5633	5634	5635	5636	5637	5638	5642	8051	8061	8071	8072	8081	8082	8401	8402	8411	8412	8413	8501	3601	8621	8691	

Trip Distribution Table Valero Station Development - Rio Bravo / Broadway

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

							(25)			(IsS)	
a.	8					Se	Second St South	th	Isle	Isleta Blvd South	th
% Sub Area 2015 Population 2025 Population for in Study the Year	2015 Population 2025 Population	 Populati the Y	lated on for ear	Population in Study	Percent Population	% Utilizing	% Population Utilizing	P opulatio n	% Utilizing	% Population Utitizing	Poputatio
2015 2025 20	2025	20	2015								
Boundary Specified on DASZ Map	SZ Map										
2009			2,009	603	1.65%	0%	0.00%	0	%0		0
35% 569 558			569	199	0.54%	0%0	0.00%	0	%0	0.00%	0
1294 1			1,294	1,294	3.53%	0%0	0.00%	0	%0	%00.0	0
100% 1839 1963			1,839	1,839	5.02%	0%0	0.00%	0	%0	0.00%	0
2930			2,930	586	1.60%	%0	0.00%	0	%0	0.00%	0
100% 19 21			19	19	0.05%	0%0	0.00%	0	%0	0.00%	0
100% 1425 1393			1,425	1,425	3.69%	%0	0.00%	0	%0	0.00%	0
100% 223 214			223	223	0.61%	0%0	0.00%	0	0%0	0.00%	0
100% 0 230			0	0	%0000	0%0	0.00%	0	%0	0.00%	0
			0	0	0.00%	0%	0.00%	0	0%0	0.00%	0
354			354		0.97%	%0		0	%0		0
			769	731	2.00%	100%		731	%0		0
941			941		2.57%	100%		941	%0		0
1920			1,920	1,	2	0%0	0.00%	0	%0	0.00%	0
25			25			%0		0	%0		0
			123	37		40%		15	%0	0.00%	0
55			55		0.06%	%0	0.00%	0	%0		0
549			549			100%		467	%0		0
			2,231	1,		%0	0.00%	0	50%	2.59%	948
804			804		2.20%	%0	0.00%	0	100%	2.20%	804
529			529	503	1.37%	%0	:	0	100%		503
1028			1,028		0.56%	%0		0	100%	0.56%	206
1107			1,107		0.45%	%0		0	%0	%00.0	0
100% 905 873			905		2.47%	%0	0.00%	0	0%0	0.00%	0
2776			2,776	2,776	7.58%	%0	0,00%	0	%0	0.00%	0

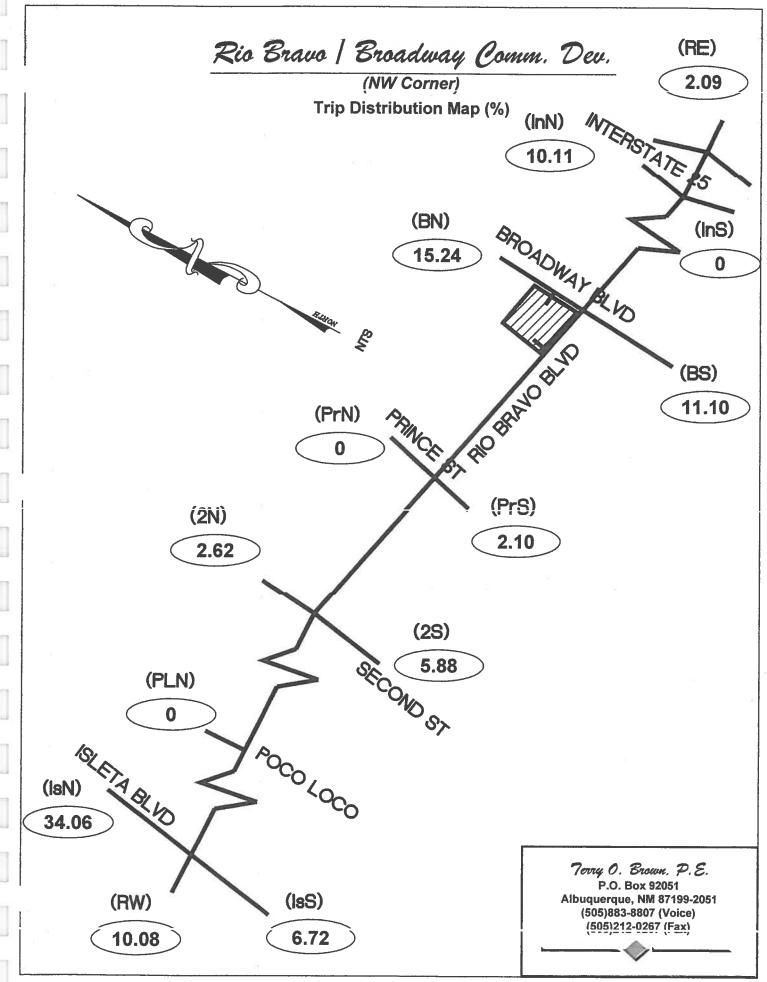
3/9/2012

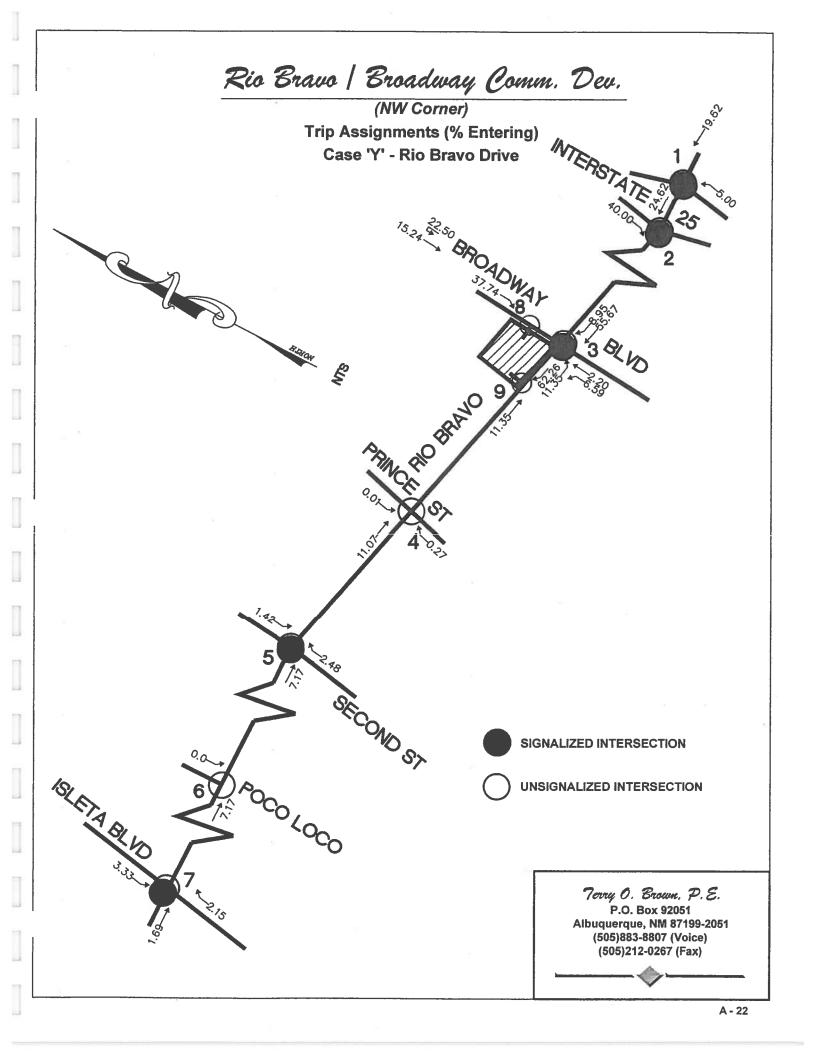
Trip Distribution Table Valero Station Development - Rio Bravo / Broadway

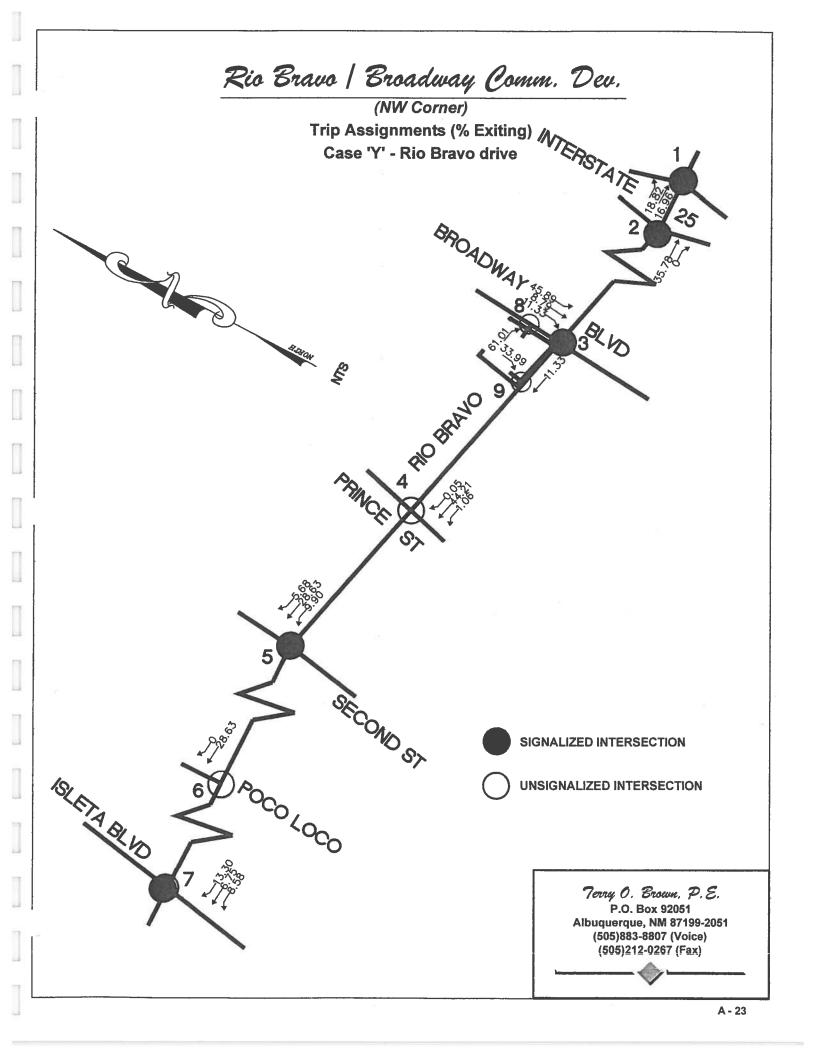
Data Analysis Subzone Population Data for determination of Local Trip Distribution for Proposed Retail Commercial

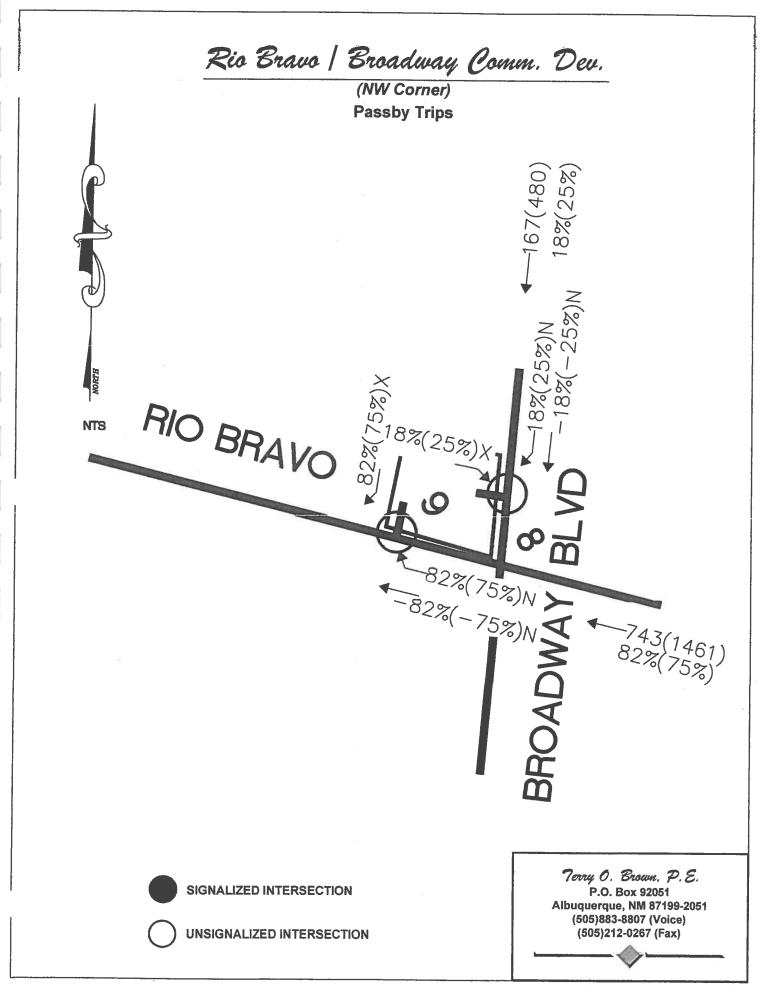
2015 and 2025 Data Taken from Mid-Region Council of Generaturents' 2035 Socioeconomic Forecasts by Data Analysis Subzones for the Mid-Region of New Mexico

Population Percent 1413 % 5 % 6 % 6 % 6 % 7 % % 7 % % 7 % % 7 % % % % % % % % % % % % % % % % % % %	Population 2025 Poy 2015 20 2015 20 21408 21408 21408 21408 1180 11007 2408 1177 2408 1177 2408 1177 2408 1177 290 295 200 100 1177 290 200 0 0 1188 1177 290 200 0 0 1187 2177 2177 2177 2177 2177 2177 2177				Se	(2S) Second St South	ę	Isl	(IsS) Islela Blvd South	uth .
2015 2026 2015 1 <th1< th=""><th>2015 200 1487 2408 157 2300 157 2408 1407 290 1007 290 1007 290 1007 1177 107 1177 1095 107 1177 39 1095 0 1095 0 1095 0 1047 0 3345 0 3345 0 0 0 0 0</th><th>_</th><th>Population in Study</th><th>Percent Population</th><th>% Utilizing</th><th>% Population Utilizing</th><th>Populatio</th><th>% Utilizing</th><th>Population Utilizing</th><th>Propulatio</th></th1<>	2015 200 1487 2408 157 2300 157 2408 1407 290 1007 290 1007 290 1007 1177 107 1177 1095 107 1177 39 1095 0 1095 0 1095 0 1047 0 3345 0 3345 0 0 0 0 0	_	Population in Study	Percent Population	% Utilizing	% Population Utilizing	Populatio	% Utilizing	Population Utilizing	Propulatio
1 1487 1479 1,487 1,413 3,88% 0% 0.00% 0 0% 0.00% 2300 2322 2,327 3,027 1,413 3,88% 0% 0.00% 0 0% 0.00% 857 837 837 3,027 3,027 3,027 3,027 0,00% 0 0% 0,00% 0 0% 0,00% 3027 3,027 3,027 3,027 3,027 3,027 0,00% 0 0% 0,00% 0	1487 1487 1487 3520 35200 35200 1007 1007 1007 1007 1177 1177 1127 399 1085 1127 399 1085 1127 399 1085 1127 339 3345 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0									
95% 1487 1470 1471 1437 1437 1437 1436 0.00% 0.00% 0 0% 0.00% 55% 557 2300 1035 2387% 0% 0.00% 0 0% 0.00% 100% 3027 3021 3,027 3,027 3,027 3,027 0.00% 0 0% 0.00% 0 0% 0.00% 0 0% 0.00% 0 0 0% 0.00% 0	95% 1487 45% 2300 45% 2300 55% 857 100% 3027 100% 3027 100% 2408 100% 3027 100% 3027 100% 2408 100% 2408 100% 936 100% 936 100% 1177 15% 1177 100% 336 100% 1127 95% 1127 100% 39 100% 39 100% 1095 100% 0 100% 0 100% 0 100% 0 100% 147 95% 345 50% 0									
45% 2300 2322 2.300 1,035 2.83% 0% 0.00% 0 0% 0.00% 100% 317 317 3129 07 070 07% 0.00% 100% 3127 3017 3017 3017 3017 0.00% 0 0% 0.00% 100% 3127 3017 1007 100% 0 0 0% 0.00% 0 0 0% 0.00% 100% 3127 3017 1007 1.00% 0 0 0% 0.00% 0	45% 2300 55% 3027 100% 367 100% 3027 100% 2408 100% 2408 100% 290 100% 290 100% 1007 100% 1007 100% 1007 100% 1177 15% 1177 15% 1177 15% 1177 15% 1177 15% 1177 100% 398 100% 309 100% 1127 100% 309 100% 1085 100% 0 100% 0 100% 301 100% 0 100% 345 50% 0			3.86%	%0	0.00%		%0		0
55% 857 877 471 1.29% 0% 0.00% 0 0% 0.00% 100% 2007 2007 3,027 3,027 3,07% 0.00% 0 0% 0.00% 100% 2108 201 3,027 3,027 3,027 3,00% 0 0% 0.00% 0 0% 0.00% 100% 2108 201 1,007 2,75% 0% 0.00% 0 0% 0.00% 100% 2008 201 1,007 2,75% 0% 0.00% 0 0% 0.00% 100% 100% 100 1,007 2,75% 0% 0.00% 0 0% 0.00% 100% 100% 1177 355 0.97% 0% 0.00% 0 0% 0.00% 0 0% 0.00% 100% 110% 177 355 0.97% 0% 0.00% 0 0% 0.0% 0.0% 0.0%	55% 55% 857 100% 3027 100% 2408 100% 2408 50% 935 50% 935 100% 1007 50% 935 100% 1007 50% 1177 15% 1177 15% 1188 100% 1177 95% 1188 100% 1177 95% 1188 100% 39 100% 39 100% 0 100% 0 100% 0 100% 0 100% 0 100% 0 100% 0 85% 345 50% 0			2.83%	%0	0.00%		%0		0
100% 3027 3040 3027 3027 3027 3027 3027 3027 3027 0.00% 0 0% 0.00% 0 0% 0.00% 0 0% 0.00% 0 0% 0.00% 0 0% 0.00% 0 0% 0.00% 0 0% 0.00% 0 0% 0.00% 0 0% 0.00% 0 0% 0.00% 0 0% 0.00% 0 0% 0.00% 0 0% 0.00% 0 0% 0.00% 0 0% 0.00% 0 0% 0.00% 0	100% 3027 100% 3027 100% 2408 100% 2408 100% 2408 1007 1907 100% 395 50% 935 100% 1177 15% 1177 15% 1188 100% 173 95% 1188 100% 173 95% 1227 100% 173 95% 1227 95% 1227 95% 1395 100% 0 100% 0 100% 0 100% 0 100% 0 100% 0 100% 0 100% 0 100% 0 100% 0 100% 0 100% 0 100% 0 100% 0 <td< td=""><td></td><td></td><td></td><td>%0</td><td>0.00%</td><td></td><td>%0</td><td></td><td>0</td></td<>				%0	0.00%		%0		0
100% 2408 2411 2,408 6,57% 0% 0,00% 0 0% 0,00% 100% 1007 1007 1007 1007 0 0% 0,00% 0 0% 0,00% 100% 1007 1078 1,007 1,007 2,390 2,390 0,00% 0 0% 0,00% 0 0% 0,00% 0 0% 0,00% 0 0% 0,00% 0 0% 0,00% 0 0% 0,00% 0 0 0% 0,00% 0 0 0% 0,00% 0<	100% 2408 100% 2408 100% 1007 50% 335 50% 335 1177 938 200% 1377 200% 1377 15% 1377 15% 1377 15% 1377 100% 1377 95% 11227 100% 1095 100% 1095 100% 0 100% 0 100% 0 100% 0 100% 0 100% 0 100% 0 100% 0 100% 0 100% 0 100% 0 100% 0 100% 0 100% 0 100% 0 100% 0				%0	0.00%		%0		0
100% 100% 100% 100% 100% 0	100% 1007 100% 1007 50% 335 100% 938 100% 938 20% 1177 15% 0 15% 137 95% 127 95% 127 95% 127 95% 1277 95% 1277 95% 1277 95% 1277 95% 1277 95% 1277 95% 100% 100% 0 100% 0 100% 0 100% 0 100% 0 100% 0 100% 0 85% 345 50% 0				%0	0.00%		%0		0
100% 290 288 290 290 279% 0.00% 0 0% 0.00% 50% 935 972 935 972 935 948 1.28% 0% 0.00% 0% 0.00% 50% 1177 1802 1,773 355 0.37% 0% 0.00% 0% 0.00% 0% 0.00% 15% 118 1265 1,188 1,010 2.45% 0% 0.00% 0% 0.00% 0% 0.00% 85% 1188 1265 1,188 1,010 2.74% 0% 0.00% 0 0% 0.00% 0 0% 0.00% 0 0% 0.00% 0 0% 0.00% 0 0% 0.00% 0 0 0% 0.00% 0 0% 0.00% 0 0% 0.00% 0 0 0% 0.00% 0 0 0 0 0 0% 0.0% 0 0 0	100% 290 50% 935 100% 935 100% 935 100% 938 20% 936 100% 1177 15% 1177 15% 1177 15% 1177 15% 1177 15% 1188 85% 1188 100% 127 100% 39 100% 0 100% 0 100% 0 100% 0 100% 0 95% 345 50% 345				%0	0.00%		%0		0
50% 935 972 935 468 1.28% 0.00% 0 0% 0.00% 0 100% 197 100% 177 100 0 0 0% 0.00% 0 0% 0.00% 0 100% 15% 0 0 0 0 0.00% 0 0 0% 0.00% 0 0% 0.00% 0 0% 0.00% 0 0% 0.00% 0 0% 0.00% 0 0% 0.00% 0 0% 0.00% 0 0% 0.00% 0 0% 0.00% 0 0% 0.00% 0 0% 0.00% 0 0% 0.00% 0 0% 0.00% 0 0% 0.00% 0 0 0% 0.00% 0 0 0% 0.00% 0 0 0% 0.00% 0 0 0% 0 0 0 0 0 0 0 0 0<	50% 935 100% 935 20% 177 20% 177 15% 177 15% 177 935 177 936 177 15% 177 95% 188 100% 1188 100% 195 100% 395 100% 395 100% 0 100% 0 100% 301 100% 301 100% 301 100% 3145 50% 345					0.00%		%0		0
100% 866 896 898 2.45% 0% 0.00% 0 0% 0.00% 0 15% 1177 1802 1,777 355 0.97% 0% 0.00% 0% 0.00% 0% 0.00% 0% 0.00% 0% 0.00% 0% 0.00% 0% 0.00% 0% 0.00% 0% 0.00% 0% 0.00% 0% 0.00% 0% 0.00% 0% 0.00% 0% 0.00% 0% 0.00% 0% 0.00% <td>100% 998 15% 1177 15% 1177 15% 1177 85% 1188 95% 1127 95% 1227 95% 1227 95% 1227 100% 1095 100% 0 100% 0 100% 0 100% 0 100% 0 100% 0 100% 0 100% 0 100% 0 100% 0 100% 0 100% 0 100% 0 100% 0 50% 0</td> <td></td> <td></td> <td></td> <td></td> <td>0.00%</td> <td></td> <td>%0</td> <td></td> <td>0</td>	100% 998 15% 1177 15% 1177 15% 1177 85% 1188 95% 1127 95% 1227 95% 1227 95% 1227 100% 1095 100% 0 100% 0 100% 0 100% 0 100% 0 100% 0 100% 0 100% 0 100% 0 100% 0 100% 0 100% 0 100% 0 100% 0 50% 0					0.00%		%0		0
20% 1177 1802 1,777 355 0.97% 0% 0.00% <th< td=""><td>20% 1177 15% 0 15% 0 100% 173 95% 1188 100% 173 95% 1227 95% 1227 100% 39 100% 39 100% 0 100% 0 100% 0 100% 0 100% 0 100% 0 100% 0 100% 0 100% 0 100% 0 100% 0 50% 345 50% 0</td><td></td><td></td><td></td><td></td><td></td><td></td><td>%0</td><td></td><td>0</td></th<>	20% 1177 15% 0 15% 0 100% 173 95% 1188 100% 173 95% 1227 95% 1227 100% 39 100% 39 100% 0 100% 0 100% 0 100% 0 100% 0 100% 0 100% 0 100% 0 100% 0 100% 0 100% 0 50% 345 50% 0							%0		0
15% 0 0 0 0.00% 0% 0.00% 0% 0.00%	15% 0 15% 1188 100% 173 95% 127 95% 127 95% 127 100% 39 100% 39 100% 39 100% 39 100% 1095 100% 0 100% 0 100% 0 100% 0 100% 0 100% 0 100% 0 100% 0 100% 0 100% 0 50% 345 50% 0							%0		0
85% 1188 1265 1,188 1,010 2.76% 0% 0.00% 0 0% 0.00% <td>85% 1188 85% 1188 95% 173 95% 177 95% 177 95% 127 95% 127 100% 39 100% 39 100% 39 100% 0 100% 0 100% 0 100% 0 100% 0 100% 0 100% 0 85% 345 50% 0</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>%0</td> <td>ļ</td> <td>0</td>	85% 1188 85% 1188 95% 173 95% 177 95% 177 95% 127 95% 127 100% 39 100% 39 100% 39 100% 0 100% 0 100% 0 100% 0 100% 0 100% 0 100% 0 85% 345 50% 0							%0	ļ	0
100% 173 2.11% 0.0% 0 0% 0.00% 0 0% 0.00% 0 0% 0.00% 0 0% 0.00% 0 0% 0.00% 0 0% 0.00% 0 0% 0.00% 0 0% 0.00% 0 0% 0.00% 0 0% 0.00% 0 0% 0.00% 0 0% 0.00% 0 0% 0.00% 0 0% 0.00% 0 0% 0.00% 0 0% 0.00% 0 0% 0.00% 0 0% 0.00% 0 0% 0.00% 0 0 0% 0.00% 0 0 0 0% 0.00% 0	100% 173 95% 127 95% 127 100% 126 100% 1085 100% 0 100% 0 100% 0 100% 0 100% 0 100% 0 100% 0 100% 1847 90% 0 55% 345 50% 0							%0		0
95% 127 1397 1,27 1,165 3,18% 0% 0.00% 0 0 0	95% 127 95% 127 100% 39 100% 0 100% 0 100% 0 100% 0 100% 0 100% 0 100% 0 100% 0 100% 0 100% 0 100% 1847 90% 0 50% 345							%0		0
100% 33 33 0.11% 0% 0.00% 0 0 <	100% 39 100% 1095 100% 0 100% 0 100% 0 100% 0 100% 0 100% 0 100% 0 100% 0 100% 0 100% 0 100% 0 100% 1847 85% 3345 50% 0							%0		0
100% 100% 100% 100% 0 0% 0.00% 0 0% 0 0% 0 0% 0 0	100% 1095 100% 1095 100% 0 100% 0 100% 0 100% 0 100% 0 100% 0 100% 0 100% 0 100% 0 100% 0 100% 0 100% 0 50% 0							%0		¢
100% 0 0 0 0.00% 0.00% 0 0 0% 0.00% 100% 501 0 0 0 0 0 0% 0.00% 0 0% 0.00% 0 0% 0.00% 0 0% 0.00% 0 0% 0.00% 0 0% 0.00% 0 0% 0.00% 0 0% 0.00% 0 0% 0.00% 0 0% 0.00% 0 0% 0.00% 0 0% 0.00% 0 0% 0.00% 0 0 0% 0.00% 0 0% 0.00% 0 0% 0.00% 0 </td <td>100% 0 100% 0 100% 501 100% 501 100% 0 100% 0 100% 0 85% 3345 50% 0</td> <td>1,0</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>%0</td> <td></td> <td>0</td>	100% 0 100% 0 100% 501 100% 501 100% 0 100% 0 100% 0 85% 3345 50% 0	1,0						%0		0
100% 0 0 0 0.00% 0% 0.00% 0% 0.00%	100% 0 40% 501 40% 501 100% 0 100% 0 90% 0 85% 345 50% 0			%00'0	%0			%0		0
40% 501 496 501 200 0.55% 0% 0.00% 0 0% 0.00% 0 0% 0.00% 0%	40% 301 100% 0 100% 0 100% 1847 90% 0 55% 345 50% 0			0.00%	%0			%0		0
100% 0 0 0 0.00% 0% 0.00% 0 0% 0.00% 0 0% 0.00%	100% 0 100% 0 100% 1847 90% 0 50% 0			0.55%	%0	0.00%		%0		0
100% 0 753 0 0 0.00% 0% 0.00% 0 0% 0.00%	100% 0 10% 1847 90% 0 85% 345 50% 0			%00'0	%0	0.00%		%0		0
10% 187 1951 1,847 185 0.51% 0% 0.00% 0 0 0%	10% 147 90% 0 85% 3345 50% 0			0.00%	%0	0.00%		%0		0
90% 0 784 0 0.00% 0% 0.00% 0 0% 0.00% 0 0% 0.00% 0 0% 0.00% 0% 0% 0.00% 0% 0.00% 0% 0.00% 0% 0% 0.00% 0% 0% 0.00% 0% 0% 0.00% 0% 0% 0.00% 0% 0% 0.00% 0% 0%<	90% 0 85% 3345 50% 0	-		0.51%	%0	0.00%		%0		0
B5% 3345 3,345 2,843 7,76% 0% 0.00% 0 0% 0.00% 0 0% 0.00% 0% 0% 0.00% 0% 0% 0.00% 0% 0% 0% 0.00% 0% 0.00%	85% 3345 50% 0	784 0	0	%00.0	%0	0.00%		%0		0
50% 0 10060 0 0 0.00% 0.00% 0 0% 0.00% 0 0.00% 0 0.00% 0 0.00% 0 0.00% 0 0.00% 0 0.00% 0 0 0.00% 0	50% 0			7.76%	%0	0.00%		%0		0
36,624 100.00% 2,154		060 0	0	%00.0	%0	0.00%		%0	0.00%	0
		49,425		100.00%			2,154			2,461









Rio Bravo / Broadway Comm. Dev. (NW Corner) Projected Turning Movements SUMMARY <u>PROPOSED DEVELOPMENT (2014) - 100% Development</u> Case 'Y' - Rio Bravo drive

INTERSECTION:	Su	ımma	r y									
	· • · · · · · · · · · · · · · · · · · ·											
Rio Bravo Blvd / 1-25 E. ramp	<u>)</u>	0.97			0.76			0.78			0.85	PHF
(1)	Eastbou	nd (Rio Bra	vo Blvd)	Westbou	nd (Rio Bra	vo Bivd)	Northb	ound (I-25 E	(qmp)	Southb	ound (I-25 E	
5.0% Truck	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing (2012)	1,040	556	0	0	93	10	31	1	151	Ö	0	0
2014 (NO BUILD - A.M.)	1,159	598	0	0	273	21	50	2	229	0	0	0
2014 (BUILD - A.M.)	1,169	607	0	. 0	283	21	53	2	229	0	0	0
		0.96			0.77			0.85			0.85	PHF
		nd (Rio Bra			nd (Rio Bra			ound (1-25 E			ound (I-25 E	. ramp)
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing (2012)	670	272	0	0	274	81	22	1	48	0	0	0
2014 (NO BUILD - P.M.)	866	350	0	0	453	124	43	2	93	0	0	0
2014 (BUILD - P.M.)	879	361	0	0	466	124	46	2	93	0	0	0
Rio Bravo Blvd / I-25 W. ram		0.91			0.78			0.85			0.93	PHF
(2)		nd (Rio Bra			nd (Rio Bra			ound (1-25 W	. ramp)	Southbo	ound (l-25 W	. ramp)
5.0% Truck	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing (2012)	0	1,596		11	82	0	0	0	0	280	1	675
2014 (NO BUILD - A.M.)	0	1,697	8	19	149	0	0	0	0	294	71	815
2014 (BUILD - A.M.)	0	1,715	8	19	162	0	0	0	0	294	71	835
	21	0.95			0.79			0.85			0.88	PHF
		nd (Rio Bray			nd (Rio Bra			ound (I-25 W			und (I-25 W	
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing (2012) 2014 (NO BUILD - P.M.)	0	891	22	54 95	220	0	0	0	0	51	1	1,148
	0	1,122			345	0	0	0	0	53	30	1,246
2014 (BUILD - P.M.)	0	1,146	24	95	361	0	0	0	0	53	30	1,273
Rio Bravo Blvd / Broadway B	livd	0.93			0.82			0.86			0.75	PHF
(3)	Eastbour	nd (Rio Bray	o Blvd)	Westbou	nd (Rio Bra	vo Blvd)	Northbou	nd (Broadw	av Blvd)	Southbou	nd (Broadw	
9.9% Truck	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing (2012)	151	1,400	104	155	562	26	60	176	220	15	87	65
2014 (NO BUILD - A.M.)	157	1,538	382	397	623	29	212	310	340	31	145	72
2014 (BUILD - A.M.)	163	1,538	382	397	651	34	215	311	340	54	149	78
-		0.91		1	0.92			0.85			0.87	PHF
[nd (Rio Bray			nd (Rio Bray			nd (Broadw		Southbou	nd (Broadw	
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing (2012)	105	766	114	214	1,223	24	174	163	260	15	246	219
2014 (NO BUILD - P.M.)	108	815	399	283	1,247	24	710	306	530	33	381	296
2014 (BUILD - P.M.)	116	815	399	283	1,284	30	714	307	530	64	387	304

Rio Bravo / Broadway Comm. Dev. (NW Corner) Projected Turning Movements SUMMARY <u>PROPOSED DEVELOPMENT (2014) - 100% Development</u> Case 'Y' - Rio Bravo drive

Rio Bravo Blvd / Prince St		0.89			0.89			0.81			0.75	PHF
(4)		nd (Rio Brav			nd (Rio Bra	vo Blvd)	North	bound (Prin	ce St)	South	bound (Prin	ce St)
5.0% Truck	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing (2012)	41	1,537	37	35	576	43	75	2	78	13	0	10
2014 (NO BUILD - A.M.)	43	1,914	39	39	741	47	80	2	88	15	0	11
2014 (BUILD - A.M.)	43	1,920	39	40	764	47	80	2	88	15	0	11
8		0.95			0.87			0.77			0.85	PHF
		nd (Rio Bray			nd (Rio Bra			oound (Prin			bound (Prin	
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing (2012)	19	774	94	106	1,443	28	87	4	63	44	3	48
2014 (NO BUILD - P.M.)	20	1,102	98	120	1,961	31	92	4	69	48	3	51
2014 (BUILD - P.M.)	20	1,109	98	121	1,991	31	92	4	69	48	3	51
Rio Bravo Blvd / Second St		0.92			0.92		S25	0.87			0.91	PHF
(5)		nd (Rio Bray			nd (Rio Bra			ound (Seco			ound (Seco	
5.0% Truck	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing (2012)	329	1,333	162	45	529	69	128	110	52	79	65	63
2014 (NO BUILD - A.M.)	366	1,708	180	68	650	97	182	157	113	141	74	71
2014 (BUILD - A.M.)	366	1,712	180	73	665	100	182	157	114	142	74	71
		0.92			0.91			0.75			0.91	PHF
		nd (Rio Bray			nd (Rio Bra			ound (Seco			ound (Seco	
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing (2012)	116	569	131	30	1,296	57	213	74	58	112	98	399
2014 (NO BUILD - P.M.) 2014 (BUILD - P.M.)	137 137	903 908	155 155	98 105	1,691 1,710	133 137	281 281	97 97	128 130	162 163	118 118	481 481

(6) Rio Bravo Blvd / Poco Loco will not be analyzed

INTERSECTION:

Summary

A - 26

Rio Bravo / Broadway Comm. Dev. (NW Corner) Projected Turning Movements SUMMARY PROPOSED DEVELOPMENT (2014) - 100% Development

Case 'Y' - Rio Bravo drive

				0030 1	- INO DIQI	U UIIVG						
INTERSECTION:	<u>S u</u>	mma	гу									
Rio Bravo Blvd / Isleta Blvd		0.84			0.81			0.87			0.93	PHF
(7)		nd (Rio Bray			nd (Rio Bra			ound (Isleta			ound (Isleta	
5.4% Truck	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing (2012)	123	1,001	68	208	258	182	82	216	394	300	156	56
2014 (NO BUILD - A.M.)	135	1,098	74	265	312	257	92	243	462	394	180	65
2014 (BUILD - A.M.)	135	1,099	74	269	315	264	92	243	463	396	180	65
		0.94			0.92			0.95			0.95	PHF
		nd (Rio Bray			nd (Rio Bra			ound (Isleta			ound (isleta	
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing (2012)	139	383	118	479	909	351	161	238	152	282	282	151
2014 (NO BUILD - P.M.)	164	464	140	594	1,040	524	171	251	210	432	312	166
2014 (BUILD - P.M.)	164	465	140	600	1,045	533	171	251	211	434	312	166
Driveway 'A' / Broadway Blvc	-	0.85	10.0	144 41	0.85			0.75			0.75	PHF
(8) 5.0% Truck	Left	und (Drivew Thru	Right	Left	und (Drivey	Right	Left	Ind (Broadw Thru	Right	Left	Ind (Broadw Thru	
Existing (2012)		0			0			353		O	167	Right 0
2014 (NO BUILD - A.M.)	0	0	0	0	0	0	0	496	0	0	248	0
	-	-			-		-		-			
2014 (BUILD - A.M.)	0	0	40	0	0	0	0	496	0	0	239	2.0
1	Faatha	0.85 und (Drivew	1011	Weaths	0.85 und (Drivev		Madhhav	0.87 Ind (Broadw	and Philada 1	Cauthhan	0.87 Ind (Broadw	PHF
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing (2012)	0	0	0	0	0	0	0	292	0	0	480	0
2014 (NO BUILD - P.M.)	0	0	0	0	0	0	0	438	0	0	710	o
2014 (BUILD - P.M.)	0	0	58	0	0	0	0	438	0	0	693	42
							•				000	
Rio Bravo Blvd / Driveway 'B		0.93			0.93			0.85			0.85	PHF
(9)	Eastbou	nd (Rio Bray			nd (Rio Bra			ound (Drive)			ound (Drive	
5.0% Truck	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing (2012)	0	1,655	0	0	687	0	0	0	0	0	0	0
2014 (NO BUILD - A.M.)	0	2,077	0	· 0	907	0	0	0	0	0	0	0
2014 (BUILD - A.M.)	0	2,083	0	0	871	74	0	0	0	0	0	59
		0.91			0.91			0.85			0.85	PHF
		nd (Rio Bray			nd (Rlo Bra			ound (Drivey			ound (Drives	
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing (2012)	0	985	0	0	1,616	0	0	0	0	0	0	0
2014 (NO BUILD - P.M.)	0	1,322	0	0	2,253	0	0	0	0	0	0	0
2014 (BUILD - P.M.)	0	1,330	0	0	2,211	92	0	0	0	0	0	73

Rio Bravo / Broadway Comm. Dev. (NW Corner) Projected Turning Movements SUMMARY <u>PROPOSED DEVELOPMENT (2024) - 100% Development</u>

Case 'Y' - Rio Bravo drive

INTERSECTION: Summary Rio Bravo Blvd / I-25 E. ramp 0.76 0.78 0.85 PHF 0.97 Eastbound (Rio Bravo Bivd) Westbound (Rio Bravo Blvd) Northbound (I-25 E. ramp) Southbound (I-25 E. ramp) (1)Thru | Right Right 5.0% Truck Left Thru Left Thru Right Thru Right Left Left | Existing (2012) 151 0 1,040 556 10 0 0 0 93 31 1 131 4 0 0 0 2024 (NO BUILD - A.M.) 1,454 755 0 0 800 78 622 622 0 0 0 2024 (BUILD - A.M.) 1,464 764 0 0 815 78 134 4 PHF 0.96 0.77 0.85 0 85 Northbound (I-25 E. ramp) Left Thru Righ Eastbound (Rio Bravo Blvd) Westbound (Rio Bravo Blvd) Southbound (I-25 E. ramp) Thru Right Right Left Thru Right Left Thru Right Left Left 274 Existing (2012) 0 81 22 48 0 0 0 670 272 0 1 0 0 1,186 341 146 7 318 0 0 0 493 2024 (NO BUILD - P.M.) 1,219 7 0 0 318 0 2024 (BUILD - P.M.) 1,232 504 0 0 1,206 341 149 Rio Bravo Blvd / I-25 W. ramp 0.91 0.78 0.85 0.93 PHF Eastbound (Rio Bravo Blvd) Westbound (Rio Bravo Blvd) Northbound (I-25 W. ramp) Southbound (I-25 W. ramp) (2)Thru Right 5.0% Truck Thru Right Left Thru Right Left Thru Right Left Left 280 675 Existing (2012) 1,596 8 82 0 0 0 0 1 0 11 60 0 0 363 71 981 2024 (NO BUILD - A.M.) 0 1,855 9 456 0 0 2024 (BUILD - A.M.) 9 60 474 0 0 0 0 363 71 1,004 0 1,873 0,95 0.79 0.85 0.88 PHF Southbound (I-25 W. ramp) Westbound (Rio Bravo Blvd) Northbound (I-25 W. ramp) Eastbound (Rio Bravo Blvd) Left Thru Right Left Thru Right Left Thru Right Left Thru Right Existing (2012) 22 54 220 0 0 0 0 51 1,148 0 891 1 30 1,505 0 0 0 0 65 2024 (NO BUILD - P.M.) 0 1,404 31 227 882 905 0 0 0 0 65 30 1,535 2024 (BUILD - P.M.) 0 1,428 31 227 Rio Bravo Blvd / Broadway Blvd 0.93 0.82 0.86 0.75 PHF Southbound (Broadway Blvd) Northbound (Broadway Blvd) (3) Eastbound (Rio Bravo Blvd) Westbound (Rio Bravo Blvd) 9.9% Truck Left Thru Right Left Thru Right Left Thru Right Left Right Thru i 1,400 65 Existing (2012) 104 155 562 26 60 176 220 15 87 151 2024 (NO BUILD - A.M.) 402 481 927 43 308 591 691 38 188 104 186 1,805 1,805 192 110 2024 (BUILD - A.M.) 192 402 481 963 48 311 592 691 61 PHF 0.87 0.92 0 85

Westbound (Rio Bravo Blvd)

1,223

1,365

1,413

Thru Right

Left

214

304

304

Northbound (Broadway Blvd)

Thru

163

457

458

Left

174

871

875

24

27

33

Right

260

771

771

Left

15

60

91

Existing (2012) 2024 (NO BUILD - P.M.) 2024 (BUILD - P.M.) 0.91 Eastbound (Rio Bravo Blvd)

Thru

766

915

915

Left

105

121

129

Right

114

414

414

RB-BdwyNW_TURNS2024-CaseY.xls - Summary

3/9/2012

Southbound (Broadway Blvd)

Thru

246

813

819

Right

219 680

688

Rjo Bravo / Broadway Comm. Dev. (NW Corner) Projected Turning Movements SUMMARY <u>PROPOSED DEVELOPMENT (2024) - 100% Development</u> Case 'Y' - Rio Bravo drive

Rio Bravo Blvd / Prince St		0.89			0.89			0.81			0.75	PHF
(4)	Eastbour	nd (Rio Bray	o Bivd)	Westbou	nd (Rio Bra	vo Blvd)	North	ound (Prin	ce St)	South	bound (Prin	ce St)
5.0% Truck	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing (2012)	41	1,537	37	35	576	43	75	2	78	13	0	10
2024 (NO BUILD - A.M.)	51	2,231	46	ି 5 1	954	63	102	3	111	19	0	14
2024 (BUILD - A.M.)	51	2,237	46	52	977	63	102	3	111	19	0	14
		0.95			0.87			0.77			0.85	PHF
	Eastbour	nd (Rio Bray	vo Blvd)		nd (Rio Bra			ound (Prin			bound (Prin	· · · · · · · · · · · · · · · · · · ·
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing (2012)	19	774	94	106	1,443	28	87	4	63	44	3	48
2024 (NO BUILD - P.M.)	23	1,251	116	142	2,271	37	118	5	88	61	4	65
2024 (BUILD - P.M.)	23	1,258	116	143	2,301	37	118	5	88	61	4	65
Rio Bravo Bivd / Second St		0.92			0.92			0.87			0,91	PHF
(5)	Eastbour	nd (Rio Bray			nd (Rio Bra			ound (Seco			ound (Seco	
5.0% Truck	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing (2012)	329	1,333	162	45	529	69	128	110	52	79	65	63
2024 (NO BUILD - A.M.)					000				000	194	440	114
Ford file Boum Aunit	549	2,452	271	86	853	124	454	390	223	194	118	114
2024 (BUILD - A.M.)	549 549	2,452 2,456	271 271	86 91	853 868	124 127	454 454	390 390	223 224	194 195	118	114
· · · · ·				91	868 0.91	127	454	390 0.75	224	195	118 0.91	114 PHF
· · · · ·	549 Eastbou	2,456	271 vo Blvd)	91 Westbou	868 0.91 nd (Rio Bra	127 vo Blvd)	454 Northb	390 0,75 ound (Seco	224 and St)	195 Southt	118 0.91 bound (Seco	114 PHF and St)
· · · · ·	549	2,456 0.92	271	91	868 0.91	127	454	390 0.75	224 and St) Right	195 Southt Left	118 0.91 Dound (Seco Thru	114 PHF nd St) Right
· · · · ·	549 Eastbou	2,456 0.92 nd (Rio Bra	271 vo Blvd)	91 Westbou	868 0.91 nd (Rio Bra	127 vo Blvd)	454 Northb	390 0.75 bound (Seco Thru 74	224 Ind St) Right 58	195 Southt Left 112	118 0.91 bound (Seco Thru 98	114 PHF and St) Right 399
2024 (BUILD - A.M.)	549 Eastbour Left	2,456 0.92 nd (Rio Bra Thru	271 vo Blvd) Right	91 Westbou Left	868 0.91 nd (Rio Bra Thru	127 vo Blvd) Right	454 Northb Left	390 0.75 ound (Seco Thru	224 and St) Right	195 Southt Left	118 0.91 Dound (Seco Thru	114 PHF nd St) Right 399 889
2024 (BUILD - A.M.)	549 Eastbour Left 116	2,456 0.92 nd (Rio Bra Thru 569	271 vo Blvd) Right 131	91 Westbou Left 30	868 0.91 Ind (Rio Bra Thru 1,296	127 vo Blvd) Right 57	454 Northb Left 213	390 0.75 bound (Seco Thru 74	224 Ind St) Right 58	195 Southt Left 112	118 0.91 bound (Seco Thru 98	114 PHF and St) Right 399

(6) Rio Bravo Blvd / Poco Loco will not be analyzed

RB-BdwyNW_TURNS2024-CaseY.xls - Summary

INTERSECTION:

Summary

Rio Bravo / Broadway Comm. Dev. (NW Corner) Projected Turning Movements SUMMARY <u>PROPOSED DEVELOPMENT (2024) - 100% Development</u>

Case 'Y' - Rio Bravo drive

				0436 1	- No Diai	o une						
INTERSECTION:	<u>S u</u>	mma	r y									
Rio Bravo Blvd / Isleta Blvd		0.84			0.81			0.87			0.93	PHF
(7)	Eastbour	nd (Rio Bra	vo Blvd)	Westbou	nd (Rio Bra	vo Blvd)	Northb	ound (isleta	Blvd)	Southbo	ound (Isleta	Bivd)
5.4% Truck	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing (2012)	123	1,001	68	208	258	182	82	216	394	300	156	56
2024 (NO BUILD - A.M.)	191	1,555	106	469	566	435	142	375	703	618	296	107
2024 (BUILD - A.M.)	191	1,556	106	473	569	442	142	375	704	620	296	107
		0.94	52		0.92			0.95			0.95	PHF
		nd (Rio Bray			nd (Rio Bra			ound (Isleta			ound (Isleta	
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing (2012)	139	383	118	479	909	351	161	238	152	282	282	151
2024 (NO BUILD - P.M.)	291	811	247	906	1,632	753	217	320	253	579	459	245
2024 (BUILD - P.M.)	291	812	247	912	1,637	762	217	320	254	581	459	245
Driveway 'A' / Broadway Blvc	1	0.85			0.85			0.75			0.75	PHF
(8)	Eastbo	und (Drivew	ray 'A')	Westbo	und (Drivev	vay 'A')	Northbou	ind (Broadw	ay Blvd)	Southbour	nd (Broadw	ay Blvd)
5.0% Truck	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing (2012)	0	0	0	0	0	0	0	353	0	0	167	0
2024 (NO BUILD - A.M.)	0	0	0	0	0	0	0	820	0	0	330	0
2024 (BUILD - A.M.)	0	0	40	0	0	0	0	820	0	0	321	20
		0.85	3		0.85			0.87			0.87	PHF
		und (Drivew			und (Drivey			ind (Broadw			nd (Broadw	
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing (2012)	0	0	0	0	0	0	0	292	0	0	480	0
2024 (NO BUILD - P.M.)	0	0	0	0	0	0	0	605	0	0	1,553	0
2024 (BUILD - P.M.)	0	0	58	0	0	0	0	605	0	0	1,536	32
Rio Bravo Blvd / Driveway 'B	•	0.93			0.93			0.85	1=11		0.85	PHF
(9) 5 0% Tauah		nd (Rio Bray			nd (Rio Bra			ound (Drivey			und (Drivey	
5.0% Truck	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing (2012)	0	1,655	0	0	687	0	0	0	0	0	0	0
2024 (NO BUILD - A.M.)	0	2,393	0	-	1,339	0	0	0	0		-	0
2024 (BUILD - A.M.)	0	2,399	0	0	1,303	82	0	0	0	0	0	59
r	E a Alta a M	0.91	i nun l	18faath au	0.91	Dive Dive	M	0.85	1011	Cauthha	0.85	PHF
	Left	nd (Rio Brav Thru	Right	Left	nd (Rio Bra Thru	Right	Left	ound (Drivev Thru	Right	Left	und (Drivev Thru	Right
Existing (2012)	Len	985		Leit	1.616	Right	Leit	0		O	0	Cigni 0
2024 (NO BUILD - P.M.)	0	1.450	0	0	2,916	0	0	0	0	0	0	0
				0		-	-	-	0	0	0	73
2024 (BUILD - P.M.)	0	1,458	0	U	2,874	102	0	0	U	U	U	/3

Rio Bravo / Broadway Comm. Dev. (NW Corner) Projected Turning Movements Worksheet Rio Bravo Blvd / I-25 E. ramp

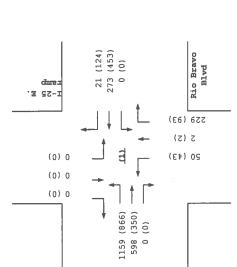
INTERSECTION	E M/ Classel	Die Drives i	Divel		(4)								
		Rio Bravo I I-25 E. ram			(1)								
Year of Existing Counts	2012	1-23 E. 1411	h										
Implementation Year	2012												
•	Growth Rates		2.84%			56.65%			25.99%			3.00%	
	GIOWIII Kates	Eastbou	nd (Rio Bray	o Blvd)	Westbol	Ind (Rio Bra	vo Blvd)	Northb	ound (I-25 E		Southb	ound (1-25 E	. ramp)
		Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing Volumes		1,040	556	0	0	93	10	31	1	151	0	0	1
Background Traffic Growth		<u>59</u>	<u>32</u>	0	Q	<u>105</u>	<u>11</u>	<u>16</u>	1	<u>78</u>	<u>0</u>	<u>0</u>	
Subtotal		1,099	588	0	0	198	21	47	2	229	0	0	
Neilsen Industrial Park		56	7	0	0	72	0	0	0	0	0	0	Ì
Rio Bravo Commerce Center		4	3	0	0	3	0	3	Q	Q	Q	0	
Neilsen Broadway Dev.		Q	0	0	Q	0	0	0	0		Q	0	
Subtotal (NO BUILD - A.I	กา	1,159	598	0	0	273	21	50	2	229	0	0	
Percent Commercial Trips Generated	· .	0.00%	0.00%	0.00%	0.00%	29.86%	0.00%	5.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Percent Commercial Trips Generate		18.82%	16.96%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Total Trips Generated	,	10	9	0	0	15	0	3	0	0	0	0	
Total AM Peak Hour BU	JILD Volumes	1,169	607	0	0	288	21	53	2	229	0	0	
	1	Eacthein	5.28% nd (Rio Bray	(a Blyd)	Weethou	26.76% and (Rio Bra	vo Blyd)	Northh	46.85% ound (I-25 E	rampl	Southb	3.00% ound (I-25 E	ramn)
		Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing Volumes		670	272	0		274	81	22	1	the second days of the second days	0	0	
Background Traffic Growth		71	29	Q	Q	147	43	21	1		<u>0</u>	<u>0</u>	
Subtotal +		741	301	0	0	421	124	43	2		0	0	
Neilsen Industrial Park		100	41	0	0	30	0	0	0		.0	0	
Rio Bravo Commerce Center		25	8	<u>0</u>	<u>0</u>	2	0	Q	0		Q	0	
							0	<u>¥</u>	0		<u>0</u>	<u>0</u>	
Neilsen Broadway Dev.		0	0	0	<u>0</u>	0					0	<u>0</u>	1
Subtotal (NO BUILD - P.M	· .	866	350	0	0	453	124	43	2	93	0.00%	0.00%	0.00%
Percent Commercial Trips Generated		0.00%	0.00%	0.00%	0.00%	29.86% 0.00%	0.00%	5.00% 0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Percent Commercial Trips Generate Total Trips Generated	u(cxiany)	13	10.5078	0.0078	0.0070	20	0.0076	3	0.0078		0.0075	0.0070	0.0070
Total PM Peak Hour BU	ILD Volumes	879	361	0		473	124	46	2		0	0	
				<u></u>						l			
Number of Commercial Trips Gene	rated	Entering 51	Exiting 51	A.M.	100% Cor	nmercial C	evelopme	at	8				
Number of Commercial Trips Gene	indicu	67		P.M.	10070 007		oreiopine	16					
	ſ	Faathau	nd (Rio Brav	(a Dhull)	Wantha	Ind (Rio Bra	Plud)	Marthi	ound (I-25 E	mmal	Couthh	ound (I-25 E	Inme
2012 AM Peak H	-Ir Volumes	1.040	556	0 0100		93	10	31	<u>1</u>	· · · · · · · · · · · · · · · · · · ·	0	00110 (1-20 C	
2012 PM Peak H		670	272	0		274	81	22	1		0	0	
													2
MRCOG Forecast Volumes Work	sheet												
Based on 2012 Traffic Count													
2012 AM Link V	olume		1,596			103			183			0	
2012 PM Link V			942			355			71			0	
Based on MRCOG Model (2035 D									40.71				
2035 AM Link V 2035 PM Link V			2637 2085			1445 2540			1277 836				
Growth Rate to Apply to Existing Co 2012-2035 AM Growth Rates	ounts to Match	2035 100	2.84%			56.65%			25.99%			#DIV/01	
2012-2035 AM Growth Rates			5.28%			26.76%			46.85%			#DIV/01	
Growth Rate to Apply to 2004 Mode	al Volumes to	Match 203	5 Forecar	s									
2004-2035 AM Growth Rates	or volutiles to	FIGIOIT 200	2.00%			78,55%			10.88%			#DIV/0!	
2004-2035 PM Growth Rates	13713		2.38%			3.76%			35.30%			#DIV/01	
2004-2035 PM Growth Rates			2.38%			3.76%			35.30%			#DIV/01	

3/10/2012

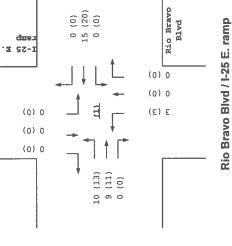
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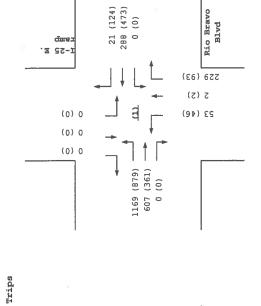
RB-BdwyNW_TURNS-CaseY.xls - Int_1











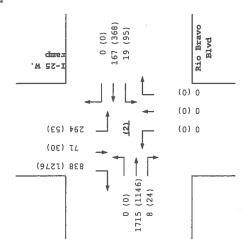
2014 BUILD

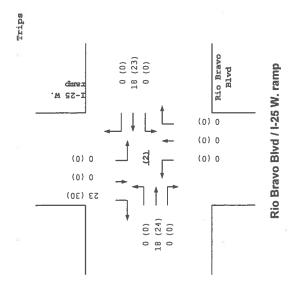
Rio Bravo / Broadway Comm. Dev. (NW Corner) Projected Turning Movements Worksheet Rio Bravo Blvd / I-25 W. ramp

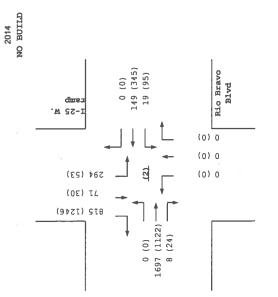
INTERSECTION:	E-W Street:	Rio Bravo			(2)								
	N-S Street:	I-25 W. ran	ıp										
Year of Existing Counts	2012												
Implementation Year	2014												
	Growth Rates		0.99%			37.40%			3.00%			2.46%	
			nd (Rio Bra			und (Rio Bra			ound (I-25 W			ound (I-25 W Thru	Right
Eviating Maluman		Left	Thru 1,596	Right	Left	Thru	Right	Left	Thru	Right 0	Left 280	1	
Existing Volumes		0		8	t		0	0					
Background Traffic Growth		0	31	0		<u>61</u>	<u>0</u>	0		· ····	<u>14</u>	0	
Subtotal		0	1,627	8		143	0	0	0		294	1	708
Neilsen Industrial Park		0	63	0			0	0	0		0	70	85
Rio Bravo Commerce Center		Q	7	<u>0</u>	Q	6	Q	Q	<u>0</u>	0	<u>0</u>	<u>0</u>	22
Neilsen Broadway Dev.		Q	Q	0	0	0	Q	0	0	Q	Q	<u>0</u>	Q
Subtotal (NO BUILD -)	A.M.)	0	1,697	8	19	149	0	0	0	0	294	71	815
Percent Commercial Trips Genera	,	0.00%	0.00%	0.00%	0.00%	34.86%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	45.00%
Percent Commercial Trips Gener		0.00%	35.78%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Total Trips Generated	5,	0	18	0		18	0	0	0	0	0	0	23
Total AM Peak Hour	BUILD Volumes	- 0	1,715	8	19	167	0	0	0	0	294	71	838
		L									·		
			3.17%			24.44%			3.00%			2.26%	
		Eastbou	nd (Rio Bra	vo Blvd)	Westbo	und (Rio Bra	vo Bivd)	Northb	ound (1-25 W	. ramp)	Southb	ound (I-25 W	. ramp)
		Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing Volumes		0	891	22	54	220	0	0	0	0	51	1	1,148
Background Traffic Growth		0	<u>57</u>	1	<u>26</u>	<u>108</u>	Q	<u>0</u>	0	Q	2	Q	<u>52</u>
Subtotal		0	948	23	80	328	0	0	0	0	53	1	1,200
Neilsen Industrial Park		0	141	0	15	15	0	0	0	0	0	29	38
Rio Bravo Commerce Center		0	33	1		2	Q	Q	<u>Q</u>	Q	0	Q	8
					<u>0</u>								
Neilsen Broadway Dev.		Q	<u>Q</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>
Subtotal (NO BUILD - I	P.M.)	0	1,122	24	95	345	0	0	0	0	53	30	1,246
Percent Commercial Trips Genera		0.00%	0.00%	0.00%	0.00%	34.86%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	45.00%
Percent Commercial Trips Genera	ated(Exiting)	0.00%	35.78%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Total Trips Generated		0	24	0	0	23	0	0	0		0	0	30
Total PM Peak Hour i	BUILD Volumes	0	1,146	24	95	368	0	0	0	0	53	30	1,276
Number of Commercial Trips Ge	nerated	Entering 51 67 Eastbour		A.M. P.M. vo Blvd)		nmercial C Ind (Rio Bra	evelopme vo Blvd)		ound (1-25 W	. ramp)	Southb	ound (I-25 W	. ramp)
2012 AM Peak	k Hr. Volumes	0	1596	8	11	82	0	0		0	280	1	675
2012 PM Peak	k Hr. Volumes	0	891	22	54	220	0	0	0	0	51	1	1,148
MRCOG Forecast Volumes Wo	orksheet										Sec.		
Based on 2012 Traffic Count						1.5							
2012 AM Link	Volume		1,604			93			0			956	
2012 PM Link	Volume		913			274			0			1,200	
Based on MRCOG Model (2035	5 Data Set)												
2035 AM Link			1968			893			0			1497	
2035 PM Link	Volume		1579			1814			0			1823	
Growth Rate to Apply to Existing	Counts to Matc	h 2035 For	ecasts										
2012-2035 AM Growth Rates	A CONTRACTOR		0.99%			37.40%			#DIV/01			2.46%	
2012-2035 PM Growth Rates			3.17%			24.44%			#DIV/01			2.26%	
Orough Data to Apply to 000414		Malah 202	E Earness	-									
Growth Rate to Apply to 2004 Mo 2004-2035 AM Growth Rates	Juer volumes to	Match 203	1.00%	1.5		26.17%			#DIV/0I			1.52%	
2004-2035 PM Growth Rates			0.98%			2.17%			#DIV/01			80.78%	
Feet-Feet in Clowithards			0.0070			a. 1770			12 001 01 01			0011070	

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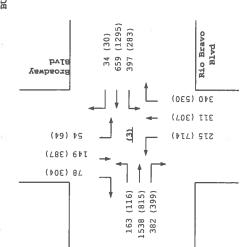
RB-BdwyNW_TURNS-CaseY.xls - Int_2

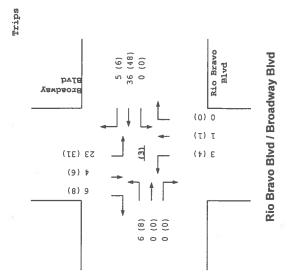
Rio Bravo / Broadway Comm. Dev. (NW Corner) Projected Turning Movements Worksheet Rio Bravo Blvd / Broadway Blvd

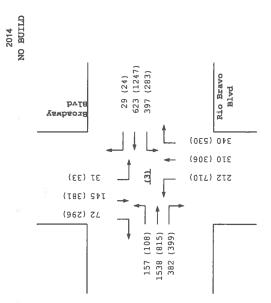
									,				
INTERSECTION:	E-W Street:	Rio Bravo	Blvd		(3)								
	N-S Street:	Broadway	Bivd										
Year of Existing Counts	2012												
mplementation Year	2014												
	Growth Rates	E M	1.90%	- (91	101	5.42%		N7 15 1	15.94%	D1 0	0.411	5.02%	
		Left	nd (Rio Bra Thru	Right	Left	und (Rio Bra Thru	Right	Left	und (Broadv Thru	Right	Left	und (Broad) Thru	Righ
Existing Volumes		151	1,400	104	155		26	60	176	220	15	87	Ngr
Background Traffic Growth		6	53	4	17	61	3	19	56	70	2	9	
Subtotal		157	1,453	108	172		29	79	232	290	17	96	
Kan Industrial Park		0	0	39	181	020	0	/3	4	37	0	21	
		0	0	53		0	0			7	0	8	
Rio Bravo Commerce Center					28		-	5	5		-		
Previous Development from bel		Q	<u>85</u>	<u>182</u>	<u>16</u>	<u>0</u>	<u>0</u>	<u>120</u>	<u>69</u>	<u>6</u>	<u>14</u>	<u>20</u>	
Subtotal (NO BUILD -		157	1,538	382	397	623	29	212	310	340	31	145	
Percent Commercial Trips Gener Percent Commercial Trips Gene		11.35% 0.00%	0.00%	0.00%	0.00%	70.91% 0.00%	8.95% 0.00%	6.59% 0.00%	2.20% 0.00%	0.00%	0.00%	0.00%	0.00%
Total Trips Generated	rateu(Exiuriy)	0.00%	0.00%	0.00%	0.00%	36	0.00%	0.00%	0.00%	0.00%	45.6576	4	11.337
Total AM Peak Hour	BUILD Volumes	163	1,538	382	397	659	34	215	311	340	54	149	
	i da fa a como												
		Eastbou	1.30% nd (Rio Bra	/o Blvd)	Westbou	0.97% Ind (Rio Bra	vo Blvd)	Northbox	9.26% and (Broady	ray Blvd)	Southbou	17.55% and (Broady	vay Blvd
		Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Righ
Existing Volumes		105	766	114	214	1,223	24	174	163	260	15	246	2
Background Traffic Growth		3	<u>20</u>	3	4	<u>24</u>	<u>0</u>	<u>32</u>	<u>30</u>	<u>48</u>	5	<u>86</u>	
Subtotal		108	786	117	218	1,247	24	206	193	308	20	332	2
Kan Industrial Park		0	0	10	46	0	0	38	20	175	0	5	
Rio Bravo Commerce Center		0	0	9	10	0	0	53	12	34	0	6	
Previous Development from bel	ow	Q	29	263	9	Q	0	413	81	13	13	38	
Subtotal (NO BUILD -		108	815	399	283	1,247	24	710	306	530	33	381	2
Percent Commercial Trips Genera	· ·	11.35%	0.00%	0.00%	0.00%	70.91%	8.95%	6.59%	2.20%	0.00%	0.00%	0.00%	0.00%
Percent Commercial Trips Gener		0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	45.89%	8.79%	11.339
Total Trips Generated		8	0	0	0	48	6	4	1	0	31	6	
Total PM Peak Hour	BUILD Volumes	116	815	399	283	1,295	30	714	307	530	64	387	3
Number of Commercial Trips G		51 67 Eastbour		P.M.		nmercial D			Ind (Broadw	av Bivd)	Southbou	Ind (Broady	/av Blvd
2012 AM Pea	k Hr. Volumes	151	1400	104	155	562	26	60	176	220	15	87	
2012 PM Pea	ik Hr. Volumes	105	766	114	214	1,223	24	174	163	260	15	246	21
Previous Developments - AM	Peak Hour Volu	Eastbour Left	nd (Rio Brav Thru	Right	Left	nd (Rio Bra Thru	Right	Left	nd (Broadw Thru	Right	Left	ind (Broadv Thru	ray Bivd Righ
Neilsen Industrial Park		0	85	85	16	0	0	44	59	6	14	7	
Neilsen Broadway Dev.		Q	Q	<u>97</u>	Q	<u>0</u>	Q	<u>76</u>	<u>10</u>	<u>0</u>	<u>Q</u>	<u>13</u>	
	Subtotal	0	85	182	16	0	0	120	69	6	14	20	
Previous Developments - PM	Peak Hour Volu												
			nd (Rio Bray			Ind (Rio Bra			ind (Broadw			nd (Broadw	
		Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Neilsen Industrial Park		0	29	29	9	0	0	163	48	13	13	7	
Nellsen Broadway Dev.	ļ	Q	0	<u>234</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>250</u>	33	<u>0</u>	Q	<u>31</u>	
10000 5	Subtotal	0	29	263	9	0	0	413	81	13	13	38	
IRCOG Forecast Volumes We	orksneet												
Based on 2012 Traffic Count 2012 AM Lini 2012 PM Lini			1,655 985			743 1,461			456 597			167 480	
Based on MRCOG Model (203						1.50							
2035 AM Lini			2380			1669			2128			360	
2035 PM Lini	k volume		1280			1787			1868			2417	
Growth Rate to Apply to Existing	Counts to Match	h 2035 For											
2012-2035 AM Growth Rates			1.90%			5.42%			15.94%			5.02%	
2012-2035 PM Growth Rates			1.30%			0.97%			9.26%			17.55%	

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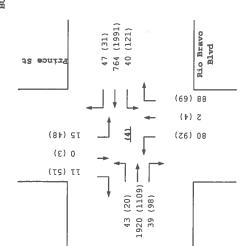
RB-BdwyNW_TURNS-CaseY.xls - Int_3

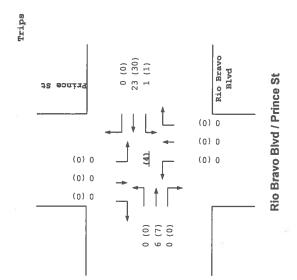
Rio Bravo / Broadway Comm. Dev. (NW Corner) Projected Turning Movements Worksheet Rio Bravo Blvd / Prince St

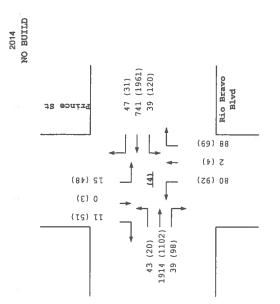
INTERSECTION: E-	W Street:	Rio Bravo	Blvd		(4)								
	S Street:	Prince St			(.)								
Year of Existing Counts	2012												
Implementation Year	2014												
•	rowth Rates		2.06%			3.68%			3.00%			3.00%	
		Eastbou	nd (Rio Bra	vo Blvd)	Westbou	und (Rio Bra	vo Blvd)	North	bound (Prin			bound (Prin	
		Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing Volumes		41	1,537	37		576	43	75	2	78	13	0	
Background Traffic Growth		2	<u>63</u>	2		<u>42</u>	<u>3</u>	<u>5</u>	<u>0</u>	<u>5</u>	1	<u>0</u>	
Subtotal		43	1,600	39	38	618	46	80	2	83	14	0	
Neilsen Industrial Park		0	166	0	1	42	1	0	0	3	1	0	
Rio Bravo Commerce Center		0	51	0	0	5	0	0	0	2	0	0	
Neilsen Broadway Dev.		Q	97	0	Q	76	Q	Q	Q	0	Q	Q	
Subtotal (NO BUILD - A.M.)		43	1,914	39	39	741	47	80	2	88	15	0	1
Percent Commercial Trips Generated(E		0.00%	11.07%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.27%	0.01%	0.00%	0.00%
Percent Commercial Trips Generated(E	Exiting)	0.00%	0.00%	0.00%	1.06%	44.21%	0.05%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Total Trips Generated		0	6	0		23	0	0	0	0	0	0	
Total AM Peak Hour BUIL	D Volumes	43	1,920	39	40	764	47	80	2	88	15	0	Carl.
			1.93%			2.15%			3.00%			3.00%	
			nd (Rio Bra			ind (Rio Bra			bound (Prin			bound (Prin	
		Left	Thru	Right	Left	Thru	Right	Left	Thru_	Right	Left	Thru	Right
Existing Volumes		19	774	94	106	1,443	28	87	4		44	3	4
Background Traffic Growth		1	30	4	5	<u>62</u>	1	5	Q	4	3	0	
Subtotal		20	804	98		1,505	29	92	4	67	47	3	
Neilsen Industrial Park		0	56	0		160	1	0	0	1	1	0	
Rio Bravo Commerce Center		0	8	0	-	46	1	0	0	1	0	0	
Neilsen Broadway Dev.		Q	<u>234</u>	<u>0</u>	<u>0</u>	<u>250</u>	Q	Q	Q	<u>0</u>	Q	<u>0</u>	
Subtotal (NO BUILD - P.M.)		20	1,102	98	120	1,961	31	92	4	69	48	3	5
Percent Commercial Trips Generated(E		0.00%	11.07%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.27%	0.01%	0.00%	0.00%
Percent Commercial Trips Generated(E	Exiting)	0.00%	0.00%	0.00%	1.06%	44.21%	0.05%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Total Trips Generated	A 4 10 10 10	0	7	0		30	0	0	0	0	0 48	0	5
Total PM Peak Hour BUIL	D Volumes	20	1,109	98	121	1,991	31	92	4	69	40	3	2
		Entering	Exiting										
Number of Commercial Trips General	ted	51 67	51 67	A.M. P.M.	100% Cor	nmercial D	evelopme	nt					
			nd (Rio Bra			ind (Rio Bra			ound (Prin			bound (Prin	
2012 AM Peak Hr.		41	1537	37	35	576	43	75	2	78	13 44	0	. 1
2012 PM Peak Hr.	Volumes	19	774	94	106	1,443	28	87	4	63	441	3	4
MRCOG Forecast Volumes Worksh	leet												
Based on 2012 Traffic Count													
2012 AM Link Vol			1,615			654			155			23	
2012 PM Link Vol			887			1,577			154			95	
Based on MRCOG Model (2035 Dat 2035 AM Link Volu			2380			1208							
2035 AM LINK VOI 2035 PM Link Voi			1280			2357							
Growth Rate to Apply to Existing Cou	nts to Matci	h 2035 For										4 0 501	
2012-2035 AM Growth Rates			2.06%			3.68%			-4.35%			-4.35% -4.35%	
2012-2035 PM Growth Rates			7 93%			2 15%							

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3/10/2012







RB-BdwyNW_TURNS-CaseY.xls - Int_4

Rio Bravo / Broadway Comm. Dev. (NW Corner) Projected Turning Movements Worksheet Rio Bravo Blvd / Second St

	E-W Street:	Rio Bravo			(5)								
	N-S Street:	Second St											
Year of Existing Counts	2012												
Implementation Year	2014												
	Growth Rates	Easthau	5.58%		146 41-	3.82%	and the	N. N. N.	21.21%		0	6.74%	
		Left	nd (Rio Bra Thru	Right	Left	und (Rio Bra			bound (Seco			bound (Sec	
Existing Volumes		329	1,333	162	45		Right 69	Left	Thru	Right	Left 79	Thru	Right
Background Traffic Growth			1,333	182				128	110	52	-	65	63
		37			3		5	<u>54</u>	<u>47</u>	22		9	<u>8</u>
Subtotal		366	1,482	180	48		74	182	157	74		74	71
Neilsen Industrial Park		0	107	0			19	0	0	18		0	0
Rio Bravo Commerce Center		0	44	0	0	4	1	0	0	2	5	0	0
Neilsen Broadway Dev.		Q	<u>75</u>	<u>0</u>	<u>15</u>	58	3	Q	0	<u>19</u>	4	Q	0
Subtotal (NO BUILD - A.M	(,)	366	1,708	180	68	650	97	182	157	113	141	74	71
Percent Commercial Trips Generated		0.00%	7.17%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	2.48%	1.42%	0.00%	0.00%
Percent Commercial Trips Generated		0.00%	0.00%	0.00%	9.90%	28.63%	5.68%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Total Trips Generated		0	4	0	5	15	3	0	0	1	1	0	Õ
Total AM Peak Hour BU	ILD Volumes	366	1,712	180	73	665	100	182	157	114	142	74	71
							-						
			9.16%			3.06%			15.85%			10,23%	
		Eastbou	nd (Rio Bra	vo Blvd)	Westbou	und (Rio Bra	vo Blvd)	North	ound (Seco	and St)	South	bound (Seco	nd St)
		Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing Volumes		116	569	131	30	1,296	57	213	74	58	112	98	399
Background Traffic Growth		21	104	24	2	79	3	68	23	<u>18</u>	23	20	82
Subtotal		137	673	155	32	1,375	60	281	97	76	135	118	481
Neilsen Industrial Park		0	44	0	17	80	63	0	0	6	17	0	0
Rio Bravo Commerce Center		0	6	0	1	44	1	0	0	1	1	0	0
							· ·	-			· · · ·	-	-
Neilsen Broadway Dev.		<u>0</u>	<u>180</u>	<u>0</u>	<u>48</u>	<u>192</u>	9	Q	<u>0</u>	<u>45</u>	<u>9</u>	Q	Q
Subtotal (NO BUILD - P.M	· ·	137	903	155	98	1,691	133	281	97	128	162	118	481
Percent Commercial Trips Generated		0.00%	7.17%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	2.48%	1.42%	0.00%	0.00%
Percent Commercial Trips Generated Total Trips Generated	f(Exiting)	0.00%	0.00%	0.00%	9.90%	28.63%	5.68%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
NAMES OF TAXABLE PARTY AND ADDRESS OF TAXABLE PARTY.	II D Value	137	5 908	0	7	19	4	0	0	2	1	0	0
Total PM Peak Hour BU	ILD VOIUmes	13/	908	155	105	1,710	137	281	97	130	163	118	481
Number of Commercial Trips Gener	rated	Entering 51 67	67	A.M. P.M.		nmercial D							
			nd (Rio Bray			Ind (Rio Bray			ound (Seco			ound (Seco	
2012 AM Peak H		329	1333	162	45	529	69	128	110	52	79	65	63
2012 PM Peak H	r. volumes [116	569	131	30	1,296	57	213	74	58	112	98	399
MRCOG Forecast Volumes Works	sheet												
Based on 2012 Traffic Count													
2012 AM Link Vo	olume		1,824			643			290			207	
2012 PM Link Vo			816			1,383			345			609	
Based on MRCOG Model (2035 Da						1.19							
2035 AM Link Vo			4167			1208			1705			528	
2035 PM Link Vo	olume		2535			2357			1603			2042	
Growth Rate to Apply to Existing Co	unts to Match	2035 For	casts										
2012-2035 AM Growth Rates	anto to Metor	. 1000 1 010	5.58%			3.82%			21.21%			6.74%	
2012-2035 PM Growth Rates			9.16%			3.06%			15.85%			10.23%	
						/0							

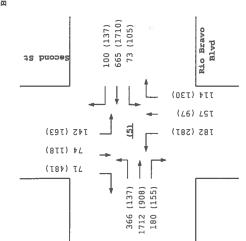
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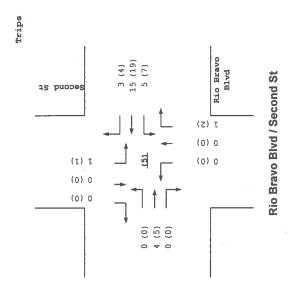
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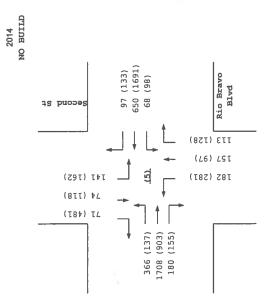
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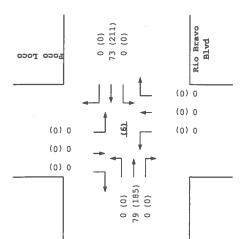


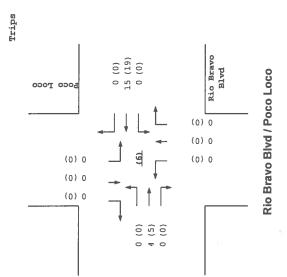
RB-BdwyNW_TURNS-CaseY.xls - Int_5

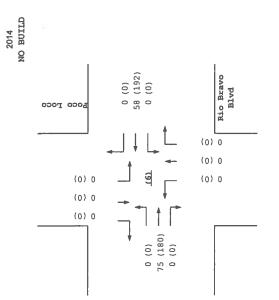
Rio Bravo / Broadway Comm. Dev. (NW Corner) Projected Turning Movements Worksheet Rio Bravo Blvd / Poco Loco

		-			(4)								
INTERSECTION:	E-W Street:	Rio Bravo			(6)								
	N-S Street:	Poco Loco											
Year of Existing Counts	2012	-											
Implementation Year	2014	F											
	Growth Rates	E Ab	-1.00% nd (Rio Bra	Direl)	18/a ath an	-1.00% und (Rio Bra	un Elizab	Madel	-1.00% bound (Poco	1	Couthi	-1.00%	1 anal
		Left	no (Rio Bra Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing Volumes		0	0		0		······	0	and the second se	M	0	0	
Background Traffic Growth		<u> </u>	0	0	<u>0</u>	0		0	0		0	0	0
Subtotal		0	0	0	0			0	0		<u> </u>	0	0
		0	0	0	0	0	_	0	0	-	0	0	0
Rio Bravo Commerce Center					-	-	-	-					-
Neilsen Broadway Dev.		Q	<u>75</u>	<u>0</u>	<u>0</u>	<u>58</u>	<u>0</u>	<u>0</u>	<u>0</u>		Q	<u>0</u>	Q
Subtotal (NO BUILD - A	l.M.)	0	75	0	0	58	0	0	0	0	0	0	0
Percent Commercial Trips General		0.00%	7.17%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Percent Commercial Trips Genera	ted(Exiting)	0.00%	0.00%	0.00%	0.00%	28.63%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Total Trips Generated		0	4	0	0	15	0	0	0		0	0	0
Total AM Peak Hour B	BUILD Volumes	. 0	79	0	0	73	0	0	0	0	0	0	0
			-1.00%			-1.00%			-1.00%			-1.00%	
			nd (Rio Bra			und (Rio Bra			ound (Pocc			ound (Poco	
		Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing Volumes		0	0		0			0	0		0	0	0
Background Traffic Growth		<u>0</u>	<u>Q</u>	<u>0</u>	Q	<u>0</u>		Q	<u>0</u>	<u>0</u>	Q	<u>0</u>	<u>0</u>
Subtotal		0	0	0	0	0	0	0	0	0	0	0	0
Rio Bravo Commerce Center		0	0	0	0	0	0	0	0	0	0	0	0
Nellsen Broadway Dev.		0	180	Q	Q	192	0	Q	<u>0</u>	0	Q	Q	Q
Subtotal (NO BUILD - F	P.M.)	0	180	0	0	192	0	0	0	0	0	0	0
Percent Commercial Trips General	*	0.00%	7.17%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Percent Commercial Trips Genera		0.00%	0.00%	0.00%	0.00%	28.63%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Total Trips Generated		0	5	0	0	19	0	0	0	0	0	0	0
Total PM Peak Hour B	BUILD Volumes	0	185	0	0	211	0	0	0	0	0	0	0
Number of Commercial Trips Ger	nerated	Entering 51 67	67	P.M.)evelopmer						
21			nd (Rio Bra			und (Rio Bra			ound (Poco			ound (Poco	
2012 AM Peak		0	0		0	0	0	0	0		0	0	0
2012 PM Peak	Hr. Volumes	0	0	0	U	0	0	0	0	0	0	0	0
MRCOG Forecast Volumes Wo	rksheet												
Based on 2012 Testile Court													
Based on 2012 Traffic Count 2012 AM Link	Volume		0			0			0			0	
2012 PM Link			0			0			0			0	
Based on MRCOG Model (2035			12- 12			Prove H							
2035 AM Link	Volume		4167			2113							
2035 PM Link	Volume		2535			4345							
Growth Rate to Apply to Existing	Counts to Mate	ch 2035 For							-			HOIL (/01	
2012-2035 AM Growth Rates 2012-2035 PM Growth Rates			#DIV/01			#DIV/01			#DIV/01			#DIV/01	
			#DIV/01			#DIV/0!			#DIV/01			#DIV/01	

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RB-BdwyNW_TURNS-CaseY.xis - Int_6

Rio Bravo / Broadway Comm. Dev. (NW Corner) Projected Turning Movements Worksheet Rio Bravo Blvd / Isleta Blvd

INTERSECTION:	E-W Street:	Rio Bravo	Blvd		(7)								
	N-S Street:	Isleta Blvd											
Year of Existing Counts	2010												
Implementation Year	2014												
	Growth Rates		5.03%			12.25%			6.96%			8.77%	
		Eastbou	nd (Rio Bra	vo Blvd)	Westbou	und (Rio Bra	vo Blvd)	North	bound (Isleta	a Blvd)	Southt	ound (Isleta	
		Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing Volumes		112	910	62	167	207	146	72	190	346	255	133	48
Background Traffic Growth		<u>23</u>	<u>183</u>	<u>12</u>	<u>82</u>	<u>101</u>	<u>72</u>	<u>20</u>	<u>53</u>	<u>96</u>	<u>89</u>	<u>47</u>	<u>17</u>
Subtotal		135	1,093	74	249	308	218	92	243	442	344	180	65
Rio Bravo Commerce Center		0	0	0	0	0	0	0	0	0	0	0	0
Neilsen Broadway Dev.		0	5	0	16	4	39	0	Q	20	<u>50</u>	Q	Q
Subtotal (NO BUILD - A		135	1.098	74	265	312	257	92	243	462	394	180	65
Percent Commercial Trips General	*	0.00%	1.69%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	2.15%	3.33%	0.00%	0.00%
Percent Commercial Trips General		0.00%	0.00%	0.00%	8.58%	6.75%	13.30%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Total Trips Generated		0	1	0	4	3	7	0	0	1	2	0	0
Total AM Peak Hour I	BUILD Volumes	135	1,099	74	269	315	264	92	243	463	396	180	65
		L							·				
			11.06%			7.49%			3.07%			5.81%	
		Eastbou Left	nd (Rio Bra Thru	vo Blvd) Right	Left	und (Rio Bra Thru	vo Blvd) Right	Left	bound (isleta	Right	Left	ound (Isleta Thru	Right
			314	Right 97	417	791	305	152	224	rtigrit 143	253	253	135
Existing Volumes		114 50	<u>139</u>	<u>43</u>	125	237	<u>91</u>	<u>152</u>	224	143	<u>255</u>	<u>59</u>	31
Background Traffic Growth				<u>43</u> 140						161	312	312	166
Subtotal		164	453		542	1,028	396	171	251				
Rio Bravo Commerce Center		0	0	0	0	0	0	0	0	0		0	0
Neilsen Broadway Dev.		<u> </u>	<u>11</u>	<u>0</u>	<u>52</u>	<u>12</u>	<u>128</u>	<u>0</u>	Q	<u>49</u>	<u>120</u>	Q	<u>0</u>
Subtotal (NO BUILD - F	P.M.)	164	464	140	594	1,040	524	171	251	210	432	312	166
Percent Commercial Trips General		0.00%	1.69%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	2.15%	3.33%	0.00%	0.00%
Percent Commercial Trips Genera	ated(Exiting)	0.00%	0.00%	0.00%	8.58%	6.75%	13.30%	0.00%	0.00%	0.00%	0.00%	0.00% 0	0.00%
Total Trips Generated		0	1	0	6	5	9	0	251	1 211	2 434	312	0
Total PM Peak Hour I	BUILD volumes	164	465	140	600	1,045	533	171	201	211	434	312	100
		Enterina	Exiting										
Number of Commercial Trips Ger	nerated	51		A.M.	100% Cor	nmercial D	evelopme	nt					
		67	67	P.M.									
		T- ath any	od (Die Dee	Divit)	Monthey	Ind (Rio Bra	ne Divelt	Madh	oound (Isleta	Direct)	Couthh	ound (Isleta	Divel
2012 AM Peak		123	nd (Rio Bra 1001	68	208	258	182	82	216	394	300	156	56
2012 AM Peak 2012 PM Peak		139	383	118	479	909	351	161	238	152	282	282	151
												l	
MRCOG Forecast Volumes Wo	rksheet												
Dened Poto Taulia C													
Based on 2010 Traffic Count 2010 AM Link	Volume		1,084			520			608			436	
2010 AM LINK 2010 PM LINK			525			1.513			519			641	
Based on MRCOG Model (2035						.,							
2035 AM Link			2446			2113			1666			1392	
2035 PM Link	Volume		1977			4345			917			1572	
Country Data to Apply to Fridation	Counts in Main	- 2025 F	nanala										
Growth Rate to Apply to Existing 2010-2035 AM Growth Rates	Counts to Mate	11 2035 FOR	5.03%			12.25%			6.96%			8.77%	
2010-2035 PM Growth Rates			11.06%			7.49%			3.07%			5.81%	

