Holly-Ventura Apartments
Northwest Corner of Holly Ave. NE and Ventura St. NE
Albuquerque, NM

DRAFT
Traffic Impact Study

January 7, 2021

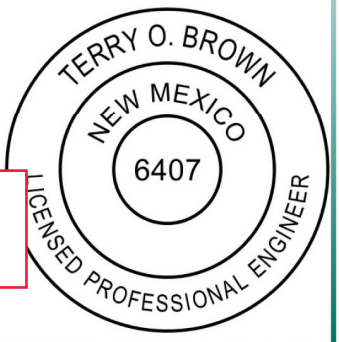
Presented to:

Matthew Grush, P.E.
City of Albuquerque
&
Nancy Perea
New Mexico Department of Transportation

HT#C20D086
Received
1/12/2021

Prepared for:

Brian Patterson, P.E.
Titan Development
6300 Riverside Plaza Ln, NW #200
Albuquerque, NM 87120



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

Holly-Ventura Apartments - Albuquerque, NM
(Northwest Corner of Holly Ave. & Ventura St.)
Traffic Impact Study

Executive Summary

The purpose of this Traffic Impact Study (TIS) is to evaluate the transportation conditions before and after implementation of the proposed Holly-Ventura Apartments development (111 units) to determine the impact of the development on the adjacent transportation system and recommend mitigation measures where necessary. This study is prepared voluntarily by the developer to be reviewed by the City of Albuquerque Transportation Development Section of the Planning Department and the New Mexico Department of Transportation. The volumes generated by the project do not meet the City of Albuquerque's warrant for a Traffic Impact Study. The developer agreed to prepare and submit one for review, nonetheless.

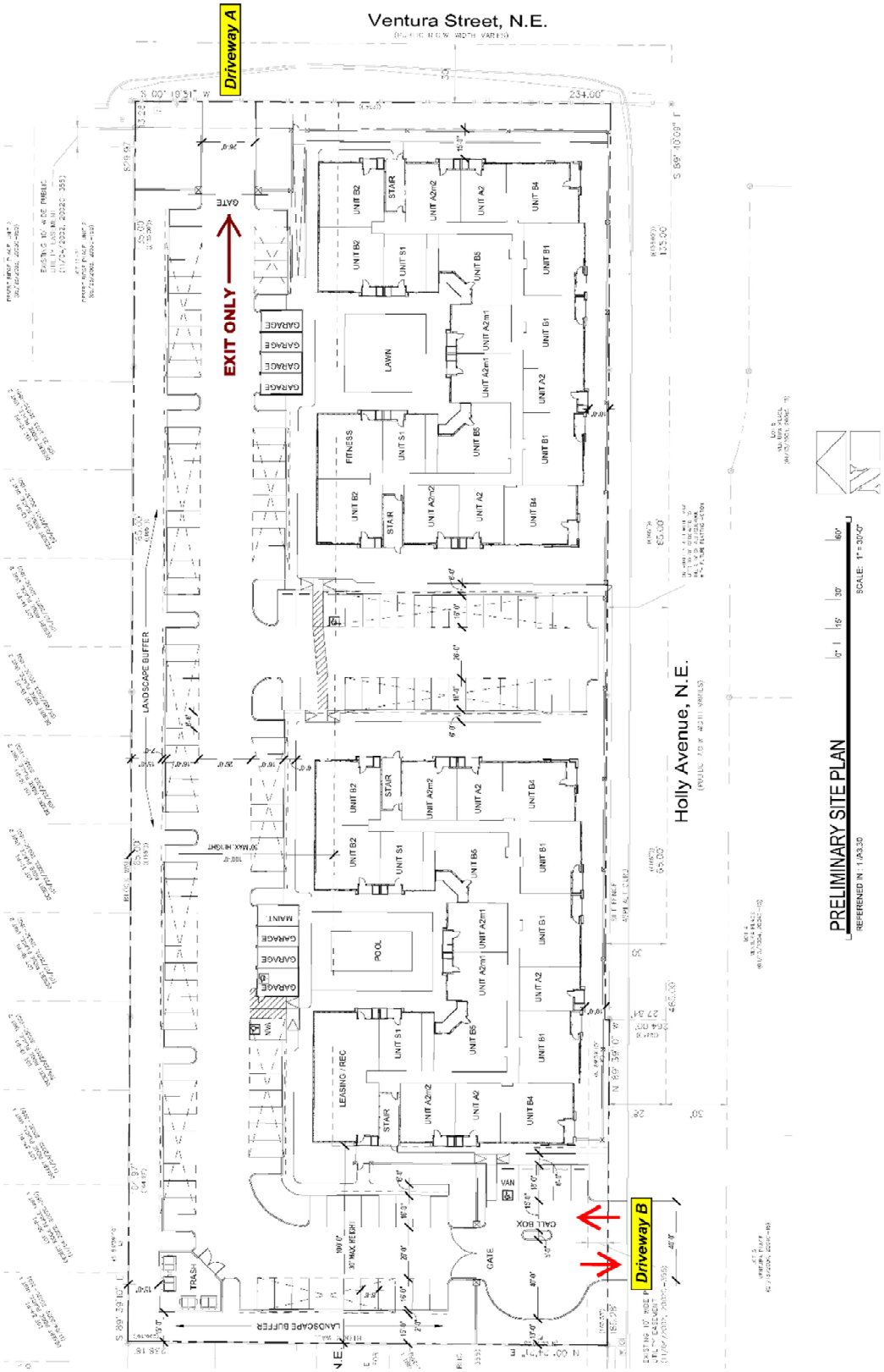
Project Description

- The new development will be located on 3.9 acres of undeveloped land located on the northwest corner of Holly Ave. N.E. and Ventura St. N.E.
- The site and the adjacent lands are zoned MX-L (Mixed-use, Low Density)
- Two driveways are proposed to access the new development. Driveway 'A' is an exit-only driveway located on the west leg of the E. Holly & Ventura St. intersection, 690-feet north of Paseo del Norte (centerline to centerline). Driveway 'B' is a full access driveway located on the north side of W. Holly Ave., 600-feet west of Ventura St. (centerline to centerline).
- No transportation projects and no other recent or planned developments were identified within the study area.
- The anticipated implementation year for this project is 2021. Since the project will generate less than 50 peak hour trips and will be constructed in one phase a year from now, a horizon year was not analyzed.
- According to the Institute of Traffic Engineers' (ITE) trip generation rates, the project is anticipated to generate 10 new entering trips and 28 new exiting trips during the weekday AM Peak Hour period and 30 new entering trips and 19 new exiting trips during the PM Peak Hour period. No pass-by trips are included in the trips generated.
- The study area includes five intersections as listed below and shown:
    1. Paseo del Norte & Ventura St. (Signalized)
    2. (West) Holly Ave/Albertsons Driveway & Ventura St. (Unsignalized)
    3. (East) Holly Ave./Driveway A & Ventura St. (Unsignalized)
    4. (West) Holly Ave. & Barstow St. (Signalized)
    5. (West) Holly Ave. & Driveway B (Unsignalized)

    Note: In this report, the West leg of Holly Ave. is identified as W. Holly Ave. and the East leg of Holly Ave. is identified as E. Holly Ave. even though these are not the legal names of these sections of Holly Ave.

The vicinity map and proposed site plan are shown below.

City of Albuquerque
Legend
Arterial Streets
Freeway
Principal Arterial
Minor Arterial
BN and SF Railroad
Municipal Limits
Corrales
Edgewood
Los Ranchos
Rio Rancho
Tijeras
UNINCORPORATED
World Street Map
Notes
UNINCORPORATED AREAS
SITE
ALAMEDA BLVD
PASEO DEL NORTE
WYOMING BLVD
HARPER RD
VENTURA ST
SAN ANTONIO DR
4,156
0
2,078
4,156 Feet
1: 24,938
WGS_1984_Web_Mercator_Auxiliary_Sphere
12/14/2020
©City of Albuquerque
THIS MAP IS NOT TO BE USED FOR NAVIGATION


Ventura Street, N.E.
Driveway A
EXIT ONLY
GATE
Holly Avenue, N.E.
Driveway B
LANDSCAPE BUFFER
PRELIMINARY SITE PLAN
SCALE: 1" = 30'-0"

Traffic Analysis Results

A summary of the Highway Capacity Manual (HCM) analysis results is included in the following table:

HCM Results Summary Table

Holly Ventura Apartments

Northwest Corner of Holly Ave. and Ventura St. - Albuquerque, NM

JAN. 2021

				Implementation Year (2021) Conditions	
Intersection No.	Intersection Name	Signalization	Case	AM Peak (LOS-delay)	PM Peak (LOS-delay)
1	Paseo del Norte & Ventura St.	Signalized	NO BUILD	D - 42.5	D - 39.3
			BUILD	D - 42.9	D - 39.5
2	W. Holly Ave./Albertsons & Ventura St.	Unsignalized [1]	NO BUILD	C - 18.1	D - 26.8
			MITIGATED[2]	C - 19.3	D - 30.6
		Roundabout w/ Single Lane Approaches	BUILD	A - 6.4	A - 7.9
		Roundabout w/ Double Lane Approaches	BUILD	A - 5.6	A - 6.5
3	E. Holly Ave./Driveway A & Ventura Street	Unsignalized [1]	NO BUILD	B -13.1	B - 13.7
			BUILD	B - 14.2	B - 14.9
4	W. Holly Ave. & Barstow St.	Signalized	NO BUILD	B - 11.4	B - 14.6
			BUILD	B - 11.6	B - 15.0
5	W. Holly Ave. & Driveway B	Unsignalized[1]	NO BUILD		
			BUILD	B - 10.0	B - 10.6

1. Worst LOS for Driveway Exit and Entrance Movements
2. Mitigated Geometry assumes two approach lanes southbound

- Level of Service (LOS) remains constant for all intersections for the NO BUILD and BUILD conditions and the intersections perform at LOS=D or better for all peak hour periods.
- Overall intersection delays are worse for the BUILD condition by less than a few seconds and Volume to Capacity Ratios are less than one for all approaches.

- As requested by the City of Albuquerque a roundabout alternative was analyzed for the W. Holly/Ventura intersection. A one- or a two-lane approach roundabout at this intersection improves the LOS from to "A" during the AM peak hour and from C to A during the PM peak hour.
- At the PdN & Ventura St. intersection, the eastbound and westbound, left-turn and right-turn lanes, have NO BUILD and BUILD LOS=E. However, these are existing problems, and the project does not make the delays significantly worse.
- Turn lane warrant analysis indicates that no turn lanes are warranted for this project.
- No significant vertical or horizontal curves exist along W. Holly Ave. or Ventura St. in the vicinity of the driveways and there are no structures blocking sight distances into and out of the entrances.

Conclusions

In summary, the proposed Holly-Ventura Apartments will have minimal adverse impact to the adjacent transportation system, therefore, no mitigation measures are proposed in this study. LOS at the intersections in the study area meet the Minimum Acceptable Level of Service Standards (LOS=D or better, City of Albuquerque Development Process Manual (DPM) for NO BUILD and BUILD conditions for all intersections in the study area.

Recommendations

All site and offsite design and construction related to this development shall maintain adequate sight distances at driveways and intersections in the study area to the extent possible.

Access – Driveway "A" should be designated as an EXIT ONLY driveway (unsignalized). The eastbound lane of Driveway "A" should align with the eastbound lane of E. Holly Ave. to the east of Ventura St. Driveway "B" should be a full access unsignalized driveway (unsignalized) possessing at least one entering lane and one exiting lane.

Holly-Ventura Apartments - Albuquerque, NM
(Northwest Corner of Holly Ave. & Ventura St.)
Traffic Impact Study

Contents

Holly-Ventura Apartments - Albuquerque, NM
(Northwest Corner of Holly Ave. & Ventura St.)
Traffic Impact Study

Introduction

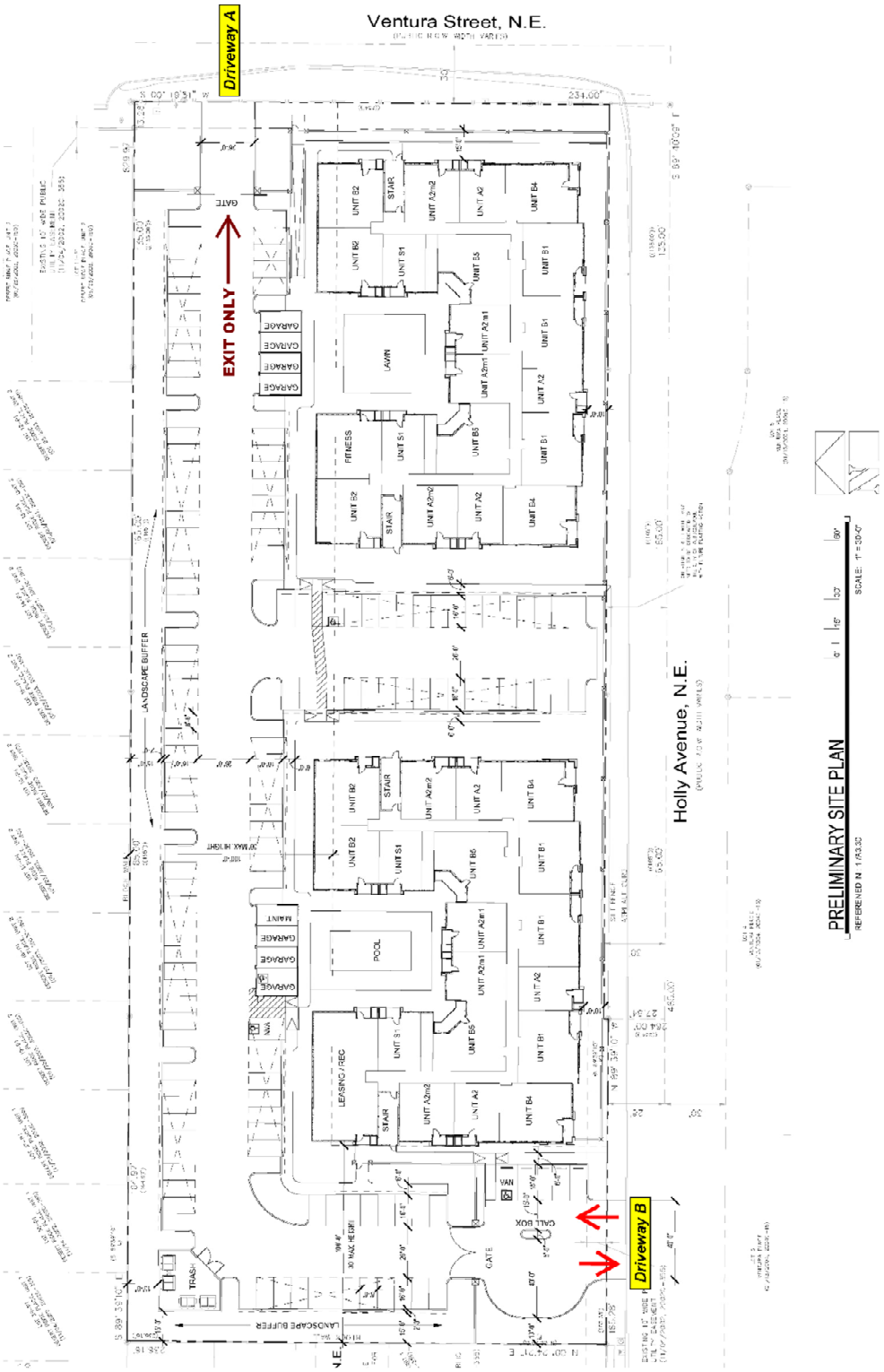
The purpose of this Traffic Impact Study (TIS) is to evaluate the transportation conditions before and after implementation of the proposed the Holly-Ventura Apartments development to determine the impact of the development on the adjacent transportation system and recommend mitigation measures where necessary. This study is prepared voluntarily by the developer to be reviewed by the City of Albuquerque Transportation Development Section of the Planning Department and the New Mexico Department of Transportation. The volumes generated by the project do not meet the City of Albuquerque's warrant for a Traffic Impact Study. The developer agreed to prepare and submit one for review, nonetheless.

Description of Proposed Development

The proposed development is to be located at the Northwest Corner of Holly Ave. & Ventura St., within the City of Albuquerque, New Mexico. Two driveways are proposed to access the new development. Driveway 'A' is an out-only driveway located on the west leg of the E. Holly & Ventura St. intersection, 690-feet north of Paseo del Norte (centerline to centerline). Driveway 'B' is a full access driveway located on the north side of W. Holly Ave., 600-feet west of Ventura St. (centerline to centerline). No transportation projects and no other recent or planned developments were identified within the study area. The anticipated implementation year for this project is 2021. Since the project will generate less than 50 peak hour trips and will be constructed in one phase, a horizon year was not analyzed.

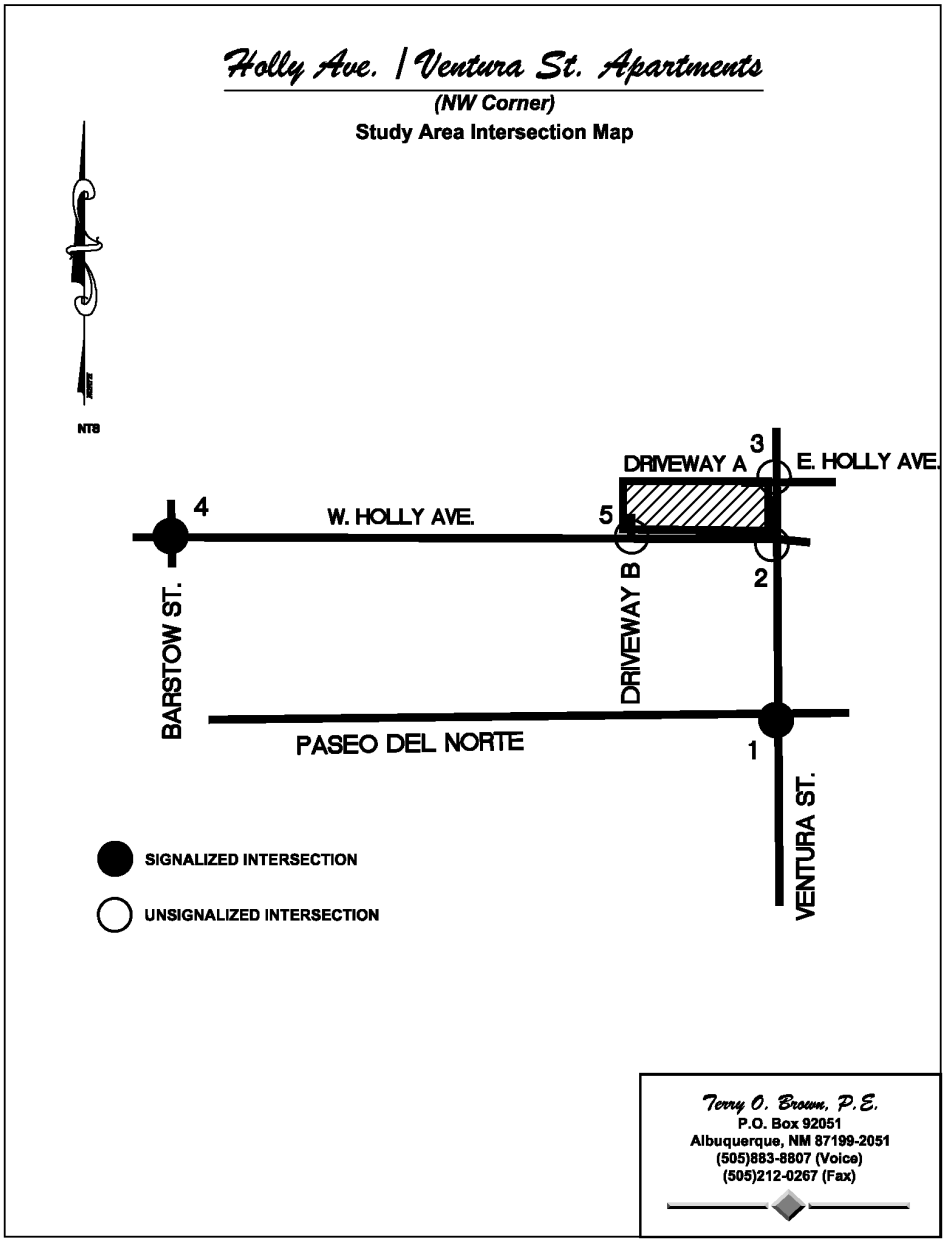
The vicinity map and proposed site plan are shown below.

City of Albuquerque
SITE
UNINCORPORATED AREAS
ALAMEDA BLVD
PASEO DEL NORTE
WYOMING BLVD
HARPER RD
VENTURA ST
SAN ANTONIO DR
Legend
Arterial Streets
Freeway
Principal Arterial
Minor Arterial
BN and SF Railroad
Municipal Limits
Corrales
Edgewood
Los Ranchos
Rio Rancho
Tijeras
UNINCORPORATED
World Street Map
Notes
4,156
0
2,078
4,156 Feet
1: 24,938
WGS_1984_Web_Mercator_Auxiliary_Sphere
12/14/2020
©City of Albuquerque
The City of Albuquerque ("City") provides the data on this website as a service to the public. The City makes no warranty, representation, or guaranty as to the content, accuracy, timeliness, or completeness of any of the data provided at this website. Please visit http://www.cabq.gov/abc-data/abc-data-disclaimer-1 for more information.
THIS MAP IS NOT TO BE USED FOR NAVIGATION


Ventura Street, N.E.
Driveway A
EXIT ONLY
GATE
Holly Avenue, N.E.
Driveway B
LANDSCAPE BUFFER
PRELIMINARY SITE PLAN

The study area includes five intersections as listed below and shown on the following map:

1. Paseo del Norte & Ventura St. (Signalized)
2. (West) Holly Ave/Albertsons Driveway & Ventura St. (Unsignalized)
3. (East) Holly Ave./Driveway A & Ventura St. (Unsignalized)
4. (West) Holly Ave. & Barstow St. (Signalized)
5. (West) Holly Ave. & Driveway B (Unsignalized)



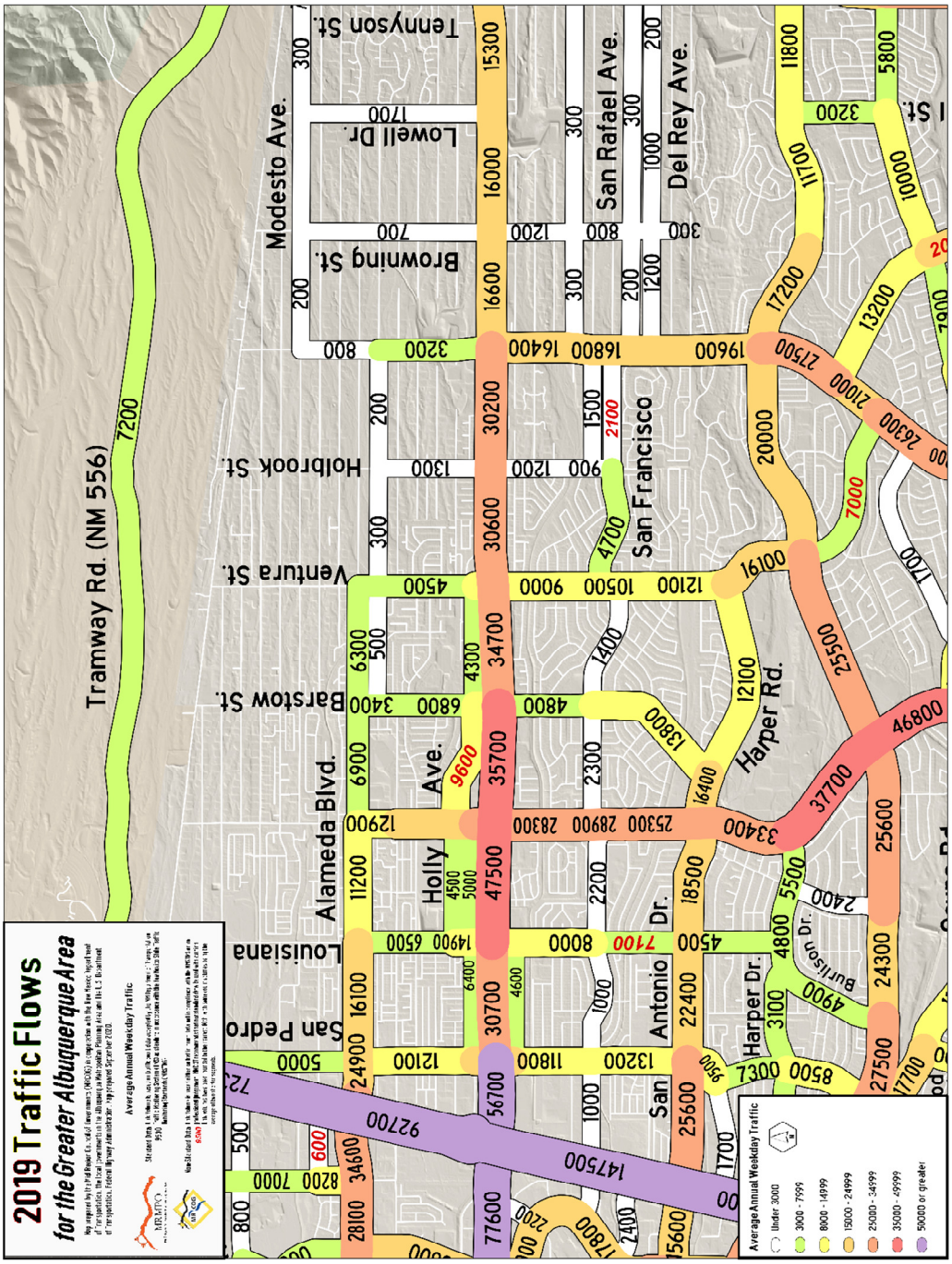
Study Area Conditions

The characteristics of the study area used in the analysis are as follows:

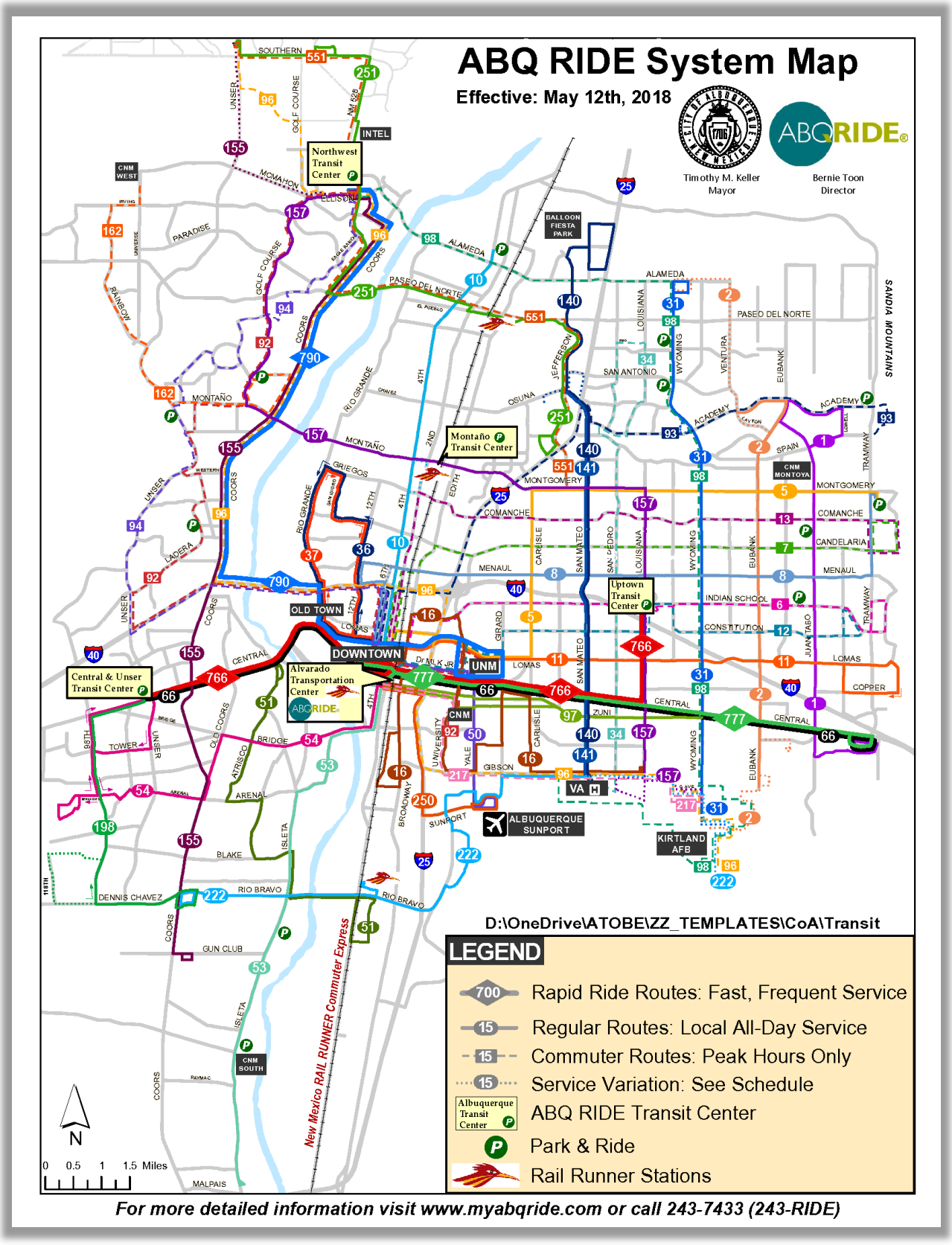
- The new development will be located on 3.9 acres of vacant undeveloped land located on the northwest corner of Holly Ave. N.E. and Ventura St. N.E.
- The site and the adjacent lands are zoned MX-L (Mixed-use, Low Density)
- No other known planned or approved developments in the influence area
- There are existing pedestrian facilities in the project area sidewalks, trails, or paths.
- There are no existing bike lanes/shoulders along Paseo del Norte or Ventura St. in the vicinity of the project. There is a bike lane planned along Ventura St.
- Paseo del Norte is classified as urban principal arterial roadway on the NMDOT Regional Roadway Functional Class Map. It is a six-lane roadway with raised divided medians, curbs and gutters and posted speed limits of 55-mph.
- Holly Ave. (East and West of Ventura St.) is classified as a major collector roadway on the NMDOT Regional Roadway Functional Class Map. It has 2-lanes, curbs and gutters, no median, no bike lane, and a 30-mph speed limit.
- Ventura St. and Barstow St. are major collectors with curbs and gutters. Ventura St. is a two-lane roadway north of W. Holly Ave. and a four-lane roadway south of W. Holly Ave with a raised median north and south of the project but no median along the frontage of the project. Barstow is a two-lane roadway with curb and gutter, a stripped median and 35 mph speed limit.
- All existing signalized intersections have lighting.