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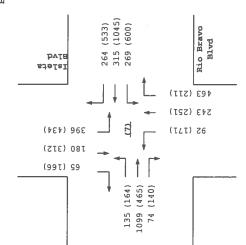
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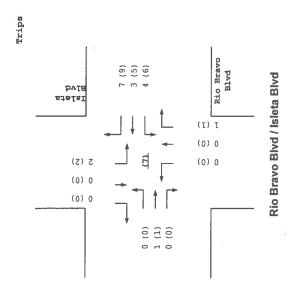
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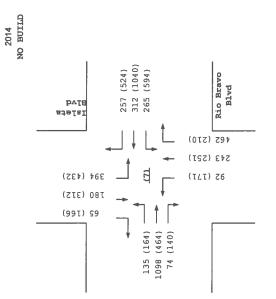
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RB-BdwyNW_TURNS-CaseY.xis - Int_7

Rio Bravo / Broadway Comm. Dev. (NW Corner) Projected Turning Movements Worksheet Driveway 'A' / Broadway Blvd

	E-W Street:	Driveway			(8)								
	N-S Street:	Broadway	Blvd										
Year of Existing Counts	2012												
Implementation Year	2014												
	Growth Rates		3.00%			3.00%			5.02%			5.02%	
		Eastbo Left	und (Drive		Westb Left	ound (Driver			und (Broad			und (Broady	
Existing Volumes		Leit	Thru 0	Right 0		Thru 0	Right	Left	Thru	Right	Left	Thru	Right
Background Traffic Growth			0	-	Q								0
		<u>0</u>						<u>0</u>					0
Subtotal		0	0		0			0					0
Kan Industrial Park		0	0				0	0		-	-	21	0
Rio Bravo Commerce Center		0	0	0	0	-	0	0	5	0	0	8	0
Neilsen Commercial / IP Developm	ent	Q	<u>0</u>	0	<u>0</u>	Q	Q	Q	<u>69</u>	0	Q	34	<u>0</u>
Subtotal (NO BUILD - A.M	1.)	0	0	0	0	0	0	0	496	0	0	248	0
Percent Commercial Trips Generated	(Entering)	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	22.50%
Percent Commercial Trips Generated	d(Exiting)	0.00%	0.00%	61.01%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Total Trips Generated		0	0		0		0	0					11
Subtotal AM Pk Hr. BUILD Volum	es	0	0	1	0	-	0	0	496		0		11
Pass-by Trip Adjustments		0	0	9	0	0	0	0	0	0	0	-9	
Total AM Peak Hour BU	ILD Volumes	0	0	40	0	0	0	0	496	0	0	239	20
			3.00%			3.00%			17.55%			17.55%	
			und (Drivey			ound (Drivey			und (Broady			und (Broadw	
Eviating Malumon		Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing Volumes		0	0		0		0	0		0			0
Background Traffic Growth		<u>0</u>	0	0	0	<u>Q</u>	0	<u>0</u>	<u>102</u>	<u>0</u>	Q		<u>0</u>
Subtotal		0	0	0	0		0	0		0	-	648	0
Kan Industrial Park		0	0	0	0	0	0	0	20	0	0	5	0
Rio Bravo Commerce Center		0	0	0	0	0	0	0	12	0	0	6	0
Neilsen Commercial / IP Developme	ent	0	0	0	Q	Q	<u>0</u>	0	81	Q	Q	<u>51</u>	0
Subtotal (NO BUILD - P.M	.)	0	0	0	0	0	0	0	438	0	0	710	0
Percent Commercial Trips Generated	· .	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	22.50%
Percent Commercial Trips Generated		0.00%	0.00%	61.01%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Total Trips Generated		0	0	41	0	0	0	0	0	0	0	0	15
Subtotal PM Pk Hr. BUILD Volume	es	0	0	41	0	0	0	0	438	0	0	710	15
Pass-by Trip Adjustments		0	0	17	0	0	0	0	0	0	0	-17	17
Total PM Peak Hour BU	LD Volumes	0	0	58	0	0	0	0	438	0	0	693	32
Alumber of Commercial Trins Conser	unter d	Entering	Exiting	A 84	100% Con								
Number of Commercial Trips Gener	ated	51 67	51 67	A.M. P.M.	100% Cor	nmercial D	evelopme	nt					
	г	Fastha	und (Daluan	181) -	10 math	und (Delana		A1			0		
2012 AM Peak H	r Volumes	Eastbo	und (Drivev O	ay A) O	O	ound (Drivew 0	ay A'		and (Broady 353	ay Bivd)	SouthBol	Ind (Broadw 167	ay Bivd)
2012 PM Peak H	-	0	0	0	0	0	0	0	292	0		480	0
									202			100	
Pass-by Trip Calculations:													
AM Pass-b			Ind (Drivew			und (Drivew			Ind (Broadw			Ind (Broadwa	
Percent Ent Volume Ent	• F	0.00%	0.00% 0	0.00% 0	0.00%	0.00%	0.00%	0.00%	0.00% 0	0.00%	0.00%	-18.00%	<u>18.00%</u> 9
Percent Exi		0.00%	0.00%	18.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Volume Exi		0.007	0	9	0	0.007	0.0070	0.0070	0.0074	0.0078	0.0070	0.0070	0.0070
Net AM Passby 1		0	0	9	0	0	0	0	0	0	0	-9	9
PM Pass-b	v Trine	Faetho	Ind (Drivew	av 'A'i I	Waetho	und (Drivew	An I	Northhan	nd (Broadw	av Blydi	Southhan	nd (Broadwa	v Bludi
Percent Ent		0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	-25.00%	25.00%
Volume Ent		0.007	0	0	0	0	0.0070	0	0	0	0	-17	17
Percent Exi		0.00%	0.00%	25.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Volume Exil	· .	0	0	17	0	0	0	0	0	0	0	0	0
Net PM Passby T	rips	0	0	17	0	0	0	0	0	0	0	-17	17
Dana I., 97		Entering	Exiting	A.8.4									
Pass-by Trij	US	51 67		AM PM									I
		07	07	. (5)			-						

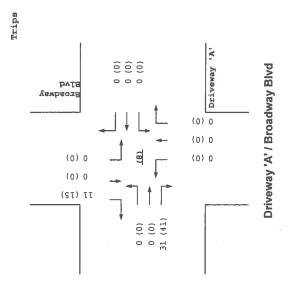
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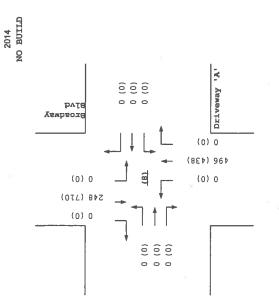
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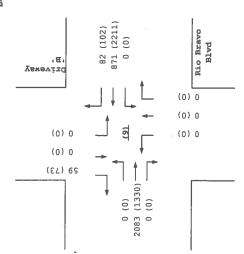
RB-BdwyNW_TURNS-CaseY.xts - Int_8

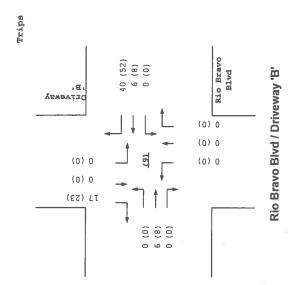
Rio Bravo / Broadway Comm. Dev. (NW Corner) Projected Turning Movements Worksheet Rio Bravo Blvd / Driveway 'B'

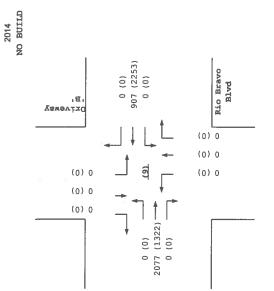
INTERSECTION:	E-W Street:	Rio Bravo			(9)								
	N-S Street:	Driveway	B										
Year of Existing Counts	2012												
Implementation Year	2014												
	Growth Rates		1.90%			1.90%			3.00%			3.00%	
		and the second division of the second divisio	ind (Rio Bra			und (Rio Bra			ound (Drive			ound (Drive	
		Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing Volumes		0	· · · ·	0	0		0		0			0	
Background Traffic Growth		<u>0</u>	<u>63</u>	<u>0</u>	<u>0</u>	<u>26</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	ļ
Subtotal		0	1,718	0	0	774	0	0	0	0	0	0	(
Kan Industrial Park		0	39	0	0	8	0	0	0	0	0	0	. (
Rio Bravo Commerce Center		0	53	0	0	5	0	0	0	0	0	0	
					-			-	-				
Neilsen Commercial / IP Develop		<u>0</u>	267	0	0	120	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	
Subtotal (NO BUILD - A	.M.)	0	2,077	0	0	907	0	0	0	0	0	0	0
Percent Commercial Trips General	ed(Entering)	0.00%	11.35%	0.00%	0.00%	0.00%	77.50%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Percent Commercial Trips Genera	ted(Exiting)	0.00%	0.00%	0.00%	0.00%	11.33%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	33.99%
Total Trips Generated		0	6	0	0	6	40	0	0		0	0	17
Subtotal AM Pk Hr. BUILD Volu	mes	0	2,083	0	0	913	40	0	0	0	0	0	17
Pass-by Trip Adjustments		0	0	0	0	-42	42	0	0	0	0	0	42
Total AM Peak Hour E	UILD Volumes	0	2,083	0	0	871	82	0	0	0	0	0	59
		_	1.30%			1.30%			3.00%			3.00%	
			Ind (Rio Bray			Ind (Rio Bra			ound (Drive			ound (Drivey	
		Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing Volumes		0	985	0	0	1,616	0	0	0	0	0	0	0
Background Traffic Growth		<u>0</u>	<u>26</u>	Q	Q	<u>42</u>	Q	<u>0</u>	<u>Q</u>	<u>0</u>	<u>0</u>	Q	<u></u>
Subtotal		0	1,011	0	0	1,749	0	0	0	0	0	0	0
Kan Industrial Park		0	10	0	0	38	0	0	0	0	0	0	C
Rio Bravo Commerce Center		0	9	0	0	53	0	0	0	0	0	0	0
	~				0		-		-				-
Neilsen Commercial / IP Develop		Q	292	0		413	<u>0</u>	<u>0</u>	<u>0</u>	Q	<u>0</u>	Q	<u>0</u>
Subtotal (NO BUILD - P		0	1,322	0	0	2,253	0	0	0	0	0	0	0
Percent Commercial Trips Generate	ed(Entering)	0.00%	11.35%	0.00%	0.00%	0.00%	77.50%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Percent Commercial Trips General	led(Exiting)	0.00%	0.00%	0.00%	0.00%	11.33%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	33.99%
Total Trips Generated		0	8	0	0	8	52	0	0	0	0	0	23
Subtotal PM Pk Hr. BUILD Volu	mes	0	1,330	0	0	2,261	52	0	0	0	0	0	23
Pass-by Trip Adjustments		0	0	0	0	-50	50	0	0	0	0	0	50
Total PM Peak Hour B	UILD Volumes	0	1,330	0	0	2,211	102	0	0	0	0	0	73
Number of Commercial Trips Gen	erated	Entering 51 67		A.M. P.M.	100% Con	nmercial D	evelopme	nt					
		Eastbou	nd (Rio Brav		Westbou	nd (Rio Bra	vo Blvd)	Northbo	und (Drivey	vay 'B')	Southbo	ound (Drivew	vay 'B')
2012 AM Peak	Lis Malineau	0	1655	0	0	687	0	0	0	0	0	0	0
	Hr. volumes									0	0	0	0
2012 PM Peak		0	985	0	0	1,616	0	0	0				
2012 PM Peak			985	0	0	1,616	0	0	U				
2012 PM Peak	Hr. Volumes	Ō	985 nd (Rio Brav			1,616 nd (Rio Bray			und (Drivev		Southbo	und (Drivew	
2012 PM Peak Pass-by Trip Calculations:	Hr. Volumes -by Trips	Ō									Southbo	und (Drivew 0.00%	
2012 PM Peak Pass-by Trip Calculations: <u>AM Pass</u> Percent E Volume E	Hr. Volumes -by Trips Intering Intering	0 Eastbou 0.00% 0	nd (Rio Brav 0.00%	ro Bivd) 0.00% 0	Westbou 0.00%	nd (Rio Bray -82.00% -42	vo Blvd) 82.00% 42	Northbo 0.00%	<u>und (Drivev</u> 0.00% 0	vay 'B') 0.00% 0	0.00% 0	0.00% 0	vay 'B') 0.00% 0
2012 PM Peak Pass-by Trip Calculations: <u>AM Pass</u> Percent E Volume E Percent E	Hr. Volumes <u>-by Trips</u> Intering Intering Exiting	0 Eastbou 0.00% 0 0.00%	nd (Rio Brav 0.00% 0 0.00%	ro Blvd) 0.00% 0 0.00%	Westbou 0.00% 0 0.00%	nd (Rio Bray -82.00% -42 0.00%	vo Blvd) 82.00% 42 0.00%	Northbo 0.00% 0 0.00%	und (Drivev 0.00% 0 0.00%	vay 'B') 0.00% 0 0.00%	0.00% 0 0.00%	0.00% 0 0.00%	/ay 'B') 0.00% 0 82.00%
2012 PM Peak Pass-by Trip Calculations: <u>AM Pass</u> Percent E Volume E Percent E Volume E	Hr. Volumes by Trips Intering intering Exiting Exiting	0 Eastbou 0.00% 0 0.00% 0	nd (Rio Brav 0.00% 0 0.00% 0	ro Blvd) 0.00% 0 0.00% 0	Westbou 0.00% 0 0.00% 0	nd (Rio Bray -82.00% -42 0.00% 0	vo Blvd) 82.00% 42 0.00% 0	Northbo 0.00% 0 0.00% 0	und (Drivey 0.00% 0 0.00% 0	vay 'B') 0.00% 0 0.00% 0	0.00% 0 0.00% 0	0.00% 0 0.00% 0	ray 'B') 0.00% 0 82.00% 42
2012 PM Peak Pass-by Trip Calculations: <u>AM Pass</u> Percent E Volume E Percent E	Hr. Volumes by Trips Intering intering Exiting Exiting	0 Eastbou 0.00% 0 0.00%	nd (Rio Brav 0.00% 0 0.00%	ro Blvd) 0.00% 0 0.00%	Westbou 0.00% 0 0.00%	nd (Rio Bray -82.00% -42 0.00%	vo Blvd) 82.00% 42 0.00%	Northbo 0.00% 0 0.00%	und (Drivev 0.00% 0 0.00%	vay 'B') 0.00% 0 0.00%	0.00% 0 0.00%	0.00% 0 0.00%	ray 'B') 0.00% 0 82.00% 42
2012 PM Peak Pass-by Trip Calculations: <u>AM Pass</u> Percent E Volume E Percent E Volume E	Hr. Volumes <u>by Trips</u> Intering intering ixiting ixiting / Trips	0 Eastbou 0.00% 0 0.00% 0 0	nd (Rio Brav 0.00% 0.00% 0 0 0 0 0	ro Bivd) 0.00% 0 0.00% 0 0 0 0 0 0 0 0 0 0 0 0 0	Westbou 0.00% 0 0.00% 0 0 Westbou	nd (Rio Brav -82.00% -42 0.00% 0 -42 nd (Rio Brav	vo Blvd) 82.00% 42 0.00% 0 42 vo Blvd)	Northbo 0.00% 0 0.00% 0 0 0 0 Northbo	und (Drivey 0.00% 0 0.00% 0 0 0 und (Drivey	vay 'B') 0.00% 0.00% 0 0 0 0 0 0 0 0 0	0.00% 0 0.00% 0 0 0 Southbo	0.00% 0 0.00% 0 0 0	vay 'B') 0.00% 0 82.00% 42 42 42 vay 'B')
2012 PM Peak Pass-by Trip Calculations: <i>AM Pass Percent E</i> <i>Volume E</i> <i>Volume E</i> <i>Volume E</i> <i>Net AM Passby</i>	Hr. Volumes -by Trips intering intering intering intering intering intering intering intering -by Trips	0 Eastbou 0.00% 0 0.00% 0 0	nd (Rio Brav 0.00% 0 0.00% 0 0 0 0 0 0 0 0 0 0 0 0 0	ro Błvd) 0.00% 0 0.00% 0 0 0 0 0 0 0 0 0 0 0 0 0	Westbou 0.00% 0 0.00% 0 0 0 0 0 0 0 0 0 0 0 0 0	nd (Rio Brav -82.00% -42 0.00% 0 -42 nd (Rio Brav -75.00%	vo Bivd) 82.00% 42 0.00% 0 42 vo Bivd) 75.00%	Northbo 0.00% 0 0.00% 0 0 0 Northbo 0.00%	und (Drivew 0.00% 0 0.00% 0 0 und (Drivew 0.00%	vay 'B') 0.00% 0 0.00% 0 0 0 vay 'B') 0.00%	0.00% 0 0.00% 0 0 0 0 0 0.00%	0.00% 0 0.00% 0 0 0 0 0 0 0 0 0 0 0 0 0	ray 'B') 0.00% 0 82.00% 42 42
2012 PM Peak Pass-by Trip Calculations: <u>AM Pass</u> Percent E Volume E Volume E Net AM Passby <u>PM Pass</u> Percent E Volume E	Hr. Volumes <u>-by Trips</u> intering intering xiting xiting trips -by Trips intering intering	0 Eastbou 0.00% 0 0 0 Eastbou 0.00% 0.00%	nd (Rio Brav 0.00% 0.00% 0 0 0 nd (Rio Brav 0.00% . 0	ro Bivd) 0.00% 0 0.00% 0 0 0 0 0 0 0 0 0 0 0 0 0	Westbou 0.00% 0 0.00% 0 0 0 0 0 0 0 0 0 0 0 0 0	nd (Rio Brav -82.00% -42 0.00% 0 -42 nd (Rio Brav -75.00% -50	vo Bivd) 82.00% 42 0.00% 0 42 vo Bivd) 75.00% 50	Northbo 0.00% 0 0.00% 0 0 Northbo 0.00% 0	und (Drivew 0.00% 0 0.00% 0 0 und (Drivew 0.00% 0	vay 'B') 0.00% 0 0.00% 0 vay 'B') 0.00% 0	0.00% 0 0.00% 0 0 0 0 0 0 0 0 0 0 0 0	0.00% 0 0.00% 0 0 0 0 0 0 0 0 0 0 0 0 0	ray 'B') 0.00% 0 82.00% 42 42 42 42 (ay 'B') 0.00% 0
2012 PM Peak Pass-by Trip Calculations: Percent E Volume E Percent E Volume E Net AM Passby Percent E Volume E Percent E	Hr. Volumes <u>-by Trips</u> intering intering ixiting ixiting - Trips -by Trips -by Trips intering intering ixiting ixiting	0 Eastbou 0.00% 0 0.00% 0 Eastbou 0.00% 0 0.00%	nd (Rio Brav 0.00% 0.00% 0 0 0 0 0 0 0 0 0.00% 0 0.00%	ro Bivd) 0.00% 0 0.00% 0 0 0 0 0 0 0 0 0 0 0 0 0	Westbou 0.00% 0 0.00% 0 0 Westbou 0.00% 0 0.00%	nd (Rio Brav -82.00% -42 0.00% 0 -42 nd (Rio Brav -75.00% -50 0.00%	vo Blvd) 82.00% 42 0.00% 0 42 vo Blvd) 75.00% 50 0.00%	Northbo 0.00% 0 0.00% 0 0 Northbo 0.00% 0 0.00%	und (Drivey 0.00% 0.00% 0 0 und (Drivey 0.00% 0 0.00%	vay 'B') 0.00% 0 0.00% 0 vay 'B') 0.00% 0 0.00%	0.00% 0 0.00% 0 0 0 0 0.00% 0 0.00%	0.00% 0 0.00% 0 0 0 0 0 0 0.00%	/ay 'B') 0.00% 0 82.00% 42 42 42 (ay 'B') 0.00% 0 75.00%
2012 PM Peak Pass-by Trip Calculations: AM Pass Percent E Volume E Volume E Net AM Passby PM Pass Percent E Volume E Percent E Volume E	Hr. Volumes <u>by Trips</u> intering intering intering <u>trips</u> <u>by Trips</u> <u>intering</u> intering intering intering intering intering intering intering	0 Eastbou 0.00% 0 0.00% 0 0 0 0 0 0 0 0 0 0 0 0 0	nd (Rio Brav 0.00% 0.00% 0 0 0 0 0 0 0 0.00% 0 0.00% 0 0 0.00%	o Blvd) 0.00% 0.00% 0 0 0 0 0 0 0 0 0 0 0 0 0	Westbou 0.00% 0.00% 0 0 0 0 0 0 0 0.00% 0 0.00% 0 0.00% 0	nd (Rio Brav -82.00% -42 0.00% 0 -42 nd (Rio Brav -75.00% -50 0.00% 0	vo Bivd) 82.00% 42 0.00% 0 42 vo Bivd) 75.00% 50 0.00% 0	Northbo 0.00% 0 0.00% 0 0 0 0 0 0 0 0 0 0 0 0 0	und (Drivew 0.00% 0.00% 0 0 0 0 0 0 0.00% 0 0.00%	vay 'B') 0.00% 0 0.00% 0 0 0 0 0 0.00% 0 0.00% 0 0.00% 0 0.00% 0	0.00% 0 0.00% 0 0 0 0 0.00% 0 0.00%	0.00% 0 0.00% 0 0 0 0 0 0.00% 0 0 0 0 0	(ay 'B') 0.00% 0 82.00% 42 42 42 (ay 'B') 0.00% 0 75.00% 50
2012 PM Peak Pass-by Trip Calculations: Percent E Volume E Percent E Volume E Net AM Passby Percent E Volume E Percent E	Hr. Volumes <u>by Trips</u> intering intering intering <u>trips</u> <u>by Trips</u> <u>intering</u> intering intering intering intering intering intering intering	Eastbou 0.00% 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	nd (Rio Brav 0.00% 0.00% 0 0 0 0 0 0 0 0.00% . 0 0.00% . 0 0.00% 0 0 0 0 0 0	ro Bivd) 0.00% 0 0.00% 0 0 0 0 0 0 0 0 0 0 0 0 0	Westbou 0.00% 0 0.00% 0 0 Westbou 0.00% 0 0.00%	nd (Rio Brav -82.00% -42 0.00% 0 -42 nd (Rio Brav -75.00% -50 0.00%	vo Blvd) 82.00% 42 0.00% 0 42 vo Blvd) 75.00% 50 0.00%	Northbo 0.00% 0 0.00% 0 0 Northbo 0.00% 0 0.00%	und (Drivey 0.00% 0.00% 0 0 und (Drivey 0.00% 0 0.00%	vay 'B') 0.00% 0 0.00% 0 vay 'B') 0.00% 0 0.00%	0.00% 0 0.00% 0 0 0 0 0.00% 0 0.00%	0.00% 0 0.00% 0 0 0 0 0 0 0.00%	(ay 'B') 0.00% 0 82.00% 42 42 42 (ay 'B') 0.00% 0 75.00% 50
2012 PM Peak Pass-by Trip Calculations: <u>AM Pass</u> Percent E Volume E Volume E Net AM Passby <u>PM Pass</u> Percent E Volume E Volume E Volume E Volume E	Hr. Volumes <u>-by Trips</u> intering intering ixiting <i>r</i> Trips <u>-by Trips</u> <u>-by Trips</u> intering intering ixiting ixiting ixiting <i>r</i> Trips	0 Eastbou 0.00% 0 0 0 0 0 0 0 0 0 0 0 0 0	nd (Rio Brav 0.00% 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	o Blvd) 0.00% 0 0.00% 0 0 0 0 0 0 0 0 0 0 0 0 0	Westbou 0.00% 0.00% 0 0 0 0 0 0 0 0.00% 0 0.00% 0 0.00% 0	nd (Rio Brav -82.00% -42 0.00% 0 -42 nd (Rio Brav -75.00% -50 0.00% 0	vo Bivd) 82.00% 42 0.00% 0 42 vo Bivd) 75.00% 50 0.00% 0	Northbo 0.00% 0 0.00% 0 0 0 0 0 0 0 0 0 0 0 0 0	und (Drivew 0.00% 0.00% 0 0 0 0 0 0 0.00% 0 0.00%	vay 'B') 0.00% 0 0.00% 0 0 0 0 0 0.00% 0 0.00% 0 0.00% 0 0.00% 0	0.00% 0 0.00% 0 0 0 0 0.00% 0 0.00%	0.00% 0 0.00% 0 0 0 0 0 0.00% 0 0 0 0 0	(ay 'B') 0.00% 0 82.00% 42 42 42 (ay 'B') 0.00% 0 75.00% 50
2012 PM Peak Pass-by Trip Calculations: AM Pass Percent E Volume E Volume E Net AM Passby PM Pass Percent E Volume E Percent E Volume E	Hr. Volumes <u>-by Trips</u> intering intering ixiting <i>r</i> Trips <u>-by Trips</u> <u>-by Trips</u> intering intering ixiting ixiting ixiting <i>r</i> Trips	Eastbou 0.00% 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	nd (Rio Brav 0.00% 0.00% 0 0 0 0 0 0 0 0.00% . 0 0.00% . 0 0.00% 0 0 0 0 0 0	o Bivd) 0.00% 0 0.00% 0 0 0 0 0 0 0 0 0 0 0 0 0	Westbou 0.00% 0.00% 0 0 0 0 0 0 0 0.00% 0 0.00% 0 0.00% 0	nd (Rio Brav -82.00% -42 0.00% 0 -42 nd (Rio Brav -75.00% -50 0.00% 0	vo Bivd) 82.00% 42 0.00% 0 42 vo Bivd) 75.00% 50 0.00% 0	Northbo 0.00% 0 0.00% 0 0 0 0 0 0 0 0 0 0 0 0 0	und (Drivew 0.00% 0.00% 0 0 0 0 0 0 0.00% 0 0.00%	vay 'B') 0.00% 0 0.00% 0 0 0 0 0 0.00% 0 0.00% 0 0.00% 0 0.00% 0	0.00% 0 0.00% 0 0 0 0 0.00% 0 0.00%	0.00% 0 0.00% 0 0 0 0 0 0.00% 0 0 0 0 0	/ay 'B') 0.00% 0 82.00% 42 42 42 (ay 'B') 0.00% 0 75.00%

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3/10/2012







RB-BdwyNW_TURNS-CaseY.xls - Int_9

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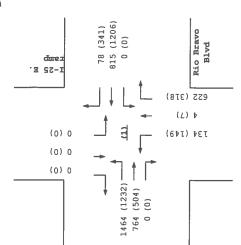
Rio Bravo / Broadway Comm. Dev. (NW Corner) Projected Turning Movements Worksheet Rio Bravo Blvd / I-25 E. ramp

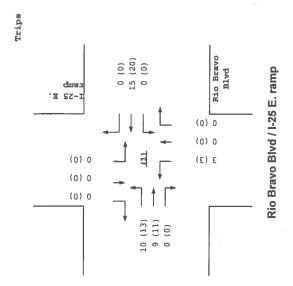
	E-W Street:	Rio Bravo			(1)								
	N-S Street:	I-25 E. ram	p										
Year of Existing Counts	2012												
Horizon Year	2024		0.0494			50.05%			25.99%			3.00%	
	Growth Rates	Easthou	2.84% nd (Rio Bra	vo Blud)	Weethou	56.65% und (Rio Brav	(o Blud)	Northh	25.99% ound (I-25 E	(amp)	Southh	ound (I-25 E.	ramol
		Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing Volumes		1,040	556	0		93	10	31	1		0		(
Background Traffic Growth		354	189	Q		632	68	97	3		Q		
		1,394	745	0		725	78	128	4	622	0		
Subtotal			745	0	0	725	0	0		022	0		
Neilsen Industrial Park		56			-				-	-			
Rio Bravo Commerce Center		4	3	<u>Q</u>	<u>0</u>	3	<u>0</u>	3	<u>0</u>	0	<u>0</u>		(
Neilsen Broadway Dev.		Q	Q		Q	<u>0</u>	<u>0</u>	Q	0	0	<u>0</u>		<u>(</u>
Subtotal (NO BUILD - A.I		1,454	755	0	0	800	78	131	4	622	0	0	0
Percent Commercial Trips Generated		0.00%	0.00%	0.00%	0.00%	29.86%	0.00%	5.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Percent Commercial Trips Generate	ed(Exiting)	18.82% 10	<u>16.96%</u> 9	0.00% 0	0.00% O	0.00% 15	0.00% 0	0.00%	0.00%	<u>0.00%</u> 0	0.00%	0.00%	0.00%
Total Trips Generated Total AM Peak Hour BL	UII D Volumer		764	0	0	815	78	134	4	622	0		0
TOTAL MIN PEAK HOUR DO	DILD ADIDIDAS	1,404	104	U	U	015	10	1.54		U.L.		0	
			5.28%		104.041	26.76%		M (1, k	46.85%		Deuthh	3.00%	
		Left	nd (Rio Bray Thru	vo Blvd) Right	Left	and (Rio Bray Thru	vo Blvd) Right	Left	ound (I-25 E. Thru	Right	Left	Thru	Right
Existing Volumes		670	272		0		81	22	1	48	0	0	0
		424	172	<u>0</u>	<u>0</u>	880	260	124	<u>6</u>	270	Q	Q	Q
Background Traffic Growth				0	0		341	146	7	318	0		
Subtotal		1,094	444			1,154					0	0	
Neilsen Industrial Park		100	41	0	0	30	0	0	0	0	-	-	0
Rio Bravo Commerce Center		<u>25</u>	<u>8</u>	<u>0</u>	<u>Q</u>	2	<u>0</u>	Q	Q	<u>Q</u>	<u>0</u>	Q	0
Neilsen Broadway Dev.		Q	Q	Q	Q	Q	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	Q	Q
Subtotal (NO BUILD - P.I	M.)	1,219	493	0	0	1,186	341	146	7	318	0	0	0
Percent Commercial Trips Generated	d(Entering)	0.00%	0.00%	0.00%	0.00%	29.86%	0.00%	5.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Percent Commercial Trips Generate	ed(Exiting)	18.82%	16.96%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Total Trips Generated		13	11	0	0	20	0	3	0	0	0	0	0
Total PM Peak Hour BL	UILD Volumes	1,232	504	0	0	1,206	341	149	7	318	0	0	0
		Entering											
			Exiting										
Number of Commercial Trips Gene	erated	51	51		100% Cor.	nmercial D	evelopmei	nt					
Number of Commercial Trips Gene	erated	51 67	51 67	P.M.		<u> </u>							
		51 67 Eastbour	51 67 nd (Rio Bra	P.M. vo Blvd)	Westbou	und (Rio Brav	vo Blvd)	Northb	ound (I-25 E.			ound (1-25 E.	
2012 AM Peak I	Hr. Volumes	51 67 Eastbour 1,040	51 67 nd (Rio Bra 556	P.M. vo Blvd)	Westbou	ind (Rio Bra 93	vo Blvd) 10	Northb 31	1	151	0	0	0
•	Hr. Volumes	51 67 Eastbour	51 67 nd (Rio Bra	P.M. vo Blvd)	Westbou	und (Rio Brav	vo Blvd)	Northb				0	0
2012 AM Peak I	Hr. Volumes Hr. Volumes	51 67 Eastbour 1,040	51 67 nd (Rio Bra 556	P.M. vo Blvd)	Westbou	ind (Rio Bra 93	vo Blvd) 10	Northb 31	1	151	0	0	0
2012 AM Peak I 2012 PM Peak I	Hr. Volumes Hr. Volumes	51 67 Eastbour 1,040	51 67 nd (Rio Bra 556	P.M. vo Blvd)	Westbou	ind (Rio Bra 93	vo Blvd) 10	Northb 31	1	151	0	0	0
2012 AM Peak F 2012 PM Peak F MRCOG Forecast Volumes Work	Hr. Volumes Hr. Volumes ksheet	51 67 Eastbour 1,040	51 67 nd (Rio Bra 556	P.M. vo Blvd)	Westbou	ind (Rio Bra 93	vo Blvd) 10	Northb 31	1	151	0	0	0
2012 AM Peak 2012 PM Peak MRCOG Forecast Volumes Work Based on 2012 Traffic Count 2012 AM Link V 2012 PM Link V	Hr. Volumes Hr. Volumes ksheet Volume Volume	51 67 Eastbour 1,040	51 67 nd (Rio Bra 556 272	P.M. vo Blvd)	Westbou	und (Rio Brav 93 274	vo Blvd) 10	Northb 31	1	151	0	0	0
2012 AM Peak I 2012 PM Peak I MRCOG Forecast Volumes Work Based on 2012 Traffic Count 2012 AM Link V 2012 PM Link V Based on MRCOG Model (2035 D	Hr. Volumes Hr. Volumes ksheet Volume Volume Data Set)	51 67 Eastbour 1,040	51 67 nd (Rio Brav 556) 272 1,596 942	P.M. vo Blvd)	Westbou	103 355	vo Blvd) 10	Northb 31	1 1 183 71	151	0	0	0
2012 AM Peak 2012 PM Peak MRCOG Forecast Volumes Work Based on 2012 Traffic Count 2012 AM Link V 2012 PM Link V	Hr. Volumes Hr. Volumes ksheet Volume Volume Data Set) Volume	51 67 Eastbour 1,040	51 67 nd (Rio Bra 556 272 1,596	P.M. vo Blvd) 0	Westbou	und (Rio Brav 93) 274 274	vo Blvd) 10	Northb 31	1 1 1 183	151	0	0	0
2012 AM Peak I 2012 PM Peak I MRCOG Forecast Volumes Work Based on 2012 Traffic Count 2012 AM Link V 2012 PM Link V 2035 AM Link V 2035 PM Link V	Hr. Volumes Hr. Volumes ksheet Volume <u>Data Set)</u> Volume Volume	51 67 Eastbour 1,040 670	51 67 nd (Rio Brat 556 272 1,596 942 2637 2085	P.M. vo Blvd) 0	Westbou	103 355 1445	vo Blvd) 10	Northb 31	1 1 183 71 1277	151	0	0	0
2012 AM Peak I 2012 PM Peak I MRCOG Forecast Volumes Work Based on 2012 Traffic Count 2012 AM Link V 2012 PM Link V 2035 AM Link V 2035 PM Link V 2035 PM Link V	Hr. Volumes Hr. Volumes ksheet Volume <u>Data Set)</u> Volume Volume	51 67 Eastbour 1,040 670	51 67 nd (Rio Brat 556 272 1,596 942 2637 2085	P.M. vo Blvd) 0	Westbou	103 355 1445 2540	vo Blvd) 10	Northb 31	1 1 183 71 1277	151	0	0	0
2012 AM Peak I 2012 PM Peak I MRCOG Forecast Volumes Work Based on 2012 Traffic Count 2012 AM Link V 2012 PM Link V 2035 AM Link V 2035 PM Link V	Hr. Volumes Hr. Volumes ksheet Volume <u>Data Set)</u> Volume Volume	51 67 Eastbour 1,040 670	51 67 1,596 942 2637 2085 ecasts	P.M. vo Blvd) 0	Westbou	103 355 1445	vo Blvd) 10	Northb 31	1 1 1 1 1 277 836	151	0	0	0
2012 AM Peak I 2012 PM Peak I MRCOG Forecast Volumes Work Based on 2012 Traffic Count 2012 AM Link V 2012 PM Link V 2035 AM Link V 2035 AM Link V 2035 PM Link V 2035 PM Link V	Hr. Volumes Hr. Volumes ksheet Volume Data Set) Volume Volume Counts to Matc	51 67 Eastbour 1,040 670	51 67 nd (Rio Brat 556 272 1,596 942 2637 2085 ecasts 2.84% 5.28%	P.M. vo Blvd) 0 0	Westbou	und (Rio Brau 93) 274 103 355 1445 2540 566.65%	vo Blvd) 10	Northb 31	1 183 71 1277 836 25.99%	151	0	0 0 0 0 #DIV/0! #DIV/0!	0
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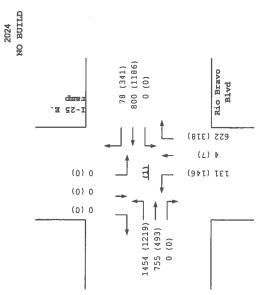
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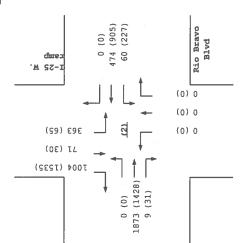


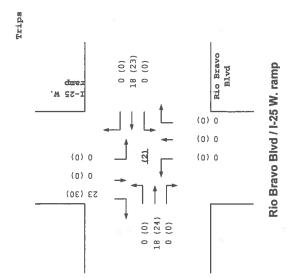
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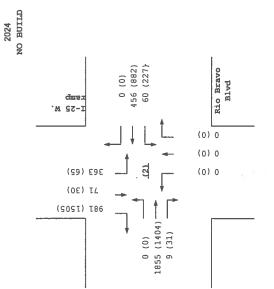
Rio Bravo / Broadway Comm. Dev. (NW Corner) Projected Turning Movements Worksheet Rio Bravo Blvd / I-25 W. ramp

2012-2035 PM Growth Rates 3.17% 24.44% #DIV/0! 2.26% Growth Rate to Apply to 2004 Model Volumes to Match 2035 Forecasts 2004-2035 AM Growth Rates 1.00% 26.17% #DIV/0! 1.52%	INTERSECTION:	E-W Street:	Rio Bravo			(2)								
Hotcon Yas 2024 Growth Rists 995 7.4% 0.0% 2.9% 7.4% 0.0% 2.9% 0.0% 0.2% 0.1% 0.4% Existing Volumes Existing Volume Existing Volumes <td< td=""><td></td><td></td><td></td><td>np</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></td<>				np										
Growth Rates 1.9% 3.40% 1.0% 2.44% Existing Volumes Existing Volum	•													
Existing Volumes Image: Volume Volu	Honzon tear			0.00%			27 408/			2 001/			5 ACM	
Eventing Volumes Left Timu Right Left Timu Ri		Growth Kates	Easthou			Westha		no Blud)	Northh		(como)	Southh		(roma)
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Present Commercial Trigs Generated Total Trips Generated Total AM Peak Hour BUILD Volumes 0.00% </td <td></td> <td>,</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>-</td> <td>-</td> <td></td> <td></td> <td></td> <td></td> <td></td>		,						-	-					
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Existing Volumes Left Thru Right Left Thru Ri														
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Subtotal 0 1.230 30 212 865 0 0 0 655 1 1.459 Neilsen Industrial Park 0 141 0 15 15 0 0 0 0 29 38 Neilsen Broadway Dev. 0														
Neilsen industrial Park 0 141 0 15 15 0 0 0 0 29 33 Rio Brave Commerce Center 0 33 1 0 2 0 <td>-</td> <td></td>	-													
Rio Bravo Commerce Center Image: Commercial Trip Section Commercial Section Commercial Comme								-	-	-	-			
Neilsen Broadway Dev. D <thd< th=""></thd<>								-	-	-	-	-		
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Percent Commercial Trips Generated (Exiting) Total Trips Generated 0.00% 2.78% 0.00%	Subtotal (NO BUILD - P.	.M.)	0	1,404	31	227	882	0	0	0	0	65	30	1,505
Total Trips Generated 0 24 0 0 23 0 0 0 0 0 30 Total PM Peak Hour BUILD Volumes 0 1,428 31 227 905 0 0 0 0 65 30 1,535 Number of Commercial Trips Generated 51 51 A.M. 100% Commercial Development 67 9.7 P.M. 2012 AM Peak Hr. Volumes 0 1596 8 11 82 0 0 0 280 1 675 2012 PM Peak Hr. Volumes 0 1596 8 11 82 0 0 0 280 1 675 2012 PM Peak Hr. Volumes 0 1596 8 11 82 0 0 0 1 1,148 0 891 22 54 220 0 0 0 1 1,148 1 1,604 93 0 956 201														
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2012 AM Peak Hr. Volumes 0 1596 8 11 82 0 0 0 280 1 675 2012 PM Peak Hr. Volumes 0 891 22 54 220 0 0 0 0 51 1 1,148 MRCOG Forecast Volumes Worksheet 2012 PM Link Volume 1,604 93 0 956 2012 PM Link Volume 913 274 0 1,200 Based on MRCOG Model (2035 Data Set) 2035 AM Link Volume 1968 893 0 1497 2035 PM Link Volume 1579 1814 0 1823 Growth Rate to Apply to Existing Counts to Match 2035 Forecasts 2012-2035 AM Growth Rates 0.99% 37.40% #DIV/01 2.46% 2012-2035 PM Growth Rates 3.17% 24.44% #DIV/01 2.26% Growth Rate to Apply to 2004 Model Volumes to Match 2035 Forecasts 2004-2035 AM Growth Rates 1.00% 26.17% #DIV/01 1.52%	Number of Commercial Trips Gen	erated	51 67	51 67	P.M.									
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2004-2035 AM Growth Rates 1.00% 26.17% #DIV/0! 1.52%	Growth Rate to Apply to 2004 Mor	tel Volumes to	Match 203	5 Foreces	ts									
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	2004-2035 PM Growth Rates									#DIV/01				

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Rio Bravo / Broadway Comm. Dev. (NW Corner) Projected Turning Movements Worksheet Rio Bravo Blvd / Broadway Blvd

									-				
INTERSECTION:	E-W Street:	Rio Bravo	Bivd		(3)								
	N-S Street:	Broadway	Blvd										
Year of Existing Counts	2012												
Horizon Year	2024												
	Growth Rates		1.90%			5.42%			15.94%			5.02%	
			nd (Rio Bra			und (Rio Bra			und (Broady			und (Broady	
		Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing Volumes		151	1,400	104	155	562	26	60		220	15	87	65
Background Traffic Growth		<u>35</u>	<u>320</u>	<u>24</u>	<u>101</u>	<u>365</u>	<u>17</u>	<u>115</u>	<u>337</u>	<u>421</u>	<u>9</u>	<u>52</u>	<u>39</u>
Subtotal		186	1,720	128	256	927	43	175	513	641	24	139	104
Kan Industrial Park		0	0	39	181	0	0	8	4	37	0	21	0
Rio Bravo Commerce Center		0	0	53	28	0	0	5	5	7	0	8	0
Previous Development from belo	w	<u>0</u>	<u>85</u>	<u>182</u>	<u>16</u>	<u>0</u>	<u>0</u>	<u>120</u>	<u>69</u>	<u>6</u>	<u>14</u>	<u>20</u>	<u>0</u>
Subtotal (NO BUILD - A	\.М.)	186	1,805	402	481	927	43	308	591	691	38	188	104
Percent Commercial Trips Genera		11.35%	0.00%	0.00%	0.00%	70.91%	8.95%	6.59%	2.20%	0.00%	0.00%	0.00%	0.00%
Percent Commercial Trips General	ated(Exiting)	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	45.89%	8.79%	11.33%
Total Trips Generated		6	0	0	0	36	5	3	1	0	23	4	6
Total AM Peak Hour	BUILD Volumes	192	1,805	402	481	963	48	311	592	691	61	192	110
		E M	1.30%		187 - 41	0.97%		B1 41.1	9.26%	(D) ()	C	17.55%	
		Left	nd (Rio Bra Thru	Right	Left	ind (Rio Bra Thru	Right	Left	und (Broadv	Right	Left	und (Broadw Thru	Right
Existing Volumes		105	766	114	214	1,223	24	174	163	260	15	246	219
Background Traffic Growth		<u>16</u>	120	<u>18</u>	25	142	3	193	181	289	<u>32</u>	<u>518</u>	461
Subtotal		121	886	132	239	1,365	27	367	344	549	47	764	680
Kan Industrial Park		0	0	10	46	0	0	38	20	175	0	5	0
Rio Bravo Commerce Center		0	0	9	10	0	0	53	12	34	0	6	0
Previous Development from belo	w	<u>0</u>	<u>29</u>	<u>263</u>	9	Q	Q	<u>413</u>	<u>81</u>	<u>13</u>	<u>13</u>	<u>38</u>	0
Subtotal (NO BUILD - F	P.M.)	121	915	414	304	1,365	27	871	457	771	60	813	680
			A 0001	0.0004	0.0004					0.0004	0.000/	0.000/	0.0004

Freedous Development nom below	⊻	<u>49</u>	200	2	꾀		310
Subtotal (NO BUILD - P.M.)	121	915	414	304	1,365	27	871
Percent Commercial Trips Generated(Entering)	11.35%	0.00%	0.00%	0.00%	70.91%	8.95%	6.59%
Percent Commercial Trips Generated(Exiting)	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Total Trips Generated	8	0	0	0	48	6	4
Total PM Peak Hour BUILD Volumes	129	915	414	304	1,413	33	875
·	Entering	Exiting					
Number of Commercial Trips Generated	51 67	51 67	A.M. P.M.	100% Con	nmercial D	evelopme	nt

Number	of	Commercial	Trips	Generated
1 dilliout	v i	Commercial	11100	Quilling

	Eastbour	1d (Rio Brav	o Blvd}	Westbou	nd (Rio Bra	vo Blvd)	Northbou	nd (Broadw	ay Blvd)	Southbou	Ind (Broadw	ay Blvd)
2012 AM Peak Hr. Volumes	151	1400	104	155	562	26	60	176	220	15	87	65
2012 PM Peak Hr. Volumes	105	766	114	214	1,223	24	174	163	260	15	246	219

1

458

2.20%

0.00%

0

771

0.00%

0.00%

31

91

45.89%

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11.33%

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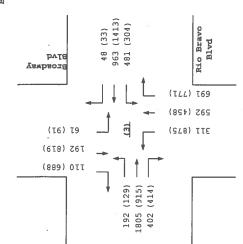
0.00% 0.00% 0.00%

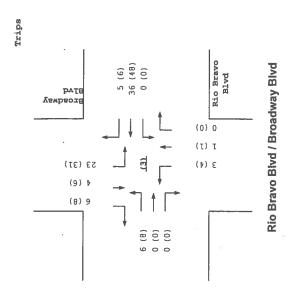
8.79%

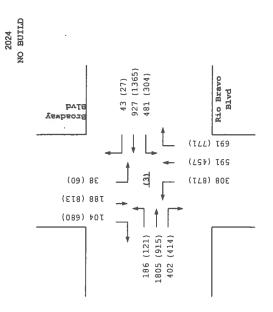
Previous Developments - AM Peak Hour Volu	imes											
	Eastbour	nd (Rio Brav	ro Blvd)		nd (Rio Bra	vo Blvd)	Northbou	ind (Broadw	ray Blvd)		nd (Broadw	
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Neilsen Industrial Park	0	85	85	16	0	0	44	59	6	14	7	0
Neilsen Broadway Dev.	Q	<u>0</u>	<u>97</u>	Q	Q	Q	<u>76</u>	<u>10</u>	Q	Q	<u>13</u>	<u>0</u>
Subtotal	0	85	182	16	0	0	120	69	6	14	20	0
Previous Developments - PM Peak Hour Volu	imes											
	Eastbour	nd (Rio Brav			nd (Rio Bra			ind (Broadw			nd (Broadw	
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Neilsen Industrial Park	0	29	29	9	0	0	163	48	13	- 13	7	0
Neilsen Broadway Dev.	Q	Q	234	Q	Q	Q	250	<u>33</u>	Q	Q	<u>31</u>	Q
Subtotal	0	29	263	9	0	0	413	81	13	13	38	0
MRCOG Forecast Volumes Worksheet												
Based on 2012 Traffic Count												
2012 AM Link Volume		1,655			743			456			167	
2012 PM Link Volume		985			1,461			597			480	
Based on MRCOG Model (2035 Data Set)											-	
2035 AM Link Volume		2380			1669			2128			360	
2035 PM Link Volume		1280			1787			1868			2417	
Growth Rate to Apply to Existing Counts to Matc	h 2035 For	ecasts										
2012-2035 AM Growth Rates		1.90%			5.42%			15.94%			5.02%	
2012-2035 PM Growth Rates		1.30%			0.97%			9.26%			17.55%	

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RB-BdwyNW_TURNS2024-CaseY.xls - Int_3

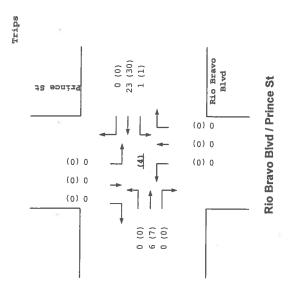
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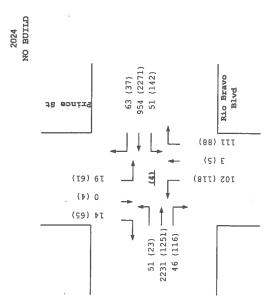
Rio Bravo / Broadway Comm. Dev. (NW Corner) Projected Turning Movements Worksheet Rio Bravo Blvd / Prince St

INTERSECTION:	E-W Street:	Rio Bravo	Blvd		(4)								
	N-S Street:	Prince St											
Year of Existing Counts	2012												
Horizon Year	2024												
	Growth Rates		2.06%			3.68%			3.00%			3,00%	
			nd (Rio Bra			und (Rio Bra			bound (Prin			bound (Prin	
		Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing Volumes		41	1,537	37	35	576	43	75	2		13	0	10
Background Traffic Growth		<u>10</u>	<u>380</u>	9	<u>15</u>	<u>255</u>	<u>19</u>	<u>27</u>	1	<u>28</u>	5	Q	4
Subtotal		51	1,917	46	50	831	62	102	3	106	18	0	14
Neilsen Industrial Park		0	166	0	1	42	1	0	0	3	1	0	0
Rio Bravo Commerce Center		0	51	0	0	5	0	0	0	2	0	0	0
Neilsen Broadway Dev.		0	<u>97</u>	Q	<u>0</u>	<u>76</u>	Q	Q	Q	0	<u>0</u>	0	Q
Subtotal (NO BUILD - A	. <i>M.</i>)	51	2,231	46	51	954	63	102	3	111	19	0	14
Percent Commercial Trips Generat		0.00%	11.07%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.27%	0.01%	0.00%	0.00%
Percent Commercial Trips Genera		0.00%	0.00%	0.00%	1.06%	44.21%	0.05%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Total Trips Generated		0	6	0	1	23	0	0	0	0	0	0	0
Total AM Peak Hour E	BUILD Volumes	51	2,237	46	52	977	63	102	3	111	19	0	14
			1.93%			2.15%			3.00%			3.00%	
			nd (Rio Bray			und (Rio Bra			bound (Prin			bound (Prin	
		Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing Volumes		19	774	94	106	1,443	28	87	4	63	44	3	48
Background Traffic Growth		4	<u>179</u>	22	27	<u>372</u>	7	<u>31</u>	1	<u>23</u>	<u>16</u>	1	<u>17</u>
Subtotal		23	953	116	133	1,815	35	118	5	86	60	4	65
Neilsen Industrial Park		0	56	0	3	160	1	0	0	1	1	0	0
Rio Bravo Commerce Center		0	· 8	0	6	46	1	0	0	1	0	0	0
Neilsen Broadway Dev.		<u>0</u>	234	<u>0</u>	<u>0</u>	<u>250</u>	Q	<u>0</u>	Q	Q	<u>0</u>	Q	Q
Subtotal (NO BUILD - P	P.M.)	23	1,251	116	142	2,271	37	118	5	88	61	4	65
Percent Commercial Trips Generate		0.00%	11.07%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.27%	0.01%	0.00%	0.00%
Percent Commercial Trips General		0.00%	0.00%	0.00%	1.06%	44.21%	0.05%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Total Trips Generated		0	7	0	1	30	0	0	0	0	0	0	0
Total PM Peak Hour B	BUILD Volumes	23	1,258	116	143	2,301	37	118	5	88	61	4	65
Number of Commercial Trips Gen	erated	Entering 51 67		A.M. P.M.	100% Cor	nmercial D	evelopmer	nt					
		Eastbou	nd (Rio Brav	vo Blvd)	Westbou	ind (Rio Bra	vo Blvd)	Northi	ound (Prin	ce St)	Southi	bound (Prin	ce St)
2012 AM Peak	Hr. Volumes	41	1537	37	35	576	43	75	2	78	13	0	10
2012 PM Peak	Hr. Volumes	19	774	94	106	1,443	28	87	4	63	44	3	48
MRCOG Forecast Volumes Wor	ksheet		*										
Based on 2012 Traffic Count													
2012 AM Link	Volume		1.615			654			155			23	
2012 PM Link			887			1,577			154			95	
Based on MRCOG Model (2035												1126.73	
2035 AM Link	Volume		2380			1208							
2035 PM Link	Volume		1280			2357							
Growth Rate to Apply to Existing (Counte to Mete	0 2035 Eco	aracte										
2012-2035 AM Growth Rates	COULTS TO MARC	12030 100	2.06%			3.68%			4.35%			-4.35%	
2012-2035 PM Growth Rates			1.93%			2.15%			-4.35%			-4.35%	

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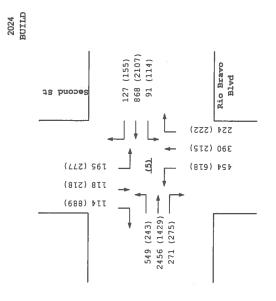




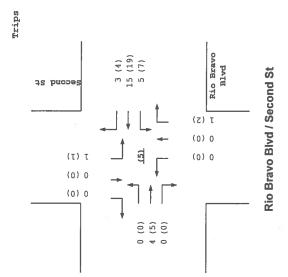
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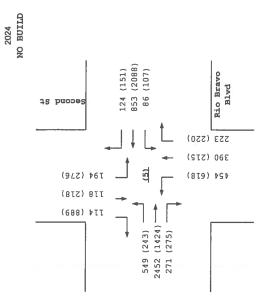
Rio Bravo / Broadway Comm. Dev. (NW Corner) Projected Turning Movements Worksheet Rio Bravo Blvd / Second St

INTERSECTION: E	-W Street:	Rio Bravo	Blvd		(5)								
	I-S Street:	Second St			(•)								
Year of Existing Counts	2012												
Horizon Year	2024												
	rowth Rates		5.58%			3.82%			21.21%			6.74%	
-		Eastbou	nd (Rio Bra	vo Blvd)	Westbo	und (Rio Bra	vo Blvd)	North	ound (Seco		South	bound (Seco	ond St)
		Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing Volumes		329	1,333	162	45	529	69	128	110	52	79	65	63
Background Traffic Growth		220	893	<u>109</u>	21	243	32	<u>326</u>	280	132	<u>64</u>	<u>53</u>	<u>51</u>
Subtotal		549	2,226	271	66	772	101	454	390	184	143	118	114
Neilsen Industrial Park		0	107	0	5	19	19	0	0	18	42	0	0
Rio Bravo Commerce Center		0	44	0	0	4	1	0	0	2	5	0	0
Neilsen Broadway Dev.		0	75	0		58	3	0	0		4	0	0
Subtotal (NO BUILD - A.M.)	1	<u>×</u> 549	2.452	271	86	853	124	454	390	223	194	<u> </u>	<u>×</u> 114
Percent Commercial Trips Generated(E	·	0.00%	7.17%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	2.48%	1.42%	0.00%	0.00%
Percent Commercial Trips Generated(0.00%	0.00%	0.00%	9.90%	28.63%	5.68%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Total Trips Generated	Linung)	0	4	0.0077	5	15	3	0.0070	0.0070		1	0.0070	0.0070
Total AM Peak Hour BUIL	D Volumes	549	2,456	271	91	868	127	454	390	224	195	118	114
			9.16%			3.06%			15.85%			10.23%	
		Eastbou	nd (Rio Bra	vo Blvd)	Westbou	Ind (Rio Bra	vo Blvd)	Northb	ound (Seco	ond St)	South	bound (Seco	nd St)
		Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing Volumes		116	569	131	30	1,296	57	213	74	58	112	98	399
Background Traffic Growth		<u>127</u>	<u>625</u>	<u>144</u>	<u>11</u>	<u>476</u>	<u>21</u>	<u>405</u>	<u>141</u>	<u>110</u>	<u>137</u>	<u>120</u>	<u>490</u>
Subtotal		243	1,194	275	41	1,772	78	618	215	168	249	218	889
Neilsen Industrial Park		0	44	0	17	80	63	0	0	6	17	0	0
Rio Bravo Commerce Center		0	6	0	1	44	1	0	0	1	1	0	0
Neilsen Broadway Dev.	j	Q	180	0	48	192	9	0	0	45	9	0	<u>0</u>
Subtotal (NO BUILD - P.M.)	· 1	243	1,424	275	107	2.088	151	618	215	220	276	218	889
Percent Commercial Trips Generated/E	nterina)	0.00%	7.17%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	2.48%	1.42%	0.00%	0.00%
Percent Commercial Trips Generated(E	Exiting)	0.00%	0.00%	0.00%	9.90%	28.63%	5.68%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Total Trips Generated		0	5	0	7	19	4	0	0	2	1	0	0
Total PM Peak Hour BUIL	D Volumes	243	1,429	275	114	2,107	155	618	215	222	277	218	889
		Entering	Exiting										
Number of Commercial Trips General	ted	51 67		A.M. P.M.	100% Con	nmercial D	evelopme	nt					
		0/	0/	P.WI.									
]	Eastbour	nd (Rio Brav	o Blvd)	Westbou	nd (Rio Brav	vo Blvd)	Northb	ound (Seco	nd St)	Southb	ound (Seco	nd St)
2012 AM Peak Hr.		329	1333	162	45	529	69	128	110	52	79	65	63
2012 PM Peak Hr.	Volumes [116	569	131	30	1,296	57	213	74	58	112	98	399
MRCOG Forecast Volumes Worksh	leet												
Based on 2012 Traffic Count													
2012 AM Link Volu	ume		1,824			843			290			207	
2012 PM Link Volu			816			1,383			345			609	
Based on MRCOG Model (2035 Dat													
2035 AM Link Volu			4167			1208			1705			528	
2035 PM Link Volu	ume		2535			2357			1603			2042	
Growth Rate to Apply to Existing Cour	nte to Matek	2035 For	caste										
2012-2035 AM Growth Rates	nta to Match	1 2000 FUIG	5.58%			3.82%			21.21%			6.74%	
2012-2035 PM Growth Rates			9.16%			3.06%			15.85%			10.23%	
						/4							



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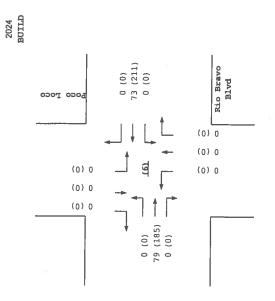
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Rio Bravo / Broadway Comm. Dev. (NW Corner) Projected Turning Movements Worksheet Rio Bravo Blvd / Poco Loco

	-W Street:	Rio Bravo			(6)								
	-S Street:	Poco Loco)										
Year of Existing Counts	2012												
Horizon Year	2024												
Gr	rowth Rates		-1.00%			-1.00%			-1.00%			-1.00%	
			nd (Rio Bra			ind (Rio Bra			ound (Poco			ound (Poco	
		Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing Volumes		0	0	0	0	0	0	0	0		0		
Background Traffic Growth		<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	Q	<u>0</u>	Q	Q	<u>0</u>	Q		
Subtotal		0	0	0	0	0	0	0	0	0	0	0	
Rio Bravo Commerce Center		0	0	0	0	0	0	0	0	0	0	0	
Neilsen Broadway Dev.		Q	<u>75</u>	<u>0</u>	Q	<u>58</u>	0	0	Q	0	Q	Q	
Subtotal (NO BUILD - A.M.)		0	75	0	0	58	0	0	0	0	0	0	(
Percent Commercial Trips Generated(Er	1	0.00%	7.17%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Percent Commercial Trips Generated(E		0.00%	0.00%	0.00%	0.00%	28.63%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Total Trips Generated		0	4	0	0	15	0	0	0	0	0	0	(
Total AM Peak Hour BUIL	D Volumes	0	79	0	0	73	0	0	0	0	- 0	0	100
								'					
	1	Eaethau	-1.00% nd (Rio Brav	(o Blud)	Warthou	-1.00%	vo Blud)	Northh	-1.00% ound (Poco	Local	Southh	-1.00%	Lecol
		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		Q	Q	0	Q	Q	0	<u>0</u>	0	<u>0</u>	0	0	<u>(</u>
Subtotal		0	0	0	0	0	0	0	0	0	0	0	
Rio Bravo Commerce Center		0	0	0	0		0	0	0	0	0	0	
			-										
Neilsen Broadway Dev.		Q	<u>180</u>	<u>0</u>	<u>0</u>	<u>192</u>	<u>0</u>	<u>0</u>	Q	<u>0</u>	Q	Q	(
Subtotal (NO BUILD - P.M.)	1	0	180	0	0	192	0	0	0	0	0	0	0
Percent Commercial Trips Generated(Er		0.00%	7.17%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Percent Commercial Trips Generated(E	xiting)	0.00%	0.00%	0.00%	0.00%	28.63%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Total Trips Generated	D.Value	0	5	0	0	19	0	0	0	0	0	0	(
Total PM Peak Hour BUILI	volumes	0	185	0	0	211	0	0	0	0	0	0	
		Entering	Exiting										
Number of Commercial Trips Generat	ted	51 67		A.M. P.M.	100% Con	mercial D	evelopmer	nt					
	Γ	Eastbour	nd (Rio Brav	o Blvd)	Westbou	nd (Rio Brav	/o Blvd)	Northb	ound (Poco	Loco)	Southb	ound (Poco	Loco)
2012 AM Peak Hr.	· - · - · - ·	0	0	0	0	0	0	0	0	0	0	0	C
2012 PM Peak Hr.	Volumes [0	0	0	0	0	0	0	0	0	0	0	C
MRCOG Forecast Volumes Worksh	eet												
Based on 2012 Traffic Count													
2012 AM Link Volu	ume		0			0			0			0	
2012 PM Link Volu			0			0			0			0	
Based on MRCOG Model (2035 Data						1.1							
2035 AM Link Volu			4167			2113							
2035 PM Link Volu	Ime		2535			4345							
Growth Rate to Apply to Existing Cour	nts to Match	2035 For											
Growth Rate to Apply to Existing Cour 2012-2035 AM Growth Rates 2012-2035 PM Growth Rates	nts to Match		#DIV/01 #DIV/01			#DIV/01 #DIV/01			#DIV/01 #DIV/01			#DIV/0! #DIV/0!	

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0 (0) 15 (19) 0 (0)

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Trips

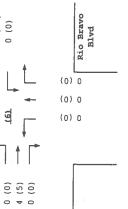
Poco Loco

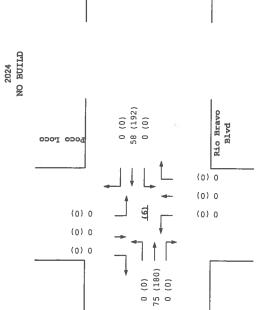
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Rio Bravo Blvd / Poco Loco

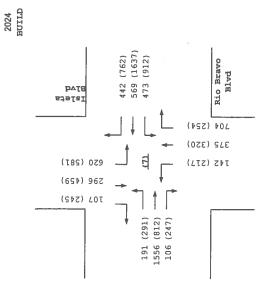
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Rio Bravo / Broadway Comm. Dev. (NW Corner) Projected Turning Movements Worksheet Rio Bravo Blvd / Isleta Blvd

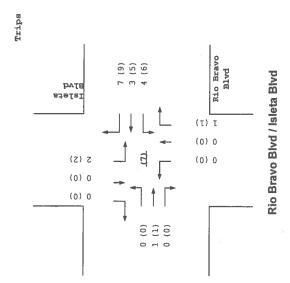
INTERSECTION: E-	W Street:	Rio Bravo	Blvd		(7)								
N-	S Street:	isleta Bivd											
Year of Existing Counts	2010												
Horizon Year	2024												
Gr	owth Rates		5.03%			12.25%			6.96%			8.77%	
			nd (Rio Bray			ind (Rio Bra			ound (Isleta			bound (Isleta	
		Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Righ
Existing Volumes		112	910	62	167	207	146	72	190	346	255	133	
Background Traffic Growth		<u>79</u>	<u>640</u>	<u>44</u>	<u>286</u>	<u>355</u>	<u>250</u>	<u>70</u>	<u>185</u>	<u>337</u>	<u>313</u>	<u>163</u>	
Subtotal		191	1,550	106	453	562	396	142	375	683	568	296	1
Rio Bravo Commerce Center		0	0	0	0	0	0	0	0	0	0	0	
Neilsen Broadway Dev.		Q	5	Q	<u>16</u>	4	39	Q	Q	<u>20</u>	<u>50</u>	Q	
Subtotal (NO BUILD - A.M.)		191	1,555	106	469	566	435	142	375	703	618	296	1(
Percent Commercial Trips Generated(Er	ntering)	0.00%	1.69%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	2.15%	3.33%	0.00%	0.00%
Percent Commercial Trips Generated(E		0.00%	0.00%	0.00%	8.58%	6.75%	13.30%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Total Trips Generated		0	1	0	4	3		0	0	1	2	0	
Total AM Peak Hour BUILI	D Volumes	191	1,556	106	473	569	442	142	375	704	620	296	1
			11.06%			7.49%			3.07%			5.81%	
			nd (Rio Bray			nd (Rio Bra			ound (Isleta			ound (Isleta	
		Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing Volumes	-	114	314	97	417	791	305	152	224	143	253	253	1:
Background Traffic Growth		<u>177</u>	<u>486</u>	<u>150</u>	<u>437</u>	<u>829</u>	<u>320</u>	<u>65</u>	<u>96</u>	<u>61</u>	206	<u>206</u>	1
Subtotal		291	800	247	854	1,620	625	217	320	204	459	459	2
Rio Bravo Commerce Center		0	0	0	0	0	0	0	0	0	0	0	
Neilsen Broadway Dev.	[Q	<u>11</u>	Q	<u>52</u>	<u>12</u>	<u>128</u>	Q	Q	<u>49</u>	<u>120</u>	<u>0</u>	
Subtotal (NO BUILD - P.M.)	ſ	291	811	247	906	1,632	753	217	320	253	579	459	24
Percent Commercial Trips Generated(En	ntering)	0.00%	1.69%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	2.15%	3.33%	0.00%	0.00%
Percent Commercial Trips Generated(E	xiting)	0.00%	0.00%	0.00%	8.58%	6.75%	13.30%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Total Trips Generated		0	1	0	6	5	9	0	0	1	2	0	
Total PM Peak Hour BUILD) Volumes	291	812	247	912	1,637	762	217	320	254	581	459	24
		Entering	Exiting		1000/ 0								
Number of Commercial Trips Generate	ea	51 67		A.M. P.M.	100% Con	imercial D	evelopmer	זר					
		97	97	- 19L									
	F	Eastbour	nd (Rio Brav	o Blvd)	Westbou	nd (Rio Bra	vo Blvd)	Northb	ound (Isleta	Blvd)	Southb	ound (Isleta	Blvd)
2012 AM Peak Hr. V	Volumes	123	1001	68	208	258	182	82	216	394	300	156	5
2012 PM Peak Hr.	Volumes [139	383	118	479	909	351	161	238	152	282	282	15
MRCOG Forecast Volumes Worksho	eet												
Barad on 2010 Traffic Court													
Based on 2010 Traffic Count 2010 AM Link Volu	me		1.084			520			608			436	
2010 AM LINK VOID			525			1,513			519			641	
Based on MRCOG Model (2035 Data									010				
2035 AM Link Volu			2446			2113			1666			1392	
2035 PM Link Volu	me		1977			4345			917			1572	
			Service -										
Growth Rate to Apply to Existing Coun	its to Match	2035 Fore										D '9'YA/	
2010-2035 AM Growth Rates 2010-2035 PM Growth Rates			5.03% 11.06%			12.25%			6.96% 3.07%			8.77% 5.81%	
LUIG-ZUGO FINI GIOWUI Rates			11.00%			1.43%			3.0170			3.0170	

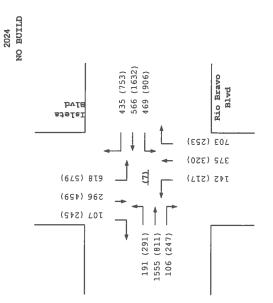
RB-BdwyNW_TURNS2024-CaseY.xls - Turns_7



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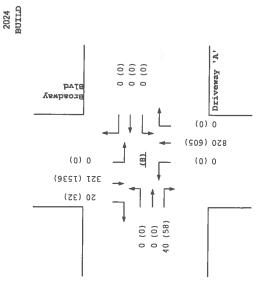


RB-BdwyNW_TURNS2024-CaseY.xls - Int_7

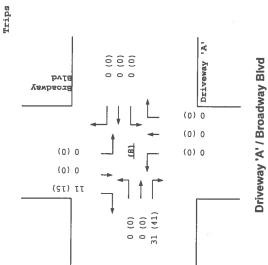
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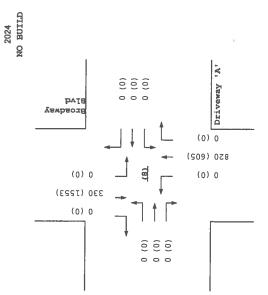
Rio Bravo / Broadway Comm. Dev. (NW Corner) Projected Turning Movements Worksheet Driveway 'A' / Broadway Blvd

INTERSECTION:	E-W Street:	Driveway	'A'		(8)								
	N-S Street:	Broadway			(-)								
Year of Existing Counts	2012		Lori V Gi										
Horizon Year	2024												
	Growth Rates		3.00%	4		3.00%			5.02%			5.02%	
		Eastb	ound (Drive		Westb	ound (Drive		Northbo	ound (Broad		Southbo	ound (Broad	
		Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing Volumes		0		0 0	0	0	0	C	353	0	0	167	· (
Background Traffic Growth		<u>0</u>	(<u>2</u> <u>0</u>	0	0	0	<u>(</u>	213	<u>1</u>	0	101	. (
Subtotal		0	() (0	0	0	0	742	2 0	0	267	
Kan Industrial Park		0	0) 0	0	0	0	C	4	0	0	21	(
Rio Bravo Commerce Center		0	(0	0	0			0	0		
Neilsen Commercial / IP Developme	ent	0	(+	
Subtotal (NO BUILD - A.M					0	0	0				0	330	
Percent Commercial Trips Generaled(•	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%				0
Percent Commercial Trips Generated		0.00%	0.00%	61.01%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	22.50%
Total Trips Generated	(manarig)	0	0.0070		0.0070						0.0078		
Subtotal AM Pk Hr. BUILD Volume	35	0	C	31	0	0					0		11
Pass-by Trip Adjustments		0	0	9	0	0	0	0	0	0	0	-9	9
Total AM Peak Hour BUI	LD Volumes	0		40	0	0	0	0	820	0	0	321	20
			3.00%			3.00%			17.55%			17.55%	
		Eastbo	ound (Drive		Westbo	ound (Driver	way 'A')	Northbo	und (Broads		Southbo	und (Broady	way Blvd)
		Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing Volumes		0			0	0	0	0	292	0	0	480	0
Background Traffic Growth		<u>0</u>	Q	0	<u>0</u>	<u>0</u>	<u>0</u>	Q	<u>615</u>	<u>0</u>	Q	<u>1,011</u>	0
Subtotal		0	C	0	0	0	0	0	492	0	0	1,491	0
Kan Industrial Park		0	0	0	0	0	0	0	20	0	0	5	0
Rio Bravo Commerce Center		0	0	0	0	0	0			0	0	6	0
Neilsen Commercial / IP Developme	nt	Q	Q		0	0	Q	<u>0</u>		0	0	51	Q
Subtotal (NO BUILD - P.M.		<u>v</u>	¥		0	0		<u> </u>	605	<u>v</u>	0		
Percent Commercial Trips Generaled(0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	· ·	-	1,553	0
Percent Commercial Trips Generated		0.00%	0.00%	61.01%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	22.50%
Total Trips Generated	Exacting/	0.0072	0.0070		0.0070	0.0078	0.0070	0.00%			0.00%	0.00%	15
Subtotal PM Pk Hr. BUILD Volume	s	0	0		0	0	0	0	605	0	0	1,553	15
Pass-by Trip Adjustments		0	0	17	0	0	0	0	0	0	0	-17	17
Total PM Peak Hour BUIL	D Volumes	0	0	58	0	0	0	0	605	0	0	1,536	32
Number of Commercial Trips Genera	ated	Entering 51	Exiting 51	A.M.	100% Con	nmercial D	evelopme	nt					
		67	67	P.M.									
	[Eastbo	und (Drive	way 'A')	Westbo	und (Drivey	/av 'A')	Northbo	und (Broadw	av Blvd)	Southbou	Ind (Broadw	av Blvd)
2012 AM Peak Hr.		0	0		0	۵	0	0	353	0	0	167	0
2012 PM Peak Hr.	Volumes	0	0	0	0	0	0	0	292	0	0	480	0
Pass-by Trip Calculations:													
AM Pass-by	Trips	Fastho	und (Drivev	Vav 'A')	Westho	und (Drivew	(av 'A')	Northhou	Ind (Broadw	av Blue	Southhou	nd (Broadw	ny Dhell
Percent Ente		0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	-18.00%	
Volume Ente		0	0		0	0	0	0	0	0	0	-9	9
Percent Exiti	*	0.00%	0.00%	18.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Volume Exiti		0	0	9	0	0	0	0	0	0	0	0	0
Net AM Passby Tr	rips	0	0	9	0	0	0	0	0	0	0	-9	9
PM Pass-by	Trips	Eastbo	und (Drivew	vay 'A')	Westbo	und (Drivew	ay 'A')	Northbou	ind (Broadw	ay Blvd)	Southbou	nd (Broadw	ay Blvd)
		0.000/	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	-25.00%	25.00%
Percent Ente		0.00%									0		472
Percent Ente Volume Ente	ring	0	0		0	0	0	0	0	0	0	-17	17
Percent Ente Volume Ente Percent Exiti	ng	0 0.00%	0 0.00%	25.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Percent Ente Volume Ente Percent Exiti Volume Exiti	ng ng	0 0.00% 0	0 0.00% 0	25.00% 17	0.00% 0	0.00% 0	0.00% 0	0.00% 0	0.00% 0	0.00% 0	0.00% 0	0.00% 0	0.00% 0
Percent Ente Volume Ente Percent Exiti	ng ng ips	0 0.00% 0 0	0 0.00% 0 0	25.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Percent Ente Volume Ente Percent Exiti Volume Exiti	ng ng ng ips	0 0.00% 0	0 0.00% 0 Exiting	25.00% 17	0.00% 0	0.00% 0	0.00% 0	0.00% 0	0.00% 0	0.00% 0	0.00% 0	0.00% 0	0.00% 0



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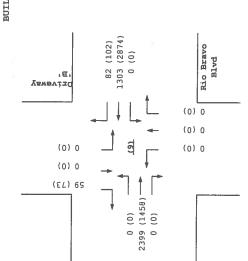


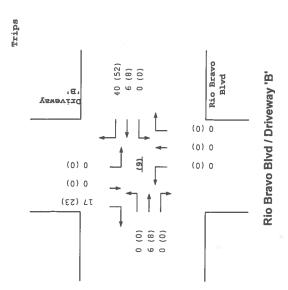
RB-BdwyNW_TURNS2024-CaseY.xls - Int_8

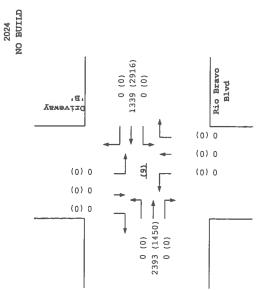
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Rio Bravo / Broadway Comm. Dev. (NW Corner) Projected Turning Movements Worksheet Rio Bravo Blvd / Driveway 'B'

	E-W Street:	Rio Bravo			(9)								
	N-S Street:	Driveway	'B'										
Year of Existing Counts	2012												
Horizon Year	2024		4 0004			4.000							
(Growth Rates	Eacthou	1.90% Ind (Rio Bra	wo Blud	Martho	1.90% und (Rio Bra		Monthle	3.00% ound (Drive		Couthh	3.00% Jound (Drive	
		Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing Volumes		0		0			0					Television and the second second	
Background Traffic Growth		0	378	Q	0		0						
Subtotal		0	2,034	0	0								
Kan Industrial Park		0	39	0	0		0			-		-	
Rio Bravo Commerce Center		0	53	0	0	5	0			-		-	(
		0	267	0	0	120			-	-		-	
Neilsen Commercial / IP Developme				0	0		0						<u>(</u>
Subtotal (NO BUILD - A.M.		0	2,393		0.00%	1,339	0	0	0		0		0
Percent Commercial Trips Generated(Percent Commercial Trips Generated		0.00%	11.35% 0.00%	0.00%	0.00%	0.00%	77.50% 0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Total Trips Generated	(LANNIY)	0.0078	6	0.0076	0.0070	6	40	0.00%					17
Subtotal AM Pk Hr. BUILD Volume	95	0	2,399	0	0	1,345	40	0					17
Pass-by Trip Adjustments		0	0	0	0	-42	42	0	0	0	0	0	42
Total AM Peak Hour BUI	LD Volumes	0	2,399	0	0	1,303	82	0	0	0	0	0	59
			1.30%			1.30%			3.00%	1		3.00%	
			nd (Rio Bra			und (Rio Bra			ound (Drive			ound (Drive	
		Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing Volumes		0	985	0	0	1,616	0	0	0				
Background Traffic Growth		<u>0</u>	<u>154</u>	0	<u>0</u>	<u>253</u>	<u>0</u>	<u>0</u>	<u>0</u>				<u>0</u>
Subtotal		0	1,139	0	0	2,412	0	0	0				0
Kan Industrial Park		0	10	0	0	38	0	0	0		0		0
Rio Bravo Commerce Center		0	9	0	0	53	0	0	0		0	0	0
Neilsen Commercial / IP Developme	ent	Q	292	0	0	413	0	0	<u>0</u>	<u>0</u>	Q	Q	Q
Subtotal (NO BUILD - P.M.	.)	0	1,450	0	0	2,916	0	0	0	0	0	0	0
Percent Commercial Trips Generated(I	Entering)	0.00%	11.35%	0.00%	0.00%	0.00%	77.50%	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%	11.33%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	33.99%
Total Trips Generated		0	8	0	0	8	52	0	0		0	0	23
Subtotal PM Pk Hr. BUILD Volume Pass-by Trip Adjustments	IS	0	1,458 0	0	0	2,924 -50	52 50	0	0	0	0	0 0	23 50
TOTAL CONTRACTOR AND		D	1,458	0	0	2.874	102	0	0		7		73
Total PM Peak Hour BUI	LD volumes	U	1,430	U	V	2,014	102	U	U	0	U	U	/3
Number of Commercial Trips Genera	ated	Entering 51 67		A.M. P.M.	100% Cor	nmercial D	evelopme	nt					
			nd (Rio Brav		Weether	Ind (Rio Bra	ue filuel)	Math	Delver	In the second se	Paulikh		170
2012 AM Peak Hr	Volumes	eastoou	1655	0 81/0)	O	687	VO BIVAJ O	Northo	ound (Driver		Southb	ound (Drivey	Vay B) O
2012 PM Peak Hr		0	985	0	0	1,616	0	0	0			0	0
Pass-by Trip Calculations:	_		1.000										
AM Pass-by			nd (Rio Bray		0.00%	Ind (Rio Bra			ound (Drives	1		ound (Driven	
Percent Ente Volume Ente		0.00%	0.00%	0.00%	0.00%	-82.00% -42	82.00%	0.00%	0.00%	0.00% 0	0.00%	0.00%	0.00% 0
Percent Exit		0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	82.00%
Volume Exiti		0	0	0	0	0	0	0	0		0	0	42
Net AM Passby T	rips	0	0	0	0	-42	42	0	0	0	0	0	42
				- DI - 0	Manthou	nd (Rio Bra	vo Blvdi	Northbo	ound (Drivev	way 'B')	Southbo	ound (Drivew	ray 'B')
PM Pass-by	Trips	Eastbour	nd (Rio Brav	<i>o Biva)</i> I	Traswou								
<u>PM Pass-by</u> Percent Ente		Eastbour	nd (Rio Brav 0.00%	0.00%	0.00%	-75.00%	75.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Percent Ente Volume Ente	ering ering	0.00% 0	0.00% 0	0.00% 0	0.00% 0	-75.00% -50	75.00% 50	0.00% 0	0	0	0	0	0
Percent Ente Volume Ente Percent Exiti	ering ering ing	0.00% 0 0.00%	0.00% 0 0.00%	0.00% 0 0.00%	0.00% 0 0.00%	-75.00% -50 0.00%	75.00% 50 0.00%	0.00% 0 0.00%	0 0.00%	0 0.00%	0 0.00%	0 0.00%	0 75.00%
Percent Ente Volume Ente Percent Exiti Volume Exiti	ering ering ing ing	0.00% 0 0.00% 0	0.00% 0 0.00% 0	0.00% 0 0.00% 0	0.00% 0 0.00% 0	-75.00% -50 0.00% 0	75.00% 50 0.00% 0	0.00% 0 0.00% 0	0 0.00% 0	0 0.00% 0	0 0.00% 0	0 0.00% 0	0 75.00% 50
Percent Ente Volume Ente Percent Exiti	ering ering ing ing	0.00% 0 0.00% 0 0	0.00% 0 0.00% 0 0	0.00% 0 0.00%	0.00% 0 0.00%	-75.00% -50 0.00%	75.00% 50 0.00%	0.00% 0 0.00%	0 0.00%	0 0.00%	0 0.00%	0 0.00%	0 75.00%
Percent Ente Volume Ente Percent Exiti Volume Exiti	ering ering ing ing rips	0.00% 0 0.00% 0	0.00% 0 0.00% 0	0.00% 0 0.00% 0 0	0.00% 0 0.00% 0	-75.00% -50 0.00% 0	75.00% 50 0.00% 0	0.00% 0 0.00% 0	0 0.00% 0	0 0.00% 0	0 0.00% 0	0 0.00% 0	0 75.00% 50







RB-BdwyNW_TURNS2024-CaseY.xls - Int_9

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2024 BUILD

3/11/2012

HCM Signalized Intersection Capacity Analysis 1: I-25 E. ramp & Rio Bravo Btvd	sectic Brave	n Cap Bivd	acity /	Analysi	s			~	Ter	Terry O. Brown, P.E. 3/10/2012 - Synchro 7	O. Brown, P.E. 3/10/2012 - Synchro 7	P.E.
	1	Ť	1	5	Į.	1	•		A.	1	→	-
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	ŗ	ŧ			44	*		¢				
Volume (vph)	1159	598	0	0	273	21	3	2	229	•	•	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0			4.0	4.0		4.0				
Lane Util. Factor	0.97	0.95			0.95	1.00		1.00				
Fi	1.00	1.00			1.00	0.85		0.89				1.570
Fit Protected	0.95	1.00			1.00	1.00		0.99				
Satd. Flow (prof)	3335	3438			3438	1538		1596				Constanting of the
Fit Permitted	0.47	1.00			1.00	1.00		0.99				
Satd. Flow (perm)	1660	3438		CANAL D	3438	1538		1596		CHARTER CONTRACTOR		E Cal
Peak-hour factor, PHF	0.97	0.97	0.97	0.76	0.76	0.76	0.78	0.78	0.78	0.85	0.85	0.85
Adj. Flow (vph)	1195	616	0	0	359	28	64		294	0	0	0
RTOR Reduction (vph)	•	•	•	0	•	15	0	142	0	0	0	0
Lane Group Flow (vph)	1195	616	0	0	359	13	0	219	0	0	0	0
	pm+pt	M			NA	Perm	Perm	A				
Protected Phases	7	4			80			~				
Permitted Phases	4					*0	2					
Actuated Green, G (s)	97.4	97.4			61.2	61.2		22.6				
Effective Green, g (s)	98.4	98.4			62.2	62.2		23.6				
Actuated g/C Ratio	0.76	0.76	1		0.48	0.48		0.18	10.00			
Clearance Time (s)	5.0	5.0			5.0	5.0		5.0				
Vehicle Extension (s)	3.0	3.0			3.0	3.0	N.Y. PA	3.0	12-12	1	10-11	Careed
(hqh)	1671	2602			1645	736		290				1000
Salar Shine	c0.18	0.18			0.10							
Perm	c0.36					0.01		0.14				
v/c Ratio	0.72	0.24			0.22	0.02		0.75				TANK I
Uniform Delay, d1	6.6	4.7			19.7	17.8		50.4				
Progression Factor	0.29	0.29	- marrie		1.00	1.00		1.00				
Incremental Delay, d2	F	0.2			0.3	0.0		10.6				
Delay (s)	3.1	5.5	ALC: NO	and a	20.0	17.9	South and	61.0	1212			
Level of Service	<	•			o	æ		ш				
Approach Delay (s)		2.6			19.9			61.0			0.0	
Approach LOS		¥			B			ш			A	
Intersection Summary	ALC: NO.	State -	140.42	STATES	Stand a	Sale of the	BUSIES IS	and the second	CANING STREET	MALLA	LANK A	Constant of
HCM Average Control Delay HCM Volume to Canacity ratio			13.4	Ŧ	CM Level	HCM Level of Service			80			
Articled Curle Landth (c)			120.0	Ū	Cum of last time (s)	fime (e)			00			Concernant of the
Intersection Capacity Utilization			%9'L9	30	Li Level o	ICLI Level of Sarvice		Section of the	30			
Analysis Period (min)			15									
c Critical Lane Group			1.00									

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2014 AM Peak NOBUILD Conditions

Either Case D:IATOBEVPROJECTS_2012IValero_RB_Broadway/Synchrol2014AI/X.syn

Terry O. Brown, P.E. 3/10/2012 - Synchro 7 Intersection LOS: B ICU Level of Service C 2 5.0 21.0 21.0 4.0 4.0 4.0 4.0 4.0 4.0 Min 23.6 23.6 0.18 0.84 42.1 42.1 42.1 7 0.0 0.0 0.0 0.0 0 0.0 0 0 0 2 Aduated Cycle Length: 130 Offset B0 (62%), Referenced to phase 4:EBTL and B:WBT, Start of Green Natural Cycle: 60 Control Tycle: 60 Maxmum vic Ratio: 0.84 NBT **4**∾≨ + 5.0 21.0 21.0 21.5% 28.0 4.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 C-Max 62.2 0.48 0.04 12.0 0.0 12.0 WBR Perm Perm ∢ 5.0 21.5% 28.0 21.5% 4.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 C-Max 622 0.48 0.22 25.3 25.3 25.3 24.4 C 11 MBT 80 ----ţ Timings 1: I-25 E. ramp & Rio Bravo Blvd C-May 98.4 0.76 0.24 1.8 0.2 20 2.0 5.0 21.0 87.0 66.9% 4.0 1.0 -1.0 4.0 3.6 A t Intersection Signal Delay: 12.1 Intersection Capacity Utilization 67.6% Analysis Period (min) 15 5.0 10.0 59.0 59.0 45.4% 4.0 1.0 -1.0 -1.0 -1.0 Lead Min 98.4 0.76 4.1 4.3 4.3 EBL 1159 1 Switch Phase Minimum Initial (s) Minimum Split (s) Total Split (s) Total Split (s) Velaw Time (s) Lost Time Adjust (s) Lost Lost Time Adjust (s) Lost Lost Time Adjust (s) Lost Lost (s) Minimum Split (s) Lost (s intersection Summary Lane Group Lane Configurations Volume (vph) Turn Type Protected Phases Permitted Phases Detector Phase Approach Delay Approach LOS Cycle Length: 130

Splits and Phases: 1: I-25 E. ramp & Rio Bravo Blvd

43.9 [1] [87.9 [4] [4] [4] [4] [4] [4] [4] [4] [4] [4]	[a2	4 6	
	e	87.3	
2		50 A	₽
		Es.	28.2

2014 AM Peak NOBUILD Conditions

Either Case D:IATOBEIPROJECTS_2012IValero_RB_BroadwaylSynchrol2014AIVIX.syn

HCM Signalized Intersection Capacity Analysis 1: I-25 E. ramp & Rio Bravo Blvd	ersectic o Brave	on Cap Blvd	acity A	Inalysi	s				Ter	Terry O. Brown, P.E. 3/0/2012 - Synchro 7	O. Brown, P.E. 3/10/2012 - Synchro 7	P.E.
	1	t	1	\$	ŧ	1	*	-	•	1	→	\mathbf{F}
Movement	EBL	EBT	EBR	WBL	WBT	ABR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	14	ŧ			ŧ	×.		¢			•	
Volume (vph)	1169	607	•	0	283	21	ទ		229	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0			4.0	4.0		4.0				
Lane Util. Factor	0.97	0.95			0.95	1.00		1.00				
F	1.00	1.00			1.00	0.85		0.89				
Fit Protected	0.95	1.00			1.00	1.00		0.99				Ī
Satd. Flow (prot)	3335	3438			3438	1538		1598				
Fit Permitted	0.46	1.00			1.00	1.00		0.99				
Satd. Flow (perm)	1607	3438		Statute of	3438	1538		1598				
Peak-hour factor, PHF	0.97	0.97	0.97	0.76	0.76	0.76	0.78	0.78	0.78	0.85	0.85	0.85
Adj. Flow (vph)	1205	626	•	0	372	28	68		294	0	0	•
RTOR Reduction (vph)	•	•	•	0	0	5	0	133	0	0	0	•
Lane Group Flow (vph)	1205	626	•	0	372	13	0	232	0	0	0	0
Turn Type	pm+pt	¥			NA	Perm	Perm	¥				
Protected Phases	1	4			80			2			11/13	
Permitted Phases	4					60	2					
Actuated Green, G (s)	96.3	96.3			58.1	58.1		23.7				
Effective Green, g (s)	97.3	97.3			59.1	59.1		24.7				
Actuated g/C Ratio	0.75	0.75	1000		0.45	0.45		0.19				
Clearance Time (s)	5.0	5.0			5.0	5.0		5.0				
Vehicle Extension (s)	3.0	3.0			3.0	3.0		3.0		10		
Lane Grp Cap (vph)	1657	2573			1563	669		304				
v/s Ratio Prot	c0.19	0.18			0.11							
v/s Ratio Perm	c0.35					0.01		0.15				
vic Ratio	0.73	0.24			0.24	0.02		0.76				
Uniform Delay, d1	7.3	5.0			21.7	19.5		49.9				
Progression Factor	0.32	0.29		See. 4	1.00	1.00		1.00				E STAT
Incremental Delay, d2	1.2	0.2			0.4	0.0		10.8				
Delay (s)	3.5	1.6			22.0	19.5		60.7				
Level of Service	4	4			o	80		ш				
Approach Delay (s)		2.9			21.9			60.7			0.0	
Approach LOS		4			U			ш			۷	
Intersection Summary	1023	No. of Concession			No. of the second	States 1	and the second	and the second	A PARTICIPAL OF	TON'S ST	STANIES.	The second
HCM Average Control Delay			13.9	¥	M Level	HCM Level of Service			6			
HCM Volume to Capacity ratio			0.73									R
Actuated Cycle Length (s)			130.0	ิต	m of lost	Sum of lost time (s)			8.0			
Intersection Capacity Utilization	u.	GAR -	68.3%	ō	J Level o	Service			U			
Analysis Period (min)			15									
c Critical Lane Group						No. No.						