Ventura St. north of the west leg of Holly Ave. is currently constructed with one driving lane southbound. The Holly / Ventura Apartments project will construct a second southbound thru lane on Ventura St. along its frontage. Therefore, the BUILD Mitigated analysis for the intersection of the west leg of Holly at Ventura St. will analyze two southbound approach lanes on Ventura St.

Following are portions of the following regional transportation maps for more information. These include the 2018 Traffic Flow Map, ABQ Ride (Bus) System Map, Futures 2040 Long Range Bikeway System Map.



Portion of 2019 Traffic Flow Map
(from Mid-Region Council of Governments)


ABQ RIDE System Map
Effective: May 12th, 2018
Timothy M. Keller
Mayor
Bernie Toon
Director
Northwest Transit Center
Montaño Transit Center
Uptown Transit Center
Central & Unser Transit Center
Alvarado Transportation Center
Albuquerque Sunport
Kirtland AFB
Rail Runner Stations
New Mexico RAIL RUNNER Commuter Express
D:\OneDrive\ATOBE\ZZ_TEMPLATES\CoA\Transit
LEGEND
Rapid Ride Routes: Fast, Frequent Service
Regular Routes: Local All-Day Service
Commuter Routes: Peak Hours Only
Service Variation: See Schedule
ABQ RIDE Transit Center
Park & Ride
Rail Runner Stations
0 0.5 1 1.5 Miles
For more detailed information visit www.myabqride.com or call 243-7433 (243-RIDE)

Portion of Futures 2040 Long Range Roadway System
(from Mid-Region Council of Governments)

Portion of Futures 2040 Long Range Bikeway System
(from Mid-Region Council of Governments)

Existing Traffic Volumes and Analysis

Existing Traffic Volumes

Starting in March of this year a shutdown of all non-essential businesses was ordered by the Governor of New Mexico due to the COVID-19 virus. It is estimated that traffic volumes in New Mexico are reduced from 20% to 40% on average due to the employment layoffs and furloughs and the high percentage of people working from their homes during this crisis period. Since normal traffic counts could not be obtained due the COVID-19 shutdown, existing traffic volumes (turning movement counts) used in this study were determined using the Data® Model and Transportation Analysis & Querying Application (TAQA) data provided by the Mid-Region Council of Governments (MRCOG). The methodology used for producing the existing traffic volume data is as follows.

1. The Streetlight Data® Model was used to generate 2019 (pre COVID-19) traffic volumes for each movement at each intersection for the AM and PM Peak Hours. Streetlight Data® does not generate 15-minute volumes, so the peak period volumes were approximated by simply dividing the peak hour volumes by four.
2. TAQA data was used to calibrate the Streetlight Data® volumes. TAQA data is generated by tube counts so it is considered more accurate than the Streetlight Data® model, but it only provides approach volumes, not volumes for each movement. So, the TAQA data was used to develop approach specific calibration factors.
3. For approaches where no TAQA data was available, the average of TAQA calibration factors for the other approaches was used. For example, if TAQA data was only available for the NB and SB movements, the average calibration factor from these movements was applied the WB and EB Streetlight Data® volumes.
4. The Streetlight Data® volumes were then multiplied by calibration factors to obtain the existing traffic volumes for each movement. See equations below.

$$\text{Existing Traffic Volume (per movement)} = \text{Streetlight Data® Traffic Volume (per movement)} \times \textit{TAQA Calibration Factor}$$

Where,

$$\textit{TAQA Calibration Factor} = \frac{\text{Total TAQA Approach Volume}}{\text{Total Streetlight Data® Approach Volume}}$$

The existing traffic volumes for each intersection in the study area based on this approach are in Appendix Pages A-3 thru A-6. These volumes are the basis of this Study.

Since no Streetlight Data® or TAQA traffic volume data exists for the Albertsons/Bank driveway on the east leg of the W. Holly Ave. and Ventura St intersection, base traffic volume data was determined using the Institute of Traffic Engineers (ITE) Trip Generation Manual (10th Edition) and Trip Distribution methodology. The number of trips generated by the Albertson's Grocery Store, Bank, Dental Office, and Swim facility during the AM and PM Peak Hours were approximated using ITE Codes 850 (Supermarket) and 912 (Drive-up Bank). See the trip generation table below.

Holly / Ventura Apartments (NW Corner)

Existing Deveolpment East of Ventura & Holly - Albertsons & Bank

Trip Generation Data (ITE Trip Generation Manual - 10th Edition)

USE (ITE CODE)		24 HR VOL	A. M. PEAK HR.		P. M. PEAK HR.	
DESCRIPTION		*GROSS*	*ENTER*	*EXIT*	*ENTER*	*EXIT*
Summary Sheet	Units					
Supermarket (850)	50	4,757	115	76	238	228
Drive-In Bank (912)	3.00	374	16	10	40	42
Medical-Dental Office Building (720)	4.33	79	11	3	5	12
Athletic Club (493)	10.00	-	19	12	39	24
Subtotal		**5,210**	**161**	**101**	**322**	**306**
Internal Capture			(1)	(1)	(3)	(3)
Adjusted Trips			**160**	**100**	**319**	**303**
Pass-By Trips	35%		(56)	(35)	(112)	(106)
Total Primary Trips			**104**	**65**	**207**	**197**

Analysis of Existing Conditions

An analysis of existing conditions was not conducted for this Study because the implementation year analysis is only an hour into the future.

Implementation Year and Horizon Year Volumes & Analysis

Project Generated Traffic Volumes and Growth Rates

The anticipated implementation year for this project is 2021. Since the project will generate less than 50 peak hour trips and will be constructed in one phase, a horizon year was not analyzed. The calculated **growth rates** at the intersections are 1.0 to 2.3%. See Appendix A-8 thru A-13.

Background traffic volumes were calculated by applying historical annual background traffic growth rates to the existing traffic volumes for the implementation year. The MRCOG Regional Transportation Model data from 2009 to 2018 was used to determine the historical growth rates.

Projected trips were calculated based on the Institute of Traffic Engineers (ITE) Trip Generation Manual (10th Edition). According to the Institute of Traffic Engineers' (ITE) trip generation rates, the project is anticipated to generate 10 new entering trips and 28 new exiting trips during the weekday AM Peak Hour period and 30 new entering trips and 19 new exiting trips during the PM Peak Hour period. No pass-by trips are included in the trips generated. See table below.

Holly / Ventura Apartments (NW Corner)

Trip Generation Data (ITE Trip Generation Manual - 10th Edition)

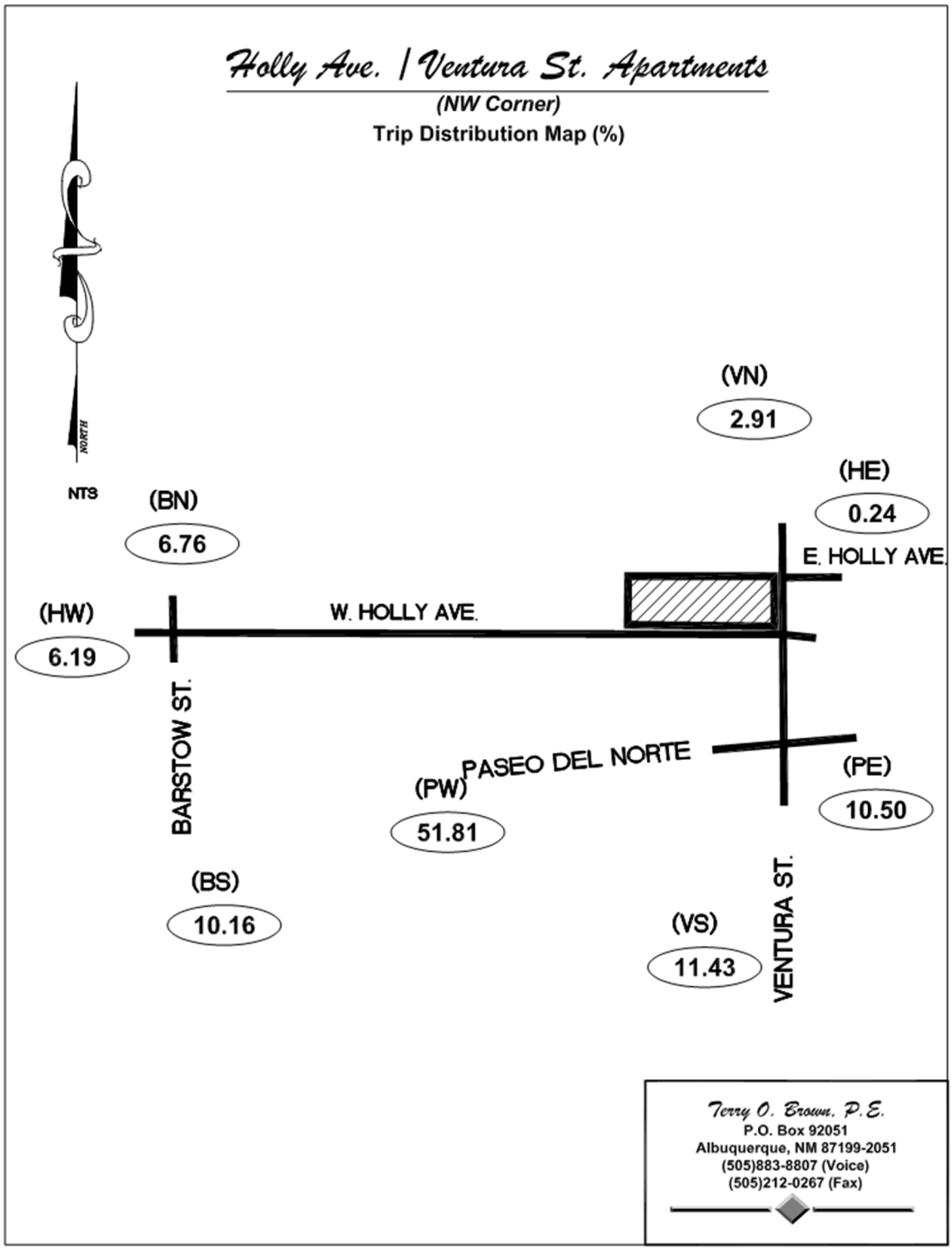
USE (ITE CODE)		24 HR VOL	A. M. PEAK HR.		P. M. PEAK HR.	
DESCRIPTION		*GROSS*	*ENTER*	*EXIT*	*ENTER*	*EXIT*
Summary Sheet	Units					
Multifamily Housing (Mid-Rise) (221)	111	602	10	28	30	19

Trip Distribution

The Gravity Model was used to determine trip distribution where primary trips for the residential land use development were distributed proportionally to the 2021 projected employment of Data Subareas regionally. Employment data for the years 2012 and 2040 were taken from the 2040 Socioeconomic Forecasts by Subareas for the Mid-Region of New Mexico supplied by the Mid-Region Council of Governments (MRCOG). Employment data from the years 2012 and 2040 was interpolated linearly to obtain 2021 employment data to utilize for this analysis. Employment Subareas were grouped based on the most likely major street(s) or route(s) to the subject development.

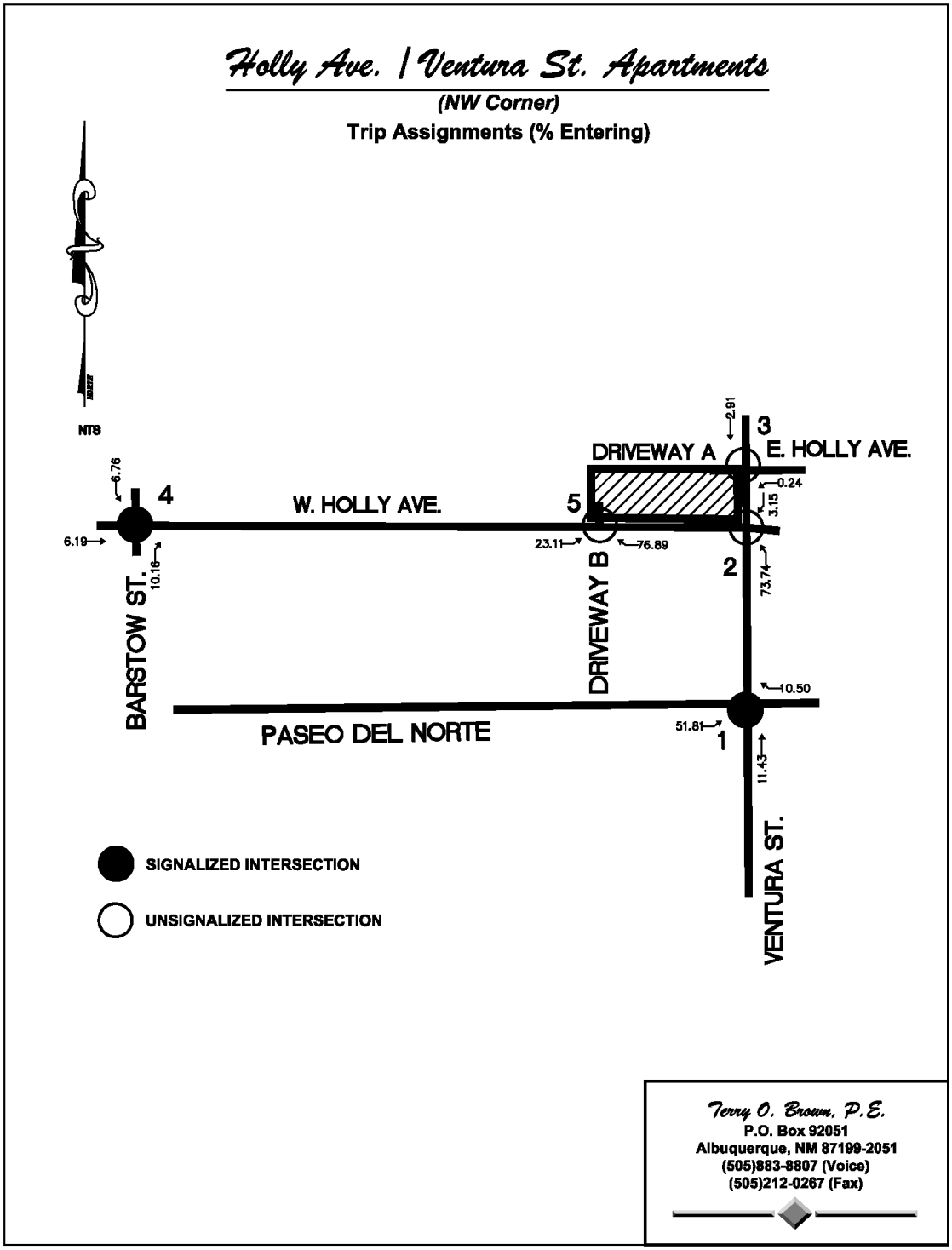
Due to the fact that there is neighborhood concern focused on Ventura St. from Paseo del Norte to Holly Ave., the trip assignments scenario derived from the trip distribution calculations was heavily weighted towards the Paseo del Norte / Holly Ave. along Ventura St. The reason for this is to demonstrate that even if most of the new trips from the Holly / Ventura Apartments did travel through Holly / Ventura and Paseo del Norte / Ventura, it would still only constitute only a very minor impact to the area. Thus, the trip assignments utilized for this project assumed that about 75 percent of the new trips would access the development via Ventura St. In reality, the percentage of new trips from the Holly / Ventura Apartment project that travel via Ventura St. should be 50% to 60%. This study makes a slightly conservative analysis to emphasize the minimal impact of the Holly / Ventura Apartments project on Ventura St. in the vicinity of Holly Ave. and Paseo del Norte.

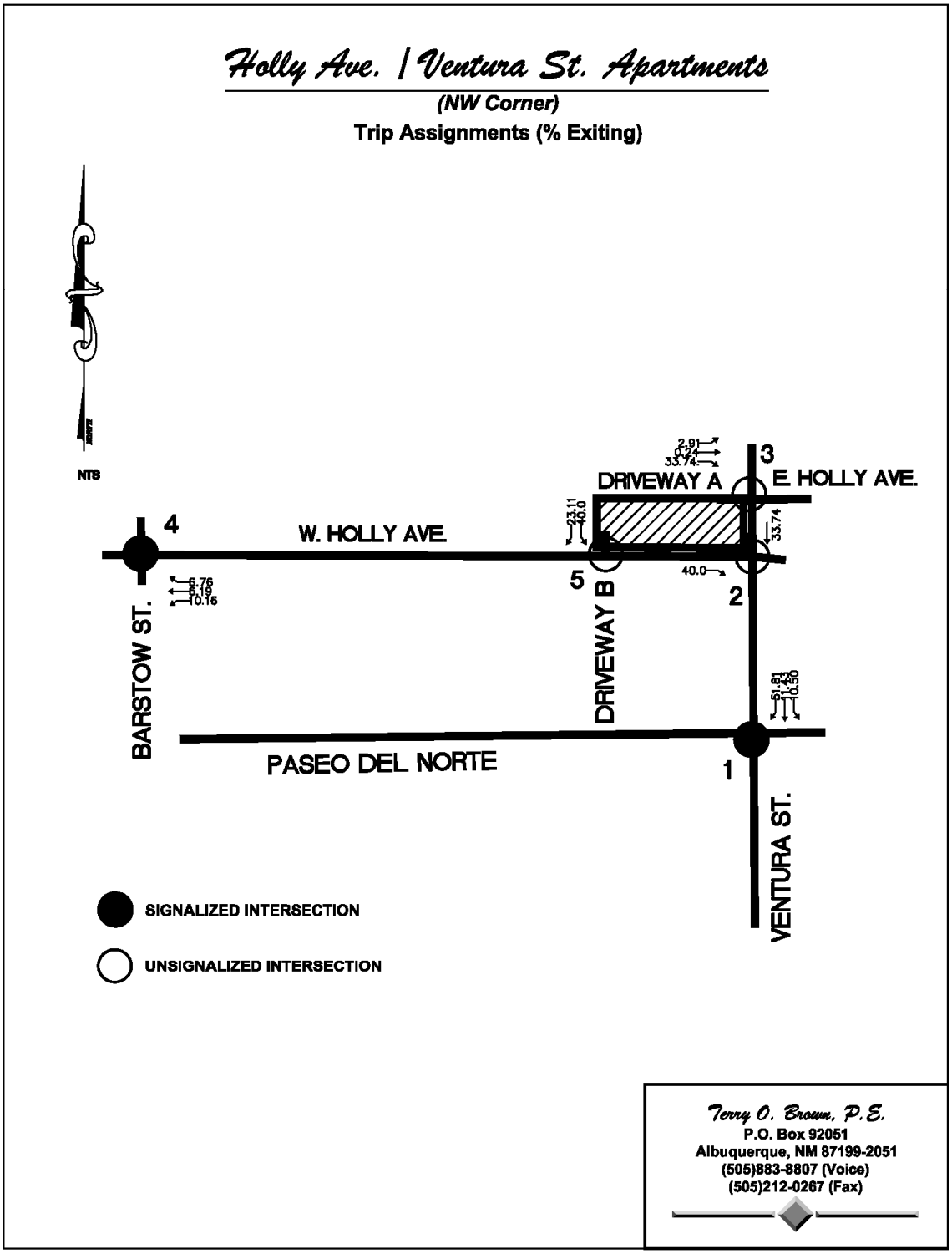
The trip distribution worksheets and associated map of data Subareas are shown in the Appendix on Pages A-15 thru A-18. The residential Trip Distribution map can be found below and in the Appendix on Page A-19.


Holly Ave. / Ventura St. Apartments
(NW Corner)
Trip Distribution Map (%)
NORTH
NTS
(VN)
2.91
(HE)
0.24
E. HOLLY AVE.
(BN)
6.76
(HW)
6.19
W. HOLLY AVE.
BARSTOW ST.
PASEO DEL NORTE
(PW)
51.81
(PE)
10.50
(BS)
10.16
(VS)
11.43
VENTURA ST.
Terry O. Brown, P.E.
P.O. Box 92051
Albuquerque, NM 87199-2051
(505)883-8807 (Voice)
(505)212-0267 (Fax)

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 for residential trips are shown below and on Appendix on Pages A-20 thru A-21.

Peak hour volumes for BUILD, and NO BUILD conditions for the implementation year were calculated in accordance with the Highway Capacity Manual (HCM), 6th Edition by multiplying the peak 15-minute period turning movement counts for each condition by four. **Existing traffic volumes** were based on the analysis method described in the "Analysis of Existing Conditions" section above. **NO BUILD volumes** were generated by adjusting the demand volumes with the background traffic growth and adding the traffic volumes generated by the recent developments in the area BUILD **volumes** were calculated by adding the trips generated by the project to the NO BUIID volumes. The projected turning movement worksheets are provided in Appendix Pages A-22 thru A-26.


Holly Ave. / Ventura St. Apartments
(NW Corner)
Trip Assignments (% Entering)
NTS
W. HOLLY AVE.
E. HOLLY AVE.
DRIVEWAY A
DRIVEWAY B
BARSTOW ST.
PASEO DEL NORTE
VENTURA ST.
1
2
3
4
5
2.91
6.76
6.19
10.16
0.24
3.15
23.11
76.89
73.74
10.50
51.81
11.43
SIGNALIZED INTERSECTION
UNSIGNALIZED INTERSECTION
Terry O. Brown, P.E.
P.O. Box 92051
Albuquerque, NM 87199-2051
(505)883-8807 (Voice)
(505)212-0267 (Fax)


Holly Ave. / Ventura St. Apartments
(NW Corner)
Trip Assignments (% Exiting)
NTS
DRIVEWAY A
E. HOLLY AVE.
W. HOLLY AVE.
BARSTOW ST.
DRIVEWAY B
PASEO DEL NORTE
VENTURA ST.
1
2
3
4
5
2.91
0.2
33.74
23.11
10.0
33.74
40.0
6.76
3.19
10.16
51.81
31.43
10.56
SIGNALIZED INTERSECTION
UNSIGNALIZED INTERSECTION
Terry O. Brown, P.E.
P.O. Box 92051
Albuquerque, NM 87199-2051
(505)883-8807 (Voice)
(505)212-0267 (Fax)

Traffic Analysis

The Highway Capacity Manual, 6th Edition defines signalized and unsignalized intersection levels-of-service (LOS) based on the calculated average control delay of a turning movement, lane group, or overall intersection. The thresholds for various levels-of-service are summarized in the following tables:

LEVEL-OF-SERVICE CRITERIA FOR SIGNALIZED INTERSECTIONS

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

LEVEL-OF-SERVICE CRITERIA FOR UNSIGNALIZED INTERSECTIONS

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

A Level-of-Service D or better is an acceptable parameter in urban areas for design purposes.

A capacity analysis was conducted in accordance with the HCM6 for the signalized and unsignalized intersections using HCS7, Version 7.9, developed by McTrans Center, University of Florida.

The results of the analysis for the intersections in the study area are summarized in a table the Executive Summary and detailed in the following sections:

INTERSECTION 1 – Paseo del Norte & Ventura St. (Signalized, Existing)

The following table summarizes the 2021 Implementation Year analysis results for the signalized intersection of Paseo del Norte & Ventura St. See Appendix pages A-27 thru A-30 for analysis reports for all conditions.

Paseo del Norte/ Ventura St.
2021 Conditions
Paseo del Norte
Ventura St.
Signalized

Paseo del Norte / Ventura St. 2021 Conditions	EB (Paseo del Norte)			WB (Paseo del Norte)			NB (Ventura St.)			SB (Ventura St.)		
	L	T	R	L	T	R	L	T	R	L	T	R
Existing Lane Geometry	2	3	1	2	3	>	2	1	1	1	2	1
AM Peak Hour												
NO BUILD Conditions Volumes	84	877	119	68	1,601	151	372	118	14	135	188	260
V/C Ratio	0.65	0.45	0.21	0.62	0.88	0.92	0.31	0.16	0.02	0.23	0.14	0.44
Level-of-Service	E	C	C	E	D	E	C	C	C	C	C	D
Control Delay (Seconds)	68.6	33.8	31.1	69.1	50.9	62.4	22.5	27.6	25.7	24.2	28.7	35.0
Intersection LOS	**D - 42.5**											
Queue Storage Ratio	0.1	0.0	0.3	0.1	0.0	0.0	0.3	0.0	0.1	0.9	0.0	1.3
BUILD Conditions Volumes	90	877	119	68	1,601	153	372	120	14	138	192	275
V/C Ratio	0.67	0.45	0.21	0.62	0.88	0.92	0.31	0.16	0.02	0.23	0.14	0.46
Level-of-Service	E	C	C	E	D	E	C	C	C	C	C	D
Control Delay (Seconds)	68.4	33.8	31.1	69.1	51.6	63.7	22.6	27.4	25.8	24.2	28.8	35.7
Intersection LOS	**D - 42.9**											
Queue Storage Ratio	0.1	0.0	0.3	0.1	0.0	0.0	0.3	0.0	0.1	0.9	0.0	1.3
PM Peak Hour												
NO BUILD Conditions Volumes	171	1,542	289	25	913	99	280	149	74	294	228	209
V/C Ratio	0.77	0.85	0.53	0.54	0.63	0.66	0.23	0.20	0.12	0.44	0.15	0.30
Level-of-Service	E	D	D	E	D	D	C	C	C	C	C	C
Control Delay (Seconds)	66.5	45.0	37.3	72.2	44.1	45.4	22.6	28.7	27.9	20.3	23.8	26.9
Intersection LOS	**D - 39.3**											
95th Percentile Queue (veh)	0.2	0.0	0.8	0.1	0.0	0.0	0.2	0.0	0.5	1.6	0.0	0.9
BUILD Conditions Volumes	187	1,542	289	25	913	103	280	153	74	296	231	219
V/C Ratio	0.78	0.85	0.53	0.54	0.64	0.65	0.23	0.21	0.12	0.45	0.15	0.32
Level-of-Service	E	D	D	E	D	D	C	C	C	C	C	C
Control Delay (Seconds)	66.2	45.0	37.9	72.2	44.8	45.4	22.7	28.9	27.9	20.3	23.9	27.2
Intersection LOS	**D - 39.5**											
95th Percentile Queue (veh)	0.2	0.0	0.8	0.1	0.0	0.0	0.2	0.0	0.5	1.6	0.0	1.0

Analysis of the intersection of Paseo del Norte & Ventura St. demonstrates that the proposed Holly-Ventura Apartments will have minimal adverse impact on the traffic movements at this intersection. LOS remains the same for the AM and PM Peak Hours, from the NO BUILD to the BUILD condition. The calculated intersection delays worsen by less than 0.5-second in the AM and PM Peak Hours for the BUILD Condition.

The significant delays and LOS=E in the EBL, WBL and WBR during the AM / PM peak hour may be alleviated by retiming the signal. Also, the Queue Storage Ratio exceeds 1.0 for the right and left-turn lanes on the southbound approach, for the NO BUILD and BUILD conditions indicating insufficient storage capacity in these lanes. The right-turn lane could be extended north to Holly Ave. or the righthand thru lane could be converted to a thru-right lane with a right-turn overlap to increase capacity for the right turning traffic. No additional room is available to expand the capacity of left-turn lane. However, since these are existing problems and the project does not

make the delays significantly worse, no mitigation measures are recommended as part of this project.

INTERSECTION 2 – W. Holly Ave. & Ventura St. (Unsignalized, Existing)

As shown in the aerial photograph above the WB approach (Albertsons/Bank Driveway) shows channelized right- and left-turns. According to the City of Albuquerque, the existing southbound left turn lane has recently been removed by City crews. Additionally, a second southbound thru lane along the frontage of the project will be constructed by this developer as a condition of approval. A second southbound thru lane would not be needed, though, if the City were to construct a single lane circulating roundabout at Holly Ave. / Ventura St.

The following table summarizes the 2021 Implementation Year analysis results for the unsignalized intersection of W. Holly Ave. & Ventura St. See Appendix pages A-31 thru A-38 for analysis reports for all conditions.

Holly Ave (W.)/ Ventura St.

2021 Conditions

Holly Ave (W.)

Ventura St.

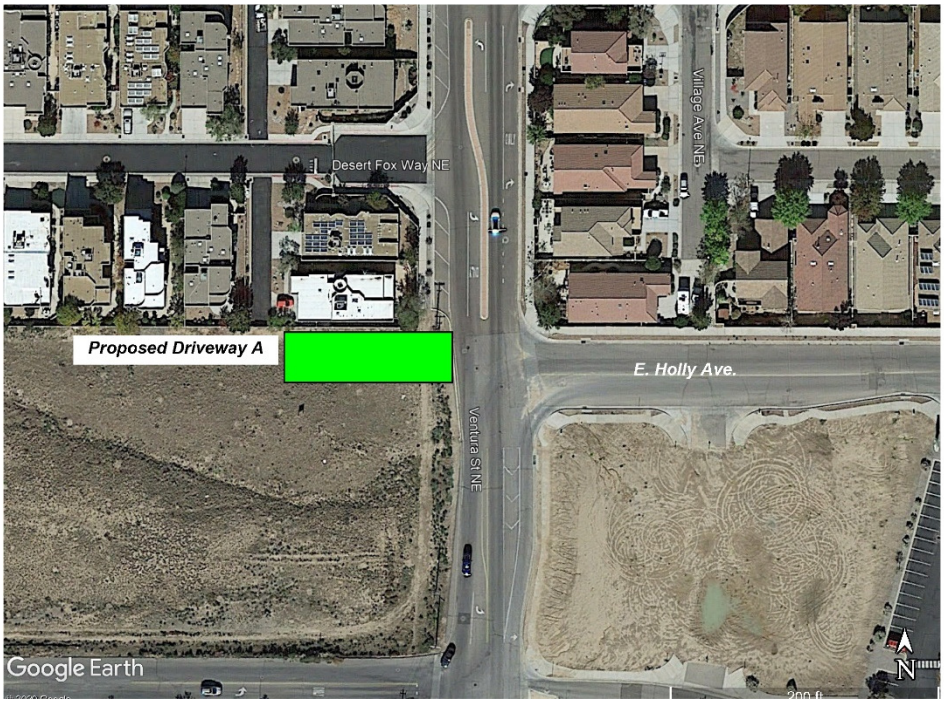
Signalized

Holly Ave (W.) / Ventura St. 2021 Conditions	EB (Holly Ave (W.))			WB (Driveway)			NB (Ventura St.)			SB (Ventura St.)		
	L	T	R	L	T	R	L	T	R	L	T	R
Existing Lane Geometry	1	0	1	0	0	1	1	1	1	0	1	>
AM Peak Hour												
2021 NO BUILD Conditions Volumes	52	0	103	0	0	48	91	316	45	0	388	52
V/C Ratio	0.16		0.16			0.07	0.08					
Level-of-Service	C		B			B	A					
Control Delay (Seconds)	18.1		11.7			10.3	8.5					
Intersection LOS	**TWCS**											
95th Percentile Queue (vehicles)	0.6		0.6			0.2	0.3					
Mitigated Lane Geometry	1	0	1	0	0	1	1	1	1	0	2	>
2021 BUILD Conditions Volumes	52	0	115	0	0	48	99	316	45	0	398	53
V/C Ratio	0.17		0.15			0.07	0.09					
Level-of-Service	C		B			B	A					
Control Delay (Seconds)	19.3		10.5			10.4	8.6					
Intersection LOS	**TWSC**											
95th Percentile Queue (vehicles)	0.6		0.5			0.2	0.3					
ROUNDABOUT Geometry	<	1	>	<	1	>	<	1	>	<	1	>
2021 BUILD Conditions Volumes	52	10	115	5	5	48	99	316	45	5	398	53
V/C Ratio		0.20			0.07			0.37			0.38	
Level-of-Service		A			A			A			A	
Control Delay (Seconds)		6.2			5.1			6.4			6.8	
Intersection LOS	**A - 6.4**											
95th Percentile Queue (vehicles)		0.8			0.2			1.7			1.8	
PM Peak Hour												
2021 NO BUILD Conditions Volumes	57	0	108	0	0	81	177	374	106	0	356	36
V/C Ratio	0.26		0.16			0.12	0.15					
Level-of-Service	D		B			B	A					
Control Delay (Seconds)	27.0		11.4			11.1	8.6					
Intersection LOS	**TWSC**											
95th Percentile Queue (vehicles)	1.0		0.6			0.4	0.5					
Mitigated Lane Geometry	1	0	1	0	0	1	1	1	1	0	2	>
2021 BUILD Conditions Volumes	57	0	116	0	0	81	200	374	106	0	363	37
V/C Ratio	0.29		0.14			0.12	0.17					
Level-of-Service	D		B			B	A					
Control Delay (Seconds)	30.6		10.2			11.1	8.8					
Intersection LOS	**TWSC**											
95th Percentile Queue (vehicles)	1.1		0.5			0.4	0.6					
ROUNDABOUT Geometry	<	1	>	<	1	>	<	1	>	<	o,l	>
2021 BUILD Conditions Volumes	57	5	116	5	5	81	200	374	106	5	363	37
V/C Ratio		0.20			0.13			0.54			0.38	
Level-of-Service		A			A			A			A	
Control Delay (Seconds)		5.9			6.7			3.4			1.8	
Intersection LOS	**A - 7.9**											
95th Percentile Queue (vehicles)		0.7			0.4			3.4			1.8	

LOS for the NO BUILD and BUILD conditions are C for the AM Peak Hour and D for the PM Peak Hour, therefore, no mitigation measures are recommended. However, as requested by the City of Albuquerque, a roundabout option was analyzed for this intersection. Roundabouts are often more efficient, less costly, more aesthetically appealing, and safer for all users than conventional intersection designs (https://safety.fhwa.dot.gov/intersection/innovative/roundabouts). Results of the analysis for a single lane approach, single lane circulating roundabout are provided in the Table. Results for a dual lane circulating roundabout are in the Appendix (Pages A-37 and A-39). As expected, the analysis results for a dual lane circulating roundabout are slightly better, but a single lane circulating roundabout will provide more than sufficient capacity for this intersection. Both scenarios would improve the LOS to A, significantly improve safety and increase the capacity of the intersection. Note that construction and implementation of the second southbound thru lane on Ventura St. north of Holly Ave. (west) will slightly increase average control delay for vehicles at the stop sign on Holly Ave. (eastbound). This was an unexpected increase in delay, although a minimally insignificant increase. The primary reason for the increase in delay is due to the fact that the eastbound left turn movement and the northbound left turn movement will need to cross two lanes of traffic to execute the turn instead of one. It will take slightly longer to cross two lanes, so they will need slightly longer gaps in conflicting traffic. Still, the operational characteristics of the unsignalized intersection of Holly Ave. (west) / Ventura St. are found to be acceptable.

The roundabout analysis is presented at the request of the City of Albuquerque for their own consideration and is not intended as a recommended mitigation measure for this developer. The developer of the Holly-Ventura Apartments agreed to provide the analysis of a roundabout in this Study, but not to construct the roundabout.

INTERSECTION 3 – W. Holly Ave./Driveway A & Ventura St.



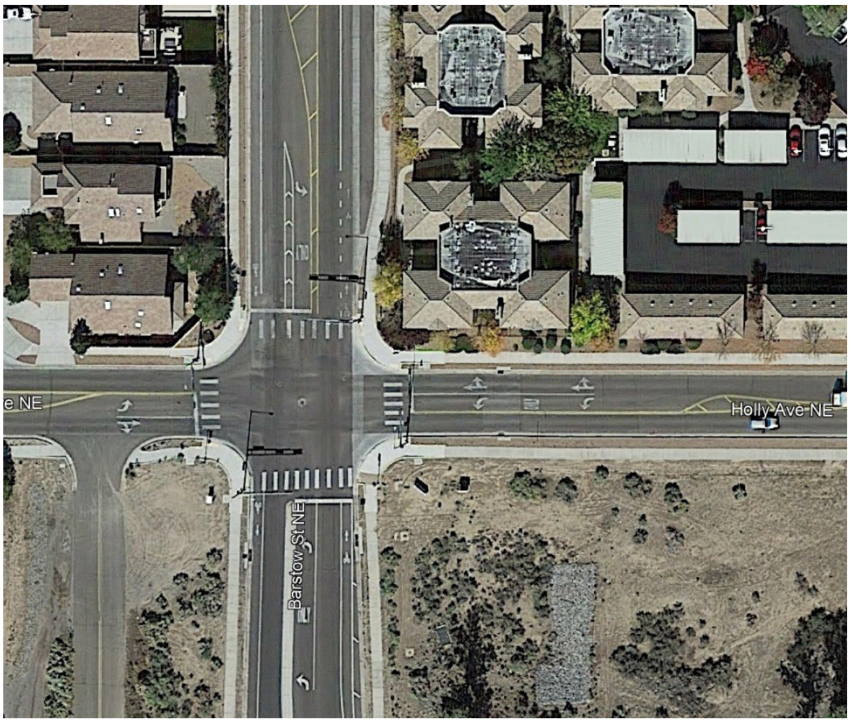
The proposed Driveway "A" on Ventura St. is an exiting only driveway that should properly align with the existing east leg of Holly Ave. The following table summarizes the 2021 Implementation Year analysis results for the unsignalized intersection of E. Holly Ave. & Ventura St. See Appendix pages A-39 thru A-42 for analysis reports for all conditions.

Holly (East)/ Ventura St.
2021 Conditions
Holly (East)
Ventura St.
Signalized

Holly (East) / Ventura St. 2021 Conditions	EB (Holly (East))			WB (Holly (East))			NB (Ventura St.)			SB (Ventura St.)		
	L	T	R	L	T	R	L	T	R	L	T	R
Existing Lane Geometry	0	0	0	1	0	1	0	1	1	1	1	0
AM Peak Hour												
NO BUILD Conditions Volumes	0	0	0	52	0	40	0	296	48	16	384	0
V/C Ratio				0.10		0.05				0.01		
Level-of-Service				B		B				A		
Control Delay (Seconds)				13.1		10.1				8.0		
Intersection LOS	**TWSC**											
Queue Storage Ratio				0.3		0.2				0.0		
Mitigated Lane Geometry	<	1	>	1	0	1	0	1	1	1	1	0
BUILD Conditions (Mitigated) Volumes	1	1	10	53		40	0	296	48	16	385	0
V/C Ratio		0.02		0.12		0.05				0.01		
Level-of-Service		B		B		B				A		
Control Delay (Seconds)		11.3		14.2		10.1				8.0		
Intersection LOS	**TWSC**											
95th Percentile Queue (veh)		0.1		0.4		0.2				0.0		
PM Peak Hour												
NO BUILD Conditions Volumes	0	0	0	60	0	28	0	340	92	52	300	0
V/C Ratio				0.13		0.04				0.05		
Level-of-Service				B		B				A		
Control Delay (Seconds)				13.7		10.4				8.4		
Intersection LOS	**TWSC**											
95th Percentile Queue (veh)		0.0		0.4		0.1				0.1		
Mitigated Lane Geometry	<	1	>	1	0	1	0	1	1	1	1	0
BUILD Conditions (Mitigated) Volumes	1	1	7	61	0	28	0	340	92	52	301	0
V/C Ratio		0.02		0.14		0.04				0.05		
Level-of-Service		B		B		B				A		
Control Delay (Seconds)		11.3		14.9		10.4				8.4		
Intersection LOS	**TWSC**											
95th Percentile Queue (veh)		0.0		0.5		0.1				0.1		

LOS for the BUILD condition is B for the AM and PM Peak Hour. Therefore, no mitigation measures are recommended.

INTERSECTION 4 – W. Holly Ave. & Barstow St.



The following table summarizes the 2021 Implementation Year analysis results for the unsignalized intersection of W. Holly Ave. & Barstow St. See Appendix pages A-43 thru A-46 for analysis reports for all conditions.

Holly Ave./ Barstow St.
2021 Conditions
Holly Ave.
Barstow St.
Signalized

Holly Ave. / Barstow St. 2021 Conditions	EB (Holly Ave.)			WB (Holly Ave.)			NB (Barstow St.)			SB (Barstow St.)		
	L	T	R	L	T	R	L	T	R	L	T	R
Existing Lane Geometry	1	1	>	1	1	>	1	1	>	1	1	>
AM Peak Hour												
NO BUILD Conditions Volumes	150	40	103	36	44	84	62	406	23	41	442	53
V/C Ratio	0.46	0.38	0.00	0.12	0.34	0.00	0.11	0.38	0.00	0.07	0.44	0.00
Level-of-Service	C	B		C	B		A	A		A	A	
Control Delay (Seconds)	23.8	19.5		21.8	19.3		9.3	6.7		8.0	7.3	
Intersection LOS	**B - 11.4**											
Queue Storage Ratio	1.7	0.0		0.1	0.0		0.2	0.0		0.1	0.0	
BUILD Conditions Volumes	150	44	103	39	46	86	62	406	26	42	442	53
V/C Ratio	0.46	0.39	0.00	0.13	0.35	0.00	0.11	0.38	0.00	0.07	0.44	0.00
Level-of-Service	C	B		C	B		A	A		A	A	
Control Delay (Seconds)	23.8	19.5		21.9	19.3		9.4	6.8		8.2	7.4	
Intersection LOS	**B - 11.6**											
Queue Storage Ratio	1.7	0.0		0.2	0.0		0.2	0.0		0.1	0.0	
PM Peak Hour												
NO BUILD Conditions Volumes	75	174	198	72	1	85	101	221	97	66	323	56
V/C Ratio	0.17	0.75	0.00	0.35	0.18	0.00	0.18	0.32	0.00	0.11	0.37	0.00
Level-of-Service	B	C		C	B		B	A		B	A	
Control Delay (Seconds)	19.1	23.1		28.7	17.1		11.7	8.4		10.2	8.9	
Intersection LOS	**B - 14.6**											
95th Percentile Queue (veh)	0.8			0.3			0.3			0.3		
BUILD Conditions Volumes	75	174	198	72	1	85	101	221	97	66	323	56
V/C Ratio	0.17	0.75	0.00	0.35	0.19	0.00	0.18	0.33	0.00	0.12	0.38	0.00
Level-of-Service	B	C		C	B		B	A		B	A	
Control Delay (Seconds)	19.0	23.3		28.9	16.9		12.2	8.8		10.7	9.2	
Intersection LOS	**B - 15.0**											
95th Percentile Queue (veh)	0.8			0.4			0.3			0.3		

LOS is B for the NO BUILD and BUILD conditions for the AM and PM Peak Hours, therefore, no mitigation measures are recommended.

INTERSECTION 5 – W. Holly Ave. & Driveway B

The following table summarizes the 2021 Implementation Year analysis results for the signalized intersection of Paseo del Norte & General Chennault St. See Appendix pages A-47 thru A-48 for analysis reports for all conditions.

Holly Ave./ Driveway "B"
2021 Conditions
Holly Ave.
Driveway "B"
Signalized

Holly Ave. / Driveway "B" 2021 Conditions	EB (Holly Ave.)			WB (Driveway)			SB (Driveway "B")		
	L	T	R	L	T	R	L	T	R
Existing Lane Geometry	<	1			1	>	<	1	>
AM Peak Hour									
2021 BUILD Conditions Volumes	3	164			152	8	12		7
V/C Ratio	0.00						0.03		0.03
Level-of-Service	A						B		B
Control Delay (Seconds)	7.6						10.0		10.0
Intersection LOS	**TWSC**								
95th Percentile Queue (vehicles)	0.0						0.1		0.1
PM Peak Hour									
2021 BUILD Conditions Volumes	7	172			220	24	8		5
V/C Ratio	0.01						0.02		0.02
Level-of-Service	A						B		B
Control Delay (Seconds)	7.7						10.6		10.6
Intersection LOS	**TWSC**								
95th Percentile Queue (vehicles)	0.0						0.1		0.1

Analysis of the intersection of W. Holly Ave. and proposed Driveway B demonstrates that the proposed Holly-Ventura Apartments will have no significant adverse impact on the traffic movements at this intersection. LOS for the AM and PM Peak Hours are acceptable for the BUILD condition. The driveway shall be designed to ensure access for delivery vehicles and to maintain adequate site distances.

Impact Assessment

The proposed Holly-Ventura Apartments will have no significant adverse impacts on the adjacent transportation system; therefore, no mitigation measures are recommended for intersections in the study area.

Access Design Specifications

No significant vertical or horizontal curves exist along Holly Ave. or Ventura St. in the vicinity of the driveways and there are no structures blocking sight distances into and out of the entrances. Driveways should be designed to ensure access for fire trucks and delivery vehicles and to maintain adequate site distances.

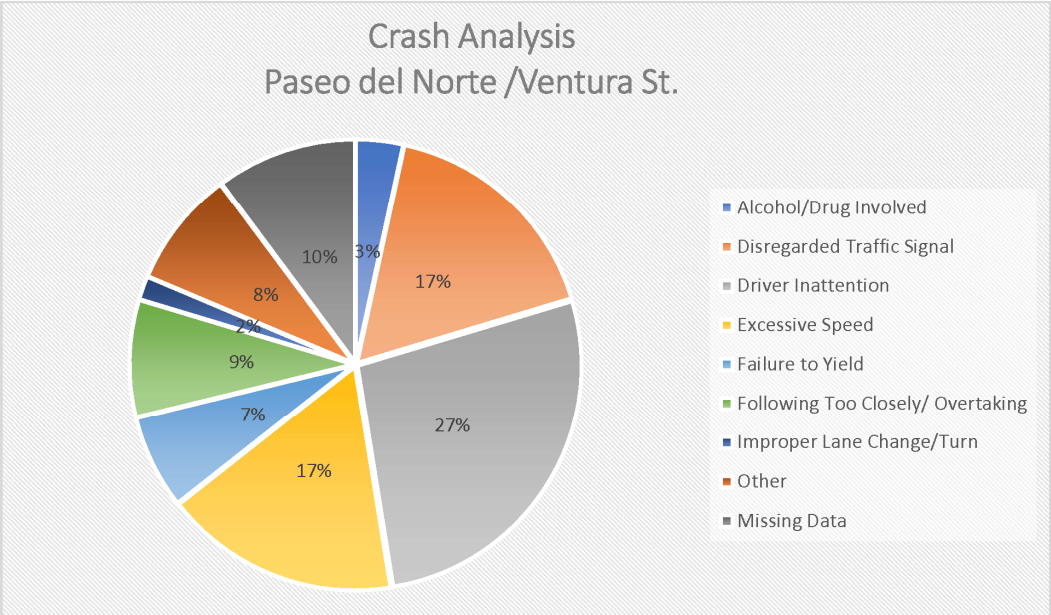
Crash Analysis

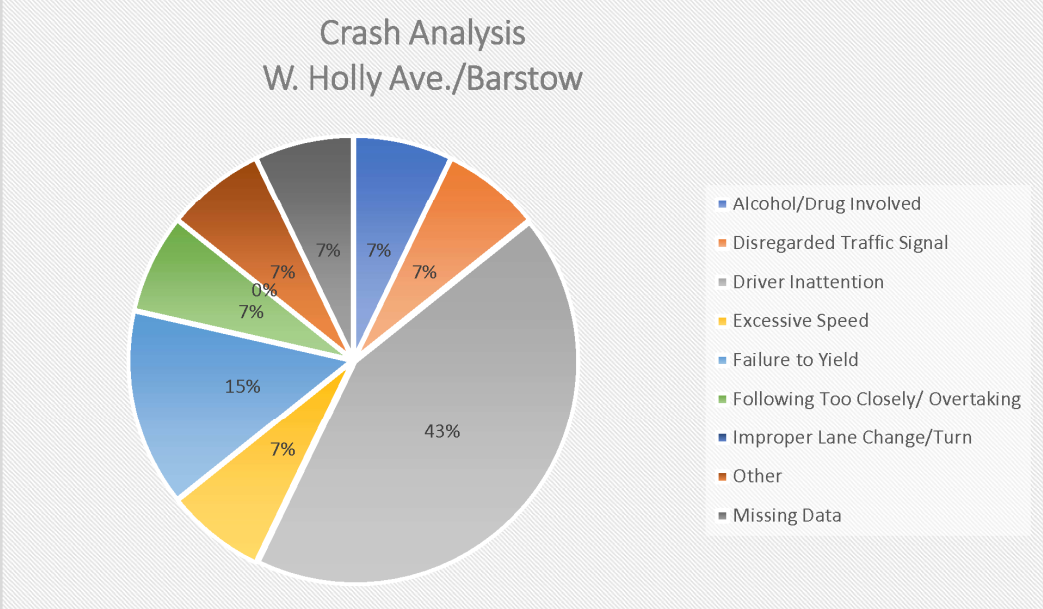
All the intersections in the study area have adequate lighting and a combination of permissive and protected/permissive left-turn phasing, and medium to low pedestrian activity level. The total number of observed crashes from 2016 through 2019 (inclusive) at each of the seven intersections in the study area was provided by the New Mexico Department of Transportation, Traffic Safety Division (Traffic Records). Data was sorted according to intersection, year, and "highest contributing factor to crash". The "highest contributing factor to crash" data was grouped into nine categories.

1. Alchohol/Drug Involved
2. Disregarded Traffic Signal
3. Driver Inattention
4. Excessive Speed
5. Failure to Yield
6. Following Too Closely/Overtaking
7. Improper Lane Change
8. Other (i.e vehicle malfunction, animal crossing, etc.)
9. Missing Data (no explanation for crash)

A summary of the crash rates (crashes per million vehicles entering) at each intersection is presented below. Only the signalized intersections, PdN & Ventura St. and W. Holly Ave. & Barstow St. had significant crash data. The other intersections had less than three total recorded crashes. The crash data tables are provided in Appendix pages A-57 thru A-58.

The average intersection Crash Rate for the Albuquerque Metropolitan Planning Area as published by the MRCOG in the "Safety Doesn't Happen by Accident, General Crash Data Trends, 2001-2010 for the Albuquerque Metropolitan Planning Area (AMPA) is 1.14 Crashes per million vehicles entering. The calculated crash rate at PdN & Ventura St. is 1.2 crashes per million vehicles, slightly above the average crash rate. The crash rate at W. Holly Ave. & Barstow St. is only 0.8 crashes per million vehicles, lower than the average crash rate. As shown in the pie charts below, over half of the crashes at PdN & Ventura St. are caused by driver inattention, disregarding the traffic signal, and excessive speed with driver inattention being the greatest cause of accidents. The crash distribution at W. Holly Ave. and Barstow St. is similar except the percentage of alcohol/drug involved crashes are double.





Sight Distance

The posted speed limit on Ventura St. north of Paseo del Norte is 35 M.P.H. The posted speed limit on Holly Ave. west of Ventura St. is 30 MPH. No significant vertical or horizontal curves exist along W. Holly Ave. or Ventura St. in the vicinity of the driveways and there are no structures blocking sight distances into and out of the entrances. Sight distances exceed 500-feet in each direction at both driveways.

Summary of Deficiencies, Anticipated Impacts, and Recommendations

In summary, the proposed Holly-Ventura Apartments will have minimal adverse impact to the adjacent transportation system, therefore, no mitigation measures are proposed in this study. Below is a summary of the findings and recommendations of the study.

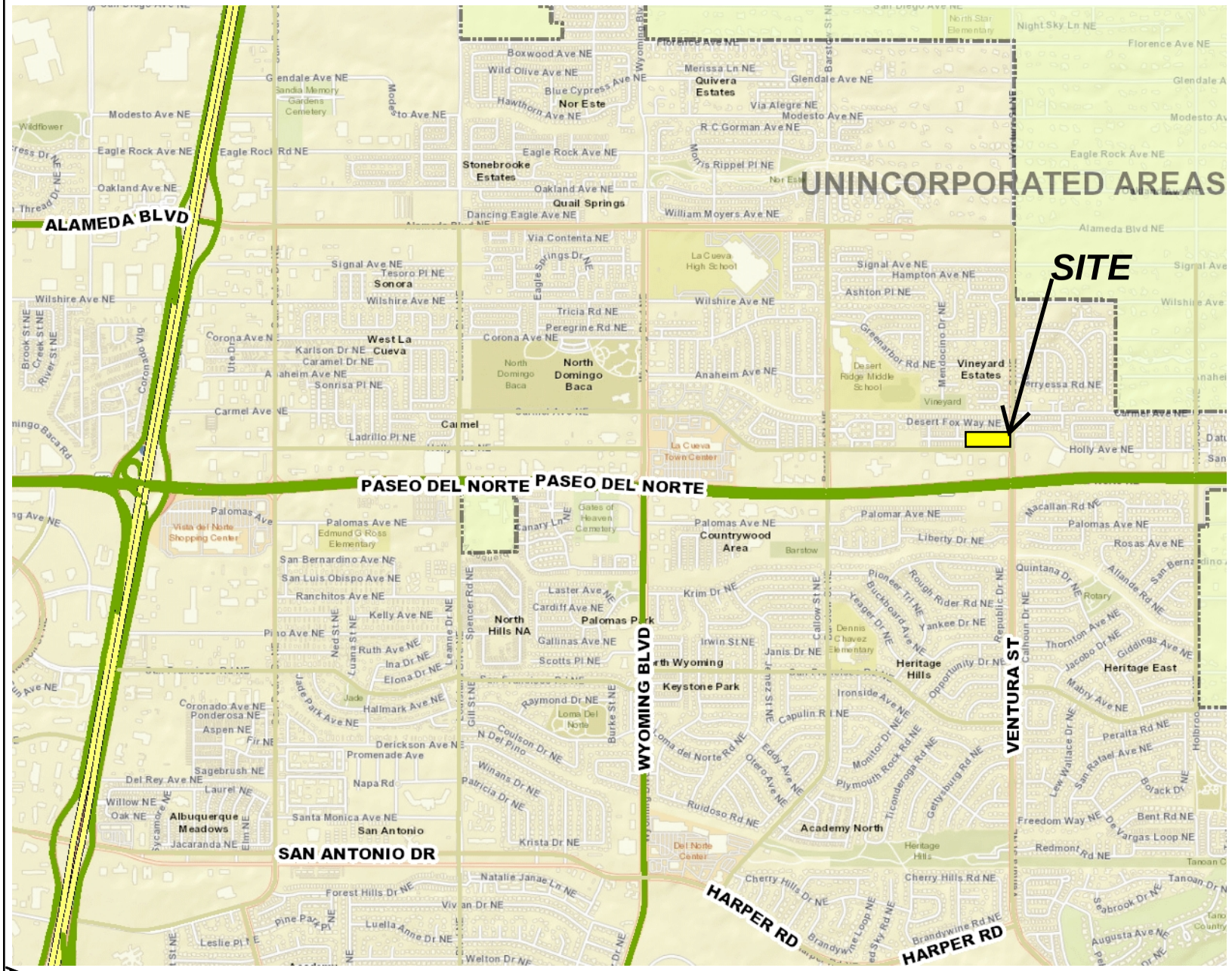
- LOS at the intersections in the study area meet the Minimum Acceptable Level of Service Standards (LOS=D or better, City of Albuquerque Development Process Manual (DPM) for NO BUILD and BUILD conditions for all intersections in the study area.
- Level of Service (LOS) remains constant for all intersections for the NO BUILD and BUILD conditions and overall intersection delays are only worse for the BUILD condition by less than two seconds.
- The significant delays and LOS=E in the EBL, EBR, WBL and WBR movements during the PM peak hour at PdN & Ventura St. intersection may be alleviated by retiming the signal. However, this is an existing problem not made significantly worse by the traffic generated by the development.
- Volume to Capacity Ratios at the intersections in the study area are less than one for all approaches except the southbound approach of PdN and Ventura St., which is an existing problem not made significantly worse by the traffic generated by the development.
- Analysis of the two roundabout scenarios for the W. Holly/Ventura intersection demonstrates that a roundabout at this intersection would improve the the LOS from B to A during the AM peak hour and from C to A during the PM peak hour.
- No significant vertical or horizontal curves exist along W. Holly Ave. or Ventura St. in the vicinity of the driveways and there are no structures blocking sight distances into and out of the entrances. **Driveways shall be designed to ensure access for fire trucks and delivery vehicles and to maintain adequate site distances.**
- Turn lane warrant analysis indicates that no turn lanes are warranted for this project at proposed driveways. See A-59 for warrant analysis results.

See Recommendations at the end of the Executive Summary of this Report.