5.0 21.0 43.0 33.1% 4.0 1.0 -1.0 4.0

5.0 21.0 21.5% 28.0 4.0 1.0 4.0 4.0 4.0 1.0 21.5%

5.0 21.0 87.0 66.9% 4.0 1.0 -1.0 -1.0

5.0 10.0 59.0 45.4% 4.0 1.0 -1.0 -1.0 -1.0 Lead

4.0 1.0 1.0 1.0

Switch Phase Mainnum hitila (s) Mainnum Spit (s) Total Spit (%) Velow Time (s) Lost Time Adjust (s) Lost Time Adjust (s) Lost Time (s) Lead/Lag Lead-Lag Recall Mode Recall Mode Act Tick Green (s) Act Tick Green (s) Actuated g/C Ratio Vic Ratio

5.0 21.0 28.0 21.5%

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Turn Type Protected Phases Permitted Phases Detector Phase

Min 24.7 0.19 0.84 43.5 0.0 43.5 D D D

C-Max 59.1 0.45 0.24 27,5 0.0 27,5 C 27,5 C C C C

3.9 A

Intersection Summary

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Control Delay Queue Delay Total Delay LOS Approach Delay Approach LOS

C-Max 59.1 0.45 0.04 12.7 0.0 12.7 12.7 12.7 12.7 12.7 B

C-Max 97.3 0.75 0.24 1.9 0.2 2.1 2.1

Min 97.3 0.75 0.73 4.5 4.5 4.5 4.5

2014 AM Peak BUILD Conditions

D:ATOBENPROJECTS_2012Valero_RB_Broadwary/Synchroi2014ABX-CaseY.syn

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59.

1: I-25 E. ramp & Rio Bravo Blvd

Splits and Phases:

ß Q

Intersection LOS: B ICU Level of Service C

Cycle Length: 130 Actuated Cycle Length: 130 Diffset 80 (62%), Referenced to phase 4:EBTL and 8:WBT, Start of Green Natural Cycle: 60 Control Type: Actuated-Coordinated Maxmum vic Ratio: 0.04 Maxmum vic Capacity Utilization 68.3% Intersection State Delay: 12.9 Intersection State Delay: 12.9 Intersection State Delay: 12.9 Intersection Capacity Utilization 68.3%

2014 AM Peak BUILD Conditions

Timings 1: I-25 E. ramp & Rio Bravo Blvd

NBT \$~ \\$ ~

WBR Perm 21

MBT 283

EBL 1169 pm+pt

Lane Group Lane Configurations Volume (vph)

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Terry O. Brown, P.E. 3/10/2012 - Synchro 7

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Case "Y' - Rio Bravo drive D:NTOBE/PROJECTS_2012/Valero_RB_Broadwary/Synchrol2014ABX-CaseY.syn

C $ -$						i							ĺ
ERI ERI WBL WBT MBR MBL MBT MBT MBL MBT MBT <th></th> <th>٩</th> <th>Ť</th> <th>1</th> <th>5</th> <th>Ŧ</th> <th>4</th> <th>4</th> <th>-</th> <th>•</th> <th>></th> <th>-</th> <th> </th>		٩	Ť	1	5	Ŧ	4	4	-	•	>	-	
N N	Movement	B	EBT	EBR	WBIL	TBW	WBR	NBL	NBT	NBR	SBI.	SBT	SBR
	Lane Configurations	j,	ŧ	22		ŧ	R		+‡				
	Volume (vph)	866	350	•	0	453	124	43	2	83	•	0	0
	ldeal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	Total Lost time (s)	4.0	4.0			4.0	4.0		4.0				
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	Lane Util. Factor	0.97	0.95			0.95	1.00		1.00				
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	E	1.00	1.00			1.00	0.85	1	0.91				
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	Fit Protected	0.95	1.00			1.00	1.00		0.98				
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	Satd. Flow (prot)	3335	3438	AL SUL	S. Marrie	3438	1538		1620				
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	Fit Permitted	0.39	1:00			1.00	1.00		0.98				
0.36 0.36 0.37 0.77 0.75 0.85 0.85 0.90 <th< td=""><td>Satd. Flow (perm)</td><td>1360</td><td>3438</td><td></td><td></td><td>3438</td><td>1538</td><td></td><td>1620</td><td></td><td>ONLO IN</td><td>P. R. B. W.</td><td>10.00</td></th<>	Satd. Flow (perm)	1360	3438			3438	1538		1620		ONLO IN	P. R. B. W.	10.00
912 356 0 0 568 161 51 2 109 0 <t< td=""><td>Peak-hour factor, PHF</td><td>0.96</td><td>0.96</td><td>0.96</td><td>0.77</td><td>0.77</td><td>0.77</td><td>0.85</td><td>0.85</td><td>0.85</td><td>0.85</td><td>0.85</td><td>0.85</td></t<>	Peak-hour factor, PHF	0.96	0.96	0.96	0.77	0.77	0.77	0.85	0.85	0.85	0.85	0.85	0.85
0 0 0 0 51 0 63 0	Adj. Flow (vph)	902	395	•	0	588	161	51	~	109	0	0	0
In 902 355 0 0 588 110 0 99 0 0 0 PMPH NA NA NA Perm Pam NA 2 2 2 1	RTOR Reduction (vph)	•	•	0	0	0	51	0	63	0	•	0	0
pm+et NA NA Perm NA 7 4 8 2 2 7 4 8 2 2 107.0 107.0 107.0 65.6 65.6 13.0 108.0 108.0 65.6 65.6 14.0 0.11 5.0 5.0 5.0 5.0 5.0 5.0 5.0 3.0 3.0 3.0 3.0 3.0 3.0 3.0 3.0 3.10 3.0 3.0 3.0 3.0 3.0 3.0 3.0 3.10 3.0 3.0 3.0 3.0 3.0 3.0 3.0 4.1 0.13 0.17 0.17 0.57 4.2 4.2 0.10 0.01 1.00 1.00 1.00 1.00 59.3 59.3 59.3 59.3 59.3 59.3 59.3 59.3 59.3 59.3 59.3 59.3 59.3 59.3 59.3 59.	Lane Group Flow (vph)	902	365	•	0	588	110	0	66	0	0	•	0
7 4 8 2 2 107.0 107.0 107.0 65.6 65.6 13.0 108.0 108.0 65.6 65.6 13.0 14.0 108.0 108.0 65.6 65.6 14.0 14.0 5.0 5.0 5.0 5.0 5.0 5.0 3.0 3.0 3.0 3.0 3.0 5.0 3.0 3.0 3.0 3.0 5.0 5.0 3.0 3.0 3.0 3.0 5.0 5.0 4 2.0 3.0 0.25 174 174 5.1 0.13 0.17 0.05 0.05 5.1 5.1 0.13 0.10 1.00 1.00 1.00 1.00 7 8.7 8.0 55.1 5.1 6.2 5.1 6.03 0.13 0.13 0.03 6.03 5.0 5.1 7 8.0 9.0 8.0 <td>Turn Type</td> <td>pm+pt</td> <td>M</td> <td></td> <td></td> <td>M</td> <td>Регт</td> <td>Perm</td> <td>A</td> <td></td> <td></td> <td></td> <td></td>	Turn Type	pm+pt	M			M	Регт	Perm	A				
1 14 8 2 107.0 107.0 107.0 85.6 13.0 108.0 108.0 85.6 14.0 0.33 0.83 0.87 0.67 0.67 5.0 5.0 5.0 5.0 5.0 3.1 3.2 0.30 0.67 0.67 0.11 0.33 0.83 0.85 5.0 5.0 5.0 5.0 5.0 5.	Protected Phases	7	4			80			2				
1 107.0 107	Permitted Phases	4					80	2					
108.0 108.0 06.6 66.6 66.6 14.0 0.33 0.33 0.50 5.0 5.0 5.0 5.0 3.0 3.0 3.0 5.0 5.0 5.0 5.0 5.0 3.0 3.0 3.0 3.0 3.0 3.0 3.0 3.0 3.1 3.1 2.1 0.17 0.17 0.05 0.11 0.5 c.0.3 0.13 0.26 0.11 0.57 0.16 0.06 c.0.45 0.13 0.26 0.11 0.57 0.5 0.0 c.0.43 0.13 0.00 1.00 1.00 1.00 1.00 c.0.43 0.13 0.02 0.11 0.57 4.2 4.2 0.10 0.01 0.00 1.00 1.00 1.00 1.00 1.0 0.1 0.0 1.00 1.00 5.3 4.2 4.2 1.0 0.1 0.0 0.0	Actuated Green, G (s)	107.0	107.0			85.6	85.6		13.0				
0.83 0.83 0.67 0.67 0.11 3.0 5.0 5.0 5.0 5.0 5.0 3.0 3.0 3.0 3.0 3.0 3.0 3.0 3.10 2.0 5.0 5.0 5.0 5.0 5.0 1394 2856 2290 1025 174 1.1 0.17 0.06 0.03 0.13 0.17 0.05 0.17 0.06 0.06 0.13 0.13 0.13 0.10 0.10 0.10 0.06 0.13 0.13 0.10 0.10 0.10 0.10 0.10 0.10 0.13 0.10 0.10 0.1 0.1 0.1 1.00 1.00 1.00 1.00 5.3 </td <td>Effective Green, g (s)</td> <td>108.0</td> <td>108.0</td> <td></td> <td></td> <td>86.6</td> <td>86.6</td> <td></td> <td>14.0</td> <td></td> <td></td> <td></td> <td></td>	Effective Green, g (s)	108.0	108.0			86.6	86.6		14.0				
5.0 5.0 5.0 5.0 5.0 5.0 3.0 3.0 3.0 3.0 3.0 3.0 3.0 1340 2856 2290 1025 174 3.0 3.0 0.45 1134 0.17 0.07 0.06 0.06 0.06 0.45 1.1 0.17 0.07 0.06 1.00 1.00 0.45 0.13 0.26 0.11 0.57 0.06 0.06 0.45 0.13 0.21 8.1 7.18 55.1 1.00 1.00 1.00 0.10 0.10 1.00 1.00 1.00 1.00 1.00 1.00 1.00 0.13 0.13 0.10 0.01 0.07 0.06 59.3 <	Actuated g/C Ratio	0.83	0.83			0.67	0.67		0.11				
3.0 5.0 5.0 <td>Clearance Time (s)</td> <td>5.0</td> <td>5.0</td> <td></td> <td></td> <td>5.0</td> <td>5.0</td> <td></td> <td>5.0</td> <td></td> <td></td> <td></td> <td></td>	Clearance Time (s)	5.0	5.0			5.0	5.0		5.0				
1344 2356 2290 1025 174 c0.09 1.1 0.17 0.05 0.05 c0.05 0.13 0.17 0.05 0.05 c0.05 0.13 0.26 0.17 0.05 0.13 0.13 0.100 1.00 1.00 1.0 0.13 0.13 0.100 1.00 1.0 0.13 0.13 0.100 1.00 1.0 0.13 0.13 0.100 1.00 1.0 0.13 0.13 0.100 1.00 1.10 0.13 0.13 0.100 1.00 1.10 0.13 0.13 0.100 1.00 1.10 0.13 0.13 0.100 59.3 1.10 0.13 0.15 6.03 59.3 1.10 0.13 0.15 6.04 59.3 1.00 1.00 1.00 59.3 6.13 1.01 0.130 5.01 5.1	Vehicle Extension (s)	3.0	3.0			3.0	3.0		3.0				MXX
c0.09 0.11 0.17 0.05 0.45 0.13 0.07 0.06 0.65 0.13 0.26 0.11 0.55 0.88 0.13 0.100 1.000 1.00 1.0 0.13 0.13 0.05 0.05 0.10 0.10 1.00 1.00 1.00 1.10 0.13 0.13 0.2 4.2 1.10 0.1 0.00 5.3 5.3 1.10 0.1 0.00 1.00 1.00 1.10 0.1 0.03 0.2 4.2 1.10 0.1 0.0 8.0 5.3 1.10 0.1 0.0 5.3 5.3 1.10 0.1 0.0 5.3 5.3 1.10 0.1 0.0 5.3 5.3 1.10 0.1 0.0 5.3 5.3 1.10 0.1 0.1 5.3 5.3 1.10 0.1	Lane Grp Cap (vph)	1394	2856			2290	1025		174				
C0.45 0.07 0.06 0.65 0.13 0.26 0.11 0.57 0.65 0.13 0.26 0.11 0.57 0.88 0.13 0.1 0.57 55.1 1.00 1.00 1.00 1.00 1.00 2 1.0 0.1 0.3 0.2 4.2 3.9 0.4 9.0 8.0 59.3 59.3 3.9 0.4 8.8 8.8 59.3 59.3 2.9 8.8 A A E E 106ay 0.3 0.3 0.3 59.3 59.3 10eay 0.3 0.3 8.0 59.3 5 10eay 0.30.0 Sundi foreitine (s) 8.0 1 1 10eay 130.0 Sundi foreitine (s) 8.0 1 1 0.0	v/s Ratio Prot	c0.09	0.11			0.17							
0.65 0.13 0.26 0.11 0.57 3.3 2.1 8.7 7.8 55.1 0.33 2.1 0.3 0.0 1.00 1.0 0.13 1.07 7.08 5.0 3.3 2.1 0.3 0.2 4.2 3.9 0.4 9.0 8.0 59.3 3.9 0.4 8.0 8.0 59.3 A A A A E 2.9 8.9 8.9 59.3 E A A A A E A A A A E A A A B B A A A B B A A A B B A A A B B A B B B B A A A B B	v/s Ratio Perm	c0.45					0.07		0.06				
3.3 2.1 8.7 7.8 55.1 0.13 0.13 1.00 1.00 1.00 2 1.0 0.1 0.3 0.2 4.2 3.9 0.4 9.0 8.0 59.3 4.2 3.9 0.4 9.0 8.0 59.3 4.2 A A A A E 59.3 A A A A E 59.3 A A A A E 69.3 A A A A A 69.3 A A A A 69.3 69.3	v/c Ratio	0.65	0.13			0.26	0.11		0.57				
0.88 0.13 1.00 1.00 1.00 1.0 0.1 0.1 0.2 4.2 1.0 0.1 0.3 0.2 4.2 1.0 0.1 0.3 0.2 4.2 1.0 0.1 0.3 0.2 4.2 1.0 0.4 9.0 8.8 5.3 1.0 2.9 8.8 8.8 5.9.3 1.0 1.0 1.00 1.00 1.00 1.0 1.0 1.0 8.0 5.3 1.0 0.1 1.00 1.00 1.00 1.0 0.1 1.00 1.00 1.00 1.0 0.1 1.00 1.00 1.00 1.0 0.1 1.00 1.00 1.00 1.0 1.00 1.00 1.00 1.00 1.0 1.00 1.00 1.00 1.00 1.0 1.00 1.00 1.00 1.00 1.0 </td <td>Uniform Delay, d1</td> <td>3.3</td> <td>21</td> <td></td> <td></td> <td>8.7</td> <td>7.8</td> <td></td> <td>55.1</td> <td></td> <td></td> <td></td> <td></td>	Uniform Delay, d1	3.3	21			8.7	7.8		55.1				
2 1.0 0.1 0.3 0.2 4.2 3.9 0.4 9.0 8.0 59.3 59.3 A A A A A 59.3 A A B.8 8.8 59.3 59.3 A A A A A E A A A A 59.3 59.3 A B B.8 A 59.3 59.3 A A A A E E Collocation 0.31 HOM Level of Service A A A A A B B Utilization 55.4% ICU Lavel of Service B	Progression Factor	0.88	0.13			1.00	1.00		1.00				
39 0.4 9.0 8.0 59.3 A A A A E 2.9 8.0 59.3 59.3 A A A E 59.3 A A A A E 2.9 8.0 8.0 59.3 59.3 A A A E E 10blay 9.1 HCM Level of Service A A A 130.03 Sum of host time (s) 8.0 B Utilization 55.4% ICU Lavel of Service B B	Incremental Delay, d2	1.0	0.1			0.3	0.2		4.2				
A A A A A E 29 8.8 59.3 59.3 59.3 A A A A 59.3 A B A A 59.3 A B A A 59.3 A A A A 6 A B A A A A 130.0 Sum of lost time (s) 8.0 B Utilization 55.4% ICU Level of Service B B	Delay (s)	3.9	0.4			9.0	8.0		59.3				
2.9 8.8 59.3 A A A E f 9.1 HCM Level of Service A bity ratio 0.33 Sum of lost time (s) 8.0 Utilization 55.4% ICU Level of Service B	Level of Service	×	A			۷	<		ш				
A A A E E E E E E E E E E E E E E E E E	Approach Delay (s)		2.9			8.8		- Color	59.3			0.0	
r 1 Delay 9.1 HCM Level of Service city ratio 0.63 Unu of lost time (s) 1 (s) 130.0 Sum of lost time (s) Utilization 55.4% ICU Level of Service	Approach LOS		<			×			ш			<	
d Delay 9.1 HCM Level of Service cbty ratio 0.63 Unu of lost time (s) h (s) 130.0 Sum of lost time (s) Utilization 55.4% ICU Level of Service	Intersection Summary	SHOW SHOW	10.422.12	Current C	CONT OF	THE WE	Control of	A CONTRACTOR	2 11 5	Statute of	Substantion of the	Con Contro	Stores
echy ratio 0.63 0.453 0.45 0.45 0.45 0.45 0.45 0.45 0.45 0.45	HCM Average Control Delay			9.1	F	M Level	of Servic			A			
h (s) 130.0 Sum of kost time (s) Utilization 55.4% ICU Level of Service	HCM Volume to Capacity rai	00	in the	0.63			1.10						
Letitzation 55.4% ICU Level of Service	Actuated Cycle Length (s)			130.0	Su	m of lost	time (s)			8.0			
41	Intersection Capacity Utilizat	lon		55.4%	D	J Level o	f Service			-			
Anarysis Period (min) 15	Analysis Period (min)			15									

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Terry O. Brown, P.E. 3/10/2012 - Synchro 7

NBT 4 2 A 2

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Lane Group Lane Configurations Volume (vph)

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5.0 21.0 100.0 76.9%

5.0 10.0 51.0 51.0 4.0 1.0 -1.0 -1.0 -1.0 Lead

Tum Type Protocold Phases Periotical Phases Periotical Phases Switch Phase Switch Phase Minimum initial (s) Minimum Spit (s) Total Spit (s) Total Spit (s) Total Spit (s) Total Spit (s) Lost Time (s) Lost Time (s) Lead/Lag Optimize? Recall Mode Recall Mode Act Effic Green (s) Act Effic Green (s) Act Effic Green (s)

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Timings 1: I-25 E. ramp & Rio Bravo Blvd

WBR 124 Perm 2014 PM Peak NOBUILD Conditions

Either Case D:\ATOBE\PROJECTS_2012\Valeero_RB_Broadway\\Synchro\2014P\VX.syn

5.0 21.0 30.0 4.0 1.0 1.0 4.0 4.0 Min 14.0 0.11 0.68 44.7 0.0 44.7 D 44.7 D C-Max 86.6 0.67 0.15 2.6 2.6 2.6 2.6 5.0 21.0 49.0 49.0 4.0 1.0 1.0 4.0 1.0 4.0 1.0 1.0 5.0 21.0 49.0 49.0 4.0 1.0 -1.0 4.0 2.1.0 2.1.0 2.1.0 2.1.0 2.1.0 2.1.0 2.1.0 2.1.0 2.1.0 2.1.0 C-Max 86.6 0.67 0.26 0.26 10.7 10.7 10.7 8.9 A C-Max 108.0 0.83 0.13 0.13 0.4 0.4 0.4 40 1.0 40 40 3.6 A

Min 108.0 0.83 0.65 0.65 0.65 A.9

Intersection LOS: A ICU Level of Service B Inflareaction Summary Cycle Length: 130 Actuated Cycle Length: 130 Offiset 56 (74%), Referenced to phase 4:EBTL and 8:WBT, Start of Green Natural Cycle: 60 Control Type: Actuated-Coordinated Maximum vic Radio: 0.68 Maximum vic Capacity Utilization 55.4% Intersection Stape Delayr 8.5 Intersection Capacity Utilization 55.4% Analysis Period (min) 15 Control Delay Queue Delay Total Delay LOS Approach Delay Approach LOS

Bhud A Rin I 1- LOG E and Phasee. 뾠

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2014 PM Peak NOBUILD Conditions

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Either Case D:ATOBE\PROJECTS_2012Valero_RB_BroadwaylSynchrol2014PNX.syn

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	185	SBT	SBR
Lane Configurations	ŗ,	ŧ			ŧ	¥.,		¢				
Volume (vph)	879	361	0	•	466	124	46	~	93	0	0	0
Ideal Flow (vphpi)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0			4.0	4.0		4.0				
Lane Ubil. Factor	0.97	0.95			0.95	1.00		1.00				
Fi	1.00	1.00			1.00	0.85	17 12	0.91				1012
Fit Protected	0.95	1.00			1.00	1.00		0.98				
Satd. Flow (prot)	3335	3438			3438	1538	10.000	1622				
Fit Permitted	0.38	1.00			1.00	1.00		0.98				
Satd. Flow (perm)	1323	3438			3438	1538	No. of Contraction	1622				
Peak-hour factor, PHF	0.96	0.96	0.96	0.77	0.77	0.77	0.85	0.85	0.85	0.85	0.85	0.85
Adj. Flow (vph)	916	376	•	0	605	161	2	~	109	0	0	0
RTOR Reduction (vph)	0	0	0	0	•	52	0	39	0	•	•	0
Lane Group Flow (vph)	916	376	0	0	605	109	0	105	•	0	0	0
Turn Type	pm+pt	M			N	Perm	Perm	¥				
Protected Phases	7	4			80			2				
Permitted Phases	4					**	2					
Actuated Green, G (s)	106.5	106.5			83.8	83.8		13.5				
Effective Green, g (s)	107.5	107.5			84.8	84.8		14.5				
Actuated g/C Ratio	0.83	0.83			0.65	0.65		0.11				
Clearance Time (s)	5.0	5.0			5.0	5.0		5.0				
Vehicle Extension (s)	3.0	3.0			3.0	3.0		3.0				Satis
Lane Grp Cap (vph)	1383	2843			2243	1003		181				
v/s Ratio Prot	c0.10	0.11			0.18							
v/s Ratio Perm	c0.45					0.07		0.07				
v/c Ratio	0.66	0.13			0.27	0.11		0.58				
Uniform Delay, d1	3.6	22			9.5	8.5		54.9				
Progression Factor	0.85	0.12			1.00	1.00		1.00				
Incremental Delay, d2	1.2	0.1			0.3	0.2		4.7				
Delay (s)	4.2	0.4			9.8	8.7		59.6				
Level of Service	4	۷			A	A		ш				
Approach Delay (s)		3.1			9.6			59.6			0.0	
Approach LOS		<			×			ш			۷	
Intersection Summary	PLANTING REAL	the star	Departure	THE OWNER	The second	States	The second	1000	and the second s	S STATE	Contraction of the local division of the loc	200
HCM Average Control Delay	Å		9.5	Ŧ	HCM Level of Service	of Service			4			
HCM Volume to Capacity ratio	atio		0.65									
Actuated Cycle Length (s)			130.0	ŝ	Sum of lost time (s)	time (s)	Î		8.0			
Intersection Capacity Utilization	ation		56.3%	Ö	ICU Level of Service	f Service			-			
Analysis Period (min)			15									

iner 1

Terry O. Brown, P.E. 3/10/2012 - Synchro 7

Timings 1: I-25 E. ramp & Rio Bravo Blvd

2014 PM Peak BUILD Conditions

Case Y- Rio Bravo drive D:\ATOBEPRO.JECTS_2012\Valero_RB_Broadway\Synchrol2014PBX-CaseY.syn

Case Yr - Rio Bravo drive D:ATOBEIPROJECTS_2012IValero_RB_Broadway(Synchrol2014PBX-CaseY, syn

EBT WBT WBR 14 14 124 15 146 124 16 146 124 18 8 8 8 4 8 8 8 5.0 5.0 5.0 5.0 21.0 21.0 21.0 21.0 100.0 40.0 4.0 4.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 0.10 1.0 1.0 1.0 0.10 1.0 1.0 1.0 0.13 0.25 0.65 0.65 0.13 0.27 0.15 0.15 0.14 11.5 3.0 0.4 0.4 11.5 3.0 3.0 0.4 11.5 3.0 4.0 0.4 11.5 3.0 4.0 1.15 3.0 A			•			-	
Name Name <th< th=""><th>Lane Group</th><th>EBL</th><th>EBT</th><th>WBT</th><th>WBR</th><th>NBT</th><th>「「「「「「「」」」」「「「「」」」」」」」」」」」」」」」」」」」」」」</th></th<>	Lane Group	EBL	EBT	WBT	WBR	NBT	「「「「「「「」」」」「「「「」」」」」」」」」」」」」」」」」」」」」」
in) 873 361 461 124 Phases 7 4 8 8 Res 5:0 5:0 5:0 210 210 210 210 210 210 210 210 210 210 10	Lane Configurations	N.	ŧ	\$	×	4	
Phases Pm-pt NA Perm Phases 7 4 8 8 hase 7 4 8 8 sse 7 5.0 5.0 5.0 5.0 site 5.0 5.0 5.0 5.0 5.0 5.0 site 5.1 10.0 21.0 </td <td>Volume (vph)</td> <td>879</td> <td>361</td> <td>466</td> <td>124</td> <td>6</td> <td></td>	Volume (vph)	879	361	466	124	6	
Phases 7 4 8 Phases 7 4 8 8 Base 7 4 8 8 See 7 5 0 5.0 5.0 5.0 See 5 0 2.0 2.0 5.0 4.0 <t< td=""><td>Turn Type</td><td>pm+pt</td><td>NA</td><td>M</td><td>Perm</td><td>NA</td><td></td></t<>	Turn Type	pm+pt	NA	M	Perm	NA	
Phases 4 8 10 21.0 21.0 21.0 21.0 21.0 21.0 21.0 1	Protected Phases	2	4	60		2	
Mase 7 4 8 8 see 5.0 5.0 5.0 5.0 5.0 (s) 51.0 10.0 21.0 21.0 21.0 21.0 (s) 39.2.8 76.9% 37.7% 37.8% 37.8% 37.8% 37.8% 30.6% 0.66 0.13 0.13 0.13 0.13 0.13 0.15 0.16 0.0 </td <td>Permitted Phases</td> <td>4</td> <td></td> <td></td> <td>~</td> <td></td> <td></td>	Permitted Phases	4			~		
se nitial (\$) 5.0 5.0 5.0 5.0 4.0 (\$) 51.0 10.0 21.0 21.0 21.0 (\$) 55.1 10.0 21.0 21.0 21.0 (\$) 39.2% 75.7% 77.% 77.% (\$) 10.1 0 1.0 1.0 1.0 Adjust (\$) 1.0 1.0 1.0 1.0 1.0 Adjust (\$) 2.0 4.0 4.0 4.0 4.0 4.0 Adjust (\$) 2.0 0.1 0.0 1.0 0.0 Adjust (\$) 107.5 4.8 8.8 6.8 Adjust (\$) 107.5 0.15 0.15 0.15 Adjust (\$) 107.5 0.13 0.27 0.15 Adjust (\$) 107.5 0.13 0.27 0.15 Adjust (\$) 107.5 0.13 0.27 0.15 Adjust (\$) 2.0 0.0 0.0 0.0 0.0 Adjust (\$) 5.1 0.4 11.5 3.0 Adjust (\$) 5.1 0.4 11.5 3.0 Adjust (\$) 5.1 0.4 11.5 3.0 Adjust (\$) 2.0 0.0 0.0 0.0 0.0 0.0 Adjust (\$) 2.0 0.0 0.0 0.0 0.0 0.0 Adjust (\$) 2.1 0.4 11.5 3.0 Adjust (\$) 2.1 0.4 11.5 3.0 Adjust (\$) 2.0 0.0 0.0 0.0 0.0 0.0 0.0 Adjust (\$) 2.1 0.4 11.5 3.0 Adjust (\$) 2.0 0.0 0.0 0.0 0.0 0.0 0.0 Adjust (\$0.059 Adjust (\$0.069 Adjust (\$0.069	Detector Phase	2	4	80	80	2	
milal (s) 5.0 5.0 5.0 5.0 5.0 5.0 5.0 2.0 <th2.0< th=""> 2.0 <th2.0< th=""> <th2.0<< td=""><td>Switch Phase</td><td></td><td></td><td></td><td></td><td></td><td></td></th2.0<<></th2.0<></th2.0<>	Switch Phase						
spit (s) 10.0 21.0 21.0 21.0 40.0 40.0 40.0 40.0 40.0 40.0 40.0 4	Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	
(s) 51.0 100.0 49.0 40.0 (%) 39.2% 75.9% 37.7% 37.7% 37.7% (%) 39.2% 75.9% 37.7% 37.7% 37.7% Adjust(s) 1.0 1.0 1.0 1.0 1.0 1.0 Adjust(s) 4.0 <td< td=""><td>Minimum Split (s)</td><td>10.0</td><td>21.0</td><td>21.0</td><td>21.0</td><td>21.0</td><td></td></td<>	Minimum Split (s)	10.0	21.0	21.0	21.0	21.0	
(%) 33.2% 75.9% 37.7% 37.7% e(s) 1.0 1.0 4.0 4.0 4.0 4.0 Adjust (s) -1.0 -1.0 -1.0 -1.0 -1.0 -1.0 Adjust (s) -1.0 -1.0 -1.0 -1.0 -1.0 -1.0 Adjust (s) -1.0 -1.0 -1.0 -1.0 -1.0 -1.0 Adjust (s) -1.0 -1.0 -1.0 -1.0 -1.0 -1.0 -1.0 Adjust (s) -1.0	Total Split (s)	51.0	100.0	49.0	49.0	30.0	
e (s) 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0	Total Split (%)	39.2%	76.9%	37.7%	37.7%	23.1%	and determine any production of a production of a constraint of a constraint of a constraint of a constraint of
ne (s) 1.0<	Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	A CARLON CONTRACTOR OF A CARLON
Adjust (s) -1.0 -1.1.1 -1.1 -1.1	All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	
Time (s) 4.0 4.0 4.0 4.0 4.0 Primize7 Lead Lag Lag <t< td=""><td>Lost Time Adjust (s)</td><td>-1.0</td><td>-1.0</td><td>-1.0</td><td>-1.0</td><td>-1.0</td><td></td></t<>	Lost Time Adjust (s)	-1.0	-1.0	-1.0	-1.0	-1.0	
Lead Lag Lag <thlag< th=""> <thlag< td="" thr<=""><td>Total Lost Time (s)</td><td>4.0</td><td>4.0</td><td>4.0</td><td>4.0</td><td>4.0</td><td></td></thlag<></thlag<>	Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	
Optimize? Min C-Max <	Lead/Lag	Lead		Lag	Lag		
Recall Mode Min C-Max Min C-Max Min Actifict Green (s) 107,5 04,3 05,5 0,11 0,11 Actifict Green (s) 013 0,25 0,11 0,11 0,11 Actifict Green (s) 0,13 0,27 0,45 0,11 0,00 Actifict Green (s) 0,13 0,27 0,13 0,45 0,00 Control Delay 5,0 0,4 11,6 3,0 46,6 0,00 Control Delay 5,1 0,0 0,0 0,0 0,0 0,0 0,0 0,0 Total Delay 5,1 0,4 16,6 0,0 0,	Lead-Lag Optimize?						
Act Effet Green (s) 107.5 107.5 84.8 84.8 14.5 Act and gC Ratio 0.83 0.83 0.65 0.11 Actuated gC Ratio 0.66 0.13 0.27 0.15 0.65 Control Delay 5.0 0.4 11.6 3.0 46.6 Dueue Delay 0.0 0.0 0.0 0.0 0.0 Total Delay 5.1 0.4 11.6 3.0 46.6 Aptroach Delay 3.7 9.8 46.6 Aptroach Delay 3.7 9.8 46.6 Aptroach LOS A 1.7 9.8 46.6 46.6 Aptroach LOS A 1.7 9.8 46.6 46.6 46.6 46.6 46.6 46.6 46.6 46	Recall Mode	Min	C-Max	C-Max	C-Max	Min	
Acturated g/C Ratio 0.83 0.83 0.65 0.11 Acturated g/C Ratio 0.83 0.83 0.83 0.65 0.13 0.27 0.15 0.69 Control Delay 0.0 0.0 0.0 0.0 0.0 Control Delay 5.1 0.4 11.6 3.0 46.6 Ouce Delay 5.1 0.4 11.6 3.0 46.6 Approach Delay 3.7 9.8 A D Approach Delay 1.30 Approach Delay 1.30 Approach Delay 1.30 Approach Delay 1.30 Anturated Cycle Length: 1.30 Acturated Cycle Length: 1.30 Acturated Cycle and B.WBT, Start of Green Naturated Cycle and B.WBT, Start of Green Naturated Cycle and B.WBT, Start of Green Maximum VR Ratio: 0.80 Acturated Cycle and Delay: 9.0 Acturated D	Act Effct Green (s)	107.5	107.5	84.8	84.8	14.5	
wc Ratio 0.66 0.13 0.27 0.15 0.69 Control Delay 5.0 0.4 11.6 3.0 46.5 Control Delay 5.1 0.4 11.6 3.0 46.5 Control Delay 5.1 0.4 11.6 3.0 46.5 Cost Delay 5.1 0.4 11.6 3.0 46.5 Cost Delay 5.1 0.4 11.6 3.0 46.5 Aptract Dost 3.7 9.8 A D A Approach Delay 3.7 9.8 A D A Approach Dolay 3.7 9.8 A D A D Approach Dol 3.7 9.8 A D D D Approach Dol 3.7 9.8 A D D A A D D A A D D D D D D D D D D D D </td <td>Actuated g/C Ratio</td> <td>0.83</td> <td>0.83</td> <td>0.65</td> <td>0.65</td> <td>0.11</td> <td></td>	Actuated g/C Ratio	0.83	0.83	0.65	0.65	0.11	
Control Delay 5.0 0.4 11.5 3.0 46.6 Cueree Delay 5.0 0.0 0.0 0.0 Total Delay 5.1 0.0 0.0 0.0 Total Delay 3.7 9.8 46.6 Aptroach LOS A A 8 A D Aptroach LOS A 4.6 Aptroach LOS A 46.6 Aptroach LOS A 16.6 Aptroach LOS A 16.6 Aptroach LOS A 16.6 Aptroach Aptroach Aptro	v/c Ratio	0.66	0.13	0.27	0.15	0.69	
Oueue Delay 0.0 0.0 0.0 0.0 Total Delay 5.1 0.4 11.6 3.0 46.6 Total Delay 3.7 9.8 46.6 0.0 0.0 0.0 Approach Delay 3.7 9.8 46.6 0.0 0.0 0.0 0.0 0.0 Approach Delay 3.7 9.8 46.6 0.0 <td>Control Delay</td> <td>5.0</td> <td>0.4</td> <td>11.6</td> <td>3.0</td> <td>46.6</td> <td></td>	Control Delay	5.0	0.4	11.6	3.0	46.6	
Total Delay 5.1 0.4 11.6 3.0 46.6 A A B A D Approach Delay 3, 46.6 Approach Delay 3, 9,8 46.6 Approach LOS 3,7 9,8 46.6 Approach LOS 4, 6,9 40.6 A A A D A A A A A A A A A A A A A A A A	Queue Delay	0.0	0.0	0.0	0.0	0.0	
LOS A A B A D Approach Delay 3.7 9.8 46.6 Approach LOS A A D A D Approach LOS A A D Cycle Length : 130 Cycle Length : 130 Actuated Cycle: 50 Maturad Cycle:	Total Delay	5.1	0.4	11.6	3.0	46.6	
Approach Delay 3.7 9.8 46.6 A A D A A D Interaction Summary A A D Interaction Summary A A A A A A A A A A A A A A A A A A A	LOS	A	۷	80	×	Ω	
Approach LOS A A D Intersection Summary Cycle Length: 130 Actuated Cycle Langth: 130 Actuated Cycle and R.WBT, Start of Green Natural Cycle: 60 Offset 96 (PAR Referenced to phase 4:EBTL and 8:WBT, Start of Green Natural Cycle: 60 Maximum Wc Ratio: 0.69 Intersection Signal Delay: 9.0 Intersection Signal Delay: 9.0	Approach Delay		3.7	9.8		46.6	
Intersection Summary Cycle Length: 130 Actuated Cycle Length: 130 Offset 96 (174%, Referenced to phase 4:EBTL and 8:WBT, Start of Green Offset 96 (174%, Referenced to phase 4:EBTL and 8:WBT, Start of Green Control Type: Actuated-Coordinated Maximum Vie Ratio: 0.09 Intersection Signal Delay: 9.0 Intersection LOS: A	Approach LOS		۷	A		a	
Cycle Length: 130 Actuated Cycle Length: 130 Offset 96 (74%), Referenced to phase 4:EBTL and 8:WBT, Start of Green Control Type: Actuated-Coordinated Maximum VE Ratio: 0.69 Intersection Signal Delay: 9.0 Intersection LOS: A	Intersection Summary	E Charles	THE REAL	SPICES S	TO BASE	間よりの行きのでもの	またいたいは、たちにないないたいたいたいたいでのである
Actuated Cycle Length: 130 Offset: 96 (17%), Referenced to phase 4:EBTL and 8:WBT, Start of Green Natural Cycle: 60 Marinium Ver Ratio: 0.69 Marinium Ver Ratio: 0.69 Intersection Signal Delay: 9.0 Intersection LOS: A	Cycle Length: 130						
Naturation Conference of the second s	Actuated Cycle Length: 13 Offset: 96 (74%) Reference	10 	A-FRT1	BWR PWR	T Start of	Graon	
	Natural Cycle: 60	need on press				CIECII	and the second of the second second
	Control Type: Actuated-Co	bordinated					
	Maximum v/c Ratio: 0.69						
	Intersection Signal Delay: (9.0			F	lersection LOS: A	
Intersection Capacity Utilization 56.3%	Intersection Capacity Utiliz	zation 55.3%			Q	U Level of Service	8

Intel 1

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Splits and Phases: 1: 1-25 E. ramp & Rio Bravo Blvd	7	100 +	La 🖌	51 E
Splits and Phases: 1	↑ a2	30 a		

2014 PM Peak BUILD Conditions

Momental Elit Elit Elit Elit Moti Mart	Effective Effective <theffective< th=""> <theffective< th=""> <the< th=""><th>Movement EBI EBI EBI Movement Lane Configurations 145 755 0 Volume (wht) 1454 755 0 Total Lare Ust 0.90 1900 1900 1900 Fin Uncerted 0.93 100 100 100 100 Fin Protected 0.93 100 100 100 100 Fin Protected 0.93 343 90 343 90 343 Fin Protected 0.90 100 0<</th><th>Movement EBI EBI EBI Movement Lare Configurations Tyt Tyt<</th><th>Effective Effective <theffective< th=""> <theffective< th=""> <the< th=""><th>EBL 1454 1454 1454 1454 1456 0.95 3335 3335 0.97 1580 1580 1580 1580 1580 1580 1580 0.61 84.0 85.0 85.0</th><th>EBR WBI WBF NBR NBT NBF NBT NBF NBF<th>NBR 590 622 00 675 0 290 0 0 0 0</th></th></the<></theffective<></theffective<></th></the<></theffective<></theffective<>	Movement EBI EBI EBI Movement Lane Configurations 145 755 0 Volume (wht) 1454 755 0 Total Lare Ust 0.90 1900 1900 1900 Fin Uncerted 0.93 100 100 100 100 Fin Protected 0.93 100 100 100 100 Fin Protected 0.93 343 90 343 90 343 Fin Protected 0.90 100 0<	Movement EBI EBI EBI Movement Lare Configurations Tyt Tyt<	Effective Effective <theffective< th=""> <theffective< th=""> <the< th=""><th>EBL 1454 1454 1454 1454 1456 0.95 3335 3335 0.97 1580 1580 1580 1580 1580 1580 1580 0.61 84.0 85.0 85.0</th><th>EBR WBI WBF NBR NBT NBF NBT NBF NBF<th>NBR 590 622 00 675 0 290 0 0 0 0</th></th></the<></theffective<></theffective<>	EBL 1454 1454 1454 1454 1456 0.95 3335 3335 0.97 1580 1580 1580 1580 1580 1580 1580 0.61 84.0 85.0 85.0	EBR WBI WBF NBR NBT NBF NBT NBF NBF <th>NBR 590 622 00 675 0 290 0 0 0 0</th>	NBR 590 622 00 675 0 290 0 0 0 0
$ \left \begin{array}{cccccccccccccccccccccccccccccccccccc$	Effection Effection <theffection< th=""> <theffection< th=""> <the< th=""><th>Movement EBI EPI EBI Movement FBI <</th><th>Movement EBI EFI EBI With and the Constructions FI EFI EFI EFI EFI Movement FI EFI EFI FI <t< th=""><th>Movement EBI EPI EBI EB</th><th>EBL 1454 1454 1454 1500 1900 1500 1580 1580 1580 1580 1580 1580 15</th><th>EBR WBL WBT WBR NBL NBT ND 131 4 4 10 100</th><th>NBM SB4. 5 6122 0.92 6 0.92 0 0 0 0 0 0 11 00 11 00 0 11 00 0 10 00 0 10 00 0 10 00 0 10 00 0 10 00 0 000000</th></t<></th></the<></theffection<></theffection<>	Movement EBI EPI EBI Movement FBI <	Movement EBI EFI EBI With and the Constructions FI EFI EFI EFI EFI Movement FI EFI EFI FI FI <t< th=""><th>Movement EBI EPI EBI EB</th><th>EBL 1454 1454 1454 1500 1900 1500 1580 1580 1580 1580 1580 1580 15</th><th>EBR WBL WBT WBR NBL NBT ND 131 4 4 10 100</th><th>NBM SB4. 5 6122 0.92 6 0.92 0 0 0 0 0 0 11 00 11 00 0 11 00 0 10 00 0 10 00 0 10 00 0 10 00 0 10 00 0 000000</th></t<>	Movement EBI EPI EBI EB	EBL 1454 1454 1454 1500 1900 1500 1580 1580 1580 1580 1580 1580 15	EBR WBL WBT WBR NBL NBT ND 131 4 4 10 100	NBM SB4. 5 6122 0.92 6 0.92 0 0 0 0 0 0 11 00 11 00 0 11 00 0 10 00 0 10 00 0 10 00 0 10 00 0 10 00 0 000000
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$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	35 9.06 25.3 7.0.0 5.0 37 9.0 0.0 0.0 3.0 <td< td=""><td>0.00 CC.U CO.U 20.U 20.U 20.U 20.U 20.U 20.U 20.U 20</td><td>and the second se</td><td>Actuated g/C Ratio</td><td>0.69</td><td>0.69</td><td></td><td></td><td></td><td>.35</td><td>0</td><td>25</td><td>Contraction of the</td><td>1000</td><td></td></td<>	0.00 CC.U CO.U 20.U 20.U 20.U 20.U 20.U 20.U 20.U 20	and the second se	Actuated g/C Ratio	0.69	0.69				.35	0	25	Contraction of the	1000	
0.2 0.0 </td <td>0.0 0.0 0.0 0.0 3.0 3.0 3.0 3.0 3.0 3.7 0.6 5.3 1700 0.0 0.04 14 2.3 2.1 7.6 C 12.0 0.0 0.04 0.05 0.0 2.1 7.60 C 12.0 0.04 0.05 0.05 0.05 2.1 7.60 C 12.0 0.05 0.05 0.05 0.05 2.1 7.80 C 12.0 0.05 0.05 0.05 2.1 7.80 C 11.8 2.3 0.02 2.1 7.80 C 11.8 2.3 2.3 2.1 1.1 2.3 1.1 2.3 2.5 2.1 1.1 2.3 1.1 2.3 2.5 1.1 1.1 2.3 1.1 2.3 3.5 1.1 1.1 2.3 1.1 2.3 3.5 1.1 1.1 2.3 1.1 2.3 3.5 1.1 1.1 2.3 1.1 2.3 1.1 1.1 1.1 2.3 1.1 2.3 1.1 1.1 1.1 1.1 1.1<!--</td--><td>3.6 QN 6.70</td><td>ADDRESS OF A DESCRIPTION OF A DESCRIPTIO</td><td>Clearance Time (s)</td><td>5.0</td><td>5.0</td><td></td><td></td><td></td><td>5.0</td><td>4,</td><td>0.</td><td></td><td></td><td></td></td>	0.0 0.0 0.0 0.0 3.0 3.0 3.0 3.0 3.0 3.7 0.6 5.3 1700 0.0 0.04 14 2.3 2.1 7.6 C 12.0 0.0 0.04 0.05 0.0 2.1 7.60 C 12.0 0.04 0.05 0.05 0.05 2.1 7.60 C 12.0 0.05 0.05 0.05 0.05 2.1 7.80 C 12.0 0.05 0.05 0.05 2.1 7.80 C 11.8 2.3 0.02 2.1 7.80 C 11.8 2.3 2.3 2.1 1.1 2.3 1.1 2.3 2.5 2.1 1.1 2.3 1.1 2.3 2.5 1.1 1.1 2.3 1.1 2.3 3.5 1.1 1.1 2.3 1.1 2.3 3.5 1.1 1.1 2.3 1.1 2.3 3.5 1.1 1.1 2.3 1.1 2.3 1.1 1.1 1.1 2.3 1.1 2.3 1.1 1.1 1.1 1.1 1.1 </td <td>3.6 QN 6.70</td> <td>ADDRESS OF A DESCRIPTION OF A DESCRIPTIO</td> <td>Clearance Time (s)</td> <td>5.0</td> <td>5.0</td> <td></td> <td></td> <td></td> <td>5.0</td> <td>4,</td> <td>0.</td> <td></td> <td></td> <td></td>	3.6 QN 6.70	ADDRESS OF A DESCRIPTION OF A DESCRIPTIO	Clearance Time (s)	5.0	5.0				5.0	4,	0.			
$\frac{37}{16} = \frac{3}{12} + \frac{3}{12}$	37 9.6 25.3 12.00 1146 2382 82.1 76.0 10.0 1149 2382 82.1 76.0 10.0 115 0.23 82.1 76.0 10.0 115 0.23 4FERL and 6WBT, Start of Green 0.33 0.22 0.42 0.42 Mintonia 0.42 0.42 0.42 0.42 0.42 Mintonia 0.43 112.0 3.5 0.42 0.42 0.42 Mintonia 0.43 114 0.23 0.42	0.2 0.0 0.0		Vehicle Extension (s)	3.0	3.0				3.0	~	0			
R F C C CL0 Unit	A F C F B F C 120.0 0.23 0.43 F E F Vie Ratio 0.16 0.23 Vie Ratio 120.0 118.2 7.30 0.23 Vie Ratio 118.2 7.30 0.23 0.42 Vie Ratio 118.2 7.30 0.25 0.42 Vie Ratio 118.2 7.30 0.25 0.40 Vie Ratio 118.2 7.30 0.25 0.40 Approach LOS: F F Approach LOS: F Approach CoS 0.40 A 0.01 118.2 7.30 0.40 A 0.02 118.2 7.30 0.40 A 0.01 118.2 7.40 0.40 A 0.01 118.2 114 A 0.02 118.2 114 <td< td=""><td>3.7 90.6 25.3</td><td>in the second se</td><td>Lane Grp Cap (vph)</td><td>1148</td><td>2382</td><td></td><td>÷.</td><td>1</td><td>338</td><td>4</td><td>92</td><td></td><td></td><td></td></td<>	3.7 90.6 25.3	in the second se	Lane Grp Cap (vph)	1148	2382		÷.	1	338	4	92			
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	02.1 76.0 120.0 120.0 F E Uniform Delay, 61 42.1 7.8 0.42 VERTIL and 6:WBT, Start of Green Uniform Delay, 61 118.2 3.5 0.42 VERTIL and 6:WBT, Start of Green 0.93 0.42 0.42 0.93 0.42 VERTIL and 6:WBT, Start of Green 0.93 0.42 0.93 0.42 0.93 0.42 VERTIL and 6:WBT, Start of Green 118.2 3.5 118.2 3.5 0.42 0.03 0.42 VERTIL and 6:WBT, Start of Green Elevel of Service F Approach LOS F Approach LOS 118.2 3.5 VERTIL and 6:WBT, Start of Green 10.1 Approach LOS F Approach LOS 9.03 Rio Blane Maine Analasi O'rel Level of Service F Approach LOS 9.03 On and a service F Maine Analasi O'rel Level of 161 114 Analasi O'rel Level of 161 114 On and a service F Maine Critical Lane Group 16 9.03 9.04 On and a service F Maine O'rel Level of 161 10.13	F A F C		VIS Nabo Prot	60.36	0.16		-		40	¢		and the second		a to
$ \begin{array}{c c c c c c c c c c c c c c c c c c c $	F E F Uniform Delay, d1 42, 178 Progression Factor 0,33 0,42 Intervential Delay, d2 730,012 Part of Green Intersection LOS: F Intersection LOS: F Intersection Service F Approach LOS Rio Brance P Intersection Service F Approach LOS Rio Brance P Intersection Correct Delay (a) 1400 Intersection Correct Valor (a) 1400 Intersection Correct Valor (a) 1400 Intersection Correct Valor (a) 1400 Intersection Correct Valor (a) 15 C Critical Lave Group 202 APM Peak NOBULLD Conditions	82.1 76.0		vic Ratio	1.15	0.23		- about		51	54	14			
$\begin{array}{c c c c c c c c c c c c c c c c c c c $	4:E0TL and 8:WBT, Start of Green 4:E0TL and 8:WBT, Start of Green A:EDTL and 8:WBT, Start of Green Intersection LOS: F Intersection LOS: F Intersection LOS: F Intersection Correl Datay (s) 113, 2 PCM Volume to Capacity ratio 11,14 Actuated Cycle Length (s) 14,00 Intersection Correl Lane Group Intersection			Uniform Delay, d1	42.1	7.8		4	8	5.9	: 23	- 49			
A:EII. and 6:WBT, Start of Green 23 23 24 34 66 Data (5:WBT, Start of Green 1182 35 223 33 199.4 A:EII. and 6:WBT, Start of Green 1182 35 223 33 199.4 Data (5: F Level of Service 7 85.1 80.3 113.2 5 72 33.4 50.3 199.4 Intersection LOS: F UI aveige Control Delay (5) 85.1 80.3 113.4 80.3 113.4	4:ETL and 6:WBT. Start of Green 4:ETL and 6:WBT. Start of Green 4:ETL and 6:WBT. Start of Green 110.2 Level of Service F 110.2 Level of Service	may		Progression Factor	0.93	0.42	No. Com	-		00	7	8			
4:EffL and XMBT, Start of Green 4:EffL and XMBT, Start of Green Approach LOS F A 2 25 33 139.4 Proceeding Service F A 2 F B F B F B F B F B F B F B F B F B F	4:EITL and 6:WBT, Start of Green 4:EITL and 6:WBT, Start of Green Intersection LOS: F Intersection LOS: F CUL Level of Service F CUL Level of Service F CUL Level of Service F Approach LOS (5) E F Approach LOS (5) E F Add Activity (5) (114 Add Activity (5) (114 A	40		Incremental Delay, d2	79.0	0.2		4		3.4	86	6			
4:EfIL and 6WBT. Start of Green 4:EfIL and 6WBT. Start of Green Approach LOS F Intersection LOS: F Intersection LOS: F CUL Level of Service F F CUL Level of Service F Monte to Great Delay 11.14 CUL Level of Service F F Monte to Great Delay 11.14 CUL Level of Service F Monte to Great Delay 11.14 CUL Level of Service F Monte to Great Delay 11.14 Monte to Glean Delay 11.14 Monte to Glean Delay 11.14 Monte to Glean Delay 11.14 Monte to	4:E01L and 6:WBT, Start of Green 4:E01L and 6:WBT, Start of Green Intersection LOS: F Intersection LOS: F Intersection LOS: F Intersection Summary RIO Brave Blvd RIO Blvd RIO Brave Blvd RIO Blv	Actuated Cycle Length: 140		Delay (s)	118.2	3.5	and a second	8		9.3	138	4	10.00		1
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ICU Level of Service F ICU Level of Service F Rio Bravo Bivd Rio Bravo Bivd Actuated Cycle Length (s) 140.0 Sum of lost time (s) 8.0 Intersection Capacity Utilization 98.0% (CU Lavel of Service F adv 101 15 Critical Lane Group 101 0 15 Critical Lane Group	ICU Level of Service F Rich Volverego and Level of Service F Rich Volverego and Level of Service F Rich Volvere Longeh (s) 140.0 Rich Volvere Level (s)		1 A state of the state of th	LICH ANTON CURRENT		Course in	00.00	TUN	0.90					LOCAL ST	
Actualed Cycle Length (s) 140.0 Sun of lost time (s) 8.0 Intersection Capacity Utilization 98.6% (CU Level of Service) F → at analysis Period (min) 15 0. Critical Lane Group 15 0.	& Rio Bravo Bivd Actuated Cycle Length (s) 140.0 → ∞ → ∞ 101 86.8% 1011 → ∞ → ∞ 15 → ∞ → ∞ →			HCM Volume to Canacity r	atio		1.14	WOL	C IO BAD	SINCE			2		
A Rio Bravo Bivd A Rio Bravo Bivd A Analysis Period (min) 15 48 Citical Lane Group 15 Citical Lane Group	R Richard Bird A Richard Bird A Richard Capacity Utilization BL 99, Market Capacity Utilization BL 99, Market Capacity Analysis Petrod (min) 15 Critical Lane Group Critical Lane Group Critical Lane Group Critical Lane Group Size Petrod (min) Size Petrod Size Petrod (min) Size Petrod Size Pet	(min) 15		Actuated Cycle Length (s)			140.0	Sumo	if lost time	s (s)		89	0		
$\sqrt{\frac{101}{8}}$ $\sqrt{\frac{101}{83}}$	Either Case		4	Intersection Capacity Utiliz	ation	68	8.6%	ICUL	avel of Sa	rvice			11		
C Critical Lane Group	Ether Case	1		Analysis Period (min)			15								
	Totris 48 e 53 e 53 e 53 e 53 e 52 fibrer Case			c Critical Lane Group			11	and the second						States -	
	48 s 153 s 1 2024 PM Peak NOBULD Conditions 2024 PM Peak NOBULD Conditions														
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Terry O. Brown, P.E. 3/10/2012-Synchro 7	بر بر ب	100	NBI NBK SBL	7 318 0	1900 190	4.0	1.00	0.98	1620	0.98	0.92 0.92 0.92	346	53 0 0		5		35.0	0.25	5.0	405	COL .	0.29	1.14	1.00	90.3	428 	142.8	Ŀ	A COMPANY STATES OF THE STATES OF	F Contraction of the local	8.0			Armen de a raine de		
	-	1007	NBL	149	1900 1				200	and a second second			• •	Dame		2		Contra .						1000		4	1		Standard Stand					Station of the		
	1	MBD	Mar	341	1900	4.0	1.00	1.00	1538	1.00	0.92	371	16	ι.		89 G	49.0	0.35	5.0	538	8	0.18	0.51	1.00	3.4	39.4			the state of	f Service	me (s)	Service				
s	ŧ	WRT	1 GA	1206	1900	4.0	0.95	1.00	3438	NU.L	0.92	1311	1244	ICI	-	40.0	49.0	0.35	5.0	1203	0.38		1.09	1.00	54.0	99.5 E	86.2	ш		HCM Level of Service	Sum of lost time (s)	ICU Level of Service				
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pacity /	~	ERR	LDK	0	1900				- and the	The second second	0.92	0	0 0								1286					Con the local			Statute Sec	94.2	140.0	39.8%	5			
ion Caj vo Blvd	Ť	FRT				5	1 00	£		BEAE			0 99		4		0.76		5.0 7.0		0.16	000	0.23	0.41			87.9	L	an aith							
tersect	1	æ	AN .	1232	1900	4.0	1.00	0.95	3335	265	0.92	1339	1220	tu+ut	1	4	0.76	0.69	3.0	1148	c0.37	c0.44	1.17	0.91	84.0	122.5 F	and the second		the state	, in the second se		tion		Contraction of the		
- -		ANT AND ANT ANT	urations	(hd	r (vphpl)	a tume (s)	Latte Uui. Factor Frt	ected	Satd. Flow (prot)	ru remmeu Satd. Flow (nerm)	Peak-hour factor, PHF	Adj. Flow (vph)	RTOR Reduction (vph)	Furn Type	Protected Phases	Permitted Phases	Effective Green, g (s)	Actuated g/C Ratio	Clearance Time (s) Vehicle Extension (s)	Lane Gro Cap (vph)	v/s Ratio Prot	v/s Ratio Perm	Vic Habo Linitorm Delav d1	Progression Factor	ncremental Delay, d2	Delay (s) Level of Service	Approach Delay (s)	Approach LOS	Intersection Summary	HCM Volume to Canacity ratio	Actuated Cycle Length (s)	Intersection Capacity Utilization	Analysis Period (min) c Critical Lane Groun	and the second		
HCM Signalized Intersection Capacity Analysis 1: 1-25 E. ramp & Rio Bravo Blvd		Movement	Lane Configurations	Volume (vph)	Ideal Flow (vphpl)		Fid Fid	Fit Protected	Satd. Flow (p	Satd	Peak	Adj. F	RTO	Turn	Prot	Pen	Effe	Act	Cle		vis	S/N	5		<u> </u>	<u> </u>	A	Ap			Act	Inte	Ana	2		
Terry O. Brown, P.E. HCM Signalized 3/10/2012-5/weitro 7	*	WBR NBT WERE	4		Perm NA	and the second	8 2		5.0 5.0 210 216	63.0 39.0	37.9% 27.9%	A.U 4.U	-1.0 -1.0	4.0 4.0	Gen	C-Max Min	49.0 35.0 P.3.	0.35 0.25 0.58 113	25.7 122.3	0.0 0.0	25.7 122.3 VIS	1223						Ap	Intersection LOS: F		Act		Ana	3		
Terry O. Brown, P.E. 3/10/2012 - Synchine 7	↓ ↓ ↓	NBT WAT AND	4	341 7	×.	-			5.0 5.0 210 216	39.0	37.9% 27.9%	4.0	-1.0	4.0 4.0		C-Max Min	49.0 35.0	0.25	25.7 122.3	0.0 0.0	1223	1223	the second se					Ap			Ad					
	+ + + + 1	WBR NBT	4	1206 341 7	Petrin NA	-	8 2		5.0 5.0 210 216	101.0 53.0 53.0 39.0	72.1% 37.9% 37.9% 27.9%	A.U 4.U	-1.0 -1.0	4.0 4.0	Gen	C-Max C-Max Min	97.0 49.0 49.0 35.0	U.DB U.35 U.25 0.23 1.09 0.58 1.13	1.05 U.20 1.13 96.7 25.7 122.3		25.7 122.3 C	B1.0 122.3				Di Diffect 14 f10M3, Releienmend in nuisse 4:ERT1 and RWRTT Start of Creen					Ad	1:1-25 E. ramo & Rio Bravo Blvd			83	2

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HCM Signalized Intersection Capacity Analysis 2: I-25 W. ramp & Rio Bravo Blvd	sectic Brav	on Cap	acity A	Inalysi	s	с -			Ter	Terry O. Brown, P.E. 3/10/2012 - Synchro 7	O. Brown, P.E. 3/10/2012 - Synchro 7	P.E. Kchro 7
	1	†	1	5	Ŧ	~	•	+	4	٨	-	
Movement	EBL	EBT	EBR	WBI	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		444		F	+						÷	×
	•	1697	•••	19	149	•	•	0	•	294	4	815
	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0		4.0	4.0						4.0	3.0
Lane Ubl. Factor		0.91		1.00	0.95						1.00	1.00
E		1.00		1.00	1.00						1.00	0.85
Fit Protected		1.00		0.95	1.00						0.96	1.00
Satd. Flow (prol)		4936		1719	3438						1739	1538
Fit Permitted		1.00		0.06	1.00						0.96	1.00
Satd. Flow (perm)		4936		113	3438	11-16	1011123	Services.	STATES.		6E/1	1538
Peak-hour factor, PHF	0.91	0.91	0.91	0.78	0.78	0.78	0.85	0.85	0.85	0.93	0.93	0.93
Adj. Flow (vph)	•	1865	8	24	191	0	•	•	0	316	92	876
RTOR Reduction (vph)	•	0	•	•	0	•	0	0	•	•	0	0
Lane Group Flow (vph)	0	1874	0	24	191	0	0	0	0	0	392	876
Turn Type		A		pm+pt	¥					Perm	AN	Free
Protected Phases		4		e	•••						9	
Permitted Phases				80						9		Free
Actuated Green, G (s)		74.3	CHARLES CONTROL	85.1	85,1	and the second					34.9	130.0
Effective Green, g (s)		75.3		86.1	86.1						35.9	130.0
Actuated g/C Ratio		0.58	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	0.66	0.66	No. of Street, or				Sec. 1	0.28	1.00
Clearance Time (s)		5.0		5.0	5.0						5.0	
Vehicle Extension (s)		3.0		3.0	3.0					×111	3.0	1.100
Lane Grp Cap (vph)		2859		159	2277						480	1538
v/s Ratio Prot	-	c0.38		0.01	0.06	and the second						
v/s Kabo Perm				0.09							0.23	c0.57
vic Ratio		0.66		0.15	0.08						0.82	0.57
Uniform Delay, d1		18.5		12.5	7.8						44.0	0.0
Progression Factor		0.36	1.000	2.49	1.81					1.1	1.00	1.00
Incremental Delay, d2		0.4		0.4	0.1						10.3	1.5
Delay (s)		7.1		31.6	14.3	and a state		1000			54.3	1.5
Level of Service		×		o	8						۵	×
Approach Delay (s)	4 3	7.1			16.2			0.0			17,9	
Approach LOS		۷			8			۷			80	
Intersection Summary		35-26	Country of	CUILTS.	語りた	PREMA	Contraction of the second	and a superior	No. State		Pro-perio	10102
HCM Average Control Delay			11.8	Ŧ	M Level	HCM Level of Service						
HCM Volume to Capacity ratio		12000	0.70		3							
Actuated Cycle Length (s)			130.0	ng i	Sum of lost time (s)	time (s)			8.0			
Intersection Capacity Utitization	1		67.6%	0	U Level o	Service			o			
Analysis Penod (min)			2				1					1
c unocal Lane Group			Conceptor 1		1210				1			5

2014 AM Peak NOBUILD Conditions

Either Case D:IATOBE/PROJECTS_2012/Valero_RB_Broadway/Synchrol2014A/VX.syn

Terry O. Brown, P.E. 3/10/2012 - Synchro 7 Intersection LOS: B ICU Level of Service C 130.0 1.57 1.5 0.0 0.0 1.5 A SBR 815 Free Free 7 Cycle Length: 130 Actuated Cycle Length: 130 Offiset 6 (5%), Referenced to phase 4:EBT and 8:WBTL, Start of Green Natural Cycle: 50 SBT 9 5.0 21.0 50.0 50.0 4.0 1.0 -1.0 4.0 Min 35.9 0.28 0.82 57.4 0.0 57.4 18.8 18.8 B \$ 7 ¥ g 8 8 5.0 21.0 80.0 61.5% 4.0 1.0 4.0 4.0 C-Max 86.1 0.66 0.08 15.3 16.3 16.3 16.3 17.3 8 17.3 8 60 WBT **‡**₽¥ ŧ Splits and Phases: 2: I-25 W. ramp & Rio Bravo Blvd Timings 2: 1-25 W. ramp & Rio Bravo Blvd Min 86.1 0.66 0.15 25.9 25.9 25.9 25.9 pm+pt 19 8 1 5.0 10.0 10.0 4.0 1.0 -1.0 4.0 Lead WBI. \$ Intersection Signal Detay: 12.5 Intersection Capacity Utilization 67.6% Analysis Period (min) 15 5.0 21.0 70.0 70.0 70.0 4.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 C-Max 75.3 0.58 0.56 7.6 7.6 7.6 7.6 7.6 7.6 <u>↑ E <u>+</u> <u>6</u> ×</u> -Control Type: Actuated-Coordinated Maximum v/c Ratio: 0.82 Detector Phase Switch Phase Switch Phase Switch Phase Switch Phase Switch Phase Spit (s) Total Spit (s) Total Spit (s) Lost Time (s) Lost Time (s) Lost Time (s) LeadLag LeadLag LeadLag LeadLag LeadLag Cotal Lost Time (s) LeadLag Recall Mode Recall Mode Recall Mode Recall Mode Cotrol Detay Queue Detay Larte Configurations Volume (vph) Turn Type Protected Phases Permitted Phases intersection Summary Lane Group g

2014 AM Peak NOBUILD Conditions

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Either Case D:ATOBEIPROJECTS_2012VValero_RB_BroadwaylSynchrol2014ANUX.syn

HCM Signalized Intersection Capacity Analysis 2: I-25 W. ramp & Rio Bravo Blvd	sectic Brav	in Cap o Blvd	acity /	∖nalysi	s				Teri	Terry O. Brown, P.E. 3/10/2012 - Synchro 7	O. Brown, P.E. 3/10/2012 - Synchro 7	P.E. Khro 7
	1	t	1	5	Ŧ	~	•	+		۶	-	\mathbf{F}
Movement	EBL	EBT	EBR	WBI	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		444		5	ŧ						43	2
	•	1715	*	19	162	0	0	0	0	294	4	835
	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0		4.0	4.0						4.0	3.0
Lane Util. Factor		0.91		1.00	0.95						1.00	1.00
F		1.00		1,00	1.00						1.00	0.85
Fit Protected		1.00		0.95	1.00						0.96	1.00
Satd. Flow (prot)		4936		1719	3438						1739	1538
Fit Permitted		1.00		0.06	1.00						0.96	1.00
Satd. Flow (perm)		4936	1144	109	3438	Via de la	10110				1739	1538
Peak-hour factor, PHF	0.91	0.91	0.91	0.78	0.78	0.78	0.85	0.85	0.85	0.93	0.93	0.93
Adj. Flow (vph)	•	1885	c h	24	208	0	•	0	0	316	92	898
RTOR Reduction (vph)	0	0	•	0	•	0	0	0	0	•	0	0
Lane Group Flow (vph)	0	1894	0	24	208	0	0	0	0	0	392	898
Turn Type		M		pm+pt	NA					Регт	NA	Free
Protected Phases		4		3	80						9	
Permitted Phases				80						9		Free
Actuated Green, G (s)		74.3		85.1	85.1	No. No.					34.9	130.0
Effective Green, g (s)		75.3		86.1	86.1						35.9	130.0
Actuated g/C Ratio		0.58		0.66	0.66						0.28	1.00
Clearance Time (s)		5.0		5.0	5.0						5.0	
Vehicle Extension (s)	200	3.0	Sources.	3.0	3.0	NUNCTRO	ALT ALL A	00000	ANNES		3.0	
Lane Grp Cap (vph)		2859		156	2277						480	1538
v/s Ratio Prot		c0.38		0.01	0.06							
v/s Ratio Perm				0.09							0.23	c0.58
v/c Ratio		0.66		0.15	0.09						0.82	0.58
Uniform Delay, d1		18.7		12.7	7.9						44.0	0.0
Progression Factor		0.40		244	1.97						1.00	1.00
incremental Delay, d2		0.5		0.4	0.1						10.3	1.6
Delay (s)		8.0		31.4	15.6					1	54.3	1.6
Level of Service		×		ပ	8						٩	۷
Approach Delay (s)		8.0			17.3			0.0			17.6	
Approach LOS		×			83			۷			∞	
Intersection Summary	HELSON		100.00	Section 1	12 Car	ALL REAL	07100100	HCTURS .	201 1102	C AN LOW	Externa No	1999
HCM Average Control Delay			12.3	Ŧ	CM Level	HCM Level of Service			80			
HCM Volume to Capacity ratio	4	1111	0.70	Carlos -	-	Contraction of the second				Sec.1		0
Actualed Cycle Length (s)			130.0	ω 2	Sum of lost time (s)	time (s)			8.0			
Analueie Dariod (min)		and the	94.000	5	n ravel o	ICU LEVEI OI SOLVES			د			
Critical Lans Gruin		Contra la	2									
diana ama manina a	Sec. 12											No. of Street, or other

2014 AM Peak BUILD Conditions

Case "Y" - Rio Bravo drive D:MTOBE/PROJECTS_2012/Valero_RB_Broadway/Synchro/2014/ABX-CaseY.syn

Intersection LOS: B ICU Level of Service C Cycle Length: 130 Actuated Cycle Length: 130 Offset (5%), Referenced to phase 4:EBT and 8:WBTL, Start of Green Natural Cycle: 60 Control Type: Actuated-Coordinated Maximum vk Ratio: 0.82 Intersection Signal Delay: 13.0 130.0 1.00 1.6 0.0 1.6 1.6 835 P SBR Free 7 5.0 21.0 50.0 38.5% 4.0 1.0 -1.0 -1.0 Min 35.9 0.28 57.4 0.0 57.4 18.6 B र ४ र 4 9 SBT C-Max 86.1 0.66 0.09 17.7 17.7 17.7 17.7 18.5 B 5.0 21.0 80.0 61.5% 4.0 1.0 -1.0 60 80 WBT 162 M Dia 5.0 10.0 7.7% 4.0 1.0 -1.0 4.0 4.0 4.0 4.0 pm+pt 5 Min 86.1 0.66 0.15 25.4 25.4 C 5 WBL 5 3 ĉ C-Max 75.3 0.58 0.66 0.0 8.5 8.5 8.5 8.5 8.5 A A MAT 1715 5.0 21.0 70.0 70.0 4.0 1.0 1.0 4.0 1.0 1.0 1.0 R 7-1.75 Tum Type Protectiad Phases Detector Phases Detector Phase Switch Phase Switch Phase Minimum Split (s) Total Split (s) Total Split (s) Vetkow Time (s) Lost Time Adjust (s) Lost Time Adjust (s) Lost Time Adjust (s) Lead/Lag Optimize? Recall Mode Catuated g/C Ratio Act Effet Green (s) Act Effet Green (s) Lane Configurations Volume (vph) Intersection Summary Control Delay Queue Delay Total Delay LOS Approach Delay Approach LOS

Terry O. Brown, P.E. 3/10/2012 - Synchro 7

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Timings 2: I-25 W. ramp & Rio Bravo Blvd

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2014 AM Peak BUILD Conditions

D:MTOBEIPROJECTS_2012Valero_RB_Broadway(Synchrol2014ABX-CaseY syn

HCM Signalized Intersection Capacity Analysis 2: I-25 W. ramp & Rio Bravo Blvd	sectic Brav	on Cap	acity /	Analysi	s				Ter	Terry O. Brown, P.E. 3/10/2012 - Synchro 7	O. Brown, P.E. 3/10/2012 - Synchro 7	P.E. Kchro 7
	•	Ť	1	5	ŧ	1	1	-		1		7
Movement	EBF	EBT	EBR	WBIL	TBW	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		444		5	ŧ						4	*
Volume (vph)	•	1122	24	56	345	•	0	•	0	3	90	1246
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0		4.0	4.0						4.0	3.0
Lane Util. Factor		0.91		1.00	0.95						1.00	1.00
Fil		1.00		1.00	1.00						1.00	0.85
Fit Protected		1.00		0.95	1.00						0.97	1.00
Satd. Flow (prot)		4925		1719	3438						1754	1538
Fit Permitted		1.00		0.20	1.00						0.97	1.00
Sald. Flow (perm)		4925	1005001	357	3438	VUT ON	STIMPING ST	10.00			1754	1638
Peak-hour factor, PHF	0.95	0.95	0.95	0.79	0.79	0.79	0.85	0.85	0.85	0.88	0.88	0.88
Adj. Flow (vph)	0	1181	25	120	437	0	0	0	0	09	3	1416
RTOR Reduction (vph)	•	-	•	0	0	0	0	0	0	•	0	0
Lane Group Flow (vph)	0	1205	0	120	437	0	0	0	0	0	8	1416
Turn Type		¥.		pm+pt	AN					Perm	M	Free
Protected Phases		4		6	80						9	
Permitted Phases				89						9		Free
Actuated Green, G (s)		95.5		107.7	107.7						12.3	130.0
Effective Green, g (s)		96.5		108.7	108.7						13.3	130.0
Actuated g/C Ratio		0.74		0.84	0.84						0.10	1.00
Clearance Time (s)		5.0		5.0	5.0						5.0	
Vehicle Extension (s)		3.0		3.0	3.0						3.0	
Lane Grp Cap (vph)		3656		384	2875						179	1538
v/s Ratio Prot		0.24		0.02	0.13							
v/s Ratio Perm				0.24							0.05	c0.92
vic Ratio		0.33		0.31	0.15				Trong		0.53	0.92
Uniform Delay, d1		5.7		2.5	2.0						55.4	0.0
Progression Factor		0.61		3.39	0.95		- ANA			1.12	1.00	1.00
Incremental Delay, d2		0.1		0.5	0.1						2.8	10.5
Delay (s)		3.6		8.0	2.0						58.1	10.5
Level of Service		×		×	×						ш	8
Approach Delay (s)		3.6			3.5			0.0			13.5	
Approach LOS		۷			<			۷			œ	
Intersection Summary	1000	SET 10	in second	Self-self-	22.1703	on Street	A STATE	and a	- and	110000	NATURAL DE LA COMPANY	Column 1
HCM Average Control Delay			8.1	Ŧ	CM Level	HCM Level of Service			A			
HCM Volume to Capacity ratio			0.92									
Actuated Cycle Length (s)			130.0	ซ	um of lost	Sum of lost time (s)			0.0			
Intersection Capacity Utilization			55.4%	9	U Level c	of Service			•			
Analysis Period (min)			15									
c Critical Lane Group											10,00	

2014 PM Peak NOBUILD Conditions

Either Case D:MTOBEIPROJECTS_2012VValero_RB_Broadway/Synchrol2014P/NCsyn

Terry O. Brown, P.E. 3/10/2012-Synchro 7 Intersection LOS: A ICU Level of Service B 30.0 1.00 11.6 11.6 11.6 SBR 1246 Free Free Aduated Cycle Length: 130 Offset: 52 (40%), Referenced to phase 4:EBT and 8:WBTL, Start of Green Natural Cycle: 55 Control Type: Actuated-Coordinated Maximum vic Ratio: 0.92 7 5.0 21.0 31.0 31.0 4.0 4.0 4.0 4.0 Min 13.3 0.10 0.53 0.53 0.5 0.0 65.1 14.9 B 9 9 SBT 488 C-Max 108.7 0.15 0.15 2.2 2.2 2.2 3.8 3.8 A 3.8 A 80 5.0 21.0 99.0 4.0 1.0 1.0 4.0 4.0 A45 345 NA 345 ŧ 2: I-25 W. ramo & Rio Bravo Blvd Timings 2: I-25 W. ramp & Rio Bravo Blvd 5.0 10.0 26.0 26.0 4.0 1.0 1.0 4.0 1.0 1.0 pm+pt Min 108.7 0.84 0.31 9.6 9.6 9.6 56 WBL. \$ C-Max 96.5 0.74 0.33 3.9 0.0 3.9 3.9 Intersection Signal Delay: 9.0 Intersection Capacity Utilization 55.4% Analysis Period (min) 15 5.0 21.0 73.0 73.0 73.0 73.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1122 NA 3.9 A ŧ Switch Phase Midnimum Intial (s) Midnimum Spit (s) Total Spit (s) Total Spit (s) Total Spit (s) Lost Time (s) Control Delay Courte Delay Lane Group Lane Configurations Volume (vph) Tum Type Protected Phases Permitted Phases Detector Phase Intersection Summary Cycle Length: 130

and Phases: Slits

	e a3 → a4	26 9 1 [[73 +	8	193 s	
Count a mine and o			97	31 8	

2014 PM Peak NOBUILD Conditions

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Either Case D:\ATOBE\PROJECTS_2012\Valeen_RB_Broadway\Synchro\2014P\NX.syn

HCM Signalized Intersection Capacity Analysis 2: I-25 W. ramp & Rio Bravo Blvd	rsectic o Brav	on Cap	acity /	Inalysi	ß				Ter	Terry O. Brown, P.E. 3/10/2012 - Synchro 7	O. Brown, P.E. 3/10/2012 - Synchro 7	P.E. kthro 7
	1	1	1	\$	ŧ	~	*	+	•	۶	+	
Movement	B	EBT	EBR	WBIL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		444		F	44						4	×
Volume (vph)	•	1146	24	8	361	0	0	0	0	6	30	1273
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0		4.0	4.0						4.0	3.0
Lane Util. Factor		0.91		1.00	0.95						1.00	1.00
Fr		1.00		1,00	1.00						1.00	0.85
Fit Protected		1.00		0.95	1.00						0.97	1.00
Satd. Flow (prof)		4925		1719	3438						1754	1538
Flt Permitted		1.00		0.19	1.00						0.97	1.00
Satd. Flow (perm)		4925		346	3438		Contraction of the			San	1754	1538
Peak-hour factor, PHF	0.95	0.95	0.95	0.79	0.79	0.79	0.85	0.85	0.85	0.88	0.88	0.68
Adj. Flow (vph)	•	1206	25	120	457	0	0	0	0	99	¥	1447
RTOR Reduction (vph)	•	-	•	•	0	0	0	•	0	•	0	0
Lane Group Flow (vph)	0	1230	0	120	457	0	0	0	0	0	84	1447
Turn Type		M		pm+pt	M					Perm	NA	Free
Protected Phases		4		6	80						9	
Permitted Phases				••						9		Free
Actuated Green, G (s)		95.5		107.7	107.7						12.3	130.0
Effective Green, g (s)		96.5		108.7	108.7						13.3	130.0
Actuated g/C Ratio		0.74		0.84	0.84				A AN		0.10	1.00
Clearance Time (s)		2.0		5.0	5.0						5.0	
Vehicle Extension (s)		3.0		3.0	3.0				200		3.0	10
Lane Grp Cap (vph)		3656		376	2875						179	1538
v/s Ratio Prot		0.25		0.02	0.13			100				
v/s Ratio Perm				0.25							0.05	c0.94
v/c Ratio		0.34		0.32	0.16	1201					0.53	0.94
Uniform Delay, d1		5.8		2.6	2.0						55.4	0.0
Progression Factor		0.65	1000	3.69	0.94		110				1.00	1.00
Incremental Delay, d2		0.1		0.5	0.1						2.8	12.6
Delay (s)		3.9	and the second	10.0	2.0						58.1	12.6
Level of Service		<		4	×						ш	8
Approach Delay (s)		3.8			3.7			0.0			15.4	
Approach LOS		A			<			۷			60	
Intersection Summary	In the second	A DAY	ALL THE	Contraction of the local distribution of the	Contraction of the second	20.25	No.22	1-12010	N-Sold N	HUSING	10120100	TAXE OF
HCM Average Control Delay			9.1	ľ	CM Level	HCM Level of Service			×			
HCM Volume to Capacity ratio			0.94									
Actuated Cycle Length (s)			130.0	Su	Sum of lost time (s)	time (s)			0.0			
Intersection Capacity Utilization			56.3%	2	U Level o	ICU Level of Service						
Analysis Period (min)			15									
c Critical Lane Group									1000		No.	