Appendix

APPENDIX

City of Albuquerque



Legend

Arterial Streets

- Freeway
- Principal Arterial
- Minor Arterial
- BN and SF Railroad

Municipal Limits

- Corrales
- Edgewood
- Los Ranchos
- Rio Rancho
- Tijeras
- UNINCORPORATED

World Street Map

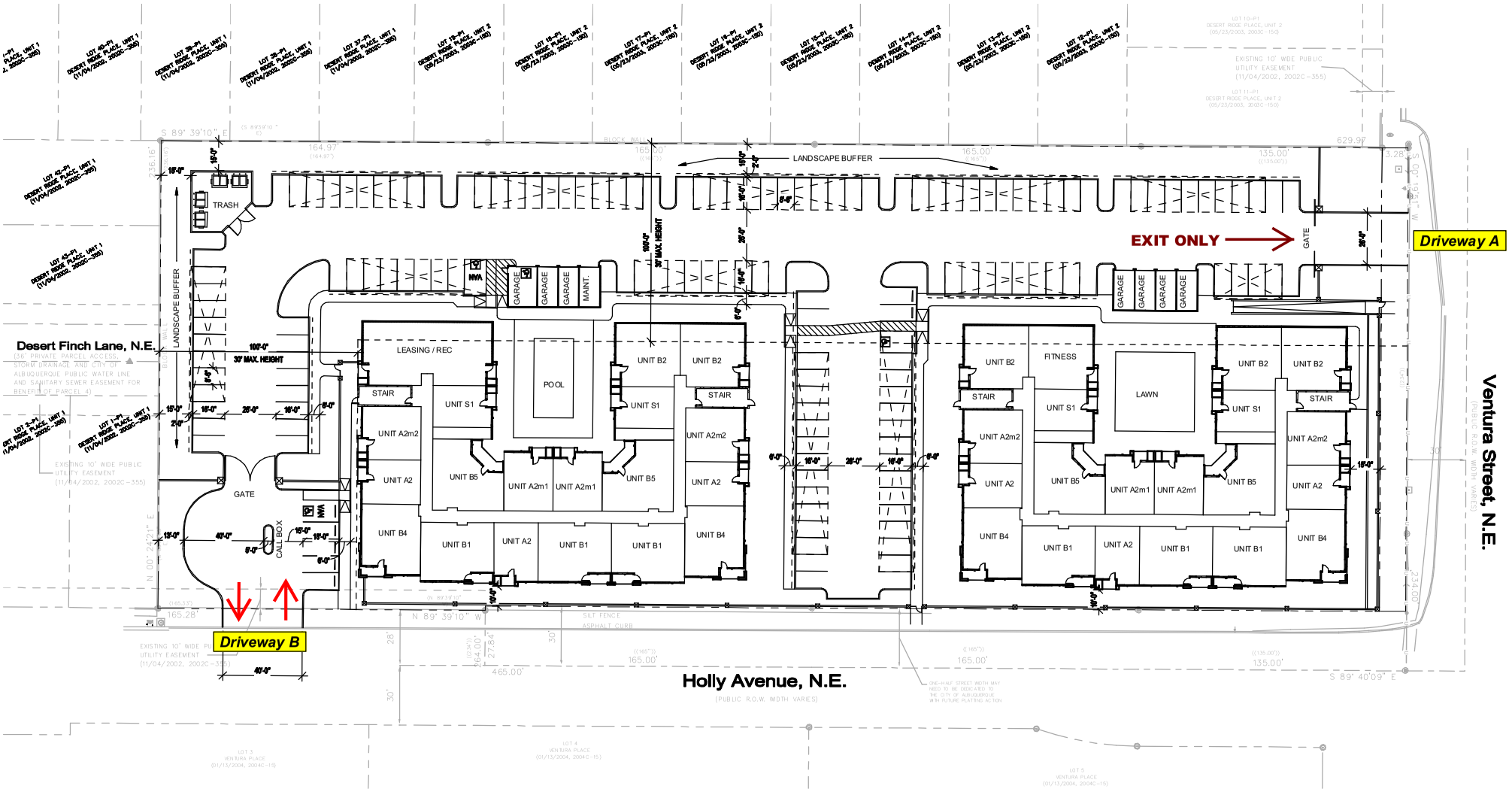
Notes

4,156 0 2,078 4,156 Feet

WGS_1984_Web_Mercator_Auxiliary_Sphere

12/14/2020

1: 24,938



PRELIMINARY SITE PLAN

REFERENED IN : 1 /A3.30

SCALE: 1" = 30'-0"

0' 15' 30' 60'

A-2

Traffic Count Data Sheet (From Streetlight Data Model)

Year Counts Taken: 2019 E-W Street: **Paseo del Norte** Speed Limit (Paseo del Norte)= **55** MPH
N-S Street: **Ventura St.** Speed Limit (Ventura St.)= **30** MPH
Signalized **7/26/19**

Begin Time	End Time	Eastbound (Paseo del Norte)				Westbound (Paseo del Norte)				Northbound (Ventura St.)				Southbound (Ventura St.)			
		L	T	R	Peds	L	T	R	Peds	L	T	R	Peds	L	T	R	Peds
7:00 AM	7:15 AM	**19**	**193**	**26**	**0**	**18**	**416**	**39**	**0**	**105**	**33**	**4**	**0**	**22**	**31**	**43**	**0**
7:15 AM	7:30 AM	**19**	**193**	**26**	**0**	**18**	**416**	**39**	**0**	**105**	**33**	**4**	**0**	**22**	**31**	**43**	**0**
7:30 AM	7:45 AM	**19**	**193**	**26**	**0**	**18**	**416**	**39**	**0**	**105**	**33**	**4**	**0**	**22**	**31**	**43**	**0**
7:45 AM	8:00 AM	**19**	**193**	**26**	**0**	**18**	**416**	**39**	**0**	**105**	**33**	**4**	**0**	**22**	**31**	**43**	**0**
8:00 AM	8:15 AM	~~16~~	~~223~~	~~31~~	~~0~~	~~7~~	~~36~~	~~23~~	~~0~~	~~60~~	~~15~~	~~5~~	~~0~~	~~16~~	~~18~~	~~33~~	~~0~~
8:15 AM	8:30 AM	~~16~~	~~223~~	~~31~~	~~0~~	~~7~~	~~36~~	~~23~~	~~0~~	~~60~~	~~15~~	~~5~~	~~0~~	~~16~~	~~18~~	~~33~~	~~0~~
8:30 AM	8:45 AM	~~16~~	~~223~~	~~31~~	~~0~~	~~7~~	~~36~~	~~23~~	~~0~~	~~60~~	~~15~~	~~5~~	~~0~~	~~16~~	~~18~~	~~33~~	~~0~~
8:45 AM	9:00 AM	~~16~~	~~223~~	~~31~~	~~0~~	~~7~~	~~36~~	~~23~~	~~0~~	~~60~~	~~15~~	~~5~~	~~0~~	~~16~~	~~18~~	~~33~~	~~0~~
AM Peak Hour Volumes		**76**	**772**	**104**	0	**72**	**1664**	**156**	0	**420**	**132**	**16**	0	**88**	**124**	**172**	0
Turning Movement Percent		*2%*	*20%*	*3%*		*2%*	*44%*	*4%*		*11%*	*3%*	*0%*		*2%*	*3%*	*5%*	
Approach Total			952				1892				568				384		
Calibrated TAQA Approach Volume			1057				1780				492				571		
TAQA Adjustment Factor			1.11				0.94				0.87				1.49		
AM Peak Adj. Vol.		84	857	115		68	1,565	147		364	114	14		131	184	256	
AM Peak Hour/4		**21**	**214**	**29**	**0**	**17**	**391**	**37**	**0**	**91**	**29**	**4**	**0**	**33**	**46**	**64**	
								Intersection									
AM Peak Hour Factor			*1.00*				*1.00*	1.00			*1.00*				*1.00*		

Begin Time	End Time	Eastbound (Paseo del Norte)				Westbound (Paseo del Norte)				Northbound (Ventura St.)				Southbound (Ventura St.)			
		L	T	R	Peds	L	T	R	Peds	L	T	R	Peds	L	T	R	Peds
4:00 PM	4:15 PM	~~41~~	~~367~~	~~72~~	~~0~~	~~8~~	~~277~~	~~30~~	~~0~~	~~64~~	~~38~~	~~18~~	~~0~~	~~34~~	~~28~~	~~34~~	~~0~~
4:15 PM	4:30 PM	~~41~~	~~367~~	~~72~~	~~0~~	~~8~~	~~277~~	~~30~~	~~1~~	~~64~~	~~38~~	~~18~~	~~0~~	~~34~~	~~28~~	~~34~~	~~0~~
4:30 PM	4:45 PM	~~41~~	~~367~~	~~72~~	~~0~~	~~8~~	~~277~~	~~30~~	~~0~~	~~64~~	~~38~~	~~18~~	~~0~~	~~34~~	~~28~~	~~34~~	~~0~~
4:45 PM	5:00 PM	~~41~~	~~367~~	~~72~~	~~0~~	~~8~~	~~277~~	~~30~~	~~0~~	~~64~~	~~38~~	~~18~~	~~0~~	~~34~~	~~28~~	~~34~~	~~0~~
5:00 PM	5:15 PM	**50**	**450**	**84**	**0**	**8**	**290**	**31**	**0**	**81**	**43**	**22**	**0**	**46**	**36**	**33**	**0**
5:15 PM	5:30 PM	**50**	**450**	**84**	**0**	**8**	**290**	**31**	**1**	**81**	**43**	**22**	**0**	**46**	**36**	**33**	**0**
5:30 PM	5:45 PM	**50**	**450**	**84**	**0**	**8**	**290**	**31**	**0**	**81**	**43**	**22**	**0**	**46**	**36**	**33**	**0**
5:45 PM	6:00 PM	**50**	**450**	**84**	**0**	**8**	**290**	**31**	**0**	**81**	**43**	**22**	**0**	**46**	**36**	**33**	**0**
PM Peak Hour Volumes		**200**	**1800**	**336**	0	**32**	**1160**	**124**	1	**324**	**172**	**88**	0	**184**	**144**	**132**	0
Turning Movement Percent		*4%*	*38%*	*7%*		*1%*	*25%*	*3%*		*7%*	*4%*	*2%*		*4%*	*3%*	*3%*	
Approach Total			2336				1316				584				460		
Calibrated TAQA Approach Volume			1954				1013				491				715		
TAQA Adjustment Factor			0.84				0.77				0.84				1.55		
PM Peak Adj. Vol.		167	1,506	281		25	893	95		272	145	74		286	224	205	
PM Peak Hour/4		**42**	**377**	**70**	**0**	**6**	**223**	**24**	**0**	**68**	**36**	**19**	**0**	**72**	**56**	**51**	
								Intersection									
PM Peak Hour Factor			*1.00*				*1.00*	1.00			*1.00*				*1.00*		

Traffic Count Data Sheet (From Streetlight Data Model)

Year Counts Taken: 2019 E-W Street: **Holly Ave./Albertson's Dr.** Speed Limit (Holly Ave./Albertson's Dr.)= **30** MPH
N-S Street: **Ventura St.** Speed Limit (Ventura St.)= **30** MPH
Signalized **7/26/19**

Begin Time	End Time	Eastbound (Holly Ave./Albertson's Dr.)				Westbound (Holly Ave./Albertson's Dr.)				Northbound (Ventura St.)				Southbound (Ventura St.)			
		L	T	R	Peds	L	T	R	Peds	L	T	R	Peds	L	T	R	Peds
7:00 AM	7:15 AM	5	1	10	0	0	1	9	0	28	96	14	0	0	96	13	0
7:15 AM	7:30 AM	5	1	10	0	0	1	9	0	28	96	14	0	0	96	13	0
7:30 AM	7:45 AM	5	1	10	0	0	1	9	0	28	96	14	0	0	96	13	0
7:45 AM	8:00 AM	5	1	10	0	0	1	9	0	28	96	14	0	0	96	13	0
8:00 AM	8:15 AM	~~6~~	~~1~~	~~8~~	~~0~~	~~0~~	~~1~~	~~9~~	~~0~~	~~0~~	~~47~~	~~14~~	~~0~~	~~0~~	~~62~~	~~11~~	~~0~~
8:15 AM	8:30 AM	~~6~~	~~1~~	~~8~~	~~0~~	~~0~~	~~1~~	~~9~~	~~0~~	~~0~~	~~47~~	~~14~~	~~0~~	~~0~~	~~62~~	~~11~~	~~0~~
8:30 AM	8:45 AM	~~6~~	~~1~~	~~8~~	~~0~~	~~0~~	~~1~~	~~9~~	~~0~~	~~0~~	~~47~~	~~14~~	~~0~~	~~0~~	~~62~~	~~11~~	~~0~~
8:45 AM	9:00 AM	~~6~~	~~1~~	~~8~~	~~0~~	~~0~~	~~1~~	~~9~~	~~0~~	~~0~~	~~47~~	~~14~~	~~0~~	~~0~~	~~62~~	~~11~~	~~0~~
AM Peak Hour Volumes		**20**	**4**	**40**	0	**0**	**4**	**36**	0	**112**	**384**	**56**	0	**0**	**384**	**52**	0
Turning Movement Percent		*2%*	*0%*	*4%*		*0%*	*0%*	*3%*		*10%*	*35%*	*5%*		*0%*	*35%*	*5%*	
Approach Total			64				40				552				436		
Calibrated TAQA Approach Volume			165				53				448				257	low adjustment factor. Use unadjusted	
TAQA Adjustment Factor			2.58				1.33				0.81				0.59	Streetlight Data instead.	
AM Peak Adj. Vol.		52	10	103		0	5	48		91	312	45		0	226	31	923
AM Peak Hour/4		**13**	**3**	**26**	**0**	**0**	**1**	**12**	**0**	**23**	**78**	**11**	**0**	**0**	**96**	**13**	
								Intersection									
AM Peak Hour Factor			*1.00*				*1.00*	1.00			*1.00*				*1.00*		

Begin Time	End Time	Eastbound (Holly Ave./Albertson's Dr.)				Westbound (Holly Ave./Albertson's Dr.)				Northbound (Ventura St.)				Southbound (Ventura St.)			
		L	T	R	Peds	L	T	R	Peds	L	T	R	Peds	L	T	R	Peds
4:00 PM	4:15 PM	~~14~~	~~2~~	~~26~~	~~0~~	~~0~~	~~9~~	~~27~~	~~0~~	~~40~~	~~80~~	~~28~~	~~0~~	~~0~~	~~74~~	~~7~~	~~0~~
4:15 PM	4:30 PM	~~14~~	~~2~~	~~26~~	~~0~~	~~0~~	~~9~~	~~27~~	~~1~~	~~40~~	~~80~~	~~28~~	~~0~~	~~0~~	~~74~~	~~7~~	~~0~~
4:30 PM	4:45 PM	~~14~~	~~2~~	~~26~~	~~0~~	~~0~~	~~9~~	~~27~~	~~0~~	~~40~~	~~80~~	~~28~~	~~0~~	~~0~~	~~74~~	~~7~~	~~0~~
4:45 PM	5:00 PM	~~14~~	~~2~~	~~26~~	~~0~~	~~0~~	~~9~~	~~27~~	~~0~~	~~40~~	~~80~~	~~28~~	~~0~~	~~0~~	~~74~~	~~7~~	~~0~~
5:00 PM	5:15 PM	18	2	34	0	16	1	19	0	47	98	28	0	0	88	9	0
5:15 PM	5:30 PM	18	2	34	0	16	1	19	1	47	98	28	0	0	88	9	0
5:30 PM	5:45 PM	18	2	34	0	16	1	19	0	47	98	28	0	0	88	9	0
5:45 PM	6:00 PM	18	2	34	0	16	1	19	0	47	98	28	0	0	88	9	0
PM Peak Hour Volumes		**72**	**8**	**136**	0	**64**	**4**	**76**	1	**188**	**392**	**112**	0	**0**	**352**	**36**	0
Turning Movement Percent		*5%*	*1%*	*9%*		*4%*	*0%*	*5%*		*13%*	*27%*	*8%*		*0%*	*24%*	*2%*	
Approach Total			216				144				692				388		
Calibrated TAQA Approach Volume			172				154				653				296	low adjustment factor. Use unadjusted	
TAQA Adjustment Factor			0.80				1.07				0.94				0.76	Streetlight Data instead.	
PM Peak Adj. Vol.		57	6	108		68	4	81		177	370	106		0	269	27	1,273
PM Peak Hour/4		**14**	**2**	**27**	**0**	**17**	**1**	**20**	**0**	**44**	**93**	**27**	**0**	**0**	**88**	**9**	
								Intersection									
PM Peak Hour Factor			*1.00*				*1.00*	1.00			*1.00*				*1.00*		

Traffic Count Data Sheet (From Streetlight Data Model)

Year Counts Taken: 2019 E-W Street: **Holly Ave. E.** Speed Limit (Holly Ave. E.)= **35** MPH
N-S Street: **Ventura St.** Speed Limit (Ventura St.)= **35** MPH
Signalized **7/26/19**

Begin Time	End Time	Eastbound (Holly Ave. E.)				Westbound (Holly Ave. E.)				Northbound (Ventura St.)				Southbound (Ventura St.)			
		L	T	R	Peds	L	T	R	Peds	L	T	R	Peds	L	T	R	Peds
7:00 AM	7:15 AM	0	0	0	0	13	0	10	0	0	73	12	0	4	94	0	0
7:15 AM	7:30 AM	0	0	0	0	13	0	10	0	0	73	12	0	4	94	0	0
7:30 AM	7:45 AM	0	0	0	0	13	0	10	0	0	73	12	0	4	94	0	0
7:45 AM	8:00 AM	0	0	0	0	13	0	10	0	0	73	12	0	4	94	0	0
8:00 AM	8:15 AM	~~0~~	~~0~~	~~0~~	~~0~~	~~13~~	~~0~~	~~5~~	~~0~~	~~0~~	~~37~~	~~8~~	~~0~~	~~8~~	~~56~~	~~0~~	~~0~~
8:15 AM	8:30 AM	~~0~~	~~0~~	~~0~~	~~0~~	~~13~~	~~0~~	~~5~~	~~0~~	~~0~~	~~37~~	~~8~~	~~0~~	~~8~~	~~56~~	~~0~~	~~0~~
8:30 AM	8:45 AM	~~0~~	~~0~~	~~0~~	~~0~~	~~13~~	~~0~~	~~5~~	~~0~~	~~0~~	~~37~~	~~8~~	~~0~~	~~8~~	~~56~~	~~0~~	~~0~~
8:45 AM	9:00 AM	~~0~~	~~0~~	~~0~~	~~0~~	~~13~~	~~0~~	~~5~~	~~0~~	~~0~~	~~37~~	~~8~~	~~0~~	~~8~~	~~56~~	~~0~~	~~0~~
AM Peak Hour Volumes		**0**	**0**	**0**	0	**52**	**0**	**40**	0	**0**	**292**	**48**	0	**16**	**376**	**0**	0
Turning Movement Percent		*0%*	*0%*	*0%*		*6%*	*0%*	*5%*		*0%*	*35%*	*6%*		*2%*	*46%*	*0%*	
Approach Total			0				92				340				392		
Calibrated TAQA Approach Volume			#N/A				#N/A				278				232		
TAQA Adjustment Factor			N/A				#N/A				0.82				0.59		
AM Peak Adj. Vol.		**N/A**	**N/A**	**N/A**		**#N/A**	**#N/A**	**#N/A**		**0**	**239**	**39**		**9**	**223**	**0**	#N/A
AM Peak Hour/4		#######	#######	#######	**0**	**13**	**0**	**10**	**0**	**0**	**73**	**12**	**0**	**4**	**94**	**0**	
								Intersection									
AM Peak Hour Factor			*#DIV/0!*				*1.00*	**1.00**			*1.00*				*1.00*		

Since TAQA volumes are lower than strreetlight data and no TAQA volumes exist for Holly Ave., Streetlight data will be used without adjustment.

Begin Time	End Time	Eastbound (Holly Ave. E.)				Westbound (Holly Ave. E.)				Northbound (Ventura St.)				Southbound (Ventura St.)			
		L	T	R	Peds	L	T	R	Peds	L	T	R	Peds	L	T	R	Peds
4:00 PM	4:15 PM	~~0~~	~~0~~	~~0~~	~~0~~	~~17~~	~~0~~	~~9~~	~~0~~	~~0~~	~~69~~	~~16~~	~~0~~	~~12~~	~~61~~	~~0~~	~~0~~
4:15 PM	4:30 PM	~~0~~	~~0~~	~~0~~	~~0~~	~~17~~	~~0~~	~~9~~	~~1~~	~~0~~	~~69~~	~~16~~	~~0~~	~~12~~	~~61~~	~~0~~	~~0~~
4:30 PM	4:45 PM	~~0~~	~~0~~	~~0~~	~~0~~	~~17~~	~~0~~	~~9~~	~~0~~	~~0~~	~~69~~	~~16~~	~~0~~	~~12~~	~~61~~	~~0~~	~~0~~
4:45 PM	5:00 PM	~~0~~	~~0~~	~~0~~	~~0~~	~~17~~	~~0~~	~~9~~	~~0~~	~~0~~	~~69~~	~~16~~	~~0~~	~~12~~	~~61~~	~~0~~	~~0~~
5:00 PM	5:15 PM	0	0	0	0	15	0	7	0	0	84	23	0	13	74	0	0
5:15 PM	5:30 PM	0	0	0	0	15	0	7	1	0	84	23	0	13	74	0	0
5:30 PM	5:45 PM	0	0	0	0	15	0	7	0	0	84	23	0	13	74	0	0
5:45 PM	6:00 PM	0	0	0	0	15	0	7	0	0	84	23	0	13	74	0	0
PM Peak Hour Volumes		**0**	**0**	**0**	0	**60**	**0**	**28**	1	**0**	**336**	**92**	0	**52**	**296**	**0**	0
Turning Movement Percent		*0%*	*0%*	*0%*		*7%*	*0%*	*3%*		*0%*	*39%*	*11%*		*6%*	*34%*	*0%*	
Approach Total			0				88				428				348		
Calibrated TAQA Approach Volume			#N/A				#N/A				188				287		
TAQA Adjustment Factor			N/A				#N/A				0.44				0.82		
PM Peak Adj. Vol.		**N/A**	**N/A**	**N/A**		**#N/A**	**#N/A**	**#N/A**		**0**	**148**	**40**		**43**	**244**	**0**	#N/A
PM Peak Hour/4		#######	#######	#######	**0**	**15**	**0**	**7**	**0**	**0**	**84**	**23**	**0**	**13**	**74**	**0**	
								Intersection									
PM Peak Hour Factor			*#DIV/0!*				*1.00*	**1.00**			*1.00*				*1.00*		

Since TAQA volumes are lower than strreetlight data and no TAQA volumes exist for Holly Ave., Streetlight data will be used without adjustment.

Traffic Count Data Sheet (From Streetlight Data Model)

Year Counts Taken: 2019 E-W Street: **Holly Ave. E.** Speed Limit (Holly Ave. E.)= **30** MPH
N-S Street: **Barstow** Speed Limit (Barstow)= **35** MPH
Signalized **7/26/19**

Begin Time	End Time	Eastbound (Holly Ave. E.)				Westbound (Holly Ave. E.)				Northbound (Barstow)				Southbound (Barstow)			
		L	T	R	Peds	L	T	R	Peds	L	T	R	Peds	L	T	R	Peds
7:00 AM	7:15 AM	19	5	13	0	9	11	21	0	19	123	7	0	7	75	9	0
7:15 AM	7:30 AM	19	5	13	0	9	11	21	0	19	123	7	0	7	75	9	0
7:30 AM	7:45 AM	19	5	13	0	9	11	21	0	19	123	7	0	7	75	9	0
7:45 AM	8:00 AM	19	5	13	0	9	11	21	0	19	123	7	0	7	75	9	0
8:00 AM	8:15 AM	~~7~~	~~7~~	~~10~~	0	~~9~~	~~0~~	~~12~~	0	~~0~~	~~40~~	~~8~~	0	~~5~~	~~40~~	~~10~~	0
8:15 AM	8:30 AM	~~7~~	~~7~~	~~10~~	0	~~9~~	~~0~~	~~12~~	0	~~0~~	~~40~~	~~8~~	0	~~5~~	~~40~~	~~10~~	0
8:30 AM	8:45 AM	~~7~~	~~7~~	~~10~~	0	~~9~~	~~0~~	~~12~~	0	~~0~~	~~40~~	~~8~~	0	~~5~~	~~40~~	~~10~~	0
8:45 AM	9:00 AM	~~7~~	~~7~~	~~10~~	0	~~9~~	~~0~~	~~12~~	0	~~0~~	~~40~~	~~8~~	0	~~5~~	~~40~~	~~10~~	0
AM Peak Hour Volumes		**76**	**20**	**52**	0	**36**	**44**	**84**	0	**76**	**492**	**28**	0	**28**	**300**	**36**	0
Turning Movement Percent		*6%*	*2%*	*4%*		*3%*	*3%*	*7%*		*6%*	*39%*	*2%*		*2%*	*24%*	*3%*	
Approach Total			148				164				596				364		
Calibrated TAQA Approach Volume			293				50	low adjustment factor. Use unadjusted Streetlight Data instead.			487				531		
TAQA Adjustment Factor			1.98				0.30				0.82				1.46		
AM Peak Adj. Vol.		150	40	103		11	13	26		62	402	23		41	438	53	1,362
AM Peak Hour/4		**38**	**10**	**26**	**0**	**9**	**11**	**21**	**0**	**16**	**101**	**6**	**0**	**10**	**110**	**13**	
								Intersection									
AM Peak Hour Factor			*1.00*				*1.00*	**1.00**			*1.00*				*1.00*		

Begin Time	End Time	Eastbound (Holly Ave. E.)				Westbound (Holly Ave. E.)				Northbound (Barstow)				Southbound (Barstow)			
		L	T	R	Peds	L	T	R	Peds	L	T	R	Peds	L	T	R	Peds
4:00 PM	4:15 PM	~~14~~	~~26~~	~~34~~	0	~~16~~	~~21~~	~~12~~	0	~~22~~	~~51~~	~~21~~	0	~~11~~	~~46~~	~~10~~	0
4:15 PM	4:30 PM	~~14~~	~~26~~	~~34~~	0	~~16~~	~~21~~	~~12~~	~~1~~	~~22~~	~~51~~	~~21~~	0	~~11~~	~~46~~	~~10~~	0
4:30 PM	4:45 PM	~~14~~	~~26~~	~~34~~	0	~~16~~	~~21~~	~~12~~	0	~~22~~	~~51~~	~~21~~	0	~~11~~	~~46~~	~~10~~	0
4:45 PM	5:00 PM	~~14~~	~~26~~	~~34~~	0	~~16~~	~~21~~	~~12~~	0	~~22~~	~~51~~	~~21~~	0	~~11~~	~~46~~	~~10~~	0
5:00 PM	5:15 PM	16	37	42	0	11	0	13	0	27	58	26	0	13	63	11	0
5:15 PM	5:30 PM	16	37	42	0	11	0	13	1	27	58	26	0	13	63	11	0
5:30 PM	5:45 PM	16	37	42	0	11	0	13	0	27	58	26	0	13	63	11	0
5:45 PM	6:00 PM	16	37	42	0	11	0	13	0	27	58	26	0	13	63	11	0
PM Peak Hour Volumes		**64**	**148**	**168**	0	**44**	**0**	**52**	1	**108**	**232**	**104**	0	**52**	**252**	**44**	0
Turning Movement Percent		*5%*	*12%*	*13%*		*3%*	*0%*	*4%*		*9%*	*18%*	*8%*		*4%*	*20%*	*3%*	
Approach Total			380				96				444				348		
Calibrated TAQA Approach Volume			448				157				415				440		
TAQA Adjustment Factor			1.18				1.64				0.93				1.26		
PM Peak Adj. Vol.		75	174	198		72	0	85		101	217	97		66	319	56	1,460
PM Peak Hour/4		**19**	**44**	**50**	**0**	**18**	**0**	**21**	**0**	**25**	**54**	**24**	**0**	**17**	**80**	**14**	
								Intersection									
PM Peak Hour Factor			*1.00*				*1.00*	**1.00**			*1.00*				*1.00*		

Holly / Ventura Apartments (NW Corner)

Existing Deveolpment East of Ventura & Holly - Albertsons & Bank

Trip Generation Data (ITE Trip Generation Manual - 10th Edition)

USE (ITE CODE)		24 HR VOL	A. M. PEAK HR.		P. M. PEAK HR.	
DESCRIPTION		*GROSS*	*ENTER*	*EXIT*	*ENTER*	*EXIT*
Summary Sheet	Units					
Supermarket (850)	50	4,757	115	76	238	228
Drive-In Bank (912)	3.00	374	16	10	40	42
Medical-Dental Office Building (720)	4.33	79	11	3	5	12
Athletic Club (493)	10.00	-	19	12	39	24
Subtotal		**5,210**	**161**	**101**	**322**	**306**
Internal Capture			(1)	(1)	(3)	(3)
Adjusted Trips			**160**	**100**	**319**	**303**
Pass-By Trips	35%		(56)	(35)	(112)	(106)
Total Primary Trips			**104**	**65**	**207**	**197**

Historic Growth Data Table

Holly-Ventura Apartments

(Northwest Corner of Holly Ave. & Ventura St.)

Traffic Flows (AWDT) from Mid-Region Council of Governments

COG ID	Location											
Intersection #1:	**PASEO DEL NORTE / LAYTON/VENTURA**											
	Street:	**From:**	**To:**	**2009**	**2010**	**2011**	**2012**	**2013**	**2014**	**2015**	**2016**	**2017**	**2018**
20744	PASEO DEL NORTE	EAST OF VENTURA	WEST OF HOLBROOK	25,309	26,904	26,420	28,190	26,626	26,360	26,228	27,905	27,919	28,449
20202	LAYTON/VENTURA	NORTH OF PASEO DEL NORT	SOUTH OF HOLLY	2,481	2,441	4,024	4,024	4,024	9,624	9,576	11,642	11,648	11,869
20772	LAYTON/VENTURA	NORTH OF PALOMAS	SOUTH OF PASEO DEL NORT	8,362	9,478	9,307	9,307	9,721	9,624	9,576	9,303	9,308	9,485
20740	PASEO DEL NORTE	EAST OF BARSTOW	WEST OF VENTURA	26,714	32,933	32,340	31,052	33,301	32,968	32,803	32,305	32,321	32,935
	Total Intersection Traffic Flows			**62,866**	**71,756**	**72,091**	**72,573**	**73,672**	**78,576**	**78,183**	**81,155**	**81,196**	**82,738**

COG ID	Location											
Intersection #2:	**LAYTON/VENTURA / HOLLY AVE.**											
	Street:	**From:**	**To:**	**2009**	**2010**	**2011**	**2012**	**2013**	**2014**	**2015**	**2016**	**2017**	**2018**
20558	LAYTON/VENTURA	NORTH OF HOLLY	SOUTH OF SIGNAL	2,481	2,441	4,024	4,024	4,024	4,347	4,325	4,316	4,357	4,440
20202	LAYTON/VENTURA	NORTH OF PASEO DEL NORT	SOUTH OF HOLLY	2,481	2,441	4,024	4,024	4,024	9,624	9,576	11,642	11,648	11,869
20176	HOLLY AVE.	EAST OF BARSTOW	WEST OF LAYTON/VENTURA	-	-	-	-	-	-	-	4,092	4,094	4,172
0	Not Found	Not Found	Not Found	Not Found	Not Found	Not Found	Not Found	Not Found	Not Found	Not Found	Not Found	Not Found	Not Found
	Total Intersection Traffic Flows			**4,962**	**4,882**	**8,048**	**8,048**	**8,048**	**13,971**	**13,901**	**20,050**	**20,099**	**20,481**

COG ID	Location											
Intersection #3:	**LAYTON/VENTURA / Not Found**											
	Street:	**From:**	**To:**	**2009**	**2010**	**2011**	**2012**	**2013**	**2014**	**2015**	**2016**	**2017**	**2018**
20558	LAYTON/VENTURA	NORTH OF HOLLY	SOUTH OF SIGNAL	2,481	2,441	4,024	4,024	4,024	4,347	4,325	4,316	4,357	4,440
0	Not Found	Not Found	Not Found	Not Found	Not Found	Not Found	Not Found	Not Found	Not Found	Not Found	Not Found	Not Found	Not Found
0	Not Found	Not Found	Not Found	Not Found	Not Found	Not Found	Not Found	Not Found	Not Found	Not Found	Not Found	Not Found	Not Found
0	Not Found	Not Found	Not Found	Not Found	Not Found	Not Found	Not Found	Not Found	Not Found	Not Found	Not Found	Not Found	Not Found
	Total Intersection Traffic Flows			**2,481**	**2,441**	**4,024**	**4,024**	**4,024**	**4,347**	**4,325**	**4,316**	**4,357**	**4,440**

COG ID	Location											
Intersection #4:	**BARSTOW / HOLLY AVE.**											
	Street:	**From:**	**To:**	**2009**	**2010**	**2011**	**2012**	**2013**	**2014**	**2015**	**2016**	**2017**	**2018**
20201	BARSTOW	NORTH OF PASEO DEL NORT	SOUTH OF SIGNAL	9,606	10,325	10,139	10,139	10,152	10,050	10,000	6,622	6,625	6,751
20737	BARSTOW	NORTH OF PASEO DEL NORT	SOUTH OF HOLLY	9,606	10,325	10,139	10,139	10,152	10,050	10,000	10,023	10,028	10,218
20176	HOLLY AVE.	EAST OF BARSTOW	WEST OF LAYTON/VENTURA	-	-	-	-	-	-	-	4,092	4,094	4,172
20175	CARMEL AVE.	EAST OF WYOMING	WEST OF BARSTOW	-	-	-	-	-	-	-	9,248	9,253	9,429
	Total Intersection Traffic Flows			**19,212**	**20,650**	**20,278**	**20,278**	**20,304**	**20,100**	**20,000**	**29,985**	**30,000**	**30,570**

COG ID	Location											
Intersection #5:	**COMANCHE / EUBANK**											
	Street:	**From:**	**To:**	**2009**	**2010**	**2011**	**2012**	**2013**	**2014**	**2015**	**2016**	**2017**	**2018**
22012	COMANCHE	EAST OF MOON	WEST OF EUBANK	13,339	13,152	11,590	11,555	11,509	9,957	9,997	10,027	10,057	11,803

Historic Growth Data Table

Holly-Ventura Apartments

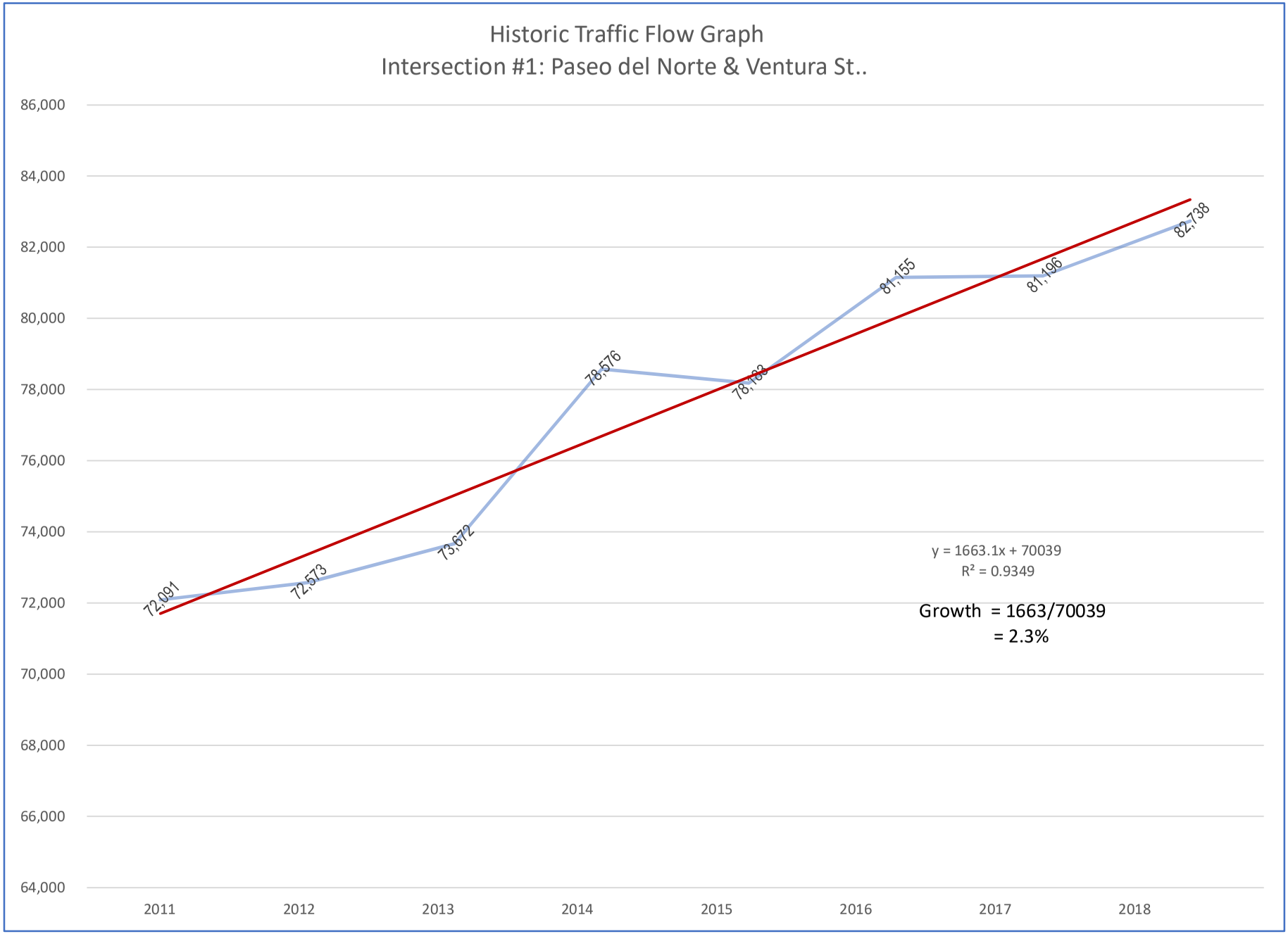
(Northwest Corner of Holly Ave. & Ventura St.)

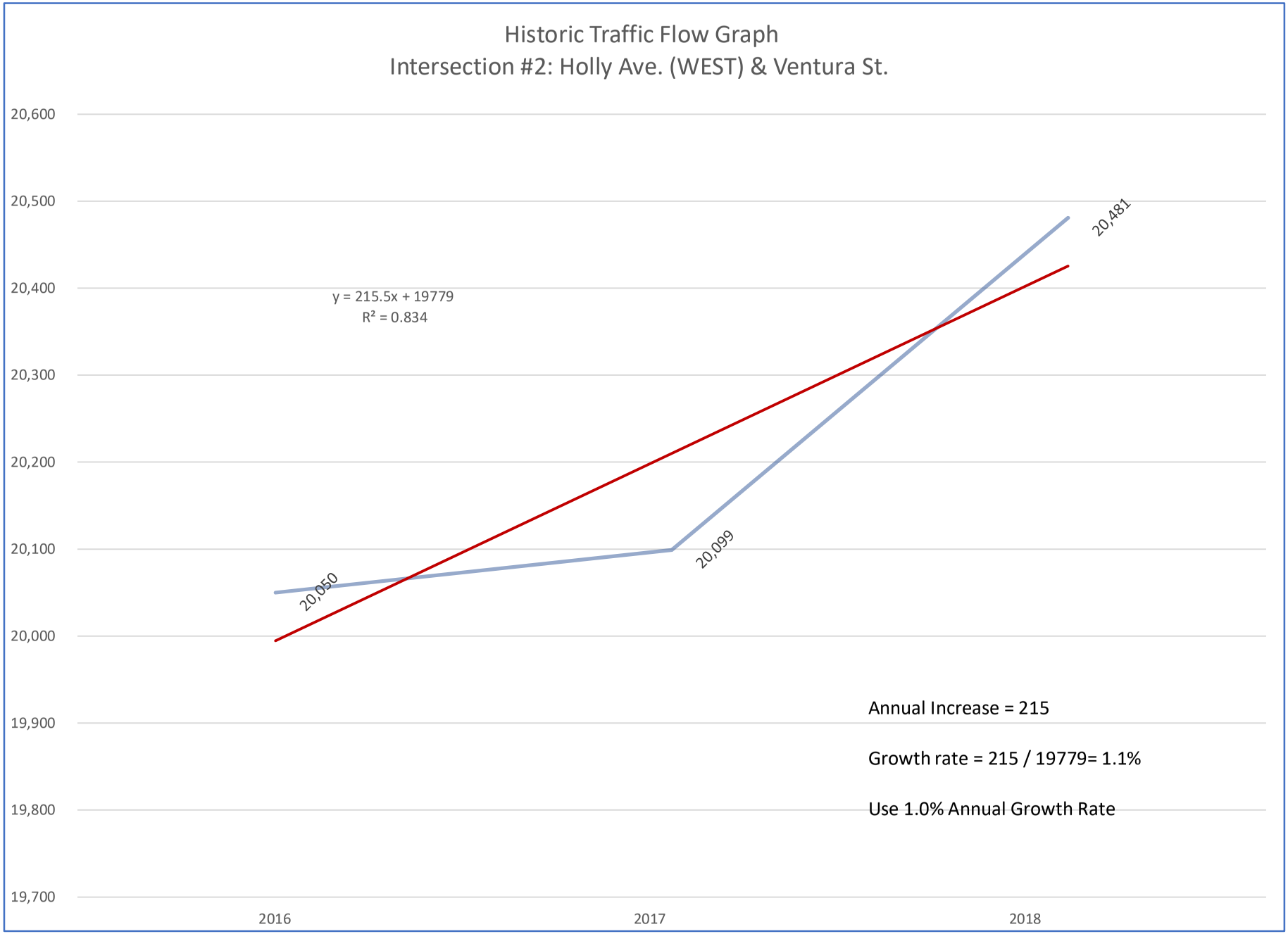
Traffic Flows (AWDT) from Mid-Region Council of Governments

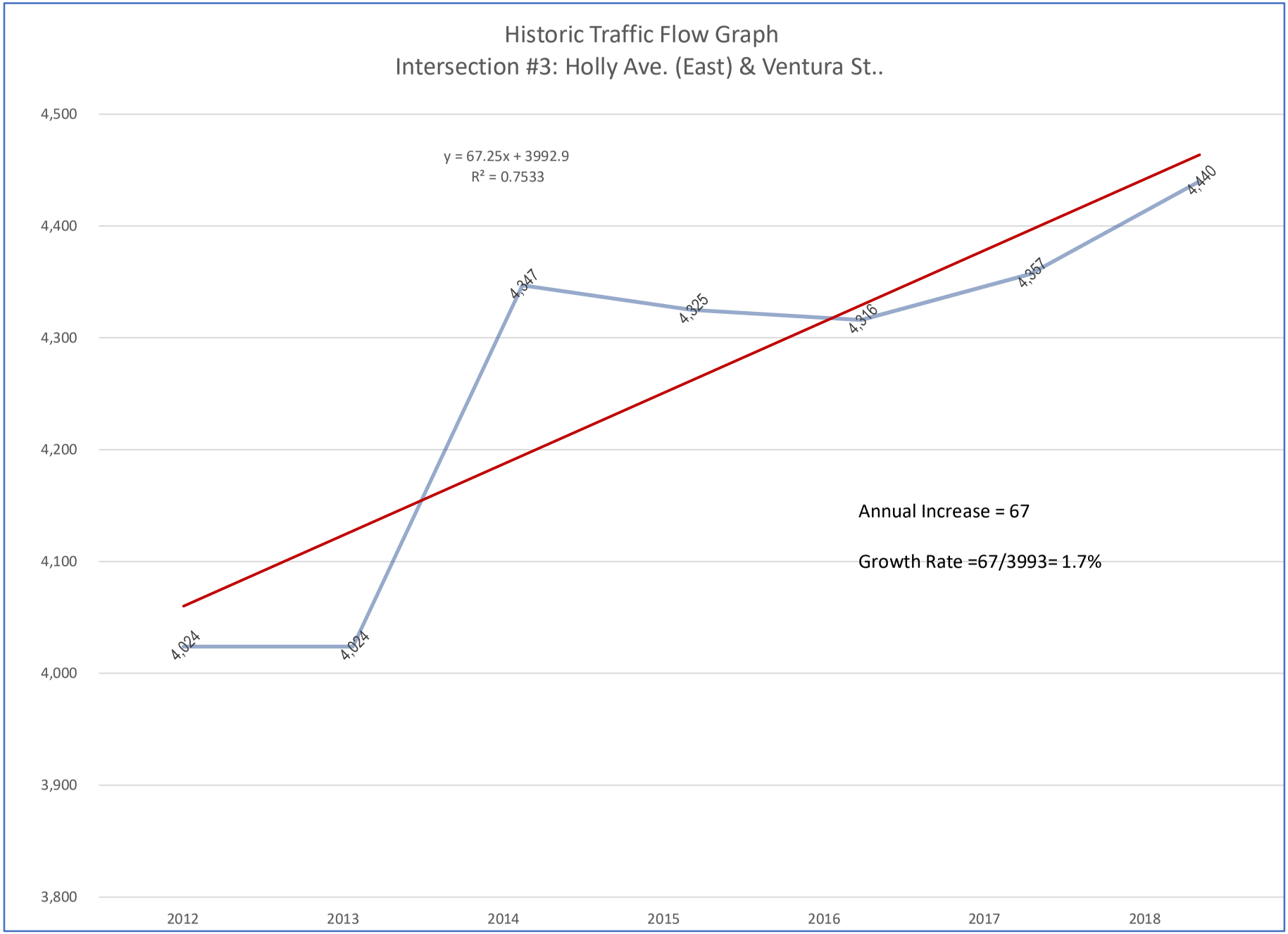
22000	COMANCHE	EAST OF EUBANK	WEST OF MORRIS	11,318	11,500	11,477	11,443	11,397	11,114	11,158	11,191	12,525	12,617
22228	EUBANK	NORTH OF CANDELARIA	SOUTH OF COMANCHE	34,426	33,944	32,864	32,765	29,577	29,459	29,577	30,409	30,622	30,846
22004	EUBANK	NORTH OF COMANCHE	SOUTH OF MONTGOMERY	27,707	32,190	32,126	32,030	28,340	28,227	28,340	29,888	30,098	30,318
	Total Intersection Traffic Flows			**86,790**	**90,786**	**88,057**	**87,793**	**80,823**	**78,757**	**79,072**	**81,515**	**83,302**	**85,584**

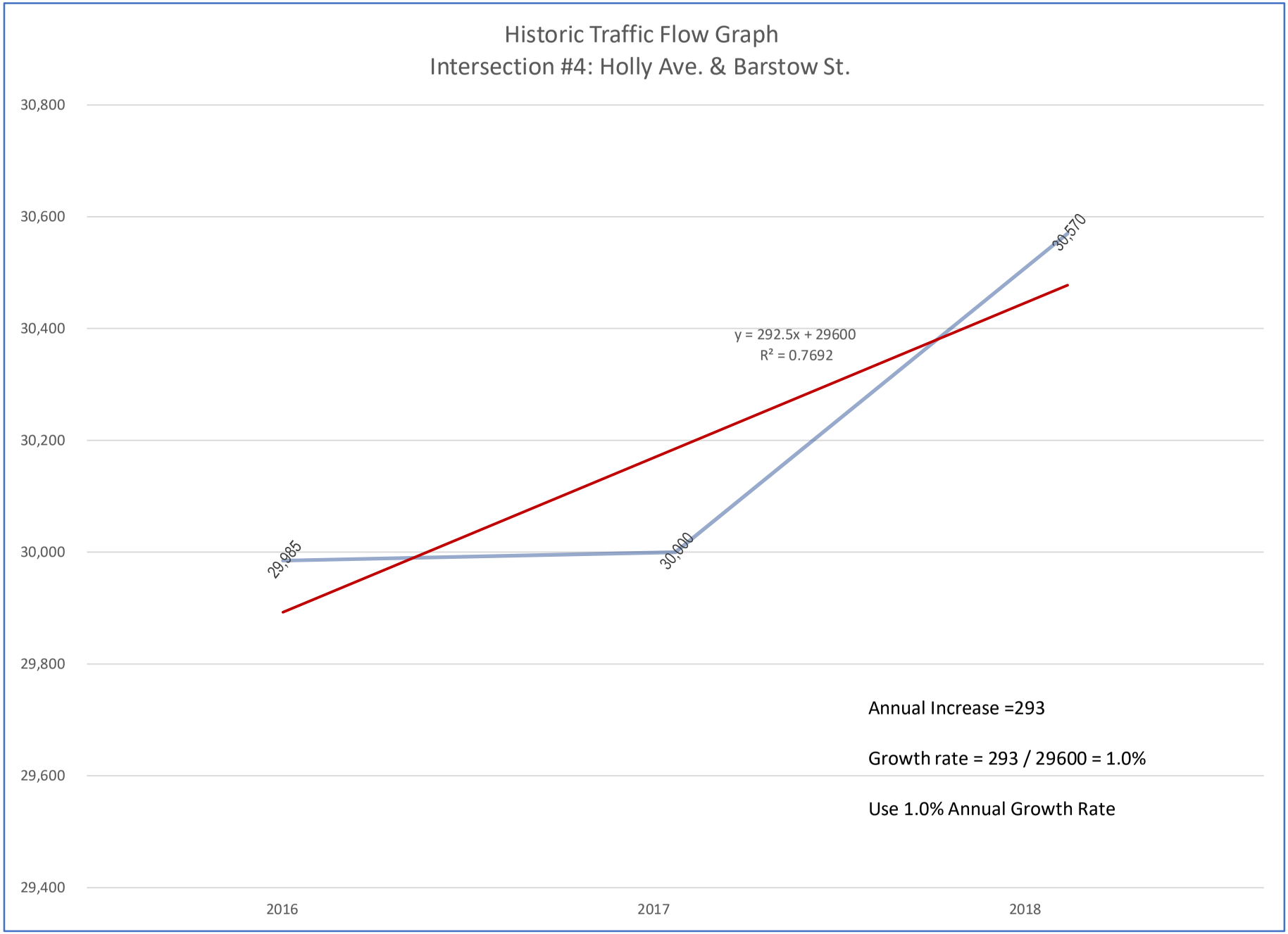
COG ID	**Location**											
Intersection #6:	**OSUNA / EUBANK**											
	Street:	**From:**	**To:**	**2009**	**2010**	**2011**	**2012**	**2013**	**2014**	**2015**	**2016**	**2017**	**2018**
21602	OSUNA	EAST OF MOON	WEST OF EUBANK	4,502	4,430	4,319	4,319	4,319	4,008	3,988	3,980	4,553	4,639
99999	Not Found	Not Found	Not Found	Not Found	Not Found	Not Found	Not Found	Not Found	Not Found	Not Found	Not Found	Not Found	Not Found
21596	EUBANK	NORTH OF LAGRIMA DE ORC	SOUTH OF OSUNA	26,904	26,474	25,997	25,997	24,644	24,804	24,680	24,631	26,410	26,912
21595	EUBANK	NORTH OF OSUNA	SOUTH OF SPAIN	24,278	23,890	24,210	24,210	24,210	26,071	25,941	25,889	26,168	26,665
	Total Intersection Traffic Flows			**55,684**	**54,794**	**54,526**	**54,526**	**53,173**	**54,883**	**54,609**	**54,500**	**57,131**	**58,216**

COG ID	**Location**											
Intersection #7:	**SPAIN / EUBANK**											
	Street:	**From:**	**To:**	**2009**	**2010**	**2011**	**2012**	**2013**	**2014**	**2015**	**2016**	**2017**	**2018**
21508	SPAIN	EAST OF CAMINO DEL SOL	WEST OF EUBANK	8,090	7,960	7,825	7,825	7,825	6,841	6,807	6,793	7,604	7,748
21528	SPAIN	EAST OF EUBANK	WEST OF MORRIS	11,012	10,836	10,072	10,072	10,072	12,860	12,796	12,770	13,370	13,624
21595	EUBANK	NORTH OF OSUNA	SOUTH OF SPAIN	24,278	23,890	24,210	24,210	24,210	26,071	25,941	25,889	26,168	26,665
21400	EUBANK	NORTH OF SPAIN	SOUTH OF CAMINO DEL SOL	24,581	24,188	23,110	23,110	24,546	24,301	24,179	25,147	25,159	25,637
	Total Intersection Traffic Flows			**67,961**	**66,874**	**65,217**	**65,217**	**66,653**	**70,073**	**69,723**	**70,599**	**72,301**	**73,674**


Historic Traffic Flow Graph
Intersection #1: Paseo del Norte & Ventura St..
86,000
84,000
82,000
80,000
78,000
76,000
74,000
72,000
70,000
68,000
66,000
64,000
2011
2012
2013
2014
2015
2016
2017
2018
72,091
72,573
73,672
78,576
78,188
81,155
81,196
82,738
y = 1663.1x + 70039
R² = 0.9349
Growth = 1663/70039
= 2.3%


Historic Traffic Flow Graph
Intersection #2: Holly Ave. (WEST) & Ventura St.
20,600
20,500
20,400
20,300
20,200
20,100
20,000
19,900
19,800
19,700
y = 215.5x + 19779
R² = 0.834
20,050
20,099
20,481
2016
2017
2018
Annual Increase = 215
Growth rate = 215 / 19779= 1.1%
Use 1.0% Annual Growth Rate


Historic Traffic Flow Graph
Intersection #3: Holly Ave. (East) & Ventura St..
y = 67.25x + 3992.9
R² = 0.7533
4,500
4,400
4,300
4,200
4,100
4,000
3,900
3,800
4,024
4,024
4,347
4,325
4,316
4,357
4,440
2012
2013
2014
2015
2016
2017
2018
Annual Increase = 67
Growth Rate =67/3993= 1.7%


Historic Traffic Flow Graph
Intersection #4: Holly Ave. & Barstow St.
30,800
30,600
30,400
30,200
30,000
29,800
29,600
29,400
2016
2017
2018
29,985
30,000
30,570
y = 292.5x + 29600
R² = 0.7692
Annual Increase =293
Growth rate = 293 / 29600 = 1.0%
Use 1.0% Annual Growth Rate

Holly / Ventura Apartments (NW Corner)

Trip Generation Data (ITE Trip Generation Manual - 10th Edition)

	USE (ITE CODE)		24 HR VOL	A. M. PEAK HR.		P. M. PEAK HR.	
	DESCRIPTION		*GROSS*	*ENTER*	*EXIT*	*ENTER*	*EXIT*
	Summary Sheet	Units					
	Multifamily Housing (Mid-Rise) (221)	111	602	10	28	30	19

Holly / Ventura Apartments (NW Corner)

Trip Generation Data (ITE Trip Generation Manual - 10th Edition)

USE (ITE CODE)		24 HOUR TWO-WAY VOLUME	A. M. PEAK HOUR		P. M. PEAK HOUR	
		GROSS	ENTER	EXIT	ENTER	EXIT
	Units					
Multifamily Housing (Mid-Rise) (221)	***111***	602	10	28	30	19
	Dwelling Units					

ITE Trip Generation Equations:

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

T = ***5.44*** **(X) +** ***-1.75***

50% Enter, ***50%*** Exit

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

Ln(T) = ***0.98*** **Ln(X) +** ***-0.98***

26% Enter, ***74%*** Exit

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

Ln(T) = ***0.96*** **Ln(X) +** ***-0.63***

61% Enter, ***39%*** Exit

Comments:

Tract No.

Based on ITE Trip Generation Manual - 10th Edition

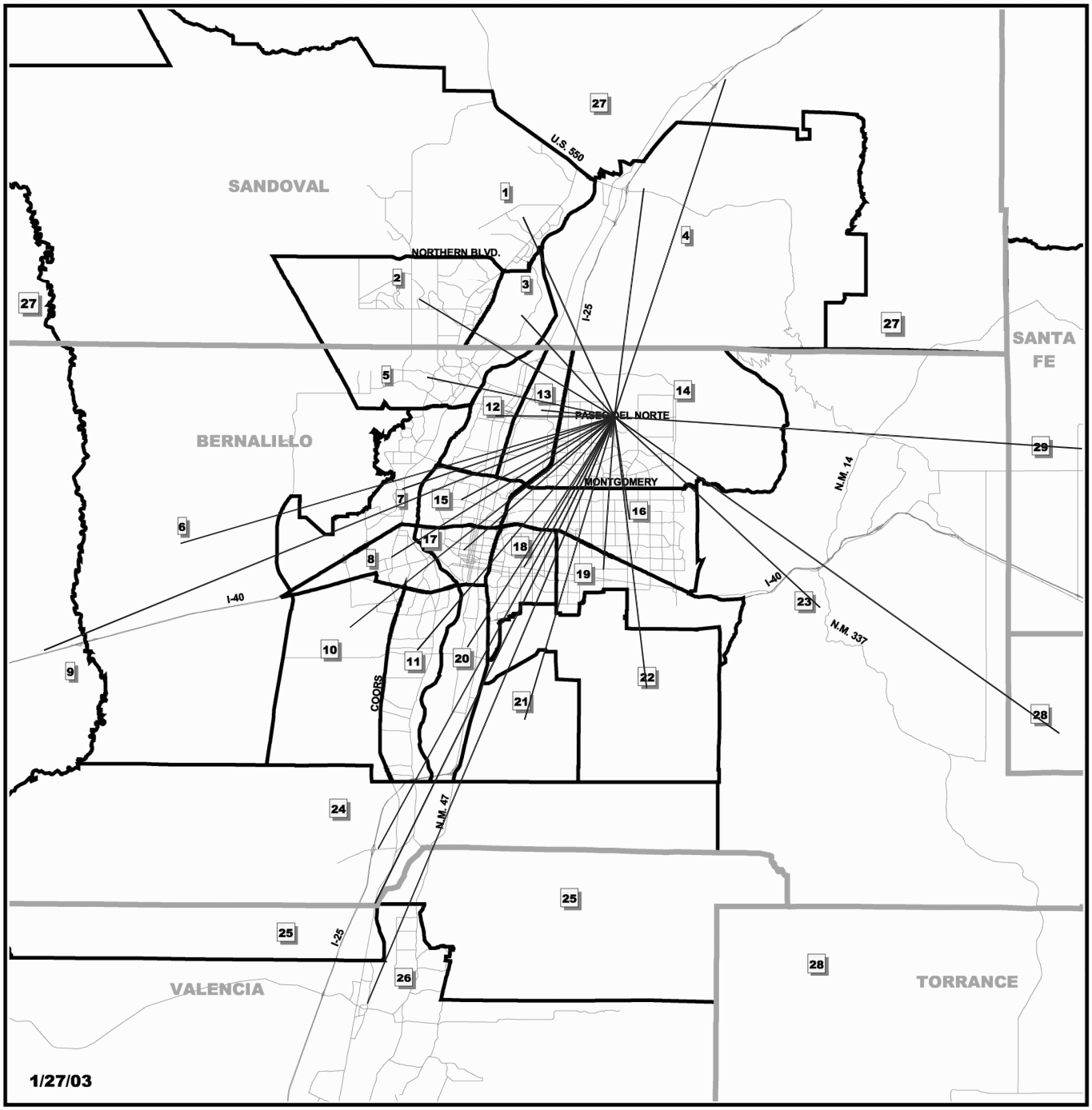


Figure 6

22 Subarea Identification Number

Subareas of the MRCOG Region

Mid-Region
Council of Governments
317 Commercial NE, Suite 104
Albuquerque, NM 87102
505-247-1750

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

Holly Ave. / Ventura St. Apartments
(NW Corner)
Trip Distribution Subarea Map

Trip Distribution Table

Holly Ave. / Ventura St. Apartments (NW Corner)

Sub Area Employment Data:

For determination of Trip Distribution for Proposed **Residential Development Trips**

2012 and 2040 Data Taken from Mid-Region Council of Governments' 2040
Socioeconomic Forecasts by Data Analysis Subzones for the Mid-Region of New Mexico

									(VN) Ventura St. North			(HE) E. Holly Ave. East			(PE) Paseo del Norte East		
Sub Area I.D.#	**% Sub Area in Study**	**2012 Employment**	**2040 Employment**	**Interpolated Employment for the Year**	Employment in Study	Dist. (Mi.)	**Employment / Distance**	**% Employment / Distance**	% Utilizing	% Employment / Dist. Utilizing	Employment	% Utilizing	% Employment / Dist. Utilizing	Employment	% Utilizing	% Employment / Dist. Utilizing	Employment
		2012	**2040**	**2021**													
1	100%	6,548	26,200	12,865	12,865	9.4	**1,369**	**1.36%**	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
2	100%	17,489	33,517	22,641	22,641	9.7	**2,334**	**2.32%**	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
3	100%	1,518	2,100	1,705	1,705	5.9	**289**	**0.29%**	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
4	100%	3,550	6,305	4,436	4,436	9.8	**453**	**0.45%**	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
5	100%	13,957	21,523	16,389	16,389	8.2	**1,999**	**1.99%**	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
6	100%	1,888	3,935	2,546	2,546	19.3	**132**	**0.13%**	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
7	100%	8,784	16,098	11,135	11,135	9.6	**1,160**	**1.15%**	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
8	100%	9,396	15,659	11,409	11,409	11.2	**1,019**	**1.01%**	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
9	100%	1,002	1,815	1,263	1,263	26.3	**48**	**0.05%**	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
10	100%	3,954	7,907	5,225	5,225	14.4	**363**	**0.36%**	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
11	100%	5,772	7,560	6,347	6,347	13	**488**	**0.48%**	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
12	100%	7,107	9,021	7,722	7,722	5.1	**1,514**	**1.50%**	10%	0.15%	151	0%	0.00%	0	0%	0.00%	0
13	100%	31,747	47,896	36,938	36,938	3.1	**11,915**	**11.83%**	10%	1.18%	1,192	0%	0.00%	0	0%	0.00%	0
14*	100%	36,984	47,789	40,457	40,457	1	**40,457**	**40.18%**	4%	1.58%	1,590	1%	0.24%	239	14%	5.56%	5,595
15	100%	15,719	25,356	18,817	18,817	7.4	**2,543**	**2.53%**	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
16	100%	55,543	67,295	59,320	59,320	4.4	**13,482**	**13.39%**	0%	0.00%	0	0%	0.00%	0	25%	3.35%	3,370
17	100%	37,312	52,468	42,184	42,184	8.6	**4,905**	**4.87%**	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
18	100%	49,455	58,200	52,266	52,266	7.5	**6,969**	**6.92%**	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
19	100%	25,348	33,772	28,056	28,056	6.5	**4,316**	**4.29%**	0%	0.00%	0	0%	0.00%	0	25%	1.07%	1,079
20	100%	5,536	13,277	8,024	8,024	11.7	**686**	**0.68%**	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
21	100%	412	10,347	3,605	3,605	13.5	**267**	**0.27%**	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
22	100%	26,765	26,990	26,837	26,837	11.7	**2,294**	**2.28%**	0%	0.00%	0	0%	0.00%	0	50%	1.14%	1,147
23	100%	2,514	3,393	2,797	2,797	12	**233**	**0.23%**	0%	0.00%	0	0%	0.00%	0	50%	0.12%	117
24	100%	1,196	1,765	1,379	1,379	21	**66**	**0.07%**	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
25	100%	77	137	96	96	23.1	**4**	**0.00%**	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
26	100%	15,619	25,509	18,798	18,798	27.2	**691**	**0.69%**	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
27	100%	5,361	7,954	6,194	6,194	15.2	**408**	**0.40%**	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
28	100%	4,139	4,864	4,372	4,372	23.3	**188**	**0.19%**	0%	0.00%	0	0%	0.00%	0	50%	0.09%	94
29	100%	1,563	2,486	1,860	1,860	20	**93**	**0.09%**	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
		396,255	581,138	455,682	455,682		**100,683**	**100.00%**		2.91%	**2,933**		0.24%	**239**		11.32%	**11,402**
											2.91%			0.24%			11.32%