2014 PM Peak BUILD Conditions

Case "Y" - Rio Bravo drive D:IATOBE/PROJECTS_2012/Valero_RB_Broadway/Synchrol2014PBX-CaseY.syn

Intersection LOS: B ICU Level of Service B 30.0 1.00 14.1 14.1 0.0 B SBR 1273 Free Free Actuated Cycle Length: 130 Offset 52 (40%), Referenced to phase 4:EBT and 8:WBTL, Start of Green 7 5.0 21.0 21.0 31.0 4.0 4.0 4.0 4.0 4.0 Min 13.3 0.10 0.53 0.53 0.53 0.5 17.2 E E E B SBT \$8 ¥ ° 9 -C-Max 108.7 0.84 0.16 2.2 2.2 2.2 3.9 A 3.9 A 5.0 21.0 99.0 4.0 1.0 -1.0 -1.0 -1.0 TEN ME ŧ 0 01.14 t Rin Brann 5.0 10.0 26.0 4.0 1.0 4.0 4.0 4.0 1.0 Min 0.84 0.32 10.3 10.3 10.3 WBL 33 pm+pt 5 Intersection Signal Delay: 10.1 Intersection Capacity Utilization 56.3% Analysis Period (min) 15 96.5 0.74 0.34 5.0 21.0 73.0 73.0 73.0 4.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1146 NA 4 4.1 4.1 4.1 A ----t Natural Cycle: 55 Control Type: Actuated-Coordinated Maximum v/c Ratio: 0.94 2: 1-25 W. Lane Group Lane Configurations Volume (vph) Turn Type Protected Phases Permitted Phases Detector Phase Switch Phase Maimum Initial (s) Maimum Split (s) Tolal Split (s) Tolal Split (s) Velaw Time (s) Lost Time (s) Lost Time (s) Lost Time (s) LeadLag Control Lost Time (s) LeadLag Control Delay Vic Ratio Vic Ratio Vic Ratio Control Delay Queue Delay Control Delay Control Delay Lost Delay Lost Delay Lost Delay Lost Delay Intersection Summary Cycle Length: 130 Approach Delay Approach LOS

Terry O. Brown, P.E. 3/10/2012 - Synchro 7

Timings 2: I-25 W. ramp & Rio Bravo Blvd

and Phases: Step

2014 PM Peak BUILD Conditions

Case "Y" - Rio Bravo drive D:IATOBEIPROJECTS_2012/Valero_RB_Broadway/Synchro/2014/PBX-CaseY.syn

Free 140.0 140.0 c0.69 0.69 0.0 1.00 2.6 2.6 2.6 Terry O. Brown, P.E. 3/10/2012 - Synchro 7 SBR 1538 Either Case D: ATOBEPROJECTS_2012(Valero_RB_BroadwaylSynchrol2024ANX.syn 7 ø 43.5 44.5 5.0 3.0 3.0 552 0.27 0.86 14.7 11.00 12.3 57.0 900 4.0 1.00 1.00 0.96 0.96 0.96 0.96 0.92 F 472 NA ш с. 19.3 -BI Perm 00 9 ٨ SBL 363 395 006 ×, RBN 0.92 0 0 8 98 H 0 NBT 0.0 A 0061 0.92 + c 1900 000 JER. 0.92 4 HCM Level of Service Sum of lost time (s) ICU Level of Service WBR ¢ 1900 0.92 00 ∢ 86.5 87.5 0.62 5.0 3.0 2149 0.14 WBT ¥ ® 456 456 4.0 1.00 1.00 1.00 1.00 1.00 496 496 496 0.23 11.5 11.5 2.03 2.03 2.03 C C C C C C C C C C ţ HCM Signalized Intersection Capacity Analysis 2: I-25 W. ramp & Rio Bravo Blvd 0 59 86.5 87.5 5.0 5.0 5.0 151 151 151 151 151 151 0.02 0.24 0.24 0.24 56.0 0.2 56.0 pm+pt 5 NBU MBU 16.8 0.79 140.0 119.4% EBR 6 800 0.92 9 00 1 4.0 0.91 1.00 4936 4936 4936 EBT 74.4 75.4 5.0 5.0 3.0 2658 20.41 0.92 2016 0 2026 NA 0.75 25.3 25.3 0.47 0.2 12.0 12.0 12.0 8 8 8 12.0 8 8 8 t 855 đ 8 0.92 1 2024 AM Peak NOBUILD Conditions Actuated Cycle Length (s) Intersection Capacity Utilization HCM Volume to Capacity ratio HCM Average Control Delay Satul, Flow (perm) Peak-hour factor, PHF Adj, Flow (yph) RTOR Reduction (yph) Lane Group Flow (yph) Turn Type Protected Phases Permitted Phases Actuated Green, G (s) Effective Green, g (s) Analysis Period (min) c Critical Lane Group Actuated g/C Ratio Clearance Time (s) Vehicle Extension (s) Lane Grp Cap (vph) v/s Ratio Prot v/s Ratio Perm Lane Configurations Volume (vph) Ideal Flow (vphpl) Total Lost time (s) Lane Utit. Factor Progression Factor Incremental Delay, d2 ntersection Summary Approach Delay (s) Approach LOS Frt Fit Protected Satt. Flow (pmt) Fit Permitted Uniform Delay, d1 Delay (s) Level of Service Movement v/c Ratio Terry O. Brown, P.E. 3/10/2012 - Synchra 7 Either Case D:ATOBEIPROJECTS_2012IValero_RB_BroadwarySynchrol2024ANX.syn Intersection LOS: B ICU Level of Service H 1 40.0 1.00 2.6 0.0 2.6 2.6 SBR Free 120 1710 Free Free Offset: 122 (67%), Referenced to phase 4.EBT and 8:WBTL, Start of Green ¥ ø ø 5.0 21.0 57.0 57.0 4.0 4.0 1.0 1.0 -1.0 ч FI N Min 44.5 0.32 0.86 59.6 59.6 59.6 59.6 C C C SBT -3 80 5.0 21.0 83.0 59.3% 4.0 1.0 1.0 4.0 Q C-Max 87.5 0.62 0.23 0.23 0.23 25.4 C 27.6 ţ WBT 188 A Splits and Phases: 2: I-25 W. ramp & Rio Bravo Blvd Timings 2: I-25 W. ramp & Rio Bravo Blvd 5.0 10.0 12.0 4.0 1.0 1.0 1.0 1.0 1.0 1.0 pm+pt 3 **e**7 Min 87.5 87.5 0.62 0.43 44.4 WBIL 5 Intersection Capacity Utilization 119.4% Analysis Period (min) 15 C/Max 75.4 0.54 0.76 12.7 12.7 12.7 B ÷ 5.0 21.0 71.0 50.7% 50.7% 4.0 1.0 1.0 1.0 1.0 NA 1855 12.7 B t 2024 AM Peak NOBUILD Conditions Control Type: Actuated-Coordinated Intersection Signal Delay: 17.5 Actuated Cycle Length: 140 Maximum v/c Ratio: 0.86 • Total Split (s) Total Split (s) Velow Split (%) Alelkow Time (s) Lost Time (s) Lost Time (s) Lost Time (s) Lead/Jag Baad-Lag Optimize? Recall Mode Act Tend Oce Act Tend Oce Act Tend Oce Actuated g/C Ratio Vic Ratio Control Delay Queue Delay Lane Configurations Volume (vph) Intersection Summary Minimum Initial (s) Minimum Split (s) Protected Phases Permitted Phases Cycle Length: 140 Natural Cycle: 70 Detector Phase Switch Phase Approach Delay Total Delay Approach LOS Lane Group Turn Type g -

Terry O. Brown, P.E. 3/10/2012 - Synchro 7 Free 140.0 140.0 140.0 140.0 0.71 0.71 0.0 1.00 2.8 2.8 2.8 Case Y' - Rio Bravo drive D:MTOBEPROJECTS_2012Vatero_RB_BroadwaytSynchroi2024ABX-CaseY.syn SBR 1538 \mathbf{F} 4.0 1.00 1.00 0.96 0.96 0.96 0.96 0.95 0.95 43.5 44.5 5.0 3.0 552 0.27 0.86 144.7 11.00 12.3 57.0 0 412 9 ΨE 806 н 19:2 В SBT ø ٨ SBL 363 395 00 perm 2 A, 0 006 NBR 0.92 0 8 98 H a NBT o 0 006 0.92 0.0 A -0 006 0 00 0.92 NBI 1 HCM Level of Service Sum of lost time (s) ICU Level of Service WBR 0 1900 000 0.92 4 474 474 4.0 1900 1.00 1.00 1.00 1.00 3438 3438 0.92 86.5 87.5 0.62 5.0 3.0 2149 0.15 TBW 515 NA 80 0.24 11.6 0.0 0.0 23.6 C C C C C C C ļ HCM Signalized Intersection Capacity Analysis 2: I-25 W. ramp & Rio Bravo Blvd 60 11.00 17.19 0.05 0.05 0.05 0.05 0.05 0.05 6 65 0 pm+pt WBL ш EBH 17.1 0.79 140.0 120.3% 07 800 0.92 2 0 0 ۴ 74.4 75.4 0.54 5.0 3.0 2658 20.41 EBT 4.0 0.91 1.00 1.00 1.00 1.00 0.92 0.92 2036 NA NA t 1873 0.77 25.5 0.49 0.2 12.7 12.7 12.7 12.7 8 8 8 12.7 12.7 8 8 8 EB 0 86 0.92 1 HCM Volume to Capacity ratio Actuated Cycle Length (s) Intersection Capacity Utilization 2024 AM Peak BUILD Conditions HCM Average Control Delay Satul Flow (perm) Peak-hour factor, PHF Adj. Flow (vph) RTOR Reduction (vph) Lane Group Flow (vph) Analysis Period (min) c Critical Lane Group Actuated g/C Ratio Clearance Time (s) Vehicle Extension (s) Lane Grp Cap (vph) vi/s Ratio Prot vi/s Ratio Perm Actuated Green, G (s) Effective Green, g (s) Progression Factor Incremental Delay, d2 Detay (s) Level of Service Approach Detay (s) Approach LOS Intersection Summary Lane Configurations Turn Type Protected Phases Permitted Phases Volume (vph) Ideal Flow (vphpl) Total Lost time (s) Lane Util. Factor Frt Fit Protected Satd. Flow (pro!) Fit Permitted Uniform Delay, d1 Novement v/c Ratio Terry O. Brown, P.E. 3/10/2012 - Synchro 7 Case Y' - Rio Bravo drive D:ATOBEDPROJECTS_2012/Valero_RB_Broadway/Synchrol2024/BX-CaseY.syn Intersection LOS: B ICU Level of Service H V 85 → 64 Actuated Cycle Length: 140 Offset: 122 (87%), Referenced to phase 4:EBT and 8:WBTL, Start of Green Natural Cycle: 75 SBR Free Free Free 40.0 1.00 2.8 2.8 2.8 2.8 7 SBT -5.0 21.0 57.0 57.0 4.0 1.0 1.0 4.0 4FX 9 Min 44.5 0.32 0.86 59.6 59.6 59.6 20.0 B ¥ ŧ 83.5 -474 NA 8 5.0 21.0 83.0 83.0 83.0 4.0 1.0 -1.0 -1.0 4.0 C-Max 87.5 87.5 0.62 0.62 0.24 25.6 25.6 25.6 25.6 25.6 27.6 C C ŧ WBT 2: I-25 W. ramp & Rio Bravo Blvd 2: I-25 W. ramp & Rio Bravo Bivd pm+pt NBL. 8 3 672 5.0 10.0 12.0 4.0 4.0 -1.0 -1.0 -1.0 Min 87.5 87.5 0.62 0.43 44.0 0.0 44.0 ∽ Intersection Signal Delay: 17.9 Intersection Capacity Utilization 120.3% Analysis Period (min) 15 1873 1873 C-Max 75.4 0.54 0.77 0.77 13.5 13.5 13.5 13.5 B 8 13.5 B ŧ. Control Type: Actuated-Coordinated 2024 AM Peak BUILD Conditions Maximum v/c Ratio: 0.86 Total Split (s) Total Split (s) Yellow Time (s) Aur Red Time (s) Lost Time Adjust (s) Total Lost Time (s) Lead/Lag Coptimize? Lane Group Lane Configurations Intersection Summary Recal Mode Act Effct Green (s) Actuated g/C Ratio Switch Phase Minimum Initial (s) Minimum Split (s) Volume (vph) Tum Type Protected Phases Splits and Phases: Permitted Phases Approach Delay Approach LOS Cycle Length: 140 Detector Phase Control Delay Queue Delay Timings Total Delay LOS v/c Ratio S 5

Terry O. Brown, P.E. 3/10/2012 - Synchro 7 SBR Free 140.0 140.0 1.00 c1.06 1.06 70.0 1.00 42.0 Either Case D:IATOBEIPROJECTS_2012Valero_RB_BroadwaylSynchrol2024PNX,syn 1538 \mathbf{F} 9 13.6 14.6 5.0 3.0 183 0.06 0.57 59.7 59.7 4.0 63.7 SBT 4.0 1900 1900 11.0 N 10 0 109.1 -۶ 62 Perm ø SBL 0.92 006 ٩. RBN 0.92 0 0 0.0 0 1900 NBT 0.92 A.0.0 -0 0061 0 0.92 ABL. Sum of lost time (s) ICU Level of Service HCM Level of Service 0 006 WBR 0.92 000 116.4 117.4 0.84 5.0 3.0 2883 0.28 0 659 B 0.33 2.5 2.63 0.0 6.7 A [].9 ŧ HCM Signalized Intersection Capacity Analysis 2: I-25 W. ramp & Rio Bravo Blvd 116.4 117.4 5.0 5.0 363 363 363 363 0.08 0.49 0.49 0.49 0.49 0.49 0.49 0.49 0.68 0.5 2.15 0.5 C 227 1900 11.00 11.00 0.95 0.12 220 0.92 247 227 247 om+pt 5 WBL 48.2 1.06 140.0 88.6% EBR S 006 34 00 1 444 1404 1900 4.0 4.0 1.00 1.00 1.00 4924 4924 0.92 EBT 1559 NA 95.7 96.7 5.0 5.0 3401 0.32 0.46 9.8 0.86 0.0 8.4 8.4 8.4 8.4 8.4 Ť 0.92 B 006 1 2024 PM Peak NOBUILD Conditions Actuated Cycle Length (s) Intersection Capacity Littization Analysis Period (min) c Critical Lane Group Interaction Summary HCM Average Control Delay HCM Volume to Capacity ratio Adj. Flow (vph) RTOR Reduction (vph) Lane Group Flow (vph) Permitted Phases Actuated Green, G (s) Effective Green, g (s) Actuated g/C Ratio Clearance Time (s) Vehicle Extension (s) Lane Grp Cap (vph) v/s Ratio Prot v/s Ratio Perm Satd. Flow (perm) Peak-hour factor, PHF Turn Type Protected Phases 영 -ane Configurations Progression Factor Incremental Delay, d Volume (vph) Ideal Flow (vphp!) Total Lost time (s) Lane Util. Factor Approach Delay (s) Frt Fit Protected Satd. Flow (prot) Fit Permitted Uniform Delay, d1 Delay (s) Level of Service Approach LOS Movement v/c Ratio Terry O. Brown, P.E. 3/10/2012 - Synchra 7 Either Case D: ATOBE/PROJECTS_2012/Valero_RB_Broadway/Synchro/2024PNX_syn Intersection LOS: C ICU Level of Service F Free Free Offset 122 (87%), Referenced to phase 4:EBT and 8:WBTL, Start of Green Natural Cycle: 60 Control Type: Actuated-Coordinated SBR Free 40.0 1.00 1.06 1.06 46.6 0.0 D > 40 1 e e 5.0 21.0 25.0 17.9% 4.0 1.0 -1.0 -1.0 9 9 TR N Min 14.6 0.10 0.57 71.2 71.2 72.1 72.1 72.1 72.1 0.9 D SBT 80 5.0 21.0 115.0 82.1% 4.0 1.0 1.0 -1.0 A882 ŧ C-Max 117.4 0.84 0.33 WBT 7.3 1.2 8.5 8.5 A 12.3 12.3 B 2: I-25 W. ramp & Rio Bravo Blvd Timings 2: I-25 W. ramp & Rio Bravo Blvd 5.0 10.0 39.0 27.9% 4.0 1.0 -1.0 -1.0 Lead WBIL pm+pt co co 1 Min 117.4 0.68 0.68 0.5 26.4 26.9 26.9 227 5 C-Max 96.7 0.69 0.46 9.5 0.0 Intersection Capacity Utilization 98.6% 5.0 21.0 76.0 54.3% NA THAT 4.0 1.0 4.0 1.3 Ť 9.5 A 2024 PM Peak NOBUILD Conditions g S Intersection Signal Delay: 25.2 1 Be Actuated Cycle Length: 140 Maximum v/c Ratio: 1.06 Analysis Penod (min) 15 Total Split (s) Total Split (s) Velkow Time (s) AHRed Time (s) Lost Time Adjust (s) Total Lost Time (s) Lead-Lag Optimize? Recall Mode Switch Phase Minimum Initial (s) Minimum Split (s) ritersection Summary Act Effct Green (s) Actuated g/C Ratio -ane Configurations Turn Type Protected Phases Splits and Phases: Permitted Phases Approach Delay Approach LOS Cycle Length: 140 Detector Phase v/c Ratio Control Delay Queue Delay (hqv) emulo/ Total Delay LOS Lane Group ŝ +13

Free 140.0 140.0 1.00 538 c1.08 1.08 70.0 49.6 119.6 D:ATOBE/PROJECTS_2012/Valero_RB_Broadway/Synchrol2024PBX-CaseY.syn Terry O. Brown, P.E. 3/10/2012 - Synchro 7 SBR \mathbf{F} SBT 0 N N 9 0.92 13.6 14.6 5.0 3.0 183 0.06 0.57 59.7 59.7 4.0 63.7 116.3 F -59 0061 ٨ SBL 71 Perm 0 000 ۵ 3" NBR 1900 0.92 NBT 0.92 0 1900 0.0 A + 0 1900 0.92 0 00 NBL 4 Sum of lost time (s) ICU Level of Service HCM Level of Service WBR 0 0 00 0.92 1900 4 WBT 410 905 905 1900 11.00 11.00 11.00 984 884 984 984 NA 116.4 117.4 0.84 5.0 3.0 2883 0.29 2.64 2.64 0.0 6.8 12.1 B Ť HCM Signalized Intersection Capacity Analysis 116.4 117.4 0.84 5.0 5.0 5.0 3.0 3.0 0.88 0.68 0.68 1.64 1.89 0.68 0.68 0.68 1.64 1.89 0.5 3.3.1 0 5 WBL 51.1 1.08 140.0 99.8% EBR 0.92 34 31 1 2: I-25 W. ramp & Rio Bravo Blvd 4.0 0.91 1.00 11.00 11.00 11.00 0.92 0.92 1552 1552 1552 1555 4 8 4 95.4 96.4 5.0 5.0 3391 0.32 0.47 10.0 0.86 0.0 8.7 8.7 8.7 8.7 1428 t EBT 0 00 EBL 006 0.92 ٩ 2024 PM Peak BUILD Conditions HCM Volume to Capacity ratio Actuated Cycle Length (s) Intersection Capacity Utilization ICM Average Control Delay Adj. Flow (vph) RTOR Reduction (vph) Lane Group Flow (vph) Effective Green, g (s) Actuated grC Ratio Chearance Time (s) Vehicle Extension (s) Lane Grp Cop (vph) v/s Ratio Prot v/c Ratio Uniform Delay, d1 Progression Factor Incremental Delay, d2 Analysis Period (min) c Critical Lane Group Lane Configurations Volume (vph) Ideal Flow (vphp!) Total Lost time (s) Actuated Green, G (s) Peak-hour factor, PHF Intersection Summary Level of Service Approach Delay (s) Approach LOS Turn Type Protected Phases Permitted Phases Satd. Flow (perm) ane Util. Factor Satd. Flow (prot) Frt Fit Protected Fit Permitted Novement Delay (5) Terry O. Brown, P.E. 3/10/2012 - Synchro 7 Case Y' - Rio Bravo drive D:IATOBEPROJECTS_2012IValero_RB_Broadway/Synchrol2024PBX-CaseY.syn Intersection LOS: C ICU Level of Service F 40.0 1.00 54.8 0.0 54.8 0.0 D Offset 122 (67%), Referenced to phase 4:EBT and 8:WBTL, Start of Green SBR 1535 Free Free 7 64 Ť 6 <u>7</u> 9 ₩8₹ ø 9 5.0 21.0 25.0 25.0 25.0 4.0 1.0 1.0 4.0 4.0 Min 14.6 0.10 0.57 71.2 71.2 72.2 72.2 65.8 55.8 SBT -C-Max 117.4 0.84 0.34 7.4 1.3 8.7 60 5.0 21.0 115.0 82.1% 4.0 1.0 -1.0 4.0 12.4 12.4 AA 905 NA 83 ţ 2: I-25 W. ramp & Rio Bravo Blvd Timings 2: I-25 W. ramp & Rio Bravo Blvd 5.0 10.0 39.0 27.9% 4.0 1.0 -1.0 4.0 Lead 227 pm+pt WBIL Min 117.4 0.68 0.68 0.4 0.4 C 5 Intersection Signal Delay: 28.3 Intersection Capacity Utilization 99.8% MA-7-1428 5.0 21.0 76.0 76.0 76.0 76.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 C-Max 96.4 0.69 0.47 9.8 9.8 9.8 9.8 A t. Natural Cycle: 60 Control Type: Actuated-Coordinated Maximum v/c Ratio: 1.08 뎹 g 2024 PM Peak BUILD Conditions 115 5 **●** 8 Actuated Cycle Length: 140 Analysis Period (min) 15 Minimum Initial (s) Minimum Spit (s) Total Spit (s) Total Spit (s) Yellow Time (s) Aut.Red Time (s) Laad-Lag Total Lost Time (s) Lead-Lag Dotimize? Recall Mode Intersection Summary Act Effct Green (s) Actuated g/C Ratio ane Configurations Turn Type Protected Phases Permitted Phases Splits and Phases: Cycle Length: 140 Total Delay LOS Approach Delay Approach LOS Detector Phase Control Delay Queue Delay Volume (vph) Switch Phase ane Group v/c Ratio g + 13

Lare Group Ell Ell Ell MBL	3. DI JAUWAY DIVU & LIU DI AVU DIVU										20120	WINTER 12 - SYNCING 1	ncnro /
WER NBL NBT NBR SBL 1 2 1 <td< th=""><th></th><th>1</th><th>t</th><th>1</th><th>5</th><th>ŧ</th><th>~</th><th>•</th><th></th><th>*</th><th>></th><th>-</th><th>7</th></td<>		1	t	1	5	ŧ	~	•		*	>	-	7
F F	Lans Group	đ	EBT	EBR	MBL	WBT	WBR	IN	TEN	NBN	SBL	SBT	SBR
29 212 310 340 31 PHOV Pmm-pt NA PHOV Pmm-pt 1 81 5 2 23 1 5 2 31 81 5 2 23 1 5 2 31 1 81 5 2 2 31 1	Lane Configurations	*	\$	*	×.	ŧ	-	*	¥	×	*	1	R
Pt-ov Pm+pt NA Pt-ov Pm+pt S 2 3 1 5 2 3 1 5 2 3 1 5 2 3 1 5 2 3 1 5 2 3 1 5 2 3 1 5 5 0 2 3 1 1 0 2 3 1 1 0 2 2 3 1 1 0 1 0 1 0 1 0 1 0 1 0 1 0 1 0 1 0 1 0 1 0 1 0 1 0 1 0 1 0 1 0 1 0 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 <th1< th=""> <th1< th=""> 1</th1<></th1<>	Volume (vph)	157	1538	382	397	623	- 62	212	310	340	• ह	145	12
81 5 2 23 1 81 5 2 23 1 81 5 2 23 1 81 5 2 23 1 81 5 100 210 100 10.0 21.0 10.0 21.0 10.0 14.0 25.0 10.0 4.0 4.0 1.0 1.0 4.0 4.0 4.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 4.0 4.0 4.0 1.0 1.0 4.0 4.0 4.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 4.0 4.0 4.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 0.10 0.0 0.15 0.03 1.00 0.16 0.16 0.15 0.10 0.0 0.0	Tum Type	pm+pt	M	pt+ov	Prot	AN	DI+OV	pm+pt	N	DI+OV	Dim+ot	AN	Dt+Ov
2 2 2 3 1 81 5 2 23 1 100 210 210 100 100 210 250 50 1018% 123% 77% 10 100 10 10 10 10 101 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 103 104 86 0.1 4.2 0.1 4.2 10.3 104 86 0.1 4.2 0.5 0.5 0.5 0.5 0.5 0.5 0.5 0.5 0.5 0.5	Protected Phases	2	4	45	3	8	81	10	2	23	1000	9	67
81 5 2 23 1 5.0 5.0 5.0 5.0 10.0 10.0 21.0 10.0 5.0 5.0 10.0 10.0 21.0 15.0 5.0 10.0 10.0 10.0 10.0 10.0 21.0 12.8 12.9 10.0	Permitted Phases	4						2			. 0		
5.0 5.0 5.0 5.0 10.0 10.0 10.0 10.0 10.0	Detector Phase	2	4	45	3	-	81	10	2	23	-	9	67
5.0 5.0 5.0 5.0 14.0 21.0 10.0 14.0 22.8 7.7% 14.0 23.0 10.0 10.0 10 10 10.0 10 10 10.0 10 10 10.0 10 10 10.0 10 10 10.0 10 10 10.0 10 10 10.0 10 10 10.0 10 10 10.1 10 10 10.1 10 10 10.1 10 10 10.1 10 10 10.3 100 10 10.3 100 0.3 10.3 100 0.0 10.3 100 0.0 10.3 100 0.0 10.3 100 10 10.3 100 0.0 10.3 0.0	Switch Phase												
10.0 21.0 10.0 14.0 25.0 10.0 14.0 25.0 10.0 10.1 1.0 0.08 0.24 0.16 0.35 0.19 0.03 10.0 0.68 0.78 0.25 0.3 105.4 866 90.1 432 10.4 866 90.1 432 0.0 0.0 0.0 0.0 0.0 0 0.0 0.0 0.0 0.0 0	Minimum Initial (s)	5.0	5.0		5.0	5,0		5.0	5.0	1000	5.0	5.0	
14.0 25.0 10.0 4.0 12.8% 7.1% 4.0 4.0 4.0 4.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 4.0 1.0 2.1.0 4.0 1.0 2.1.0 4.0 1.0 2.1.0 4.2.0 0.03 1.00 0.88 0.78 1.1 2.1.0 4.10 4.12 1.1 2.1.0 0.13 4.12 1.1 2.1.0 0.13 4.12 1.1 2.1.3 0.13 4.12 1.1 2.1.3 0.13 4.12 1.1 2.1.4 8.16 9.0.1 1.1 2.10 <td>Minimum Split (s)</td> <td>10.0</td> <td>21.0</td> <td></td> <td>10.0</td> <td>21.0</td> <td></td> <td>10.0</td> <td>21.0</td> <td></td> <td>10.0</td> <td>21.0</td> <td></td>	Minimum Split (s)	10.0	21.0		10.0	21.0		10.0	21.0		10.0	21.0	
10.8% 19.2% 7.7% 16 1.0 1.0 4.0 4.0 4.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 0.8 0.78 0.25 0.03 1.00 0.8 0.78 0.25 0.03 1.00 0.8 0.78 0.25 0.13 105.4 58.6 50.1 4.32 0.13 105.4 58.6 50.1 4.32 0.10 0.0 0.0 0.0 0.0 0.00 0.0 0.0 0.0 0.0 0.0 0.00 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.00 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.	Total Split (s)	13.0	71.0		24.0	82.0		14.0	25.0		10.0	21.0	
4.0 4.0 4.0 4.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1	Total Split (%)	10.0%	54.6%		18.5%	63.1%		10.8%	19.2%		1.7%	16.2%	
1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0	Yellow Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
-1.0 -1.0 -1.0 -1.0 -1.0 -1.0 -1.0 -1.0	All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
4.0 4.0 4.0 4.0 4.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1	Last Time Adjust (s)	-1.0	-1.0		-1.0	-1.0	a dente	-1.0	-1.0		-1.0	-1.0	
Laad Lag Laad Lag Laad 88.1 31.0 21.0 45.0 23.0 88.1 31.0 21.0 45.0 23.0 0.0 0.0 0.0 1.0 1.0 1.0 1.0 1.0 1.0 1	Total Lost Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Min Min <td>Lead/Lag</td> <td>Lead</td> <td>Lag</td> <td></td> <td>Lead</td> <td>Lag</td> <td></td> <td>Lead</td> <td>[ag</td> <td></td> <td>Lead</td> <td>Lag</td> <td></td>	Lead/Lag	Lead	Lag		Lead	Lag		Lead	[ag		Lead	Lag	
Min Min Min Min Min 88.1 31.0 21.0 45.0 23.0 18 0.24 0.16 0.38 0.19 0.03 1.00 0.03 0.10 0.03 0.13 0.25 0.13 0.13 0.13 0.10 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.	Lead-Lag Optimize?												
88.1 31.0 21.0 45.0 23.0 0.88 0.24 0.66 0.35 0.18 0.03 105.4 8.65 80.1 43.2 0.0 0.0 0.0 0.0 0.0 0.0 13.3 105.4 8.65 80.1 43.2 0.0 13.3 105.4 8.66 90.1 43.2 0.0	Recall Mode	Min	C-Max		Min	C-Max		Min	Min		Min	Min	
0.058 0.24 0.16 0.35 0.18 0.03 1.00 0.68 0.78 0.25 0.13 105,4 8.65 0.1 4.32 0.10 0.10 0.10 0.10 0.10 1 3.3 105,4 8.65 9.01 4.32 A F E D D E E D D e A F E D D e A F e L D D D D D e A F e L D D D D D D D D D D D D D D D D D D	Act Effct Green (s)	75.9	67.0	81.0	20.0	78.1	88.1	31.0	21.0	45.0	23.0	17.0	29.9
0.03 1.00 0.68 0.78 0.25 1 3.1 0.04 8.46 9.01 4.2 0.00 0.0 0.0 0.0 1 3.3 105.4 8.46 9.0.1 4.3.2 6.6.8 D 0.0 6.6.8 E e.0 103.5 e.1 4.3.2 0.0 0.0 0.0	Actuated g/C Ratio	0.58	0.52	0.62	0.15	0.60	0.68	0.24	0.16	0.35	0.18	0.13	0.23
a.3 195.4 84.6 50.1 43.2 0.0 0.0 0.0 0.0 0.0 3.3 195.4 58.6 50.1 43.2 A F 56.8 50.1 43.2 66.8 D D 66.8 C 1 43.2 66.8 d C 100.0 d COS.C	v/c Ratio	0.39	0.98	0.43	0.99	0.39	E0.0	1.00	0.68	0.78	0.25	0.45	0.23
0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	Control Delay	2.9	17.9	4.5	90.5	15.0	3.3	105.4	58.6	50.1	43.2	55.9	9.1
a.3. 105.4 88.6 90.1 43.2 A F E D D 66.8 C E E A D D 105.C	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
A F E D D 66.8 E A 10.0 C A f Service E A 10.5 C	Total Delay	2.9	17.9	4.5	90.5	15.0	3.3	105.4	58.6	50.1	43.2	55,9	9.1
66.8 E E M LOS: C M LOS: C	LOS	A	8	A	ц.	8	۷	ш.	ш	٥	۵	ш	A
on LOS: C	Approach Delay		14.3			43.2			66.8			40.7	
Intersection Summary Cycle Length: 130 Actuated Cycle Length: 130 Actuated Cycle Length: 130 Conforce 12 (5(3)), Referenced to phase 4:EBTL and 8:WBT, Start of Green Natural Cycle: 110 Control Type: Actuated-Coordinated Maximum Vic Rato: 100 Intersection Gapacity Utilization 83.1% ICU Level of Service E	Approach LOS		8			۵			ш			۵	
Cycle Length: 130 Actuated Cycle Length: 130 Offser 22 (63%), Referenced to phase 4:EBTL and 8:WBT, Start of Green Natural Cycle: 110 Maximum vic Read-Coordinated Maximum vic Read: 100 Intersection Signal Delay: 34.6 Intersection LOS: C Intersection Capacity Utilization 83.1% ICU Level of Service E	Intersection Summary	and a second	ALCOLD.	URC220	D'ILES	ALC: NO	1102 203		ALC: N	2. do 10	States 1	H-TES	11 N. 12
Actuated Cycle Length: 130 Offset 22 (63%), Referenced to phase 4:EDTL and 8:WBT, Start of Green Natural Cycle: 110 Maximum vic Ratio: 1.00 Maximum vic Ratio: 1.00 Intersection Signal Delay: 34.6 Intersection Capacity Utilization 83.1% ICU Level of Service E	Cycle Length: 130												
Officer 82 (63%), Referenced to phase 4:EBTL and 8:WBT, Start of Green Natural Cyrel. 110 Maximum vic Radio 100 Intersection Signal Delay: 34.6 Intersection Capacity Utilization 83.1% ICU Level of Service E	Actuated Cycle Length: 13(
naled 1 83.1%	Offset 82 (63%), Referenc	ed to phase	4:EBTL	and 8:WB	T, Start o	f Green			5				
183.1%	Control Type: Achipted-Co	nuclinated	-								-	And - may	
183.1%	Maximum vir Ratio 1 00												
183.1%	Intersection Stonal Delay: 3	34.6			-	Itersection	01 OS· C	1000			And a		
	Intersection Capacity Utiliza	ation 83.1%			. 9	U Level	of Service	ш				Che la la	
Analysis Penod (man) 15	Analysis Period (min) 15												

	a A	171 0		
avo Blvd			∜ 8	182.8
Splits and Phases: 3: Broadway Blvd & Rio Bravo Blvd	€6 e3	124 a	20 4	3 E .
Broadway B				
Phases: 3:	A =2	25 a	4 - B6	121 #
Splits and	-	10 =	9 •	14 \$

	Either Case

2014 AM Peak NOBUILD Conditions

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBIL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	-	ŧ	×	1.	++	×	*	ŧ	R	*	*	*
	157	1538	382	266	623	29	212	310	340	31	145	72
•-	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
2	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	1.00	0.95	1.00	0.97	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00
	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85
	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
()@	1641	3282	1468	3183	3282	1468	1641	3282	1468	1641	3282	1468
	0.36	1.00	1.00	0.95	1.00	1.00	0.43	1.00	1.00	0.38	1.00	1.00
Satd. Flow (perm)	628	3282	1468	3183	3282	1468	738	3282	1468	664	3282	1468
or, PHF	0.93	0.93	0.93	0.82	0.82	0.82	0.86	0.86	0.86	0.75	0.75	0.75
and the second	169	1664	411	484	760	35	247	360	395	41	193	98
RTOR Reduction (vph)	•	•	¥	0	•	11	0	0	•	•	0	74
(hq	169	1664	377	484	760	24	247	360	396	41	193	22
Heavy Vehicles (%)	10%	10%	10%	10%	10%	10%	10%	10%	10%	10%	10%	10%
1 and 1	pm+pt	M	pt+ov	Prof	NA	pt+ov	pm+pt	NA	pt+ov	pm+pt	NA	pt+ov
Protected Phases	-	4	45	e	80	81	ŝ	2	23	-	9	67
	4						2		100	9		
	73.9	66.0	80.0	19.0	77.1	87.1	29.0	20.0	44.0	21.0	16.0	28.9
s)	75.9	67.0	81.0	20.0	78.1	88.1	31.0	21.0	45.0	23.0	17.0	29.9
	0.58	0.52	0.62	0.15	0.60	0.68	0.24	0.16	0.35	0.18	0.13	0.23
Clearance Time (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)	436	1691	915	490	1972	995	245	530	508	163	429	338
	0.03	c0.50	0.26	c0.15	0.23	0.02	c0.08	0.11	0.27	0.01	0.06	0.02
v/s Ratio Perm	0.20						c0.16			0.03		No.
	0.39	0.98	0.41	0.99	0.39	0.02	1.01	0.68	0.78	0.25	0.45	0.07
Uniform Delay, d1	12.5	30.8	12.4	54.9	13.5	6.9	48.1	51.3	38.0	45.3	52.2	39.1
	0.34	0.43	0.45	0.99	1.06	1.50	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	0.1	3.2	0.0	35.7	0.5	0.0	59.6	3.5	7.4	0.6	0.8	0.1
Delay (s)	4.4	16.5	5.6	89.9	14.8	10.3	107.7	54.8	45.4	46.1	52.9	39.2
Level of Service	<	••	<	L	80	8	Ľ	0	•	0	0	0
Approach Delay (s)		13.5			43.1			64.1			48.1	
Approach LOS		88		ALC: NO	٥			ш			0	
Intersection Summary	CORE OF	T. Mark	1000	LESS.	Service of	Contraction of the	and a line	COLUMN D	any an	CONTRACTOR OF	W. Co	Carlos and
HCM Average Control Delay	100		34.2	H	HCM Level of Service	of Servic	0	1.1.1.1	0			
HCM Volume to Capacity ratio			0.98									
Actuated Cycle Length (s)	Contraction of the	Ser Les	130.0	ß	Sum of lost time (s)	time (s)			12.0			
Intersection Capacity Utilization	-		83.1%	Q	ICU Level of Service	f Service			ш			
Analysis Henod (min)		Section Section	10		A CONTRACT							

2014 AM Peak NOBUILD Conditions

Either Case D:ATOBE/PROJECTS_2012/Valero_RB_Broadway/Synchrol2014ANX.syn

Lare Goop Elit		5	1 2 2										
EBI EBI WBI WBI WBI WBI NBI NBI NBI SBI SBI <th></th> <th>٩</th> <th>Ť</th> <th>1</th> <th>\$</th> <th>ŧ</th> <th>1</th> <th>1</th> <th>-</th> <th>*</th> <th>1</th> <th>-</th> <th>\mathbf{F}</th>		٩	Ť	1	\$	ŧ	1	1	-	*	1	-	\mathbf{F}
163 153 322 337 661 34 14 15 31 30 61 34 14 14 14 14 14 14 14 14 14 14 14 14 14 15 3 8 15 3 5 13 30 61 30 13 14 14 14 14 15 1 16 1 </th <th>Lane Group</th> <th>đ</th> <th>EBT</th> <th>EBR</th> <th>WBL</th> <th>TBW</th> <th>WBR</th> <th>Net</th> <th>長</th> <th>NBR</th> <th>SBL</th> <th>SBT</th> <th>SBR</th>	Lane Group	đ	EBT	EBR	WBL	TBW	WBR	Net	長	NBR	SBL	SBT	SBR
Its 153 332 337 651 34 215 311 340 541 54 54 54 54 54 54 54 55 54 54 55 51 34 65 51 51 51 6 51	Lane Configurations	*	+	×	i.	ŧ	-	~	\$	*		ŧ	R
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	Volume (vph)	163	1538	382	397	651	34	215	311	340	3	149	78
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	Turn Type	pm+pt	N	pt+ov	Prot	Ą	pt+ov	pm+pt	N	pt+ov	pm+pt	M	pt+ov
4 4 5 3 8 81 5 2 23 6 50 50 50 50 50 50 50 50 50 50 50 50 50 510 710	Protected Phases	2	4	45	.	80	8	47	20	23	-	9	67
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	Permitted Phases	4						2			9		
5.0 210 210 </td <td>Detector Phase</td> <td>1</td> <td>4</td> <td>45</td> <td>6</td> <td>60</td> <td>81</td> <td>un</td> <td>2</td> <td>23</td> <td>-</td> <td>9</td> <td>67</td>	Detector Phase	1	4	45	6	60	81	un	2	23	-	9	67
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	Switch Phase		į		1								
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
13.0 71.0 73.0 82.0 82.0 14.0 23.0 10.0	Minimum Split (s)	10.0	21.0		10.0	21.0		10.0	21.0		10.0	21.0	
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	Total Split (s)	13.0	71.0		24.0	82.0		14.0	25.0		10.0	21.0	
4.0 4.0 <td>Total Split (%)</td> <td>10.0%</td> <td>54.6%</td> <td></td> <td>18.5%</td> <td>63.1%</td> <td></td> <td>10.8%</td> <td>19.2%</td> <td></td> <td>7.7%</td> <td>16.2%</td> <td></td>	Total Split (%)	10.0%	54.6%		18.5%	63.1%		10.8%	19.2%		7.7%	16.2%	
10 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 75.9 57.0 81.0 2.0.6 0.8 0.4 0.4 0.1 0.1 75.9 57.0 81.0 2.0.6 0.8 0.4 0.4 0.1 0.1 0.1 0.1 2.0.5 0.10 0.0 0.0 0.0 0.0 0.0 0.0 0.1 2.1 4.1 8.7 50.1 4.9 56.2 0.1 4.0 5.1 4.0 50.7 0.0 0.0 4.0 2.1 4.1 8.7 50.1 4.9 56.2 0.1 4.0 5.1 4.0 50.7 50.7 4.9 56.2 0.1 4.0 5.1 4.0 50.7 50.7 4.9 56.2 <td>Yellow Time (s)</td> <td>4.0</td> <td>4.0</td> <td></td> <td>4.0</td> <td>4.0</td> <td></td> <td>4.0</td> <td>4.0</td> <td></td> <td>4.0</td> <td>4.0</td> <td></td>	Yellow Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
4.0 6.0 4.0 6.0 4.0 6.0 6.0 6.0 6.0 6.0 6.0 6.0 6.0 6.0 6.0 6.0 6.0 6.0 6.0 6.0 6.0 6.0 6.0 6.0 <td>Lost Time Adjust (s)</td> <td>-1.0</td> <td>-1.0</td> <td></td> <td>-1.0</td> <td>-1.0</td> <td></td> <td>-1.0</td> <td>-1.0</td> <td></td> <td>-1.0</td> <td>-1.0</td> <td></td>	Lost Time Adjust (s)	-1.0	-1.0		-1.0	-1.0		-1.0	-1.0		-1.0	-1.0	
Lead Lead <th< td=""><td>Total Lost Time (s)</td><td>4.0</td><td>4.0</td><td></td><td>4.0</td><td>4.0</td><td></td><td>4.0</td><td>4.0</td><td></td><td>4.0</td><td>4.0</td><td></td></th<>	Total Lost Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Min C-Max Min C-Max Min	LeadAag	Lead	Lag		Lead	lag		Lead	Bel		Lead	Lag	
Min C-Max Min C-Max Min	Lead-Lag Optimize?												
759 87.0 81.0 71.0 82.1 71.0 23.0 17.0 23.0	Recall Mode	Min	C-Max		Min	C-Max		Min	Min		Min	Min	
0.56 0.52 0.15 0.64 0.24 0.15 0.15 0.16 0.13 0.13 0.13 0.13 0.14 0.14 0.14 0.14 0.14 0.14 0.14 0.14 0.14 0.14 0.15 0.14 0.14 0.14 0.15 0.13 0.58 0.13 0.58 0.13 0.58 0.13 0.58 0.01 0.0	Act Effct Green (s)	75.9	67.0	81.0	20.0	78.1	88.1	31.0	21.0	45.0	23.0	17.0	29.9
0.41 0.88 0.43 0.99 0.40 0.04 1.03 0.68 0.74 0.46 0.46 4.0 26.1 4.9 90.2 15.6 3.5 11.4 58.7 50.1 49.8 56.2 4.0 26.1 4.9 90.2 15.6 3.5 11.14 58.7 50.1 49.8 56.2 4.0 26.5 42.6 58.4 7 9.1 49.8 56.2 4.0 26.5 42.6 58.4 9.1 41.9 56.2 21.5 42.6 58.4 41.4 56.2 56.4 41.9 21.5 42.6 58.4 41.4 56.2 56.4 41.9 61 0.7 5.6 0.7 56.2 56.4 41.9 7.8 111.4 58.7 50.1 41.9 56.2 61 0.7 5.6 58.4 41.9 7.8 111.4 58.7 50.1 41.9 61 0.6 0.6 66 7 50.1 7.8 10.7 58.4 11.14 56.2 7.8 10.1 58.4 41.9 7.8 10.1 57.5	Actuated g/C Ratio	0.58	0.52	0.62	0.15	0.60	0.68	0.24	0.16	0.35	0.18	0.13	0.23
40 Bci 4.9 90.2 15.6 3.5 111.4 58.7 50.1 49.8 56.2 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	v/c Ratio	0.41	0.98	0.43	0.99	0.40	0.04	1.03	0.68	0.78	0.44	0.46	0.25
00 0.0 <td>Control Delay</td> <td>4.0</td> <td>26.1</td> <td>4.9</td> <td>90.2</td> <td>15.6</td> <td>3.5</td> <td>111.4</td> <td>58.7</td> <td>50.1</td> <td>49.8</td> <td>56.2</td> <td>8.9</td>	Control Delay	4.0	26.1	4.9	90.2	15.6	3.5	111.4	58.7	50.1	49.8	56.2	8.9
4.0 26.1 4.9 90.2 15.6 3.5 111.4 58.7 50.1 49.8 56.2 A C A F B A F E D D E C C A F B A F E D D E d1 Pase 4: EDTL and 0: WBT, Start of Green D E E D D rdinated 7.8 Intersection LOS: D E E D D 7.8 Intersection LOS: D E E A D adway Blvd & Rio Bravo Blvd Intersection LOS: D E E D	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
A C A F B A F E D D E E 413 C C D E E 684 0 413 dt o phase 4:EBTL and 0:WBT. Start of Green rdinated advay Bud A Rio Bravo Bivd 1 243 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	Total Delay	4.0	26.1	4.9	90.2	15.6	3.5	111.4	58.7	50.1	49.8	56.2	8.9
20.5 42.6 58.4 of to phase 4:EBTL and 8:WBT, Start of Green reinated 7.8 Intersection LOS: D atomay Rivel & Rio Bravo Bivet advay Bivet & Rio Bravo Bivet 1.24.0 1.24.0 1.21.0	LOS	A	U	A	Ľ	80	<	۴.	ш	0	0	W	×
d to phase 4:EBTL and 8:WBT, Start of Green rdinaled 7.8 Intersection LOS: D tion 03.3% ICU Level of Service E advery Blvd & Rio Bravo Blvd	Approach Delay		20.5			42.6			68.4			41.9	
d to phase 4:EBTL and 8:WBT, Start rdinated 2:8 and 8:WBT, Start fion adverse Blood & Rio Bravo Blood Advector Adve	Approach LOS		U			۵			ш			۵	
rdinaled rdinaled 1.8 bion 83.3% bion 83.3% bion 83.3% bion 83.3% bion 83.3% bion 81.0 Bravo Blvd	Intersection Summary	S.C. Mart	12212123	THE PARTY OF	COLUMN T	ILLANDER .	STREET.	COLUMN ST	A PARTIE	1.050	Sec. 1	AN-AN	Transition of
od to phase 4:EBTL and 8:WBT, Start rdinated 2.8 adway Blud & Rio Bravo Blud adway Blud & Rio Bravo Blud	Cucle Landh: 120												
ed to phase 4:EBTL and 8:WBT, Slart rdinated for 83.3% advay Blud & Rio Bravo Blud advay Blud & Rio Bravo Blud 1 24.5 e3	Actuated Cycle Length: 13	0						a la					
bordinated : 37.8 Ization 83.3% Brazo Bivd & Rio Bravo Bivd 124.9 a7 a2	Offset 82 (63%), Referenc	ed to phase	4:EBTL a	and 8:WBT	C, Start o	Green							
: 37.8 12ation 83.3% Broadway Blwd & Rio Bravo Blwd	Natural Cycle: 110												
: 37.8 Ization 8.3.3% Broadway Blvd & Rio Bravo Blvd Broadway Blvd & Rio Bravo Blvd	Control Type: Actuated-Co	ordinated											
1241.0 Broadway Blvd & Rio Bravo Blvd	MAXIMURI VIC Kato: 1.03	0 - 0					000						
Stroadway Blvd & Rio Bravo Blvd	Intersection Signal Uelay: Intersection Capacity Utiliz Analysis Period (min) 15	37.15 ation 83.3%			<u>= 0</u>	tersection ULLevel o	f Service	ш					
all 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	Culite and Dhases: 3. Br	with weiniped	i s Din Di	Pure Blue								2	
al 1 22 ♦€ a3 ♦€ a3 ♦€ a1 171 = 15 ♦ a6 24 a 171 =													Γ
	10				•	• H							
k5 ♦ e6 × a7	0		•	4									
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2014 AM Peak BUILD Conditions

Case Y - Fio Bravo drive D:ATOBE\PROJECTS_2012Valero_RB_Broadway(Synchrol2014ABX-CaseY.syn

HCM Signalized Intersection Capacity Analysis 3: Broadway Błvd & Rio Bravn אוישי

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Movement EIL FI MM MIT MMR MIL MIT MRR MIL MIT MRR MIL MIT MRR MIL	HCM Signalized Intersection Capacity Analysis 3: Broadway Bivd & Rio Bravo Blvd	sectic Rio Br	n Cap avo Bl	acity /	Analysi	s				Tei	Terry O. Brown, P.E. 3/10/2012 - Synchro 7	O. Brown, P.E. 3/10/2012 - Synchro 7	P.E.
$ \begin{array}{c c c c c c c c c c c c c c c c c c c $		1	1	1	\$	ŧ	1	•	-		٨		7
	Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	Lane Configurations	-	4	K.	5	+	۲.,	*	ŧ	R	*	**	×
	Volume (vph)	163	1538	382	397	651	15	215	311	340	54	149	78
(e) 4.0 <td>Ideal Flow (vphpl)</td> <td>1900</td>	Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
actor 1.00 0.35 1.00 0.05 1.00 <	Total Lost 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
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	Lane Util. Factor	1.00	0.95	1.00	0.97	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00
d 0.55 1.00 1.00 0.55 1.00 1.00 0.55 1.00 0.55 1.00 0.55 1.00 0.55 1.00 0.55 1.00 0.55 1.00 0.55 1.00 0.55 1.00 0.55 1.00 0.55 0.57 0.75 0	Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85
	Fit Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
	Satd. Flow (prot)	1641	3282	1468	3183	3282	1468	1641	3282	1468	1641	3282	1468
	Flt Permitted	0.35	1.00	1.00	0.95	1.00	1.00	0.42	1.00	1.00	0.38	1.00	1.00
Action, PHF 0.93 0.03 0.03 0.03 0.03 0.03 0.05 0.75	Satd. Flow (perm)	602	3282	1468	3183	3282	1468	723	3282	1468	658	3282	1468
	Peak-hour factor, PHF	0.93	0.93	0.93	0.82	0.82	0.82	0.86	0.86	0.86	0.75	0.75	0.75
$ \begin{array}{c c c c c c c c c c c c c c c c c c c $	Adj. Flow (vph)	175	1664	411	484	794	41	260	362	395	72	199	104
	RTOR Reduction (vph)	•	•	32	0	0	13	0	0	0	•	0	80
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	Lane Group Flow (vph)	175	1654	379	484	794	58	250	362	395	72	199	24
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	Heavy Vehicles (%)	10%	10%	10%	10%	10%	10%	10%	10%	10%	10%	10%	10%
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$		pm+pt	M	pt+ov	Prot	NA	pt+ov	pm+pt	NA	pt+ov	pm+pt	M	D1+0V
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	Protected Phases	2	4	45	e	89	81	ŝ	2	23	-	9	67
Green, G (s) 73.9 66.0 90.0 19.0 77.1 87.1 29.0 40.0 21.0 66.0 66.0 66.0 66.0 66.0 67.0	Permitted Phases	4						5			9		
	Actuated Green, G (s)	73.9	66.0	80.0	19.0	77.1	87.1	29.0	20.0	44.0	21.0	16.0	28.9
Prime 0.35 0.52 0.15 0.60 0.26 0.24 0.16 0.35 0.18 0.13 FTme(s) 5.0	Effective Green, g (s)	75.9	67.0	81.0	20.0	78.1	88.1	31.0	21.0	45.0	23.0	17.0	29.9
Time (s) 5.0 3.0 3.	Actuated g/C Ratio	0.58	0.52	0.62	0.15	0.60	0.68	0.24	0.16	0.35	0.18	0.13	0.23
Xitension (s) 3.0 <	Clearance Time (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Cap (ph) 423 1691 915 490 1972 995 243 530 506 152 429 Perim 0.03 6.050 0.25 6.15 0.24 0.02 0.06 0.06 Perim 0.13 0.30 0.50 0.35 6.15 0.24 0.02 0.06 <td>Vehicle Extension (s)</td> <td>3.0</td> <td>3.0</td> <td></td> <td>3.0</td> <td>3.0</td> <td></td> <td>3.0</td> <td>3.0</td> <td>1</td> <td>3.0</td> <td>3.0</td> <td></td>	Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0	1	3.0	3.0	
Prot 0.03 c0.56 0.26 c0.15 0.24 0.02 0.03 0.06 0.01 0.02 0.06 <	Lane Grp Cap (vph)	423	1691	915	490	1972	995	243	530	508	162	429	338
Perm 0.21 cd.17 0.08 0.74 0.93 0.41 0.93 0.41 0.93 0.41 0.93 0.41 0.93 0.44 0.46 0.44 0.46 0.44 0.46 0.44 0.46 <t< td=""><td>v/s Ratio Prot</td><td>0.03</td><td>c0.50</td><td>0.26</td><td>c0.15</td><td>0.24</td><td>0.02</td><td>c0.08</td><td>0.11</td><td>0.27</td><td>0.02</td><td>0.06</td><td>0.02</td></t<>	v/s Ratio Prot	0.03	c0.50	0.26	c0.15	0.24	0.02	c0.08	0.11	0.27	0.02	0.06	0.02
leary of the constraint 0.41 0.88 0.41 0.89 0.40 0.03 1.03 0.68 0.74 0.46 0.	v/s Ratio Perm	0.21						c0.17			0.06		
blay, d1 126 308 124 54.9 137 6.9 48.1 51.4 38.0 46.2 52.3 0.0 100	v/c Ratio	0.41	0.98	0.41	0.99	0.40	0.03	1.03	0.68	0.78	0.44	0.46	0.07
Image 0.31 0.44 0.42 0.58 1.08 1.66 1.00 <t< td=""><td>Uniform Delay, d1</td><td>12.6</td><td>30.8</td><td>12.4</td><td>54.9</td><td>13.7</td><td>6.9</td><td>48.1</td><td>51.4</td><td>38.0</td><td>46.2</td><td>52.3</td><td>39.2</td></t<>	Uniform Delay, d1	12.6	30.8	12.4	54.9	13.7	6.9	48.1	51.4	38.0	46.2	52.3	39.2
Iad Delay, d2 0.3 11.1 0.2 3.56 0.6 0.0 65.4 3.6 7.4 1.9 0.8 iervice A 2.47 5.4 80.7 15.4 11.4 13.5 5.0 5.0 5.0 5.0 5.0 5.0 5.0 5.1 5.1 5.1 5.1 5.1 5.0 5.0 5.0 5.0 5.0 5.0 5.1 5.1 5.1 5.1 5.1 5.1 5.1 5.1 5.1 5.0 5.0 5.0 5.0 5.0 5.0 5.1	Progression Factor	0.31	0.44	0.42	0.98	1.08	1.66	1.00	1.00	1.00	1.00	1.00	1.00
4.3 24.7 5.4 89.7 15.4 11.4 11.5 55.0 45.4 48.1 53.1 Delay (s) A C A F B B F D	Incremental Delay, d2	0.3	11.1	0.2	35.6	0.6	0.0	65.4	3.6	7.4	1.9	0.8	0.1
A C A F B B F D D D 19.6 42.5 66.8 48.3 37.3 HCM Lavel of Service D 0.09 0.09 Sum of Net time (s) 12.0 13.3% (CU Level of Service E 12.0	Delay (s)	4.3	24.7	5.4	89.7	15.4	11.4	113.5	55.0	45.4	48.1	53.1	39.3
19.6 42.5 66.8 B D E 37.3 HCM Lavel of Service D 37.3 Sum of Next Nines D 130.0 Sum of Next Nines 12.0 n 83.3% ICU Level of Service E	Level of Service	<	c	<	u.	•••	60	ц.	٥	0	0	٥	٩
B D E E E E E E E E E E E E E E E E E E	Approach Delay (s)		19.6			42.5			65.8			48.3	
37.3 HCM Lavel of Service 0.99 Sum of host time (s) 130.0 Sum of host time (s) 15 NCU Level of Service 15	Approach LOS		•			٩			ш			٩	
37.3 HCM Lavel of Servica 0.99 Sum of lost time (s) 130.0 Sum of lost time (s) n 83.3% ICU Level of Service 15	Intersection Summary	NULLER	the second	SAFULLAR	ST. SAN	Contra Sta	Surger.	STE TE		The second second	A DECE	STATES.	Distanti
0.99 130.0 Sum of lost time (s) n 83.3% ICU Level of Service 15	HCM Average Control Delay	Here		37.3	F	M Lavel	of Servic			٥			
130.0 Sum of heat time (s) cation 83.3% ICU Level of Service 15	HCM Volume to Capacity ratio			0.99									
Utilization 63.3% ICU Lavel of Service 15	Actuated Cycle Length (s)		1000	130.0	<i>.</i>	im of lost	time (s)			12.0		S. Char	
	Intersection Capacity UnitZabon	1		63.3%	2	U Level (VI Service			ш			
	Avialysis Period (min)	No. of		2				- the second	A STATE			A PARTY	

2014 AM Peak BUILD Conditions

Case Y' - Rio Bravo drive D:\ATOBEPROJECTS_2012\Valero_RB_Broadway\Synchro\2014ABX-CaseY.syn

Lane Group EBL EBT EBR WBL WBL Volum Type Configurations 163 153 832 397 515 WBL WBL Volum Type Volum (yph) Throw Prot NA Protected Phases 7 4 45 3 8 Protected Phase 9 Protected Phases 7 4 45 3 8 Protected Phase 9 Protected Ph				A B	SBL 550 550 550 550 550 550 550 550 550 55	+++++++++++++++++++++++++++++++++++++	er er aller
Lane Group EBL EBT EBR WBL Lare Configurations 15 15 15 15 16 Tum Type mm type 15 15 15 16 16 Protacted Phases 7 4 45 3 3 38 387 387 Protacted Phases 7 4 45 3 3 36 36 37 3	Well 1997					SBT 149 149 149 149 149 5.0 5.0 5.0 21.0 21.0 21.0 16.2% 16.2% 10.2% 10.2% 10.2% 10.2% 10.0% 10.2% 10.0% 10.	BIT BIT BIT
Lane Configurations 1 44 1 1 1 1 1 1 1 1 1 1	1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 0.090 0000 0000				월 ⁸ 월 월 월 61일 월 51일	↑↑ 149 149 5.0 5.0 5.0 5.0 16.2% 4.0 16.2% 4.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1	67 67 67
Trunk (w) Trunk (w) <t< td=""><td>Prot 3 3 3 5 10.0 10.0 10.0 10.0 10.0 10.0 0.15 0.15</td><td>2 P</td><td></td><td>:</td><td></td><td>145 NA 6 5.0 21.0 21.0 21.0 16.2% 16.2% 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0</td><td>67 67</td></t<>	Prot 3 3 3 5 10.0 10.0 10.0 10.0 10.0 10.0 0.15 0.15	2 P		:		145 NA 6 5.0 21.0 21.0 21.0 16.2% 16.2% 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0	67 67
Protected Phases 7 4 5 3 Permited Phases 7 4 5 3 Switch Phases 7 4 5 3 Mininum paits (s) 5.0 5.0 5.0 5.0 Total Split (s) 13.0 71.0 24.0 4.0 Load Split (s) 10.0% 5.4.5% 18.5% 4.0 4.0 Velow Time (s) 1.0	3 3 5.0 10.0 10.0 13.5% 6 13.5% 6 10.0 10.0 0.15 0.15 0.19 0.19 0.09 0.09 0.09 0.09 0.09	내 왜 왜 해야할 것 것 것 것 것 .				5.0 5.0 21.0 21.0 21.0 21.0 16.2% 16.2% 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0	29
Permitted Phases 4 Detector Phases 7 4 5 3 Detector Phase 7 4 45 3 Detector Phase 5.0 5.0 5.0 5.0 Minimum initial (s) 5.0 5.0 5.0 40.0 Minimum initial (s) 11.0 71.0 24.0 40.0 Total Split (s) 10.0% 54.5% 18.5% 40.0 <td>3 5.0 5.0 10.0 24.0 4.0 13.5% 6 4.0 10.5% 10.0 0.15 0.15 0.15 0.15 0.15 0.15 0.15</td> <td></td> <td></td> <td></td> <td></td> <td>5.8 5.8 21.0 21.0 21.0 4.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1</td> <td>67</td>	3 5.0 5.0 10.0 24.0 4.0 13.5% 6 4.0 10.5% 10.0 0.15 0.15 0.15 0.15 0.15 0.15 0.15					5.8 5.8 21.0 21.0 21.0 4.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1	67
Detector Phase 7 4 4.5 3 Waithmum Initial (s) 5.0 5.0 5.0 5.0 Maintum Initial (s) 5.0 5.0 5.0 5.0 5.0 Maintum Field (s) 11.0 7.10 24.0 10.0 Total Split (s) 11.0 7.10 24.0 4.0 4.0 Mareet Time (s) 1.0 1.0 1.0 1.0 4.0 4.0 Mareet Time (s) 1.0 1.0 1.0 1.0 4.0 4.0 Mareet Time (s) 1.0 1.0 1.0 1.0 4.0 4.0 Mareet Time (s) 1.0 1.0 1.0 1.0 4.0 4.0 Load Lag Detect Time (s) 1.0 1.0 1.0 1.0 2.0 Load Lag Detect Time (s) 1.0 7.5 0.4 0.0 0.0 Load Lag Detect Time (s) 7.5 0.5 0.5 0.5 0.5 0.5 0.5 0.5 <td>3 5.0 5.0 5.0 7.0.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 5.0 0.0 90.2 0.0 90.2 0.0 0.0 0.0 0.0 0.0</td> <td>방 왜 해주말 할 것 것 것 것 것.</td> <td></td> <td></td> <td></td> <td>5 5.0 21.0 21.0 16.2% 4.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1</td> <td>9</td>	3 5.0 5.0 5.0 7.0.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 5.0 0.0 90.2 0.0 90.2 0.0 0.0 0.0 0.0 0.0	방 왜 해주말 할 것 것 것 것 것.				5 5.0 21.0 21.0 16.2% 4.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1	9
Switch Phase Solution Solutit Solution Solution	5.0 10.0 10.0 10.0 4.0 1.0 4.0 1.0 1.0 1.0 1.0 0.9 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0					5.0 21.0 21.0 21.0 16.2% 4.0 4.0 4.0 4.0 4.0 1.0 1.0	
Minimum Split (s) 5.0 7.0 10.0 7.0 2.0 7.0 2.0 7.0 2.0 2.0 5.0 5.0 5.0 5.0 5.0 5.0 5.0 7.0 2.0 2.0 2.0 2.0 10.0 2.0 2.0 10.0 2.0 10.0 <td>5.0 10.240 24.0 4.0 4.0 4.0 1.0 1.0 1.0 1.0 0.15 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.</td> <td></td> <td></td> <td></td> <td></td> <td>5.0 21.0 21.0 21.0 4.0 1.0 1.0 4.0 4.0 4.0 1.0 1.0 1.0 21.0 21.0 21.0 21.0 21.0</td> <td></td>	5.0 10.240 24.0 4.0 4.0 4.0 1.0 1.0 1.0 1.0 0.15 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.					5.0 21.0 21.0 21.0 4.0 1.0 1.0 4.0 4.0 4.0 1.0 1.0 1.0 21.0 21.0 21.0 21.0 21.0	
Minimum Split (s) 10.0 21.0 10.0 Total Split (s) 13.0 71.0 24.0 Total Split (s) 10.0% 54.5% 18.5% Yellow Time (s) 4.0 4.0 4.0 4.0 Total Split (s) 10.0 71.0 24.0 4.0 Total Split (s) 1.0 1.0 1.0 1.0 Total Lost Time Agist (s) 4.0 4.0 4.0 4.0 Total Lost Time Agist (s) 4.0 4.0 4.0 4.0 Total Lost Time (s) 4.0 4.0 4.0 4.0 4.0 Recall Mode Min CMax Min Ana 20.9 20.0 Actuated gC Radio 0.58 0.52 0.52 0.52 0.52 0.52 0.52 0.52 0.55 0.9 20.0 0.9 0.9 0.9 0.9 0.9 0.9 0.9 0.9 0.9 0.9 0.9 0.9 0.9 0.9 0.9 0.9 0.9	10.0 24.0 4.55% 6: 18.5% 6: 1.0 1.0 1.0 1.0 0.15 0.0 0.15 0.0 0.09 90.2 0.0				清洁 经 新 新 计	21.0 21.0 16.2% 4.0 1.0 -1.0 4.0 Lag	
Total Split (s) 11.3 71.0 24.0 Total Split (s) 10.0% 5.6% 18.5% Yellow Time (s) 1.0 1.0 1.0 1.0 Lost Time Agiust (s) 1.0 1.0 1.0 1.0 1.0 Local Split (s) 1.0 </td <td>24.0 18.5% 6 14.0 14.0 14.0 14.0 14.0 14.0 14.0 14.0</td> <td>1°6 3 5 1 1 1 3 .</td> <td></td> <td>1 II II</td> <td></td> <td>21.0 16.2% 4.0 1.0 4.0 4.0 4.0 Lag</td> <td></td>	24.0 18.5% 6 14.0 14.0 14.0 14.0 14.0 14.0 14.0 14.0	1°6 3 5 1 1 1 3 .		1 II		21.0 16.2% 4.0 1.0 4.0 4.0 4.0 Lag	
Iolal Spit (%) 10.0% 54.5% 18.5% Velax Spit (%) 10.0% 54.0% 10.3 Alk Red Time (s) 1.0 1.0 1.0 Lost Time Adjust (s) 1.0 1.0 1.0 Lost Time Adjust (s) 1.0 1.0 1.0 Load/Lag Optimize? A.0 4.0 4.0 Lead/Lag Dimize? Min A.4 A.0 Art Effic Green (s) 75.9 0.52 0.52 0.15 Art Effic Green (s) 0.3 0.3 0.39 0.39 Vart Effic Green (s) 0.3 0.3 0.39 0.30 Vart Effic Green (s) 0.3 0.3 0.39 0.30 Vart Effic Green (s) 0.3 0.3 0.39 0.30 0.	18.5% 6 4.0 -1.0 1.0 Lead Min C 20.0 0.15 0.15 0.09 90.2 0.0			周辺 御 周 雅 道		16.2% 4.0 1.0 -1.0 4.0 Lag	
Y etakow line (s) 4,0 4,0 4,0 4,0 4,0 4,0 4,0 1,0 0,0 0,0	4.0 	***			한 번 좀 일 ?	4.0 -1.0 4.0 Lag	
Alt-Reif Time (s) 1.0 4.0 2.0 8.0 4.0 2.0.0 0.0		影 医 當 说 词	通過 見 読 読		: 평 등 영 (-1.0 4.0 Lag	
Loss Line Adjust (s) -1.0 -1.0 -1.0 Loss Line Adjust (s) 4.0 4.0 4.0 Lead/Lag Dptimize? 1.0 4.0 4.0 Lead/Lag Dptimize? Min Amax Min Recall Mode Min C-Max Min Amax Act Effic Green (s) 75.9 9.70 81.0 20.0 Act Effic Green (s) 0.35 0.52 0.52 0.15 0.19 Act Effic Green (s) 0.36 0.53 0.53 0.63 0.93 0.99 0.09 0.09 0.09 0.09 0.09 0.09 0.09 0.00	-1.0 4.0 Min C 20.0 0.15 0.15 0.0 0.0		波 湖 梁 論 振	이 전 전 관 날	비 좀 입 !	-1.0 4.0 Lag	
Total Lest Time (s) 4.0 4.0 4.0 4.0 Lead/Lag Optimize7 Lead/Lag Lead/Lag Lead/Lag Lead/Lag Recalf Mode Min C/Max Min Min Recalf Mode Min C/Max Min Actuated g/C Ratio 0.58 0.52 0.50 Vic Ratio 0.41 0.98 0.99 0.99 Control Delay 4.0 26.1 4.9 90.2 Dueue Delay 0.0 0.0 0.0 0.0 0.0 Contal Delay 4.0 26.1 4.9 90.2 Los F Approach Delay 4.0 26.1 4.9 90.2 Los F F Approach Delay 4.0 26.1 4.9 90.2 C A F F Approach Delay 4.0 26.1 4.0 20.5 C F F Approach Delay 4.0 26.1 4.0 20.5 C C <td< td=""><td>4.0 Lead Min C 0.15 90.2 0.0</td><td></td><td></td><td>國際議員</td><td>- 등 (월)</td><td>4.0 Lag</td><td>Story</td></td<>	4.0 Lead Min C 0.15 90.2 0.0			國際議員	- 등 (월)	4.0 Lag	Story
Lead. ag Lead. ag Recall Mode Recall Mode Act Effct Green (s) 75.9 67.0 81.0 20.0 Actuated g/C Radio 0.36 0.55 0.52 0.15 Actuated g/C Radio 0.36 0.38 0.53 0.39 Octation 0.38 0.55 0.52 0.13 0.39 Octation 0.0 0.0 0.0 0.0 0.0 Dial Delay 4.0 26.1 4.9 90.2 Outeve Delay 0.0 0.0 0.0 0.0 Total Delay 4.0 26.1 4.9 90.2 Dial Delay 4.0 26.1 4.9 90.2 Courter Delay 0.0 0.0 0.0 0.0 Total Delay 4.0 26.1 4.9 90.2 Courter Delay 0.0 0.0 0.0 0.0 Courter Delay 20.5 Approach LOS C A F Morroach LOS C A F C	Lead Min C 0.15 90.2 90.2				집 입 문	Lag	
Lead-Lag Optimize? Lead-Lag Optimize? Recall Mode Act Effic Green (s) 75,9 67,0 81,0 20,0 Act Effic Green (s) 75,9 61,0 20,0 Act and C Tabio 0,58 0,52 0,15 WR Tabio 0,41 0,98 0,43 0,99 WR Tabio 0,0 0,0 0,0 0,0 Control Delay 4,0 26,1 4,9 90,2 Control Delay 4,0 26,1 4,9 90,2 LOS A C A C A F Approach Delay 20,5 Approach LOS C C Filter spection Summary Cycle Length: 130 Actual Cycle : 100 Miset 22 (53%), Reletenced to phase 4:EDTL and 8:WBT, Start Matural Cycle: 110	Min C 0.15 90.2 90.2	11 読 品		日营算			
Recall Mode Min CMax Min Min <t< td=""><td>Min 2000 0.15 90.2 90.2 90.2</td><td></td><td></td><td>5 <u>5</u> <u>j</u></td><td></td><td></td><td></td></t<>	Min 2000 0.15 90.2 90.2 90.2			5 <u>5</u> <u>j</u>			
Act Effet Green (s) 7:5.9 67.0 81.0 20.0 Act and Control Delay 0.41 0.28 0.5.2 0.55 0.15 Actuated gVC Radio 0.41 0.28 0.5.2 0.52 0.15 Actuated Delay 4.0 26.1 4.9 90.2 Outree Delay 4.0 26.1 4.9 90.2 Use Activity 4.0 26.1 4.9 90.2 Approach Delay 4.0 26.1 4.9 90.2 Inductor Delay 20.5 Approach LOS C A F Approach LOS C A F A Approach LOS C A F A A A A A A A A A A A A A A A A A A	20.0 0.15 90.2 90.2		調整			Min	
Actuated g/C Ratio 0.58 0.52 0.62 0.15 v/C ratio 0.41 0.98 0.43 0.99 u/C ratio 0.41 0.98 0.43 0.99 Oueue Delay 4.0 26.1 4.9 90.2 Total Delay 4.0 26.1 4.9 90.2 Total Delay 4.0 26.1 4.9 90.2 Approach Delay 2.5 Approach LOS C A F Approach LOS C A 10.5 Approach COS C A 10.5 Approach LOS C A 10.5 Approach Cost I 100 Actuated Cycle Length: 130 Advatural Cycle: 110	0.15 0.99 0.0					17.0	29.9
vic Ratio 0.41 0.98 0.43 0.99 Control Delay 0.10 0.0 0.0 0.0 Control Delay 0.0 0.0 0.0 0.0 0.0 Total Delay 4.0 26.1 4.9 90.2 LOS A F A C A F Approach Delay 20.5 Approach Delay 20.5 Cycle Length: 130 Cycle Length: 130 Cycle Length: 130 Cycle Length: 130 Cycle Length: 130 Adviset 22 (53%), Referenced to phase 4:EBTL and 8:WBT, Start	0.99 90.2 0.0	100	12			0.13	0.23
Control Delay 4.0 26.1 4.9 90.2 Oucere Delay 0.0 0.0 0.0 0.0 Oucere Delay 4.0 26.1 4.9 90.2 Orab Delay 4.0 26.1 4.9 90.2 LOS A C A F Approach Delay 20.5 20.5 97.2 Approach Delay 2.5 20.5 7 Approach LOS C A F 7 Approach LOS C C A F Approach LOS C C A F Approach LOS C A 20.5 A Approach LOS Curmany C C A Cycle Length: 130 Autral Cycle: 110 Autral Cycle: 110 Autral Cycle: 110	90.2					0.46	0.15
Queue Delay 0.0 0.0 0.0 0.0 Total Delay 4.0 26.1 4.9 90.2 LOS A 20.5 7 F Approach Delay 2.0.5 7 F 7 Approach LOS 2.0.5 7 7 7 7 Approach LOS C 4 20.5 7 7 7 Approach LOS C C 20.5 7 7 7 7 Approach LOS Cutomary C A 20.5 7 7 7 Cycle Length: 130 Approach Loss Antical Cycle Length: 130 7 7 7 7 Actuale Cycle: 110 Antical Cycle: 110 7 7 7 7 7	0.0		ļ			56.2	7.8
Total Delay 4.0 26.1 4.9 90.2 LOS A F C A F Approach Delay 20.5 Approach LOS C C C A F Intersection Summary C C Cycle Length: 130 Actual Cycle Length: 130 Actual Cycle : 110 Actual Cycle: 110 Natural Cycle: 110			0.0		ι.	0.0	0.0
LOS A F Approach Delay 20.5 A F Approach LOS C C A F Approach LOS C C Cycle Length: 130 Cycle Length: 130 Cycle Length: 130 Cycles E (53%), Reletenced to phase 4:EBTL and 8:WBT, Start	90.2 1	3.5 1		ľ	4	56.2	7.8
Approach Delay 20.5 Approach LOS C Interection Summary Cycle Length: 130 Acude Cycle Length: 130 Acude Cycle Length: 130 Acude Cycle Length: 130 Acude Cycle: 110	u					ш	A
Approach LOS C Intersection Summary Cycle Length: 130 Actualed Cycle Length: 130 Misset 22 (53%), Reletenced to phase 4:EBTL and 8:WBT, Start Natural Cycle: 110	426		99	68.4		41.6	
Intersection Summary Cycle Length: 130 Actuated Cycle Length: 130 Misset 28 (53%), Relevenced to phase 4:EBTL and 8:WBT, Start Natural Cycle: 110	۵			ш		۵	
Cycle Length: 130 Actuated Cycle Length: 130 Offset 82 (63%), Referenced to phase 4:EBTL and 8:WBT, Start Natural Cycle: 110	TAL STREET, STREET, ST	South Level	CONSTRUES.	SCORE TIME	C. Constant	Putting and	12.1.1
Actuated Cycle Length: 130 Offset 82 (63%), Referenced to phase 4:EBTL and 8:WBT, Start Natural Cycle: 110							
Vister of too ref. Total cross the prices T.L.D.I.L. and U.W.D.I. Januar	aT Shad of Croop	and the second	State of	P. S. MAR	No.		
			Contraction of the second				
Control Type: Actuated-Coordinated							
	and the second se	0.001	No. C. S.				
zation 83.3%	Intersection LUS: U ICU Level of Service	Intersection LUS: U					
Analysis Period (min) 15							
Splits and Phases: 3: Broadway Blvd & Rio Bravo Blvd	đ						
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03	1218	36.	82.8		

2014 AM Peak BUILD Conditions - MITIGATED GEOM. D:ATOBEPROJECTS_2012Valero_RB_Broadway/Synchrol2014ABX-CaseY_MIT.syn

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th EBL EBT EBR V trigunations 5 4 7 4 5 trigunations 5 4 7 4 6 trigunations 5 4 7 4 6 trigunations 5 1 100		4						
EBL EBT EBL EBT EBL EBT EBL EBT EBL EBL <th></th> <th>/</th> <th>~</th> <th>+</th> <th>٩,</th> <th>۶</th> <th></th> <th>\mathbf{F}</th>		/	~	+	٩,	۶		\mathbf{F}
Mis %		WBR	NBL	NBT	NBR	SBL	SBT	SBR
163 1538 382 1900 1900 1900 1900 1.00 0.95 1.00 0.95 1.00 0.95 1.00 0.95 1.00 0.95 1.00 0.96 1.00 0.95 1.00 0.96 0.35 1.00 0.93 1.00 0.35 1.00 1.00 1.00 1.01 0.35 1.00 1.00 1.02 0.33 1.00 1.00 1.05 1.05 1.00 32 (wh) 1.75 165.4 411 (wh) 1.75 165.4 410 (s) 7 4 45 (s) 5.0 5.0 6.0 (s) 5.0		×	1 5-	ŧ	×.	5	+	B
$\begin{array}{cccccccccccccccccccccccccccccccccccc$		34	215	311	340	5	149	P
		1900	1900	1900	1900	1900	1900	1900
$\begin{array}{cccccccccccccccccccccccccccccccccccc$		4.0	4.0	4.0	4.0	4.0	4.0	4.0
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0.05 1.00 1.00 1641 3282 1468 3 PHF 0.33 100 1.00 3 PhF 0.33 103 0.33 103 3 PhF 1.75 156.4 379 4 3 (vph) 0 0 32 10% 3 (vph) 175 156.4 379 3 3 (vph) 175 156.4 379 3 </td <td></td> <td>0.85</td> <td>1.00</td> <td>1.00</td> <td>0.85</td> <td>1.00</td> <td>1.00</td> <td>0.85</td>		0.85	1.00	1.00	0.85	1.00	1.00	0.85
1641 2282 1468 3 PHF 0.35 1.00 1.00 1 6.02 3.03 0.93 3 PHF 0.35 1.00 1.00 3 (ph) 1.75 16.4 411 3 (ph) 1.75 16.4 379 3 (ph) 1.75 16.5 10% 10% (s) 7 4 4 5 (s) 5.0 5.0 8.0 0 2 (s) 5.0 5.0 5.0 5 0 1 (s) 5.0 5.0 0.02 0.25 0.25 0.25 0.25 0.25 0.25 0.25 0.25 0.25 0.25 0.26 0.26 0.26 0.26 0.2	5 1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
0.35 1.00 1.00 PHF 0.33 1.00 1.00 PHF 0.33 0.33 0.33 PHF 0.33 0.33 0.33 (ph) 1.75 1654 411 (ph) 1.75 1654 411 (ph) 1.75 1654 411 (ph) 1.75 1654 379 (b) 10% 10% 10% (c) 7 4 45 (c) 0.50 6.0 80.0 (c) 3.0 3.0 3.0 (c) 3.0 3.0 3.0 (c) 3.0 3.0 3.0 (c) 3.0 3.0 3.0		1468	1641	3282	1468	1641	3282	2584
Image: Displaying state Cost 2282 1468 3 PHF 103 0.93 0.93 0.93 0.93 (wh) 175 156.4 379 0.05 0.93 0.93 (wh) 175 166.4 379 0.05 0.05 0.05 (wh) 175 166.4 379 0.05 0.05 0.05 (a) 10% 10% 10% 10% 0.05 0.05 0.05 (a) 10% 10% 10% 10% 0.05 0.05 0.05 0.05 0.05 0.05 0.05 0.05 0.05 0.05 0.05 0.05 0.05 0.05 0.05 0.05 0.05 0.05 0.05 0.01 0.01 0.01 0.01 0.02 0.02 0.01 0.02 0.01 0.02 0.02 0.02 0.02 0.02 0.02 0.02 0.02 0.02 0.02 0.02 0.02 0.02 0.02		1.00	0.42	1.00	1.00	0.38	1.00	1.00
0.33 0.33 0.33 0.33 0.33 0.33 175 1654 411 175 1654 379 10% 10% 10% 10% 10% 10% 10% 10% 10% 10%	3 3282	1468	723	3282	1468	658	3282	2584
175 156 411 (vph) 175 1654 411 0 0 22 9 10% 10% 10% 9 10% 10% 10% 10% 10% 10% 10% 9 10% 10% 10% 10% 10% 10% 10% 10% 10% 10% 10% 10% 10% 10% 10% 10% 73.9 66.0 80.0 10 23 67.0 81.0 81.0 15 73.9 66.0 80.0 22 0.22 10 0.33 0.30 3.0 10.2 0.2		0.82	0.86	0.86	0.86	0.75	0.75	0.75
(wh) 0 0 0 32 (wh) 175 1054 379 (wh) 175 1054 379 7 4 45 7 4 45 7 4 45 7 359 66.0 80.0 (s) 75.9 67.0 81.0 (s) 75.9 67.0 81.0 (s) 75.9 67.0 81.0 (s) 75.9 67.0 81.0 (s) 75.9 77.0 81.0 (s) 75.9 77.0 81.0 (s) 75.9 77.0 81.0 (s) 75.9 77.0 10.2 (s) 73.1 0.3 10.3 10.2 (s) 73.1 0.3 0.4 (s) 73.1 0.3 0.4 (s) 7.4 0.2 (s) 7.5 11.1 0.2 (s) 7.5 11.1 0.2	4 794	41	250	362	395	72	199	104
(yoh) 175 1654 379 i) 10% 10% 10% pmpp 7 4 45 i 4 5 6 80.0 i 7 3 60.0 80.0 i 5 6 50.0 81.0 i 5.0 5.0 5.0 5.0 5.0 i 5.0 5.0 5.0 0.25 6.0 10.0 i 1.03 0.50 0.50 0.26 0.2 <t< td=""><td></td><td>13</td><td>•</td><td>•</td><td>0</td><td>0</td><td>•</td><td>80</td></t<>		13	•	•	0	0	•	80
s) 10% 10% 10% 10% pmmpt NA ptvov 7 4 45 6(s) 739 66.0 80.0 (s) 739 66.0 80.0 (s) 739 66.0 81.0 (s) 736 65.0 81.0 (s) 733 65.0 81.0 (s) 3.0 3.0 3.0 (s) 3.0 3.0 3.0 (s) 4.1 0.38 0.25 0.26 (s) 3.0 3.0 3.0 1.0 0.2 (s) 0.3 60.9 0.26 0 0.6 0.4 (s) 0.3 0.41 0.41 0.41 0.41 0.4 (d2 0.3 0.41 0.41 0.2 0.2 0.2 0.2	4 794	28	250	362	396	72	199	24
pm-pt NA pt-ov 7 4 45 6(s) 73.9 66.0 80.0 (s) 75.9 66.0 80.0 (s) 75.9 66.0 80.0 (s) 2.0 11.0 0.3 0.0 11.0 (s) 3.0 3.0 (s) 4.0	× 10%	10%	10%	10%	10%	10%	10%	10%
7 4 45 5(s) 739 66.0 80.0 (s) 759 67.0 81.0 (s) 759 67.0 81.0 0.058 0.52 0.62 (s) 3.0 3.0 (s) 423 1691 915 0.03 0.03 0.26 c 0.31 0.44 0.49 0.41 0.88 0.41 1.24 0.23 0.31 1.11 0.2 .42 0.3 111 0.2	A NA	pt+ov p	pm+pt	M	pt+ov	pm+pt	AN	NO+Jd
4 73.9 66.0 80.0 75.9 67.0 81.0 75.9 67.0 81.0 0.88 0.52 0.62 5.0 5.0 3.0 5.0 163 0.6 0.03 0.50 0.26 c 0.21 0.38 0.41 0.21 0.38 0.41 0.21 0.44 0.42 0.31 0.44 0.42 0.3 11.1 0.2	3 8	81	S	2	23	•••	ø	67
73.9 66.0 80.0 75.9 67.0 81.0 0.58 0.52 0.62 5.0 5.0 3.0 3.0 3.0 423 1691 915 0.21 0.38 0.41 0.21 0.38 0.41 12.6 30.8 0.41 12.6 30.8 0.41 12.6 30.8 0.41 0.31 0.44 0.42 0.3 0.11 0.2			2			9		
75.9 67.0 81.0 0.58 67.0 81.0 5.0 5.0 3.0 3.0 4.23 1691 915 0.03 c0.50 0.26 c 0.21 0.38 0.41 0.21 0.38 0.41 1.24 0.32 0.42 0.31 0.44 0.42 0.31 0.44 0.42 0.31 0.44 0.42	0 77.1	87.1	29.0	20.0	44.0	21.0	16.0	28.9
0.58 0.52 0.62 5.0 5.0 5.0 3.0 3.0 3.0 4.23 1691 915 0.03 c0.50 0.26 c 0.21 0.44 0.41 12.6 30.8 1.24 0.31 0.44 0.42 0.31 0.44 0.42 2 0.3 111 0.2		68.1	31.0	21.0	45.0	23.0	17.0	29.9
5.0 5.0 3.0 5.0 423 1691 915 - 0.03 c0.50 0.26 c0 0.21 0.98 0.41 0 12.6 3.0.8 0.41 0 12.6 3.0.8 0.41 0 0.3 0.44 0.42 0 0.3 11.1 0.2 3	0	0.68	0.24	0.16	0.35	0.18	0.13	0.23
3.0 3.0 423 1691 915 0.03 c0.50 0.26 c 0.21 0.03 c0.50 0.26 c 0.21 0.41 0.38 0.41 12.4 0.42 12.6 30.3 0.43 0.42 0.41 0.42 0.41 0.42 0.41 0.41 0.42 0.41 0.42 0.41 0.42 0.41 0.42 0.41 0.42 0.41 0.42 0.41 0.42 0.41 0.42 0.41 0.42 0.41 0.42 0.41 0.42 0.41 0.42 0.41 0.41 0.42 0.41 0.42 0.41 0.42 0.41 0.41 0.42 0.41 0.42 0.41 0.41 0.42 0.41			5.0	5.0		5.0	5.0	
(Cap (yph) 423 (1691 915 Prot 0.03 c0.50 0.26 c Perm 0.21 0.98 0.41 Delay, pt 1.2.6 30.8 12.4 ion Factor 0.31 0.44 0.42 iul Delay, pt 0.3 111 0.2	0 3.0		3.0	3.0		3.0	3.0	
Prot 0.03 c0.50 0.26 c Perm 0.21 0.04 Delay, d1 125 30.8 124 Delay, d1 125 30.8 124 Ion Factor 0.31 0.44 0.42 Ial Delay, d2 0.3 111 0.2	0 1972	995	243	530	508	162	429	594
Perm 0.21 Deary d1 0.38 0.41 Deary d1 12.6 0.38 0.41 Non Factor 0.31 0.44 0.42 Lal Deary d2 0.3 11.1 0.2	5 0.24	0.02	c0.08	0.11	0.27	0.02	0.06	0.01
0.41 0.98 0.41 Delay, p1 12.6 30.8 12.4 Aon Factor 0.31 0.44 0.42 tual Delay, p2 0.3 11.1 0.2		12	c0.17			0.06		
Delay, d1 12.6 30.8 12.4 kon Factor 0.31 0.44 0.42 tial Delay, d2 0.3 11.1 0.2		0.03	1.03	0.68	0.78	0.44	0.46	0.04
xon Factor 0.31 0.44 0.42 Mai Delay, d2 0.3 11.1 0.2		6.9	48.1	51.4	38.0	46.2	52.3	38.9
ttal Delay, d2 0.3 11.1 0.2		1.66	1.00	1.00	1.00	1.00	1.00	1.8
		0.0	65.4	3.6	7.4	1.9	0.8	0.0
4.3 24	7 15.4	11.4	113.5	55.0	45.4	48.1	53.1	38.9
Α	8	8	u.	0	0	0	0	۵
y (s) 19.	42.5			65.8			48.2	
Approach LOS B	9	No.	11.11	ш	C.W.	10 AL 10	0	
Intersection Summary	Salater.	The west	Stable Control		見た言	田にある	STOCKED IN	Edilling
HCM Average Control Delay 37.3 HCI	HCM Level of Service	of Service			۵	Con March		
ratio 0.99								
	Sum of lost time (s)	time (s)			12.0			
Utilization 83.3%	ICU Level of Service	Service			ш			
Analysis Period (min) 15	and the second							