Trip Distribution Table

Holly Ave. / Ventura St. Apartments (NW Corner)

Sub Area Employment Data:

For determination of Trip Distribution for Proposed **Residential Development Trips**

2012 and 2040 Data Taken from Mid-Region Council of Governments' 2040
Socioeconomic Forecasts by Data Analysis Subzones for the Mid-Region of New Mexico

								(VS) Ventura St. South			(PW) Paseo del Norte West			(BS) Basrstow St. South		
Sub Area I.D.#	**% Sub Area in Study**	**2012 Employment**	**2040 Employment**	**Interpolated Employment for the Year**	Employment in Study	Dist. (Mi.)	**Employment / Distance**	% Utilizing	% Employment / Dist. Utilizing	Employment	% Utilizing	% Employment / Dist. Utilizing	Employment	% Utilizing	% Employment / Dist. Utilizing	Employment
		2012	**2040**	**2021**												
1	100%	6,548	26,200	12,865	12,865	9.4	**1,369**	0%	0.00%	0	70%	0.95%	958	0%	0.00%	0
2	100%	17,489	33,517	22,641	22,641	9.7	**2,334**	0%	0.00%	0	70%	1.62%	1,634	0%	0.00%	0
3	100%	1,518	2,100	1,705	1,705	5.9	**289**	0%	0.00%	0	70%	0.20%	202	0%	0.00%	0
4	100%	3,550	6,305	4,436	4,436	9.8	**453**	0%	0.00%	0	70%	0.31%	317	0%	0.00%	0
5	100%	13,957	21,523	16,389	16,389	8.2	**1,999**	0%	0.00%	0	70%	1.39%	1,399	0%	0.00%	0
6	100%	1,888	3,935	2,546	2,546	19.3	**132**	0%	0.00%	0	45%	0.06%	59	50%	0.07%	66
7	100%	8,784	16,098	11,135	11,135	9.6	**1,160**	0%	0.00%	0	45%	0.52%	522	50%	0.58%	580
8	100%	9,396	15,659	11,409	11,409	11.2	**1,019**	0%	0.00%	0	45%	0.46%	458	50%	0.51%	509
9	100%	1,002	1,815	1,263	1,263	26.3	**48**	0%	0.00%	0	45%	0.02%	22	50%	0.02%	24
10	100%	3,954	7,907	5,225	5,225	14.4	**363**	0%	0.00%	0	45%	0.16%	163	50%	0.18%	181
11	100%	5,772	7,560	6,347	6,347	13	**488**	0%	0.00%	0	45%	0.22%	220	50%	0.24%	244
12	100%	7,107	9,021	7,722	7,722	5.1	**1,514**	0%	0.00%	0	40%	0.60%	606	40%	0.60%	606
13	100%	31,747	47,896	36,938	36,938	3.1	**11,915**	0%	0.00%	0	40%	4.73%	4,766	40%	4.73%	4,766
14*	100%	36,984	47,789	40,457	40,457	1	**40,457**	19%	7.48%	7,533	30%	11.88%	11,963	14%	5.63%	5,668
15	100%	15,719	25,356	18,817	18,817	7.4	**2,543**	0%	0.00%	0	45%	1.14%	1,144	50%	1.26%	1,271
16	100%	55,543	67,295	59,320	59,320	4.4	**13,482**	20%	2.68%	2,696	25%	3.35%	3,370	25%	3.35%	3,370
17	100%	37,312	52,468	42,184	42,184	8.6	**4,905**	5%	0.24%	245	45%	2.19%	2,207	45%	2.19%	2,207
18	100%	49,455	58,200	52,266	52,266	7.5	**6,969**	5%	0.35%	348	45%	3.11%	3,136	45%	3.11%	3,136
19	100%	25,348	33,772	28,056	28,056	6.5	**4,316**	20%	0.86%	863	25%	1.07%	1,079	25%	1.07%	1,079
20	100%	5,536	13,277	8,024	8,024	11.7	**686**	5%	0.03%	34	45%	0.31%	309	45%	0.31%	309
21	100%	412	10,347	3,605	3,605	13.5	**267**	5%	0.01%	13	45%	0.12%	120	45%	0.12%	120
22	100%	26,765	26,990	26,837	26,837	11.7	**2,294**	50%	1.14%	1,147	0%	0.00%	0	0%	0.00%	0
23	100%	2,514	3,393	2,797	2,797	12	**233**	50%	0.12%	117	0%	0.00%	0	0%	0.00%	0
24	100%	1,196	1,765	1,379	1,379	21	**66**	5%	0.00%	3	45%	0.03%	30	45%	0.03%	30
25	100%	77	137	96	96	23.1	**4**	5%	0.00%	0	45%	0.00%	2	45%	0.00%	2
26	100%	15,619	25,509	18,798	18,798	27.2	**691**	5%	0.03%	35	45%	0.31%	311	45%	0.31%	311
27	100%	5,361	7,954	6,194	6,194	15.2	**408**	0%	0.00%	0	70%	0.28%	285	0%	0.00%	0
28	100%	4,139	4,864	4,372	4,372	23.3	**188**	50%	0.09%	94	0%	0.00%	0	0%	0.00%	0
29	100%	1,563	2,486	1,860	1,860	20	**93**	0%	0.00%	0	70%	0.06%	65	0%	0.00%	0
		396,255	581,138	455,682	455,682		**100,683**		13.04%	**13,129**		35.11%	**35,348**		24.31%	**24,480**
										13.04%			35.11%			24.31%

Trip Distribution Table

Holly Ave. / Ventura St. Apartments (NW Corner)

Sub Area Employment Data:

For determination of Trip Distribution for Proposed **Residential Development Trips**

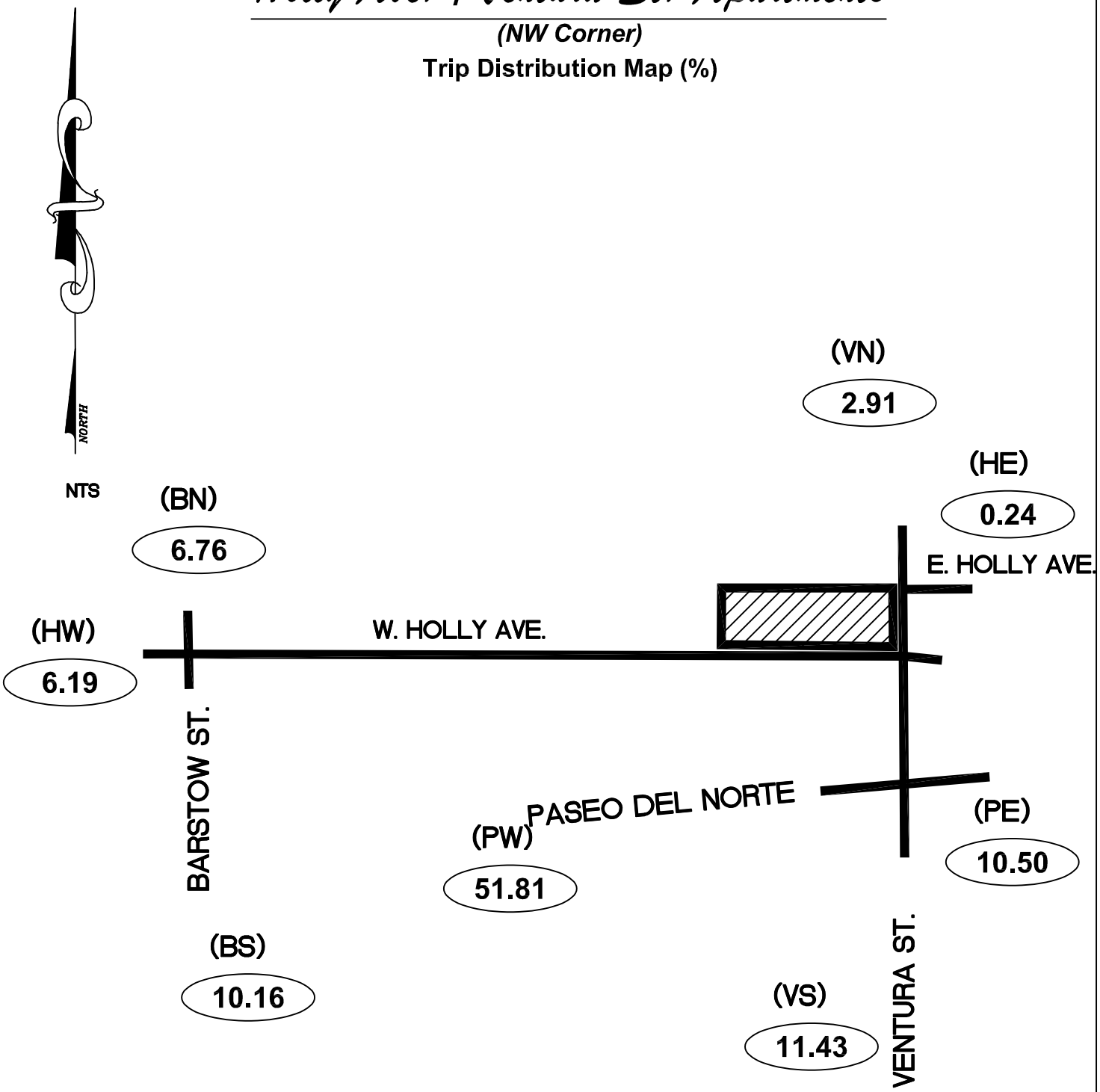
2012 and 2040 Data Taken from Mid-Region Council of Governments' 2040
Socioeconomic Forecasts by Data Analysis Subzones for the Mid-Region of New Mexico

								(HW) W. Holly Ave. West			(BN) Barstow St. North		
Sub Area I.D.#	**% Sub Area in Study**	**2012 Employment**	**2040 Employment**	**Interpolated Employment for the Year**	Employment in Study	Dist. (Mi.)	**Employment / Distance**	% Utilizing	% Employment / Dist. Utilizing	Employment	% Utilizing	% Employment / Dist. Utilizing	Employment
		2012	**2040**	**2021**									
1	100%	6,548	26,200	12,865	12,865	9.4	**1,369**	5%	0.07%	68	25%	0.34%	342
2	100%	17,489	33,517	22,641	22,641	9.7	**2,334**	5%	0.12%	117	25%	0.58%	584
3	100%	1,518	2,100	1,705	1,705	5.9	**289**	5%	0.01%	14	25%	0.07%	72
4	100%	3,550	6,305	4,436	4,436	9.8	**453**	5%	0.02%	23	25%	0.11%	113
5	100%	13,957	21,523	16,389	16,389	8.2	**1,999**	5%	0.10%	100	25%	0.50%	500
6	100%	1,888	3,935	2,546	2,546	19.3	**132**	5%	0.01%	7	0%	0.00%	0
7	100%	8,784	16,098	11,135	11,135	9.6	**1,160**	5%	0.06%	58	0%	0.00%	0
8	100%	9,396	15,659	11,409	11,409	11.2	**1,019**	5%	0.05%	51	0%	0.00%	0
9	100%	1,002	1,815	1,263	1,263	26.3	**48**	5%	0.00%	2	0%	0.00%	0
10	100%	3,954	7,907	5,225	5,225	14.4	**363**	5%	0.02%	18	0%	0.00%	0
11	100%	5,772	7,560	6,347	6,347	13	**488**	5%	0.02%	24	0%	0.00%	0
12	100%	7,107	9,021	7,722	7,722	5.1	**1,514**	0%	0.00%	0	10%	0.15%	151
13	100%	31,747	47,896	36,938	36,938	3.1	**11,915**	0%	0.00%	0	10%	1.18%	1,192
14*	100%	36,984	47,789	40,457	40,457	1	**40,457**	10%	4.01%	4,042	9%	3.81%	3,831
15	100%	15,719	25,356	18,817	18,817	7.4	**2,543**	5%	0.13%	127	0%	0.00%	0
16	100%	55,543	67,295	59,320	59,320	4.4	**13,482**	5%	0.67%	674	0%	0.00%	0
17	100%	37,312	52,468	42,184	42,184	8.6	**4,905**	5%	0.24%	245	0%	0.00%	0
18	100%	49,455	58,200	52,266	52,266	7.5	**6,969**	5%	0.35%	348	0%	0.00%	0
19	100%	25,348	33,772	28,056	28,056	6.5	**4,316**	5%	0.21%	216	0%	0.00%	0
20	100%	5,536	13,277	8,024	8,024	11.7	**686**	5%	0.03%	34	0%	0.00%	0
21	100%	412	10,347	3,605	3,605	13.5	**267**	5%	0.01%	13	0%	0.00%	0
22	100%	26,765	26,990	26,837	26,837	11.7	**2,294**	0%	0.00%	0	0%	0.00%	0
23	100%	2,514	3,393	2,797	2,797	12	**233**	0%	0.00%	0	0%	0.00%	0
24	100%	1,196	1,765	1,379	1,379	21	**66**	5%	0.00%	3	0%	0.00%	0
25	100%	77	137	96	96	23.1	**4**	5%	0.00%	0	0%	0.00%	0
26	100%	15,619	25,509	18,798	18,798	27.2	**691**	5%	0.03%	35	0%	0.00%	0
27	100%	5,361	7,954	6,194	6,194	15.2	**408**	5%	0.02%	20	25%	0.10%	102
28	100%	4,139	4,864	4,372	4,372	23.3	**188**	0%	0.00%	0	0%	0.00%	0
29	100%	1,563	2,486	1,860	1,860	20	**93**	5%	0.00%	5	25%	0.02%	23
		396,255	581,138	455,682	455,682		**100,683**		6.20%	**6,246**		6.86%	**6,910**
										6.20%			6.86%

Holly Ave. / Ventura St. Apartments

(NW Corner)

Trip Distribution Map (%)

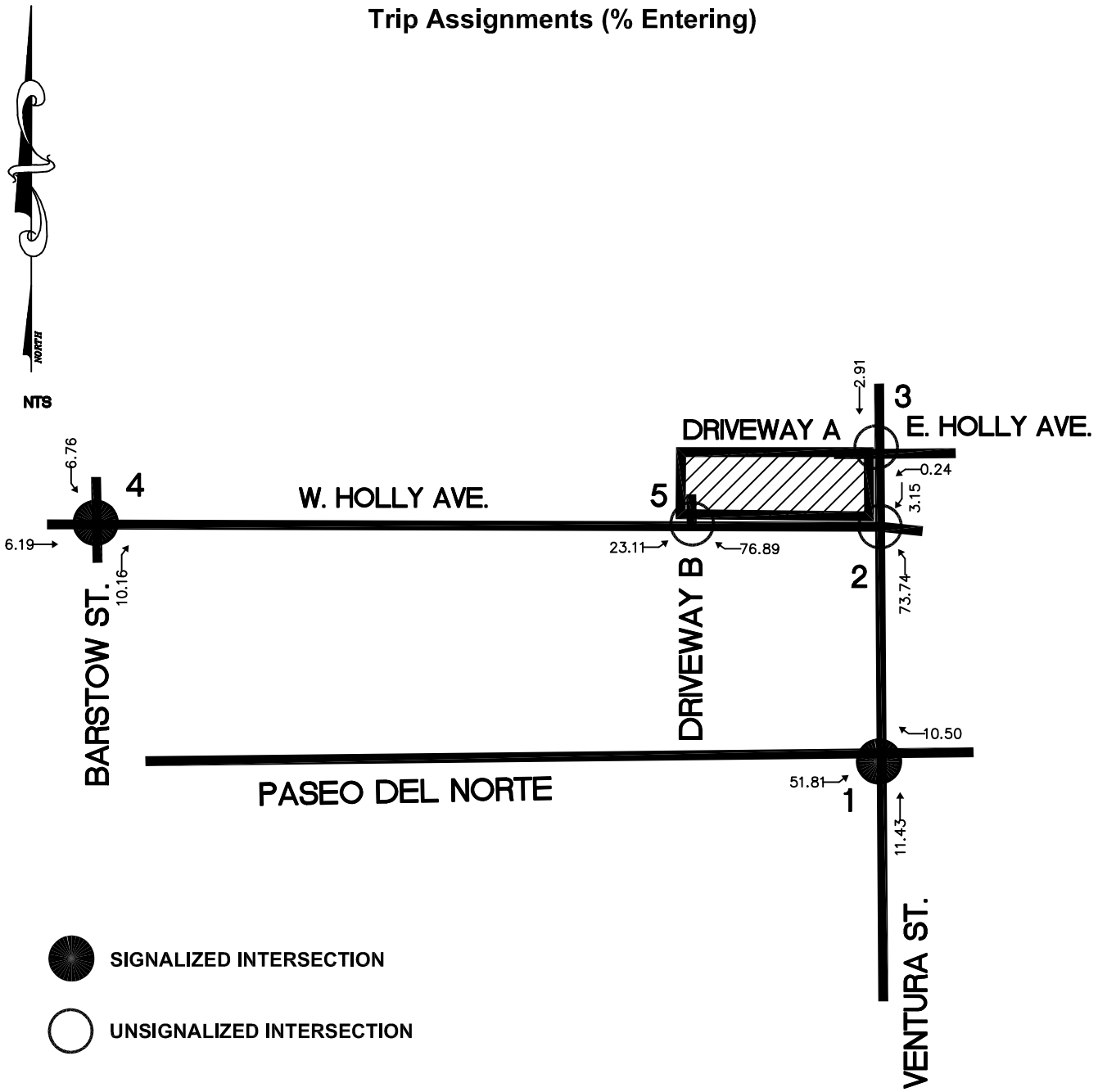


Terry O. Brown, P.E.
P.O. Box 92051
Albuquerque, NM 87199-2051
(505)883-8807 (Voice)
(505)212-0267 (Fax)

Holly Ave. / Ventura St. Apartments

(NW Corner)

Trip Assignments (% Entering)

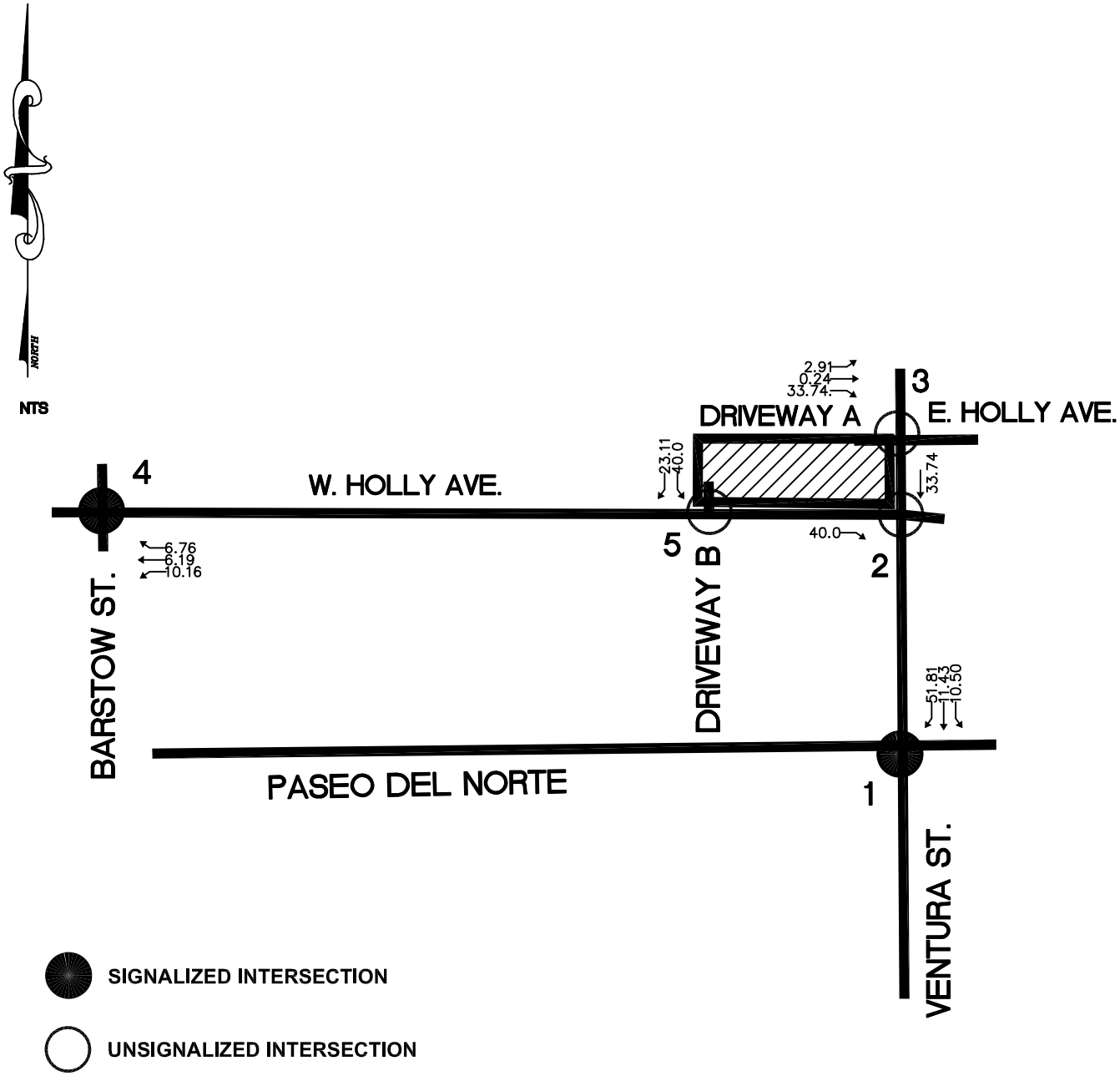


Terry O. Brown, P.E.
P.O. Box 92051
Albuquerque, NM 87199-2051
(505)883-8807 (Voice)
(505)212-0267 (Fax)

Holly Ave. / Ventura St. Apartments

(NW Corner)

Trip Assignments (% Exiting)



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

Holly Ventura Apartments

Projected Turning Movements Worksheet

Paseo del Norte / Ventura St.

Turning Movemement Worksheet w/o Multi-period Analysis

INTERSECTION: E-W Street: **Paseo del Norte** (1)
N-S Street: **Ventura St.**
Intersection #

Year of Existing Counts 2020
Implementation Year **2021**

Growth Rates **2.30%** **2.30%** **2.30%** **2.30%**

AM Peak

	Eastbound (Paseo del Norte)			Westbound (Paseo del Norte)			Northbound (Ventura St.)			Southbound (Ventura St.)		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing AM Peak Hour Volumes	***84***	***857***	***115***	***68***	***1,565***	***147***	***364***	***114***	***14***	***131***	***184***	***256***
Background Traffic Growth	0	20	4	0	36	4	8	4	0	4	4	4
Subtotal (NO BUILD - A.M.)	***84***	***877***	***119***	***68***	***1,601***	***151***	***372***	***118***	***14***	***135***	***188***	***260***
Percent Residential Trips Generated(Entering)	***51.81%***	*0.00%*	*0.00%*	*0.00%*	*0.00%*	***10.50%***	*0.00%*	***11.43%***	*0.00%*	*0.00%*	*0.00%*	*0.00%*
Percent Residential Trips Generated(Exiting)	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	***10.50%***	***11.43%***	***51.81%***
Total Trips Generated	6	0	0	0	0	2	0	2	0	3	4	15
Total AM Peak Hour BUILD Volumes	**90**	**877**	**119**	**68**	**1,601**	**153**	**372**	**120**	**14**	**138**	**192**	**275**

Growth Rates **2.30%** **2.30%** **2.30%** **2.30%**

PM Peak

	Eastbound (Paseo del Norte)			Westbound (Paseo del Norte)			Northbound (Ventura St.)			Southbound (Ventura St.)		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing PM Peak Hour Volumes	***167***	***1,506***	***281***	***25***	***893***	***95***	***272***	***145***	***74***	***286***	***224***	***205***
Background Traffic Growth	4	36	8	0	20	4	8	4	0	8	4	4
Subtotal (NO BUILD - A.M.)	***171***	***1,542***	***289***	***25***	***913***	***99***	***280***	***149***	***74***	***294***	***228***	***209***
Percent Residential Trips Generated(Entering)	***51.81%***	*0.00%*	*0.00%*	*0.00%*	*0.00%*	***10.50%***	*0.00%*	***11.43%***	*0.00%*	*0.00%*	*0.00%*	*0.00%*
Percent Residential Trips Generated(Exiting)	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	***10.50%***	***11.43%***	***51.81%***
Total Trips Generated	16	0	0	0	0	4	0	4	0	2	3	10
Total PM Peak Hour BUILD Volumes	**187**	**1,542**	**289**	**25**	**913**	**103**	**280**	**153**	**74**	**296**	**231**	**219**

Holly Ventura Apartments

Projected Turning Movements Worksheet

W. Holly / Ventura St.

Turning Movemement Worksheet w/o Multi-period Analysis

INTERSECTION: E-W Street: **W. Holly** (2)
N-S Street: **Ventura St.**
Intersection # **2**

Year of Existing Counts 2020
Implementation Year **2021**

Growth Rates **1.10%** **1.10%** **1.10%** **1.10%**

AM Peak

	Eastbound (W. Holly)			Westbound (W. Holly)			Northbound (Ventura St.)			Southbound (Ventura St.)		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing AM Peak Hour Volumes	***52***	***0***	***103***	***0***	***0***	***48***	***91***	***312***	***45***	***0***	***384***	***52***
Background Traffic Growth	0	0	0	0	0	0	0	4	0	0	4	0
Subtotal (NO BUILD - A.M.)	***52***	***0***	***103***	***0***	***0***	***48***	***91***	***316***	***45***	***0***	***388***	***52***
Percent Residential Trips Generated(Entering)	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	***73.74%***	*0.00%*	*0.00%*	*0.00%*	*0.00%*	***3.15%***
Percent Residential Trips Generated(Exiting)	*0.00%*	*0.00%*	***40.00%***	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	***33.74%***	*0.00%*
Total Trips Generated	0	0	12	0	0	0	8	0	0	0	10	1
Total AM Peak Hour BUILD Volumes	**52**	**0**	**115**	**0**	**0**	**48**	**99**	**316**	**45**	**0**	**398**	**53**

Growth Rates **1.10%** **1.10%** **1.10%** **1.10%**

PM Peak

	Eastbound (W. Holly)			Westbound (W. Holly)			Northbound (Ventura St.)			Southbound (Ventura St.)		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing PM Peak Hour Volumes	***57***	***0***	***108***	***0***	***0***	***81***	***177***	***370***	***106***	***0***	***352***	***36***
Background Traffic Growth	0	0	0	0	0	0	0	4	0	0	4	0
Subtotal (NO BUILD - A.M.)	***57***	***0***	***108***	***0***	***0***	***81***	***177***	***374***	***106***	***0***	***356***	***36***
Percent Residential Trips Generated(Entering)	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	***73.74%***	*0.00%*	*0.00%*	*0.00%*	*0.00%*	***3.15%***
Percent Residential Trips Generated(Exiting)	*0.00%*	*0.00%*	***40.00%***	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	***33.74%***	*0.00%*
Total Trips Generated	0	0	8	0	0	0	23	0	0	0	7	1
Total PM Peak Hour BUILD Volumes	**57**	**0**	**116**	**0**	**0**	**81**	**200**	**374**	**106**	**0**	**363**	**37**

Holly Ventura Apartments

Projected Turning Movements Worksheet

Driveway "A" / Ventura St.

Turning Movemement Worksheet w/o Multi-period Analysis

INTERSECTION: E-W Street: **Driveway "A"** (3)
N-S Street: **Ventura St.**
Intersection # **3**

Year of Existing Counts 2020
Implementation Year **2021**

Growth Rates **1.70%** **1.70%** **1.70%** **1.70%**

AM Peak

	Eastbound (Driveway "A")			Westbound (Driveway "A")			Northbound (Ventura St.)			Southbound (Ventura St.)		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing AM Peak Hour Volumes	***0***	***0***	***0***	***52***	***0***	***40***	***0***	***292***	***48***	***16***	***376***	***0***
Background Traffic Growth	0	0	0	0	0	0	0	4	0	0	8	0
Subtotal	0	0	0	52	0	40	0	296	48	16	384	0
Subtotal (NO BUILD - A.M.)	***0***	***0***	***0***	***52***	***0***	***40***	***0***	***296***	***48***	***16***	***384***	***0***
Percent Residential Trips Generated(Entering)	*0.00%*	*0.00%*	*0.00%*	***0.24%***	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	***2.91%***	*0.00%*
Percent Residential Trips Generated(Exiting)	***2.91%***	***0.24%***	***33.74%***	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*
Total Trips Generated	1	1	10	1	0	0	0	0	0	0	1	0
Total AM Peak Hour BUILD Volumes	**1**	**1**	**10**	**53**	**0**	**40**	**0**	**296**	**48**	**16**	**385**	**0**

Growth Rates **1.70%** **1.70%** **1.70%** **1.70%**

PM Peak

	Eastbound (Driveway "A")			Westbound (Driveway "A")			Northbound (Ventura St.)			Southbound (Ventura St.)		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing PM Peak Hour Volumes	***0***	***0***	***0***	***60***	***0***	***28***	***0***	***336***	***92***	***52***	***296***	***0***
Background Traffic Growth	0	0	0	0	0	0	0	4	0	0	4	0
Subtotal	0	0	0	60	0	28	0	340	92	52	300	0
Subtotal (NO BUILD - A.M.)	***0***	***0***	***0***	***60***	***0***	***28***	***0***	***340***	***92***	***52***	***300***	***0***
Percent Residential Trips Generated(Entering)	*0.00%*	*0.00%*	*0.00%*	***0.24%***	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	***2.91%***	*0.00%*
Percent Residential Trips Generated(Exiting)	***2.91%***	***0.24%***	***33.74%***	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*
Total Trips Generated	1	1	7	1	0	0	0	0	0	0	1	0
Total PM Peak Hour BUILD Volumes	**1**	**1**	**7**	**61**	**0**	**28**	**0**	**340**	**92**	**52**	**301**	**0**

Holly-Ventura Apartments

Projected Turning Movements Worksheet

Holly Ave. / Barstow St.

Turning Movemement Worksheet w/o Multi-period Analysis

INTERSECTION: E-W Street: **Holly Ave.** (4)
N-S Street: **Barstow St.**
Intersection # **4**

Year of Existing Counts 2020
Implementation Year **2021**

Growth Rates **1.00%** **1.00%** **1.00%** **1.00%**

AM Peak

	Eastbound (Holly Ave.)			Westbound (Holly Ave.)			Northbound (Barstow St.)			Southbound (Barstow St.)		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing AM Peak Hour Volumes	***150***	***40***	***103***	***36***	***44***	***84***	***62***	***402***	***23***	***41***	***438***	***53***
Background Traffic Growth	0	0	0	0	0	0	0	4	0	0	4	0
Subtotal (NO BUILD - A.M.)	***150***	***40***	***103***	***36***	***44***	***84***	***62***	***406***	***23***	***41***	***442***	***53***
Percent Residential Trips Generated(Entering)	*0.00%*	***6.19%***	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	***10.16%***	***3.76%***	*0.00%*	*0.00%*
Percent Residential Trips Generated(Exiting)	*0.00%*	*0.00%*	*0.00%*	***10.16%***	***6.19%***	***6.76%***	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*
Total Trips Generated	0	1	0	3	2	2	0	0	2	1	0	0
Total AM Peak Hour BUILD Volumes	**150**	**41**	**103**	**39**	**46**	**86**	**62**	**406**	**25**	**42**	**442**	**53**

Growth Rates **1.00%** **1.00%** **1.00%** **1.00%**

PM Peak

	Eastbound (Holly Ave.)			Westbound (Holly Ave.)			Northbound (Barstow St.)			Southbound (Barstow St.)		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing PM Peak Hour Volumes	***75***	***174***	***198***	***72***	***0***	***85***	***101***	***217***	***97***	***66***	***319***	***56***
Background Traffic Growth	0	0	0	0	0	0	0	4	0	0	4	0
Subtotal (NO BUILD - A.M.)	***75***	***174***	***198***	***72***	***0***	***85***	***101***	***221***	***97***	***66***	***323***	***56***
Percent Residential Trips Generated(Entering)	*0.00%*	***6.19%***	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	***10.16%***	***3.76%***	*0.00%*	*0.00%*
Percent Residential Trips Generated(Exiting)	***2.91%***	***0.24%***	***34.47%***	***10.16%***	***6.19%***	***6.76%***	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*
Total Trips Generated	1	3	7	2	2	2	0	0	4	2	0	0
Total PM Peak Hour BUILD Volumes	**76**	**177**	**205**	**74**	**2**	**87**	**101**	**221**	**101**	**68**	**323**	**56**

Holly Ventura Apartments

Projected Turning Movements Worksheet

Holly Ave. / Driveway B

Turning Movemement Worksheet w/o Multi-period Analysis

INTERSECTION: E-W Street: **Holly Ave.** (1)
N-S Street: **Driveway B**
Intersection # **5**

Year of Existing Counts 2020
Implementation Year **2021**

Growth Rates **1.00%** **1.00%** **1.00%** **1.00%**

AM Peak

	Eastbound (Holly Ave.)			Westbound (Holly Ave.)			Northbound (Driveway B)			Southbound (Driveway B)		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing AM Peak Hour Volumes	***0***	***164***	***0***	***0***	***152***	***0***	***0***	***0***	***0***	***0***	***0***	***0***
Background Traffic Growth	0	0	0	0	0	0	0	0	0	0	0	0
Subtotal (NO BUILD - A.M.)	***0***	***164***	***0***	***0***	***152***	***0***	***0***	***0***	***0***	***0***	***0***	***0***
Percent Residential Trips Generated(Entering)	***23.11%***	*0.00%*	*0.00%*	*0.00%*	*0.00%*	***76.89%***	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*
Percent Residential Trips Generated(Exiting)	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	***40.00%***	*0.00%*	***23.11%***
Total Trips Generated	3	0	0	0	0	8	0	0	0	12	0	7
Total AM Peak Hour BUILD Volumes	**3**	**164**	**0**	**0**	**152**	**8**	**0**	**0**	**0**	**12**	**0**	**7**

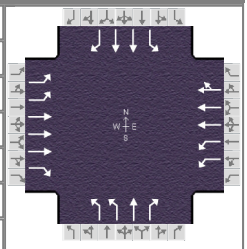
Growth Rates **1.00%** **1.00%** **1.00%** **1.00%**

PM Peak

	Eastbound (Holly Ave.)			Westbound (Holly Ave.)			Northbound (Driveway B)			Southbound (Driveway B)		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing PM Peak Hour Volumes	***0***	***172***	***0***	***0***	***216***	***0***	***0***	***0***	***0***	***0***	***0***	***0***
Background Traffic Growth	0	0	0	0	4	0	0	0	0	0	0	0
Subtotal (NO BUILD - A.M.)	***0***	***172***	***0***	***0***	***220***	***0***	***0***	***0***	***0***	***0***	***0***	***0***
Percent Residential Trips Generated(Entering)	***23.11%***	*0.00%*	*0.00%*	*0.00%*	*0.00%*	***76.89%***	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*
Percent Residential Trips Generated(Exiting)	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	***40.00%***	*0.00%*	***23.11%***
Total Trips Generated	7	0	0	0	0	24	0	0	0	8	0	5
Total PM Peak Hour BUILD Volumes	**7**	**172**	**0**	**0**	**220**	**24**	**0**	**0**	**0**	**8**	**0**	**5**

HCS7 Signalized Intersection Results Summary

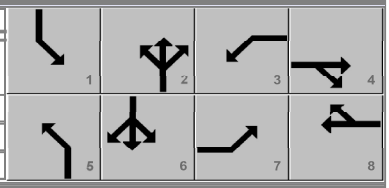
General Information				Intersection Information	
Agency	TERRY O. BROWN, P.E.			Duration, h	0.250
Analyst	J. BECKER, P.E.	Analysis Date	12/9/2020	Area Type	Other
Jurisdiction	CITY OF ALBUQUERQUE	Time Period	AM NO BUILD	PHF	1.00
Urban Street	VENTURA	Analysis Year	2020	Analysis Period	1> 7:00
Intersection	PDN & Ventura	File Name	1 VENTURA 21ANX_S.xus		
Project Description	AM NO BUILD				



Demand Information	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand (*v*), veh/h	84	877	119	68	1601	151	372	118	14	135	188	260

Signal Information			
Cycle, s	140.0	Reference Phase	2
Offset, s	14	Reference Point	End
Uncoordinated	No	Simult. Gap E/W	On
Force Mode	Fixed	Simult. Gap N/S	On

Green	8.6	3.1		52.5	4.4	2.8	48.6					
Yellow	3.0	0.0		4.0	3.0	0.0	5.0					
Red	1.0	0.0		2.0	1.0	0.0	1.0					



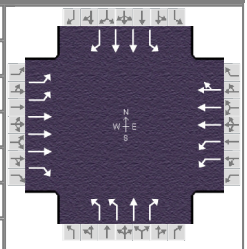
Timer Results	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Assigned Phase	7	4	3	8	5	2	1	6
Case Number	2.0	3.0	2.0	4.0	1.1	3.0	1.1	3.0
Phase Duration, s	11.2	57.4	8.4	54.6	15.7	61.6	12.6	58.5
Change Period, ($Y+R_c$), s	6.0	6.0	4.0	6.0	4.0	6.0	4.0	6.0
Max Allow Headway (*MAH*), s	2.9	2.9	2.9	2.9	3.2	0.0	3.2	0.0
Queue Clearance Time (g_s), s	5.4	20.0	4.7	43.6	11.0		8.5	
Green Extension Time (g_e), s	0.1	7.9	0.1	3.2	0.7	0.0	0.2	0.0
Phase Call Probability	0.96	1.00	0.93	1.00	1.00		0.99	
Max Out Probability	0.01	0.05	0.00	0.81	0.00		0.00	

Movement Group Results	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Assigned Movement	7	4	14	3	8	18	5	2	12	1	6	16
Adjusted Flow Rate (*v*), veh/h	84	877	119	68	1185	567	372	118	14	135	188	260
Adjusted Saturation Flow Rate (*s*), veh/h/ln	1730	1698	1585	1730	1870	1785	1730	1870	1585	1781	1781	1585
Queue Service Time (g_s), s	3.4	18.0	7.2	2.7	41.5	41.6	9.0	5.6	0.8	6.5	4.8	17.2
Cycle Queue Clearance Time (g_c), s	3.4	18.0	7.2	2.7	41.5	41.6	9.0	5.6	0.8	6.5	4.8	17.2
Green Ratio (*g/C*)	0.04	0.38	0.38	0.03	0.36	0.36	0.47	0.40	0.40	0.44	0.38	0.38
Capacity (*c*), veh/h	128	1942	581	110	1352	620	1207	756	630	598	1361	594
Volume-to-Capacity Ratio (*X*)	0.654	0.452	0.205	0.620	0.877	0.915	0.308	0.156	0.022	0.226	0.138	0.437
Back of Queue (*Q*), ft/ln (95 th percentile)	67.5	295.5	127.1	54.8	683.1	720.7	170	121	13.8	127.6	97.8	289.5
Back of Queue (*Q*), veh/ln (95 th percentile)	2.7	11.6	5.0	2.2	26.9	28.4	6.7	4.8	0.5	5.0	3.9	11.4
Queue Storage Ratio (*RQ*) (95 th percentile)	0.08	0.00	0.32	0.14	0.00	0.00	0.27	0.00	0.09	0.85	0.00	1.26
Uniform Delay (d_1), s/veh	66.5	33.0	30.3	66.9	42.7	42.1	22.5	26.8	25.7	24.1	28.5	32.7
Incremental Delay (d_2), s/veh	2.1	0.8	0.8	2.1	8.3	20.3	0.1	0.4	0.1	0.1	0.2	2.3
Initial Queue Delay (d_3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (*d*), s/veh	68.6	33.8	31.1	69.1	50.9	62.4	22.5	27.2	25.7	24.2	28.7	35.0
Level of Service (LOS)	E	C	C	E	D	E	C	C	C	C	C	D
Approach Delay, s/veh / LOS	36.2	D		55.2	E		23.7	C		30.5	C	
Intersection Delay, s/veh / LOS	42.5						D					

Multimodal Results	EB		WB		NB		SB	
Pedestrian LOS Score / LOS	2.44	B	2.45	B	2.71	C	2.84	C
Bicycle LOS Score / LOS	1.08	A	1.49	A	1.32	A	0.97	A

HCS7 Signalized Intersection Results Summary

General Information				Intersection Information	
Agency	TERRY O BROWN, P.E.			Duration, h	0.250
Analyst	J. BECKER, P.E.	Analysis Date	12/9/2020	Area Type	Other
Jurisdiction	CITY OF ALBUQUERQUE	Time Period	AM BUILD	PHF	1.00
Urban Street	VENTURA	Analysis Year	2020	Analysis Period	1> 7:00
Intersection	PDN & Ventura	File Name	1 VENTURA 21ABX_S.xus		
Project Description	AM BUILD				



Demand Information	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand (*v*), veh/h	90	877	119	68	1601	153	372	120	14	138	192	275

Signal Information			
Cycle, s	140.0	Reference Phase	2
Offset, s	14	Reference Point	End
Uncoordinated	No	Simult. Gap E/W	On
Force Mode	Fixed	Simult. Gap N/S	On

Green	8.8	3.0	52.5	4.4	3.0	48.3	1	2	3	4		
Yellow	3.0	0.0	4.0	3.0	0.0	5.0	5	6	7	8		
Red	1.0	0.0	2.0	1.0	0.0	1.0						

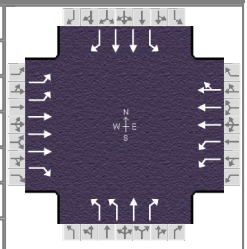
Timer Results	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Assigned Phase	7	4	3	8	5	2	1	6
Case Number	2.0	3.0	2.0	4.0	1.1	3.0	1.1	3.0
Phase Duration, s	11.5	57.4	8.4	54.3	15.7	61.5	12.8	58.5
Change Period, (*Y+R c*), s	6.0	6.0	4.0	6.0	4.0	6.0	4.0	6.0
Max Allow Headway (*MAH*), s	2.9	2.9	2.9	2.9	3.2	0.0	3.2	0.0
Queue Clearance Time (*g s*), s	5.6	20.0	4.7	43.8	11.0		8.6	
Green Extension Time (*g e*), s	0.1	7.9	0.1	3.0	0.7	0.0	0.2	0.0
Phase Call Probability	0.97	1.00	0.93	1.00	1.00		1.00	
Max Out Probability	0.02	0.05	0.00	0.85	0.00		0.00	

Movement Group Results	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Assigned Movement	7	4	14	3	8	18	5	2	12	1	6	16
Adjusted Flow Rate (*v*), veh/h	90	877	119	68	1187	567	372	120	14	138	192	275
Adjusted Saturation Flow Rate (*s*), veh/h/ln	1730	1698	1585	1730	1870	1784	1730	1870	1585	1781	1781	1585
Queue Service Time (*g s*), s	3.6	18.0	7.2	2.7	41.7	41.8	9.0	5.7	0.8	6.6	4.9	18.4
Cycle Queue Clearance Time (*g c*), s	3.6	18.0	7.2	2.7	41.7	41.8	9.0	5.7	0.8	6.6	4.9	18.4
Green Ratio (*g/C*)	0.04	0.38	0.38	0.03	0.36	0.36	0.47	0.40	0.40	0.44	0.38	0.38
Capacity (*c*), veh/h	135	1942	581	110	1344	616	1202	754	628	596	1360	594
Volume-to-Capacity Ratio (*X*)	0.665	0.452	0.205	0.620	0.883	0.921	0.310	0.159	0.022	0.231	0.141	0.463
Back of Queue (*Q*), ft/ln (95 th percentile)	72.3	295.5	127.1	54.8	687.3	727.3	170.5	123.5	13.8	130.2	100	306.1
Back of Queue (*Q*), veh/ln (95 th percentile)	2.8	11.6	5.0	2.2	27.1	28.6	6.7	4.9	0.5	5.1	3.9	12.1
Queue Storage Ratio (*RQ*) (95 th percentile)	0.09	0.00	0.32	0.14	0.00	0.00	0.27	0.00	0.09	0.87	0.00	1.33
Uniform Delay (*d 1*), s/veh	66.4	33.0	30.3	66.9	43.0	42.4	22.6	26.9	25.8	24.1	28.6	33.1
Incremental Delay (*d 2*), s/veh	2.1	0.8	0.8	2.1	8.7	21.3	0.1	0.5	0.1	0.1	0.2	2.6
Initial Queue Delay (*d 3*), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (*d*), s/veh	68.4	33.8	31.1	69.1	51.6	63.7	22.6	27.4	25.8	24.2	28.8	35.7
Level of Service (LOS)	E	C	C	E	D	E	C	C	C	C	C	D
Approach Delay, s/veh / LOS	36.4	D		56.0	E		23.8	C		30.9	C	
Intersection Delay, s/veh / LOS	42.9						D					

Multimodal Results	EB		WB		NB		SB	
Pedestrian LOS Score / LOS	2.44	B	2.45	B	2.71	C	2.84	C
Bicycle LOS Score / LOS	1.08	A	1.49	A	1.32	A	0.99	A

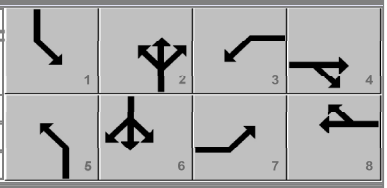
HCS7 Signalized Intersection Results Summary

General Information				Intersection Information	
Agency	TERRY O. BROWN, P.E.			Duration, h	0.250
Analyst	J. BECKER, P.E.	Analysis Date	12/9/2020	Area Type	Other
Jurisdiction	CITY OF ALBUQUERQUE	Time Period	PM NO BUILD	PHF	1.00
Urban Street	VENTURA	Analysis Year	2020	Analysis Period	1> 7:00
Intersection	PDN & Ventura	File Name	1 VENTURA 21PNX_S.xus		
Project Description	AM NO BUILD				



Demand Information	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand (*v*), veh/h	171	1542	289	25	913	99	280	149	74	294	228	209

Signal Information			
Cycle, s	140.0	Reference Phase	2
Offset, s	14	Reference Point	End
Uncoordinated	No	Simult. Gap E/W	On
Force Mode	Fixed	Simult. Gap N/S	On



Green	9.4	2.4	54.4	1.9	3.2	38.8
Yellow	3.0	3.0	4.0	3.0	5.0	5.0
Red	1.0	1.0	2.0	1.0	1.0	1.0

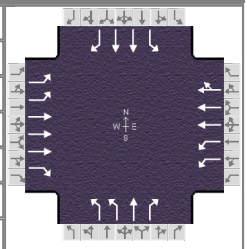
Timer Results	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Assigned Phase	7	4	3	8	5	2	1	6
Case Number	2.0	3.0	2.0	4.0	1.1	3.0	1.1	3.0
Phase Duration, s	15.0	54.0	5.9	44.8	13.4	60.4	19.7	66.8
Change Period, ($Y+R_c$), s	6.0	6.0	4.0	6.0	4.0	6.0	4.0	6.0
Max Allow Headway (*MAH*), s	2.9	2.9	2.9	2.9	3.2	0.0	3.2	0.0
Queue Clearance Time (g_s), s	8.8	41.1	3.0	24.4	8.7		15.4	
Green Extension Time (g_e), s	0.2	6.9	0.0	8.0	0.6	0.0	0.3	0.0
Phase Call Probability	1.00	1.00	0.62	1.00	1.00		1.00	
Max Out Probability	0.00	0.29	0.00	0.14	0.00		0.09	

Movement Group Results	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Assigned Movement	7	4	14	3	8	18	5	2	12	1	6	16
Adjusted Flow Rate (*v*), veh/h	171	1542	289	25	685	327	280	149	74	294	228	209
Adjusted Saturation Flow Rate (*s*), veh/h/ln	1730	1698	1585	1730	1870	1774	1730	1870	1585	1781	1781	1585
Queue Service Time (g_s), s	6.8	39.1	20.5	1.0	22.3	22.4	6.7	7.3	4.2	13.4	5.3	12.0
Cycle Queue Clearance Time (g_c), s	6.8	39.1	20.5	1.0	22.3	22.4	6.7	7.3	4.2	13.4	5.3	12.0
Green Ratio (*g/C*)	0.06	0.36	0.36	0.01	0.29	0.29	0.46	0.40	0.40	0.52	0.44	0.44
Capacity (*c*), veh/h	223	1819	543	46	1091	492	1214	740	616	668	1572	688
Volume-to-Capacity Ratio (*X*)	0.765	0.848	0.532	0.539	0.628	0.664	0.231	0.201	0.120	0.440	0.145	0.304
Back of Queue (*Q*), ft/ln (95 th percentile)	136	570.8	310	20.8	383.5	374.1	127.4	158.5	77.2	242.3	106.9	213.7
Back of Queue (*Q*), veh/ln (95 th percentile)	5.4	22.5	12.2	0.8	15.1	14.7	5.0	6.2	3.0	9.5	4.2	8.4
Queue Storage Ratio (*RQ*) (95 th percentile)	0.17	0.00	0.78	0.05	0.00	0.00	0.20	0.00	0.48	1.62	0.00	0.93
Uniform Delay (d_1), s/veh	64.4	42.4	37.0	68.6	43.8	43.3	22.6	28.1	27.5	20.1	23.6	25.8
Incremental Delay (d_2), s/veh	2.1	2.6	0.3	3.6	0.3	1.1	0.0	0.6	0.4	0.2	0.2	1.1
Initial Queue Delay (d_3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (*d*), s/veh	66.5	45.0	37.3	72.2	44.1	44.5	22.6	28.7	27.9	20.3	23.8	26.9
Level of Service (LOS)	E	D	D	E	D	D	C	C	C	C	C	C
Approach Delay, s/veh / LOS	45.7	D		44.9	D		25.2	C		23.3	C	
Intersection Delay, s/veh / LOS	39.3						D					

Multimodal Results	EB		WB		NB		SB	
Pedestrian LOS Score / LOS	2.45	B	2.45	B	2.71	C	2.83	C
Bicycle LOS Score / LOS	1.59	B	1.06	A	1.32	A	1.09	A

HCS7 Signalized Intersection Results Summary

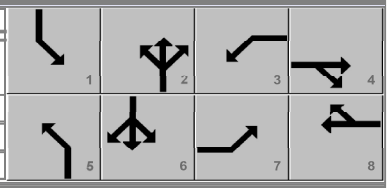
General Information				Intersection Information	
Agency	TERRY O. BROWN, P.E.			Duration, h	1.000
Analyst	J. BECKER, P.E.	Analysis Date	12/9/2020	Area Type	Other
Jurisdiction	CITY OF ALBUQUERQUE	Time Period	PM BUILD	PHF	1.00
Urban Street	VENTURA	Analysis Year	2020	Analysis Period	1> 7:00
Intersection	PDN & Ventura	File Name	1 VENTURA 21PBX_S.xus		
Project Description	AM NO BUILD				



Demand Information	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand (*v*), veh/h	187	1542	289	25	913	103	280	153	74	296	231	219

Signal Information			
Cycle, s	140.0	Reference Phase	2
Offset, s	14	Reference Point	End
Uncoordinated	No	Simult. Gap E/W	On
Force Mode	Fixed	Simult. Gap N/S	On

Green	9.4	2.5	54.3	1.9	3.8	38.2
Yellow	3.0	3.0	4.0	3.0	5.0	5.0
Red	1.0	1.0	2.0	1.0	1.0	1.0



Timer Results	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Assigned Phase	7	4	3	8	5	2	1	6
Case Number	2.0	3.0	2.0	4.0	1.1	3.0	1.1	3.0
Phase Duration, s	15.7	54.0	5.9	44.2	13.4	60.3	19.9	66.8
Change Period, ($Y+R_c$), s	6.0	6.0	4.0	6.0	4.0	6.0	4.0	6.0
Max Allow Headway (*MAH*), s	2.9	2.9	2.9	2.9	3.2	0.0	3.2	0.0
Queue Clearance Time (g_s), s	9.4	41.1	3.0	24.7	8.7		15.5	
Green Extension Time (g_e), s	0.3	6.9	0.0	7.9	0.6	0.0	0.3	0.0
Phase Call Probability	1.00	1.00	0.62	1.00	1.00		1.00	
Max Out Probability	0.00	0.29	0.00	0.16	0.00		0.10	

Movement Group Results	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Assigned Movement	7	4	14	3	8	18	5	2	12	1	6	16
Adjusted Flow Rate (*v*), veh/h	187	1542	289	25	689	327	280	153	74	296	231	219
Adjusted Saturation Flow Rate (*s*), veh/h/ln	1730	1698	1585	1730	1870	1770	1730	1870	1585	1781	1781	1585
Queue Service Time (g_s), s	7.4	39.1	20.5	1.0	22.5	22.7	6.7	7.5	4.2	13.5	5.4	12.7
Cycle Queue Clearance Time (g_c), s	7.4	39.1	20.5	1.0	22.5	22.7	6.7	7.5	4.2	13.5	5.4	12.7
Green Ratio (*g/C*)	0.07	0.36	0.36	0.01	0.29	0.29	0.45	0.39	0.39	0.52	0.44	0.44
Capacity (*c*), veh/h	240	1819	543	46	1073	483	1210	738	615	665	1571	688
Volume-to-Capacity Ratio (*X*)	0.780	0.848	0.532	0.539	0.642	0.679	0.231	0.207	0.120	0.445	0.147	0.318
Back of Queue (*Q*), ft/ln (95 th percentile)	148.6	571.2	310	20.8	387.7	378.9	127.8	163.4	77.3	243.9	108.5	223.3
Back of Queue (*Q*), veh/ln (95 th percentile)	5.8	22.5	12.2	0.8	15.3	14.9	5.0	6.4	3.0	9.6	4.3	8.8
Queue Storage Ratio (*RQ*) (95 th percentile)	0.19	0.00	0.78	0.05	0.00	0.00	0.20	0.00	0.48	1.63	0.00	0.97
Uniform Delay (d_1), s/veh	64.1	42.4	37.0	68.6	44.4	44.0	22.7	28.2	27.5	20.2	23.7	26.0
Incremental Delay (d_2), s/veh	2.1	2.7	0.3	3.6	0.4	1.4	0.0	0.6	0.4	0.2	0.2	1.2
Initial Queue Delay (d_3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (*d*), s/veh	66.2	45.0	37.3	72.2	44.8	45.4	22.7	28.9	27.9	20.3	23.9	27.2
Level of Service (LOS)	E	D	D	E	D	D	C	C	C	C	C	C
Approach Delay, s/veh / LOS	45.9	D		45.7	D		25.3	C		23.4	C	
Intersection Delay, s/veh / LOS	39.5						D					

Multimodal Results	EB		WB		NB		SB	
Pedestrian LOS Score / LOS	2.45	B	2.46	B	2.71	C	2.83	C
Bicycle LOS Score / LOS	1.60	B	1.06	A	1.32	A	1.10	A

HCS7 Two-Way Stop-Control Report

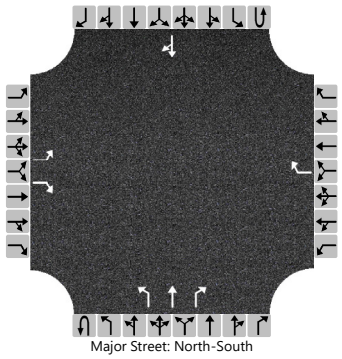
General Information

Analyst	J. Becker, P.E.
Agency/Co.	Terry O. Brown, P.E.
Date Performed	12/9/2020
Analysis Year	2021
Time Analyzed	AM NO BUILD
Intersection Orientation	North-South
Project Description	Holly-Ventura Apts.

Site Information

Intersection	W. Holly Ave./Ventura St.
Jurisdiction	City of Albuquerque
East/West Street	W. Holly Ave.
North/South Street	Ventura St.
Peak Hour Factor	1.00
Analysis Time Period (hrs)	0.25

Lanes


Major Street: North-South

Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority		10	11	12		7	8	9	1U	1	2	3	4U	4	5	6
Number of Lanes		1	0	1		0	0	1	0	1	1	1	0	0	1	0
Configuration		L		R				R		L	T	R				TR
Volume (veh/h)		52		103				48		91	316	45			388	52
Percent Heavy Vehicles (%)		3		3				3		3						
Proportion Time Blocked																
Percent Grade (%)	0				0											
Right Turn Channelized	No				No				No							
Median Type | Storage	Left Only								1							

Critical and Follow-up Headways

Base Critical Headway (sec)		7.1		6.2				6.2		4.1						
Critical Headway (sec)		7.13		6.23				6.23		4.13						
Base Follow-Up Headway (sec)		3.5		3.3				3.3		2.2						
Follow-Up Headway (sec)		3.53		3.33				3.33		2.23						

Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)		52		103				48		91						
Capacity, c (veh/h)		326		636				722		1115						
v/c Ratio		0.16		0.16				0.07		0.08						
95% Queue Length, Q_{95} (veh)		0.6		0.6				0.2		0.3						
Control Delay (s/veh)		18.1		11.7				10.3		8.5						
Level of Service (LOS)		C		B				B		A						
Approach Delay (s/veh)	13.9				10.3				1.7							
Approach LOS	B				B											

HCS7 Two-Way Stop-Control Report

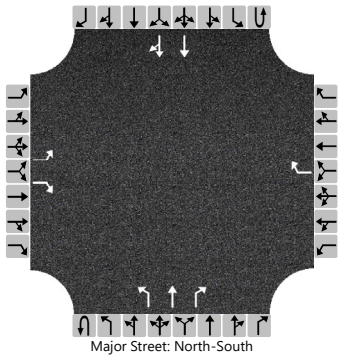
General Information

Analyst	J. Becker, P.E.
Agency/Co.	Terry O. Brown, P.E.
Date Performed	12/9/2020
Analysis Year	2021
Time Analyzed	AM BUILD - MITIGATED
Intersection Orientation	North-South
Project Description	Holly-Ventura Apts.