2014 AM Peak BUILD Conditions - MITIGATED GEOM. D:MTOBEPR0JECTS_2012Valero_RB_BroadwarkSynchrol2014ABX-CaseY_MIT.syn

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Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	F	+	۶.	ŗ,	ŧ	8	.	ŧ	*-	*	ŧ	2
Volume (vph)	108	815	399	283	1247	24	710	306	530	8	381	296
Tum Type	pm+pt	N	pt+ov	Prot	¥	pt+ov	pm+pt	M	pt+ov	pm+pt	NA	pt+ov
Protected Phases	7	4	45	3	80	5	1/7	2	23	-	9	67
Permitted Phases	4						2			9		
Detector Phase	7	+	45	9	80	81	40	2	23	-	9	67
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Minimum Split (s)	10.0	21.0		10.0	21.0		10.0	21.0		10.0	21.0	
Total Split (s)	10.0	42.0		17.0	49.0		50.0	61.0		10.0	21.0	
Total Split (%)	7.7%	32.3%		13.1%	37.7%		38.5%	46.9%		7.7%	16.2%	
Yellow Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)	-1.0	-1.0		-1.0	-1.0		-1.0	-1.0		-1.0	-1.0	
Total Lost Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
LeadAag	Lead	Lag		Lead	Lag		Lead	Lag		Lead	Lag	
Lead-Lag Optimize?											2	
Recall Mode	Min	C-Max		Min	C-Max		Min	Min		Min	Min	
Act Effct Green (s)	44.0	38.0	88.0	13.0	45.0	55.0	67.0	57.0	74.0	23.0	17.0	27.0
Actuated g/C Ratio	0.34	0.29	0.68	0.10	0.35	0.42	0.52	0.44	0.57	0.18	0.13	0.21
v/c Ratio	0.92	0.93	0.44	0.97	1.19	0.04	1.32	0.25	0.75	0.19	1.02	1.03
Control Delay	89.1	43.5	8.0	95.1	129.0	9.8	184.2	23.6	27.9	25.9	104.0	102.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	89.1	43.5	8.0	95.1	129.0	9.8	184.2	23.6	27.9	25.9	104.0	102.1
TOS	1	۵	<	u	L	<	u.	0	C	U	Ľ	
Approach Delay		36.5			121.0			98.8			9.66	
Approach LOS		0			Ľ			Ľ				
Intersection Summary	A CONTRACTOR	and a second	The second	14.55	Avec 100	Contraction of	1000000	119032	200222	attanta	040020	STATE OF
Cycle Lenoth: 130											A LOUGH THE R	
Actuated Cycle Length: 130	0											
Offset: 114 (88%), Referenced to phase 4:EBTL and 8:WBT, Start of Green	iced to phase	e 4:EBTL	and 8:WE	3T, Start	of Green	4140M		No. of the second se	untries in			-
Natural Cycle: 130								N N				
Control Type: Actuated-Coordinated	ordinated											
Maximum vic rideo, 1.32	- 00					1.001						
nuci sectori orginal uctary 09.7 Intersection Capacity Utilization 103.7% Analysis Period (min) 15	ation 103.79	9		ΕQ	intersection LUS: F ICU Level of Service G	f Service	9					
Splits and Phases: 3: Br	3: Broadway Blvd & Rio Bravo Blvd	d & Rio Br	ravo Blvd									
S a1 1 a2						Ea 🍾		а ф				
EI a			Contraction of the			17.0		42.9				
			-			4	4					
			5				ļ					

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ST -		Ť	1	5	ŧ	4	1	+	•	٨	-	7
1	B	EBT	EBR	WBIL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
	y-	‡	¥	£.,	+	×	F	+	R.	*	+	¥-
-	108	815	398	283	1247	24	710	306	530	8	381	296
	006	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
(2	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
le Util. Factor	1.00	0.95	1.00	0.97	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00
	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85
	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
()Q	1641	3282	1468	3183	3282	1468	1641	3282	1468	1641	3282	1468
	0.11	1.00	1.00	0.95	1.00	1.00	0.19	1.00	1.00	0.54	1.00	1.00
Satd. Flow (perm)	182	3282	1468	3183	3282	1468	329	3282	1468	927	3282	1468
or, PHF	0.91	0.91	0.91	0.92	0.92	0.92	0.85	0.85	0.85	0.87	0.87	0.87
	119	896	438	308	1355	8	835	360	624	38	438	340
	•	•	4	•	0	11	•	0	•	0	0	26
ph)	119	960	434	308	1355	15	835	360	624	38	438	314
Heavy Vehicles (%) 1	10%	10%	10%	10%	10%	10%	10%	10%	10%	10%	10%	10%
	pm+pt	Ą	pt+ov	Prot	NA	pt+ov	pm+pt	NA	pt+ov	pm+pt	AN	pl+ov
Protected Phases	7	4	45	e	æ	81	-0	2	23	-	9	67
Permitted Phases	4						2			9		
	42.0	37.0	87.0	12.0	44.0	54.0	66.0	56.0	73.0	21.0	16.0	26.0
s)	44.0	36.0	88.0	13.0	45.0	55.0	67.0	57.0	74.0	23.0	17.0	27.0
	0.34	0.29	0.68	0.10	0.35	0.42	0.52	0.44	0.57	0.18	0.13	0.21
Clearance Time (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
(0	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)	129	959	994	318	1136	621	634	1439	836	197	429	305
	0.04	0.27	0.30	0.10	c0.41	0.01	c0.47	0.11	0.43	0.01	0.13	c0.21
v/s Ratio Perm 0	0.27						c0.21	Section 2		0.03		
	0.92	0.93	0.44	0.97	1.19	0.02	1.32	0.25	0.75	0.19	1.02	1.03
	38.0	44.8	9.6	58.3	42.5	21.9	34.6	23.0	21.0	45.1	56.5	51.5
	1.05	0.59	0.70	1.06	0.94	0.88	1.00	1.00	1.00	1.00	1.00	1.00
Ital Delay, d2	53.0	16.0	0.3	32.4	92.8	0.0	153.6	0.1	3.7	0.5	48.9	59.2
	93.0	42.5	7.0	94.4	132.8	19.2	188.2	23.1	24.6	45.6	105.4	110.7
Level of Service	LL.	0	*	L	L	~	Ľ	o	0	0	ц.	ц.
Approach Delay (s)		36.0			124.0			99.4			104.8	
Approach LOS		•			4		C. C. Lan	ц.	1000	1000	ц.	
Intersection Summary	News C	DINE.	1.00	Sellin .	Elline?	8.12	The states	S.C.S.C.	CHANNEL I	A LOUGH	I CARTO	No.
HCM Average Control Delay			91.4	Ŧ	M Level	HCM Level of Service			L	1000		
HCM Volume to Capacity ratio			1.22									
Actuated Cycle Length (s)		3	130.0	ŝ	Sum of lost time (s)	time (s)			8.0			
Intersection Capacity Utilization			103.7%	0	U Level o	ICU Level of Service			σ			
Analysis Penod (min)			2									8

2014 PM Peak NOBUILD Conditions

Ether Case D:IATOBEPROJECTS_2012VVaero_RB_BroadwaylSynchrol2014PNX.syn

Either Case D: MTOBE\PROJECTS_2012\Valero_RB_Broadway\Synchro\2014P\X.syn

2014 PM Peak NOBUILD Conditions

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And in the second secon	٩	t	1	6	ŧ	~	1	•	•	۶		¥
Lana Group	EBL	EBT	EBR	WBI	WBT	WBR	Ŕ	TEN	NBR	SBL	SBT	SBR
Lane Configurations	*	+	*	1	ŧ	*-	~	ŧ	*	.	ŧ	
Volume (vph)	116	815	399	283	1284	90	714	307	530	3	387	39.4
Tum Type	pm+pt	M	pl+ov	Prot	A	pt+ov	pm+pt	M	pt+ov	pm+pt	M	NO+1d
Protected Phases	7	4	45	3	80	81	5	2	23	-	8	67
Permitted Phases	4						2			9		
Detector Phase	2	4	45	6	••	81	5	2	23	CLASS OF	9	67
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Minimum Split (s)	10.0	21.0		10.0	21.0		10.0	21.0		10.0	21.0	
Total Split (s)	10.0	42.0		17.0	49.0		50.0	61.0		10.0	21.0	
Total Split (%)	%L'L	32.3%		13.1%	37.7%		38.5%	46.9%		7.7%	16.2%	
Yellow Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
All-Red Time (s)	1.0	1:0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)	-1.0	-1.0		-1.0	-1.0		-1.0	-1.0		-1.0	-1.0	
Total Lost Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Lead/Lag	Lead	Lag		Lead	Lag		Lead	Bel		Lead	Lag	
Lead-Lag Optimize?											•	
Recall Mode	MIN	C-Max		Min	C-Max		Min	Min		Min	Min	
Act Effct Green (s)	44.0	38.0	88.0	13.0	45.0	55.0	67.0	57.0	74.0	23.0	17.0	27.0
Actuated g/C Ratio	0.34	0.29	0.68	0.10	0.35	0.42	0.52	0.44	0.57	0.18	0.13	0.21
v/c Ratio	0.98	0.93	0.44	0.97	1.23	0.05	1.32	0.25	0.75	0.38	1.04	1.06
Control Delay	105.1	43.5	8.1	94.5	144.0	9.3	187.4	23.6	27.9	29.9	107.8	110.2
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	105.1	43.5	8.1	94.5	144.0	9.3	187.4	23.6	27.9	29.9	107.8	110.2
FOS	ц.	٥	×	ш.,	u	×	Ľ	o	0	o		
Approach Delay		38.3			132.6			100.5			102.1	
Approach LOS		٥			ш			ц.			LL.	
Intersection Summary	Service and	all	E. Child	No. of	- Alle	State of the	ALL S	1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1	1000	100 100 Tel	Contraction of the local distance of the loc	Direction of the
Cycle Length: 130												
Actuated Cycle Length: 130										Silical d	TOPAGE	
Offset: 114 (88%), Referenced to phase 4:EBTL and 8:WBT, Start of Green	ced to phas	e 4:EBTL	and 8:Wi	3T , Start	of Green							
Natural Cycle: 130												
Control Type: Actuated-Coordinated	ordinated											
Maximum v/C Kabo: 1.32		- Nution								Sectors.		
Intersection Signal Delay: 94.6 intersection Capacity Utilization 105.5%	94.0 ation 105.59			<u>e u</u>	Intersection LUS: F ICU Level of Service G	I LUS: F	0					
Analysis Period (min) 15												
i.i	3: Broadway Blvd & Rio Bravo Blvd	1 & Rio Br	ravo Blvd									
-					Γ	4		÷,				
10 × 1 10 × 02					F	VC 83		10		1000		
						-	4					
5			•	g		29	<u>פ</u>	99				

	1	1	1	5	ŧ.	~	•	-	*	۶	-	7
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBN	SBL	38	SBR
Lane Configurations	- 2	ŧ	¥	1.1	4	۶.,	5	ŧ	R	*	**	×
Volume (vph)	116	815	399	283	1284	90	714	307	530	64	387	304
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost 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
Lane Util. Factor	1.00	0.95	1.00	0.97	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00
Fri	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85
Fit Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1641	3282	1468	3183	3282	1468	1641	3282	1468	1641	3282	1468
Fit Permitted	0.11	1.00	1.00	0.95	1.00	1.00	0.19	1.00	1.00	0.54	1.00	1.00
Satd. Flow (perm)	182	3282	1468	3183	3282	1468	329	3282	1468	926	3282	1468
Peak-hour factor, PHF	0.91	0.91	0.91	0.92	0.92	0.92	0.85	0.85	0.85	0.87	0.87	0.87
Adj. Flow (vph)	127	896	438	308	1396	33	640	361	624	74	445	349
RTOR Reduction (vph)	0	0	4	•	•	14	0	0	0	0	0	25
Lane Group Flow (vph)	127	968	434	308	1396	19	640	361	624	74	445	324
Heavy Vehicles (%)	10%	10%	10%	10%	10%	10%	10%	10%	10%	10%	10%	10%
Turn Type	pm+pt	NA	pt+ov	Prot	NA	pt+ov	pm+pt	M	pt+ov	pm+pt	N	Df+0v
Protected Phases	1	4	45	"	ø	81	ŝ	2	23	-	9	57
Permitted Phases	4						2			9		
Actuated Green, G (s)	42.0	37.0	87.0	12.0	44.0	54.0	66.0	56.0	73.0	21.0	16.0	26.0
Effective Green, g (s)	44.0	38.0	88.0	13.0	45.0	55.0	67.0	57.0	74.0	23.0	17.0	27.0
Actuated g/C Ratio	0.34	0.29	0.68	0.10	0.35	0.42	0.52	0.44	0.57	0.18	0.13	0.21
Clearance Time (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)	129	959	994	318	1136	621	634	1439	836	197	429	305
v/s Ratio Prot	0.05	0.27	0.30	0.10	c0.43	0.01	c0.47	0.11	0.43	0.02	0.14	c0.22
v/s Ratio Perm	0.29						c0.21			0.05		
v/c Ratio	0.98	0.93	0.44	0.97	1.23	0.03	1.32	0.25	0.75	0.38	1.04	1.06
Uniform Delay, d1	39.7	44.8	9.6	58.3	42.5	21.9	34.6	23.0	21.0	46.1	56.5	51.5
Progression Factor	1.08	0.59	0.71	1.06	0.95	0.86	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	70.9	16.0	0.3	31.9	108.2	0.0	157.0	0.1	3.7	1.2	\$3.4	68.6
Delay (s)	113.8	42.5	7.2	93.8	148.6	19.0	191.6	23.1	24.6	47.3	109.9	120.1
Level of Service	ш.	0	×	ц.,	LL.	80	L.	0	C	٥	LL	ш
Approach Delay (s)		38.1			136.4			101.2			108.7	
Approach LOS		•			ц.			ш,			LL.	Hand Hand
Intersection Summary		and the	PERMIT	100/200	334 - 2	Sare I	Der ter	Contraction of	E BY	Carlo Partie	C. C. C.	TRUE I
HCM Average Control Delay HCM Volume to Conactiv ratio	.5		97.0	Ŧ	CM Level	HCM Lavel of Service	2		ц.	1000		
Activitied Curle Longth (a)	2		120.0	ċ	استرا کم حس	1-1						
Intersection Canacity (Mization	uu		105 5%	20	CULL and of Senary	CULL evel of Senace			30	distant.		
Analysis Period (min)		-	ŧ				No. of Lot of Lo		,			21.655
r Critical I and Groun												

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2014 PM Peak BUILD Conditions

D:ATOBEIPROJECTS_2012Valero_RB_BroadwaytSynchrol2014PBX-CaseY.syn

2014 PM Peak BUILD Conditions

Case Y- Rio Bravo drive D:ATOBEIPROJECTS_2012Valero_RB_Broadway/Synchrol2014PBX-CaseY.syn

- rations he (s) ctor												
rations htpl) e (s) tor		Ť	-	\$	ŧ	<	•	+	•	٨	→	¥
rations (hpl) e (s) tor	EBL	EBT	EBR	MBL	WBT	WBR	NBL	NBT	NBN	SBL	SBT	SBR
(hpl) e (s) ttor	_	#	¥	**	ŧ	¥	*	ŧ	×	*	**	RR
ohpl) le (s) ctor	16	815	399	283	1284	8	714	307	530	64	367	394
ie (s) clor	8	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
tlor	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
	00.1	0.95	1.00	0.97	0.95	1.00	1.00	0.95	1.00	1.00	0.95	0.88
	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85
	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot) 16-	1641	3282	1468	3183	3282	1468	1641	3282	1468	1641	3282	2584
	0.10	1.00	1.00	0.95	1.00	1.00	0.19	1.00	1.00	0.54	1.00	1.00
Satd. Flow (perm) 1	177	3282	1468	3183	3282	1468	329	3282	1468	926	3282	2684
Peak-hour factor, PHF 0.	0.91	0.91	0.91	0.92	0.92	0.92	0.85	0.85	0.85	0.87	0.87	0.87
	127	896	438	308	1396	33	840	361	624	74	445	349
	•	•	4	0	0	14	0	0	0	•	•	42
(hq	127	896	434	308	1396	19	840	361	624	74	445	307
Heavy Vehicles (%) 10	10%	10%	10%	10%	10%	10%	10%	10%	10%	10%	10%	10%
Tum Type pm+pt	ti ti	M	pt+ov	Prot	NA	pt+ov	pm+pt	NA	pt+ov	pem-pt	NA	pt+ov
Protected Phases	2	4	45	m	89	81	с,	2	23	-	9	67
	4						2			9		
	43.0	38.0	87.0	12.0	45.0	55.0	65.0	55.0	72.0	21.0	16.0	26.0
s)	45.0	39.0	88.0	13.0	46.0	56.0	66.0	56.0	73.0	23.0	17.0	27.0
	0.35	0.30	0.68	0.10	0.35	0.43	0.51	0.43	0.56	0.18	0.13	0.21
VIET	50	5.0		5.0	0.2		5.0	5.0		5.0	5.0	
-	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
(vph)	129	985	994	318	1161	632	621	1414	824	197	429	537
	0.05	0.27	0.30	0.10	c0.43	0.01	c0.47	0.11	c0.43	0.02	0.14	0.12
v/s Ratio Perm 0.:	8						c0.22			0.05		
	0.98	0.91	0.44	0.97	1.20	0.03	1.35	0.26	0.76	0.38	1.04	0.57
	39.1	43.8	9.6	58.3	42.0	21.3	34.9	23.7	21.7	46.1	56.5	46.3
	1.11	0.60	0.71	1.06	0.95	0.86	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2 70	70.9	12.9	0.3	31.9	96.6	0.0	169.1	0.1	4.0	1.2	53.4	1.5
Delay (s) 114	14.2	39.4	7.2	93.8	136.4	18.4	204.0	23.8	25.8	47.3	109.9	47.8
Level of Service	u	•	×	ш.	LL.	60	L.	0	0	٩	ш.	0
Approach Delay (s)		36.2			126.6			107.4			79.6	
Approach LOS		•			ц.		100	u.			ш	
Intersection Summary	STR.	Di la constante	STR.	NUM	N. NOV	and the second	Cale Par	ST. LT.	Saures.	SULLS.	121.12	the state
HCM Average Control Delay HCM Volume to Capacity ratio			91.3	¥	HCM Level of Service	of Servic	9		ш.			
Actuated Cycle Length (s)	1000		130.0	G.	Sum of lost time (s)	fime (s)			8.0			
Intersection Capacity Utilization	1	-	105.5%	2	ICU Level of Service	f Service			0		and the second second	
Analysis Period (min)			15									C. No.

27.0 0.21 0.60 0.60 0.0 0.0

Min 17.0 0.13 1.04 1.04 0.0 0.0 75.6 F

C

Min 23.0 0.18 0.38 30.0 30.0 30.0

56.0 0.43 9.0 9.0 9.0

C-Max 46.0 1.20 1.20 132.5 132.5 132.5 132.5 F 123.4

Min 13.0 0.10 0.97 94.5 94.5 94.5

88.0 0.68 0.44 8.1 8.1 8.1 8.1 8.1 8.1

36.2 D

Approach Delay Control Delay Queue Delay Total Delay LOS

Approach LOS

ntersection Summary

Cycle Length: 130

C-Max 39.0 0.30 0.91 0.91 0.0 40.2 40.2

Min 45.0 0.35 0.98 104.9 0.0

73.0 0.56 0.76 0.76 0.0 0.0 C C

Min 56.0 0.43 0.26 24.3 0.0 24.3 C C C

Terry O. Brown, P.E. 3/10/2012 - Synchro 7

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Timings 3: Broadway Blvd & Rio Bravo Blvd

SBL

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WBR

EBR

EBT N 815

đ 116 pm+pt

Lane Group Lane Configurations

Volume (vph) Turn Type Protected Phases Permitted Phases

PTT 304

NA 387

64 pm+pt

530 530 23

714 pm+pt

B 140

399 pt+ov 45

60 80

CN

LEN LOR X

1284 NA

Prot Prot e e

67

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23

-

81

45

4

5.0 21.0 21.0 6.2% 4.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0

5.0 10.0 10.0 10.0 4.0 1.0 1.0 4.0 4.0

5.0 21.0 60.0 4.0 1.0 -1.0 4.0 1.0 1.0 1.0

5.0 10.0 49.0 4.0 1.0 -1.0 4.0 1.0 1.0 1.0

5.0 21.0 50.0 50.0 50.0 4.0 1.0 1.0 -1.0 4.0 4.0 -1.0 21.0 21.0

5.0 21.0 43.0 43.0 4.0 1.0 1.0 4.0 4.0 4.0 1.0 1.0 1.0 1.0 1.0

5.0 10.0 10.0 4.0 1.0 1.0 1.0 4.0 4.0

Detector Phase Switch Phase Minimum Initial (s) Minimum Split (s) Total Split (s) Total Split (s) Total Lost Time (s) Lost Time Adjust (s) Total Lost Time (s) Lead/Lag Lead/Lag Lead/Lag Chimize? Recall Mode Actuated g/C Ratio Actuated g/C Ratio Actuated g/C Ratio

643 89 w7 150.5 4 10.5 íg -

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Splits and Phases: 3: Broadway Blvd & Rio Bravo Blvd

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Intersection Capacity Utilization 105.5% Analysis Period (min) 15

Control Type: Actuated-Coordinated Maximum v/c Ratio: 1.35 Intersection Signal Delay. 89.5

Intersection LOS: F ICU Level of Service G

Actuated Cycke Length: 130 Offset: 114 (88%), Referenced to phase 4:EBTL and 8:WBT, Start of Green Natural Cycle: 130

EOM. D:MTOBEPROJECTS_2012Valero_RB_Broadway(Synctrol2014PBX-CaseY_MIT.syn 2014 PM Peak BUILD Conditions - MITIGATED GEOM.

2014 PM Peak BUILD Conditions - MITIGATED GEOM. D:ATOBEPROJECTS_2012Valero_RB_Broadway/Synchrol2014PBX-CaseY_MIT.syn

$ \begin{array}{c c c c c c c c c c c c c c c c c c c $	$ \begin{array}{c c c c c c c c c c c c c c c c c c c $	EBL EBT EBR WIL F 145 145 145 Pmm-pt NA pt-ov 145 Pmm-pt NA pt-ov 141 Pmm-pt NA 4.5 3 Pmm-pt 1.0 21.0 10.0 Pmm 2.0 2.0 2.0 Pmm 4.0 4.0 4.0 Pmm 1.0 1.0 1.0 Pmm 4.0 4.0 1.0 Pmm 4.0 4.0 1.0 Pmm 1.0 1.0 1.0 Pmm 4.0 4.0 4.0 Pmm 1.0 1.0 1.0 Pmm 1.0 1.0 1.0 Pmm 1.0 <	WBT N	•		-	-													winks - 21 nzwith
$ \begin{array}{c c c c c c c c c c c c c c c c c c c $	$ \begin{array}{c c c c c c c c c c c c c c c c c c c $	EBL EBT EBR WBL 186 186 186 186 186 186 47 1 7 4 45 3 7 4 45 3 7 4 45 3 7 4 45 3 7 4 45 3 7 4 45 3 7 4 45 3 10.0 21.0 10.0 21.0 11.0 21.0 10.0 21.0 12.0 40 4.0 4.0 13.0 4.0 4.0 1.0 10.0 1.0 1.0 1.0 11.0 1.0 1.0 1.0 14.0 4.0 4.0 4.0 11.0 1.0 1.0 1.0 11.0 1.0 1.0 1.0 12.0 4.0 4.0 1.0	WBT N			•	-	•		1	1	1	5	Ļ	~		•	۶	-	
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	1 1	444		100	12	SBT	SBR	Movement	E	EBT	EBR	WBIL	WBT	100	C.		RS	SRT	-32
$ \begin{array}{ c c c c c c c c c c c c c c c c c c c$	$ \begin{array}{ c c c c c c c c c c c c c c c c c c c$	pmm-pi NA pi-vev Piot 7 4 45 3 4 7 4 45 3 50 5.0 5.0 5.0 5.0 10.0 10.0 21.0 21.0 21.0 21.0 21.0 10.0 21.0 21.0 21.0 21.0 21.0 21.0 11.0 21.0 21.0 21.0 21.0 21.0 21.0 20.0 7.1 21.0 21.0 21.0 21.0 21.0 20.0 4.0 4.0 4.0 4.0 4.0 4.0 10 -1.0 -1.0 -1.0 -1.0 -1.0 4.0 10 -1.0 -1.0 -1.0 -1.0 -1.0 1.0 10 -1.0 -1.0 -1.0 -1.0 -1.0 1.0 11.0 12.0 12.0 12.0 4.0 4.0 1.0 12 13.0	477		J		‡	¥- ş	Lane Configurations		1	¥	5	44				5	+	18 - I
$ \begin{array}{ c c c c c c c c c c c c c c c c c c c$	$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	7 4 45 3 4 4 5 3 5 0 5 0 5 0 5 0 10.0 21.0 10.0 20.0 21.0 21.0 14.3% 50.7% 15.0% 4.0 4.0 4.0 1.0	NA DMH				NA		VORUME (VPN)	180	1	402	481	927				8	188	
$ \begin{array}{ c c c c c c c c c c c c c c c c c c c$	$ \begin{array}{ c c c c c c c c c c c c c c c c c c c$	4 4 5 3 7 4 45 3 5.0 5.0 5.0 5.0 10.0 21.0 71.0 21.0 20.0 71.0 21.0 21.0 20.0 71.0 71.0 21.0 20.0 71.0 71.0 21.0 14.3% 50.7% 15.0% 4.0 4.0 4.0 4.0 4.0 1.0 1.0 1.0 1.0 1.0 4.0 4.0 4.0 1.0 4.0 4.0 4.0 1.0 1.0 1.0 1.0 1.0 4.0 4.0 4.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 4.0 4.0 4.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0	60				-	67	Total Loct time (c)		1	1905	1900	005L	1			1900	1900	
$ \begin{array}{ c c c c c c c c c c c c c c c c c c c$	$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	7 4 45 3 5.0 5.0 5.0 5.0 10.0 21.0 10.0 20.0 71.0 10.0 20.0 71.0 21.0 14.3% 50.7% 15.0% 4.0 4.0 4.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 4.0 4.0 4.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 80.5 57.0 94.0 17.0		2		9			Lane Util. Factor	1.00	1	19	0.4.0	100		4	3	4.6	9.6	
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$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	80.0	0.00	200								Actuated Green, G (s)	37.0	32.0	81.0	9.0	36.0	80				35.0	45.0
$ \begin{array}{ c c c c c c c c c c c c c c c c c c c$	1 10	540	1.45	3	1	3	ii.		24		Effective Green, g (s)	30.0	33.0	82.0	10.0	37.0	80				36.0	46.0
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$ \begin{array}{c c c c c c c c c c c c c c c c c c c $	00					2					Clearance Time (s)	5.0	5.0		5.0	5.0			0	5.0	5.0	
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Set Filt and SWDT, Start of Green 643 535 135 132 173 851 100		and the second second second		And in concerning the	All Includes of the local division of the lo	The subscription of the	Contraction of the local sector of the local s				v/c Ratio	1.10	1.29	0.52	1.45	1.22	+			0.23	1.05	-
See 4EBTL and 8:WBT. Start of Green 0.68 0.58 0.54 0.10 1.0	Intersection Summary	A	TAL CAL		and a state of the	des action	C. C	NI JE VIE	Service Services		Uniform Delay, d1	48.1	53.5	17.3	65.0	51.5	4				52.0	47.0
See 4:E1TL and BWPIT, Start of Green 106.7 137.2 106.7 137.3 10.1 2.89.0 01.1 2.9.3 0.1 11.3 0.4 Bit of Starter 138.2 17.3 16.8 7.9.1 14.2 37.0 17.3 0.6 0 0.1 3.2.3 0.6 0 0.4 Start of Green Intersection LOS: F Intersection LOS: F 168.3 15.5.8 2.8 0 1.3 15.7.3 16.8 2.8.3 0.1 11.3 0.4 Start of Starter F	Cycle Length: 140										Progression Factor	0.68	0.68			0.82	F				1.00	1.00
Belay (a) WBT, Start of Green Start of Green The Ford Service Ford Ford Ford Ford Ford Ford Ford Ford	Actuated Cycle Length: 140									and barret	Incremental Delay, d2	105.7	137.0			101.7	29				44.1	240.5
3% Intersection LOS: F F F F F F B C D 3% Intersection LOS: F Intersection LOS: F 163.3 155.8 163.3 155.8 3% Intersection LOS: F Intersection LOS: F Intersection LOS: F 163.3 155.8 3% Intersection LOS: F Intersection LOS: F 163.3 155.8 F 4 Rio Brane Blvd Intersection Capacity rabo 1.48 Minor losi rabo 8.0 Intersection Los: F Intersection Capacity rabo 1.48 Minor losi rabo 8.0 Intersection Los: F Intersection Capacity rabo 1.48 Minor losi rabo 8.0 Intersection Los: F Intersection Capacity rabo 1.48 Minor losi rabo 8.0 Intersection Los: F Intersection Capacity rabo 1.48 Minor losi rabo 8.0 Intersection Los: F Intersection Capacity rabo 1.48 Minor losi rabo 8.0 Intersection Los: F Intersection Capacity rabo 1.48 Minor losi rabo 9.0 Intersection Los: F Intersection Capacity rabo 1.48 Minor losi rabo 9.0 Intersection Losi F Intersection Capacity rabo 1.48 Minor losi rabo 9.0	Offset: 116 (83%), Referenced to phase 4:EBTL	BW:8 bnr	r, Start of	Green							Delay (s)	138.2	173.3			144.2	33				96.1	287.5
3% Interaction LOS: F Interaction LOS: F Interaction LOS: F Interaction LOS: F Interaction Summary VI & Rio Brave Bid Wd Rio Brave Bid Wd Rio Brave Bid Md Rio Brave Bid Md Rio Brave Bid Md Rio Brave Bid Md Rio Brave Bid HCM Volume Capacity Vibration 127.3% ICU Level of Service F HCM Volume Capacity Vibration 127.3% ICU Level of Service H Analysis Period (min) 15 LOU Level of Service H Analysis Period (min) 15 L	Natural Cycle: 120		1000		Colored B						Level of Service	4	ц.	-		4.		ц.			Ľ	
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HCM Average Control Delay 31.6 HCM Level of Service		HCM Level	of Servic	8		U			
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130.0		Sum of lost	time (s)			12.0			
Intersection Capacity Utilization 70.7% ICU Level of Service		CU Lavel o	of Service			U			
Analysis Period (min) 15	15								
c Critical Lane Group									

Terry O. Brown, P.E. 3/10/2012 - Synchro 7

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Lane Group Lane Configurations Volume (vph) Tum Type Protacted Phases Permitted Phases Detector Phase

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Timings 4: Prince St & Rio Bravo Blvd

2014 AM Peak NOBUILD Conditions

Either Case D: MTOBE/PROJECTS_2012/Valero_RB_Broadway/Synchrol2014AN/X.syn

5.0 21.0 21.0 4.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 Min 8.8 8.8 0.07 0.07 27.3 27.3 27.3 C 27.3 D 5.0 10.0 7.7% 4.0 1.0 1.0 4.0 4.0 Lead Min 14.8 0.11 0.13 48.7 48.7 0.0 0.0 D Min 8.8 8.8 0.07 0.58 23.9 0.0 23.9 C C C C 5.0 21.0 21.0 4.0 1.0 1.0 1.0 4.0 4.0 4.0 Lag 5.0 10.0 7.7% 4.0 1.0 -1.0 4.0 4.0 Lead Min 14.8 0.11 0.61 67.1 0.0 67.1 Intersection LOS: C ICU Level of Service C 5.0 10.0 7.7% 4.0 1.0 1.0 4.0 4.0 1.0 1.0 Min 101.8 0.78 6.3 6.3 6.3 C-Max 91.8 0.71 0.32 12.8 0.0 12.8 12.8 12.8 12.8 12.8 8 12.3 Cycle Length: 130 Actuated Cycle Length: 130 Offset 20 (15%), Referenced to phase 4:EBTL and 8:WBTL, Start of Green 5.0 21.0 89.0 68.5% 4.0 -1.0 -1.0 Lag 5.0 10.0 7.7% 4.0 1.0 -1.0 -1.0 -1.0 -1.0 Min 99.0 0.75 0.27 8.7 8.7 8.7 8.7 Min 0.78 0.04 0.4 0.4 0.4 Z C-Max 92.0 0.71 1.05 39.7 39.7 39.7 39.7 0.0 0.0 38.1 D 5.0 21.0 89.0 68.5% 40 10 10 10 10 10 10 ć Intersection Capacity Utilization 70.7% Analysis Period (min) 15 ž 5.0 10.0 7.7% 4.0 1.0 1.0 1.0 4.0 4.0 Lead Min 99.4 0.76 0.11 2.0 2.0 2.0 2.0 2.0 2.0 2.0 2.0 Control Type: Actuated-Coordinated Maximum v/c Ratio: 1.05 ê Intersection Signal Delay: 32.6 1.044 Lead/Lag Lead-Lag Optimize? Recall Mode Act Effct Green (s) Actuated g/C Ratio Minimum Intilal (s) Minimum Split (s) Total Split (%) Total Split (%) Yelkow Time (s) Lost Time Adjust (s) Total Lost Time (s) ritersection Summary Vatural Cycle: 130

Approach Delay Control Delay Queue Delay Total Delay LOS

//c Ratio

Approach LOS

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(& Rio Bravo Blvd	Aa + 6a >	10 0 69 0	Bu the Two the	10 s 189 s	
Splits and Phases: 4: Prince St & Rio Bravo Blvd	K a1 1 a2	10 0 21 0	🖈 u5 🌓 u6	10 s 21 s	

Either Case D:ATOBEIPROJECTS_2012VValero_RB_Broadway(Synchrol2014AVIX.syn 2014 AM Peak NOBUILD Conditions

Momment EN Momment Momment Momment Momment Momment Momment Momment Momment Momment <	11-CM organized intersection capacity Analysis 4: Prince St & Rio Bravo Blvd	avo B	P								-	1 1017012 - 20181110 /	1
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I_1 <t< th=""><th>Movement</th><th>EBL</th><th>EBT</th><th>EBR</th><th>WBL</th><th>WBT</th><th>WBR</th><th>NBL</th><th>NBT</th><th>NBR</th><th>SBL</th><th>SBT</th><th>SBR</th></t<>	Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
	Lane Configurations	-	ŧ	*	*	44	×.	*	42		*	4	
	Volume (vph)	43	1920	39	40	764	47	8	2	88	.1		11
	Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
	Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0		4.0	4.0	
	Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	1.00	1.00	1.00		1.00	1.00	l
	Fri	1.00	1.00	0.85	1.00	1.00	0.85	1.00	0.85		1.00	0,86	
	Fit Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00		0.95	1.00	
	Satd. Flow (prot)	1719	3438	1538	1719	3438	1538	1719	1543		1719	1555	
	Fit Permitted	0:30	1.00	1.00	0.04	1.00	1.00	0.75	1.00		0.48	1.00	
	Satd. Flow (perm)	542	3438	1538	78	3438	1538	1352	1543		872	1555	
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	Peak-hour factor, PHF	0.89	0.89	0.89	0.89	0.89	0.89	0.81	0.81	0.81	0.75	0.75	0.75
	Adj. Flow (vph)	48	2157	44	45	858	5	66	2	109	20	1	15
	RTOR Reduction (vph)	0	0	80	0	•	13	•	102	0	0	14	0
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	Lane Group Flow (vph)	84	2167	36	45	858	40	68	0	0	20	2	0
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$		pm+pt	A	vo+mq	pm+pt	N	NO+-UID	pm+pt	M		pm+pt	M	
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	Protected Phases	7	4	10	e2	8	1	5	3		-	9	
	Permitted Phases	4		4	80		89	2			9		
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	Actuated Green, G (s)	97.6	91.3	96.3	97.8	91.4	96.4	12.3	7.3		12.3	5.7	
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	Effective Green, g (s)	99.66	92.3	98.3	99.8	92.4	98.4	14.3	8.3		14.3	8.3	ł
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	Actuated g/C Ratio	0.77	0.71	0.76	0.77	0.71	0.76	0.11	0.06		D.11	0.06	
$ \begin{array}{ c c c c c c c c c c c c c c c c c c c$	Clearance Time (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0		5.0	5.0	
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0	125.10
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	Lane Grp Cap (vph)	481	2441	1210	153	2444	1211	166	66		135	8	
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	v/s Ratio Prot	0.01	c0.63	0.00	c0.02	0.25	0.00	c0.03	0.01		0.01	0.00	
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	v/s Ratio Perm	0.07		0.02	0.21		0.02	c0.04			0.01		
4.0 14.7 4.0 21.2 7.2 3.9 54.7 57.3 52.2 2 0.42 0.24 0.01 0.0 1.00 1.00 1.00 2 0.42 0.23 0.01 1.0 4.0 5.7 0.4 0.5 1.7 5.8 0.3 15.1 12.0 2.0.6 60.3 5.7 52.7 1.7 5.8 0.3 15.1 12.0 2.0.6 60.3 5.7 52.7 5.6 12.6 12.6 60.3 57.7 52.7 52.7 5.6 12.6 12.6 58.9 58.9 58.9 56.9 5.6 12.6 12.6 58.9 58.9 58.9 56.9 56.9 56.9 7 3 12.3 HCM Level of Service B E 56.9 56.9 56.9 56.9 56.9 56.9 56.9 56.9 56.9 56.9 56.9 56.9 56.9	v/c Ratio	0.10	0.88	0.03	0.29	0.35	0.03	0.60	0.09		0.15	0.02	
0.42 0.24 0.07 0.67 1.61 5.24 1.00 1.00 1.00 2 0.0 2.3 0.0 1.0 0.0 5.7 0.4 0.5 1 7 8 0.3 1.0 1.0 0.0 1.00 0.5 1 7 8 0.3 1.1 2.0 0.6 5.7 0.4 0.5 5.6 12.6 6.0 5.7 0.4 0.5 7 0.4 0.5 5.6 12.6 6.0 12.6 6.8.3 7.7 5.7 D D 6.0 12.6 6.8.3 12.6 6.8.3 6.8.3 0.5 D D 7 8 12.6 6.8.3 6.8.3 6.8.3 0.5 D <t< td=""><td>Uniform Delay, d1</td><td>4.0</td><td>14.7</td><td>4.0</td><td>21.2</td><td>7.2</td><td>3.9</td><td>54.7</td><td>57.3</td><td></td><td>52.2</td><td>57.0</td><td></td></t<>	Uniform Delay, d1	4.0	14.7	4.0	21.2	7.2	3.9	54.7	57.3		52.2	57.0	
2 0.0 2.3 0.0 1.0 0.4 0.0 5.7 0.4 0.5 1.7 5.8 0.3 15.1 12.0 20.6 60.3 5.7 52.7 A A B C E 53.9 5.7 52.7 A A B C E 53.9 5.7 52.7 A A B C E 58.9 5 5 A B C E 58.9 E 5 5 Y B C E 58.9 E 5 5 Y B C B E 5 5 5 5 Y A A B C E 5 5 5 5 A A B C E 5 5 5 5 5 5 5 7 5 7 5	Progression Factor	0.42	0.24	0.07	0.67	1.61	5.24	1.00	1.00		1.00	1.00	
1.7 5.8 0.3 15.1 12.0 20.6 60.3 37.7 32.7 A A B B C E E D 5.6 12.6 12.6 60.3 37.7 32.7 52.7 5.6 12.6 63 67.2 64.3 57.7 52.7 5.6 12.6 12.6 68.3 63.9 63.9 63.9 7 3 13.6 12.8 68.9 68.9 64.9 65.0 64.9 <td>Incremental Delay, d2</td> <td>0.0</td> <td>2.3</td> <td>0.0</td> <td>1.0</td> <td>0.4</td> <td>0.0</td> <td>5.7</td> <td>0.4</td> <td></td> <td>0.5</td> <td>0.1</td> <td></td>	Incremental Delay, d2	0.0	2.3	0.0	1.0	0.4	0.0	5.7	0.4		0.5	0.1	
A A B B C E E D 5.6 12.6 5.6 12.6 6.8.9 6.9 6.9 6.9 6.9 6.9 6.9 6.9 6.9 6.1 6.0 6.1 6.0 6.1 6.0 6.1 6.0 6.1 6.0 6.1 6.0 6.1 6.0 6.1 6.0 6.1 6.0	Delay (s)	1.7	5.8	0.3	15.1	12.0	20.6	60.3	57.7		52.7	57.1	
5.6 12.6 58.9 Y B E Y ID Belay 11.3 HCM Level of Service B al Delay 11.3 HCM Level of Service B C al of Palay 11.3 Num of Natione (S) B C a cly ratio 0.81 Sum of Natione (S) Natione (S) Natione (S) 1 Ublication 70,8% (CU Lavel of Service) C 15.0 1 Station 15 15.0 Service) C	Level of Service	•	A	4	•	æ	C	ш	ш		٩	ш	
A B E Y IDelay 11.3 HCM Level of Service acity rabio 0.81 30.0 Sum of lost time (s) 1 Ublizzation 70.9% ICU Level of Service 16	Approach Delay (s)		5.6			12.6			58.9			54.6	
11.3 HCM Level of Service 0.81 0.81 130.0 Sum of lost time (s) 1 70.8% 15 15	Approach LOS		۷			8			ш			٥	
11.3 HCM Level of Santice 13.0 0.1 Sum of bast time (s) 130.0 Sum of bast time (s) 130.8 ICU Lavel of Service 15	Intersection Summary	and the second	Tel all	No. No.	The state	Marca No.	Call and	and a state	HI WOON	11 11	and and	A A A A A A A A A A A A A A A A A A A	and a second
0.81 Sun of lost time (s) 130.0 Sun of lost time (s) 1 170.8% ICU Lavel of Service 15 15	HCM Average Control Delay			11.3	Ŧ	CM Leve	I of Servi	e		•			
130.0 Sum of lost time (s) 16 cation 70,8% ICU Lavel of Service 15	HCM Volume to Capacity ratio			0.81									
Utitization 70,8% ICU Level of Service 15	Actuated Cycle Length (s)			130.0	ซี	im of los	t time (s)			16.0			
	Intersection Capacity Utilization	100		70,8%	Q	U Level	of Service		1	U	Carlow Stand		1300
	Analysis Period (min)			15									

Terry O. Brown, P.E. 3/10/2012 - Synchro 7

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5.0 21.0 21.0 6.2%

5.0 21.0 89.0 68.5%

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pm+pt

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pm+pt

vo+mq ∞ --

10 ~ 10

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SBT ----

SBL

Les N

NBL 1

> WBR 47

WBL 5

EBR

EB 1

WBT 764

40 40

-8 vo+mq iα. 5

1920 NA

Lane Group Lane Configurations Volume (vph)

43 pm+pt

Turm Type Protected Phases Permitted Phases Detector Phase

Switch Phase

4

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1

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Timings 4: Prince St & Rio Bravo Blvd

2014 AM Peak BUILD Conditions

Case "Y' - Rio Bravo drive D:MTOBE/PROJECTS_2012/Valero_RB_Broadway/Synchrol2014ABX-CaseY.syn

5.0 21.0 21.0 21.0 4.0 1.0 4.0 4.0 1.0 1.0 1.0 Min 8.3 8.3 0.06 0.14 27.2 0.0 27.2 C C C D 5.0 10.0 10.0 7.7% 4.0 1.0 -1.0 4.0 4.0 Lead Min 14.3 0.15 0.15 49.7 49.7 0.0 0.0 D Min 8.3 8.3 8.3 0.05 0.05 21.2 C C C C C C C C 4.0 4.0 4.0 1.0 5.0 10.0 7.7% 4.0 1.0 1.0 4.0 4.0 1.0 Min 14.3 0.11 0.60 66.6 66.6 ш Intersection LOS: B ICU Level of Service C 5.0 10.0 7.7% 4.0 1.0 -1.0 4.0 Lead Min 0.79 5.6 5.6 5.6 5.6 5.6 < C-Max 924 0.71 0.35 0.35 0.0 126 126 121 B B 5.0 21.0 89.0 89.0 68.5% 4.0 1.0 1.0 4.0 4.0 4.0 1.0 1.0 Offset: 20 (15%), Referenced to phase 4:EBTL and 8:WBTL, Start of Green 5.0 10.0 10.0 4.0 1.0 -1.0 -1.0 -1.0 -1.0 Min 99.7 9.2 9.2 9.2 9.2 9.2 9.2 Min 0.79 0.79 0.04 0.2 0.0 5.0 10.0 10.0 4.0 1.0 -1.0 -1.0 -1.0 -1.0 Lead C-Max 92.3 0.71 0.88 6.9 0.0 A 6.7 < 4.0 -1.0 4.0 Lag Control Type: Actuated-Coordinated Maximum vic Ratio: 0.88 Intersection Signal Delay: 10.7 Intersection Signal Delay: 10.7 Analysis Period (min) 15 5.0 10.0 7.7% 4.0 1.0 1.0 1.0 4.0 4.0 Min 0.10 0.10 1.5 1.5 1.5 A Cycle Length: 130 Actuated Cycle Length: 130 Lead/Lag Lead-Lag Optimize? Recall Mode Act Effot Green (s) Actuated g/C Ratio Minimum initial (s) Minimum pitial (s) Total Spit (s) Total Spit (%) Total Spit (%) Velkow Time (s) Lost Time Adjust (s) Total Lost Time (s) ntersection Summary Vatural Cycle: 110

Approach Delay Approach LOS

Control Delay Queue Delay Total Delay LOS

v/c Ratio

ce St & Rio Bravo Blvd	¥ a3 → a4	[]10 = [89 s		110 # 189 *	
Splits and Phases: 4: Prince St & Rio Bravo Blvd	🗲 al 🕇 a2	10 a 121 a 1	🖈 🕫 🕇 🔟	10.5 121 5	

Case "Y' - Rio Bravo drive D:IATOBEIPROJECTS_2012/Valero_RB_Broadway/Synchrol2014ABX-CaseY.syn

2014 AM Peak BUILD Conditions

Monement Els. Fit F	FPI FPI FPI FPI FPI MBI MBI <th>4: Prince St & Rio Bravo Blvd</th> <th>Bravo B</th> <th>P P</th> <th>, time</th> <th></th> <th>2</th> <th></th> <th></th> <th></th> <th>-</th> <th>3/10/2012 - Synchro 7</th> <th>O. DIUWII, F.E. 3/10/2012 - Synchro 7</th> <th>r.c.</th>	4: Prince St & Rio Bravo Blvd	Bravo B	P P	, time		2				-	3/10/2012 - Synchro 7	O. DIUWII, F.E. 3/10/2012 - Synchro 7	r.c.
$ \begin{array}{c c c c c c c c c c c c c c c c c c c $	$ \begin{array}{c c c c c c c c c c c c c c c c c c c $		٩	1	1	5	Ŧ	4	•	+		۶	-	7
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	Movement	BL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
	$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	Lane Configurations	-	#	۶.,	*	\$	×	*	4		*	£,	
	$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	Volume (vph)	20	1102	8	120	1961	31	92	4	69	48	m	51
		Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0		4.0	4.0	
	$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	Lane Ubl. Factor	1.00	0.95	1.00	1.00	0.95	1.00	1.00	1.00		1.00	1.00	
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	FI	1.00	1.00	0.85	1.00	1.00	0.85	1.00	0.86		1.00	0.86	
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	Fit Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00		0.95	1.00	
$ \begin{array}{c c c c c c c c c c c c c c c c c c c $	$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	Satd. Flow (prot)	1719	3438	1538	1719	3438	1538	1719	1552		1719	1555	
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	Fit Permitted	0.04	1.00	1.00	0.20	1.00	1.00	0.67	1.00		0.48	1.00	
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	Satd. Flow (perm)	80	3438	1538	356	3438	1538	1218	1552		872	1555	Same?
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	Peak-hour factor, PHF	0.95	0.95	0.95	0.87	0.87	0.87	0.77	0.77	0.77	0.85	0.85	0.85
		Adj. Flow (vph)	21	1160	103	138	2254	9E	119	9	6	56	4	3
		RTOR Reduction (vph)	0	0	26	0	0	4	0	84	0	0	8	0
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	Lane Group Flow (vph)	21	1160	F	138	2254	32	119	11	0	56	89	0
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	Turn Type	pm+pt	AN	ио+ша	pm+pt	M	VO+mq	pm+pt	M		pm+pt	¥	
		Protected Phases	7	4	s	5	80	-	10	~		-	9	
		Permitted Phases	4		4	÷		80	2			9		
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	$ \begin{array}{ccccccccccccccccccccccccc$	Actuated Green, G (s)	95.7	89.8	94.8	99.7	91.8	96.8	12.3	7.3		12.3	7.3	
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$		Effective Green, g (s)	1.79	90.8	96.8	101.7	92.8	98.8	14.3	8.3		14.3	8.3	
50 71 60 70 50 71 60 70 71 71 71 71 71 71 71 71<		Actuated g/C Ratio	0.75	0.70	0.74	0.78	0.71	0.76	0.11	0.06	11.11	0.11	0.06	
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	Clearance Time (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0		5.0	5.0	
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0	(internet
0.01 0.34 0.00 c.0.33 c.0.66 0.00 c.0.23 c.0.03 0.0.3 <th< td=""><td>0.01 0.34 0.00 c.0.03 c.0.65 0.00 c.0.03 0.01 0.11 0.48 0.05 0.37 0.03 0.05 0.37 0.14 0.48 0.37 0.02 0.03 0.05 0.11 221 8.9 4.5 5.2 15.5 3.8 55.6 57.4 1.22 0.51 0.23 0.33 0.54 1.00 1.00 1.32 0.51 0.2 0.89 0.33 0.54 1.03 0.55 0.3 0.51 0.13 0.71 0.13 0.76 0.55 1.32 0.51 0.3 0.51 1.33 7.18 57.0 5.4 1.2.8 A B E 67.0 5.4 A B A B 67.0 5.4 A B A B 67.0 6.01 5.01 LOU Lawel of Service 0.87.0 1.00 1.00</td><td>Lane Grp Cap (vph)</td><td>147</td><td>2401</td><td>1193</td><td>372</td><td>2454</td><td>1216</td><td>157</td><td>66</td><td></td><td>135</td><td>66</td><td></td></th<>	0.01 0.34 0.00 c.0.03 c.0.65 0.00 c.0.03 0.01 0.11 0.48 0.05 0.37 0.03 0.05 0.37 0.14 0.48 0.37 0.02 0.03 0.05 0.11 221 8.9 4.5 5.2 15.5 3.8 55.6 57.4 1.22 0.51 0.23 0.33 0.54 1.00 1.00 1.32 0.51 0.2 0.89 0.33 0.54 1.03 0.55 0.3 0.51 0.13 0.71 0.13 0.76 0.55 1.32 0.51 0.3 0.51 1.33 7.18 57.0 5.4 1.2.8 A B E 67.0 5.4 A B A B 67.0 5.4 A B A B 67.0 6.01 5.01 LOU Lawel of Service 0.87.0 1.00 1.00	Lane Grp Cap (vph)	147	2401	1193	372	2454	1216	157	66		135	66	
0.10 0.05 0.27 0.02 0.05 0.03 0.03 0.03 0.03 0.03 0.03 0.04 0.03 0.07 0.17 0.14 0.44 0.03 0.51 0.22 0.89 0.53 0.54 0.10 0.10 0.10 0.03 0.51 0.22 0.53 0.54 0.10 0.13 0.5 0.13 0.55 0.11 0.13 0.5 0.13 0.5 0.13 0.5 0.13 0.5 0.13 0.5 0.13 0.5 0.13 0.5 0.13 0.5 0.13 0.5 0.13 0.5 0.13 0.5 0.13 0.5 0.13 0.5 0.13 0.5 0.13 0.5 0.13 0.5 0.18 0.5 0.5 0.4 0.10 0.10 0.10 0.10 0.10 0.03 0.5 0.13 0.5 0.	0.10 0.05 0.27 0.02 0.05 77.4 0.1 0.1 0.1 0.2 0.05 0.1 0.1 0.1 0.1 0.2 0.0 0.1 0.1 0.1 0.1 0.2 0.1 0.2 0.1 0.1 0.1 0.2 0.2 0.1 0.2 0.1 0.1 0.1 0.2 0.2 0.1 0.2 0.2 0.1 0.1 0.1 0.1 0.1 0.1 0.1 0.1 0.1 0.1	v/s Ratio Prol	0.01	0.34	0.00	c0.03	c0.66	0.00	c0.03	0.01		0.02	0.01	
0.14 0.48 0.06 0.37 0.82 0.03 0.76 0.11 0.41 0.41 1.22 0.51 0.22 0.83 0.34 55.6 77.4 53.3 1.22 0.51 0.22 0.81 0.51 0.27 0.83 7.58 55.5 2.1 74.3 75.8 55.3 2.1 74.3 75.8 55.3 1.42 0.5 1.0 3.7 (13.5 2.1 74.3 77.8 55.3 1.42 0.5 1.10 3.7 (13.5 2.1 74.3 77.8 55.3 1.42 0.5 1.10 3.7 (13.5 2.1 74.3 77.8 55.3 1.42 0.5 1.10 3.7 (13.5 2.1 74.3 77.8 55.3 1.42 0.5 1.10 3.7 (13.5 2.1 74.3 77.8 55.3 1.42 0.5 1.10 3.7 (13.5 2.1 74.3 77.8 55.3 1.42 0.5 1.10 3.7 (13.5 2.1 74.3 77.8 55.3 1.42 0.5 1.10 3.7 (13.5 2.1 74.3 77.8 55.3 1.42 0.5 1.10 3.7 (13.5 2.1 74.3 77.8 55.3 1.42 0.5 1.10 3.7 (13.5 2.1 74.3 77.8 55.3 1.42 0.5 1.10 3.7 (13.5 2.1 74.3 77.8 55.3 1.42 0.5 1.10 3.7 (13.5 2.1 74.3 77.8 55.3 1.42 0.5 1.10 3.7 (13.5 1.42 0.5 1.10 1.5 1.42 0.5 1.10 1.5 1.5 1.5 1.5 1.5 1.5 1.5 1.5 1.5 1.5	0.14 0.48 0.00 0.37 0.82 0.03 0.76 0.11 221 0.9 4,5 2.2 15.5 3.8 5.56 57.4 1.82 0.51 0.42 0.83 0.83 0.63 0.10 0.3 0.5 0.0 0.1 0.7 0.0 18.7 0.5 426 5.1 1.0 3.7 13.5 2.1 74.3 57.8 A A A B A E E A A A B G B A E E A 12.4 B A E 1 30.87 130.0 Sumofostime (s) 80.1% (CU Lawler Service 15	v/s Ratio Perm	0.10		0.05	0.27		0.02	c0.05			0.03		
221 83 4,5 5,2 15,5 3,8 55,6 57,4 533 1122 0,51 0,22 0,89 0,33 0,54 1,00 1,00 1,00 1,00 1,00 1,00 1,00 1,0	221 8.9 4.5 5.2 15.5 3.8 55.6 57.4 1.92 0.51 0.22 0.89 0.83 0.54 1.00 1.00 0.3 0.5 0.22 0.89 0.33 0.54 1.00 1.00 4.26 5.1 1.0 3.7 13.5 2.1 74.3 57.8 4.26 5.1 1.0 3.7 13.5 2.1 74.3 57.8 5.4 A B A E E E 4.4 HCM Level of Services 14.6 HCM Level of Services 0.87 13.0 Sum of lost time (s) 80.1% [CU Level of Services 15 15	v/c Ratio	0.14	0.48	0.06	0.37	0.92	0.03	0.76	0.11		0.41	0.08	
132 0.51 0.22 0.89 0.33 0.54 1.00 1.00 1.00 0.3 0.5 0.0 0.1 0.7 0.0 1.00 1.00 A A A A 1.5 2.1 74.3 5.2 2.1 5.4 1.0 3.7 1.5 2.1 74.3 5.5 2 A A A 12.8 5 6.0 0.7 0.5 5.5 1 1.4.6 HCM.Level of Service B 67.0 1.4.6 HCM.Level of Service B 6.0 1.87 15 0.087 16.0 16.0 15 15 10.0 Sum of lost time (s) 16.0 15 15 10.0 Sum of lost time (s) 16.0 15 15 10.0 Sum of lost time (s) 15.0	1.92 0.51 0.22 0.89 0.83 0.54 1.00 1.00 0.3 0.5 0.0 0.1 0.7 0.0 187 0.5 42.6 5.1 1.0 3.7 15.5 2.1 74.3 57.8 5.4 A A B A E 6 5.4 1.0 12.8 A E 6 7.0 A B A E 6 13.0 Numor lost time (s) 0.87 130.0 Sum of lost time (s) 80.1% (CU Level of Service 15	Uniform Delay, d1	22.1	8.9	4.5	5.2	15.5	3.8	55.6	57.4		53.3	57.3	
0.3 0.5 0.0 0.1 0.7 0.0 18.7 0.5 2.1 426 5.1 1.0 3.7 13.5 2.1 74.3 77.8 55.3 6 5.4 A A B A E E E 6 7.0 A F 12.8 6 7.0 A F 12.8 6 7.1 7.3 7.8 55.3 7 7 7.3 7.8 55.3 7 7 8 7.0 7 8 7.1 7	0.3 0.5 0.0 0.1 0.7 0.0 18.7 0.5 426 5.1 1.0 3.7 13.5 2.1 74.3 77.8 5.4 A A B A E 67.0 A A A 12.8 A E 67.0 A 12.8 HCM Level of Service 0.87 13.0 0 Sum of lost time (s) 80.1% (CU Level of Service 15	Progression Factor	1.92	0.51	0.22	0.69	0.83	0.54	1.00	1.00		1.00	1.00	
426 5.1 1.0 3.7 13.5 2.1 74.3 57.8 55.3 55.4 6 6 6 6 6 7 74.3 57.8 55.3 55.4 6 7 6 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7	426 5.1 1.0 3.7 13.5 2.1 74.3 57.8 D A A B A E E A B A E E A B A E 2 14.6 HCM Level of Service 14.6 NCM Level of Service 13.0 Sum of lost time (s) 80.1% ICU Level of Service 15 (CU Level of Service)	Incremental Delay, d2	0.3	0.5	0.0	0.1	0.7	0.0	18.7	0.5		21	0.3	
D A A B A E E 54 12.8 67.0 67.	D A A B A E E 5.4 12.8 12.8 67.0 6.4 12.8 8 67.0 14.6 HCM Level of Service 0.87 13.00 13.0 Sum of lost time (s) 80.1% 15	Delay (s)	42.8	5	1.0	3.7	13.5	21	74.3	57.8		55.3	57.6	
5.4 12.8 67.0 A B E 14.6 HCM Lavel of Service B 0.87 Sum of lost time (s) 16.0 80.1% ICU Lavel of Service D 15 ICU Lavel of Service D	5.4 12.8 67.0 A B E E 14.6 HCM Level of Service 0.87 0.01 Level of Service 80.1% I CU Level of Service 15	Level of Service	0	A	4	×	8	A	ш	ш		ш	ш	
A B E E 14.6 HCM Level of Service B 0.87 Um of lost time (s) 16.0 80.1% ICU Level of Service D 15	A B E 14.6 HCM Level of Service 0.87 Lavel of Service 13.0.0 Sum of lost time (s) 80.1% ICU Level of Service 15	Approach Delay (s)		5.4			12.8			67.0			56.5	
14.6 HCM Level of Service 0.87 130.0 Sum of lost time (s) 80.1% ICU Level of Service 15	14.6 HCM Level of Service 0.87 0.87 13.00 Sum of lost time (s) 80.1% ICU Level of Service 15 ICU Level of Service	Approach LOS		۷			8			ш			ш	
14.6 HCM Level of Service 0.87	14.6 HCM Level of Service 0.87 2.0 3.0 3.0 Num of lost time (s) 80.1% ICU Level of Service 15	Intersection Summary	State Bar	TAXA L	30120	1211-530	Savel.	No. Charles	N.C. No.	No. 1	0530	C MARK	Distanti	Bille
0.87 130.0 Sum of lost time (s) 80.1% ICU Level of Service 15	0.87 130.0 Sum of lost time (s) 80.1% ICU Level of Servica 15	HCM Average Control Delay	×		14.6	*	CM Leve	H of Servi	e		8			
130.0 Sum of lost time (s) 80.1% ICU Level of Service 15	130.0 Sum of lost time (s) 80.1% ICU Level of Service 15	HCM Volume to Capacity ra	dia .		0.87									
80.1% ICU Level of Service 15	80.1% ICU Lavel of Service 15	Actuated Cycle Length (s)			130.0	ŝ	um of los	st time (s)			16.0			
Analysis Period (min) 15	Analysis Period (min) 15	Intersection Capacity Utiliza	tion		80.1%	0	U Level	of Service						
	Citizal I and Carin	Analysis Period (min)			15									

5.0 21.0 6.2% 4.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 Min 8.3 0.06 0.41 23.2 23.2 23.2 C C C D the A a ø SBT 48 pm+pt 5.0 10.0 7.7% 4.0 1.0 1.0 1.0 4.0 4.0 Lead Min 14.3 0.11 0.41 58.4 58.4 58.4 SBL 55.4 C ¥ -£. 5.0 21.0 21.0 6.2% 4.0 1.0 4.0 1.0 Min 8.3 8.3 0.06 0.52 22.8 0.0 22.8 5.0 10.0 10.0 7.7% 4.0 1.0 1.0 1.0 4.0 4.0 4.0 92 pm+pt 10 2 10 Min 14.3 0.11 0.76 81.4 81.4 81.4 Ī Intersection LOS: B ICU Level of Service D ло+шd 5.0 10.0 7.7% 4.0 1.0 1.0 1.0 4.0 4.0 4.0 Min 0.79 0.03 1.2 1.2 1.2 8 WBR 3 1961 NA C-Max 92.8 0.71 0.92 14.7 14.7 14.7 14.7 14.7 14.7 14.7 8 13.8 8 Cycle Length: 130 Actuated Cycle Length: 130 Offset: 36 (20%), Referenced to phase 4:EBTL and 8:WBTL, Start of Green 5.0 21.0 89.0 89.0 89.0 4.0 1.0 1.0 -1.0 -1.0 4.0 -1.0 21.0 Min 0.78 0.37 2.5 2.5 2.5 2.5 120 NBL pm+pt vo+mq 42 5.0 10.0 10.0 4.0 -1.0 -1.0 -1.0 -1.0 -1.0 Min 0.78 0.08 0.0 0.0 0.0 ъ 8 EBR €
 88.
 88. S 4: Prince St & Rio Bravo Blvd 4 5.0 21.0 86.0 66.2% C-Max 90.8 0.70 0.48 68 1102 NA 4.0 1.0 4.0 Lag A 5.0 5.4 29 Control Type: Actuated-Coordinated Maximum vic Ratio: 0.32 Intersection Signal Delay: 14.0 Intersection Signal Delay: 14.1 Analysis Period (min) 15 5.0 10.0 7.7% 4.0 1.0 -1.0 -1.0 -1.0 -1.0 Min 97.7 0.75 0.14 8.3 8.3 8.3 8.3 8.3 8.3 10 \$ EBL 8 pm+pt Lead/Lag Lead-Lag Optimize? Recall Mode Act Effct Green (s) Actuated g/C Ratio Switch Phase Minthrum Intial (s) Minihum Spit (s) Total Spit (s) Total Spit (%) Yelkow Time (s) All-Rew Time (s) Lost Time Aljust (s) Total Lost Time (s) Intersection Summary Lane Group Lane Configurations Volume (vph) Turn Type Protected Phases Permitted Phases Detector Phase ß g

Natural Cycle: 120

Approach Delay Approach LOS

Control Delay Queue Delay Total Delay LOS

v/c Ratio

and Phases:

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10 + [2] 5ª

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Either Case D:IATOBE\PROJECTS_2012NValero_RB_Broadway\Synchrol2014PNX.syn

2014 PM Peak NOBUILD Conditions

Either Case D:ATOBE/PROJECTS_2012/Valero_RB_Broadway/Synchro/2014P/X.syn

2014 PM Peak NOBUILD Conditions

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Terry O. Brown, P.E. 3/10/2012 - Synchra 7

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Timings 4: Prince St & Rio Bravo Blvd

Monment EBN EFN Weil WEIT WEIN WEIT WEIN WEIT WEIN WEINN	HCM Signalized Intersection Capacity Analysis 4: Prince St & Rio Bravo Blvd	sectio	n Cag	pacity /	Analysi	s				Tel	Terry O. Brown, P.E. 310/2012 - Synchro 7	O. Brown, P.E. 3/10/2012 - Synchro 7	P.E. Ichro 7
ED. ED. <thed.< th=""> <thed.< th=""> <thed.< th=""></thed.<></thed.<></thed.<>		1	1	1	5	Ŧ	~	*	+	•	1	-	7
S T H F H F H F H F H F H F H F H F H F H F H F H F H F H F H H F H	Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
	Lane Configurations	-	ŧ	×	*	ŧ	×	*	÷.		F	2	
	Volume (vph)	30	1109	88	121	1991	31	92	4	69	48.	. ന	51
	Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
	Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0		4.0	4.0	
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	1.00	1.00	1.00		1.00	1.00	
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	FI	1.00	1.00	0.85	1.00	1.00	0.85	1.00	0.86		1.00	0.86	TANK T
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	Fit Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00		0.95	1.00	
$ \begin{array}{c c c c c c c c c c c c c c c c c c c $	Satd. Flow (prof)	1719	3438	1538	1719	3438	1538	1719	1552		1719	1555	
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	Flt Permitted	0.04	1.00	1.00	0.19	1.00	1.00	0.67	1.00		0.48	1.00	
$ \begin{array}{c c c c c c c c c c c c c c c c c c c $	Satd. Flow (perm)	8	3438	1538	352	3438	1538	1218	1552		872	1555	(INCOME)
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	Peak-hour factor, PHF	0.95	0.95	0.95	0.87	0.87	0.87	0.77	0.77	0.77	0.85	0.85	0.85
	Adj. Flow (vph)	2	1167	103	139	2289	8	119	9	8	56	4	60
	RTOR Reduction (vph)	0	0	26	0	•	4	0	8	0	0	8	0
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	Lane Group Flow (vph)	21	1167	4	139	2289	32	119	11	0	56	8	0
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$		m+pt	A	VO+mq	pm+pt	N	vo+mq	pm+pt	AN		pm+pt	M	
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	Protected Phases	1	4	S	e	63	-	9	~		-	9	
95.7 89.8 94.8 99.7 91.8 96.8 12.3 7.3 12.3 0.7 20.0 0.48 0.11 0.7 2.6 0.11 0.5 0.5 5.0 5.0 5.0 5.0 5.0 5.0 5.0 5.0	Permitted Phases	4		4	80		8	2			9		
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	Actuated Green, G (s)	95.7	89.8	94.8	5.99	91.8	96.8	12.3	7.3		12.3	1.3	
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	Effective Green, g (s)	7.79	90.8	96.8	101.7	92.8	98.8	14.3	8.3		14.3	8.3	
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	Actuated g/C Ratio	0.75	0.70	0.74	0.78	0.71	0.76	0.11	0.06		0.11	0.06	
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	Clearance Time (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0		5.0	5.0	
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	-2101-	3.0	3.0	
0.01 0.34 0.00 c0.37 0.00 c0.02 0.02 0.03 <th0.03< th=""> 0.03 0.03 <t< td=""><td>Lane Grp Cap (vph)</td><td>147</td><td>2401</td><td>1193</td><td>369</td><td>2454</td><td>1216</td><td>157</td><td>66</td><td></td><td>135</td><td>8</td><td></td></t<></th0.03<>	Lane Grp Cap (vph)	147	2401	1193	369	2454	1216	157	66		135	8	
0,10 0,005 0,27 0,02 0,03 0,13 0,13 0,13 0,13 0,13 0,13 0,13	v/s Ratio Prot	0.01	0.34	0.00	c0.03	c0.67	0.00	c0.03	0.01		0.02	0.01	
0.14 0.49 0.06 0.38 0.33 0.03 0.76 0.11 0.41 0.41 0.41 0.41 0.41 0.41 0.41	v/s Ratio Perm	0.10		0.05	0.27		0.02	c0.05			0.03		1
2338 839 4,5 5,2 15,9 3,8 55,6 57,4 53,3 13,6 6,52 0,21 0,07 0,94 5,5 1,0 1,00 1,00 0,0 0,0 1,00 1,00 1,0	v/c Ratio	0.14	0.49	0.06	0.38	0.93	0.03	0.76	0.11		0.41	0.08	
1.86 0.52 0.21 0.70 0.84 0.56 1.00 1.00 1.00 0.3 0.5 0.0 0.1 0.9 0.0 18.7 0.5 2.1 44.6 5.2 1.0 1.1.3 2.1 7.4.3 57.8 55.3 2.1 6.5 1.0 0.1 0.9 0.0 18.7 0.5 2.1 6.5 1.0 1.3.6 8 A E E E 6.5 1.3.6 13.6 67.0 67.0 5.3 1.0 1.5.1 HCM Level of Service B E E D 0.8 0.86 0.80 5.5 10.6 5.6 16.0 1.00 1.30.0 Sum of lost time (s) 16.0 16.0 16.0 16.0 1	Uniform Delay, d1	23.8	8.9	4.5	5.2	15.9	3.8	55.6	57.4		53.3	57.3	
0.3 0.5 0.0 0.1 0.9 0.0 18.7 0.5 2.1 44.6 5.2 1.0 3.7 14.3 2.1 74.3 77.8 55.3 6 5.5 1.0 3.7 14.3 2.1 74.3 77.8 55.3 6 5.5 13.6 6 67.0 5 8 13.6 13.6 13.6 13.6 13.6 14.0 15.0 13.0 13.0 Sum of best time (s) 130.0	Progression Factor	1.86	0.52	0.21	0.70	0.84	0.56	1.00	1.00		1.00	1.00	
44.6 5.2 1.0 3.7 14.3 2.1 74.3 37.8 55.3 D A A B A E E E E E 13.6 13.6 13.6 13.6 13.6 13.6 13.6 13.6 13.6 13.6 13.6 13.6 13.6 13.0 13.0 13.0 13.0 13.0 13.0 13.0 13.0 13.0 13.0 13.0 16.0 16.0 16.0 15.0 16.0 15.0	Incremental Delay, d2	0.3	0.5	0.0	0.1	0.9	0.0	18.7	0.5		21	0.3	
D A A B B A E E E F 13.6 13.6 13.6 13.6 15.0 13.6 13.6 13.6 13.6 13.0 2000 Sum of bost time (s) 13.0.0 2000 bost time (s) 16.0 11.0 13.0 2000 bost time (s) 15.0 15.0 15.0 15.0 15.0 15.0 15.0 15.0	Delay (s)	44.6	5.2	1.0	3.7	14.3	21	74.3	57.8		55.3	57.6	
5.5 13.6 67.0 A B E E 15.1 HCM Level of Service B 0.86 Sum of Iost time (s) 130.0 81.0% (CU Level of Service D 15	Level of Service	0	۷	A	۷	∞	A	ш	ш		ш	ш	
A B E E 15.1 HCM Level of Service B 0.88 (0.88 (0.86 (0.88 (0.86 (0.86 (0.86 (0.81.0% (0.01 Level of Service D 130.0% (0.01 Level of Service D 130.0% (0.01 Level of Service D 150 (0.01 Level	Approach Delay (s)		5.5			13.6			67.0			56.5	
15.1 HCM Level of Service 0.80 Sum of bot time (s) 13.0% ICU Level of Service 15	Approach LOS		<			•			ш			ш	
15.1 HCM Level of Service 0.86 13.0 Sum of lost time (s) 81.0% ICU Level of Service 15	Intersection. Summary	No.	1000	PU DE LE	1000	Sand Land	ALC: NOT	Since 1	Service -	1000	STATES AND	and an	Contraction of
U.DO Sum of lost time (s) 130,0% ICU Lavel of Service 15	HCM Average Control Delay			15.1	Ŧ	SM Leve	l of Servi	8		•			
130.0 Sum of lost time (s) 81.0% ICU Level of Service 15	HUM VOULTRE TO LAPIACULY LADO			0977	a sub-			Contraction of the second			11112		
	Actuated Cycle Length (s)			130.0	ซี ร	m of los	t time (s)			16.0			
	Inuelsection Capacity Unization Analysis Period (min)			81.U%	5	U LBVel	DI SONICI			2	A CANANA		
				2									

2014 PM Peak BUILD Conditions

D:ATOBEPROJECTS_2012Valero_RB_Broadway(Synchrol2014PBX-CaseY.syn

Terry O. Brown, P.E. 3/10/2012 - Synchro 7 5.0 21.0 21.0 16.2% 4.0 1.0 1.0 4.0 4.0 1.0 1.0 Min 8.3 0.06 0.41 0.41 0.41 2.3.2 2.3.2 0.0 0.0 0 0 0 thom you ø SBT 48 pm+pt 5.0 10.0 110.0 4.0 1.0 4.0 4.0 4.0 4.0 Min 14.3 0.11 0.41 58.4 0.0 58.4 58.4 ш ۶ SBL 2 ¥ 2 5.0 21.0 21.0 16.2% 4.0 1.0 4.0 4.0 4.0 C 65.4 ш Min 8.3 8.3 0.06 0.52 22.8 0.0 22.8 • 92 pm+pt ~ 10 5.0 10.0 7.7% 4.0 1.0 -1.0 4.0 4.0 1.0 4.0 in) Min 14.3 0.11 0.76 81.4 81.4 围 4 Intersection LOS: 8 ICU Level of Service D vo+mq 5.0 10.0 7.7% 4.0 1.0 1.0 1.0 4.0 4.0 4.0 1.0 Min 0.79 0.03 1.2 1.2 1.2 WBR 8 5 4 ⋞ WBT 1991 NA C-Max 92.8 0.71 0.93 15.5 0.0 14.5 14.5 Cycle Length: 130 Actuated Cycle Length: 130 Offset: 26 (20%), Referenced to phase 4:EBTL and 8:WBTL, Start of Green 5.0 21.0 89.0 68.5% 4.0 1.0 4.0 Lag ŧ pm+pt 5.0 10.0 13.0 4.0 -1.0 4.0 Lead Min 0.78 0.38 0.38 2.5 2.5 2.5 2.5 121 5 WBL 5.0 10.0 7.7% 4.0 1.0 -1.0 4.0 4.0 1.0 2.1.0 EBR 8 vo+mq Min 0.78 0.08 0.3 0.3 0.3 0.3 Tá 1 a 980 € g 4: Prince St & Rio Bravo Blvd \$ 1108 H C-Max 90.8 0.70 0.49 10 s [89 5.0 21.0 86.0 66.2% 4.0 1.0 4.0 Lag 5.5 5.1 t Timings 4: Prince St & Rio Bravo Blvd 2a Intersection Signal Detay: 14.4 Intersection Capacity Utilization 81.0% Analysis Period (min) 15 20 pm+pt Min 97.6 0.75 0.14 8.2 8.2 8.2 5.0 10.0 10.0 4.0 1.0 1.0 1.0 4.0 4.0 1 盟 Control Type: Actuated-Coordinated Maximum v/c Ratio: 0.93 Lead/Lag Lead-Lag Optimize? Rocall Mode Act Effct Green (s) Actuated g/C Ratio Switch Phase Minimum Initial (s) Minimum Spit (s) Total Spit (s) Total Spit (%) Yelkow Time (s) All-Rew Time (s) All-Rew Time (s) Total Lost Time (s) Intersection Summary Lane Group Lane Configurations Turn Type Protected Phases Permitted Phases 2 g Vatural Cycle: 130 and Phases: Approach Delay Approach LOS Detector Phase Control Delay Queue Delay Total Delay LOS + 121 e Volume (vph) 5 v/c Ratio Selfs 10 . **(**

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2014 PM Peak BUILD Conditions

Case Y' - Rio Bravo drive D:ATOBEIPROJECTS_2012Valero_RB_Broadway(Synchrol2014PBX-CaseY.syn

Terry O. Brown, P.E. 3/10/2012 - Synchro 7 14 4 0 SBR 0.92 Either Case D:\ATOBE\PROJECTS_2012\Valero_RB_Broadway\Synchrol2024ANX.syn \mathbf{i} ٠ 900 4.0 1.00 1555 1.00 1.00 1.00 0.92 6 N 2 14 8.8 9.8 5.0 3.0 109 109 60.0 60.6 0.1 0.1 0.1 80.7 50.7 50.7 50.7 6 6 6 SB1 19 4.0 1.00 1.00 1.00 0.41 0.41 0.41 0.92 21 ۶ SBL 21 21 ٩., NBR 111 900 0.92 00 16.0 æ LBY 8.8 9.8 5.0 3.07 3.0 108 108 0.30 61.8 1.5 1.5 63.4 63.4 E 65.7 E 0 111 pm+pt 4.0 11.00 11 Ē 4 HCM Level of Service Sum of lost time (s) ICU Level of Service MBR 0.76 5.0 5.0 5.0 5.0 5.0 75 5.0 7.0 1219 1.219 0.00 0.00 4.43 4.43 17.8 B 4 -00.0 0.72 5.0 3.0 2480 0.30 MBT 44 954 1900 1900 1900 1.00 1.00 1.00 3438 3438 3438 0.92 NA NA ŧ HCM Signalized Intersection Capacity Analysis 4: Prince St & Rio Bravo Blvd 51 1.00 1.00 1.00 1.00 0.95 0.04 0.04 0.04 0.04 0.05 55 55 pm+pt 106.3 108.3 5.0 5.0 5.0 3.0 142 142 0.72 0.28 0.28 0.28 0.72 1.5 1.5 27.2 5 NBL ио+ш EBR 16.0 0.90 140.0 80.7% 1 2425 NA 99.9 100.9 5.0 5.0 2478 2478 0.98 18.5 2.4 2.4 12.5 12.5 12.5 B 12.1 B B Ť. 51 4.0 1.00 1.00 0.95 0.95 0.95 0.95 0.92 55 55 55 pm+pt 106.1 108.1 0.77 5.0 3.0 3.0 0.10 0.14 0.14 0.43 0.0 1 ā 2024 AM Peak NOBUILD Conditions HCM Volume to Capacity ratio Actuated Cycle Length (s) Intersection Capacity Utilization HCM Average Control Delay Satd. Flow (perm) Peak-hour factor, PHF Actuated Green, G (s) Effective Green, g (s) Adl. Flow (vph) RTOR Reduction (vph) Critical Lane Group ane Group Flow (vph) Actuated g/C Ratio Clearance Time (s) Vehicle Extension (s) 뎡 Lane Grp Cap (vph) v/s Ratio Prot v/s Ratio Perm Delay (s) Level of Service Approach Delay (s) Approach LOS nlersection Summary Analysis Period (min) ane Configurations Volume (vph) Ideal Flow (vphpl) Total Lost time (s) Lane Util. Factor Turn Type Protected Phases Permitted Phases Progression Factor Incremental Delay, d Ð Satd. Flow (prot) Frt Flt Protected Uniform Delay, Fit Permitted Movement v/c Ratio Terry O. Brown, P.E. 3/10/2012 - Synchro 7 Either Case D:ATOBEDPROJECTS_2012V/alero_RB_Broadway/Synchro/2024ANX.syn ¥ 9 5.0 21.0 21.0 4.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 £. 1 SBT -> 19 pm+pt ٦ SBL Min 15.8 0.11 0.17 53.4 53.4 53.4 53.4 ¥ 5.0 21.0 5.0% 4.0 1.0 -1.0 -1.0 -1.0 -1.0 -1.0 E S Min 9.8 9.8 0.07 0.05 0.0 0.0 0.0 0.0 0.0 51.6 51.6 D pm+pt 477 5.0 10.0 7.1% 4.0 1.0 1.0 1.0 4.0 4.0 102 Min 15.8 0.11 0.66 74.8 74.8 74.8 Ŕ 4 Intersection LOS: B ICU Level of Service D ло+шd WBR - 33 5.0 10.0 7.1% 4.0 1.0 1.0 1.0 4.0 4.0 4.0 4.0 2.0 4.0 Min 11.0 0.79 4.3 4.3 4.3 4.3 4 Actuated Cycle Length: 140 Offset: 136 (97%), Referenced to phase 4:EBTL and 8:WBTL, Start of Green \$ \$ X 5.0 21.0 99.0 NBT 4.0 1.0 4.0 1.0 1.0 pm+pt 3 8 3 WBL. 5 5.0 10.0 10.0 4.0 1.0 -1.0 -1.0 -1.0 -1.0 Min 08.3 0.39 15.9 15.9 15.9 8 5 g vo+ud 4 0 EBR \$ 5.0 10.0 10.0 10.0 1.0 1.0 1.0 1.0 1.0 4.0 4.0 Min 10.9 0.04 0.0 0.0 0.0 4: Prince St & Rio Bravo Blvd e3 🗣 e4 g LEBT RA t C-Max 100.9 0.72 0.98 14.2 14.2 14.2 13.6 B \Rightarrow 10 5 39 2 Timings 4: Prince St & Rio Bravo Blvd Intersection Signal Delay: 15.8 Intersection Capacity Utilization 80.7% Analysis Period (min) 15 Min 08.1 0.77 0.14 1.5 1.5 1.5 1 pm+pt Ē 2024 AM Peak NOBUILD Conditions Control Type: Actuated-Coordinated Maximum v/c Ratio: 0.98 Lane Group Lane Configurations Volume (vph) Switch Phase Minimum Initial (s) Minimum Spit (s) Tolal Spit (%) Tolal Spit (%) Velow Time (s) Lost Time Adjust (s) Total Lost Time (s) LeadLag Optimize? Intersection Summary Recall Mode Act Effct Green (s) Actuated g/C Ratio v/c Ratio Protected Phases Permitted Phases Splits and Phases: 'S Vatural Cycle: 130 N Cycle Length: 140 Total Delay LOS Approach Delay Approach LOS Detector Phase Control Delay 10 s 2 a Queue Delay Tum Type 10 al

14 Terry O. Brown, P.E. 3/10/2012 - Synchro 7 15 D:MTOBEPROJECTS_2012/Valero_RB_Broadway/Synchrol2024ABX-CaseY.syn SBR 0.92 \mathbf{F} 8.8 9.8 5.0 5.0 3.0 0.00 4.0 4.0 1.00 1.00 1.00 1.00 1.00 40 ¥ 0.02 60.6 60.6 0.1 0.1 0.1 0.1 SBT -21 0 ٨ SBL. 410 4.0 1.00 1.00 1.100 0.95 0.95 0.95 0.95 0.95 0.95 0.92 21 21 pm+pt щ 0.92 121 0 8 16.0 D ×. NBR 111 900 1 m 8.8 9.8 5.0 3.0 108 108 0.30 61.8 1.5 1.5 63.4 63.4 E 65.7 E NBT 111 0 pm+pt ш NBL • HCM Level of Service Sum of lost time (s) ICU Level of Service VO+mq 107.0 107.0 5.0 5.0 5.0 5.0 5.0 1076 1219 1.219 1000 11:00 1 WBR 4 100.0 101.0 5.0 5.0 2480 0.31 ¥ 00 1062 0.43 7.9 7.9 1.48 0.5 0.5 13.2 13.2 13.2 B 13.2 B HCM Signalized Intersection Capacity Analysis ° 5 106.4 5.0 3.0 143 143 0.29 0.29 0.40 0.29 0.79 pm+pt 1.6 MB1 104.8 0.76 5.0 5.0 5.0 7.0 0.00 0.03 0.04 4.0 0.02 0.02 0.02 0.02 0.02 VO+mq 16.3 0.91 140.0 80.8% EBR 45 46 4.0 1.00 1.00 1.00 1.5388 1.5388 1.538 1.538 1.538 1.538 1.538 1.5 1 2432 NA 99.8 99.8 0.72 5.0 5.0 2475 2475 20.71 0.98 18.8 0.55 2.7 2.7 13.0 B 12.5 B Ť. 4: Prince St & Rio Bravo Blvd 51 4.0 11.00 11.00 0.95 4.23 0.23 0.23 0.23 55 55 55 pm+pt EBL ٩ HCM Average Control Delay HCM Volume to Capacity ratio Actuated Cycle Length (s) Intereseiton Capacity Utilization Analysis Period (min) c Critical Lane Group 2024 AM Peak BUILD Conditions Adj. Flow (vph) RTOR Reduction (vph) Lane Group Flow (vph) Actuated Green, G (s) Effective Green, g (s) Actuated g/C Ratio Clearance Time (s) Vehicle Extension (s) Lane Grp Cap (vph) vis Ratio Prot vis Ratio Perm Satd. Flow (perm) Peak-hour factor, PHF 50 ntersection Summary Lane Configurations Volume (vph) Delay (s) Level of Service Approach Delay (s) Approach LOS Turn Type Protected Phases Permitted Phases Ideal Flow (vphpl) Total Lost time (s) v/c Ratio Uniform Delay, d1 Progression Factor Incremental Delay, Satd. Flow (prot) ane Util. Factor Fit Protected Fit Permitted Movement F Terry O. Brown, P.E. 3/0/2012-Synchra 7 Case Y' - Rio Bravo drive D:\ATOBE\PROJECTS_2012\Valero_RB_Broadway\Synchro\2024ABX-CaseY.syn 6 5.0% 21.0 5.0% 4.0 1.0 1.0 -1.0 4.0 4.0 Lag Min 9.8 9.8 0.07 0.13 27.7 27.7 27.7 27.7 C C C C C D ¥ SBT -> 19 pm+pt Min 15.8 0.17 0.17 53.4 53.4 53.4 0.0 SBL ¥ 2 5.0 21.0 21.0 5.0% 4.0 1.0 1.0 4.0 4.0 4.0 2.1.0 1.0 2.1.0 1.0 1.0 2.0% Min 9.8 0.07 0.62 0.0 0.0 30.8 30.8 51.6 51.6 D FB1 ٠ 102 pm+pt n LO 5.0 10.0 10.0 4.0 4.0 4.0 4.0 4.0 Min 15.8 0.11 0.66 74.8 74.8 74.8 g 1 Intersection LOS: B ICU Level of Service D Min 0.79 0.06 3.9 3.9 3.9 3.9 ло+ши 4 WBR 3 5.0 10.0 110.0 7.1% 4.0 1.0 -1.0 4.0 4.0 Actuated Cycle Length: 140 Offset 136 (97%), Referenced to phase 4:EB1L and 8:WB1L, Start of Green \$62 * 5.0 21.0 99.0 0.7% C-Max 101.0 0.72 0.43 0.43 12.8 0.0 12.8 B 12.5 B 12.5 B B B B ļ WBT 4.0 4.0 1.0 4.0 3 00 00 Min 0.77 0.40 0.40 17.8 0.0 17.8 B 23 pm+pt 5.0 10.0 7.1% 4.0 1.0 1.0 1.0 4.0 4.0 8.0 WBI. 5 VO+mq 'n 4 10 EBR \$ Min 10.9 0.04 0.0 0.0 0.0 4: Prince St & Rio Bravo Blvd ₩ 88° g NA 2237 5.0 21.0 99.0 C-Max 100.9 0.72 t 4.0 1.0 4.0 Lag 0.98 14.6 0.0 14.6 14.0 B \$ 10 s 199 s 4: Prince St & Rio Bravo Bivd 3 10 = Intersection Signal Delay: 16.0 Intersection Capacity Utilization 80.8% Analysis Period (min) 15 ~ Min 0.77 0.14 1.5 1.5 1.5 pm+pt 5 1 EB Natural Cycle: 130 Control Type: Actuated-Coordinated 2024 AM Peak BUILD Conditions Maximum v/c Ratio: 0.98 Yettow Time (s) All-Red Time (s) Lost Time Adjust (s) Total Lost Time (s) Lead/Lag Lead-Lag Optimize? Recall Mode intersection Summary Act Effet Green (s) Actuated g/C Ratio Control Delay Queue Delay Queue Delay LOS Approach Delay Approach LOS Switch Phase Minimum Initial (s) Minimum Split (s) Lane Configurations Turn Type Protected Phases Splits and Phases: 6 ŝ Cvcle Length: 140 Permitted Phases Detector Phase Total Split (s) Total Split (%) Volume (vph) 10 s 12 Timings Lane Group Б ° 01 2

Image: Constraint of the state of		4: Prince St & Rio Bravo Blvd	ersectio	n Capa	city An	aiysis			2		ario 0. E	<pre>lerry O. Brown, P.E. 3/0/2012 - Synchro 7</pre>	
1 1	LEAL EDI EDK WOL WBI WBK NGL NGL NGL SBL S		٩	†	-	*	•	\$]	4	•	٨	-	\mathbf{F}
Min Min <td></td> <td>Movement</td> <td>EBT</td> <td>E</td> <td>No.</td> <td>No.</td> <td>33</td> <td>12</td> <td></td> <td>NBN</td> <td>SBL</td> <td></td> <td>SBR</td>		Movement	EBT	E	No.	No.	33	12		NBN	SBL		SBR
M Mmore Pmore Mmore Mmo	23 1251 116 142 2271 37 118 5 61	Lane Conngurations Volume (voh)	- 2	1 22		10			K∝ € a	88	<u>ه</u> ع	ب ه م	85
1 1 2 1 0	pm+pt NA pm+ov pm+pt NA pm+ov pm+pt NA pm+pt	Ideal Flow (vphpl)	1900	1900	Г	-	-	-	-	19	1900		1900
4 5 3 1 5 2 1 0	· · · · · · · · · · · · · · · · · · ·	Total Lost time (s)	4.0	4.0	3		2				4.0	4.0	
7 7 7 7 7 7 7 10 <td></td> <td>Lane Utt. Factor</td> <td>1.00</td> <td>0.95</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>1.00</td> <td>1.00</td> <td></td>		Lane Utt. Factor	1.00	0.95							1.00	1.00	
200 50		F.I. Ett Drotoctad	1.00	8.L						PULS OF	1.00	0.86	
210 100 100 210 100 210 <td>5.0 5.0 5.0 5.0 5.0 5.0 5.0 5.0 5.0</td> <td>Sati Flow (north)</td> <td>1710</td> <td>1438</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>0.95</td> <td>1.00</td> <td></td>	5.0 5.0 5.0 5.0 5.0 5.0 5.0 5.0 5.0	Sati Flow (north)	1710	1438							0.95	1.00	
820 100 170 <td>10.0 21.0 10.0 10.0 21.0 10.0 10.0 21.0 10.0</td> <td>Fit Permitted</td> <td>200</td> <td>100</td> <td>1</td> <td>8</td> <td>8</td> <td></td> <td></td> <td>North Contract</td> <td>21/1</td> <td>CCCI +</td> <td>3</td>	10.0 21.0 10.0 10.0 21.0 10.0 10.0 21.0 10.0	Fit Permitted	200	100	1	8	8			North Contract	21/1	CCCI +	3
6/3 7/3 1/2 7/3 1/2 7/3 1/2 7/3 1/2 7/3 1/2 7/3 1/2 7/3 1/2 7/3 1/2 7/3 1/2 <td>10.0 92.0 10.0 17.0 99.0 10.0 10.0 21.0 10.0</td> <td>Satd. Flow (nerm)</td> <td>62</td> <td>BEAE</td> <td></td> <td>1</td> <td>1</td> <td>1</td> <td>133</td> <td></td> <td>0.47</td> <td>1.00</td> <td></td>	10.0 92.0 10.0 17.0 99.0 10.0 10.0 21.0 10.0	Satd. Flow (nerm)	62	BEAE		1	1	1	133		0.47	1.00	
0.0 0.0 <td>65.7% 7.1% 12.1% 70.7% 7.1% 7.1% 15.0% 7.1% 1</td> <td>Peak-hour factor PHF</td> <td>0.97</td> <td>0 92</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>0.00</td> <td></td> <td>000</td>	65.7% 7.1% 12.1% 70.7% 7.1% 7.1% 15.0% 7.1% 1	Peak-hour factor PHF	0.97	0 92							0.00		000
10 <	4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0	Adi. Flow (vph)	25	1360	La			1			99		11
10 10 <td< td=""><td>1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0</td><td>RTOR Reduction (vph)</td><td>0</td><td>0</td><td></td><td>1</td><td></td><td></td><td></td><td></td><td>3 =</td><td>- 19</td><td>-</td></td<>	1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0	RTOR Reduction (vph)	0	0		1					3 =	- 19	-
No. N	-1.0 -1.0 -1.0 -1.0 -1.0 -1.0 -1.0 -1.0	Lane Group Flow (vph)	52	1360				1		10.2	99	5 **	• •
Example Evaluation	A.U A.U A.U A.U A.U A.O A.O A.O A.O 4.0	Turn Type	pm+pt		1 2						om+at	NA	
Citatar Man Min Min <th< td=""><td>Lead Lag Lead Lead Lead Lead Lead</td><td>Protected Phases</td><td>4</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td>-</td><td>9</td><td>8</td></th<>	Lead Lag Lead Lead Lead Lead Lead	Protected Phases	4								-	9	8
0000 1101 111 1020 123 143 005 143 005 143 005 141 106 110 106 111 106 106 101	Allo C.Max Alto Min C.Max Min Min Min Min	Permitted Phases	4								9		
072 073 0.00 0.00 0.00 0.00 0.01 0.01 10.1 <	107 0 107 1 101 1 101 1 102 1	Actuated Green, G (s)	105.0	1							12.5	7.5	
0.5 0.0	0.75 0.72 0.70 0.80 0.72 0.80 0.40 0.75 0.75 0.75	Effective Green, g (s)	107.0								14.5	8.5	
1 1 0.0 50 6.0 0.0	0.10 U.12 U.13 U.00 U.13 U.00 U.10 U.10 U.10 U.10 U.10 U.10 U.10	Actuated g/C Ratio	0.76	0.71		1	渡				0.10	0.06	
0.0 0	43 DD 56 168 D7 1920 240	Clearance Time (s)	2.0	2.0	5.0						5.0	5.0	
1 1 0.0 5.6 1.0 2.40 1.00 2.40 1.00 2.40 1.00 2.40 1.00 2.40 1.00 2.40 1.00 0.10		Vehicle Extension (s)	3.0	30			1				3.0	3.0	
A A B A F C C 4.0 15.9 79.0 45.6 0.1 0.1 0.1 0.0 0.0 A B F 0 45.6 0.1 0.1 0.1 0.1 0.0 0.0 A B F 0 45.6 0.2 2.6 0.2 0.6 0.1 A B F 0 0.1 0.1 0.1 0.1 0.1 0.1 A B F 0 0.1 0.1 0.1 0.1 0.1 0.1 A Intersection LOS: B E 0 0.0 0.1 0.1 0.1 0.1 A Intersection Service E A A A A A A Intersection LOS: B Analed Order Long (10) 1.1 0.1 0.1 A Intersection Service E A A A A A Intersection Service E A A A A A Intersection Capacity Ustachon A 0.1 0.1 0.1 A A A A A A A A A A <t< td=""><td>4.3 0.0 5.6 16.8 0.7 122.2 24.1 70.0</td><td>Lane Grp Cap (vph)</td><td>136</td><td>2458</td><td></td><td></td><td></td><td></td><td></td><td></td><td>125</td><td>8</td><td></td></t<>	4.3 0.0 5.6 16.8 0.7 122.2 24.1 70.0	Lane Grp Cap (vph)	136	2458							125	8	
4.0 15.9 78.0 4.6 0 0.0 0	A A A B A F C E	VIS RAUO PTOL	0.13	0.40			3				0.02	0.01	1
A B E D Lindom Delay, d1 342 94 44 6 FEBIL and 6 WBTL. Start of Green EEBIL and 6 WBTL. Start of Green 11 342 94 44 6 FEBIL and 6 WBTL. Start of Green EEBIL and 6 WBTL. Start of Green 11 342 94 44 6 REBIL and 6 WBTL. Start of Green EEBIL and 6 WBTL. Start of Green 11 342 94 44 6 M Intersection LOS: B Intersection LOS: B FLM Arrange Control Delay (s) 7.13 11 M CU Level of Service E M An Arrange Control Delay (s) 17.3 Montania Delay (s) An Arrange Control Delay (s) 17.3 Montania Delay (s) An Arrange Period (mp) 17.3 Montania Delay (s) An Arrange Period (mp) 17.3 Montania Delay (s) An Arrange Period (mp) 17.3 Montaneo Capacity UBEradon 90.14 An Arrange Period (mp) 17.3 DividoBenet/Dieference RB Arrange Period (mp) 17.3 An Arrange Period (mp) 17.3 Montaneo Capacity UBEradon 90.14 Analysis Period (mp) 91.14 Divide Lengt Period Critical Lane Group 0.14 Divide Lengt Period Arrange Period	4.0 15.9 79.0	vis nauo renii vic Ratio	0.18	0.55							0.03	0.00	1
Constrained for the form of the form	в	Uniform Delay, d1	34.2	9.4		1	1				28.6	62.1	
KEBTL and 6:WBTL. Start of Green K.EBTL and 6:WBTL. Start of Green 0.1 0.1 0.0 0 KEBTL and 6:WBTL. Start of Green K.EBTL and 6:WBTL. Start of Green Brider 42 0.1 0.1 0.1 K Intersection LOS: B M. CUL Level of Service E M. 0.1 0.1 1.1 K Intersection Summary F.A. A.O. 0.1 1.1 M Intersection Summary F.A. A.O. 0.1 1.1 M Intersection Summary F.A. A.O. 0.1 1.1 M Intersection Summary F.A. A.O. 0.1 1.1 Monoach LOS M. Monoach LOS A.O. 0.1 1.1 Monoach LOS M. Monoach LOS A.O. 0.1 1.1 Monoach LOS M. Monoach LOS A.O. 0.1 1.40.0 Monoach LOS Monoach LOS Monoach LOS A.O. 0.1 1.40.0 Monoach LOS Monoach LOS Monoach LOS A.O. 0.1 1.40.0 Monoach Los Suit Zvaenc, RB_BrandweylSynchrolocO24PNC syn C. Chical Lane Group 0.1 1.5 D:M.TOBERPROLECTS_2012Valenc, RB_BrandweylSynchrolocO24PNC syn C.O. 0.01 <	Arrival	Progression Factor	2.56	0.42							1.00	1.00	
0.1 11 0.1 12 0.1 13 0.1 140.0 1100.1 140.0 1100.1 140.0 1100.1 140.0 1100.1 15 1100.1 15 1100.1 15 1100.1 15 1100.1 15 1100.1 15 1100.1 15 1100.1 15 1100.1 15 1201.1 140.0 1301.1 15 1401	40	Incremental Delay, d2	0.1	0.1	1						4.0	0.4	
Etell and 6 WBL, Start of Green F. Marken of Green Milesection LOS: B Aproach LOS Milesection Capachy Lutication 90.1% Milesection Capachy Utication 90.1% DiATOBEPROLECTS_2012/Valen_RB_BrandwaytSynchrol2024PVIX.syn Critical Lane Group	Length: 140	Delay (s)	87.6	4.0			and and		1	and the second	62.5	82.5	12
Intersection LOS: B Intersection LOS: B Intersection LOS: B Intersection Summary Intersection Summary <t< td=""><td>Referenced to phase 4:EB1L and 8:WBTL, Start of Green</td><td>Level of Service</td><td>4</td><td>۷:</td><td>×</td><td></td><td></td><td></td><td></td><td></td><td>ш</td><td>ш ;</td><td></td></t<>	Referenced to phase 4:EB1L and 8:WBTL, Start of Green	Level of Service	4	۷:	×						ш	ш ;	
Intersection LOS: B Intersection Summary Intersection LOS: B Intersection Summary IOU Level of Service E IOU Level of Service E Iob Bravo Blvd IOU Level of Service E Intersection Capacity ratio 0.95 <	30 cutated-Coordinated	Approach LOS Approach LOS		- ×		=	7.8	2	E.CH			62.5 E	
Intersection LOS: B Intersection LOS: B Intersection LOS: B Example Control Daty IOU Level of Service E 0.95 IoBavo Blud 0.14 IoBavo Blud 0.15 IoBavo Blud 0.14 IoBavo Blud 0.15 IoBavo Blud 0.14 IoBavo Blud 0.15 IoBavo Blud 1.10 IoBavo Blud 1.10 <td< td=""><td>atio: 0.98</td><td>Interaction Summer</td><td>Contraction of the local division of the loc</td><td>No. of Concession, Name</td><td>0.0000</td><td>Contractor of</td><td>CALCONS OF</td><td>Contraction of the</td><td>The Colored</td><td>and contractor</td><td>California (California)</td><td>COLUMN OF</td><td>E</td></td<>	atio: 0.98	Interaction Summer	Contraction of the local division of the loc	No. of Concession, Name	0.0000	Contractor of	CALCONS OF	Contraction of the	The Colored	and contractor	California (California)	COLUMN OF	E
M ICU Level of Service E 100 Level of Service E 0.95 100 Bravo Blid 140.0 101 Level of Service E 0.15 102 Level of Service E 0.15 103 Land Cycle Level of Service E 140.0 104 Level of Service E 0.15 105 Level of Service E 0.15 106 Level of Service E 0.15 107 Level of Service E 0.15 108 Level of Service E 0.15 109 Level of Service E 0.15 100 Line Conditions 15		HCM Average Control Delav	1 10 10 10 10 10 10 10 10 10 10 10 10 10		17.3	HCM	evel of Se	anvice	100000000000000000000000000000000000000	~	a martine	a A store of	
16 Bravo Blud 140.0 10 Bravo Blud 140.0 11 Brassfort 141.0 12 1 15 13 1 15 13 1 15 13 1 15 13 1 15 13 1 15 13 1 15 13 1 15 13 1 15 13 1 15 13 2 15 13 2 15 13 2 15 13 2 15 14 1 15 15 1 15 15 1 15 15 1 15 15 1 15 15 1 15 15 1 15 15 1 15 15 1 15 15 1 15 15 1 15 15 1 15 15 1 15 15 2 15 15 2 15 15 1 15		HCM Volume to Capacity rab			0.96							TATA N	
To Blave Blud 16 Brave Blud 90.1% 10 Brave Blud 15 15		Actuated Cycle Length (s)			40.0	Sumo	f lost time	(s)		16.0			1
Bit Address Catical Lane Group 13 Image: Control Lane Group Catical Lane Group 13 Image: Control Cate Catical Lane Group 13 Image: Control Cate Catical Lane Group 13 Image: Control Cate Cate Cate Ima		Intersection Capacity Utilizati	5	6	11%	ICULE	wel of Ser	vice		ш	CAN D		1
D:ATOBEPROJECTS_2012VValen_RB_BroadwaytSynchro2024PNX.syn		C Critical I and Crown	Child Tests		n 1								
D:ATOBEPPROJECTS_2012VValenc_RB_Binadway/Synchro/2024PNX.syn				- 0					-				1
D:ATOBEPROJECTS_2012VValen_RB_Broadway/Synchro/2024PNX.syn													
D:ATOBEPROJECTS_2012VValero_RB_Broadway/Synchro/2024PNX.syn	110+100-												
Either Case D:ATOBEPROJECTS_2012VValero_RB_Broadway/Synchro/2024PNX.syn]												
D:ATOBE/PROJECTS_2012/Valero_RB_Broadway/Synchro/2024PNX.syn D:ATOBE/PROJECTS_2012/Valero_RB_Broadway/Synchro/2024PNX.syn													
		2024 PM Peak NOBUILD Co	nditions			D:MTO	BEVPROJI	ECTS_201	2\Valero_F	lB_Broadw	ay/Synchr	Either (o\2024PNX	Case

Terry O. Brown, P.E. 3/10/2012 - Synchro 7 65 900 SBR 0.92 Case Y' - Rio Bravo drive D:MTOBE/PROJECTS_2012/Valero_RB_Broadway/Synchro/2024PBX-CaseY.syn ┢ ø 4.0 4.0 1.00 1.00 1.00 1.00 1.00 0.92 4 19 ≸ 0.09 62.1 1.00 0.4 62.5 E 62.5 ш 1B2 _ 61 4.0 11.00 ۶ 8 pm+pt SBI. 88 00 0.92 96 0 Ó A, NBR 8 16.0 E 7.5 8.5 8.5 5.0 5.0 5.0 5.0 5.0 5.0 5.0 5.0 5.0 0.12 62.2 1.00 0.5 62.7 E 85.3 F -181 118 1900 1.00 1.00 1.00 0.95 0.95 0.95 0.95 0.92 0.92 pm+pt 12.5 14.5 0.10 5.0 5.0 5.0 5.0 7.0 0.04 61.8 61.8 61.8 59.2 59.2 128 ≮ 粤 HCM Level of Service Sum of lost time (s) ICU Level of Service NBR \$ 33 VO+mq ∢ NA NA 101.6 102.6 5.0 5.0 2520 2520 60.73 0.99 18.3 0.76 3.9 3.9 17.8 B 17.3 B B ļ Signalized Intersection Capacity Analysis 143 143 1900 1.00 1719 0.15 1719 0.15 155 155 155 pm+pt 5 vo+mq 18.6 0.97 140.0 91.0% EBR 116 1100 11. 104.0 106.0 0.76 NA NA 99.0 0.71 5.0 3.0 2456 0.40 Ť 0.56 9.5 9.5 0.41 0.41 4.0 A 5.2 5.2 Blvd HCM Signalized Intersect 4: Prince St & Rio Bravo I MH+pt 副 < Actuated Cycle Length (s) Intersection Capacity Utilization Analysis Period (min) c Critical Lane Group 2024 PM Peak BUILD Conditions +ICM Volume to Capacity ratio Control Delay Satd. Flow (perm) Peak-hour factor, PHF Adj. Flow (vph) RTOR Reduction (vph) Lane Group Flow (vph) Turn Type Actuated Green, G (s) Effective Green, g (s) Actuated g/C Ratio Clearance Time (s) Lane Configurations Volume (vph) Total Lox (vph) Total Lox (vph) Lane Uil. Factor Fit Fit Protected Satd. Flow (pnt) FR Permitted Lane Grp Cap (vph) v/s Ratio Prol v/s Ratio Perm ncremental Delay, d2 Vehicle Extension (s) ntersection Summary Level of Service Approach Delay (s) Approach LOS Protected Phases Permitted Phases Progression Factor Uniform Delay, d1 **ICM Average** Movement vic Ratio Delay (s) Terry O. Brown, P.E. 3/10/2012 - Synchro 7 Case 'Y' - Rio Bravo drive D:\ATOBE\PROJECTS_2012\Valero_RB_Broadway\Synchro\2024PBX-CaseY.syn ¢ * ₹ 5.0 21.0 21.0 4.0 1.0 1.0 1.0 4.0 4.0 1.0 1.0 ø 9 0 42 C SBT Min 8.5 8.5 0.06 0.47 0.47 24.1 24.1 24.1 61 pm+pt 5.0 10.0 7.1% 4.0 1.0 4.0 -1.0 -1.0 -1.0 -1.0 Min 14.5 0.10 70.0 70.0 70.0 E 18 M ~ A, 43 Min 8.5 8.5 0.06 0.55 0.55 24.1 0.0 C C C C C C C C C 与 118 pm+pt NBL Min 14.5 14.5 0.94 0.94 0.0 0.0 1222 1222 4 Intersection LOS: B ICU Level of Service E vo+mq MGn 12.6 0.80 0.03 0.03 0.7 0.7 0.7 MBR -6 4 2301 NA C-Max 1026 0.73 0.73 0.73 0.73 18.9 18.9 18.9 17.8 17.8 17.8 17.8 5.0 21.0 99.0 4.0 4.0 1.0 -1.0 -1.0 -1.0 Lag Ť Offset: 8 (6%), Referenced to phase 4:EBTL and 8:WBTL, Start of Green 143 743 5.0 17.0 4.0 4.0 1.0 -1.0 -1.0 -1.0 Lead Min 11.8 0.80 0.49 5.9 5.9 5.9 5.9 5.9 5.9 5 **NBL** Ż vo+mq Min 0.79 0.10 0.0 0.0 0.0 0.0 A EBR 116 1 9 St & Rio Bravo Blvd S 100.0 0.71 0.56 RA 1258 4.3 A 0.4 104 1392 t Timings 4: Prince St & Rio Bravo Blvd 3 Intersection Capacity Utilization 91.0% Analysis Period (min) 15 Min 06.9 0.76 0.18 10.0 10.0 đ 3 pm+pt 1 Control Type: Actuated-Coordinated 4 2024 PM Peak BUILD Conditions Maximum v/c Ratio: 0.99 Intersection Signal Delay: 17.2 4: Prince Actuated Cycle Length: 140 Minimum Initial (s) Minimum Rolt (s) Total Split (s) Total Split (s) Yellow Time (s) Alt-Red Time (s) LeadLag LeadLag LeadLag LeadLag Catt Effet Green (s) Act Effet Green (s) Act Effet Green (s) Lane Group Lane Configurations ntersection Summary Volume (vph) Turn Type Protected Phases Permitted Phases ß ŝ Vatural Cycle: 130 Cycle Length: 140 Splits and Phases: Approach Delay Approach LOS Detector Phase Control Delay Queue Delay Switch Phase Total Delay LOS 61 v/c Ratio 5 "

	٩	1	1	5	Ŧ	1	*	-	•	٨	-	7
Movement	B	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBN	SBL	SBT	SBR
Lane Configurations	<u>.</u>	#	¥.,	*	+	¥	*	÷.		*	4	
Volume (vph)	366	1708	180	88	650	16	182	157	113	141	74	71
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0		4.0	4.0	
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	1.00	1.00	1.00		1.00	1.00	
Fd	1.00	1.00	0.85	1.00	1.00	0.85	1.00	0.94		1.00	0.93	
Fit Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1719	3438	1538	1719	3438	1538	1719	1696		1719	1676	1000
Fit Permitted	0.28	1.00	1.00	0.06	1.00	1.00	0.36	1.00		0.20	1.00	
Satd. Flow (perm)	506	3438	1538	117	3438	1538	655	1696		366	1676	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.87	0.87	0.87	0.91	0.91	0.91
Adj. Flow (vph)	388	1867	196	14	707	105	209	180	130	155	8	78
RTOR Reduction (vph)	0	0	63	0	0	•	0	20	0	0	27	0
Lane Group Flow (vph)	398	1857	133	74	707	105	209	290	0	155	132	0
Turn Type	pm+pt	A	vo+mq	pm+pt	M	NO+-Md	pm+pt	M		pm+pt	AN	
Protected Phases	2	4	ŝ	3	80	-	479	~		-	9	
Permitted Phases	4		4	~		80	2			9		
Actuated Green, G (s)	85.2	75.0	86.0	66,1	6.09	6'29	33.8	22.8		25.8	18.8	
Effective Green, g (s)	86.2	76.0	88.0	68.1	61.9	69.9	35.8	23.8		27.8	19.8	
Actuated g/C Ratio	0.66	0.58	0.68	0.52	0.48	0.54	0.28	0.18		0.21	0.15	
Clearance Time (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0		5.0	5.0	
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)	525	2010	1088	138	1637	874	279	310		162	255	
v/s Ratio Prol	c0.12	c0.54	0.01	0.03	0.21	0.01	c0.07	c0.17		c0.06	0.08	
vis Ratio Perm	0.38		0.08	0.26		0.06	0.14			0.15		
vic Ratio	0.76	0.92	0.12	0.54	0.43	0.12	0.75	0.93		0.96	0.52	
Unitorm Delay, d1	12.4	24.4	7.4	25.1	22.5	14.9	40.1	52.3		47.7	50.7	
Progression Factor	1.13	0.63	0.00	1.20	0.82	0.70	1.00	1.00		1.00	1.00	1
Incrementat Delay, d2	3	4.6	0.0	3.8	0.8	0.1	10.5	34.0		57.3	1.8	
Delay (s)	17.1	19.9	0.0	33.8	19.2	10.4	50.7	86.4		105.1	52.5	
Level of Service		-	4	c	80	æ	_	Ŀ		Ŀ	۵	
Approach Delay (s)		17.8			19.4			72.0			78.4	1231
Approach LOS		8			80			ш			ш	
Intersection Summary	Section in	ALLES DA	a sterie	Constanting	111 - 111		HE ALLEN	1. 1.	Sec. Car	Service .	Strawing State	ELSAN S
HCM Average Control Delay			29.5	Ŧ	M Leve	HCM Level of Service	8		ပ			
HCM Volume to Capacity ratio	.9		0.91									100
Actuated Cycle Length (s)			130.0	Su	m of los	Sum of lost time (s)			12.0			
Intersection Capacity Utilization	uo		87.7%	Q	U Level	ICU Level of Service			ш			A-foot
Analysis Period (min)			15									
c Critical Lane Group												

2014 AM Peak NOBUILD Conditions

Either Case D:ATOBEIPROJECTS_2012N/alero_RB_Broadway/Synchrol2014ANIX.syn

2014 AM Peak NOBUILD Conditions

1

Either Case D: MTOBEPROJECTS_2012/Valero_R8_Broadway/Synchrol2014A/NX syn

Terry O. Brown, P.E. 3/10/2012 - Synchro 7 ** ¥ 9 0 5.0 21.0 24.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 1.0 21.0 Min 19.8 0.15 0.56 49.0 0.0 49.0 D D D E SBT 141 pm+pt 5.0 10.0 12.0 9.2% 4.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 ۶ Min 27.8 27.8 0.21 0.96 0.96 0.0 SBL ≜ē ₹ 2 2 5.0 21.0 28.0 28.0 4.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 Min 23.8 0.18 0.94 84.4 84.4 84.4 73.5 73.5 182 pm+pt ≮ 5.0 10.0 16.0 12.3% 4.0 1.0 1.0 4.0 4.0 4.0 4.0 Min 35.8 0.75 57.3 57.3 57.3 57.3 NBI Intersection LOS: C ICU Level of Service E ŝ ло+шd 5.0 12.0 9.2% 4.0 1.0 1.0 1.0 4.0 4.0 4.0 1.0 Min 73.9 0.57 0.12 0.12 10.3 10.3 10.3 10.3 WBR 16 ⋞ 4 83 C-Max 61.9 0.48 0.43 0.43 20.1 20.1 20.1 MBT 650 NA Cycle Length: 130 Actuated Cycle Length: 130 Offise: 15 (12%), Referenced to phase 4:EBTL and 8:WBTL, Start of Green 5,0 21.0 58.0 58.0 44.6% 44.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 20.4 C ŧ 68 pm+pt 5.0 10.0 7.7% 4.0 1.0 -1.0 4.0 Lead Min 68.1 0.52 0.54 0.53 38.5 0.0 0.0 0.0 D WBI 5 70 ŧ 8 V0+mq 5.0 10.0 16.0 12.3% 4.0 1.0 -1.0 4.0 1.0 1.0 1 EBR 180 Min 92.0 0.71 0.17 0.17 0.2 0.2 0.2 5: Second St & Rio Bravo Blvd ۳ 2ª C-Max 76.0 0.58 0.92 0.92 0.0 20.5 20.5 . 5.0 21.0 80.0 61.5% 4.0 4.0 4.0 4.0 4.0 4.0 4.0 1708 NA 18.3 B.3 4 2 t Timings 5: Second St & Rio Bravo Blvd Intersection Signal Delay: 29.9 Intersection Capacity Utilization 87.7% Analysis Period (min) 15 5.0 10.0 32.0 32.0 4.0 1.0 1.0 4.0 1.0 1.0 366 pm+pt Min 86.2 0.66 0.76 16.6 16.6 B E 1 Actuated-Coordinated ŝ Control Type: Actuated-C Maximum v/c Ratio: 0.96 Lane Configurations Volume (vph) Turn Type Protected Phases Protected Phases Permitted Phases Switch Phase Sw ntersection Summary 20 Splits and Phases: Approach Delay Approach LOS Vatural Cycle: 90 8 Control Delay Queue Delay Total Delay LOS ane Group 12 0 ٦ 5 1

		1	1	1	\$	ŧ	~	1	+	•	1	-	7
T T	Movement	BL	EBT	EBR	WBL	TBW	WBR	NBI.	NBT	NBR	SBL	38 T	SBR
366 1712 180 73 665 100 180 141 142 74 140 400 1900 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 <td>Lane Configurations</td> <td>.</td> <td>#</td> <td>ار</td> <td><u>م</u>ر</td> <td>44</td> <td>*</td> <td>*</td> <td>4</td> <td></td> <td>*</td> <td>4</td> <td></td>	Lane Configurations	.	#	ار	<u>م</u> ر	44	*	*	4		*	4	
	Volume (vph)	366	1712	180	2	665	100	182	157	114	142	14	1
	Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
	Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0		4.0	4.0	
	Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	1.00	1.00	1.00		1.00	1.00	
	Fri	1.00	1.00	0.85	1.00	1.00	0.85	1.00	0.94		1.00	6.93	
	Fit Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00		0.95	1.00	Contraction of the
	Satd. Flow (prot)	1719	3438	1538	1719	3438	1538	1719	1695		1719	1676	
422 343 1533 117 3433 1533 117 3433 1533 117 3434 1533 117 3434 1533 117 343 1533 103 031	Flt Permitted	0.27	1.00	1.00	0.06	1.00	1.00	0.36	1.00		0.20	1.00	
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	Satd. Flow (perm)	492	3438	1538	117	3438	1538	655	1695		366	1676	
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.87	0.87	0.87	0.91	0.91	0.91
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	Adj. Flow (vph)	398	1861	196	£2	723	109	209	160	131	156	81	78
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	RTOR Reduction (wph)	0	0	63	0	0	0	0	20	0	0	27	
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	Lane Group Flow (vph)	398	1861	133	62	723	109	209	291	0	156	132	1
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$		om+pt	A	vo+mq	pm+pt	AN	vo+mq	pm+pt	A		pm+pt	¥	
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	Protected Phases	2	4	up.	3	8	1	10	~		-	9	
65.2 75.0 86.0 66.0 60.8 67.4 33.4 22.8 25.8 25.8 25.8 25.8 25.8 25.8 25.8 25.8 25.8 25.8 25.8 25.8 25.8 25.8 25.9 5.0 </td <td>Permitted Phases</td> <td>4</td> <td></td> <td>4</td> <td>80</td> <td></td> <td>80</td> <td>2</td> <td></td> <td></td> <td>9</td> <td></td> <td></td>	Permitted Phases	4		4	80		80	2			9		
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	Actuated Green, G (s)	85.2	75.0	86.0	66.0	60.8	67.8	33.8	22.8		25.8	18.8	
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	Effective Green, g (s)	86.2	76.0	88.0	68.0	61.8	69.8	35.8	23.8		27.8	19.8	
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	Actuated g/C Ratio	0.66	0.58	0.68	0.52	0.48	0.54	0.28	0.18		0.21	0.15	
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	Clearance Time (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0		5.0	5.0	
519 2010 1088 138 1634 873 279 310 162 6.17 0.01 0.03 0.21 0.01 0.017 0.016 0.15 0.77 0.43 0.71 0.03 0.21 0.016 0.15 0.06 0.16 0.77 0.43 0.71 0.03 0.21 0.15 0.06 0.10 0.16 1.00	Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0	
cd.12 cd.54 0.01 0.03 0.21 0.01 c0.07 c0.17 c0.06 0.33 0.13 0.13 0.06 0.14 0.15 0.15 0.15 0.15 0.15 0.15 0.17 0.15 0.15 0.17 0.16 0.15 0.17 0.16 0.15 0.17 0.15 0.17 0.15 0.16 0.15 0.15 0.15 0.15 0.15 0.15 0.15 0.15	Lane Grp Cap (vph)	519	2010	1088	138	1634	873	279	310		162	255	
0.39 0.08 0.27 0.06 0.14 0.15 0.77 0.93 0.12 0.57 0.44 0.12 0.15 127 0.43 0.12 0.57 0.44 0.13 0.39 119 0.63 0.00 1.18 0.84 0.71 1.00 1.00 1.00 3.3 4.7 0.0 5.3 0.8 0.1 1.00 1.00 1.00 3.3 1.8 0.84 0.77 1.00 1.00 1.00 3.3 1.8 1.0 5.3 0.8 0.1 0.12 0.10 1.0 35.3 1.8 1.0 7.87 0.7 1.0 35.3 1.8 1.0 7.4 0.7 1.0 35.3 1.8 1.0 7.4 0.7 1.1 2.4 7.9 1.8 C A D B B D 724 7.7 2.9 HKMLevel of Service C 0.91 2.9 1.00 0.01 1.00 1.00 0.91 2.9 1.00 0.01 1.00 1.00 0.91 2.9 1.00 0.01 1.00 1.00 0.91 2.9 1.00 0.01 1.00 1.00 1.00 0.91 2.9 1.00 0.01 1.00 1.00 1.00 1.00 1.00 1.	v/s Ratio Prot	c0.12	c0.54	0.01	0.03	0.21	0.01	c0.07	c0.17		c0.06	0.08	
0.77 0.53 0.12 0.57 0.44 0.12 0.75 0.94 0.96 127 2.43 7.4 2.12 0.57 0.94 0.96 3.3 4.7 0.0 5.3 0.8 0.1 1.00 1.00 3.3 4.7 0.0 5.3 0.8 0.1 1.0.5 3.46 5.9.3 18.4 20.0 0.0 35.3 19.8 10.7 6.0.7 71.0 107.2 18.1 2.0.0 2.0 35.3 19.8 10.7 6.0.7 72.4 18.1 2.0.0 2.0 35.3 19.8 10.7 5.4 18.1 2.0.0 10.0 35.3 19.8 10.7 5.4 18.1 2.0 10.1 10.0 107.2 2.9 MCM Level of Service C 0.31 Sum of lost time (s) 12.0 130.0 Sum of lost time (s) 12.0 15.9 10.0 10.0 10.0 12.0 15.0 10.0 10.0 10.0 107.2 15.0 10.0 10.0 107.2 15.0 107.2	v/s Ratio Perm	0.39		0.08	0.27		0.06	0.14			0.15		
127 244 7.4 25,4 227 14,9 40.1 52,4 47.9 1.19 0.63 0.00 1.18 0.84 0.71 1.00 1.00 1.00 1.19 0.63 0.00 1.18 0.84 0.71 0.05 1.00 1.00 1.10 2.35 19.8 0.1 0.15 6.7 87.0 59.3 1.11 2.0.35 19.8 10.7 50.7 87.0 107.2 F 1.12 20.0 1.00 1.00 1.00 1.12 1.00 1.00 1.00 1.00 1.10 1.00 1.00 1.00 1.00 1.10 1.00 1.00 1.00 1.00 1.10 1.00 1.00 1.00 1.00 1.10 1.00 1.00 1.00 1.00 1.00 1.10 1.00 1.00 1.00 1.00 1.00 1.00 1.00	v/c Ratio	0.77	0.93	0.12	0.57	0.44	0.12	0.75	0.94		0.96	0.52	
1.19 0.63 0.00 1.18 0.64 0.71 1.00 1.00 1.00 3.3 4.7 0.0 5.3 0.8 0.1 0.5 3.46 59.3 18.4 C A D B D F F F 18.1 20.0 10 7.2 4 18.1 20.0 17.2 4 18.1 20.0 17.2 4 29.9 HCM Level of Service C C 29.9 HCM Level of Service C 10.91 13.0 Sum of lost time (s) 12.0 15.0 17.0 17.2 17.0 17.2 17.0 17.2 17.0 17.2 17.0 17.2 17.0 17.2 17.0 17.2 17.0 17.2 17.0 17.2 17.0 17.2 17.0 17.0 17.0 17.0 17.0 17.0 17.0 17.0	Uniform Delay, d1	12.7	24.4	7.4	25.4	22.7	14.9	40.1	52.4		47.9	50.7	
3.3 4.7 0.0 5.3 0.8 0.1 10.5 34.6 59.3 18.4 20.0 0.0 35.3 19.8 10.7 60.7 87.0 107.2 18.4 20.0 0.0 35.3 19.8 10.7 60.7 87.0 107.2 18.1 20.0 18 B 0.7 70.0 172.4 F 18.1 20.0 C A B C F F 29.9 HCM Level of Service C 29.9 12.0 13.0 Sum of lost time (s) 112.0 12.0 15 15 15 15.0	Progression Factor	1.19	0.63	0.00	1.18	0.04	0.71	1.00	1.00		1.00	1.00	
18.4 20.0 0.0 35.3 19.8 10.7 50.7 87.0 107.2 B C A D B B D F F 18.1 20.0 B D F 0.7 72.4 F 18.1 20.0 C E E 2 2 2 29.9 MCM Level of Service C E 1 2 1 29.1 30.0 Sum of lost time (s) 12.0 12.0 1	incremental Delay, d2	3.3	4.7	0.0	5.3	0.8	0.1	10.5	34.6		59.3	1.8	
B C A D B B D F F 18.1 20.0 72.4 <td>Delay (s)</td> <td>18.4</td> <td>20.0</td> <td>00</td> <td>35.3</td> <td>19.8</td> <td>10.7</td> <td>50.7</td> <td>87.0</td> <td></td> <td>107.2</td> <td>52.5</td> <td></td>	Delay (s)	18.4	20.0	00	35.3	19.8	10.7	50.7	87.0		107.2	52.5	
18.1 20.0 72.4 B C E 29.9 HCM Level of Service C 0.91 Sum of lost time (s) 12.0 13.0 Sum of lost time (s) 12.0 15.9% ICU Level of Service E	Level of Service	æ	ပ	<	۵	œ	-	٩	Ľ		ш	۵	
B C E E 29.9 HCM Level of Service C 0.91 NCM Level of Service C 130.0 Sum of Iost time (s) 12.0 130.8 IOU Level of Service E 15	Approach Delay (s)		18.1	5. 12	Contraction of	20.0			72.4			79.6	
29.9 HCM Level of Service 0.31 Sum of lost time (s) 13.0 Sum of lost time (s) 15 IS	Approach LOS		60			ပ			ш			ш	
29.9 HCM Level of Service 0.91 Sum of lost time (s) 13.0% ICU Level of Service 15	Intersection Summary	TRANSIT	2000	States?	いいのた	all'alle	COLUMN T	22420	S. P.S. of S	Cat and	COLUMN IN	C. B. Cont	Locale and
0.31 130.0 Sum of lost time (s) 15 15.0 Lavel of Service 15	HCM Average Control Delay			29.9	¥	CM Leve	I of Servic	8		U			
(s) 130.0 Sum of lost time (s) tilization 87.9% ICU Level of Service 15	HCM Volume to Capacity ratio			0.91									
talization 87,9% ICU Lavel of Service 15	Actuated Cycle Length (s)	1		130.0	รื	um of los	t time (s)			12.0			
	Analysis Period (min)			8/.9%	2	U Level	of Service		C.V.STUR	щ			

Terry O. Brown, P.E. 3/10/2012 - Synchro 7 ** ¥ * ø 5.0 21.0 21.0 24.0 4.0 1.0 1.0 -1.0 -1.0 -1.0 Min 19.8 0.15 0.56 48.9 48.9 48.9 76.4 F SBT -> 142 pm+pt 5.0 10.0 12.0 9.2% 4.0 1.0 -1.0 4.0 Lead Min 27.8 0.21 0.96 0.96 0.96 104.3 و SBL ø ¥ 5 × 5.0 21.5% 28.0 28.0 21.5% 4.0 4.0 4.0 4.0 1.0 1.0 es. HEN I ~ Min 0.18 0.94 0.94 0.0 0.0 0.0 0.0 84.6 F 73.6 182 pm+pt 5.0 10.0 16.0 12.3% 4.0 1.0 -1.0 4.0 4.0 4.0 Lead Min 35.8 0.75 57.3 57.3 57.3 57.3 57.3 ∢ Intersection LOS: C ICU Level of Service E ß лонттр WBR -8 8 5.0 10.0 12.0 9.2% 4.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 Min 73.8 0.57 0.12 0.12 0.0 0.0 10.6 10.6 8 4 8 A Ses C-Max 61.8 0.48 0.44 20.7 20.7 20.7 20.7 21.3 C Offset 15 (12%), Referenced to phase 4:EBTL and 8:WBTL, Start of Green Natural Cycle: 90 5.0 21.0 58.0 44.6% ŧ 73 pm+pt 3 **60 (73** 5.0 10.0 7.7% 4.0 1.0 1.0 1.0 4.0 4.0 Lead Min 67.9 0.57 0.57 0.57 0.57 0.57 0.57 0.0 0.0 6 WBI 10 • 08 Ca > ло+шф 5.0 10.0 16.0 12.3% Min 92.0 0.71 0.17 0.2 0.2 0.2 EBR 180 4.0 -1.0 4.0 Lead 1 5: Second St & Rio Bravo Blvd ra 5.0 21.0 80.0 61.5% C-Max 76.0 0.58 0.93 20.7 20.7 20.7 20.7 t 1712 ¥ 4.0 1.0 1.0 1.0 1.0 c 18.6 B Ř Control Type: Actuated-Coordinated Mazimum Re Ratio: 0.96 Intersection Signal Delay: 30.3 Intersection Capacity Utilization 87,8% Analysis Period (min) 15 5.0 10.0 32.0 32.0 4.0 1.0 1.0 1.0 4.0 1.0 1.0 Min 86.2 0.66 0.77 0.77 0.77 0.77 0.77 0.77 17.9 17.9 17.9 17.9 EBL 366 pm+pt 1 Actuated Cycle Length: 130 ß Lane Group Lane Configurations Volume (vph) Turn Type Protected Phases Permitted Phases Switch Phase Munimum Initial (s) Munimum Split (s) Total Split (s) Total Split (%) Velow Time (s) Lost Time Adjust (s) Lost Time Adjust (s) Lost Time Adjust (s) Leadr.ag Leadr.ag Recall Mode Act Efict Green (s) Act Efict Green (s) Act Efict Green (s) Act affor Green (s) Act affor Green (s) 2 Intersection Summary ₩5 **♦** Splits and Phases: Approach Delay Approach LOS Cycle Length: 130 Detector Phase Control Delay Queue Delay Total Delay LOS 8

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2014 AM Peak BUILD Conditions

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2014 AM Peak BUILD Conditions

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Timings 5: Second St & Rio Bravo Blvd

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	1	t	-	*	,	/	r	-	•	•	¥	
ane Group	8	EBT	EBR	WBL	WBT	WBR	NBIL	NBT	SBL	287	SBR	Ser al
ane Configurations	F	#	R	*	\$	*	*	÷	200	*	×	
Volume (vph)	366	1712	180	13	665	100	182	157	142	74	1	
Furn Type	pm+pt	NA	vo+mq	pm+pt	M	vo+mq	pm+pt	AN	pm+pt	¥	VO+mq	
Protected Phases	2	4	-02	3	8	-	40	61	-	9	1	
Permitted Phases	4		4	80		600	3		9		9	
Detector Phase	7	4	2	en	65	-	5	2	-	9	7	
Switch Phase												
Alnimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	
Minimum Split (s)	10.0	21.0	10.0	10.0	21.0	10.0	10.0	21.0	10.0	21.0	10.0	
Fotal Split (s)	33.0	79.0	19.0	10.0	56.0	13.0	19.0	28.0	13.0	22.0	33.0	
Total Split (%)	25.4%	60.8%	14.6%	7.7%	43.1%	10.0%	14.6%	21.5%	10.0%	16.9%	25.4%	
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	
M-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1	
-ost Time Adjust (s)	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	0.0	
Fotal Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	5.0	
LeadLag	Lead	Lag	Lead	Lead	Lag	Lead	Lead	hel	Lead	Der	Lead	
-ead-Lag Optimize?								8				
Recall Mode	Min	C-Max	Min	Min	C-Max	Min	Min	Min	Min	Mün	Min	
Act Effct Green (s)	85.2	75.0	93.6	66.4	60.2	73.2	36.8	23.8	27.2	18.2	42.2	
Actuated g/C Ratio	0.66	0.58	0,72	0.51	0.46	0.56	0.28	0.18	0.21	0.14	0.32	
//c Ratio	0.77	0.94	0.17	0.58	0.45	0.13	0.58	0.94	0.89	0.32	0.14	
Control Delay	19.2	22.4	0.1	42.2	23.1	10.8	45.5	84.6	85.2	54.4	6.2	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Fotal Delay	19.2	22.4	0.1	42.2	23.1	10.8	45.5	84.6	85.2	54.4	6.2	
os	8	C	A	a	o	8	٥	ш	Ľ	٥	4	
Approach Delay		20.1			23.3			68.9		57.7		
Approach LOS		C			o			ш		w		
Intersection Summary	South Strength	NAMES -	Survive Survive	The second	No. No.	ANSING ST	Star In	E LANGE	15.6.1	Contraction of the second	2000	
Cycle Length: 130												
Actuated Cycle Length: 130							1000					
Offset 15 (12%), Referenced to phase 4:EBTL and 8.WBTL, Start of Green	ed to phase	4:EBTL	and 8.WB	TL, Start	of Green							
Vatural Cycle: 90					11-11	and and					and	
Control 1 ype: Actualed-Coordinated	ordinated				100000000000000000000000000000000000000							
Maximum V/C Nabo: 0.94	-		1000								0.00	
ntersection Signal Delay: 29.7 Intersection Capacity Utilization 87.9%	29.7 ation 87.9%				Itersectio	Intersection LOS: C	щ					
Analysis Penod (min) 15	15. Samuel 24 & Dia Diamana 21.	0	10									
1				1			ſ					
6			10	8								
1 11/200				(A 3								
2 R	90	2	78			1	e,					
			1				2					

2014 AM Peak BUILD Conditions - MITIGATED GEOM. D:ATOBEPROJECTS_2012Valero_RB_Broadway/Synchrol2014ABX-CaseY_MIT.syn

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		t	•	•		'	r	-	L	•	+	
Movement	B	183	EBR	WBI	TBW	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	-	ŧ	W.	y -	ŧ	×	*	42		x -	*	
Volume (vph)	366	1712	180	2	665	100	182	157	114	142	14	4
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0		4.0	4.0	5.0
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	1.00	1.00	1.00		1.00	1.00	1.00
H.	1.00	1.00	0.85	1.00	1.00	0.85	1.00	0.94		1.00	1.00	0.85
Fit Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00		0.95	1.00	1.00
Satd. Flow (prot)	1719	3438	1538	1719	3438	1538	1719	1695		1719	1810	1538
Fit Permitted	0.27	1.00	1.00	0.07	1.00	1.00	0.54	1.00		0.22	1.00	1.00
Satd. Flow (perm)	483	3438	1538	120	3438	1538	972	1695		398	1810	1538
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.87	0.87	0.87	0.91	0.91	0.91
Adj. Flow (vph)	398	1861	196	62	723	109	209	180	131	156	81	78
RTOR Reduction (vph)	•	0	61	0	0	0	0	20	•	0	0	56
Lane Group Flow (vph)	398	1861	135	62	723	109	209	291	0	156	81	23
Turn Type p	pm+pt	¥	vo+mq	pm+pt	NA	hm+ov	pm+pt	NA		pm+pt	A	ю+шd
Protected Phases	2	4	40	6	80	1	10	2		-	9	
Permitted Phases	4		4	80		80	2			9		Ű
Actuated Green, G (s)	84.2	74.0	87.6	64.4	59.2	67.2	35.8	22.8	CAN I	25.2	17.2	37.7
Effective Green, g (s)	85.2	75.0	89.6	66.4	60.2	69.2	36.8	23.8		27.2	18.2	37.2
Actuated g/C Ratio	0.66	0.58	0.69	0.51	0.46	0.53	0.28	0.18		0.21	0.14	0.29
Clearance Time (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0		5.0	5.0	5.0
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0
Lane Grp Cap (vph)	516	1983	1107	138	1592	866	359	310		175	253	499
ALCONT OF	c0.12	c0.54	0.01	0.03	0.21	0.01	0.07	c0.17		c0.06	0.04	0.01
v/s Ratio Perm	0.38		0.07	0.27		0.06	0.10			0.13		0.01
vic Ratio	0.77	0.94	0.12	0.57	0.45	0.13	0.58	0.94		0.89	0.32	0.04
Uniform Delay, d1	13.3	25.4	6.9	26.2	23.7	15.2	38.2	52.4		46.8	50.3	33.6
Progression Factor	1.23	0.64	0.00	1.17	0.89	0.71	1.00	1.00		1.00	1.00	1.00
Incremental Delay, d2	3.5	5.5	0.0	5.3	0.9	0.1	2.4	34.6		38.8	0.7	0.0
Delay (s)	19.8	21.7	0.0	35.9	22.1	10.9	40.6	87.0		85.6	51.1	33.6
Level of Service	•	C	A	0	C	æ	۵	ц.		LL.	٥	0
Approach Delay (s)		19.7			21.9			68.3			63.8	
Approach LOS		æ			U			ш			щ	
Intersection Summary	1000	SELVER.	The second	NAL SOL	1000	THUR IS	State 1	Contesting	STIN	PEN AL	and the	CORD.
HCM Average Control Delay		10000	29.5	Ŧ	CM Leve	HCM Level of Service	e		U	Constanting of the	000	
Actuated Pude Lanoth (c)		1.820	120.0	ů	um of he	Com of lact time (c)		1.11	10.01		1	
Intersection Canacity Itilization	10.00		87 9%	5 9	I I avai	ICIT avel of Service	Villa Villa		- L			
Andreie Darind (min)				2					2			
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2014 AM Peak BUILD Conditions - MITICATED GECM. D:ATOBE/PROJECTS_2012/Valero_RB_Broadway/Synchrol2014/ABX-CaseY_MIT.syn

Vovement EBI	Ť	1	6	Ŧ	~	•	-	4	۶	-	\mathbf{F}
ane Configurations	EBT	T EBR	MBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
				ŧ	*-	*	4		5	4	
Volume (vph) 137	608	3 155	86	1691	133	281	16	128	162	118	481
deal Flow (vphpl) 1900		-	19	1900	1900	1900	1900	1900	1900	1900	1900
"otal Lost time (s) 4.0					4.0	4.0	4.0		4.0	4.0	
ane Util. Factor 1.00					1.00	1.00	1.00		1.00	1.00	
1.00		26			0.85	1.00	0.91		1.00	0.88	
Tt Protected 0.95				1.00	1.00	0.95	1.00		0.95	1.00	
Satd. Flow (prot) 1719		8 1538	1719		1538	1719	1655		1719	1592	
					1.00	0.10	1.00		0.40	1.00	
Satd. Flow (perm) 134	9438	8 1538	256		1538	188	1655	No. No.	722	1592	
Peak-hour factor, PHF 0.92			0.91	0.91	0.91	0.75	0.75	0.75	0.91	0.91	0.91
Adj. Flow (vph) 149	982		108		146	375	129	171	178	130	629
RTOR Reduction (vph) (0	0	37	•	0	5	
ane Group Flow (vph) 149	982	2 91	108	1858	146	375	263	0	178	595	
urn Type pm+pt	I NA	A pm+ov	pm+pt	NA	NO+UID	pm+pt	A		pm+pt	A	
Protected Phases		4 5		60	-	5	2		-	9	
		4	80		00	2			9		
Actuated Green, G (s) 58.2		2 68.2	63.8		67.5	52.5	37.5		45.5	34.0	
					69.5	54.5	38.5		47.5	35.0	
0	-	9	9	-	0.53	0.42	0:30		0.37	0.27	
Clearance Time (s) 5.0	5.0		5.0		5.0	5.0	5.0		5.0	5.0	
Vehicle Extension (s) 3.0		8	110	3.0	3.0	3.0	3.0	ALC: NO	3.0	3.0	1000
ane Grp Cap (vph) 135		3 878	229	1507	870	267	490		360	429	
v/s Ratio Prot c0.05	0.29	9 0.01		Ĩ	0.02	c0.17	0.16		0.05	0.37	
v/s Ratio Perm 0.46					0.08	c0.42			0.13		l
I/c Ratio 1.10	0.69	9 0.10		1.23	0.17	1.40	0.54		0.49	1.39	
Jniform Delay, d1 31.2					15.5	39.2	38.3		29.7	47.5	
	-	e.4	Ī		1.07	1.00	1.00		1.00	1.00	
lal Delay, d2					0.0	203.0	11		1.1	188.5	
Delay (s) 134.4	25.7	7 34.1	27.9	143.8	16.6	242.2	39.4		30.8	236.0	
evel of Service F		0	C		8	L	۵		U	ц.	
Approach Delay (s)	39.3	3		129.1			152.1			192.3	
Approach LOS		٥		ш			L			LL.	
ntersection Summary	Vire Sa	Levite 1		Assessed in the	Tion Strange	and the second	1000	Suberra	(This is	PLEASED.	2.10
HCM Average Control Delay		119.3		HCM Level of Service	a of Serviv	93		Ľ			
HCM Volume to Capacity ratio		1.34									No.
Actuated Cycle Length (s)		130.0		Sum of lost time (s)	st time (s)	110000		16.0			
mensection Capacity conzation Analysis Period (min) : Critical I ane Gmun		18,17				10		5		No. of Concession	

Either Case D:ATOBEPROJECTS_2012Valero_RB_Broadway/Synchrol2014PNX.syn

2014 PM Peak NOBUILD Conditions

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Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	LEN	SBL	SBT	Conservation of
Lane Configurations	5	‡ :	*-	5	\$	*		**		44	
Volume (vph)	137	E06	155	8	1691	133	281	26	162	118	and the state of the
Protectad Phases	2 Z		3	Petrind	2	PH-HIM	bd+ud	EN C	hq+mq	۶ e	
Permitted Phases	- 4	•	₽	3 00	•	- @	. 0	4	- @	•	and the second
Detector Phase	2	4	- 40		60		0	2	-	9	
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	10.0	21.0	10.0	10.0	21.0	10.0	21.0	
Total Split (s)	10.0	58.0	20.0	13.0	61.0	17.0	20.0	42.0	17.0	39.0	Standard Sta
Total Split (%)	7.7%	44.6%	15.4%	10.0%	46.9%	13.1%	15.4%	32.3%	13.1%	30.0%	
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	40	40	4.0	4.0	
All-Hed Lime (s)	0.0	0.1		0.1	2.2		0.1	2.	0.1	2	
LOSL LIME Adjust (s) Total Lost Time (c)	0'I-	07-	1.0	40	0.1-	404	110			1.0	
Lead/Lan	Lead	lan	Lead	Lead	Del	lead	lead	DE I	lead	and and	
Lead-Lag Optimize?		8			ľ			ľ		F	
Recall Mode	Min	C-Max	Min	Min	C-Max	Min	Min	Min	Min	Min	
Act Effct Green (s)	60.2	54.2	74.2	65.8	57.0	73.5	54.2	38.5	47.5	35.0	
Actuated g/C Ratio	0.46	0.42	0.57	0.51	0.44	0.57	0.42	0:.00	0.37	0.27	
v/c Ratio	1.10	0.68	0.18	0.47	1.23	0.17	1.40	0.57	0.50	1.34	
Control Delay	128.7	26.0	4.7	24.3	140.6	14.8	233.0	36.8	29.7	199.2	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Delay	128.7	26.0	4.7	24.3	140.6	14.8	233.0	36.8	29.7	199.2	
FOS	Ľ	U	×	U	u.	8	ш	٩	C	Ľ	
Approach Delay		35.0			125.9	N. N. S.		145.8		163.1	
Approach LOS		0			LL.			L		LL	
Intersection Summary	San	Contraction of the	- Alexandre	- Andrew	Super-	Statute Statute	Sale of	Sand Sand	Charles Con	Station of the	Estructures a
Cycle Length: 130 Actuated Cycle Length: 130 Offset 36 (294), Referenced to phase 4:EBTL and 8:WBTL, Start of Green	0 ed to phase	4:EBTL	and 8:WB	TL, Start	of Green						
Control Type: Actuated-Coordinated	ordinated										
Maximum v/c Ratio: 1.40											
Intersection Signal Delay: 111.0	111.0			a.	Intersection LOS: F	n LOS: F					
Intersection Capacity Utilization 119.1% Analysis Period (min) 15	ation 119.19			2	ICU Level of Service H	af Service	H				
Snits and Phases: 5: Se	5: Second St & Rio Bravo Blvd	lio Bravo	Blvd								
3				F	l	the state					
17 01 02				► -	8		-				
3	ß				3	89					
362II 81ZI					11 s C L	10 20					
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and Grain	1	1	1	\$	ŧ	4	1		۶	-	
Late Guup	E	EBT	EBR	MBL	WBT	WBR	NBI	NBT	SBL	SBT	the August
Lane Configurations	}	\$	×	*	*	*	-	*	2	4	
Volume (vph)	137	908	155	105	1710	137	281	26	163	118	
Turn Type	pm+pt	M	VO+mq	pm+pt	M	vo+mq	pm+pt	AN	pm+pt	A	
Protected Phases	2	4	5	3	8	1	10	2	-	9	
Permitted Phases	4		4	80		80	2		9		
Detector Phase	1	4	ŝ	9	80	-	10	2	-	9	
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	10.0	21.0	10.0	10.0	21.0	10.0	21.0	
Total Split (s)	10.0	58.0	20.0	13.0	61.0	17.0	20.0	42.0	17.0	39.0	
Total Split (%)	7.7%	44.6%	15.4%	10.0%	46.9%	13.1%	15.4%	32.3%	13.1%	30.0%	
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)	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	
Lead/Lag	Lead	Bel	Lead	Lead	[ag	Lead	Lead	Bej	Lead	(ag	
Lead-Lag Optimize?											
Recall Mode	Min	C-Max	Min	Min	CHMax	Min	Min	Min	Min	Min	
Act Effct Green (s)	60.2	54.2	74.2	65.8	57.0	73.5	54.2	38.5	47.5	35.0	
Actuated g/C Ratio	0.46	0.42	0.57	0.51	0.44	0.57	0.42	0.30	0.37	0.27	
vic Ratio	1.10	0.69	9	0.50	1.25	0.17	1.40	0.57	0.50	1.34	
Control Delay	128.5	26.0		24.9	146.6	15.0	233.0	37.0	29.8	199.2	
Queue Delay	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Delay	128.5	26.0	4	24.9	146.6	15.0	233.0	37.0	29.8	199.2	
LOS	L	o	×	C	ш.	60	ш	٥	C	ц.	
Approach Delay		35.0			130.9			145.6		163.0	
Approach LOS		o			L			Ľ		Ŀ	
Intersection Summary	The second second	NSS-91	2.68.0	THE PARTY	A La	Sold the	3 0202h	C. T. C.	DIS C	Non	ALLANDARY SA
Cycle Length: 130 Actuated Cycle Length: 130	0					1. 21	the state	10. 10	Phillips	THE PARTY	
Offiset 36 (28%), Referenced to phase 4:EBTL and 8:WBTL, Start of Green	ced to phase	4:EBTL	and 8:WE	ITL, Start	of Green	-					
Natural Cycle: 120											
Control Type: Actuated-Coordinated	ordinated										
Maximum v/c Ratio: 1.40				Sec. 1		1.001	That is	and have			
Intersection Signal Delay: 113.1	113.1			<u> </u>	itersectio	Intersection LOS: F					
intersection Capacity Utitization 119.6% Analysis Period (min) 15	abon 119.67	2			CL Level	ICU Level of Service H	Ē				
Splits and Phases: 5: S	5: Second St & Rio Bravo Blvd	tio Bravo	Blwd								
					3	4					
42 *			and the second	113 a	1 I I	58 .					
-	ų			7	-	3					
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Case Y' - Rio Bravo drive D:MTOBEDPROJECTS_2012Valero_RB_Broadway(Synchrol2014PBX-CaseY.syn

2014 PM Peak BUILD Conditions

2014 PM Peak BUILD Conditions

Monment EIL FI Monment FI FI FI FI <	5: Second St & Rio	HIO Bravo BIVD									3	A IUZUIZ - SYNCIBU /	1 0812
$ \begin{array}{c c c c c c c c c c c c c c c c c c c $		1	1	1	6	ŧ	~	•	-	*	۶	-+	\mathbf{r}
01 1	Movement	BL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	Lane Configurations	-	ŧ	۶.,	*	+	*-	-	\$		x -	\$	
	Volume (vph)	137	908	155	105	1710	137	281	26	130	163	118	481
	Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	1100	4.0	4.0	
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	1.00	1.00	1.00		1.00	1.00	
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	Fit	1.00	1.00	0.85	1.00	1.00	0,85	1.00	0.91	No. Contraction	1.00	0.88	10.11
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	Fit Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00		0.95	1.00	
$ \begin{array}{c c c c c c c c c c c c c c c c c c c $	Satd. Flow (prot)	1719	3438	1538	1719	3438	1538	1719	1654		1719	1592	
$ \begin{array}{c c c c c c c c c c c c c c c c c c c $	Flt Permitted	0.07	1.00	1.00	0.14	1.00	1.00	0.10	1.00		0.40	1.00	
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	Satd. Flow (perm)	134	3438	1538	253	3438	1538	188	1654		716	1592	Pickell,
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	Peak-hour factor, PHF	0.92	0.92	0.92	0.91	0.91	0.91	0.75	0.75	0.75	0.91	0.91	0.91
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	Adj. Flow (vph)	149	687	168	115	1879	151	375	129	173	179	130	529
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	RTOR Reduction (vph)	•	0	11	0	•	0	•	37	•	•	8	ð
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	Lane Group Flow (vph)	149	987	91	115	1879	151	375	265	0	179	595	0
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	Turn Type	pm+pt	N	ло+шd	pm+pt	M	pm+ov	pm+pt	A		pm+pt	M	
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	Protected Phases	7	4	ŝ	3	80	-	10	CN		-	9	
	Permitted Phases	4		4	60		80	2			9		
	Actuated Green, G (s)	58.2	53.2	68.2	63.8	56.0	67.5	52.5	37.5		45.5	34.0	No.
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	Effective Green, g (s)	60.2	54.2	70.2	65.8	57.0	69.5	54.5	38.5		47.5	35.0	
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	Actuated g/C Ratio	0.46	0.42	0.54	0.51	0.44	0.53	0.42	0.30		0.37	0.27	
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	Clearance Time (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0		5.0	5.0	
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0	
c105 0.23 0.01 c0.03 c0.55 0.02 c0.17 0.16 0.05 0.46 0.69 0.05 0.22 0.08 0.04 0.13 1.10 0.59 0.05 0.22 0.08 0.04 0.54 0.03 1.10 0.51 1.35 0.11 1.01 1.00 1.00 1.00 1.15 0.76 2.33 1.31 1.01 1.08 1.00 1.00 1.00 1.15 0.77 2.34 0.0 0.71 1.34 0.0 0.00 1.00	Lane Grp Cap (vph)	135	1433	878	227	1507	870	267	490		358	429	
046 0.05 0.22 0.08 0.42 0.13 110 0.69 0.10 0.51 1.25 0.17 1.40 0.54 0.50 31.5 0.16 0.53 1.31 1.01 1.08 1.00 1.00 1.00 10.2 2.3 0.0 0.7 113 4 0.23 39.4 29.8 10.1 2 2.3 0.0 0.7 113 1.01 1.08 1.00 1.00 10.1 2 2.3 0.0 2.7 113 4 0. 20.3 0.12 14.4 15.1 8 24.2 30.6 0.0 20.9 2.5 15.0 1.44 15.1 8 1.13 13.4 15.1 8 1.01 1.00 13.4 15.1 8 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0	v/s Ratio Prot	c0.05	0.29	0.01	c0.03	c0.55	0.02	c0.17	0.16		0.05	0.37	
110 0.69 0.10 0.51 1.25 0.17 1.40 0.54 0.30 1.05 1.06 0.69 0.10 0.51 1.25 0.17 1.40 0.54 0.30 1.05 1.05 1.05 1.65 5.5 3.92 3.83 2.83 1.01 1.00 <td>v/s Ratio Perm</td> <td>0.46</td> <td></td> <td>0.05</td> <td>0.22</td> <td></td> <td>0.08</td> <td>c0.42</td> <td></td> <td></td> <td>0.13</td> <td></td> <td></td>	v/s Ratio Perm	0.46		0.05	0.22		0.08	c0.42			0.13		
312 310 146 21.3 36.5 15.5 39.2 38.4 29.8 105 0.76 2.33 1.31 1.01 1.08 1.00 1.00 101.5 0.77 2.33 1.31 1.01 1.08 1.00 1.00 101.2 2.57 3.39 2.8.5 15.0.3 16.8 24.2.2 30.6 2 134.0 2.57 3.39 2.8.5 15.4.3 16.8 24.2.2 30.6 2 1.1 1 30.2 1 1.34 0.8 24.2.2 30.6 0.7 1.1 1 1.0 1.00 1.00 20.9 2 1	v/c Ratio	1.10	0.69	0.10	0.51	1.25	0.17	1.40	0.54		0.50	1.39	
1.05 0.76 2.33 1.31 1.01 1.00 1.00 1.00 1.01:2 2.3 0.0 0.5 15.0 1.03 1.31 1.11 1.01:2 2.3 0.0 0.5 15.0 1.00 1.00 1.00 1.17 2.3 2.85 16.0 2.42.2 30.9 0. 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 0.0	Uniform Delay, d1	31.2	31.0	14.6	21.3	36.5	15.5	39.2	38.4		29.8	47.5	
101.2 2.3 0.0 0.7 113.4 0.0 203.0 1.2 1.1 134.0 25.7 33.9 28.5 150.3 16.8 24.2 39.6 30.9 F C C C C C 31.4 151.8 7.0 0.0 0.7 134.4 151.8 7.0 0.0 0.7 1.1 <td< td=""><td>Progression Factor</td><td>1.05</td><td>0.76</td><td>2.33</td><td>1.31</td><td>1.01</td><td>1.08</td><td>1.00</td><td>1.00</td><td></td><td>1.00</td><td>1.00</td><td></td></td<>	Progression Factor	1.05	0.76	2.33	1.31	1.01	1.08	1.00	1.00		1.00	1.00	
134.0 25.7 33.9 28.5 15.0.3 16.8 24.5 30.9 F C C F B F D C 30.2 13.4 15.1 B F D C 30.2 13.4 15.1 B F D C 30.2 13.4 15.1 B F F F 31.1 F F F F F F F av 121.5 HCM Level of Service F F F F avio 13.0 Sum of lost time (s) 110.6% F 15.0 16.0 avio 119.6% (CUL Lavel of Service) H H 15.0 16.0	Incremental Delay, d2	101.2	2.3	0.0	0.7	113.4	0.0	203.0	1.2		1.1	188.5	
F C C C F D C 39.2 134.4 151.8 151.8 C C ay 121.5 HCM Level of Service F F F ay 121.5 McM Level of Service F 134.4 15.0 aion 130.0 Sum of host time (s) 110.0* 15.0 15.0 aion 119.5% (CU Lavel of Service) H 15.0 15.0	Delay (s)	134.0	25.7	33.9	28.5	150.3	16.8	242.2	39.6		30.9	236.0	
39.2 134.4 151.8 D F F F av 121.5 HCM Level of Service F ratio 13.0 Sum of Nat Itime (s) 10.0 13.0.0 Sum of Service H 119.6% (CU Level of Service H 15	Level of Service	ш.	U	U	U	щ	8	LL.	٥		c	u.	
D F F F av 121.5 HCM Level of Service ratio 1.3.4 Kun of lost time (s) 13.0 Sum of lost time (s) 13.0 Sum of lost time (s) 13.6 KU Level of Service	Approach Delay (s)		39.2			134.4			151.8			192.2	
ay 121.5 HCM Level of Service ratio 1.34 Sum of ket time (s) 13.0 Sum of ket time (s) 13.0 Kun of Service 15	Approach LOS		٥			ц.			u.			щ	
ay 121.5 HCM Level of Service ratio 1.34 Sum of lost time (s) 13.0 Sum of lost time (s) ration 119.0% ICU Level of Service 15	Intersection Summary	STREET, SE		STREET, ST	S.M.O.	and and	THE REAL	NUMER IN	BIGGERS ST	North State	R D K N L	THE SHO	TANK I
ratio 1.34 1.30. Sum of lost time (s) cation 119.6% tCU Level of Service 15	HCM Average Control Delay			121.5	Ŧ	CM Leve	I of Servi	e		ч			
130.0 Sum of kest time (s) calion 119.6% kCU Level of Service 15	HCM Volume to Capacity ra	tio		1.34									
Utilization 119.6% kCU Lavel of Service 15	Actuated Cycle Length (s)			130.0	ŝ	um of los	it time (s)			16.0			
Analysis Period (mui) 15	Intersection Capacity Utiliza	tion		119.6%	Q	U Level	of Servici			Ŧ	and and		1
	Analysis Penod (min)			2									

Case Y - Rio Bravo drive D:IATOBELPROJECTS_2012Valero_RB_Broadway(Synchrol2014PBX-CaseY.syn

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Movement	EBL	EBT	EBR	WBL	TBW	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	5	*	×	*	ŧ	×	*	4		F	+	¥.
Volume (vph)	137	308	155	105	1710	137	281	65	130	163	118	481
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0		4.0	4.0	5.0
Lane Ubl. Factor	1.00	0.95	1.00	1.00	0.95	1.00	1.00	1.00		1.00	1.00	1.00
Fi	1.00	1.00	0.85	1.00	1.00	0.85	1.00	0.91		1.00	1.00	0.85
Fit Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00		0.95	1.00	1.00
Satd. How (prot)	1719	3438	1538	1719	3438	1538	1719	1654		1719	1810	1538
Fit Permitted	0.06	1.00	1.00	0.27	1.00	1.00	0.39	1.00		0.24	1.00	1.00
Satd. Flow (perm)	103	3438	1538	485	3438	1538	708	1654	COLOR.	426	1810	1538
Peak-hour factor, PHF	0.92	0.92	0.92	0.91	0.91	0.91	0.75	0.75	0.75	0.91	0.91	0.91
Adj. Flow (vph)	149	987	168	115	1879	151	375	129	173	179	130	529
RTOR Reduction (vph)	•	•	3	0	0	•	•	37	•	0	•	6
Lane Group Flow (vph)	149	987	118	115	1879	151	375	265	0	179	130	520
Turn Type	pm+pt	M	NO+IUI	pm+pt	M	ло+ша	pm+pt	NA		pm+pt	A	NO+UId
Protected Phases	7	4	40	6	8	1	va	61		-	9	-
Permitted Phases	4		4	80		~	7			9		9
Actuated Green, G (s)	87.0	77.0	89.0	70.0	65.0	73.0	32.0	20.0		24.0	16.0	33.0
Effective Green, g (s)	88.0	78.0	91.0	72.0	66.0	75.0	34.0	21.0		26.0	17.0	33.0
Actuated g/C Ratio	0.68	0.60	0.70	0.55	0.51	0.58	0.26	0.16		0.20	0.13	0.25
Clearance Time (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0		5.0	5.0	5.0
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	Spar Mit	3.0	3.0	3.0
Lane Grp Cap (vph)	293	2063	1124	326	1745	935	286	267		175	237	450
v/s Ratio Prot	0.07	0.29	0.01	0.02	c0.55	0.01	c0.13	0.16		0.07	0.07	c0.15
v/s Ratio Perm	0.27		0.07	0.18		0.09	c0.21			0.13		0.19
v/c Ratio	0.51	0.48	0.10	0.35	1.08	0.16	1.31	0.99		1.02	0.55	1.15
Uniform Delay, d1	33.3	14.6	6.3	14.0	32.0	12.8	46.0	54.4		49.7	52.9	48.5
Progression Factor	1.14	0.75	2.61	1.16	0.64	0.98	1.00	1.00		1.00	1.00	1.00
Incremental Delay, d2	1.2	0.7	0.0	0.3	39.6	0.0	162.8	52.9		74.1	2.6	92.5
Delay (s)	38.9	11.5	16.5	16.5	66.6	12.6	208.9	107.3		123.9	55.5	141.0
Level of Service	0	8	8	8	ш	œ	L.	u.		Ŀ	ш	Ľ
Approach Delay (s)	No. No.	15.3	2110		60.1			163.6			124.1	
Approach LOS		æ			ш			u_			L	
Intersection Summary	Sold Sold	The second	Distanti	STATES IN	Sec. 19	Carlo Carl	The board	60.008	REFERENCE	autor and	ないのない	Set we la
HCM Average Control Delay			73.3	Ŧ	SM Leve	HCM Level of Service	0		ш			
HCM Volume to Capacity ratio	.0		1.12									
Actuated Cycle Length (s)			130.0	เริ	im of los	Sum of lost time (s)	Contract on the		8.0			
Intersection Capacity Utitization	UOI	and the second	31,21	2	U Level	of Service			9	1		
			2									

2014 PM Peak BUILD Conditions - MITIGATED GEOM. D:MTOBEPROJECTS_2012Valero_RB_Broadway/Synchrol2014PBX-CaseY_MIT.syn

Terry O. Brown, P.E. 3/10/2012 - Synchro 7 VO+mq SBR ~ 0 ~ 5.0 10.0 22.0 6.9% 4.0 1.0 0.0 5.0 Lead Min 38.0 38.0 0.29 1.16 1.16 1.15 1.15 1.15 1.15 1.12 5 1.12 5 Ŀ. 481 ¥ 9 118.4 F φ 5.0 21.0 21.0 6.2% SBT 118 ¥ 4.0 1.0 1.0 1.0 1.0 1.0 Min 17.0 0.13 0.55 62.5 62.5 62.5 62.5 5.0 10.0 13.0 10.0% 4.0 1.0 4.0 4.0 4.0 1.0 Min 26.0 26.0 0.20 1.02 1.17.2 0.0 0.0 ۶ SBL 163 pm+pt 153.5 F *6¥~ N 5.0 21.0 25.0 19.2% 4.0 1.0 1.0 4.0 4.0 1.0 2.1.0 1.0 Min 21.0 0.15 0.99 96.4 96.4 pm+-pt Min 34.0 0.26 1.31 199.5 0.0 199.5 1 Ē 281 Intersection LOS: E ICU Level of Service G NO+LUID 5.0 10.0 13.0 10.0% 4.0 1.0 4.0 4.0 Lead Min 79.0 0.61 0.16 11.1 11.1 11.1 8 WBR 137 1 C-Max 66.0 0.51 1.08 67.0 Actuated Cycle Length: 130 Offset 36 (28%), Referenced to phase 4:EBTL and 8:WBTL, Start of Green 5.0 21.0 70.0 53.8% **\$** ¥ 4.0 1.0 1.0 1.0 1.0 ш ţ WBT 0.0 60.1 2 pm+pt 00 m 105 5.0 10.0 7.7% 4.0 1.0 -1.0 4.0 4.0 Lead Min 72.0 72.0 0.55 0.35 11.3 0.0 11.3 m WBIL 6 2 1 3 ртноу 5.0 10.0 17.0 13.1% EBR 155 4.0 -1.0 4.0 Lead Min 95.0 0.73 0.14 2.1 2.1 2.1 2.1 1 5: Second St & Rio Bravo Blvd 2 NA 908 Ť C-Max 78.0 0.60 0.48 11.7 0.0 11.7 B 12.8 B Timings 5: Second St & Rio Bravo Blvd 22 Control Type: Actuated-Coordinated Maximum vic Ratio: 1.13 Intersection Signal Delay: 70.2 Intersection Capacity Utilization 103.5% Analysis Period (min) 15 5.0 10.0 22.0 22.0 4.0 1.0 4.0 4.0 4.0 1.0 4.0 Min 88.0 0.68 0.51 32.2 32.2 0.0 C C E 137 m+pt 1 ŝ 2 Switch Phase Minimum Intila (s) Minimum Spit (s) Total Spit (%) Total Spit (%) Ye&M Time (s) Lost Time Adjust (s) Lost Time (s) Lead/Lag Lead-Lag Optimize? Recall Mode Act Effct Green (s) Actuated g/C Ratio v/C Ratio Lane Configurations Volume (vph) ntersection Summary 21 Turn Type Protected Phases Permitted Phases Splits and Phases: Vatural Cycle: 100 130 Approach Delay Approach LOS R Detector Phase Control Delay Queue Delay Total Delay LOS Cycle Length: Lane Group Ξ 5 5 *****

2014 PM Peak BUILD Conditions - MITIGATED GEOM. D:ATOBEPROJECTS_2012Vatero_RB_Broadway/Synchrol2014PBX-CaseY_MIT.syn

Eilher Case D:IATOBEIPROJECTS_2012/Valero_RB_BroadwaylSynchroi2024ANX.syn Terry O. Brown, P.E. 3/10/2012 - Synchra 7 SBR 114 0.92 \mathbf{i} E3.3 SBT 2220 233.0 5.0 5.0 3.0 275 0.14 0.83 56.6 11.00 17.9 74.5 ш. 4.0 1.00 1.00 1719 0.17 315 215 215 211 ۶ SBL 194 211 pm+pt ×. NBR 223 0.92 242 12.0 H NBT 36.0 37.0 5.0 5.0 452 452 0.38 1.44 51.5 1.00 1.00 210.7 262.2 266.7 pm+pt 493 1 NBI HCM Level of Service Sum of lost time (s) ICU Level of Service VO+INIQ WBR 135 46.0 48.0 5.0 5.0 5.0 5.0 5.0 0.34 5.0 0.07 0.07 0.24 0.66 0.24 0.66 0.26 0.26 0.26 0.26 0.56 ∢ 927 NA 44 853 853 1900 4.0 0.95 1.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 10.95 927 927 39.0 40.0 5.0 3.0 982 982 0.94 48.9 0.71 16.9 16.9 51.7 0 48.6 D t **HBN** HCM Signalized Intersection Capacity Analysis 86 900 1.00 1.00 0.95 0.95 0.10 181 93 0 6 pm+pt MBL 6 181.3 1.47 140.0 130.8% EBR 271 1900 4.0 1.00 15.38 15.38 15.38 15.38 15.38 15.38 15.38 15.38 15.38 15.38 15.38 15.38 15.38 15.38 15.38 15.38 15.38 15.000 NO+-UJd 93.0 95.0 5.0 5.0 5.0 5.0 5.0 11 0.03 0.03 0.0 1.1 0.2 0.2 0.2 0.2 0.2 0.2 0.2 1.9 2665 NA 72.0 73.0 5.0 5.0 1793 1793 t EBT 44 1900 1900 11.00 11.00 11.00 11.00 11.00 11.00 11.00 10.95 2665 2665 4 1.49 33.5 0.70 198.8 F 5: Second St & Rio Bravo Blvd 219.1 597 5m+pt 82.0 83.0 5.0 5.0 5.1 5.1 1.12 1.12 1.12 1.12 5.8.6 5.8.6 5.8.6 0.35 1.12 1.12 1.12 1.12 5.8.6 0.35 EBL 2024 AM Peak NOBUILD Conditions HCM Average Control Delay HCM Volume to Capacity ratio Actuated Cycle Length (s) Actuated Cycle Length (s) Analysis Period (min) Analysis Period (min) c Critical Lane Group Adl. Flow (vph) RTOR Reduction (vph) Peak-hour factor, PHF ane Group Flow (vph) Actuated Green, G (s) Incremental Delay, d2 Effective Green, g (s) Vehicle Extension (s) Intersection Summary Approach Delay (s) Approach LOS Lane Configurations Lane Grp Cap (vph) v/s Ratio Prot Ideal Flow (vphpl) Total Lost time (s) Lane Util. Factor Protected Phases Permitted Phases Actuated g/C Ratio Clearance Time (s) Progression Factor Satd. Flow (perm) Uniform Delay, d1 Satd. Flow (prot) Level of Service v/s Ratio Perm Volume (vph) Fit Protected Flt Permitted Movement Furn Type v/c Ratio Delay (s) Ŧ Terry O. Brown, P.E. 3/10/2012 - Synchro 7 Either Case D:ATOBE\PROJECTS_2012\Valero_RB_Broadway\Synchro\2024AV\X_syn ¥ ≣ ¥ ø 5.0 27.0 27.0 9.3% 4.0 1.0 -1.0 4.0 4.0 27.0 Min 23.0 2.16 0.16 0.34 7.3.8 7.3.8 7.3.8 53.6 SBT 194 pm-pt 5.0 10.0 12.0 8.6% 4.0 1.0 -1.0 4.0 4.0 Min 31.0 0.22 1.41 1.41 249.0 0.0 249.0 ۶ SBI. 8 4 08 M 5.0 21.0 41.0 4.0 1.0 1.0 1.0 4.0 4.0 4.0 1.0 29.3% Min 37.0 0.26 1.43 1.43 240.7 240.7 240.7 250.6 ē 1-1-5.0 10.0 26.0 4.0 1.0 -1.0 4.0 4.0 Lead 454 Pm+pt 4D Min 49.0 0.35 1.48 1.48 263.9 0.0 263.9 263.9 ğ 4 Intersection LOS: F ICU Level of Service H NO+UUd 5.0 10.0 12.0 4.0 -1.0 4.0 fad WBR 124 ⋞ 18 × 5.0 21.0 44.0 1.4% 4.0 1.0 4.0 Lag C-Max 40.0 0.29 0.94 52.3 0.0 52.3 t NBT 49.2 D Offset: 12 (9%), Referenced to phase 4:EBTL and 8:WBTL, Start of Greer 10 + En 1 58 pm+pt 5.0 10.0 10.0 4.0 1.0 -1.0 -1.0 4.0 1.0 -1.0 Min 46.0 46.0 46.0 0.33 0.74 0.74 0.74 0.74 59.3 59.3 59.3 59.3 WBL \$ 5 vo+mq 10 5.0 10.0 8.6% 4.0 1.0 -1.0 4.0 4.0 Lead 1 EBR Min 99.0 0.71 0.26 0.4 0.4 4 271 5: Second St & Rio Bravo Blvd C-Max 73.0 0.52 1.49 243.0 0.0 243.0 F RBT 2452 5.0 21.0 77.0 4.0 4.0 4.0 1.0 -1.0 4.0 1.0 1.0 1.0 25.0% 198.2 t 5: Second St & Rio Bravo Blvd Intersection Signal Delay: 177.4 Intersection Capacity Utilization 130.8% Analysis Period (min) 15 5.0 10.0 43.0 4.0 1.0 1.0 -1.0 4.0 1.0 1.0 1.0 1 549 om+pt Min 83.0 0.59 1.12 96.1 96.1 96.1 2024 AM Peak NOBUILD Conditions Control Type: Actuated-Coordinated 'S Acluated Cycle Length: 140 Aaximum v/c Ratio: 1.49 Lost Time Adjust (s) Total Lost Time (s) Lead/Lag Lead-Lag Optimize? mersection Summary 2 Lane Configurations Splits and Phases: Actuated g/C Ratio Minimum Initial (s) Act Effct Green (s) Natural Cycle: 130 Minimum Split (s) Cycle Length: 140 Protected Phases Total Split (s) Total Split (%) Yellow Time (s) All-Red Time (s) Permitted Phases Approach Delay Detector Phase Control Delay Queue Delay 141 Approach LOS Volume (vph) Switch Phase Total Delay LOS Timings Recall Mode ane Group Tum Type v/c Ratio S 12 3 * 18

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1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0	Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	40
-1.0 -1.0 -1.0 -1.0 -1.0 -1.0 -1.0 -1.0	Time (s)	1.0	1.0	1.0	1.0	1:0	1.0	1.0	1.0	1.1	1.0
4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0	me Adjust (s)	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
Lead Lead Lead Lead Lead Lead Lead Lead	ost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
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0.37 0.35 0.26 0.21 0.24 1.48 1.43 1.41 0.21 2.053 0.41 0.21 0.10 2.053 0.41 0.21 C F F F 251.5 C F 251.1 251.1 1 251.1 1 251.1 1 251.1 1 251.6 2 F 0 251.6 2 F 1 1 251.6 2 F 1 251.6 2 F 2 F 1 1 24.5 2 F	-+ Graan Ic)	83.0	73.0	000	AC D	ADA	UC3	AD O	D 2C	21.0	0.00
0.24 1.48 1.43 1.41 21.7 28.39 241.6 251.6 0.0 0.0 0.0 0.0 0.0 7.7 253 241.6 251.6 C F 251.1 F 1 C F F F C F 251.1 I 44.4 a	of of Patio	0.50	0.67	0.55	0.94	0.06	120	43.0	0.10	21.0	23.0
21.7 23.9 24.6 25.6 0.0 0.0 0.0 0.0 0.0 0.0 21.7 23.9 24.6 25.6 2.1 251.1 1 2 2.1 251.1 1 1 2.1 25.1 2 2.1 1 2.1 2 2.1 1 2.1 2 1 1 2.1 2 1 1 2.1 2 1 1 2.1 2 2 1 1 2 1 2 1 2 1 1 1 2 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	in the man	112	1 49	92.0	02.0	0.06	0.24	1 48	1 43	1.41	0.10
0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	Delav	961	244.2	P.U	5 99	855	212	263.0	241.6	261.6	854
21.7 263.9 241.6 251.6 7 2 F 251.1 1 2 S1.1 1 2 F 1 2 F 1 1 of Service H	Detay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
C F 251.1 251.1 P 251.1 F F 1 C 251.1 F F 1 C 251.1 F F 1 F F 1 F F 1 C 251.1 F F 1 F F 1	elay	96.1	244.2	0.4	66.5	55.6	21.7	263.9	241.6	251.6	73.8
251.1 P I ON LOS: F I of Service H I of Service H		ц.	ш.	A	ш	ш	U	u.	ц.	ц.	ш
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Bravo Blud 13.0 Level of Service H 13.1 Transaction LOS: F 13.3 Tran	angth: 140 d Cycle Length: 140 12 (9%), Reference: Cycle: 130) d to phase 4	:EBTL al	nd 8:WBT	L, Start of	(Green		10.00	No.135		
hitersection LOS: F ICU Level of Service H Dravo Blvd 10 1 10 1 17 0 01 1 13 1 17 0 01 1 13 1 17 0 01 1 13 1 17 0 01 1 14 1 11 1 14 1	Type: Actuated-Coc	ordinated									
bitavo Blvd Iclu Level of Service H 113 173 4 133 4 4	Im v/c Ratio: 1.49						1	in a line			
5: Second St & Rio Bravo Blwd 2 10 al 2 al	tion Signal Delay: 1 tion Capacity Utiliza s Period (min) 15	78.3 ation 131.3%			<u> </u>	tersectio U Level	n LOS: F of Service	H			
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	al solots	1 10									

Terry O. Brown, P.E. 3/10/2012 - Synchro 7 SBR 114 0.92 \mathbf{F} SBT 118 118 1900 1.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 10.03 0.83 56.6 17.9 74.5 F 2220 23.0 5.0 5.0 3.0 275 0.14 29.0 31.0 5.0 5.0 5.0 150 0.23 0.23 0.23 0.23 1.41 51.6 51.6 272.2 57.6 ۶ 195 1900 1.00 1.00 1719 0.17 315 0.92 0.92 0.92 0.92 212 pm+pt SBL • 12.0 H A, NBR 224 0.92 243 1.44 51.5 1.00 211.6 263.1 267.3 F NBT 36.0 37.0 5.0 5.0 452 0.38 + 454 454 4.0 1.00 1.00 1.00 0.95 0.95 493 493 493 493 7 1.00 0 0 0 0 0 0 0 0 5 5 48.0 49.0 5.0 5.0 5.0 3.0 3.0 3.2 3.2 3.2 1.00 1.00 233.7 272.9 • E S Sum of lost time (s) ICU Level of Service HCM Level of Service NO+UJd 46.0 48.0 5.0 5.0 5.0 5.0 5.0 0.34 0.01 0.01 0.05 0.24 0.05 0.22 C C ∢ 39.0 40.0 5.0 3.0 982 982 0.27 0.96 49.2 19.4 19.4 55.0 55.0 51.9 0 0 ŧ HCM Signalized Intersection Capacity Analysis 5: Second St & Rio Bravo Blvd MBL \$ 182.2 1.47 140.0 131.3% EBR 1 EBT 445 446 1900 4.00 4.00 4.00 1.00 1.00 3438 3438 0.92 2670 0 8 4 4 72.0 73.0 5.0 3.0 3.0 1793 0.78 1.49 33.5 0.70 0.70 220.4 243.9 F F F † 549 549 4.0 1.00 1.00 0.95 1719 0.95 0.95 697 697 697 7 7 E 1 HCM Average Control Delay HCM Volume to Capacity ratio Actuated Cycle Length (s) Intersection Capacity Utilization Adl. Flow (vph) RTOR Reduction (vph) Lane Group Flow (vph) Turn Type Protected Phases Permitted Phases Actuated Green, G (s) Analysis Period (min) c Critical Lane Group Satd. Flow (perm) Peak-hour factor, PHF Vehicle Extension (s) Lane Grp Cap (vph) v/s Ratio Prot v/s Ratio Perm Progression Factor Incremental Delay, d2 Effective Green, g (s) Actuated g/C Ratio Clearance Time (s) Approach Delay (s) Approach LOS mersection Summary Lane Configurations Volume (vph) Ideal Flow (vphpl) Total Lost time (s) Lane Uill. Factor Fri Satu. Flow (prot) Fit Permitted vic Ratio Uniform Delay, d1 Delay (s) Level of Service Movement

2024 AM Peak BUILD Conditions

Case Y' - Rio Bravo drive D:ATOBEIPROJECTS_2012/Valero_RB_Broadway/Synchrol2024ABX-CaseY.syn

Terry O. Brown, P.E. 3/10/2012 - Synchro 7 EOM. D:JATOBEPROJECTS_2012NUakro_RB_Broadway/Synchrol2024ABX-CaseY_MIT.syn SBR \mathbf{F} 118 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 128 128 128 NA 128 ω 16.0 17.0 5.0 3.0 2220 0.07 0.58 58.1 1.00 3.9 62.0 E E E 50.6 SBT 212 0m+pt ۶ 195 1.00 1.00 1719 0.24 426 0.92 212 212 SBL ٩. NBR 224 0.92 16.0 H 36.0 37.0 5.0 5.0 452 452 c0.38 1.44 51.5 1.00 1.00 211.6 211.6 NBT 201.0 493 0m+pt 28 Sum of lost time (s) ICU Level of Service HCM Level of Service 127 127 12900 1200 11.00 138 NO+UId MBR 4 943 NA 38.0 39.0 5.0 3.0 3.0 3.0 958 958 0.27 0.98 550.2 0.75 0.75 61.9 61.9 E 57.5 ŧ MBT HCM Signalized Intersection Capacity Analysis 4.0 1.00 1.00 0.95 0.95 0.10 0.10 0.10 56 pm+pt 66 6 900 MBI 168.9 1.46 140.0 131.3% vo+mq 99.0 0.72 5.0 5.0 5.0 1154 0.11 0.11 0.11 0.13 0.16 0.0 1.2 EBR 2024 AM Peak BUILD Conditions - MITIGATED GEOM. 2670 NA 72.0 73.0 5.0 5.0 1793 c0.78 1.49 33.5 0.69 220.4 243.6 44 1900 1900 11.00 11.00 11.00 11.00 11.00 11.00 0.92 t 7.791 EBT Second St & Rio Bravo Blvd 82.0 83.0 5.0 5.0 5.0 5.0 3.0 1.10 1.10 1.10 0.34 4.25 0.34 4.7.8 89.5 597 om+pt 1 549 4.0 1900 1.00 1.00 0.95 0.95 0.95 1719 0.09 1719 Ē 0.92 Actuated Cycle Length (s) Intersection Capacity Litilization HCM Average Control Delay HCM Volume to Capacity ratio Critical Lane Group RTOR Reduction (vph) Peak-hour factor, PHF Lane Group Flow (vph) Actuated Green, G (s) Incremental Delay, d2 Lane Configurations Volume (vph) Effective Green, g (s) Lane Grp Cap (vph) v/s Ratio Prot v/s Ratio Perm Intersection Summary Analysis Period (min) Vehicle Extension (s) Ideal Flow (vphpi) Total Lost time (s) Actuated g/C Ratio Clearance Time (s) Approach Delay (s) Approach LOS Turn Type Protected Phases Progression Factor Satd. Flow (prot) Flt Permitted Uniform Delay, d1 Satd. Flow (perm) Permitted Phases Lane Util. Factor Level of Service Adj. Flow (vph) Flt Protected Woverment v/c Ratio Delay (s) ភ Ē Terry O. Brown, P.E. 3/10/2012 - Synchra 7 2024 AM Peak BUILD Conditions - MITIGATED GEOM. D:ATOBEPROJECTS_2012Vatero_RB_Broadway/Synchrol2024ABX-CaseY_MIT.syn 5.0 10.0 44.0 31.4% 4.0 1.0 1.0 5.0 Lead 114 vo+mq ~ -Min 50.0 0.43 0.18 17.8 17.8 17.8 17.8 SBR 7 6 118 ¥ 5.0 21.0 21.0 5.0% 4.0 4.0 4.0 Lag Min 17.0 0.12 0.58 69.6 0.0 69.6 E 39.1 SBT 195 pm+pt Min 25.0 0.18 1.41 1.41 252.1 252.1 252.1 و SBL 5.0 10.0 12.0 3.6% 4.0 -1.0 4.0 A.0 89 106 A 5.0 21.0 41.0 29.3% Min 37.0 8.26 1.43 241.6 0.0 187.3 F 4.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 EN LEN 4<u>0</u> 5.0 10.0 32.0 22.9% 4.0 -1.0 4.0 Lead pm+pt Min 49.0 1.11 1.11 1.13.9 0.0 454 I 1 Intersection LOS: F ICU Level of Service H vo+mq Min 51.0 0.36 0.25 22.5 22.5 22.5 C C WBR 127 1 C-Max 39.0 0.28 0.28 62.5 62.5 62.5 5.0 21.0 43.0 0.7% 188 X 4.0 1.0 4.0 Lag WBT 58.2 E ſ Actuated Cycle Length: 140 Offset: 12 (9%), Referenced to phase 4:EBTL and 8:WBTL, Start of Green 10 - 12 - 10 10 - 12 pm+pt യന 91 5.0 10.0 10.0 7.1% 4.0 1.0 -1.0 4.0 4.0 Lead Min 45.0 45.0 0.32 0.79 06.7 06.7 66.7 WBI 5 ß NO+-UIId Min 05.0 0.75 0.24 5.0. 10.0 32.0 4.0 -1.0 4.0 Lead 0.2 EBR 4 271 5: Second St & Rio Bravo Blvd 1919 A 5.0 21.0 77.0 55.0% 4.0 1.0 1.0 4.0 4.0 4.0 4.0 21.0 21.0 25.0% t 73.0 73.0 0.52 1.49 244.1 197.3 244.1 5: Second St & Rio Bravo Blvd ទ Intersection Capacity Utilization 131.3% Analysis Period (min) 15 549 bm+pt 5.0 44.0 11.4% 1.4% 1.0 1.0 -1.0 4.0 4.0 Lead Min 83.0 0.59 1.10 85.6 85.6 85.6 1 Ē Control Type: Actuated-Coordinated ÷ 4 Intersection Signal Delay: 165.5 Aaximum v/c Ratio: 1.49 ntersection Summary Lost Time Adjust (s) Total Lost Time (s) Lead/Lag Lead-Lag Optimize? ane Configurations Minimum Initial (s) Minimum Split (s) Act Effct Green (s) Actuated g/C Ratio Vatural Cycle: 130 Splits and Phases: Total Split (s) Total Split (%) Yellow Time (s) All-Red Time (s) Protected Phases Cycle Length: 140 ^bermitted Phases Approach Delay **Detector Phase** Control Detay Queue Delay Approach LOS Ŧ Volume (vph) Switch Phase Total Delay LOS Recall Mode ana Group Timings furn Type v/c Ratio S 7 12 . 4 18

Terry O. Brown, P.E. 3/10/2012-Synchro 7 46.0 47.0 5.0 5.34 5.34 0.72 2.16 46.5 1.00 526.9 573.4 \$67.2 SBT 0.92 237 51 ¥ ۶ SBL 276 900 1.00 1.00 0.95 0.95 0.95 0.95 0.95 0.95 0.92 292 292 292 300 300 30 pm+pt ٩. 220 0.92 24.0 H NBR 0.83 43.8 1.00 10.1 53.9 D 388.3 44.2 45.2 5.0 3.0 540 540 540 4 NBT 63.2 65.2 5.0 5.0 5.0 3.0 297 297 297 297 297 20.32 20.73 2.26 44.9 1.00 578.8 623.7 618 1900 1.00 1.00 1.00 0.95 0.95 0.095 672 672 672 672 pm+pt • NBL Sum of lost time (s) (CU Level of Service HCM Level of Service NO+UJd 164 WBR ∢ 2270 NA 48.0 49.0 5.0 5.0 1203 1203 4.0 0.95 1.00 1.00 1.00 0.92 2270 22270 1.89 45.5 1.12 400.1 451.1 406.4 2088 ţ MBT 5.0 3.0 125 125 0.04 0.32 0.32 0.32 0.32 0.32 0.32 0.32 76.2 76.2 4.0 1.00 1.00 0.95 0.95 0.95 1719 1719 148 0.92 116 pm+pt 53.0 55.0 5 107 **IBN** 346.5 2.19 140.0 185.0% vo+mq 71.0 71.0 5.0 5.0 5.0 3.0 0.03 0.08 0.08 0.08 0.02 19.0 19.0 0.1 0.1 0.1 0.1 0.51 EBR 275 4,0 1,00 1,00 1538 1538 1538 0.92 299 126 173 1648 NA 50.0 51.0 5.0 5.0 3.0 1252 0.45 0.92 165.4 F 1.24 44.5 0.89 109.4 148.8 t EBT 5: Second St & Rio Bravo Blvd 243 4.0 1.00 1.00 0.95 0.95 0.08 1.719 1.719 1.719 0.92 264 pm+pt • E Actuated Cycle Length (s) Intersection Capacity Lititization HCM Average Control Delay HCM Volume to Capacity ratio Analysis Period (min) c Critical Lane Group Adj. Flow (vph) RTOR Reduction (vph) Peak-hour factor, PHF ane Group Flow (vph) Actuated Green, G (s) Incremental Delay, d2 Lane Configurations Volume (vph) ntersection Summary Effective Green, g (s) Vehicle Extension (s) Lane Grp Cap (vph) v/s Ratio Prot Approach Delay (s) Approach LOS ideal Flow (vphpl) Total Lost time (s) Actuated g/C Ratio Clearance Time (s) Progression Factor Protected Phases Permitted Phases Uniform Delay, d1 Satd. Flow (prot) Satd. Flow (perm) Lane Util. Factor Level of Service v/s Ratio Perm Frt Fit Protected Flt Permitted Tum Type Movement whice Ratio Delay (s) Terry O. Brown, P.E. 3/10/2012 - Synchra 7 ø 5.0 21.0 51.0 36.4% 4.0 4.0 4.0 Min 47.0 0.34 2.05 504.3 0.0 504.3 • 218 A 412.4 SBT 5.0 10.0 28.0 28.0 4.0 -1.0 4.0 Lead Min 68.8 0.49 0.82 44.1 44.1 44.1 ۶ 276 om+pt SBL 5.0 21.0 47.0 33.6% 1999 P Min 45.2 0.84 0.84 0.0 0.0 55.1 376.8 215 P • a3 - ● e4 5.0 10.0 24.0 7.1% 4.0 1.0 -1.0 4.0 1.0 1.0 1.0 pm-pt Min 65.2 0.47 2.26 603.3 603.3 618 曼 1 Intersection LOS: F ICU Level of Service H vo+mq 5.0 10.0 28.0 28.0 4.0 1.0 1.0 -1.0 4.0 1.0 -1.0 -1.0 -1.0 -1.0 Min 74.8 0.53 0.20 18.9 18.9 18.9 WBR 151 ď C-Max 49.0 0.35 1.89 429.4 5.0 21.0 53.0 37.9% 0.0 188 A 4.0 -1.0 4.0 Lag 386.5 ţ MBT 5.0 10.0 7.1% 4.0 1.0 -1.0 4.0 6ad Min 555.0 555.0 0.39 0.93 0.93 0.0 107 om+pt 6 MBL Min 75.0 0.54 0.32 0.32 10.6 10.6 10.6 B VO+mq 5.0 10.0 24.0 7.1% 4.0 -1.0 4.0 ead EBR 275 1 t 1424 EBT 51.0 51.0 0.36 1.24 144.4 0.0 154.3 5: Second St & Rio Bravo Blvd 243 pan-pt 1 囹

SBR 889 1900

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HCM Signalized Intersection Capacity Analysis

Lane Group Lane Configurations Volume (vph)

Timings

Protected Phases Permitted Phases

Type

Detector Phase

Switch Phase

Minimum Inittal (s) Minimum Split (s)

0.92

2024 PM Peak NOBUILD Conditions

Either Case

D:IATOBE/PROJECTS_2012/Valero_RB_Broadway/Synchro/2024PNX.syn

Either Case D:IATOBE\PROJECTS_2012Valero_RB_Broadway/Synchro/2024PNX.syn 89 1 1.25 538 Offset 12 (9%), Referenced to phase 4:EBTL and 8:WBTL, Start of Green 5: Second St & Rio Bravo Blvd Intersection Capacity Utilization 185,0% Analysis Period (min) 15 5.0 10.0 12.0 8.6% 4.0 1.0 1.0 1.0 1.0 1.0 1.0 Min 59.0 0.42 1.76 374.8 0.0 374.8 R 2024 PM Peak NOBUILD Conditions Control Type: Actuated-Coordinated g 47 0 Intersection Signal Delay: 323.2 Actuated Cycle Length: 140 ត Maximum v/c Ratio: 2.26 Total Spik (s) Total Spik (s) Yeklow Time (s) Al-Red Time (s) Lost Time Adjust (s) Total Lost Time (s) Lead/Lag Lead-Lag Optimize? Recall Mode Intersection Summary Splits and Phases: Actuated g/C Ratio Natural Cycle: 110 Act Effct Green (s) Cycle Length: 140 Approach Delay Approach LOS Control Delay Total Delay LOS Queue Delay v/c Ratio 5 ş ŝ 1 3

D:MTOBEIPROJECTS_2012IValero_RB_Broadway/Synchrol2024PBX-CaseY.syn 869 Terry O. Brown, P.E. 3/10/2012 - Synchro 7 0.92 SBR \mathbf{F} 46.0 47.0 5.0 3.0 0.72 0.72 467.2 F 2.16 46.5 1.00 526.9 573.4 218 200 1.00 1.00 1.00 237 237 237 51 NA SBT 66.9 68.9 5.0 3.0 365 20.13 0.28 0.28 28.9 14.0 42.9 42.9 277 4.0 1.00 1.00 0.95 0.16 0.16 0.16 0.16 0.365 301 301 pm+pt 301 SBL 24.0 H 0.92 00 ٩. 222 900 **RBN** 44.1 45.1 5.0 5.0 5.3 5.3 9 0.27 0.27 0.83 44.0 1.00 10.7 54.6 D 88.0 **FB** 0 672 pm+pt 63.1 65.1 65.1 5.0 5.0 3.0 297 297 297 297 297 20.7 3 20.7 3 2226 44.9 44.9 578.8 623.7 618 4.0 1.00 1.00 1.00 0.95 0.95 0.95 0.95 0.95 0.95 0.92 672 -HCM Level of Service Sum of lost time (s) ICU Lavel of Service 155 156 1500 11.00 11.00 11.00 11.00 VO+mq 0.92 - **8** 68.9 70.9 5.0 5.0 5.0 5.0 5.0 5.0 1.13 1.13 1.13 1.13 1.13 2.1.5 2.1.5 c 4 48.0 49.0 5.0 3.0 1203 c0.67 1.90 45.5 1.12 1.12 407.5 458.6 412.6 2290 NA 4.0 0.95 1.00 1.00 1.00 1.00 1.00 3438 3438 0.92 Ļ MBT 1012 HCM Signalized Intersection Capacity Analysis 114 4.0 4.0 1.00 1.00 0.95 0.95 0.08 1719 1719 0.92 124 om-pt 5 MBL 349.1 2.20 140.0 185.5% 275 275 4.0 1.00 0.85 1.00 1.00 1.00 1.00 0.92 209 126 173 VO+mq 1 EBR 1553 NA 1.24 44.5 0.89 111.1 50.0 51.0 5.0 5.0 3.0 1252 0.45 0.45 166.5 F Ť 5: Second St & Rio Bravo Blvd 243 4.0 1.00 1.00 0.95 0.95 0.95 0.95 264 264 264 264 0m+pt 57.0 59.0 5.0 5.0 5.0 3.0 150 150 1.76 0.64 1.76 35.0 35.0 35.0 35.0 35.0 1 B Actuated Cycle Length (s) Intersection Capacity Utilization Analysis Period (min) c Critical Lane Group 2024 PM Peak BUILD Conditions HCM Average Control Delay HCM Volume to Capacity ratio Adj. Flow (vph) RTOR Reduction (vph) Lane Group Flow (vph) Peak-hour factor, PHF Actuated Green, G (s) Incremental Delay, d2 Lane Grp Cap (vph) v/s Ratio Prot v/s Ratio Perm Approach Delay (s) Approach LOS ntersection Summary Effective Green, g (s) Vehicle Extension (s) Actuated g/C Ratio Clearance Time (s) ane Configurations Ideal Flow (vphpl) Total Lost time (s) Flt Permitted Satd. Flow (perm) Progression Factor Protected Phases Uniform Delay, d1 Permitted Phases Satd. Flow (prot) Delay (s) Level of Service ane Util. Factor Frt Fit Protected Volume (vph) Movement Furn Type v/c Ratio Terry O. Brown, P.E. 3/10/2012 - Synchro 7 Case 'Y' - Rio Bravo drive D:\ATOBE\PROJECTS_2012\Valero_RB_Broadway\Synchro\2024PBX-CaseY.syn 5.0 21.0 51.0 6.4% 4.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 Min 47.0 2.05 2.05 2.05 2.05 5.04.3 5.04.3 218 Z18 ø ø 412.4 **SBT** -> 5.0 10.0 28.0 4.0 4.0 4.0 4.0 4.0 1.0 277 pm+pt Min 68.9 0.49 0.82 44.9 0.0 0.0 0.0 ۶ SBI Min 45.1 0.32 0.84 55.7 55.7 55.7 2 5.0 21.0 47.0 47.0 4.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 374.9 NA 25 与 ŝ 5.0 10.0 7.1% 4.0 1.0 1.0 1.0 4.0 4.0 Lead Min 65.1 0.46 2.26 600.5 0.0 600.5 -25 133 618 pm+pt ij ∢ Intersection LOS: F ICU Level of Service H V0+mq 5.0 10.0 28.0 4.0 4.0 4.0 Min 74.9 0.54 0.20 19.1 19.1 19.1 MBR 155 C-Max 49.0 0.35 1.90 436.6 NBT 107 P 5.0 21.0 53.0 7.9% 4.0 1.0 4.0 Lag 0.0 436.6 392.2 Cycle Length: 140 Actuated Cycle Length: 140 Offset: 12 (9%), Referenced to phase 4:EBTL and 8:WBTL, Start of Green t Min 555.0 0.39 0.99 0.0 0.0 79.2 79.2 ш 114 pm+pt WBL \$ NO+LUID Min 75.0 0.54 0.32 10.6 10.6 10.6 EBR 275 5.0 10.0 7.1% 4.0 1.0 1.0 1.0 4.0 4.0 Lead 1 5: Second St & Rio Bravo Blvd 5.0 21.0 55.0 55.0 55.0 4.0 4.0 4.0 4.0 1.0 1.0 1.0 1.0 1.0 24.0 24.0 24.0 24.0 24.0 24.0 1429 NA C-Max 51.0 0.36 1.24 1.24 1.24 146.1 146.1 155.5 t 5: Second St & Rio Bravo Blvd E Intersection Signal Delay: 325.5 Intersection Capacity Utilization 185.5% Analysis Period (min) 15 243 0m+pt Min 59.0 59.0 0.42 1.76 374.7 0.0 374.7 ß 囹 1 Control Type: Actuated-Coordinated 2024 PM Peak BUILD Conditions 99 47 a Maximum v/c Ratio: 2.26 Total Split (s) Total Split (%) Yellow Time (s) Al-Red Time (s) Lost Time Adjust (s) Total Lost Time (s) ntersection Summary Act Effct Green (s) Actuated g/C Ratio Lead/Lag Lead-Lag Optimize? Lane Configurations Minimum Initial (s) Minimum Split (s) Splits and Phases: Vatural Cycle: 120 Protected Phases Permitted Phases Approach Delay **Detector Phase** Control Delay Queue Delay Approach LOS Volume (vph) Switch Phase Recall Mode Timings **Fotal Delay** -ane Group urm Type v/c Ratio 5 S SO 势 8 1

EOM. Case Y - Rio Bravo drive D:MTOBEDPROJECTS_2012Valero_RB_Broadway/Synchrol2024PBX-CaseY_MIT.syn Terry O. Brown, P.E. 3/10/2012 - Synchro 7 45.0 46.0 5.0 5.0 595 595 0.13 0.40 36.3 1.00 0.4 0.4 0.4 D 0.3 303.2 5 ٨ 277 900 4.0 1.00 1.00 0.95 0.95 0.95 0.95 0.10 0.10 0.10 0.10 0.10 0.10 0.92 0.92 0.92 0.92 301 0 88 A. 17.0 H 222 NBR 0.92 37.0 38.0 38.0 5.0 5.0 454 454 0.27 + NBT 0.99 50.8 1.00 38.8 89.6 205.8 49.0 51.0 5.0 5.0 5.0 3.0 442 442 442 0.41 1.52 42.5 42.5 245.5 2268.0 618 4.0 1900 1.00 1.00 0.95 0.95 0.95 0.95 0.57 0.57 0.57 0.57 0.57 0.57 0 672 4 NBL HCM Level of Service Sum of lost time (s) ICU Level of Service 168 vo+mq 60 ABA ∢ 1.64 41.5 1.07 1.07 287.0 331.3 40 2107 2107 1900 4.0 1.00 1.00 3438 3438 3438 3438 0 2290 NA 55.0 57.0 5.0 5.0 3.0 1400 0.67 0.92 299.1 ŧ TBM HCM Signalized Intersection Capacity Analysis 61.0 63.0 0.45 114 4.0 1.00 1.00 0.95 0.95 0.95 1719 0.07 0.92 124 pm+pt 5.0 125 0.04 0.40 0.99 0.99 0.99 1.38 1.38 40.4 86.7 6 NBI 231.4 1.79 140.0 158.4% V0+-111 835 0.02 0.09 0.21 18.5 2.10 2.10 2.10 38.9 EBR 2024 PM Peak BUILD Conditions - MITIGATED GEOM. 1 59.0 5.0 3.0 3.0 1449 0.45 П 11.6 F 1553 NA 1.07 40.5 0.85 42.0 78.5 t Second St & Rio Bravo Blvd 243 900 4.0 1.00 1.00 1.00 1.95 0.95 1719 0.07 264 264 264 1 264 0m+pt EB Actuated Cycle Length (s) Intersection Capacity Utilization Analysis Period (min) c Critical Lane Group HCM Volume to Capacity ratio Intersection Summary HCM Average Control Delay RTOR Reduction (vph) Lane Group Flow (vph) Satd. Flow (perm) Peak-hour factor, PHF Actuated Green, G (s) Progression Factor Incremental Delay, d2 Effective Green, g (s) Actuated g/C Ratio Approach Delay (s) Approach LOS Vehicle Extension (s) ane Configurations Lane Grp Cap (vph) v/s Ratio Prot tdeal Flow (vphpl) Total Lost time (s) Lane Util. Factor Fit Protected Satd. Flow (prot) Clearance Time (s) Adj. Flow (vph) RTOR Reduction (Protected Phases Permitted Phases Uniform Delay, d1 Delay (s) Level of Service v/s Ratio Perm Volume (vph) Flt Permitted Movement ium Type v/c Ratio ŝ ÷ Terry O. Brown, P.E. 3/10/2012 - Synchro 7 5.0 21.0 50.0 50.0 4.0 1.0 1.0 1.0 1.0 1.0 1.0 5.0 ø Min 45.0 45.0 0.32 1.76 377.1 0.0 889 Perm SBR * 5.0 21.0 50.0 5.7% 218 ¥ 4.0 1.0 4.0 Lag Min 46.0 0.33 0.40 0.40 0.0 38.8 38.8 38.8 D 265.4 SBT 277 pm+pt 5.0 10.0 25.0 7.9% 4.0 -1.0 4.0 Lead SBL 2 5.0 21.0 42.0 4.0 1.0 1.0 4.0 4.0 1.0 1.0 1.0 A Si A 196.6 Min 38.0 0.27 0.29 85.3 0.0 85.3 85.3 5.0 10.0 17.0 2.1% Min 51.0 0.36 1.52 275.2 275.2 618 pm+pt 4.0 -1.0 4.0 Lead 275.2 Ē ø Intersection LOS: F ICU Level of Service H g 101 53 + B NO+LUID 5.0 10.0 25.0 4.0 1.0 -1.0 4.0 4.0 Lead 45 MBR 155 4 123 1618 5.0 21.0 61.0 13.6% C-Max 57.0 57.0 0.41 1.64 317.8 0.0 317.8 NBT \$101 × 4.0 1.0 4.0 4.0 286.5 Ť Actuated Cycle Length: 140 Offset 12 (9%), Referenced to phase 4:EBTL and 8:WBTL, Start of Green 114 pm+pt 30 0 5.0 10.0 10.0 4.0 1.0 1.0 1.0 4.0 4.0 4.0 WBL 6 NO+UJd 5.0 17.0 2.1% 275 4.0 4.0 Lead Min 76.0 0.54 0.31 6.9 6.9 6.9 EBR 1 5: Second St & Rio Bravo Blvd EBT 1429 NA 5.0 21.0 63.0 5.0% 4.0 -1.0 4.0 Lag C-Max 59.0 59.0 1.07 75.9 75.9 75.9 75.9 104.7 t 5: Second St & Rio Bravo Blvd Intersection Signal Delay: 215.8 Intersection Capacity Utilization 158.4% Analysis Period (ruin) 15 Min 67.0 0.48 1.76 384.8 0.0 5.0 10.0 12.0 12.0 4.0 4.0 4.0 4.0 4.0 4.0 om+pt 384.8 243 1 Ē Control Type: Actuated-Coordinated ß 42, g Aaximum v/c Ratio: 1.76 Lost Time Adjust (s) Total Lost Time (s) 100 Lead/Lag Lead-Lag Optimize? mensection Summary Splits and Phases: Lane Configurations Turn Type Protected Phases Act Effct Green (s) Actuated g/C Ratio Natural Cycle: 130 Minimum Initial (s) Cycle Length: 140 Permitted Phases Minimum Split (s) Yellow Time (s) All-Red Time (s) Approach Delay Detector Phase Total Split (s) Total Split (%) Control Delay Queue Delay Approach LOS (olume (vph) Switch Phase Total Delay LOS Recall Mode Lane Group Timings v/c Ratio g

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SBR 7

2024 PM Peak BUILD Conditions - MITIGATED GEOM. D:ATOBEPROJECTS_2012Valero_RB_Broadway/Synchrol2024PBX-CaseY_MIT.syn

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599 53.0 61.9 84.3 73.4 91.4 24.6 15.7 43.0 13 0.46 0.41 0.46 0.56 0.70 0.19 0.13 0.33 10 3.0 3.0 3.0 5.0 <	83.3		23			29.7
0.46 0.41 0.46 0.55 0.55 0.56 0.50 5.0 <th< td=""><td>84.3</td><td></td><td></td><td></td><td>.0 24.8</td><td>31.7</td></th<>	84.3				.0 24.8	31.7
3.0 3.0 5.0 <td>0.65</td> <td>1</td> <td></td> <td>-</td> <td></td> <td>3</td>	0.65	1		-		3
30 30 30 30 30 30 30 780 470 730 410 717 310 310 310 310 102 81402 780 411 1129 255 415 556 0.14 0.03 0.34 0.14 0.14 0.05 415 556 0.14 0.03 0.34 0.20 0.24 0.25 0.04 0.14 0.14 0.03 0.37 13.39 6.9 4.05 5.47 4.22 0.04 13.3 0.24 0.14 0.05 0.14 23.6 0.14 0.15 0.37 13.3 6.24 4.22 1.06 1.00 1.00 0.4 125 0.0 8.3 1.44 100 4.05 5.6 6.26 21.3 48.3 1.44 100 4.06 5.6 6.5 6.5 6.5 6.5 6.5 6.5 6.5 6.5 </td <td>5.0</td> <td></td> <td></td> <td></td> <td></td> <td>5.0</td>	5.0					5.0
478 1402 780 417 1941 1129 255 415 556 0.14 0.03 0.06 0.16 0.11 0.03 0.08 0.020 0.14 0.34 0.34 0.13 0.05 0.06 0.14 0.05 0.04 0.02 0.13 0.06 0.78 0.20 0.24 0.42 0.67 0.94 209 3.08 1.84 3.9 1.39 6.9 455 547 422 21.3 40.3 1.84 3.89 1.39 1.44 100 100 100 100 0.4 1.25 0.0 8.3 0.2 0.1 1.1 4.3 2.36 65.8 55.8 547 42.2 0.4 125 0.0 8.3 0.2 0.1 1.1 4.3 2.36 65.8 55.8 547 42.2 1.0 1.00 1.00 1.00 1.00 1.00 1.00 1.00	3.0					~
ULZ CLAB U-00 U-16 U-11 U-03 U-03 U-08 CL2U 0.14 0.03 0.05 0.78 0.20 0.24 0.05 0.14 2.09 36.8 18.4 37.9 13.9 6.9 45.5 5.47 4.22 1.00 1.00 1.00 0.81 1.39 1.44 1.00 1.00 1.00 0.4 12.5 0.08 3 0.2 0.1 1.1 4.3 2.3.6 2.1.3 49.3 18.4 38.9 19.4 10.0 46.6 58.9 65.8 C D B D B A D E E 4.7 2.7 61.5 4.7 2.7 61.5 4.7 2.7 61.5 4.3 HCM Level of Service D 0.93 Sum of fast three [s] 12.0 12.0	417					422
U14 0.010 0.03 0.54 0.114 0.105 0.14 0.34 0.30.005 0.76 0.224 0.42 0.67 0.34 209 36.8 18.4 7.9 13.9 0.44 1.00 1.00 1.00 0.4 12.5 0.0 8.3 0.2 0.1 1.1 4.3 23.6 21.3 49.3 18.4 38.9 19.4 1.00 1.00 1.00 0.4 12.5 0.0 8.3 0.2 0.1 1.1 4.3 23.6 2.1 41.7 2.27 0.1 6.6 6.6 6.8 44.7 2.27 6.1 6.6 6.6 6.8 44.7 2.27 6.1 6.1 6.6 6.8 0.3 6.8 0.8 0.8 0.8 0.8 0.8 0.8 0.8 0.8 0.8 0	6.10			1	13 0.00	0.00
2039 0.53 0.470 0.470 0.29 0.54 0.97 2.39 1.00 1.00 1.00 0.81 1.39 1.44 1.00 1.00 1.00 0.4 125 0.0 8.3 0.2 0.1 1.1 4.3 23.6 2.1.3 49.3 18.4 38.9 13.4 1.00 1.00 1.00 C B A 10.0 4.66 5.6 5.6 44.7 2 22.7 6 5.6 5.6 5.6 44.7 2 22.7 6 5.6 5.6 44.7 2 22.7 6 5.6 5.6 0.3 44.7 1.0 1.00 4.66 5.6 5.6 44.7 1.0 2.7 7 5.6 5.6 1.6 5.6 5.6 5.6 5.6 5.6 5.6 5.6 5.6 5.6 5	47°0				3	
1.00 1.01 <th< td=""><td>37.0</td><td></td><td>1</td><td></td><td>45 U.JU</td><td>0.04 37.5</td></th<>	37.0		1		45 U.JU	0.04 37.5
0.4 125 0.0 8.3 0.2 0.1 1.1 4.3 23.6 21.3 49.3 18.4 38.9 19.4 10.0 46.6 56.9 55.8 C D B D B A D E E E 44.7 22.7 51.5 D 61.5 61.5 61.5 130.0 Sun of lost time (s) 12.0	180	13			N	1001
21:3 49:3 18.4 38.9 19.4 10.0 46.6 58.9 65.8 C D B D B A D E E 44.7 22.7 61.5 D C E E 46.3 HCM Level of Service D 0.93 Sum of hist time (s) 12.0	8.3			1		0.0
C D B D B A D E E 44.7 22.7 61.5 D C E E 46.3 HCM Level of Service D 0.93 Sun of lost time (s) 120	38.9					37.6
44.7 22.7 61.5 D C E E 46.3 HCM Level of Service 0.93 Sum of hest time (s)						
D C E 46.3 HCM Level of Service 0.93 Sum of lost time (s) 130.0 Sum of lost time (s)	22.7		61.5		64.8	
46.3 HCM Level of Service 0.93 Sun of lost time (s) 130.0 Sun of lost time (s)	o		ш		ш	
46.3 HCM Level of Service 0.93 130.0 Sum of host time (s)	CONTRACTOR OF STREET	STRUE FEE	TOTAL COL	The second second	a Manual	The second
130.0 Sum of lost time (s)		of Service	Sec. 2	٥		
		(California and	41.0	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	ł.
Intersection Capacity Utilization 80.2% ICU Level of Service D		t Service		07	1.000	
15		0.00				

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5.0 10.0 7.7% 4.0 1.0 -1.0 4.0 Lead Terry O. Brown, P.E. 3/10/2012 - Synchro 7 NO+LUID Min 35.7 0.27 0.15 8.6 8.6 8.6 8.6 8.6 8.6 8.6 8.6 SBR - 53 7 9 9 5.0 21.0 30.0 23.1% **\$**8₹ 4.0 -1.0 Lag Min 24.8 24.8 0.19 0.30 0.30 0.0 0.0 0.0 0.0 0.0 53.8 53.8 SBT -> -5.0 10.0 22.0 4.0 4.0 4.0 4.0 4.0 1.0 ۶ ---SBL 394 Prot Min 18.0 0.14 0.14 81.0 81.0 81.0 ٩. 3 5 5.0 10.0 30.0 23.1% 4.0 -1.0 4.0 Lead Min 47.0 0.36 0.94 65.3 65.3 ш NBR 462 vo+mq TEN AN NAS 5.0 21.0 21.0 4.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 2% 61.8 61.8 Min 15.7 0.12 0.67 63.0 63.0 63.0 ٠ 92 pm+pt 5.0 10.0% 13.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 Min 24.6 0.19 0.42 41.0 0.0 41.0 0.0 0.0 NBL 1 Intersection LOS: D ICU Level of Service D Z 1 257 T257 5.0 10.0 22.0 4.0 1.0 1.0 4.0 4.0 1.0 2.0 1.0 Min 95.4 0.73 0.27 4.2 4.2 4.2 4.2 WBR Cycle Length: 130 Actualed Cycles Length: 130 Actualed Cycles, Hedienenced to phase 4:EBTL and 8:WBTL, Start of Green Natural Cycles: 90 4.0 1.0 4.0 Lag C-Max 73.4 0.56 0.20 19.7 19.7 19.7 21.7 C WBT ¥22 ¥ 5.0 21.0 77.0 59.2% ŧ 5.0 30.0 23.1% ¥ 265 pm+pt 1.0 -1.0 4.0 Lead Min 84.3 0.65 0.79 40.9 40.9 40.9 4.0 5 WBL ϕ 5.0 10.0 13.0 29 Ea 🎶 vo+mq 4.0 -1.0 4.0 Lead EBR Min 65.9 0.51 0.11 4.6 4.6 74 10 \$ 1 7: Isleta Blvd & Rio Bravo Blvd ခ်ို 5.0 21.0 57.0 4.0 4.0 1.0 4.0 4.0 4.0 21.0 NA 1098 C-Max 53.0 53.0 0.41 0.93 49.6 0.0 49.6 43.5 ٥ t Timings 7: Isleta Blvd & Rio Bravo Blvd Intersection Signal Delay. 45.5 Intersection Capacity Utilization 80.2% Analysis Period (min) 15 1 5.0 10.0 7.7% 4.0 1.0 1.0 4.0 4.0 4.0 Lead Min 59.9 0.46 0.34 14.8 14.8 14.8 14.8 14.8 2014 AM Peak NOBUILD Conditions B 135 in the Control Type: Actuated-Coordinated 20 έų Maximum v/c Ratio: 0.94 Lead/Lag Lead-Lag Optimize? Recall Mode Act Effct Green (s) Actuated g/C Ratio ŝ Switch Phase Minimum Initial (s) Minimum Spitt (s) Total Spitt (%) Total Spitt (%) Yeldw Time (s) All-Red Time (s) All-Red Time (s) Total Lost Time (s) Splits and Phases: ntersection Summary Lane Configurations Protected Phases Permitted Phases Detector Phase Approach Delay Approach LOS 8 Control Delay Queue Delay Total Delay LOS Volume (vph) Lane Group Furn Type v/c Ratio 5 닠

2014 AM Peak NOBUILD Conditions

Either Case D:ATOBEJPROJECTS_2012VValero_RB_Broadway/Synchrol2014ANX.syn

Either Case D:ATOBEIPROJECTS_2012VValero_RB_Broadway/Synchrol2014ANX.syn

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		t		•			-	-			•	
Movement	BL	EB1	EBR.	MBIL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
ane Configurations	1 -	\$	۶.,	*	+	¥.,	*	ŧ	¥.	16. 16	**	¥.
(olume (vph)	135	1099	74	269	315	264	92	243	463	396	180	- 59
deal Flow (vphpl) 1	006	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
otal Lost 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
ane Util. Factor	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	0.97	0.95	1.00
ii iiiiiiiiiiiiiiiiiiiiiiiiiiiiiiiiiii	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85
Fit Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
()04	1719	3438	1538	1719	3438	1538	1719	3438	1538	3335	3438	1538
	0.52	1.00	1.00	0.07	1.00	1.00	0.63	1.00	1.00	0.95	1.00	1.00
	944	3438	1538	127	3438	1538	1140	3438	1538	3335	3438	1538
or, PHF	0.84	0.84	0.84	0.81	0.81	0.81	0.87	0.87	0.87	0.93	0.93	0.93
Adj. Flow (vph)	161	1308	8	332	389	326	106	279	532	426	194	70
RTOR Reduction (vph)	•	0	41	0	•	20	•	0	6	0	0	53
ane Group Flow (vph)	161	1308	47	332	389	276	106	279	523	426	194	17
	pm+pt	¥	vo+mq	pm+pt	NA	vo+mq	pm+pt	NA	vo+mq	Prot	AN	VO+mq
Protected Phases	1	4	h	3	80	-	s	61	e	-	9	
	4		4	80		0	2		2			φ
	57.9	52.0	59.9	83.3	72.4	89.4	22.6	14.7	41.0	17.0	23.8	29.7
s)	59.9	53.0	61.9	84.3	73.4	91.4	24.6	15.7	43.0	18.0	24.8	31.7
Actuated g/C Ratio	0.46	0.41	0.48	0.65	0.56	0.70	0.19	0.12	0.33	0.14	0.19	0.24
Clearance Time (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
ane Grp Cap (vph)	476	1402	780	417	1941	1129	255	415	556	462	656	422
	0.02	c0.38	0.00	0.17	0.11	0.03	0.03	0.08	c0.20	c0.13	0.06	0.00
Perm	0.14		0.03	0.35		0.15	0.05		0.14			0.01
	0.34	0.93	0.06	0.80	0.20	0.24	0.42	0.67	0.94	0.92	0.30	0.04
Jniform Delay, d1	20.9	36.8	18.4	38.1	13.9	6.9	45.5	54.7	42.2	55.3	45.1	37.5
Progression Factor	1.0	1.00	1.00	0.80	1.40	1.43	1.00	1.00	1.00	1.00	1.00	1.00
ncremental Delay, d2	0.4	12.6	0.0	9.0	0.2	0.1	11	4.3	23.9	23.9	0.3	0.0
Delay (s)	21.3	48.4	18.4	39.5	19.6	10.0	46.6	58.9	66.1	79.2	45.4	37.6
evel of Service	υ	٥	8	0	•	-	0	ш	ш	ш	0	
Approach Delay (s)		44.7			22.9	1000		61.7			65.5	
Approach LOS		۵			C			ш			ш	
Intersection Summary	THE R	1919	1. 3/3	and the second	Control of	NACURA	1. 120 al	Por any	L Safe	THE REAL	C. (505)	Hill Com
-ICM Average Control Delay			46.4	Ť	CM Leve	HCM Level of Service	e		٥			
HCM Volume to Capacity ratio			0.93	1000						11/100		
Actuated Cycle Length (s)			130.0	σ.	um of los	Sum of lost time (s)			12.0			
ntersection Capacity Lituzation			80.3%	7	U Level	ICU Level of Service		100	0	Star -		
- Critical Lane (mut)		100.000	2									

D:MTOBEPROJECTS_2012Valero_RB_Broadway(Synchrol2014ABX-CaseY.syn

2014 AM Peak BUILD Conditions

Case "Y' - Rio Bravo drive D:ATOBEIPROJECTS_2012/Valero_RB_Broadway/Synchrol2014ABX-CaseY.syn Terry O. Brown, P.E. 3/10/2012 - Synchro 7 - 53 VO+mq 5.0 10.0 7.7% 4.0 1.0 -1.0 -1.0 -1.0 -1.0 Min 35.7 0.27 0.15 8.6 8.6 8.6 8.6 8.6 8.6 SBR > φ 5.0 21.0 30.0 23.1% 1881 180 4.0 -1.0 4.0 Lag Min 24.8 0.19 0.30 46.2 0.0 64.3 64.3 5.0 10.0 22.0 6.9% 4.0 -1.0 4.0 ead ۶ Prot 396 Min 18.0 0.14 0.02 81.7 81.7 81.7 81.7 ۰. vo+mq 2 5 23.1% 4.0 -1.0 4.0 Min 47.0 0.36 0.94 65.5 65.5 65.5 65.5 NBR 463 5.0 10.0 30.0 N ST ST 5.0 21.0 21.0 16.2% Min 15.7 0.12 0.67 63.0 63.0 63.0 63.0 63.0 E 61.9 E -92 pm+pt 5.0 10.0 13.0 10.0% 4.0 1.0 4.0 1.0 4.0 1.0 1.0 Min 24.6 24.6 0.19 0.42 41.0 0.0 41.0 Ę 4 Intersection LOS: D ICU Level of Service D Ъ 100 NO+ILIId 5.0 10.0 22.0 22.0 4.0 1.0 -1.0 4.0 1.0 1.0 Min 95.4 0.73 4.3 4.3 4.3 4.3 WBR 264 ⋞ Actuated Cycle Length: 130 Offset 102 (78%), Referenced to phase 4:EBTL and 8:WBTL, Start of Green Natural Cycle: 90 5.0 21.0 77.0 59.2% C-Max 73.4 0.56 0.20 19.8 0.0 19.8 00 \$33 4.0 1.0 4.0 Lag 21.9 C WBT ŧ 5.0 10.0 30.0 23.1% Min 84.3 0.65 0.80 41.6 0.0 0.0 0.0 D ¥ 1.0 -1.0 4.0 Lead 269 pm+pt 40 WBI 5 ŧ 10: 171 E0 🐴 NO+ELID 5.0 10.0 13.0 10.0% 4.0 1.0 -1.0 4.0 Lead EBR 74 Min 65.9 0.51 0.11 4.6 4.6 54 1 7: Isleta Blvd & Rio Bravo Blvd ŝ**∣**\$ 5.0 21.0 57.0 43.8% 4.0 1.0 1.0 4.0 4.0 Lag \$60 M C-Max 53.0 53.0 0.41 0.41 49.8 49.8 49.8 43.6 D t EBT Timings 7: Isleta Blvd & Rio Bravo Blvd Intersection Signal Delay: 45.6 Intersection Capacity Utilization 80.3% Analysis Period (min) 15 5.0 10.0 7.7% 4.0 1.0 1.0 1.0 4.0 4.0 4.0 135 1 EBL om+pt Control Type: Actuated-Coordinated 20 2014 AM Peak BUILD Conditions 2 Maximum v/c Ratio: 0.94 g Lead/Lag Lead-Lag Optimize? Recal Mode Act Effct Green (s) Actuated g/C Ratio Intersection Summary Protectiad Phases Perantited Phases Selector Phase Selector Phase Minimum Initial (s) Minimum Split (s) Total Split (s) Total Split (s) HRed Time (s) All-Red Time (s) Total Lost Time (s) Splits and Phases: ane Configurations Approach Delay Approach LOS Cycle Length: 130 Total Delay LOS Volume (vph) Control Delay Queue Delay Lane Group um Type v/c Ratio Б g **₹**

rations												
gurations	T			5	ŧ.	4	•	+	×,	۶	-	7
rations	L EBT	T EBR	14	WBL	TBW	WBR	NBL	NBT	NBR	SBL	SBT	SBR
	*		W.	F	**	×	1	ŧ	R	**	**	
/olume (vph) 164			140	594	1040	524	121	551	210	432	312	166
-	-	-	8	0061	1900	1900	1900	1900	1900	1900	1900	1900
			4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
	0 0.95		8	1.00	0.95	1.00	1.00	0.95	1.00	0.97	0.95	1.00
-rt 1.00			5	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85
			8	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prol) 1719		8 1538		1719	3438	1538	1719	3438	1538	3335	3438	1538
			8	0.26	1.00	1.00	0.55	1.00	1.00	0.95	1.00	1.00
Sald. Flow (perm) 456		8 1538	88	468	3438	1538	966	3438	1538	3335	3438	1538
N, PHF	_	4 0.94	*	0.92	0.92	0.92	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph) 174	4 484		149	646	1130	670	180	264	221	455	326	175
<pre>TOR Reduction (vph)</pre>			96	0	•	22	0	0	16	0	0	68
ane Group Flow (vph) 174	4 494		53	646	1130	513	180	264	205	455	328	107
Turn Type pm+pt		NA pm+ov		pm+pt	NA	vo+mq	pm+pt	AN	NO+Wd	Prot	¥	VO+MQ
Protected Phases	7	4	5	•	8	-	5	2	3	-	9	~
			4	~		63	2		2			9
Actuated Green, G (s) 42.8	8 31.5		44.0	80.6	64.5	84.3	26.9	14.4	58.7	19.8	21.7	33.0
s)			46.0	81.8	65.5	86.3	28.9	15.4	60.7	20.8	22.7	35.0
3	-	-	52	0.63	0.50	0.66	0.22	0.12	0.47	0.16	0.17	0.27
Clearance Time (s) 5.0			5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
(5	1		3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
(vph)				730	1732	1068	296	407	765	534	009	461
	6 0.14			c0.31	0.33	0.08	0.06	c0.08	0.09	c0.14	0.10	0.02
Perm			0	c0.25		0.26	0.07		0.04			0.05
C. Barrens	2			0.88	0.65	0.48	0.61	0.65	0.27	0.85	0.55	0.23
				23.6	23.8	10.8	43.9	54.7	21.1	53.1	49.0	37.0
				0.57	0.78	0.80	1.00	1.00	1.00	1.00	1.00	1.00
tal Delay, d2			-	<u>.</u>	0.2	0.0	3.5	3.5	0.2	12.4	1.0	0.3
35	¥	5 28.1	-	14.7	18.7	8,6	47.4	58.3	21.3	65.5	50.0	37.3
	0	0	0		•	×	٥	ш	U	ш	۵	
Approach Lelay (s)	40.2	N	ġ		15.2			43.0			55.0	
Approach LOS		-			8			۵			ш	
ntersection Summary	11 2 2 C	CHART I	Contraction of the second	ALC: NO	1625	6.000	THE STA	CENTER OF		South States	Souther	Contraction of the
HCM Average Control Delay		31.3	~	오	M Level	HCM Level of Service	9		ပ			
ICM Volume to Capacity ratio		0.84	4									
Actuated Cycle Length (s)		130.0	9,	33	n of lost	Sum of lost time (s)			12.0			
Analysis Period (min)		10.376	R 4	ž	I LAVEL C	HUU LAVEN OF SERVICE			-			
c Critical Lane Group												

166 pm+ov 5.0 19.0 14.6% 1.0 1.0 1.0 1.0 4.0 -1.0 4.0 Lead Terry O. Brown, P.E. 3/10/2012 - Synchra 7 Min 38.9 0.30 0.33 17.4 17.4 B SBR Either Case D:IATOBEIPROJECTS_2012VValero_RB_BroadwaylSynchrol2014PNX.syn ¥ 6 5.0 21.0 28.0 21.5% ¥33 4.0 1.0 4.0 Lag Min 22.6 0.17 0.55 52.6 52.6 0.0 0.0 54.1 D D SBT -5.0 10.0 25.0 9.2% ۶ Prot 432 4.0 -1.0 4.0 Bead Min 0.16 0.35 0.85 0.85 0.0 0.0 0.0 E 5 4 ٩. 4.0 4.0 4.0 4.0 NBR лон-ша 3 5 5.0 10.0 56.0 12.3% Min 64.7 0.50 0.28 16.0 16.0 16.0 16.0 83 210 42.2 0 NBT 251 2 Min 15.4 0.12 0.65 62.4 0.0 62.4 ٠ 5.0 10.0 13.8% 4.0 1.0 -1.0 4.0 Lead 171 pm+pt Min 28.9 0.22 0.61 44.6 0.0 744.6 0.0 D Ð 1 Intersection LOS: C ICU Level of Service D vo+mq 5.0 10.0 25.0 4.0 1.0 1.0 1.0 4.0 4.0 4.0 1.0 2.5% Min 90.3 5.6 5.6 5.6 5.6 5.6 5.6 5.6 WBR 524 4 5 Cycle Length: 130 Actuated Cycle Length: 130 Offset: 115 (89%), Referenced to phase 4:EBTL and 8:WBTL, Start of Green 5.0 21.0 65.0 50.0% C-Max 65.6 0.50 0.65 19.5 0.0 19.5 19.5 **‡**₹≸ 00 4.0 1.0 1.0 1.0 1.0 14.7 B 4. Ť WBT 53 594 pm+pt **അ** ന 5.0 10.0 55.0 42.3% Min 81.8 0.63 0.88 14.3 14.3 B 4.0 -1.0 4.0 Lead WBL 5 60 V 59 VO+mq 5.0 10.0 13.8% 4.0 -1.0 4.0 Lead EBR 140 Min 50.0 0.38 0.22 5.5 5.5 < 1 8 Splits and Phases: 7: Isleta Blvd & Rio Bravo Blvd σ EBT **‡**₿₹ 5.0 21.0 29.0 4.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 C-Max 32.5 0.25 0.58 48.0 0.048.0 37.5 D t 7: Isleta Blvd & Rio Bravo Blvd Intersection Signal Delay: 30.3 Intersection Capacity Utilization 78,3% Analysis Period (min) 15 5.0 10.0 19.0 4.6% 4.0 1.0 1.0 1.0 1.0 1.0 2.1.0 1.0 1.0 1.0 1.0 Min 44.8 0.34 0.63 35.0 0.0 35.0 D 1 pm+pt B 164 2014 PM Peak NOBUILD Conditions Control Type: Actuated-Coordinated 2 5 ģ Maximum v/c Rabo: 0.88 Lead/Lag Lead-Lag Optimize? Recall Mode Act Effct Green (s) Actuated g/C Ratio Switch Phase Minimum Initial (s) Minimum Spitt (s) Total Spitt (%) Total Spitt (%) Veldor Time (s) AM-Red Time (s) AM-Red Time (s) Total Lost Time (s) 128 Lane Configurations Volume (vpti) Intersection Summary Turn Type Protected Phases Permitted Phases Detector Phase Approach Delay Approach LOS Natural Cycle: 90 Control Delay Queue Delay Total Delay LOS Lane Group Timings v/c Ratio 넟 6

2014 PM Peak NOBUILD Conditions

Either Case D: MTOBE/PROJECTS_2012/Valeco_RB_Broadway/Synchrol2014PNX.syn

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22 0.39 0.66 0.52 0.51 0.55 0.28 0.86 0.55 0.33 Character Time (s) 5.0 5.0 5.0 5.0 3.0 3.0 10 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.	0.34						15		0.16	0.17	0.30	Anticada die Baria	4.94	32.1	92.0	ŧ				01.1 01.1
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Intersection Capacity Utilization 78,7%	teriod (min) 15											Actuated Cycle Length (s)			130.0	Sum	of lost tim	ne (s)		12.0
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2014 PM Peak BUILD Conditions

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Case "Y' - Rio Bravo drive D:ATOBEIPROJECTS_2012IValero_RB_Broadway/Synchrol2014PBX-CaseY.syn

2014 PM Peak BUILD Conditions

Case "Y - Rio Bravo drive D:ATOBEIPROJECTS_2012VValero_RB_BroadwaytSynchrol2014PBX-CaseY.syn

36.0 38.0 5.0 5.0 5.0 5.0 5.0 3.0 1.00 1.00 0.1 37.9 0.1 0.1 0.1 0.1 D Either Case D:ATOBE/PROJECTS_2012/Valero_RB_Broadwary/Synchro/2024AN/X,syn Terry O. Brown, P.E. 3/10/2012 - Synchro 7 S \mathbf{i} 322 NA φ 25.4 26.4 5.0 5.0 5.0 5.0 0.19 5.0 0.19 0.19 0.09 0.50 50.9 50.9 51.5 51.5 D A0.1 40 11.00 11. SBT 21.0 22.0 5.0 5.0 5.0 5.0 5.0 5.0 Prot 1.28 59.0 1.00 141.1 200.1 ۶ 調 8.0 H 703 4.0 1.00 1.00 1538 1538 0.92 0.92 0.92 762 NO+IUI ×. **HBN** 16.0 17.0 5.0 5.0 417 0.12 0.12 4.0 1.00 1.00 1.00 1.00 1.00 0.92 408 A08 NA 0.98 61.3 1.00 38.0 99.3 63.2 + NBT 375 142 1900 4.0 1.00 1.00 0.95 0.95 0.95 0.92 0.92 154 164 om+pt 夏 1 HCM Level of Service Sum of lost time (s) ICU Level of Service NO+UId 93.4 95.4 5.0 5.0 5.0 5.0 0.06 0.21 0.21 0.39 9.6 9.6 0.39 9.6 29.9 MBR 4.0 566 566 1.00 1.00 1.00 1.00 1.00 1.00 1.00 515 615 615 NA 72.4 73.4 73.4 5.0 0.52 5.0 3.0 1802 0.18 0.18 0.18 0.18 0.34 19.3 1.53 0.0 29.6 C 89.7 ţ WBT HCM Signalized Intersection Capacity Analysis 88.0 89.0 5.0 5.0 420 420 0.25 1.21 1.21 1.21 1.21 8.6.6 98.6 98.6 98.6 98.6 4.0 1.00 1.00 0.95 0.95 0.95 0.07 510 510 510 pm+pt 900 5 MBL 123.6 1.27 140.0 114.1% vo+mq / EBR 65.6 67.6 5.0 5.0 3.0 787 787 787 0.01 0.04 0.04 19.6 0.1 0.1 0.1 0.1 1690 NA 54.0 55.0 5.0 5.0 3.0 3.0 1351 0.49 1.25 42.5 1.00 19.2 39.2 F 161.7 t Isleta Blvd & Rio Bravo Blvd 191 4.0 1.00 1.00 1.00 1.00 0.95 0.42 0.42 0.42 0.42 0.92 208 om+pt C Ħ 208 2024 AM Peak NOBUILD Conditions 1 Actuated Cycle Length (s) Intersection Capacity Utilization HCM Average Control Delay HCM Volume to Capacity ratio Adj. Flow (vph) RTOR Reduction (vph) Lane Group Flow (vph) Critical Lane Group 붎 엉 Actuated Green, G (s) Effective Green, g (s) Approach Delay (s) Approach LOS Analysis Period (min) Vehicle Extension (s) ntersection Summan Lane Configurations Volume (vph) Actuated g/C Ratio Clearance Time (s) Lane Grp Cap (vph) v/s Ratio Prot Ideal Flow (vphpf) Total Lost time (s) Progression Factor Incremental Delay, Satd. Flow (prot) Fit Permitted Protected Phases Uniform Delay, d1 Satd. Flow (perm) Permitted Phases Peak-hour factor, Lane Ubl. Factor Level of Service v/s Ratio Perm Frt Fit Protected Turn Type Movement Delay (s) v/c Ratio 2 Either Case 5.0 10.0 1.4% 4.0 1.4% 4.0 1.0 -1.0 4.0 Lead Min 42.1 0.30 7.0 7.0 7.0 7.0 7.0 7.0 7.0 D:\ATOBEIPROJECTS_2012\Valero_RB_Broadway/Synchrol2024ANX.syn Terry O. Brown, P.E. 3/10/2012-Synchro 7 лон-ша SBR 107 Y g 5.0 21.0 30.0 21.4% 4.0 4.0 1.0 14 AN 587 5.0 10.0 26.0 ۶ Prot Big 4.0 -1.0 4.0 ead Min 22.0 0.16 1.28 1.28 87.3 0.0 ٩. Min 51.0 0.36 1.36 1.36 NBR 703 NO+LUC 3 5.0 10.0 34.0 4.3% 4.0 -1.0 4.0 4.0 4.0 0.0 208.7 5.0 21.0 21.0 5.0% 1375 A 4.0 4.0 4.0 Fag Min 17.0 0.12 0.98 0.98 56.3 0.0 Ę 12.1% 4.0 1.0 4.0 4.0 4.0 Min 29.6 0.21 0.56 46.6 0.0 46.6 46.6 142 pm+pt 5.0 10.0 Đ 2 Intersection LOS: F ICU Level of Service H \$ 69 VO+IIIQ 5.0 10.0 26.0 8.6% 4.0 1.0 4.0 8ad Min 99.4 0.71 0.41 16.2 0.0 0.0 16.2 16.2 16.2 MBR 435 4 C-Max 73.4 0.52 0.34 29.9 29.9 29.9 Actuated Cycle Length: 140 Offset 97 (69%), Referenced to phase 4:EBTL and 8:WBTL, Start of Green 5.0 21.0 77.0 4.0 1.0 4.0 Lag **\$**98 t WBT 55.7 3 1/1 8 5.0 10.0 34.0 pm+pt 3 4.0 -1.0 4.0 Lead Min 89.0 89.0 1.21 1.21 1.23.5 0.0 123.5 469 **NBL** 6 5.0 10.0 17.0 2.1% 4.0 -1.0 4.0 Min 71.6 0.51 0.14 7.3 7.3 7.3 8 2 EBR -<u>8</u> VO+mc \$ 7: Isleta Blvd & Rio Bravo Blvd 16 3 25 1555 ISSS ISSS t 5,0 21.0 59.0 42.1% 4.0 1.0 4.0 4.0 1.0 1.0 C-Max 55.0 0.39 1.25 1.25 0.0 133.1 7: Isleta Blvd & Rio Bravo Blvd Intersection Capacity Utilization 114.1% Analysis Period (min) 15 5.0 16.0 1.4% 4.0 1.0 1.0 1.0 4.0 4.0 1.0 4.0 Min 66.6 0.47 0.47 16.9 16.9 16.9 16.9 16.9 om+pt 1 E 191 Control Type: Actuated-Coordinated 2024 AM Peak NOBUILD Conditions 2 Intersection Signal Delay: 117.1 21 0 ģ Maximum v/c Ratio: 1.36 Lost Time Adjust (s) Total Lost Time (s) Lane Group Lane Configurations ntersection Summary 130 3 Lead/Lag Lead-Lag Optimize? Splits and Phases: Recall Mode Act Effct Green (s) Minimum Initlal (s) Minimum Split (s) Actuated g/C Ratio Vatural Cycle: 130 Cycle Length: 140 Protected Phases Permitted Phases Yellow Time (s) All-Red Time (s) Approach Delay Detector Phase Total Split (s) Total Split (%) Control Delay Queue Delay Approach LOS Volume (vph) Switch Phase Total Delay LOS Timings Tum Type 6 닠 v/c Ratio Ř

Case "Y" - Rio Bravo drive D:IATOBEPROJECTS_2012/Valero_RB_Broadway/Synchrol2024ABX-CaseY.syn Terry O. Brown, P.E. 3/10/2012 - Synchro 7 \mathbf{F} ۵ 0.50 50.9 50.9 1.00 0.6 51.5 51.5 141.1 25.4 25.4 5.0 5.0 5.0 5.0 0.19 0.09 0.09 ш. -> 21.0 22.0 5.0 5.0 5.0 5.0 5.0 5.24 5.24 Prot 1.29 59.0 1.00 142.7 201.7 ۶ 58L 620 674 8.0 H NBR 763 VO+mq 45.0 47.0 5.0 5.0 560 560 560 560 13.0 13.6 1.36 46.5 1.36 1.36 220.9 220.9 408 NA ~ 16.0 17.0 5.0 5.0 3.0 417 0.12 400 11:00 11 0.98 61.3 11.00 338.0 99.3 63.7 NBT 4 142 1900 4.0 1.00 11.00 0.95 0.95 0.95 0.95 1719 0.56 0.92 154 154 pm+pt 27.6 29.6 5.0 3.0 154 277 0.05 0.07 0.56 47.8 1.00 2.4 2.4 2.4 50.2 펄 1 HCM Level of Service Sum of lost time (s) ICU Lavel of Service VO+mq 93.4 95.4 0.68 5.0 3.0 MBR 0.092 0.06 0.39 0.39 9.7 0.0 0.0 3.12 3.12 3.12 3.12 C 4 ¥ 72.4 73.4 5.0 5.0 3.0 802 0.18 0.34 19.3 1.54 1.54 0.0 0.0 C C C C C ţ WBT 618 HCM Signalized Intersection Capacity Analysis 473 1900 1.00 11.00 1719 0.95 0.95 0.95 514 514 pm+pt 514 NBL 5 NO+-UID 124.3 1.27 140.0 114.3% 1 EBR EBT 4.0 4.0 11.00 1691 NA 54.0 55.0 5.0 3.0 3.0 1351 1351 1.25 1.25 1.00 19.5 62.0 62.0 F F F F t 7: Isleta Bivd & Rio Bravo Blvd 208 3m+pt 191 4.0 1.00 1.00 1.00 0.95 0.95 0.42 0.42 0.42 0.42 208 208 1 æ 2024 AM Peak BUILD Conditions Actuated Cycle Length (s) Intersection Capacity Utilization Analysis Period (min) HCM Volume to Capacity ratio HCM Average Control Delay Adj. Fłow (vph) RTOR Reduction (vph) Lane Group Fłow (vph) Critical Lane Group Actuated Green, G (s) Lane Grp Cap (vph) v/s Ratio Prot v/s Ratio Perm ncremental Delay, d2 ntersection Summary Peak-hour factor, PHF Effective Green, g (s) Vehicle Extension (s) Approach Delay (s) Approach LOS Lane Configurations Ideal Flow (vphpl) Total Lost time (s) Lane Util. Factor Actuated g/C Ratio Clearance Time (s) Progression Factor Satd. Flow (perm) Protected Phases ^bermitted Phases Uniform Delay, d1 Delay (s) Level of Service Satd. Flow (prot) Volume (vph) Fit Protected Flt Permitted Novement Furn Type v/c Ratio 벁 5.0 10.0 1.4% 4.0 1.0 -1.0 4.0 4.0 Lead Min 42.1 42.1 7.0 0.21 7.0 7.0 7.0 Case Y' - Rio Bravo drive D:ATOBEIPROJECTS_2012/Valero_RB_Broadway/Synchro/2024ABX-CaseY.syn Terry O. Brown, P.E. 3/10/2012 - Synchro 7 SBR 10 N VO+mq 7 ø 5.0 21.0 30.0 21.4% 4.0 4.0 1.0 4.0 296 A Min 26.4 25.4 0.19 0.50 0.50 0.50 0.54.0 54.0 54.0 30.8 F SBT 5.0 10.0 26.0 8.6% 4.0 -1.0 4.0 Lead Min 222.0 0.16 1.29 1.29 1.29 Prot ۶ SBL 188.7 5.0 10.0 34.0 704 Pm+ov 4.0 -1.0 4.0 ead ٩. NBR Min 51.0 0.36 1.36 1.36 209.4 0.0 209.4 AN 375 N 5.0 21.0 21.0 5.0% 4.0 4.0 4.0 4.0 Min 17.0 0.12 0.98 99.7 56.8 142 pm+pt 5.0 10.0 17.0 2.1% LC) 4.0 -1.0 4.0 Lead Min 29.6 0.21 0.56 46.6 46.6 46.6 1 E 2 Intersection LOS: F ICU Level of Service H 1 55 5.0 10.0 26.0 8.6% 4.0 4.0 4.0 442 NO+UId Min 99.4 0.71 16.6 0.0 16.6 16.6 WBR ⋞ C-Max 73.4 0.52 0.34 30.1 30.1 30.1 Offset: 97 (69%), Referenced to phase 4:EBTL and 8:WBTL, Start of Green 5.0 21.0 77.0 -1.0 4.0 Lag **\$**8₹ 4.0 57.2 E ŧ MBT ŝ 778 \$ 473 pm+pt 3 Min 89.0 0.64 1.22 1.22 5.0 10.0 34.0 4.3% 4.0 1.0 4.0 8.0 5 NBL 0.0 VO+mq 5 5.0 10.0 17.0 2.1% EBR 106 4.0 -1.0 4.0 ead < 8 ٦ 1 1 3 16.5 7: Isleta Blvd & Rio Bravo Blvd C-Max 55.0 0.39 1.25 156.3 0.0 156.3 5.0 21.0 59.0 42.1% 44 1556 NA 4.0 1.0 4.0 Lag t E 133.4 7: Isleta Blvd & Rio Bravo Blvd Intersection Capacity Utilization 114.3% 5.0 10.0 1.4% 4.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 2.1.0 1.0 2.0 Min 66.6 0.48 0.47 16.9 16.9 16.9 16.9 16.9 pm+pt 191 E ٩ Control Type: Actuated-Coordinated ß 2024 AM Peak BUILD Conditions Intersection Signal Delay: 117.8 210 Actuated Cycle Length: 140 g Analysis Period (min) 15 Maximum v/c Ratio: 1.36 Yellow Time (s) All-Red Time (s) Lost Time Adjust (s) Total Lost Time (s) Lead/Lag Lead-Lag Optimize? Recall Mode Act Effot Green (s) mensection Summary 130 Lane Configurations Volume (vph) Splits and Phases: Minimum Initial (s) Actuated g/C Ratio Vatural Cycle: 130 Total Delay LOS Approach Delay Approach LOS Cycle Length: 140 Protected Phases Minimum Split (s) ^{permitted} Phases Detector Phase Total Split (s) Total Split (%) Control Delay Switch Phase Queue Delay Timings ane Group Turn Type S v/c Ratio *****

Г 107 1900 4.0 1.00 1.538 1.00 1.538 1.00 1.5388 1.538 1.538 1.538 1.538 1.538 1.538 1.538 1.538 1.538 1.538 1.538 1.538 1.538 1.5388 1.5388 1.5388 1.5388 1.5388 1.538 36.0 38.0 5.0 5.0 5.0 461 0.01 1.00 0.1 37.9 0.1 0.1 0.1 Terry O. Brown, P.E. 3/10/2012 - Synchro 7 EOM. Case Yr - Rio Bravo drive D:IATOBEIPROJECTS_2012/Valero_RB_Broadway/Synchrot2024ABX-CaseY_MIT.syn SBR \mathbf{F} 322 NA 25.4 26.4 5.0 5.0 5.0 648 648 0.09 0.50 50.9 1.00 0.6 51.5 1.41.1 18% 1.29 59.0 1.00 142.7 201.7 674 Prot 21.0 22.0 5.0 5.0 5.0 5.2 524 524 SBL 0.92 704 1000 11. 763 ло+ши 45.0 47.0 5.0 5.0 560 560 560 560 1.36 1.36 1.36 1.36 1.36 1.36 1.36 220.3 220.3 12.0 H ٩, **HBN** 4.0 375 900 4.0 1.00 1.00 1.00 3438 3438 A08 16.0 17.0 5.0 3.0 417 0.12 0.12 0.98 61.3 1.00 38.0 99.3 63.7 NBT 0.92 27.6 29.6 5.0 5.0 5.0 5.0 5.0 2.77 2.77 2.77 0.05 4.7.8 1.00 2.4 50.2 50.2 142 4.0 1.00 1.00 1.00 0.95 0.95 0.95 0.92 1719 0.92 154 154 154 om+pt R 1 HCM Level of Service Sum of lost time (s) ICU Level of Service vo+mq 93.4 95.4 95.4 5.0 5.0 5.0 5.0 1092 0.06 0.22 0.33 9.7 9.7 0.33 0.1 29.2 29.2 MBR 4 11.00 3438 3438 3438 0.92 618 NA 0.34 19.3 19.3 19.3 0.0 20.0 30.0 0 9 0 ŧ MBT HCM Signalized Intersection Capacity Analysis 7: Isleta Blvd & Rio Bravo Blvd 29.0 30.0 5.0 3.0 715 715 0.15 0.72 51.1 0.68 1.3 1.3 35.9 473 473 473 473 400 1900 0.97 0.95 0.95 0.95 0.95 0.95 514 514 Prot 5 R 116.4 1.30 140.0 114.3% VO+mq 1 EBR 0.92 115 38 38 77 65.6 67.6 5.0 5.0 5.0 5.0 5.0 7.87 7.87 7.87 7.87 7.87 0.01 1.00 0.10 1.00 1.00 0.10 1.00 0.11 1.00 2024 AM Peak BUILD Conditions - MITIGATED GEOM. 1691 NA 54.0 55.0 5.0 5.0 5.0 5.0 1351 1351 1351 11.00 14.00 14.00 14.00 14.00 14.00 14.00 14.00 14.00 14.00 0.92 1.25 42.5 1.00 19.5 162.0 LL. 39.5 F ŧ E81 208 3m+pt 191 1900 4.0 1.00 1.00 0.95 0.95 0.42 0.42 0.42 0.95 0.92 208 64.6 66.6 66.6 5.0 5.0 5.0 439 0.47 0.19 0.47 0.19 0.47 2.1.9 1.00 0.8 0.8 2.1.9 2.1.9 2.1.9 2.1.9 2.1.9 2.1.0 C B 1 Intersection Capacity Utilization HCM Volume to Capacity ratio HCM Average Control Delay Actuated Cycle Length (s) Adj. Flow (vph) RTOR Reduction (vph) Critical Lane Group Lane Group Flow (vph) 뎡 붎 Actuated Green, G (s) Effective Green, g (s) Lane Grp Cap (vph) v/s Ratio Prot v/s Ratio Perm Approach Delay (s) Approach LOS Intersection Summary Analysis Period (min) Vehicle Extension (s) Lane Configurations Volume (vph) Ideal Flow (vphpl) Total Lost time (s) Actuated o/C Ratio Progression Factor Incremental Delay, d Turn Type Protected Phases Clearance Time (s) Satd. Flow (perm) Peak-hour factor, P Satd. Flow (prot) Flt Permitted Uniform Delay, d1 Permitted Phases Lane Util. Factor Level of Service Fit Protected Movement Delay (s) vic Ratio Ē 4 107 pm+ov 2024 AM Peak BUILD Conditions - MITIGATED GEOM. D:MTOBEPROJECTS_2012V/atero_RB_Broadway/Synchrol2024ABX-CaseY_MIT.syn 5.0 10.0 1.4% 4.0 1.0 -1.0 -1.0 -1.0 Lead Terry O. Brown, P.E. 3/10/2012 - Synchro 7 SBR 7 9 5.0 21.0 30.0 30.0 4.0 1.0 -1.0 4.0 1.0 -1.0 Lag 796 296 NA æ Min 26.4 26.4 0.19 0.50 54.0 54.0 20.0 30.8 -5.0 10.0 26.0 3.6% ۶ Prot 620 4.0 -1.0 4.0 ead Min 222.0 0.16 1.29 188.7 0.0 0.0 Min 51.0 51.0 1.36 1.36 209.4 0.0 ٩. VO+mq 3 5.0 10.0 34.0 4.3% NBR 704 4.0 -1.0 4.0 Lead 4014 g 0.0 NBT 375 5.0 21.0 21.0 21.0 5.0% Min 17.0 0.12 0.98 99.7 LL. 56.8 5.0 10.0 17.0 2.1% Min 29.6 0.21 0.56 0.56 0.0 0.0 0.0 0.0 D 4.0 -1.0 4.0 Lead • 142 pm+pt 受 - ► B4 Intersection LOS: F ICU Level of Service H VO+mq 5.0 10.0 26.0 8.6% 4.0 4.0 4.0 ead MIn 99.4 0.71 0.42 16.3 16.3 16.3 16.3 16.3 WBR 42 4 5.0 21.0 77.0 55.0% ¥ 898 4.0 -1.0 4.0 Lag 73.4 73.4 0.52 0.34 30.4 30.4 30.4 28.4 C ł WBT Offset: 97 (69%), Referenced to phase 4:EBTL and 8:WBT, Start of Green ŝ ŧ. 3 22 Pad 473 5.0 10.0 34.0 4.3% 4.0 -1.0 4.0 Lead NBL 5 VO+mq 5.0 17.0 17.0 4.0 1.0 1.0 4.0 4.0 4.0 2.1% 5 Min 71.6 0.51 7.5 7.5 7.5 7.5 7.5 3 3 EBR 106 1 5 7: Isleta Blvd & Rio Bravo Blvd 1 16 8 1556 AA t 133.4 Timings 7: Isleta Blvd & Rio Bravo Blvd Intersection Capacity Utilization 114.3% Analysis Period (min) 15 5.0 10.0 1.4% 4.0 1.4% 4.0 -1.0 4.0 1.0 -1.0 Min 66.6 0.47 16.9 16.9 16.9 16.9 16.9 om-pt 191 1 Ð Control Type: Actuated-Coordinated ß ntersection Signal Delay: 110.1 21 0 Actuated Cycle Length: 140 g Maximum v/c Ratio: 1.36 ^{u5} 1 130.s Lane Group Lane Configurations ntersection Summary Lost Time Adjust (s) Total Lost Time (s) Lead/Lag Lead-Lag Optimize? Act Effct Green (s) Actuated g/C Ratio Vatural Cycle: 130 Splits and Phases: Minimum Initial (s) Minimum Split (s) Total Split (s) Total Split (%) Yetkow Time (s) All-Red Time (s) Cycle Length: 140 Protected Phases ^bermitted Phases Approach Delay **Detector Phase** Control Delay Queue Delay Approach LOS /olume (vph) Switch Phase Total Delay LOS Recall Mode um Type v/c Ratio 6 4 ŝ

Either Case D:IATOBE\PROJECTS_2012\Valero_RB_Broadway\iSynchrol2024P\VX.syn Terry O. Brown, P.E. 3/10/2012 - Synchro 7 Ser a \mathbf{F} 20.0 21.0 21.0 5.0 5.0 5.0 5.16 5.16 5.16 5.16 SBT 459 459 459 459 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 11.00 NA 99 9 0.97 59.2 1.00 31.0 90.2 39.3 19.0 20.0 5.0 3.0 3.0 476 c0.19 1.32 60.0 1.00 158.8 218.8 ٨ 273 vo+mq O 12.0 H NBR 348 N 2 16.0 17.0 5.0 3.0 417 0.10 40 1900 1900 11.00 0.83 60.1 1.00 13.4 73.6 61.6 61.6 4 NBT 217 1900 1.00 1.00 1719 0.95 0.24 426 0.24 236 0.22 236 31.0 33.0 0.24 5.0 3.0 248 0.11 0.12 0.95 48.7 1.00 1.00 1.00 12.4 om+pt HE N 1 HCM Level of Service Sum of lost time (s) ICU Level of Service 87.0 89.0 5.0 3.0 MBR vo+mq 0.11 0.11 0.41 0.41 18.5 18.5 18.5 1.20 0.4 0.4 C ∢ I₹ MBT 1774 68.0 69.0 5.0 3.0 1694 1694 1.05 35.5 35.5 0.96 0.96 23.2 57.3 85.0 85.0 ţ HCM Signalized Intersection Capacity Analysis 4.0 1.00 1.00 1719 pm+pt 90.0 91.0 5.0 3.0 201 0.92 985 727 20.53 20.35 1.35 36.9 36.9 86.7 86.7 906 0.11 WBI 98.3 1.29 140.0 111.3% vo+mq 46.0 48.0 5.0 3.0 571 0.05 0.11 0.42 35.4 1.00 1.00 0.5 0.5 0.5 D EBR 247 p 0 882 NA 31.0 32.0 5.0 3.0 5.0 3.0 0.26 0.26 1.12 54.0 1.00 71.2 125.2 EBT 13.3 F Ť 7: Isleta Blvd & Rio Bravo Blvd 291 1900 11.00 11.00 11.00 0.95 0.95 0.95 0.92 0.92 316 om+pt 1 Ē 316 2024 PM Peak NOBUILD Conditions Actuated Cycle Length (s) Intersection Capacity Utilization Analysis Period (min) HCM Volume to Capacity ratio HCM Average Control Delay Adj. Flow (vph) RTOR Reduction (vph) Critical Lane Group ane Group Flow (vph) Ħ Actuated Green, G (s) Effective Green, g (s) Lane Grp Cap (vph) v/s Ratio Prot v/s Ratio Perm Incremental Delay, d2 Delay (s) Level of Service Approach Delay (s) Approach LOS Intersection Summary Vehicle Extension (s) ane Configurations Volume (vph) Ideal Flow (vphpl) Total Lost time (s) Lane Util. Factor Actuated g/C Ratio Clearance Time (s) Satd. Flow (perm) Peak-hour factor, P Progression Factor Protected Phases Permitted Phases Uniform Delay, d1 Satd. Flow (prot) Fit Protected Fit Permitted Movement Turn Type v/c Ratio E. vo+mq 5.0 10.0 22.0 5.7% 4.0 1.0 -1.0 4.0 4.0 A.0 Lead Either Case D:IATOBE\PROJECTS_2012\Valero_RB_Broadway\Synchro\2024PVX.syn Terry O. Brown, P.E. 3/10/2012 - Synchro 7 Min 43.0 0.54 40.3 40.3 0.0 0.0 D 245 SBR \mathbf{F} 0 5.0 21.0 25.0 7.9% ¥ 59 X 4.0 4.0 4.0 1.0 Min 221.0 0.15 0.97 0.0 0.0 0.0 91.0 132.4 F SBT --5.0 10.0 7.1% 4.0 1.0 1.0 1.0 4.0 1.0 Prot 228 ۶ 204.2 SBL. 3 253 pm+ov 3 ٩., 6.0 10.0 59.0 12.1% NBR 4.0 -1.0 4.0 4.0 Min 76.0 0.54 0.33 18.9 18.9 18.9 8 1 8 132 A 5.0 21.0 21.0 5.0% 4.0 -1.0 Lag LEN Min 17.0 0.12 0.83 77.8 0.0 77.8 62.0 62.0 pm+pt 1 Ner Ner 217 Intersection LOS: F ICU Level of Service H 5.0 17.1% 4.0 17.1% 4.0 1.0 -1.0 -1.0 -1.0 WBR NO+UUd Min 93.0 93.0 0.66 0.79 0.79 20.1 20.1 U 753 4 g 5.0 21.0 73.0 52.1% C-Max 69.0 0.49 1.05 56.9 0.0 Difset: 93 (66%), Referenced to phase 4:EBTL and 8:WBTL, Start of Green 1632 NA 4.0 1.0 4.0 Lag ŧ 84.0 F MBT 56.9 \$ 5 E.2 Min 91.0 0.65 1.35 1.35 0.0 **6** 7 5.0 10.0 59.0 12.1% 906 pm+pt 4.0 4.0 4.0 186.0 NBL. 5 5.0 10.0 20.0 4.0 -1.0 4.0 **V0+m** Min 52.0 52.0 0.37 0.45 30.9 30.9 30.9 c EBR 247 5 29 7: Isleta Blvd & Rio Bravo Blvd 5.5 22 5.0 21.0 36.0 25.7% t 418 NA 118 4.0 4.0 1.0 1.0 1.0 C-Max 32.0 32.0 1.12 1.12 1.12 1.12 1.19.8 0.0 109.1 EBT 7: Isleta Blvd & Rio Bravo Blvd Intersection Capacity Utilization 111.3% Analysis Period (min) 15 5.0 10.0 22.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 Min 50.0 50.0 0.36 1.16 1.16 0.0 0.0 0.0 145.8 291 Sm+pt 2024 PM Peak NOBUILD Conditions 1 Ē Control Type: Actuated-Coordinated 3 ntersection Signal Delay: 95.7 ŝ Actuated Cycle Length: 140 5 Maximum v/c Rabo: 1.35 5 Total Split (s) Total Split (%) Yellow Time (s) All-Red Time (s) Lost Time Adjust (s) Total Lost Time (s) Lane Configurations Volume (vph) moreaction Summary Switch Phase Minimum Initial (s) Minimum Split (s) Lead/Lag Lead-Lag Optimize? Recall Mode Act Effct Green (s) Actuated g/C Ratio Splits and Phases: Turn Type Protected Phases Natural Cycle: 130 Approach Delay Approach LOS Cycle Length: 140 ^bermitted Phases Detector Phase Control Delay Queue Delay Total Delay LOS Group **Fimings** v/c Ratio 6 딯 urn T ane 24 0 18

Brown, P.E. 37.0 39.0 5.0 5.0 5.0 472 0.07 0.07 0.07 0.09 0.52 42.6 1.00 1.00 1.00 0.52 Terry O. Brown, P.E. 3/10/2012 - Synchro 7 Ras Case 'Y' - Rio Bravo drive D:ATOBEIPROJECTS_2012/Valero_RB_Broadway/Synchrol2024PBX-CaseY.syn \mathbf{i} 0 8 ¥ 9 20.0 21.0 21.0 5.0 5.0 3.0 516 516 516 459 459 459 459 459 459 459 459 459 459 0.97 59.2 1.00 31.0 SBT 40.7 19.0 20.0 5.0 5.0 3.0 3.0 476 6.19 1.33 60.0 1.00 161.5 221.5 Prot 18 70.0 72.0 5.0 5.0 5.0 835 835 0.13 0.13 1.00 1.00 1.00 20.1 20.1 12.0 H 254 254 4.0 1.00 1.00 1.00 1.00 1.00 276 276 274 NO+Wd Ł **HBN** 44 320 4.0 1900 1.00 1.00 1.00 1.00 3438 3438 3438 0.92 348 0.92 348 NA 16.0 17.0 5.0 5.0 3.0 417 0.10 0.83 60.1 13.4 13.4 73.6 61.6 61.6 NBT 217 1900 4.0 1.00 1.00 1.00 1.00 0.95 0.24 0.24 0.22 0.92 0.92 236 236 pm+pt 31.0 33.0 5.0 5.0 5.0 3.0 2.48 0.11 0.12 0.12 0.95 48.7 43.7 43.7 43.7 1 192 HCM Level of Service Sum of lost time (s) ICU Level of Service VO+mq **NBR** ∢ ¥ 69.0 69.0 5.0 3.0 1694 0.52 6/1/1 1.05 35.5 35.5 0.96 0.96 24.4 58.6 58.6 58.6 86.7 t HCM Signalized Intersection Capacity Analysis 90.0 91.0 5.0 5.0 3.0 727 727 1.36 0.71 1.36 0.71 164.2 190.3 6 NBL 912 900 4.0 1.00 1.00 0.95 0.95 0.11 201 991 991 pm+pt **DITHOV** 99.4 1.30 140.0 111.7% EBR 883 NA 31.0 32.0 5.0 3.0 5.0 786 0.26 0.26 a. Ť EBT 4.0 0.95 11.0000 11.0000 11.0000 11.0000 11.0000 11.0000 11.0000 11.0000 11.0000 11.0000 11.0000 11.0000 11.0000 11.0000 11.0000 11.0000 11.0000 11.0000 11.0000 11.00 7: Isleta Blvd & Rio Bravo Blvd 316 pm+pt 48.0 50.0 5.0 5.0 5.0 5.0 5.0 273 273 0.15 1.16 1.16 1.16 1.16 0.26 1.10 0.3.9 0.3.9 0.3.9 1 đ 2024 PM Peak BUILD Conditions Actuated Cycle Length (s) Intersection Capacity Utilization Analysis Period (min) HCM Volume to Capacity ratio HCM Average Control Delay Adj. Flow (vph) RTOR Reduction (vph) Lane Group Flow (vph) Critical Lane Group Satd. Flow (perm) Peak-hour factor, PHF Actuated Green, G (s) ncremental Delay, d2 ntersection Summary Lane Grp Cap (vph) v/s Ratio Prot v/s Ratio Perm Approach Delay (s) Approach LOS Effective Green, g (s) Vehicle Extension (s) ane Configurations Ideal Flow (vphpl) Total Lost time (s) Lane Ubit. Factor Clearance Time (s) Turn Type Protected Phases Actuated g/C Ratio Progression Factor Jniform Delay, d1 Satd. Flow (prot) Permitted Phases Delay (s) Level of Service (hdv) emulo/ Fit Protected Flt Permitted **Wovement** w/c Ratio Ē 5.0 10.0 22.0 22.0 4.0 1.0 4.0 4.0 4.0 4.0 Lead Terry O. Brown, P.E. 3/10/2012 - Synchro 7 245 Min 43.0 0.54 40.3 0.0 0.0 0.0 0.0 D Case 'Y' - Rio Bravo drive D:\ATOBE\PROJECTS_2012\Valeno_RB_Broadway\Synchrol2024PBX-CaseY.syn SBR **V0+M** 7 ø 429 ¥ 5.0 21.0 25.0 7.9% 4.0 1.0 4.0 Lag Min 21.0 21.0 0.15 0.0 91.0 91.0 7 5 7 833.6 SBT SBL 581 5.0 10.0 7.1% 4.0 1.0 1.0 4.0 4.0 4.0 4.0 4.0 Min 20.0 20.0 0.14 1.33 1.33 206.6 206.6 36 e4 5.0 10.0 59.0 4.0 1.0 1.0 1.0 4.0 4.0 4.0 4.0 4.0 4.0 254 Dm+ov 3 Min 76.0 0.54 0.33 18.9 0.0 18.9 8 NBR ٩, 1885 Min 17.0 0.12 0.83 77.8 0.0 77.8 61.9 E S • 217 pm+pt 5.0 10.0 20.0 4.0 -1.0 4.0 ead Min 33.0 33.0 0.24 0.25 88.8 88.8 88.8 88.8 Ē 4 Intersection LOS: F ICU Level of Service H 5.0 10.0 24.0 7.1% NO+LUID 4.0 4.0 4.0 WBR 762 c 8 5.0 21.0 73.0 52.1% 1637 4.0 4.0 1.0 1.0 1.0 C-Max 69.0 0.49 1.05 58.1 0.0 58.1 58.1 85.7 Offset 93 (66%), Referenced to phase 4:EBTL and 8:WBTL, Start of Green ŧ NBT W \$ * EZ 5.0 10.0 59.0 42.1% 4.0 -1.0 4.0 Min 91.0 0.65 1.36 1.36 912 pm+pt 89.6 0.0 5 WBL. 247 247 5.0 10.0 20.0 4.3% 4.0 -1.0 4.0 ead Min 52.0 52.0 0.37 0.45 31.1 31.1 31.1 31.1 C EBR 6a 🎢 1 67 7: Isleta Blvd & Rio Bravo Blvd 22 \$ 84 ¥13 813 5.0 21.0 36.0 36.0 4.0 1.0 1.0 4.0 4.0 4.0 4.0 25.7% C-Max 32.0 0.23 1.12 120.2 t 0.0 109.4 EBI Timings 7: Isleta Blvd & Rio Bravo Blvd Intersection Capacity Utilization 111.7% 5.0 10.0 5.7% 4.0 1.0 1.0 1.0 1.0 1.0 1.0 Min 50.0 50.0 1.16 45.8 45.8 0.0 0.0 45.8 291 pm+pt 1 EBL Control Type: Actuated-Coordinated 2 2024 PM Peak BUILD Conditions ntersection Signal Delay: 96.8 9 Actuated Cycle Length: 140 2 Maximum v/c Ratio: 1.36 Vnalysis Period (min) 15 22 Lead/Lag Lead-Lag Optimize? Recal Mode Act Effct Green (s) Actuated g/C Ratio Total Split (s) Total Split (%) Yellow Time (s) Al-Red Time (s) Lost Time Adjust (s) Total Lost Time (s) Lane Configurations Volume (vph) ntersection Summany Splits and Phases: Minimum Initial (s) Minimum Split (s) Vatural Cycle: 130 Cycle Length: 140 Protected Phases ^bermitted Phases **Detector Phase upproach Delay** Control Delay Approach LOS Switch Phase Queue Delay Total Delay LOS ane Group Fum Type ŝ 5 v/c Ratio 18 1

245 1900 4.0 4.0 1.00 1.00 1.00 1.00 1.00 2.26 266 242 242 242 242 242 274 242 Terry O. Brown, P.E. 3/10/2012 - Synchro 7 \mathbf{i} SBR 2024 PM Peak BUILD Conditions - MITIGATED GEOM. D:AtOBEPROJECTS_2012Valero_RB_Broadway/Synchrol2024PBX-CaseY_MIT.syn 459 459 459 459 400 1.00 1.00 1.00 1.00 1.00 1.00 499 499 6499 NA 0 0.85 56.4 56.4 11.7 11.7 88.1 ш 0, ш 381 ٨ 23.0 24.0 5.0 5.0 5.0 5.0 5.0 5.72 5.72 5.72 5.72 SBL 581 581 581 581 581 581 600 0.97 0.95 0.95 0.95 3335 0.92 632 632 Frot 1.10 58.0 1.00 69.7 69.7 ×. NBR VO+mq 16.0 G 52.6 54.6 5.0 3.0 644 0.11 0.06 0.41 31.0 1.00 1.00 31.4 S ш **NB1** 348 O ¢4 15.8 16.8 5.0 3.0 413 0.10 0.84 14.4 14.4 74.7 E 62.1 62.1 ٠ 236 pm+pt 受 • HCM Level of Service Sum of lost time (s) (CU Level of Service VO+mq MBR ⋞ ¥ 65.0 66.0 5.0 3.0 1621 1621 ţ WBT 4000 11:00 1 6/17 1.10 37.0 45.0 81.1 F F E6.6 HCM Signalized Intersection Capacity Analysis pm+pt 912 912 912 912 912 0.97 0.95 0.95 0.95 ABL. 0.11 377 991 166 6 247 1900 4.0 1.00 11.00 15.38 1.00 15.38 1.00 15.38 268 268 vo+mq 66.2 1.11 140.0 100.1% EBR 259 60.4 62.4 5.0 5.0 729 0.045 729 0.04 0.036 0.036 0.036 0.036 0.036 0.036 0.036 0.036 0.036 0.036 0.036 0.036 0.036 0.036 C 1 883 NA 44.4 45.4 5.0 3.0 3.0 1115 0.26 Ť EBT 0.79 43.0 1.00 5.8 48.8 D 0 7: Isleta Blvd & Rio Bravo Blvd 291 4.0 1.00 1.00 0.95 0.95 0.95 0.95 0.95 0.95 0.92 0.92 0.92 60.6 626 5.0 5.0 5.0 3.0 263 3.0 263 1.20 1.20 1.20 1.21.2 1.00 121.2 165.3 om+pt 1 B 316 Intersection Summary HCM Average Control Delay HCM Volume to Capacity ratio Actuated Cycle Length (s) Intersection Capacity Utilization Peak-hour factor, PHF Adj. Flow (vph) RTOR Reduction (vph) Lane Group Flow (vph) Analysis Period (min) c Critical Lane Group 딤 Actuated Green, G (s) Effective Green, g (s) Vehicle Extension (s) ane Configurations Progression Factor Incremental Delay, d Ideal Flow (vphpl) Total Lost time (s) Turn Type Protected Phases Permitted Phases Actuated g/C Ratio Clearance Time (s) (hqv) Approach Delay (s) Approach LOS Satd. Flow (prot) Flt Permitted Satd. Flow (perm) Uniform Delay, d1 Delay (s) Level of Service Lane Grp Cap (vp v/s Ratio Prot v/s Ratio Perm ane Ubl. Factor. Frt Fit Protected Volume (vph) Novement v/c Ratio Terry O. Brown, P.E. 3/10/2012 - Synchro 7 VO+FING 5.0 10.0 21.0 5.0% 4.0 1.0 1.0 4.0 4.0 4.0 4.0 1.0 245 245 Min 45.0 0.32 0.51 37.6 37.6 37.6 D 2024 PM Peak BUILD Conditions - MITIGATED GEOM. D:ATOBEPROJECTS_2012Valero_RB_Broadway/Synchrol2024PBX-CaseY_MIT.syn SBR > 18 X ۵ ω 5.0 21.0 28.0 0.0% 4.0 4.0 4.0 SBT -> 5.0 10.0 28.0 28.0 4.0 -1.0 4.0 ۶ Pot Set Min 24.0 24.0 1.10 1.10 22.1 22.1 22.1 254 pm+ov 5.0 10.0 42.0 42.0 42.0 1.0 -1.0 4.0 4.0 1.0 1.0 1.0 Min 0.42 0.42 0.42 0.42 0.02 28.7 28.7 28.7 ۰ NBR c 18 × 5.0 21.0 21.0 5.0% 4.0 4.0 4.0 LEN Min 16.8 0.12 0.84 79.0 79.0 79.0 79.0 79.0 62.0 A **♦**8 5.0% 21.0 5.0% 4.0 1.0 1.0 4.0 4.0 4.0 4.0 pm+pt Min 0.24 0.91 76.0 76.0 76.0 B 217 ¥ Intersection LOS: E ICU Level of Service G 8 5.0 10.0 28.0 20.0% WBR 762 NO+HID -1.0 4.0 Min 94.0 0.67 0.79 0.79 28.1 28.1 28.1 28.1 C 4 ŝ 2 1637 NA 5.0 21.0 70.0 Actuated Cycle Length: 140 Offset: 93 (66%), Referenced to phase 4:EBTL and 8:WBTL, Start of Green WBT 4.0 1.0 4.0 Lag C-Max 66.0 0.47 1.10 79.7 79.7 79.7 79.7 ţ 54.9 D WBL pm+pt 5.0 10.0 42.0 0.0% 4.0 -1.0 4.0 ead Min 87.2 87.2 0.62 0.96 0.96 0.96 0.0 32.8 5 Сø 5 V0+mq 5.0 21.0 5.0% 4.0 -1.0 4.0 4.0 EBR ŝ 247 Min 66.4 0.47 0.36 23.7 23.7 23.7 23.7 23.7 5 9 **S** 7: Isleta Blvd & Rio Bravo Blvd N N 5.0 21.0 49.0 35.0% t EBT 12 4.0 -1.0 4.0 Lag C-Max 45.4 0.32 0.79 0.79 49.3 0.0 49.3 0.0 68.6 68.6 Timings 7: Isleta Blvd & Rio Bravo Blvd Intersection Capacity Utilization 100.1% Analysis Period (min) 15 291 om+pt 5.0 21.0 5.0% 4.0 1.0 -1.0 4.0 4.0 Lead Min 62.6 0.45 1.20 160.4 160.4 Ē 1 2 Control Type: Actuated-Coordinated Maximum v/c Ratio: 1.20 Intersection Signal Delay: 64.8 g 23 Lane Configurations Volume (vph) Turn Type Protected Phases Minimum Initial (s) Minimum Spit (s) Total Spit (s) Total Spit (s) Yellow Time (s) All-Red Time (s) Load Lost Time Adjust (s) Load Lost Time (s) Lead/Lag Lead-Lag Optimize? Recall Mode rtersection Summary Act Effct Green (s) Actuated g/C Ratio v/c Ratio Vatural Cycle: 130 and Phases: Permitted Phases Cycle Length: 140 Total Delay LOS Approach Delay Approach LOS Detector Phase Switch Phase Control Delay **Queue Delay** ane Group 5 g 遊り

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HCM Unsignalized Intersection Capacity Analysis 8: Broadway Blvd & 'A'

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Movement	EBL	EBR	NBL	NBT	SBT	SBR	
Lane Configurations		7		<u></u>	个个	*	
Volume (veh/h)	0	40	0	496	239	20	
Sign Control	Stop			Free	Free		
Grade	0%			0%	0%	121319	
Peak Hour Factor	0.85	0.85	0.75	0.75	0.75	0.75	
Hourly flow rate (vph)	0	47	0	661	319	27	
Pedestrians Lane Width (ft)				1.1.1.1.1.1	eeste est		
Walking Speed (ft/s)							
Percent Blockage				1.1.1.1.1	NUL STO		
Right turn flare (veh)							
Median type			1977 - 1976	Raised	Raised		
Median storage veh)				1	1	and the second	
Upstream signal (ft)				271	antes de		
pX, platoon unblocked	0.90			de f d			
vC, conflicting volume	649	159	345				
vC1, stage 1 conf vol	319	100	0.0				
vC2, stage 2 conf vol	331			Section 1			
vCu, unblocked vol	395	159	345				
tC, single (s)	6.9	7.0	4.2				
tC, 2 stage (s)	5.9	110					
tF (s)	3.5	3.3	2.2				
p0 queue free %	100	94	100				
cM capacity (veh/h)	583	848	1189				
Direction, Lane #	EB 1	NB 1	NB 2	SB 1	SB 2	SB 3	
Volume Total	47	331	331	159	159	27	
Volume Left	0	0	0	0	0	0	
Volume Right	47	0	0	Ő	0	27	
cSH	848	1700	1700	1700	1700	1700	
Volume to Capacity	0.06	0.19	0.19	0.09	0.09	0.02	
Queue Length 95th (ft)	4	0.10	0.10	0	0	0.02	
Control Delay (s)	9.5	0.0	0.0	0.0	0.0	0.0	
Lane LOS	A						
Approach Delay (s)	9.5	0.0		0.0			
Approach LOS	A			2.0		Contract Contract	
Intersection Summary							
Average Delay			0.4				
Intersection Capacity Utilizatio	n		17.0%	10	CU Level o	f Service	Α
Analysis Period (min)			15				

2014 AM Peak BUILD Conditions

Case 'Y' - Rio Bravo drive D:\ATOBE\PROJECTS_2012\Valero_RB_Broadway\Synchro\2014ABX-CaseY.syn

HCM Unsignalized Intersection Capacity Analysis 8: Broadway Blvd & 'A'

	۶	\mathbf{r}	1	†	1	4	
Movement	EBL	EBR	NBL	NBT	SBT	SBR	
Lane Configurations		7		<u> </u>	^	*	
Volume (veh/h)	0	58	0	438	693	32	
Sign Control	Stop	the state of the s		Free	Free		
Grade	0%		*	0%	0%		
Peak Hour Factor	0.85	0.85	0.87	0.87	0.87	0.87	
Hourly flow rate (vph)	0	68	0	503	797	37	
Pedestrians							
Lane Width (ft)			1.25				
Walking Speed (ft/s)							
Percent Blockage			Notice .	*		1000-01 C 100	
Right turn flare (veh)							
Median type				Raised	Raised		
Median storage veh)				1	1		
Upstream signal (ft)				271			
pX, platoon unblocked	0.94						
vC, conflicting volume	1048	398	833				
vC1, stage 1 conf vol	797	a sea again.					
vC2, stage 2 conf vol	252						
vCu, unblocked vol	921	398	833				
C, single (s)	6.9	7.0	4.2		C. Sta		
C, 2 stage (s)	5.9		Seleg				
F (s)	3.5	3.3	2.2				
00 queue free %	100	88	100				
cM capacity (veh/h)	336	593	776			1.500	
Direction, Lane #	EB 1	NB 1	NB 2	SB 1	SB 2	SB 3	
/olume Total	68	252	252	398	398	37	
Volume Left	0	0	0	0	0	0	
Volume Right	68	0	0	0	0	37	
SH	593	1700	1700	1700	1700	1700	
/olume to Capacity	0.12	0.15	0.15	0.23	0.23	0.02	
Queue Length 95th (ft)	10	0	0	0	0	0	
Control Delay (s)	11.9	0.0	0.0	0.0	0.0	0.0	
_ane LOS	B		0.0				
Approach Delay (s)	11.9	0.0		0.0			
Approach LOS	В				1. (to 1. ())		
ntersection Summary							
Average Delay			0.6				
Intersection Capacity Utilization	on		29.4%		CU Level o	of Service	A
Analysis Period (min)			15				

2014 PM Peak BUILD Conditions

Case 'Y' - Rio Bravo drive D:\ATOBE\PROJECTS_2012\Valero_RB_Broadway\Synchro\2014PBX-CaseY.syn

HCM Unsignalized Intersection Capacity Analysis 8: Broadway Blvd & 'A'

Terry O. Brown, P.E. 3/10/2012 - Synchro 7

	٠	\mathbf{r}	1	†	↓ -	1	
Movement	EBL	EBR	NBL	NBT	SBT	SBR	
Lane Configurations		7		<u>†</u> †	*	T.	
Volume (veh/h)	0	40	0	820	321	20	
Sign Control	Stop			Free	Free		
Grade	0%			0%	0%		
Peak Hour Factor	0.85	0.85	0.75	0.75	0.75	0.75	
Hourly flow rate (vph)	0	47	0	1093	428	27	
Pedestrians				and the second s			
Lane Width (ft)	and an and strain the second						
Walking Speed (ft/s)					(a) show		
Percent Blockage		1			-	Sec. Sec. 1	
Right turn flare (veh)							
Median type				Raised	Raised		
Median storage veh)				1	1	approx a	
Upstream signal (ft)	4			271			
pX, platoon unblocked	0.80						
vC, conflicting volume	975	214	455		and a second base		
vC1, stage 1 conf vol	428						
vC2, stage 2 conf vol	547	Contraction of the		4			
vCu, unblocked vol	473	214	455				
tC, single (s)	6.9	7.0	4.2				
tC, 2 stage (s)	5.9						
tF (s)	3.5	3.3	2.2			110	
p0 queue free %	100	94	100				
cM capacity (veh/h)	499	782	1081			1.15	
Direction, Lane #	EB 1	NB 1	NB 2	SB 1	SB 2	SB 3	
Volume Total	47	547	547	214	214	27	
Volume Left	0	0	0	0	0	0	
Volume Right	47	0	Ő	Ő	0	27	
cSH	782	1700	1700	1700	1700	1700	and a start of the second s
Volume to Capacity	0.06	0.32	0.32	0.13	0.13	0.02	
Queue Length 95th (ft)	5	0.02	0.02	0.10	0.10	0.02	
Control Delay (s)	9.9	0.0	0.0	0.0	0.0	0.0	
Lane LOS	A.	0.0	0.0	0,0	0.0	0.0	
Approach Delay (s)	9.9	0.0		0.0	The factor		
Approach LOS	A	0.0		0.0	and a second second		
Intersection Summary							
Average Delay			0.3				
Intersection Capacity Utilization	on		26.0%	1	CU Level o	of Service	Α
Analysis Period (min)			15				and the second

2024 AM Peak BUILD Conditions

Case 'Y' - Rio Bravo drive D:\ATOBE\PROJECTS_2012\Valero_RB_Broadway\Synchro\2024ABX-CaseY.syn

HCM-Unsignalized Intersection Capacity Analysis 8: Broadway Blvd & 'A'

Terry O. Brown, P.E. 3/10/2012 - Synchro 7

	۶	\mathbf{r}		Ť	Ļ	4	
Movement	EBL	EBR	NBL	NBT	SBT	SBR	
Lane Configurations		۴.		<u>†</u> †	^	7	
Volume (veh/h)	0	58	0	605	1536	32	
Sign Control	Stop			Free	Free		
Grade	0%			0%	0%		
Peak Hour Factor	0.85	0.85	0.87	0.87	0.87	0.87	
Hourly flow rate (vph)	0	68	0	695	1766	37	a contra construction of the second
Pedestrians							
_ane Width (ft)				4. 3. 6			
Walking Speed (ft/s)	Contract of the sector of						
Percent Blockage			12 N 281				
Right turn flare (veh)	A state of the second state is a second						
Median type			1	Raised	Raised		
Median storage veh)	State of street streets			1	1		
Upstream signal (ft)				271			and the second
oX, platoon unblocked	0.92	and the second second					
/C, conflicting volume	2113	883	1802		and quantity (1. WHP1 - 1	
/C1, stage 1 conf vol	1766		19 51 1 1 19 19				
/C2, stage 2 conf vol	348				1.		
/Cu, unblocked vol	2033	883	1802				
C, single (s)	6.9	7.0	4.2				
C, 2 stage (s)	5.9	110					
F (s)	3.5	3.3	2.2			0.000	
00 queue free %	100	76	100				
cM capacity (veh/h)	102	283	326		1.1150.65		
	EB 1	h	NB 2	SB 1	00.0	SB 3	
Direction, Lane #	68	NB 1 348	348	883	SB 2 883	37	
alik shuhmala	00	Contractor de la constitue de la contractor de la constitue de	340	in the second	003	Anne and a second second	
/olume Left	68	0	0	0	0	0 37	
/olume Right	283	1700		1700		1700	and and an and an and
SH		0.20	1700 0.20	0.52	1700 0.52	0.02	
Volume to Capacity	0.24	2.47					
Queue Length 95th (ft)	23 21.7	0	0 0.0	0	0 0.0	0 0.0	
Control Delay (s)		0.0	0.0	0.0	0.0	0.0	
ane LOS	C	0.0		0.0		000.000	
Approach Delay (s)	21.7	0.0		0.0			
Approach LOS	С						
ntersection Summary	이 가 관하	展彩包装		as in entry			
Average Delay			0.6				
ntersection Capacity Utilizat	lion		52.7%	10	CU Level o	of Service	Α
Analysis Period (min)			15				

2024 PM Peak BUILD Conditions

Case 'Y' - Rio Bravo drive D:\ATOBE\PROJECTS_2012\Valero_RB_Broadway\Synchro\2024PBX-CaseY.syn

Terry O. Brown, P.E. 3/10/2012 - Synchro 7

	۶	-	-	. 🔨	1	4	
Movement	EBL	EBT	WBT	WBR	SBL	SBR	
Lane Configurations		个个	个个	7		1	
Volume (veh/h)	0	2083	871	74	0	59	
Sign Control		Free	Free		Stop		
Grade		0%	0%		0%		
Peak Hour Factor	0.93	0.93	0.93	0.93	0.85	0.85	
Hourly flow rate (vph)	0	and the second s	937	80	0	69	
Pedestrians							
Lane Width (ft)		1017		130			
Walking Speed (ft/s)							
Percent Blockage					Sec.	STREET,	
Right turn flare (veh)		and the second second second second	and the strength			and the second	
Median type		Raised	Raised		1.1		
Median storage veh)		1	1				
Upstream signal (ft)		CERTIFICATION OF	459				
pX, platoon unblocked	0.90	and the second			0.90	0.90	
vC, conflicting volume	1016				2056	468	
vC1, stage 1 conf vol					937		
vC2, stage 2 conf vol					1120		
vCu, unblocked vol	792				1950	182	
tC, single (s)	4.2				6.9	7.0	
tC, 2 stage (s)					5.9		
F (s)	2.2				3.5	3.3	
p0 queue free %	100				100	91	
cM capacity (veh/h)	723				167	736	
Direction, Lane #	EB 1	EB 2	WB 1	WB 2	WB 3	SB 1	
/olume Total	1120	1120	468	468	80	69	
Volume Left	0	0	00	0	0	0	
Volume Right	0	0	0	0	80	69	
SH	1700	1700	1700	1700	1700	736	
Volume to Capacity	0.66	0.66	0.28	0.28	0.05	0.09	
Queue Length 95th (ft)	0.00	0.00	0.20	0.20	0.00	8	
Control Delay (s)	0.0	0.0	0.0	0.0	0.0	10.4	
Lane LOS	0.0	0,0	0.0	010	414	B	
Approach Delay (s)	0.0		0.0		SALA LONG	10.4	
Approach LOS	0.0				71.41.42	В	
ntersection Summary							
Average Delay			0.2				
Intersection Capacity Utilization		100 40	60.9%	IC	U Level o	of Service	В
Analysis Period (min)			15				

Case 'Y' - Rio Bravo drive D:\ATOBE\PROJECTS_2012\Valero_RB_Broadway\Synchro\2014ABX-CaseY.syn

Terry O. Brown, P.E. 3/10/2012 - Synchro 7

	٦	-	-	. 🔨	5	1	
Movement	EBL	EBT	WBT	WBR	SBL	SBR	
Lane Configurations		仲个	† †	1		1	
Volume (veh/h)	0	1330	2211	92	0	73	
Sign Control		Free	Free		Stop		
Grade		0%	0%		0%		
Peak Hour Factor	0.91	0.91	0.91	0.91	0.85	0.85	
Hourly flow rate (vph)	0	1462	2430	101	0	86	
Pedestrians		an an an Argen and Armen (V				101-17-00 Colours (OC. 10	
Lane Width (ft)		1		6			
Walking Speed (ft/s)							
Percent Blockage			Sec.		STORAGE F	1000	
Right turn flare (veh)			1. 1. 1. 1. 1. P. 2. 1. 1.				
Median type	01-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-	Raised	Raised	35 32 L	ALC: NOT A	and the second	
Median storage veh)		1	1				
Upstream signal (ft)		and she	459				
pX, platoon unblocked	0.67		100		0.67	0.67	
vC, conflicting volume	2531		1000	····	3160	1215	
vC1, stage 1 conf vol	2001				2430	1210	
vC2, stage 2 conf vol					731	tenie da	
vCu, unblocked vol	2295				3241	318	
tC, single (s)	4.2			100 51 50	6.9	7.0	
	4.2				5.9	1.0	
tC, 2 stage (s) tF (s)	2.2		A. 2010		3.5	3.3	
p0 queue free %	100				100	3.3 81	
	138				40	445	·
cM capacity (veh/h)	138				40	440	
Direction, Lane #	EB 1	EB 2	WB 1	WB 2	WB 3	SB 1	
Volume Total	731	731	1215	1215	101	86	
Volume Left	0	0	0	0	0	0	
Volume Right	0	0	0	0	101	86	
cSH	1700	1700	1700	1700	1700	445	
Volume to Capacity	0.43	0.43	0.71	0.71	0.06	0.19	
Queue Length 95th (ft)	0	0	0	0	0	18	
Control Delay (s)	0.0	0.0	0.0	0.0	0.0	15.0	
Lane LOS						С	2
Approach Delay (s)	0.0		0.0	1.1.2		15.0	
Approach LOS						С	
ntersection Summary		Sec.					
Average Delay			0.3				
Intersection Capacity Utiliza	tion		72.3%	IC	U Level o	of Service	C
Analysis Period (min)			15				

2014 PM Peak BUILD Conditions

Case 'Y' - Rio Bravo drive D:\ATOBE\PROJECTS_2012\Valero_RB_Broadway\Synchro\2014PBX-CaseY.syn

Terry O. Brown, P.E. 3/10/2012 - Synchro 7

	٠	-	-	. 🔨	×	1	
Movement	EBL	EBT	WBT	WBR	SBL	SBR	
Lane Configurations		<u>†</u> †	<u> </u>	1		r.	
Volume (veh/h)	0	2399	1303	82	0	59	
Sign Control	a pert and a here	Free	Free		Stop	tente terrestringer institution	
Grade	anner fan af e	0%	0%		0%		
Peak Hour Factor	0.93	0.93	0.93	0.93	0.85	0.85	
Hourly flow rate (vph)	0	2580	1401	88	0	69	
Pedestrians	and the second second				and the second second second		
Lane Width (ft)					51 24		anna a' ann an ann an ann an ann an ann an
Walking Speed (ft/s)		in a second	dia di mana				
Percent Blockage		1					
Right turn flare (veh)							and the second
Vedian type	and a second	Raised	Raised				an and a second s
Vedian storage veh)	Course and second	1	1	100 March 1	a second the	Arran half hard a	
Jpstream signal (ft)			459				
X, platoon unblocked	0.82	and the second	TUU		0.82	0.82	
/C, conflicting volume	1489		1.12		2691	701	
/C1, stage 1 conf vol	1700			and the second second	1401	101	and the second
/C2, stage 2 conf vol				An Debri ann a' Lann a' Starr a'	1290		
/Cu, unblocked vol	1157				2623	195	
C, single (s)	4.2	1.1912 P			6.9	7.0	
C, 2 stage (s)	7.2				5.9	1.0	
F (s)	2.2				3.5	3,3	
o0 queue free %	100				100	89	
	478	1.1.1.1.1.1.1			111	659	
M capacity (veh/h)					The strength of the second sec	a son courses out on the	
irection, Lane #	EB 1	EB 2	WB 1	WB 2	WB 3	SB 1	
/olume Total	1290	1290	701	701	88	69	
/olume Left	0	0	0	0	0	0	
/olume Right	0	0	0	0	88	69	
SH	1700	1700	1700	1700	1700	659	and a second
/olume to Capacity	0.76	0.76	0.41	0.41	0.05	0.11	
Queue Length 95th (ft)	0	0	0	0	0	9	
Control Delay (s)	0.0	0.0	0.0	0.0	0.0	11.1	
ane LOS		interest dans som			and the second second second	В	
Approach Delay (s)	0.0		0.0			11.1	
pproach LOS						В	
ntersection Summary		STORES		R. C.			
	tion	1.45		IC	U Level c	of Service	С
analysis Period (min)			15				
verage Delay ntersection Capacity Utiliza	tion		0.2 69.6% 15	IC	U Level c	of Service	C

2024 AM Peak BUILD Conditions

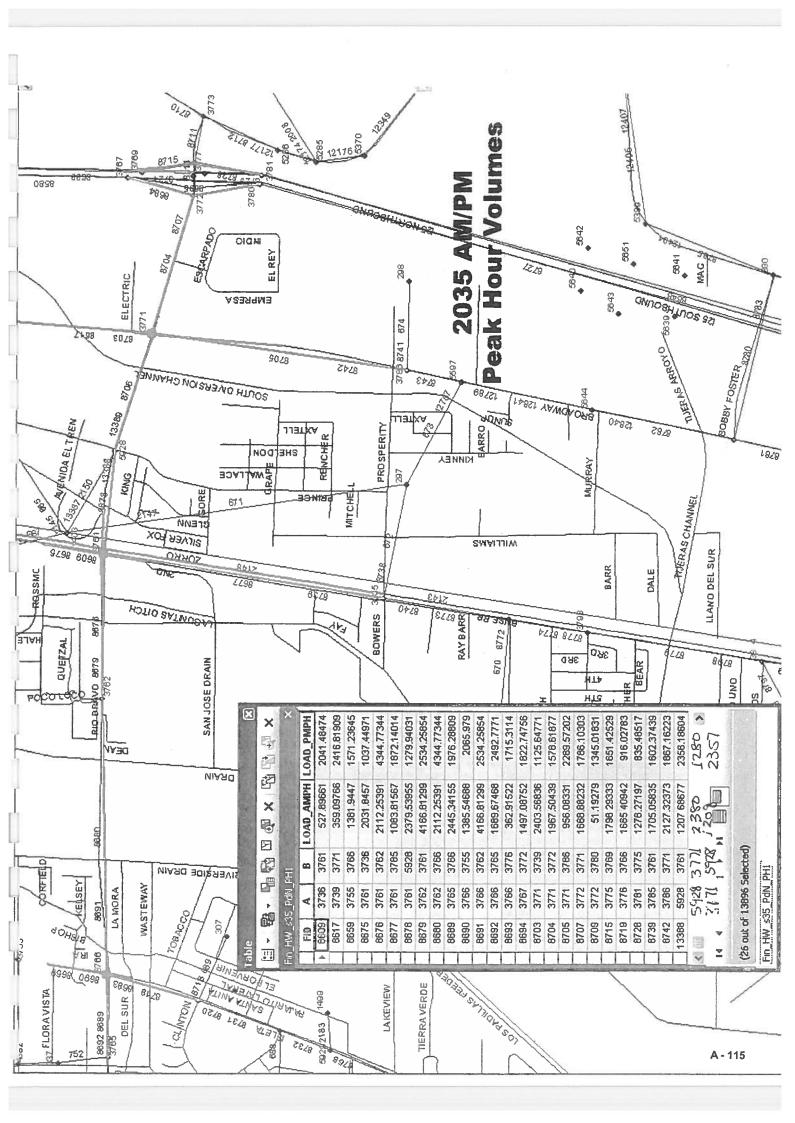
Case 'Y' - Rio Bravo drive D:\ATOBE\PROJECTS_2012\Valero_RB_Broadway\Synchro\2024ABX-CaseY.syn

Terry O. Brown, P.E. 3/10/2012 - Synchro 7

	≯		-	. 🔨	1	. 🖌 👘				
Movement	EBL	EBT	WBT	WBR	SBL	SBR		No. Shifab		
Lane Configurations		^	<u> </u>	7		7				
Volume (veh/h)	0		2874	102	0	73				
Sign Control		Free	Free		Stop					
Grade		0%	0%	S STATES S	0%			States and a state of the		
Peak Hour Factor	0.91	0.91	0.91	0.91	0.85	0.85				
Hourly flow rate (vph)	0	the proof of First processory	3158	112	0	86				
Pedestrians							and the second second			
Lane Width (ft)	5440	a. Cara a			400 BV 75					
Walking Speed (ft/s)	2									
Percent Blockage			3557.0	11218150	Sold Balance		a subserved	and the fi	REXENT	
Right turn flare (veh)								ar altigues		
Vedian type		Raised	Raised			11-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1	1.0.777.000			
Median storage veh)		1	1			100.000000000	All and a second			
Upstream signal (ft)	325	any and a fight of a	459							
pX, platoon unblocked	0.76		TUU		0.76	0.76				
vC, conflicting volume	3270	1000			3959	1053	VI CONTRACTOR			and the set
vC1, stage 1 conf vol	5210				3158	1000				
/C2, stage 2 conf vol				PERMIN	801					
Cu, unblocked vol	2875				3786	0		And a second se		
tC, single (s)	4.2				6.9	7.0				
	4.2				5.9	1.0	1.			
C, 2 stage (s)	2.2				3.5	3.3				1011224
F (s)		and grand			3.5 100	3.3 89				
00 queue free %	100			1042 AND GON			the state of the			
cM capacity (veh/h)	91				22	813	The second	1.1.1.1.1.1.1.1	22.55	
Direction, Lane #	EB 1	EB 2	WB 1	WB 2	WB 3	WB 4	SB 1			1
Volume Total	801	801	1053	1053	1053	112	86			
Volume Left	0	0	0	0	0	0	0			
Volume Right	0	0	0	0	0	112	86			
SH	1700	1700	1700	1700	1700	1700	813			
Volume to Capacity	0.47	0.47	0.62	0.62	0.62	0.07	0.11			
Queue Length 95th (ft)	0	0	0	0	0	0	9			
Control Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0	9.9			
ane LOS							Α			
Approach Delay (s)	0.0		0.0				9.9			
Approach LOS							А			
ntersection Summary					1.1.1.2.1					1922
Average Delay			0.2							
ntersection Capacity Utilization	1		66.7%	IC	U Level	of Service		1	С	
Analysis Period (min)			15							

2024 PM Peak BUILD Conditions

Case 'Y' - Rio Bravo drive D:\ATOBE\PROJECTS_2012\Valero_RB_Broadway\Synchro\2024PBX-CaseY.syn



	6715 1Z28 1Z28 1Z28 1Z28 1Z28 1Z28 1Z28 1Z28	2114		828	872		See 1				415 2	01 N N N N N N N N N N N N N N N N N N N	2000 (Sel 1000)			
ELECTRIC ELECTRIC	THE REAL BLOG RIDG		FID A B LOAD_AMPH LOAD_PMPH	3767 3772 1497.08752	8707 3772 3771 1668.88232 1786.10303	3772 3780 51.19279	3773 3775 1445.00806	8713 3774 3772 892.47174 1813.93359 8714 3774 3775 2636 28877 2084 17874	3775 3769 1796.29333	3773 2669.50366	3775 3774 892.47174	8728 3781 3775 1276.27197 835.48517		(12 out of 13896 Selected)	Fin_HW_s35_PdN_PH1	

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Taken: 2012 Taken: 2012 End Eastbound (Rio Bra L Time L 7:15 AM 227 7:30 AM 221 7:30 AM 241 7:30 AM 241 7:30 AM 241 7:30 AM 248 8:00 AM 261 8:30 AM 290 8:30 AM 290 8:30 AM 290 8:30 AM 2920 8:30 AM 2920 8:30 AM 295 8:30 AM 295 8:30 AM 296 8:30 AM 295 8:30 AM 296 8:30 AM 296 8:30 AM 296 8:30 AM 296 9:30 AM 296 8:30 AM 296 9:30 AM 296 140 556	Street St	Valero (Rio Bravo Blvd. / Broadway Blvd. Street Rio Bravo Blvd. Street: I-25 E. Ramp] SignALIZED SignALIZED R L R L R L 0 0 0 24 2 0 0 26 0 0 0 17 5 7 0 0 28 40 45 0 0 28 40 45 0 0 28 40 45 0 0 28 40 45 0 0 28 40 45 0 0 28 40 45 0 0 26 44 5 0 0 26 44 5 0 0 26 44 5	avo Bivd. / Broad Bivd. Bivd. SiGNALIZED SiGNALIZED SiGNALIZED (Rio Bravo Bivd. 7 26 17 26 17 5 10 46 6 44 46 6 41 28 40 46 8 30 40 28 40 28 40 28 40 28 40 28 40 28 40 28 40 58 40 58 50 58 50 58 50 58 50 50 50 50 50 50 50 50 50 50 50 50 50	/ Broadw / Broadw / Broadw / Broadw / Broadw / Broadw / Broadw / Broadw / Broadw	ay Blvd.) Northbo Northbo 10 10 10 10 10 10 10 31	Bivd.) Speed Lin Speed Lin Speed Lin Speed Lin Speed Lin In In In In		Rio Bravo Blvd.)= I-25 E. Ramp])= Date of Count: Date of Count: R L R L 0 27 0 22 28 0 22 28 0 22	Blvd.)= 25 amp])= 25 bunt: $3/8/12$ Southbound (I- $25 E$ 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	MPH MPH R R R R R R R R R 0 0 0 0 0 0 0 0 0 0
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umes nd 15 PM 30 PM	0 0.0%	0 d	93 4 9%	10	31 1.6%	1 0.1%	151		•	0 %0.0
nd 15 PM 30 PM	0.0%	/00/0	70 D T	0 50/	1.6%	0.1%		0	0	0.0%
nd nd 15 PM 30 PM		0.0%	201	0.0%			8.0%	0.0%	0.0%	
nd ne 30 PM			5.5%			9.7%			0.0%	
End Time M 4:15 PM			0.76			0.78				
Time L 4:15 PM 171 4:30 PM 169	Blvd.)	Westbound	(Rio Bravo	o Blvd.)	Northbo	Northbound (I-25 E	. Ramp])	Southbo	Southbound (I-25 E	. Ramp])
4:15 PM 171 4:30 PM 169	R		-	æ		⊢	œ		F	æ
4:30 PM 169	0	0	87	28	7	0	14	0	0	0
	0	0	68	19	5	0	11	0	0	0
4:45 PM 172	0	0	60	15	9	-	12	0	0	0
4:45 PM 5:00 PM 158 63	0	0	59	19	4	0	11	0	0	0
	θ	θ	73	Ð	5	θ	40	θ	θ	θ
5:30 PM 427	θ	θ	48	17	43	θ	16	θ	θ	θ
5:45 PM 715	θ	θ	58	6	9	θ	-12	θ	θ	θ
5:45 PM 6:00 PM 443 24	θ	θ	34	21	++	θ	46	θ	θ	θ
PM Peak Hour Volumes 670 272	0	0	274	81	22	~	48	0	0	0
% of Total Traffic 49.0% 19.9%	0.0%	0.0%	20.0%	5.9%	1.6%	0.1%	3.5%	0.0%	0.0%	0.0%
% Directional 68.9%			26.0%			5.2%			0.0%	
PM Peak Hour Factor 0.96			0.77			0.85				

3/9/2012

RioBravo_125_E_Ramp_CNT_2012.xls

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eet Valero (Rio Bravo Blvd. / Broadway Blvd.)

2012

Year Counts Taken:

E-W Street Rio Bravo Blvd. N-S Street: I-25 W. Ramp SIGNALIZED

25 35 3/8/12 (I-25 W. Ramp)= Date of Count: Speed Limit (Rio Bravo Blvd.)=

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(I-25 W.	Date of
d Limit (
Spee	

(I-25 W. Ramp)	T	0 135	1 154	0 182	0 180	0 159	4 460	0 451	0 171	1 675	0.0% 25.4%	36.0%	0.93	Southbound (I-25 W. Ramp)	т В	
Southbound (I-25 W.		49	65	76	77	62	87	55	42	280	10.6% 0.	36	0	uthbound		
S S		4	6			9	∞	4	4	5	10.			Sol		
V. Ramp)	ĸ	θ	0	0	0	0	0	θ	0	0	0.0%			V. Ramp)	2	
Northbound (I-25 W. Ramp)		θ	0	0	0	0	θ	θ	θ	0	0.0%	0.0%		Northbound (I-25 W. Ramp)		
Northbo		θ	0	0	0	0	θ	θ	θ	0	0.0%			Northbo		
ivo Blvd.)	2	θ	0	0	0	0	θ	θ	θ	0	0.0%			ivo Bivd.)	ъ	
Westbound (Rio Bravo Blvd.)	⊢	20	24	17	15	26	24	4	24	82	3.1%	3.5%	0.78	Westbound (Rio Bravo Bivd.)	1	
Westbou	1	4	2	3	2	4	4	ዋ	Ъ	11	0.4%			Westbou	1	
avo Blvd.)	R	+	2	4	Ţ	1	+	ዋ	ዋ	œ	0.3%			avo Blvd.)	¥	
Eastbound (Rio Bra	⊢	316	393	379	442	382	286	265	267	1596	60.2%	60.5%	0.91	Eastbound (Rio Bra	⊢-	
Eastbour	1	θ	0	0	0	0	θ	θ	θ	0	%0.0			Eastbour	J	
End	Time	7:15 AM	7:30 AM	7:45 AM	8:00 AM	8:15 AM	8:30 AM	8:45 AM	9:00 AM	Volumes			actor	End	Time	
Begin	Time	7:00 AM	7:15 AM	7:30 AM	7:45 AM	8:00 AM	8:15 AM	8:30 AM	8:45 AM	AM Peak Hour Volumes	% of Total Traffic	% Directional	AM Peak Hour Factor	Begin	Time	

Begin End		stbound	Eastbound (Rio Brav	o Bivd.)	Westbour	Westbound (Rio Bravo Blvd.)	vo Bivd.)	Northbo	Northbound (I-25 W. Ramp)	(. Ramp)	Southbo	Southbound (I-25 W. Ramp)	(. Ramp)
Time Time	-		-	ĸ		F	٣		F	Ъ			2
4:00 PM 4:15	4:15 PM 0	0	225	4	13	74	0	0	0	0	23	0	285
4:15 PM 4:30	4:30 PM 0	0	214	ო	17	51	0	0	0	0	13	0	327
4:30 PM 4:45	4:45 PM 0	0	233	ω	15	45	0	0	0	0	∞	-	283
4:45 PM 5:00	5:00 PM	0	219	7	6	50	0	0	0	0	7	0	253
5:00 PM 5:15	5:15 PM 6	θ	246	+	42	61	θ	θ	θ	θ	ø	θ	277
5:15 PM 5:30	5:30 PM 6	0	181	എ	6	39	θ	θ	θ	θ	đ	θ	290
5:30 PM 5:45	5:45 PM 6	θ	211	4	#	47	θ	θ	θ	θ	#	C ⁴	19 1
5:45 PM 6:00	6:00 PM	0	470	4	4	30	θ	θ	θ	θ	47	θ	227
PM Peak Hour Volumes	nes (0	891	22	54	220	0	0	0	0	51	-	1148
% of Total Traffic	0.0	0.0%	37.3%	0.9%	2.3%	9.2%	0.0%	0.0%	0.0%	0.0%	2.1%	0.0%	48.1%
% Directional			38.2%			11.5%			0.0%			50.3%	
PM Peak Hour Factor			0.95			0.79						0.88	

RioBravo_I25_W_Ramp_CNT_2012.xls

				H	Traffic	Count	Data	Sheet					
Year Counts Taken:	iken:	2012		E-W Street N-S Street:	E-W Street Rio Bravo Blvd N-S Street: Broadway Blvd	o Blvd iy Blvd			Speed Li Speed Li	Speed Limit (Rio Bravo Blvd)= Speed Limit (Broadway Blvd)= Date of Count:	Rio Bravo Blvd)= Broadway Blvd)= Date of Count:	25 25 214/12	Hdw
Begin	End	Eastbou	Eastbound (Rio Bravo	avo Blvd)	Westbou	Westbound (Rio Bravo Blvd)	avo Blvd)	Northbou	Northbound (Broadway	way Blvd)	Southbou	Southbound (Broadway Blvd)	Iway Blvd)
Time	Time		⊢	Я		L L	£		⊢	Ľ		F	ск Г
7:00 AM	7:15 AM	31	286	48	36	9 2	ന	15	45	46	CH	44	11
7:15 AM	7:30 AM	33	353	25	31	131	2	11	52	50	4	17	13
7:30 AM	7:45 AM		376	26	36	135	9	17	40	75	2	19	12
7:45 AM	8:00 AM	33	306	20	49	170	œ	17	47	54	4	17	18
8:00 AM	8:15 AM	42	365	33	39	126	10	15	37	41	S	34	22
8:15 AM	8:30 AM		253	21	51	132	11	20	39	44	ŝ	57	42
8:30 AM	8:45 AM	25	228	24	52	151	ę	19	4	46	9	53	46
8:45 AM	9:00 AM		282	19	36	104	9	#7	30	58	იე	20	6
AM Peak Hour Volumes	Volumes	151	1400	104	155	562	26	60	176	220	15	87	65
% of Total Traffic		5.0%	46.3%	3.4%	5.1%	18.6%	0.9%	2.0%	5.8%	7.3%	0.5%	2.9%	2.2%
% Directional			54.8%			24.6%			15.1%			5.5%	
AM Peak Hour Factor	actor		0.93			0.82			0.86			0.68	
Begin	End	Eastbou	Eastbound (Rio Bravo	avo Blvd)	Westbou	Westbound (Rio Bravo	avo Blvd)	Northbound	Ind (Broadway	way Blvd)	Southbou	Southbound (Broadway Blvd)	(way Blvd)
Time	Time		F	ĸ	I	L	ĸ		}	æ		F	Ъ
4:00 PM	4:15 PM	23	448	30	58	285	5	42	53	56	ср	6ź	47
4:15 PM	4:30 PM		209	21	60	277	Ð	55	44	5 7	4	55	48
4:30 PM	4:45 PM	38	192	33	44	276	10	42	36	91	4	52	44
4:45 PM	5:00 PM		158	25	-58	299	5	39	47	50	4	64	70
5:00 PM	5:15 PM		200	29	52	340	S	. 50	56	70	4	73	41
5:15 PM	5:30 PM		216	27	60	308	4	43	24	50	3	57	64
5:30 PM	5:45 PM	23	215	46	38	303	3	21	25	42	5	5 8	31
5:45 PM	6:00 PM	46	146	-13	35	225	θ	20	47	24	4	37	53
PM Peak Hour Volumes	Volumes	105	766	114	214	1223	24	174	163	261	15	246	219
% of Total Traffic		3.0%	21.7%	3.2%	6.1%	34.7%	0.7%	4.9%	4.6%	7.4%	0.4%	7.0%	6.2%
% Directional			28.0%			41.5%			17.0%			13.6%	
PM Peak Hour Factor	actor		0.91			0.92			0.85			0.87	

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RB_Broadway_CNT_2012.xls

2/24/2012

2/24/2012

Traffic Count Data Sheet

Year Counts Taken:

2012

E-W Street Rio Bravo Blvd N-S Street: Prince St

25 25 2/21/12 Speed Limit (Rio Bravo Blvd)= Speed Limit (Prince St)=

HdW MPH

Date of Count:

ce St)	ĸ	4	2	2	7	4	+	4	4	10	0.4%		5	ce St)	æ	12	4	12	ω	13	15	43	44	48	1.8%
Southbound (Prince St)	F	θ	0	0	0	0	θ	CH	+	0	%0.0	0.9%	0.64	Southbound (Prince	F	4	+	0	m	0	0	+	θ	e	0.1%
Southb		G	e	-	4	S	ო	13	11	13	0.5%			Southb		Ð	6	ი	ω	15	12	47	40	44	1.6%
ce St)	æ	33	21	31	18	œ	77	57	6	78	3.2%			ce St)	٣	42	-18	22	17	14	10	43	4	63	2.3%
Northbound (Prince St)	F	θ	0	0	-	~	+	4	+	ы	0.1%	6.3%	0.81	Northbound (Prince	Ŀ	C/I	θ	-	-	2	0	+	θ	4	0.1%
Northb		ź	19	17	26	13	19	16	53	75	3.1%			Northb		24	34	27	25	18	17	10	16	87	3.2%
/o Blvd)	ч	8	S	13	15	10	44	12	#	43	1.8%			/o Blvd)	2	42	4	10	7	4	7	40	C41	28	1.0%
Westbound (Rio Bravo Blvd)	Т	113	112	157	157	150	135	160	477	576	23.5%	26.7%	0.89	Westbound (Rio Bravo Blvd)		311	399	331	342	348	422	315	295	1443	53.2%
Westbour		43	7	13	6	9	6	4	4	35	1.4%			Westbour		49	34	29	30	25	22	6	15	106	3.9%
avo Blvd)	Я	6	4	ø	∞	17	42	44	4	37	1.5%			avo Blvd)	ĸ	25	35	24	31	21	18	77	20	94	3.5%
	Т	290	376	362	432	367	274	275	250	1537	62.8%	66.0%	0.89			211	476	204	194	181	195	470	150	774	28.5%
Eastbound (Rio B	L L	40	ດ	7	16	13	φ	7	4	41	1.7%			Eastbound (Rio B		9	Ð	9	4	5	4	4	C/I	19	0.7%
End	Time	7:15 AM	7:30 AM	7:45 AM	8:00 AM	8:15 AM	8:30 AM	8:45 AM	9:00 AM	Volumes			ctor	End	Time	4:15 PM	4:30 PM	4:45 PM	5:00 PM	5:15 PM	5:30 PM	5:45 PM	6:00 PM	Volumes	
Begin	Time	7:00 AM	7:15 AM	7:30 AM	7:45 AM	8:00 AM	8:15 AM	8:30 AM	8:45 AM	AM Peak Hour Volumes	% of Total Traffic	% Directional	AM Peak Hour Factor	Begin	Time	4:00 PM	4:15 PM	4:30 PM	4:45 PM	5:00 PM	5:15 PM	5:30 PM	5:45 PM	PM Peak Hour Volumes	% of Total Traffic

RB_Prince_CNT_2012.xls

> 0.1% 3.5% 0.85

0.1% 5.7% 0.77

774 28.5% 32.7%

58.1%

0.87

0.95

PM Peak Hour Factor

% Directional

2/24/2012

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Year Counts Taken:

2012

E-W Street Rio Bravo Blvd N-S Street: Second St

Hdw 25 25 26 Speed Limit (Rio Bravo Blvd)= Speed Limit (Second St)=

										Date of	Date of Count:	2/16/12	
Begin	End	Eastbol	Eastbound (Rio Bravo Blvd)	ivo Blvd)	Westbou	Westbound (Rio Bravo Blvd)	avo Bivd)	North	Northbound (Second	ond St)	Southb	Southbound (Second	ond St)
Time	Time		Т	R	1	⊢	8		F	2		-	Ľ
7:00 AM	7:15 AM	39	264	32	10	<u>76</u>	6	44	44	45	20	++	19
7:15 AM	7:30 AM	87	377	30	11	127	20	26	22	9	17	13	16
7:30 AM	7:45 AM	75	291	28	7	132	11	22	32	20	19	17	21
7:45 AM	8:00 AM	76	318	44	12	141	21	38	37	ω	22	20	12
8:00 AM	8:15 AM	91	347	60	15	129	17	42	19	18	21	15	14
8:15 AM	8:30 AM	5 6	259	31	43	454	42	32	20	-17	22	46	25
8:30 AM	8:45 AM	54	214	3 0	++	134	-19	40	19	49	77	26	25
8:45 AM	9:00 AM	42	247	31	89	717	43	45	26	#	33	31	28
AM Peak Hour Volumes	· Volumes	329	1333	162	45	529	69	128	110	52	79	65	63
% of Total Traffic		11.1%	45.0%	5.5%	1.5%	17.8%	2.3%	4.3%	3.7%	1.8%	2.7%	2.2%	2.1%
% Directional			61.5%			21.7%			9.8%			7.0%	
AM Peak Hour Factor	actor		0.92			0.92			0.87			0.91	2
Begin	End	Eastbol	Eastbound (Rio Bra	ivo Blvd)	Westbou	Westbound (Rio Bravo Blvd)	avo Bivd)	Northb	Northbound (Second St)	ond St)	Southb	Southbound (Second St)	ond St)
Time	Time		T	æ		b	æ		F	œ		Г	R
4:00 PM	4:15 PM	27	155	33	6	309	22	56	24	-16	49	49	6 7
4:15 PM	4:30 PM	24	-144	18	44	275	43	45	30	#	30	37	84
4:30 PM	4:45 PM	25	154	30	#	285	19	46	77	44	23	77	75
4:45 PM	5:00 PM	32	135	31	8	311	20	70	27	20	33	34	93
5:00 PM	5:15 PM	37	161	23	4	287	6	39	25	14	33	14	94
5:15 PM	5:30 PM	23	128	36	8	344	13	60	8	12	28	25	115
5:30 PM	5:45 PM	24	145	41	10	354	15	44	14	12	18	25	67
5:45 PM	6:00 PM	30	131	23	Ъ.	316	+13	6 2	45	9	24	<u> 18</u>	±±
PM Peak Hour Volumes	· Volumes	116	569	131	30	1296	57	213	74	58	112	98	399
% of Total Traffic		3.7%	18.0%	4.2%	1.0%	41.1%	1.8%	6.8%	2.3%	1.8%	3.6%	3.1%	12.7%
% Directional			25.9%			43.9%			10.9%			19.3%	
PM Peak Hour Factor	actor		0.92			0.91			0.74			0.91	

RB_2nd_CNT_2012.xls

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Traffic Count Data Sheet

Year Counts Taken:

2010

SIGNALIZED E-W Street Rio Bravo Blvd. N-S Street: Isleta Blvd.

35 35 7/7/10 Speed Limit (Rio Bravo Blvd.)= lvd.)=

HdM MPH

_	_									3						-			_					
Blvd.)	R	Ъ,	10	14	15	6	9	45	24	48	1.8%			Blvd.)	۲	39	44	34	40	35	33	27	30	135
Southbound (Isleta Blvd.)	T	23	37	37	35	24	39	38	17	133	5.0%	16.5%	0.93	Southbound (Isleta Blvd.)	- L	65	112	99	63	62	62	66	42	253
Southbo		49	64	66	64	61	51	54	61	255	9.6%			Southbo		60	55	59	50	70	58	75	60	253
Blvd.) Sol	R	26	108	105	79	54	76	74	60	346	13.1%			Blvd.)	۲ د	54	47	43	38	27	43	35	64	143
Northbound (Isleta Blvd.)	T	29	31	57	56	46	5 2	42	56	190	7.2%	23.0%	0.87	Northbound (Isleta		60	57	68	62	51	54	57	49	224
Northbol		4	17	13	23	19	26	21	47	72	2.7%			Northbo		37	52	53	36	36	38	42	48	152
o Blvd.)	R	23	29	49	36	32	45	42	64	146	5.5%			o Bivd.)	ι α	47	5 9		68	67	77	93	54	305
Westbound (Rio Bravo Blvd.)	T	6 7	47	65	52	43	58	85	83	207	7.8%	19.6%	0.81	d (Rio Bravo Blvd.)		148	213	131	193	183	233	182	463	791
Westbound		28	26	47	52	42	43	5 8	39	167	6.3%		2	Westbound		87	6	0ź	113	89	103	112	96	417
o Blvd.)	8	13	15	20	16	11	24	44	16	62	2.3%			vo Blvd.)	α	18	15	33	29	26	21	21	44	97
Eastbound (Rio Bravo Blvd.)	1	196	250	268	203	189	145	158	143	910	34.4%	40.9%	0.84	1 (Rio Brav		89	84	68	76	69	79	90	<u>5</u>	314
Eastbound		+3	23	33	32	24	10	34	32	112	4.2%			Eastbound (Rio Bra	-	50	59	22	28	24	39	23	22	114
End	Time	7:15 AM	7:30 AM	7:45 AM	8:00 AM	8:15 AM	8:30 AM	8:45 AM	9:00 AM	/olumes			stor	End	Lime	4:15 PM	4:30 PM	4:45 PM	5:00 PM	5:15 PM	5:30 PM	5:45 PM	6:00 PM	/olumes
Beain	Time	7:00 AM	7:15 AM	7:30 AM	7:45 AM	8:00 AM	8:15 AM	8:30 AM	8:45 AM	AM Peak Hour Volumes	% of Total Traffic	% Directional	AM Peak Hour Factor	Beain	Time	4:00 PM	4:15 PM	4:30 PM	4:45 PM	5:00 PM	5:15 PM	5:30 PM	5:45 PM	PM Peak Hour Volumes

RioBravo_Isleta_TRAF_CNT_2010 (2).xls

42 253 7.9%

49 224 7.0%

54 305 9.5%

463 791 24.7%

44 97 3.0%

79 314 9.8%

% of Total Traffic

% Directional

3.6%

13.0% 96 417

4.2%

7.9%

4.5%

4.8%

16.2%

47.3%

16.4%

0.94

PM Peak Hour Factor

0.92

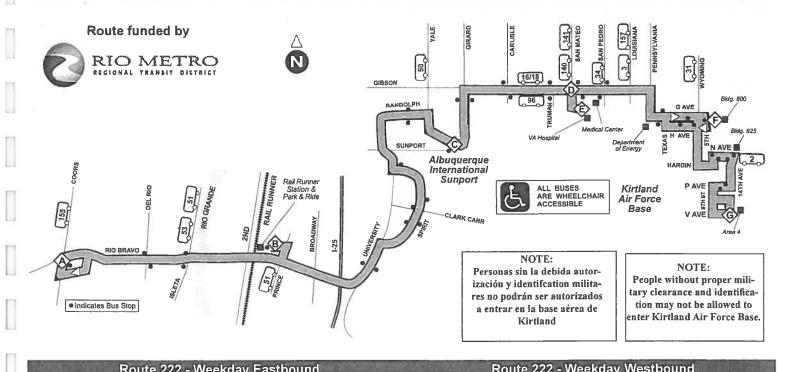
0.95

20.0%

0.95

Route 222 / Ruta 222 Rio Bravo - Sunport - Kirtland

Effective 8/27/2011



1000			Roule	222 - 1	weeku	ay Las	subour	IU	a state of the
	COORS &	ARRIVE	DEPART	AIRPORT	GIBSON &	V.A. HOSPITAL		AREA 4 鈫	
	5:35a	5:47a	5:53a			••••	6:17a	••••	<u>KAFB</u>
	••••		5:53a	6:05a	••••	6:12a	••••		<u>VA</u>
			5:53a	÷	••••		6:17a	6:25a	KAFB
	••••		7:15a	••••	••••	••••	7:39a	7:47a	<u>KAFB</u>
	6:57a	7:09a	7:15a	7:27a	••••	7:34a			<u>VA</u>
	2:28p	2:40p	2:46p	3:03p	••••	3:10p	••••	••••	
	5:35p	5:47p	5:53p	6:08p	6:15p	••••	6:24p		

Be sure to board the bus which will stop where you need to get off! <u>VA</u>: These buses serve the stops on: - University - Spirit Dr - Airport - Girard - Gibson & Carlisle - Gibson & Truman - San Mateo & Gibson and - ends at the VA Medical Center (San Mateo side). They do not stop on Randolph Rd. or Kirtland Air Force Base. KAFB: These buses serve only the stops on: - Randolph Rd. - Gibson & Valencia and - Kirtland Air Force Base. As shown in the schedule, only one continues to Area 4 at 625a. Route 222 - Weekday Westbound

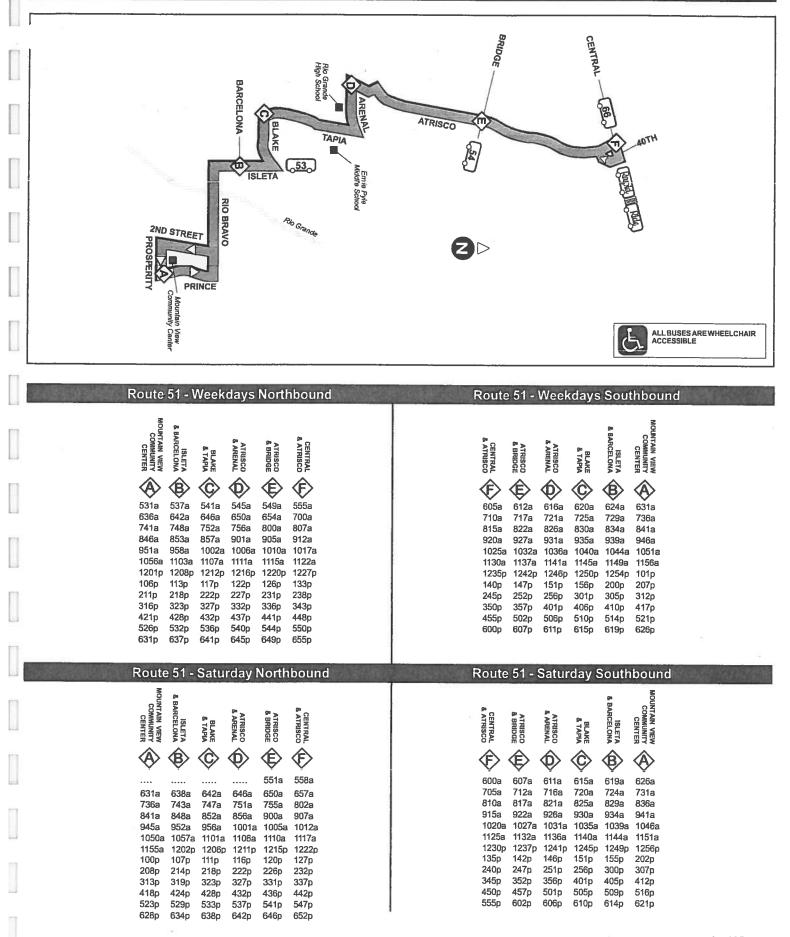
R

	AREA 4		GIBSON &	V.A. HOSPITAL	AIRPORT	AIL RUNNER STATION	DEPART	COORS & 🕢	
	15	6:35a	6:44a		6:53a	7:09a	7:15a	7:27a	
		••••	••••	2:10p	2:21p	2:40p	2:46p	2:58p	
VA				4:05p	4:16p	4:32p		••••	
KAFB	3:56p	4:04p	••••	••••		4:32p	4:39p	4:51p	
VA	••••		••••	5:17p	5:28p	5:46p	••••	••••	
KAFB	5:03p	5:16p	••••		••••	5:46p	5:53p	6:06p	

As in the AM peak, two buses meet the PM peak trains:	
VA: These buses serve stops at:	
- VA Medical Center (San Mateo side)	
- For service from Gibson & San Mateo, use sto	p
at VA or Truman	
- Gibson & Truman	
- Gibson & Carlisle	
- Girard	
- Airport	
- Spirit Dr. and	
- University.	
They do <u>not</u> stop on Randolph Rd.	
<u>KAFB</u> : These buses serve <u>only</u> the stops on: - Kirtland Air Force Base	
- Gibson & San Pedro and	

Route 51/Ruta 51 - Atrisco/Rio Bravo

Eff. 12/19/2009



A - 125

Data Entry Sheet

Determination of Warrants for Deceleration Lanes NM DOT State Access Management Manual Criteria Driveway "A" / Broadway Blvd.

Project Information:

Project Name:	Rio Bravo / Broadway Comm. Dev. (NW Corner)
Project Location:	Northwest Corner
Implemenation Year:	2014
Project Environment:	Urban Multi-Lane

Street Information:

Major Street Name:	Broadway Blvd.
Minor Street Name:	Driveway "A"

Intersection Information:

		Prevailing	No. Lanes Each
	Orientation	Speed	Direction
Driveway "A"	Eastbound	25	N/A
Broadway Blvd.	North-South	55	2

Determine Case:

Case

- 1 Urban Two-Lane Highway Use Table 17.B.1
- 2 Urban Multi-Lane Highway Use Table 17.B-2
- 3 Rural Two Lane Highway Use Table 17.B-3 and 17.B-5
- 4 Rural Multi-Lane Highway Use Table 17.B-4 and 17.B-6

Broadway Blvd. is Case Speed Category	2 45 to 55		
SB Right Turn Volumes		SB Thru Volumes	
2014 AM Pk. Hr. NO BUILD	0	248	
2014 AM Pk. Hr. BUILD	20	239	
2014 PM Pk. Hr. NO BUILD	0	710	
2014 PM Pk. Hr. BUILD	32	693	
NB Left Turn Volumes		<u>NB Thru Volumes</u>	
2014 AM Pk. Hr. NO BUILD	0	496	
2014 AM Pk. Hr. BUILD	0	496	
2014 PM Pk. Hr. NO BUILD	0	438	
2014 PM Pk. Hr. BUILD	0	438	

Worksheet Developed by Terry O. Brown, P.E.

Determination of Warrants for Auxiliary Lanes

Project Name:Rio Bravo / Broadway Comm. Dev. (NW Corner)Name of Highway:Broadway Blvd.Name of Cross Street:Driveway "A"

Determination of Warrants for: Eastbound Driveway

Implementation Year Volumes -

2014 Posted Speed Limit:

55

Right Turn Deceleration Lane - Implementation Year Volumes

Condition	Year	Projected Right Turn Volume	Warrant Volume in thru Lane	Projected Volume in thru Lane	< if Met	Lane Length (Deceleration)*	Adjustment Factor for Grade**	Lane Length (Storage)***	Total Lane Length	Taper Ratio
AM Peak Hour NO BUILD	2014	-	-	124		N/A			N/A	N/A
AM Peak Hour BUILD	2014	20	180	120		N/A		-	N/A	N/A
PM Peak Hour NO BUILD	2014	-	-	355		N/A		-	N/A	N/A
PM Peak Hour BUILD	2014	32	126	347	1	550	1.00	-	550	16.5:1

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

Left Turn Deceleration Lane - Implementation Year Volumes

Condition	Year	Projected Left Turn Volume	Warrant Volume in thru Lane	Projected Volume in thru Lane	< if Met	Lane Length (Deceleration)*	Adjustment Factor for Grade**	Lane Length (Storage)***	Total Lane Length	Taper Ratio
AM Peak Hour NO BUILD	2014	-	-	248		N/A		N/A	N/A	N/A
AM Peak Hour BUILD	2014	-	-	248		N/A		N/A	N/A	N/A
PM Peak Hour NO BUILD	2014	-	-	219		N/A		N/A	N/A	N/A
PM Peak Hour BUILD	2014	-	-	219	-	N/A		N/A	N/A	N/A

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

Lane Length Requirements based on Table 18.K-1 (Deceleration and Acceleraton Lengths)

** Enter Grade Adjustment Factor from Table 18.K-2 or other criteria.

*** Lane Storage Length is Based on a calculated 3-minute queue based on average arrival rate per minute. = Volume/Hr. divided by 60 times three (rounded) times 25 feet per vehicle. Lane Storage Length for right turn decel lanes is zero unless there is a stop condition.

Notes and Comments:

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

Worksheet Developed by Terry O. Brown, P.E.

Data Entry Sheet

Determination of Warrants for Deceleration Lanes NM DOT State Access Management Manual Criteria Driveway 'B' / Rio Bravo Blvd

Project Information:

Project Name:	Rio Bravo / I	Broadway Comm. Dev. (NW Corner)
Project Location:	Northwest C	orner
Implemenation Year:	2014	
Project Environment:	Urban	Multi-Lane

Street Information:

Major Street Name:	Rio Bravo Blvd	
Minor Street Name:	Driveway 'B'	

Intersection Information:

Die Deeue Dhud is Osse

		Prevailing	No. Lanes Each	
	Orientation	Speed	Direction	
Driveway 'B'	Southbound	25	N/A	
Rio Bravo Blvd	East-West	45	2	

Determine Case:

Case

-

1 Urban Two-Lane Highway - Use Table 17.B.1

2 Urban Multi-Lane Highway - Use Table 17.B-2

3 Rural Two Lane Highway - Use Table 17.B-3 and 17.B-5

4 Rural Multi-Lane Highway - Use Table 17.B-4 and 17.B-6

Rio Bravo Blvd is Case Speed Category	2 45 to 55		
WB Right Turn Volumes		WB Thru Volumes	
2014 AM Pk. Hr. NO BUILD	0	907	
2014 AM Pk. Hr. BUILD	82	871	
2014 PM Pk. Hr. NO BUILD	0	2253	
2014 PM Pk. Hr. BUILD	102	2211	
EB Leftt Turn Volumes		EB Thru Volumes	
2014 AM Pk. Hr. NO BUILD	0	2077	
2014 AM Pk. Hr. BUILD	0	2083	
2014 PM Pk. Hr. NO BUILD	0	1322	
2014 PM Pk. Hr. BUILD	0	1330	

Worksheet Developed by Terry O. Brown, P.E.

Determination of Warrants for Auxiliary Lanes

 Project Name:
 Rio Bravo / Broadway Comm. Dev. (NW Corner)

 Name of Highway:
 Rio Bravo Blvd

 Name of Cross Street:
 Driveway 'B'

Determination of Warrants for: Southbound Driveway

Implementation Year Volumes - 2014 Posted Speed Limit: 45

Right Turn Deceleration Lane - Implementation Year Volumes

Condition	Year	Projected Right Turn Volume	Warrant Volume in thru Lane	Projected Volume in thru Lane	< if Met	Lane Length (Deceleration)*	Adjustment Factor for Grade**	Lane Length (Storage)**+	Total Lane Length	Taper Ratio
AM Peak Hour NO BUILD	2014	-	-	454		N/A		-	N/A	N/A
AM Peak Hour BUILD	2014	82	1	436	✓	400	1.00	-	400	12.5:1
PM Peak Hour NO BUILD	2014	-	-	1,127		N/A		-	N/A	N/A
PM Peak Hour BUILD	2014	102	1	1,106	1	400	1.00	-	400	12.5:1

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

Left Turn Deceleration Lane - Implementation Year Volumes

Condition	Year	Projected Left T _{urn} Volume	Warrant Volume in thru Lane	Projected Volume in thru Lane	r if Met	Lane Length (Deceleration)*	Adjustment Factor for Grade**	Lane Length (Storage)***	Total Lane Length	Taper Ratio
AM Peak Hour NO BUILD	2014	-	-	1,039		N/A		N/A	N/A	N/A
AM Peak Hour BUILD	2014	-	-	1,042		N/A		N/A	N/A	N/A
PM Peak Hour NO BUILD	2014	-	-	661		N/A		N/A	N/A	N/A
PM Peak Hour BUILD	2014	-	-	665		N/A		N/A	N/A	N/A

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

* Lane Length Requirements based on Table 18.K-1 (Deceleration and Acceleration Lengths)

** Enter Grade Adjustment Factor from Table 18.K-2 or other criteria.

*** Lane Storage Length is Based on a calculated 3-minute queue based on average arrival rate per minute.

= Volume/Hr. divided by 60 times three (rounded) times 25 feet per vehicle.

Lane Storage Length for right turn decel lanes is zero unless there is a stop condition.

Notes and Comments:

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

			Table 17.B-2				
		Criteria l	For Deceleratio	n Lanes On			
		URBAN	MULTI-LANE H	IIGHWAYS			
	LEFT-TUR	N DECELERA	TION LANE	RIGHT-TUI	RN DECELERA	TION LANE	
	Minimum Volu	ume in Adjacent	Through Lane	Minimum Volu	ume in Adjacent	Through Lane	
Turning		(vphpl) ²			(vphpl) ²		
Volume ¹							
(vph)	≤30 mph	35 to 40 mph	45 to 55 mph	≤30 mph	35 to 40 mph	45 to 55 mph	
<5	Not Required	Not Required	Not Required	Not Required	Not Required	Not Required	
5	Not Required	490	420	1,200	730	450	
10	420	370	300	820	490	320	
15	360	290	220	600	350	240	
20	310	230	160	460	260	180	
25	270	190	130	360	230	150	
30	240	160	110	290	200	130	
35	210 130		100	260	180	120	
40	180	120	Required	240	170	110	
45	160	110	Required	220	160	Required	
50	140	Required	Required	200	Required	Required	
55	120	Required	Required	190	Required	Required	
≥56	Required	Required	Required	Required	Required	Required	
	Laft turn Daada	nataion I anas a	. Dequined	Biold from Days	Indeter Factor		
	1 -	rataion Lanes ar	-	Right-turn Decelerataion Lanes are			
	on Urban Multi- following Left-tu		or ine	Required on Urban Multi-lane Highways			
	r	<i>≤</i> 30 mph : 56 vp	h or more	for the following Right-turn Volumes: • ≤30 mph : 56 vph or more			
	1				• •		
		35 to 40 mph : 4 45 to 55 mph : 3	*		35 to 40 mph : 4	*	
	•	45 to 55 mpn : 50	o vpn or more	•	45 to 55 mph : 4	r vpn or more	

Notes:

1. Use linear interpolation for turning volumes between 5 and 55 vph.

2. The volume in the adjacent through lane includes through vehicles and turning vehicles.

3/9/2012

8.K-1	
le 1	
Tab	

Deceleration and Acceleration Lengths (feet)

Speed Change Lane				đ	osted Sp	Posted Speed (mph)	(h)			
Condition	25	30	35	40	45	20	55	09	65	70
Deceleration Distance		181				の言語の影響	No.	調い、次部	「「「「「」」	短期
Stop Condition	150	200	250	325	400	475	550	650	725	850
Slow to 15 MPH	130	175	230	300	370	450	525	620	700	820
Deceleration Taper		Edd -								
Length for 12-foot Lane	50	75	100	125	150	175	200	225	250	250
Straight Line Ratios (L:W)	4:1	6:1	8:1	10.5:1	12.5:1	14.5:1	16.5:1	18.5:1	21:1	21:1
Acceleration Lane Length	N/A	190	270	380	550	760	960	1,170	1,380	1,590
Acceleration Taper										
Length of 12-foot Lane	N/A	100	120	150	170	180	230	270	300	300
Straight Line Ratios (L:W)	N/A	 8:-	10:1	12.5:1	14:1	15:1	19:1	22.5:1	25:1	25:1

RB_DriveB-Aux_Lane.xls - Table_18_K-1



District Three Office - Albuquerque

December 1, 2009

Mr. Terry Brown, P.E. P.O. Box 92051 Albuquerque, New Mexico 87199

Subject: Access Justification Study for Rio Bravo (NM 500) & Broadway (NM 47) Bernalillo County

Dear Mr. Brown:

The NMDOT District Three Office has completed its review of the Final Access Justification Study dated September 28, 2009, for the proposed Rio Bravo/Broadway commercial development within Bernalillo County. The proposed development lies north of Rio Bravo (NM 500) and east of Broadway (NM 47).

We are satisfied with the information and data presented within the analysis and have no further comments. Therefore, the Access Justification Study has been approved by NMDOT.

As described within the study, the following access recommendations are supported:

- 1. At the access to the property (driveway "B") along Rio Bravo, a right-in, right-out driveway will be constructed. This driveway will contain a westbound right turn lane into the driveway and will be constructed as far west of the Broadway/Rio Bravo intersection as possible.
- 2. At the access to the property (driveway "A") along Broadway, a full access, unsignalized driveway will be constructed to access the development. This driveway will contain a southbound right turn lane and a northbound left turn lane into the driveway and will be constructed as far north of the Broadway/Rio Bravo intersection as possible.

Both driveways, as well as other offsite improvements outlined in the Traffic Study, will be designed and constructed according to the requirements of the NMDOT's State Access Management Manual. The NMDOT is requesting that you provide the MRCOG with copies of this approval letter along with 4 copies of the Traffic Study and Access Justification Report for their information. It is not the intent of the NMDOT to request an approval from the MRCOG for the access. We will be granting the access once we receive the access permit and the plans detailing all the offsite improvements.

Bill Richardson Governor

Gary L. J. Giron Cabinet Secretary Designate

Commission

Johnny Cope Chairman District 2

Norman Assed Commissioner District 3

Larry Velasquez, P.E. District Engineer District 3

District 3 Office P.O. Box 91750 Albuquerque, NM 87199-1750



NM 500 & NM 47 Access Justification Bernalillo County Page 2

If you have any questions or require additional information, please feel free to give me a call at (505) 841-9173.

Sincerely,

Andrew J. Gallegos, P.E. District Three Traffic Engineer

cc: Larry Velasquez Ton Abbo Nancy Perea Christina Bahl Jack Lord File

Albuquerque, NM 87199-1750

Terry O. Brown, P.E.

From:	Jaramillo, Antonio, NMDOT <antonio.jaramillo@state.nm.us></antonio.jaramillo@state.nm.us>
Sent:	Tuesday, January 17, 2012 10:11 AM
То:	Terry O. Brown, P.E.
Cc:	Perea, Nancy, NMDOT; Ronald R. Bohannan
Subject:	RE:

Terry,

Due to the fact that the approval was issued a number of years ago, I would say that the agreement is null and void and a new approval will need to be issued. That being said the new and updated information will need to be evaluated and included for approval. If you have any further questions please let me know. Thanks!

Antonio E. Jaramillo, PE

District 3 Traffic Engineer NMDOT (505) 841-2741

From: Terry O. Brown, P.E. [mailto:tobe@swcp.com] Sent: Tuesday, January 17, 2012 8:37 AM To: Jaramillo, Antonio, NMDOT Cc: Perea, Nancy, NMDOT; Ronald R. Bohannan Subject: RE:

Thanks, Antonio. I will follow up with regard to the November application to see what is occurring there.

Also, would you please address the access issue on Rio Bravo Blvd. Is access approved?

Please call me if you have questions.

Best Regards,

Terry O. Brown, P.E. P. O. Box 92051 Albuquerque, NM 87199-2051 (505) 883-8807 – Office (505) 270-6981 – Cell e-mail: tobe@swcp.com

From: Jaramillo, Antonio, NMDOT [mailto:Antonio.Jaramillo@state.nm.us] Sent: Thursday, January 12, 2012 11:12 AM To: Terry O. Brown Cc: Perea, Nancy, NMDOT Subject: RE:

Terry,

As discussed in our conversation yesterday, I was to get back with you regarding the letter that was sent to you by Mr. Gallegos regarding the property at Rio Bravo and Broadway. Since the development has changed since this letter was issued I would ask that a new study be done for this development.

On Rio Bravo Please analyze from I-25 west to Isleta Blvd. and on Broadway from Rio Bravo to Prosperity.

On a related note, I have received plans from Thompson Engineering Consultants back in mid-November to develop this site as a MVD express. This is only a couple months ago so I was wondering if you were aware of this. The plan set was submitted to Bernalillo County and was submitted to us for review. Please make sure that there are no mix ups. Thanks!

Antonio E. Jaramillo, PE

District 3 Traffic Engineer NMDOT (505) 841-2741

From: Terry O. Brown [mailto:tobe@swcp.com]
Sent: Tuesday, January 10, 2012 2:55 PM
To: Jaramillo, Antonio, NMDOT
Cc: Abbo, Tony S., NMDOT; Vince Carrica; Ronald R. Bohannan
Subject:

Antonio,

I performed an Access Study in 2009 for a new right-in, right-out driveway on the north side of Rio Bravo Blvd. approximately 400 feet west of Broadway Blvd. (centerline to centerline). Andrew Gallegos, the District Traffic Engineer at the time, wrote a letter of approval dated December, 1, 2009 (See attached). Based on Mr. Gallegos' letter, it appears that we have the right to construct a right-in right-out driveway at that location. A potential user is proposing a gasoline station with Convenience Market at this location and we intend to construct access on Broadway Blvd. as well as the right-in, right-out on Rio Bravo Blvd.

Would you please provide me with a scope of Traffic Impact Study for the new project, and confirm that we are approved for the right-in, right-out driveway on Rio Bravo.

Please call me if you have questions or if you need additional information.

Best Regards,

Terry O. Brown, P.E. P. O. Box 92051 Albuquerque, NM 87199-2051 (505) 883-8807 – Office (505) 270-6981 – Cell (505) 212-0267 – FAX

e-mail: tobe@swcp.com

No virus found in this message. Checked by AVG - <u>www.avg.com</u> Version: 2012.0.1901 / Virus Database: 2109/4738 - Release Date: 01/12/12

No virus found in this message. Checked by AVG - <u>www.avg.com</u> Version: 2012.0.1901 / Virus Database: 2109/4748 - Release Date: 01/17/12