Site Information

Intersection	W. Holly Ave./Ventura St.
Jurisdiction	City of Albuquerque
East/West Street	W. Holly Ave.
North/South Street	Ventura St.
Peak Hour Factor	1.00
Analysis Time Period (hrs)	0.25

Lanes


Major Street: North-South

Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority		10	11	12		7	8	9	1U	1	2	3	4U	4	5	6
Number of Lanes		1	0	1		0	0	1	0	1	1	1	0	0	2	0
Configuration		L		R				R		L	T	R			T	TR
Volume (veh/h)		52		115				48	0	99	316	45			398	53
Percent Heavy Vehicles (%)		3		3				3	3	3						
Proportion Time Blocked																
Percent Grade (%)	0				0											
Right Turn Channelized	No				No				No							
Median Type | Storage	Left Only								1							

Critical and Follow-up Headways

Base Critical Headway (sec)		7.5		6.9				6.2		4.1						
Critical Headway (sec)		7.56		6.96				6.26		4.16						
Base Follow-Up Headway (sec)		3.5		3.3				3.3		2.2						
Follow-Up Headway (sec)		3.53		3.33				3.33		2.23						

Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)		52		115				48		99						
Capacity, c (veh/h)		303		775				720		1099						
v/c Ratio		0.17		0.15				0.07		0.09						
95% Queue Length, Q_{95} (veh)		0.6		0.5				0.2		0.3						
Control Delay (s/veh)		19.3		10.5				10.4		8.6						
Level of Service (LOS)		C		B				B		A						
Approach Delay (s/veh)	13.2				10.4				1.9							
Approach LOS	B				B											

HCS7 Two-Way Stop-Control Report

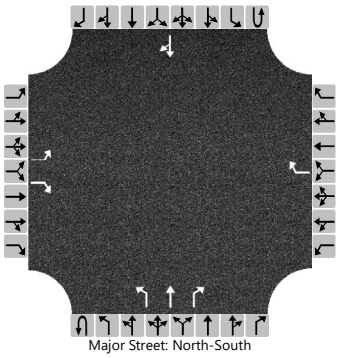
General Information

Analyst	J. Becker, P.E.
Agency/Co.	Terry O. Brown, P.E.
Date Performed	12/9/2020
Analysis Year	2021
Time Analyzed	PM NO BUILD
Intersection Orientation	North-South
Project Description	Holly-Ventura Apts.

Site Information

Intersection	W. Holly Ave./Ventura St.
Jurisdiction	City of Albuquerque
East/West Street	W. Holly Ave.
North/South Street	Ventura St.
Peak Hour Factor	1.00
Analysis Time Period (hrs)	0.25

Lanes


Major Street: North-South

Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority		10	11	12		7	8	9	1U	1	2	3	4U	4	5	6
Number of Lanes		1	0	1		0	0	1	0	1	1	1	0	0	1	0
Configuration		L		R				R		L	T	R				TR
Volume (veh/h)		57		108				81		177	374	106			356	36
Percent Heavy Vehicles (%)		3		3				3		3						
Proportion Time Blocked																
Percent Grade (%)	0				0											
Right Turn Channelized	No				No				No							
Median Type | Storage	Left Only								1							

Critical and Follow-up Headways

Base Critical Headway (sec)		7.1		6.2				6.2		4.1						
Critical Headway (sec)		7.13		6.23				6.23		4.13						
Base Follow-Up Headway (sec)		3.5		3.3				3.3		2.2						
Follow-Up Headway (sec)		3.53		3.33				3.33		2.23						

Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)		57		108				81		177						
Capacity, c (veh/h)		220		670				670		1161						
v/c Ratio		0.26		0.16				0.12		0.15						
95% Queue Length, Q_{95} (veh)		1.0		0.6				0.4		0.5						
Control Delay (s/veh)		27.0		11.4				11.1		8.7						
Level of Service (LOS)		D		B				B		A						
Approach Delay (s/veh)	16.8				11.1				2.3							
Approach LOS	C				B											

HCS7 Two-Way Stop-Control Report

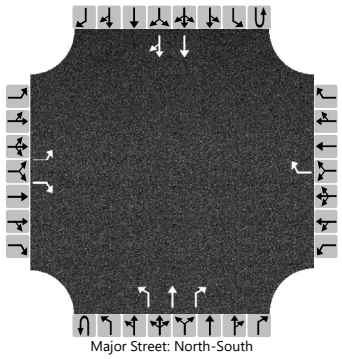
General Information

Analyst	J. Becker, P.E.
Agency/Co.	Terry O. Brown, P.E.
Date Performed	12/9/2020
Analysis Year	2021
Time Analyzed	PM BUILD - Mitigated
Intersection Orientation	North-South
Project Description	Holly-Ventura Apts.

Site Information

Intersection	W. Holly Ave./Ventura St.
Jurisdiction	City of Albuquerque
East/West Street	W. Holly Ave.
North/South Street	Ventura St.
Peak Hour Factor	1.00
Analysis Time Period (hrs)	0.25

Lanes


Major Street: North-South

Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority		10	11	12		7	8	9	1U	1	2	3	4U	4	5	6
Number of Lanes		1	0	1		0	0	1	0	1	1	1	0	0	2	0
Configuration		L		R				R		L	T	R			T	TR
Volume (veh/h)		57		116				81	0	200	374	106			363	37
Percent Heavy Vehicles (%)		3		3				3	3	3						
Proportion Time Blocked																
Percent Grade (%)	0				0											
Right Turn Channelized	No				No				No							
Median Type | Storage	Left Only								1							

Critical and Follow-up Headways

Base Critical Headway (sec)		7.5		6.9				6.2		4.1						
Critical Headway (sec)		7.56		6.96				6.26		4.16						
Base Follow-Up Headway (sec)		3.5		3.3				3.3		2.2						
Follow-Up Headway (sec)		3.53		3.33				3.33		2.23						

Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)		57		116				81		200						
Capacity, c (veh/h)		197		804				667		1148						
v/c Ratio		0.29		0.14				0.12		0.17						
95% Queue Length, Q_{95} (veh)		1.1		0.5				0.4		0.6						
Control Delay (s/veh)		30.6		10.2				11.1		8.8						
Level of Service (LOS)		D		B				B		A						
Approach Delay (s/veh)	16.9				11.1				2.6							
Approach LOS	C				B											

HCS7 Roundabouts Report

General Information

Analyst	Judith Becker, P.E
Agency or Co.	Terry O Brown, P.E
Date Performed	12/10/2020
Analysis Year	2021
Time Analyzed	AM BUILD
Project Description	Holly-Ventura Apts.

Site Information

Intersection	W. Holly Ave./Ventura St.
E/W Street Name	W. Holly Ave.
N/S Street Name	Ventura St.
Analysis Time Period (hrs)	0.25
Peak Hour Factor	1.00
Jurisdiction	City of Albuquerque

Volume Adjustments and Site Characteristics

Approach	EB				WB				NB				SB			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Number of Lanes (N)	0	0	1	0	0	0	1	0	0	0	1	0	0	0	1	0
Lane Assignment			LTR				LTR				LTR				LTR	
Volume (V), veh/h	0	52	10	115	0	5	5	48	0	99	316	45	0	5	398	53
Percent Heavy Vehicles, %	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3
Flow Rate (v_{PCE}), pc/h	0	54	10	118	0	5	5	49	0	102	325	46	0	5	410	55
Right-Turn Bypass	None				None				None				None			
Conflicting Lanes	1				1				1				1			
Pedestrians Crossing, p/h	0				0				0				0			

Critical and Follow-Up Headway Adjustment

Approach	EB			WB			NB			SB		
Lane	Left	Right	Bypass	Left	Right	Bypass	Left	Right	Bypass	Left	Right	Bypass
Critical Headway (s)		4.9763			4.9763			4.9763			4.9763	
Follow-Up Headway (s)		2.6087			2.6087			2.6087			2.6087	

Flow Computations, Capacity and v/c Ratios

Approach	EB			WB			NB			SB		
Lane	Left	Right	Bypass	Left	Right	Bypass	Left	Right	Bypass	Left	Right	Bypass
Entry Flow (v_e), pc/h		182			59			473			470	
Entry Volume, veh/h		177			57			459			456	
Circulating Flow (v_c), pc/h	420			481			69			112		
Exiting Flow (v_{ex}), pc/h	61			162			428			533		
Capacity (c_{pce}), pc/h		899			845			1286			1231	
Capacity (c), veh/h		873			820			1249			1195	
v/c Ratio (x)		0.20			0.07			0.37			0.38	

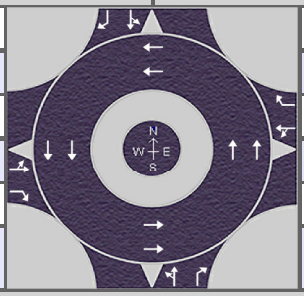
Delay and Level of Service

Approach	EB			WB			NB			SB		
Lane	Left	Right	Bypass	Left	Right	Bypass	Left	Right	Bypass	Left	Right	Bypass
Lane Control Delay (d), s/veh		6.2			5.1			6.4			6.8	
Lane LOS		A			A			A			A	
95% Queue, veh		0.8			0.2			1.7			1.8	
Approach Delay, s/veh	6.2			5.1			6.4			6.8		
Approach LOS	A			A			A			A		
Intersection Delay, s/veh | LOS	6.4						A					

HCS7 Roundabouts Report

General Information

Analyst	Judith Becker, P.E
Agency or Co.	Terry O Brown, P.E
Date Performed	12/10/2020
Analysis Year	2021
Time Analyzed	AM BUILD
Project Description	Holly-Ventura Apts.



Site Information

Intersection	W. Holly Ave./Ventura St.
E/W Street Name	W. Holly Ave.
N/S Street Name	Ventura St.
Analysis Time Period (hrs)	0.25
Peak Hour Factor	1.00
Jurisdiction	City of Albuquerque

Volume Adjustments and Site Characteristics

Approach	EB				WB				NB				SB			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Number of Lanes (N)	0	0	1	1	0	0	1	1	0	0	1	1	0	0	1	1
Lane Assignment	LT		R		LT		R		LT		R		LT		R	
Volume (V), veh/h	0	52	10	115	0	5	5	48	0	99	316	45	0	5	398	53
Percent Heavy Vehicles, %	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3
Flow Rate (v_{PCE}), pc/h	0	54	10	118	0	5	5	49	0	102	325	46	0	5	410	55
Right-Turn Bypass	None				None				None				None			
Conflicting Lanes	2				2				2				2			
Pedestrians Crossing, p/h	0				0				0				0			

Critical and Follow-Up Headway Adjustment

Approach	EB			WB			NB			SB		
Lane	Left	Right	Bypass	Left	Right	Bypass	Left	Right	Bypass	Left	Right	Bypass
Critical Headway (s)	4.6453	4.3276		4.6453	4.3276		4.6453	4.3276		4.6453	4.3276	
Follow-Up Headway (s)	2.6667	2.5352		2.6667	2.5352		2.6667	2.5352		2.6667	2.5352	

Flow Computations, Capacity and v/c Ratios

Approach	EB			WB			NB			SB		
Lane	Left	Right	Bypass	Left	Right	Bypass	Left	Right	Bypass	Left	Right	Bypass
Entry Flow (v_e), pc/h	64	118		10	49		427	46		415	55	
Entry Volume, veh/h	62	115		10	48		415	45		403	53	
Circulating Flow (v_c), pc/h	420			481			69			112		
Exiting Flow (v_{ex}), pc/h	61			162			428			533		
Capacity (c_{pce}), pc/h	917	994		867	943		1267	1339		1218	1291	
Capacity (c), veh/h	891	965		842	916		1230	1300		1182	1253	
v/c Ratio (x)	0.07	0.12		0.01	0.05		0.34	0.03		0.34	0.04	

Delay and Level of Service

Approach	EB			WB			NB			SB		
Lane	Left	Right	Bypass	Left	Right	Bypass	Left	Right	Bypass	Left	Right	Bypass
Lane Control Delay (d), s/veh	4.7	4.8		4.4	4.4		6.1	3.0		6.3	3.2	
Lane LOS	A	A		A	A		A	A		A	A	
95% Queue, veh	0.2	0.4		0.0	0.2		1.5	0.1		1.5	0.1	
Approach Delay, s/veh	4.8			4.4			5.8			6.0		
Approach LOS	A			A			A			A		
Intersection Delay, s/veh | LOS	5.6						A					

HCS7 Roundabouts Report

General Information

Analyst	Judith Becker, P.E
Agency or Co.	Terry O Brown, P.E
Date Performed	12/10/2020
Analysis Year	2021
Time Analyzed	PM BUILD Single Lane
Project Description	Holly-Ventura Apts.

Site Information

Intersection	W. Holly Ave./Ventura St.
E/W Street Name	W. Holly Ave.
N/S Street Name	Ventura St.
Analysis Time Period (hrs)	0.25
Peak Hour Factor	1.00
Jurisdiction	City of Albuquerque

Volume Adjustments and Site Characteristics

Approach	EB				WB				NB				SB			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Number of Lanes (N)	0	0	1	0	0	0	1	0	0	0	1	0	0	0	1	0
Lane Assignment			LTR				LTR				LTR				LTR	
Volume (V), veh/h	0	57	5	116	0	5	5	81	0	200	374	106	0	5	363	37
Percent Heavy Vehicles, %	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3
Flow Rate (v_{PCE}), pc/h	0	59	5	119	0	5	5	83	0	206	385	109	0	5	374	38
Right-Turn Bypass	None				None				None				None			
Conflicting Lanes	1				1				1				1			
Pedestrians Crossing, p/h	0				0				0				0			

Critical and Follow-Up Headway Adjustment

Approach	EB			WB			NB			SB		
Lane	Left	Right	Bypass	Left	Right	Bypass	Left	Right	Bypass	Left	Right	Bypass
Critical Headway (s)		4.9763			4.9763			4.9763			4.9763	
Follow-Up Headway (s)		2.6087			2.6087			2.6087			2.6087	

Flow Computations, Capacity and v/c Ratios

Approach	EB			WB			NB			SB		
Lane	Left	Right	Bypass	Left	Right	Bypass	Left	Right	Bypass	Left	Right	Bypass
Entry Flow (v_e), pc/h		183			93			700			417	
Entry Volume, veh/h		178			90			680			405	
Circulating Flow (v_c), pc/h	384			650			69			216		
Exiting Flow (v_{ex}), pc/h	119			249			527			498		
Capacity (c_{pce}), pc/h		933			711			1286			1107	
Capacity (c), veh/h		906			690			1249			1075	
v/c Ratio (x)		0.20			0.13			0.54			0.38	

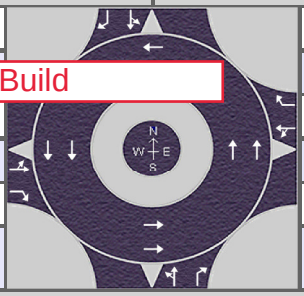
Delay and Level of Service

Approach	EB			WB			NB			SB		
Lane	Left	Right	Bypass	Left	Right	Bypass	Left	Right	Bypass	Left	Right	Bypass
Lane Control Delay (d), s/veh		5.9			6.7			9.0			7.2	
Lane LOS		A			A			A			A	
95% Queue, veh		0.7			0.4			3.4			1.8	
Approach Delay, s/veh	5.9			6.7			9.0			7.2		
Approach LOS	A			A			A			A		
Intersection Delay, s/veh | LOS	7.9						A					

HCS7 Roundabouts Report

General Information

Analyst	Judith Becker, P.E
Agency or Co.	Terry O Brown, P.E
Date Performed	12/10/2020
Analysis Year	2021
Time Analyzed	AM BUILD
Project Description	Holly-Ventura Apts.



Site Information

Intersection	W. Holly Ave./Ventura St.
E/W Street Name	W. Holly Ave.
N/S Street Name	Ventura St.
Analysis Time Period (hrs)	0.25
Peak Hour Factor	1.00
Jurisdiction	City of Albuquerque

Volume Adjustments and Site Characteristics

Approach	EB				WB				NB				SB			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Number of Lanes (N)	0	0	1	1	0	0	1	1	0	0	1	1	0	0	1	1
Lane Assignment	LT		R		LT		R		LT		R		LT		R	
Volume (V), veh/h	0	57	5	116	0	5	5	81	0	200	374	106	0	5	363	37
Percent Heavy Vehicles, %	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3
Flow Rate (v_{PCE}), pc/h	0	59	5	119	0	5	5	83	0	206	385	109	0	5	374	38
Right-Turn Bypass	None				None				None				None			
Conflicting Lanes	2				2				2				2			
Pedestrians Crossing, p/h	0				0				0				0			

Critical and Follow-Up Headway Adjustment

Approach	EB			WB			NB			SB		
Lane	Left	Right	Bypass	Left	Right	Bypass	Left	Right	Bypass	Left	Right	Bypass
Critical Headway (s)	4.6453	4.3276		4.6453	4.3276		4.6453	4.3276		4.6453	4.3276	
Follow-Up Headway (s)	2.6667	2.5352		2.6667	2.5352		2.6667	2.5352		2.6667	2.5352	

Flow Computations, Capacity and v/c Ratios

Approach	EB			WB			NB			SB		
Lane	Left	Right	Bypass	Left	Right	Bypass	Left	Right	Bypass	Left	Right	Bypass
Entry Flow (v_e), pc/h	64	119		10	83		591	109		379	38	
Entry Volume, veh/h	62	116		10	81		574	106		368	37	
Circulating Flow (v_c), pc/h	384			650			69			216		
Exiting Flow (v_{ex}), pc/h	119			249			527			498		
Capacity (c_{pce}), pc/h	948	1025		742	817		1267	1339		1107	1182	
Capacity (c), veh/h	921	995		721	793		1230	1300		1074	1147	
v/c Ratio (x)	0.07	0.12		0.01	0.10		0.47	0.08		0.34	0.03	

Delay and Level of Service

Approach	EB			WB			NB			SB		
Lane	Left	Right	Bypass	Left	Right	Bypass	Left	Right	Bypass	Left	Right	Bypass
Lane Control Delay (d), s/veh	4.5	4.7		5.1	5.6		7.8	3.4		6.8	3.4	
Lane LOS	A	A		A	A		A	A		A	A	
95% Queue, veh	0.2	0.4		0.0	0.3		2.5	0.3		1.5	0.1	
Approach Delay, s/veh	4.6			5.5			7.1			6.5		
Approach LOS	A			A			A			A		
Intersection Delay, s/veh | LOS	6.5						A					

HCS7 Two-Way Stop-Control Report

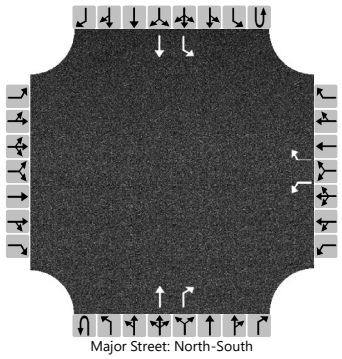
General Information

Analyst	J. Becker, P.E.
Agency/Co.	Terry O. Brown, P.E.
Date Performed	12/9/2020
Analysis Year	2021
Time Analyzed	AM NO BUILD
Intersection Orientation	North-South
Project Description	Holly-Ventura Apts.

Site Information

Intersection	E. Holly Ave./Ventura St.
Jurisdiction	City of Albuquerque
East/West Street	E. Holly Ave.
North/South Street	Ventura St.
Peak Hour Factor	1.00
Analysis Time Period (hrs)	0.25

Lanes


Major Street: North-South

Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority		10	11	12		7	8	9	1U	1	2	3	4U	4	5	6
Number of Lanes		0	0	0		1	0	1	0	0	1	1	0	1	1	0
Configuration						L		R			T	R		L	T	
Volume (veh/h)						52		40			296	48		16	384	
Percent Heavy Vehicles (%)						3		3						3		
Proportion Time Blocked																
Percent Grade (%)						0										
Right Turn Channelized						No					No					
Median Type | Storage		Left Only								1						

Critical and Follow-up Headways

Base Critical Headway (sec)						7.1		6.2						4.1		
Critical Headway (sec)						6.43		6.23						4.13		
Base Follow-Up Headway (sec)						3.5		3.3						2.2		
Follow-Up Headway (sec)						3.53		3.33						2.23		

Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)						52		40						16		
Capacity, c (veh/h)						497		741						1209		
v/c Ratio						0.10		0.05						0.01		
95% Queue Length, Q_{95} (veh)						0.3		0.2						0.0		
Control Delay (s/veh)						13.1		10.1						8.0		
Level of Service (LOS)						B		B						A		
Approach Delay (s/veh)						11.8								0.3		
Approach LOS						B										

HCS7 Two-Way Stop-Control Report

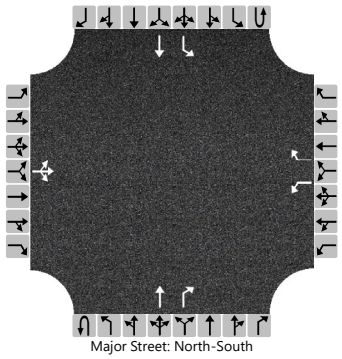
General Information

Analyst	J. Becker, P.E.
Agency/Co.	Terry O. Brown, P.E.
Date Performed	12/9/2020
Analysis Year	2021
Time Analyzed	AM BUILD
Intersection Orientation	North-South
Project Description	Holly-Ventura Apts.

Site Information

Intersection	E. Holly Ave./Ventura St.
Jurisdiction	City of Albuquerque
East/West Street	E. Holly Ave.
North/South Street	Ventura St.
Peak Hour Factor	1.00
Analysis Time Period (hrs)	0.25

Lanes


Major Street: North-South

Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority		10	11	12		7	8	9	1U	1	2	3	4U	4	5	6
Number of Lanes		0	1	0		1	0	1	0	0	1	1	0	1	1	0
Configuration			LTR			L		R			T	R		L	T	
Volume (veh/h)		1	1	10		53		40			296	48		16	385	
Percent Heavy Vehicles (%)		3	3	3		3		3						3		
Proportion Time Blocked																
Percent Grade (%)	0				0											
Right Turn Channelized					No				No							
Median Type | Storage	Left Only								1							

Critical and Follow-up Headways

Base Critical Headway (sec)		7.1	6.5	6.2		7.1		6.2						4.1		
Critical Headway (sec)		7.13	6.53	6.23		7.13		6.23						4.13		
Base Follow-Up Headway (sec)		3.5	4.0	3.3		3.5		3.3						2.2		
Follow-Up Headway (sec)		3.53	4.03	3.33		3.53		3.33						2.23		

Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)			12			53		40						16		
Capacity, c (veh/h)			583			443		741						1209		
v/c Ratio			0.02			0.12		0.05						0.01		
95% Queue Length, Q_{95} (veh)			0.1			0.4		0.2						0.0		
Control Delay (s/veh)			11.3			14.2		10.1						8.0		
Level of Service (LOS)			B			B		B						A		
Approach Delay (s/veh)	11.3				12.5								0.3			
Approach LOS	B				B											

HCS7 Two-Way Stop-Control Report

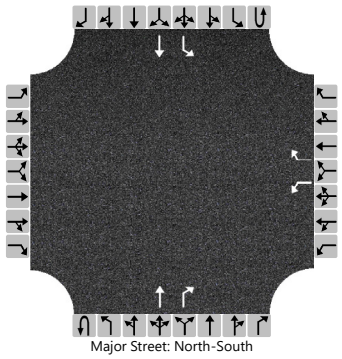
General Information

Analyst	J. Becker, P.E.
Agency/Co.	Terry O. Brown, P.E.
Date Performed	12/9/2020
Analysis Year	2021
Time Analyzed	PM NO BUILD
Intersection Orientation	North-South
Project Description	Holly-Ventura Apts.

Site Information

Intersection	E. Holly Ave./Ventura St.
Jurisdiction	City of Albuquerque
East/West Street	E. Holly Ave.
North/South Street	Ventura St.
Peak Hour Factor	1.00
Analysis Time Period (hrs)	0.25

Lanes


Major Street: North-South

Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority		10	11	12		7	8	9	1U	1	2	3	4U	4	5	6
Number of Lanes		0	0	0		1	0	1	0	0	1	1	0	1	1	0
Configuration						L		R			T	R		L	T	
Volume (veh/h)						60		28			340	92		52	300	
Percent Heavy Vehicles (%)						3		3						3		
Proportion Time Blocked																
Percent Grade (%)						0										
Right Turn Channelized						No					No					
Median Type | Storage		Left Only								1						

Critical and Follow-up Headways

Base Critical Headway (sec)						7.1		6.2						4.1		
Critical Headway (sec)						6.43		6.23						4.13		
Base Follow-Up Headway (sec)						3.5		3.3						2.2		
Follow-Up Headway (sec)						3.53		3.33						2.23		

Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)						60		28						52		
Capacity, c (veh/h)						474		700						1122		
v/c Ratio						0.13		0.04						0.05		
95% Queue Length, Q_{95} (veh)						0.4		0.1						0.1		
Control Delay (s/veh)						13.7		10.4						8.4		
Level of Service (LOS)						B		B						A		
Approach Delay (s/veh)						12.6								1.2		
Approach LOS						B										

HCS7 Two-Way Stop-Control Report

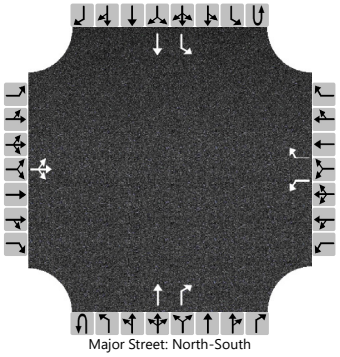
General Information

Analyst	J. Becker, P.E.
Agency/Co.	Terry O. Brown, P.E.
Date Performed	12/9/2020
Analysis Year	2021
Time Analyzed	PM BUILD
Intersection Orientation	North-South
Project Description	Holly-Ventura Apts.

Site Information

Intersection	E. Holly Ave./Ventura St.
Jurisdiction	City of Albuquerque
East/West Street	E. Holly Ave.
North/South Street	Ventura St.
Peak Hour Factor	1.00
Analysis Time Period (hrs)	0.25

Lanes


Major Street: North-South

Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority		10	11	12		7	8	9	1U	1	2	3	4U	4	5	6
Number of Lanes		0	1	0		1	0	1	0	0	1	1	0	1	1	0
Configuration			LTR			L		R			T	R		L	T	
Volume (veh/h)		1	1	7		61		28			340	92		52	301	
Percent Heavy Vehicles (%)		3	3	3		3		3						3		
Proportion Time Blocked																
Percent Grade (%)		0				0										
Right Turn Channelized						No				No						
Median Type | Storage		Left Only								1						

Critical and Follow-up Headways

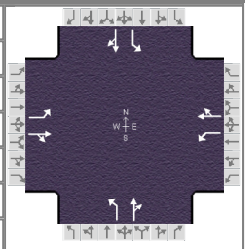
Base Critical Headway (sec)		7.1	6.5	6.2		7.1		6.2						4.1		
Critical Headway (sec)		7.13	6.53	6.23		7.13		6.23						4.13		
Base Follow-Up Headway (sec)		3.5	4.0	3.3		3.5		3.3						2.2		
Follow-Up Headway (sec)		3.53	4.03	3.33		3.53		3.33						2.23		

Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)			9			61		28						52		
Capacity, c (veh/h)			578			425		700						1122		
v/c Ratio			0.02			0.14		0.04						0.05		
95% Queue Length, Q_{95} (veh)			0.0			0.5		0.1						0.1		
Control Delay (s/veh)			11.3			14.9		10.4						8.4		
Level of Service (LOS)			B			B		B						A		
Approach Delay (s/veh)		11.3				13.5								1.2		
Approach LOS		B				B										

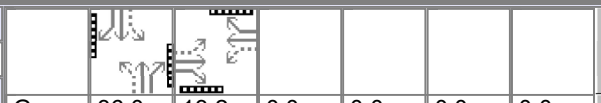
HCS7 Signalized Intersection Results Summary

General Information				Intersection Information	
Agency	Terry O. Brown, P.E.			Duration, h	0.250
Analyst	J. Becker, P.E.	Analysis Date	12/9/2020	Area Type	Other
Jurisdiction	City of Albuquerque	Time Period	AM NO BUILD	PHF	1.00
Urban Street	Barstow	Analysis Year	2021	Analysis Period	1> 7:00
Intersection	W. Holly Ave. & Barstow…	File Name	4 BARSTOW 21ANX_S.xus		
Project Description	AM NO BUILD				

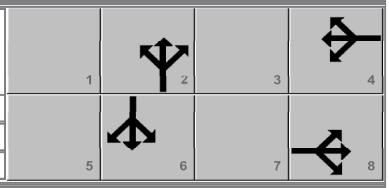


Demand Information	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand (*v*), veh/h	150	40	103	36	44	84	62	406	23	41	442	53

Signal Information			
Cycle, s	58.7	Reference Phase	2
Offset, s	0	Reference Point	End
Uncoordinated	Yes	Simult. Gap E/W	On
Force Mode	Fixed	Simult. Gap N/S	On



Green	36.0	13.2	0.0	0.0	0.0	0.0						
Yellow	3.5	3.5	0.0	0.0	0.0	0.0						
Red	1.5	1.0	0.0	0.0	0.0	0.0						



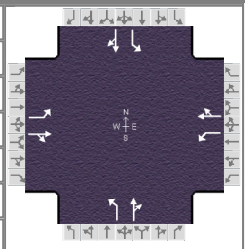
Timer Results	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Assigned Phase		8		4		2		6
Case Number		6.0		6.0		6.0		6.0
Phase Duration, s		17.7		17.7		41.0		41.0
Change Period, (*Y+R c*), s		4.5		4.5		5.0		5.0
Max Allow Headway (*MAH*), s		3.4		3.4		3.2		3.2
Queue Clearance Time (*g s*), s		12.4		7.7		12.7		10.4
Green Extension Time (*g e*), s		0.8		0.9		2.2		2.2
Phase Call Probability		0.99		0.93		1.00		1.00
Max Out Probability		0.01		0.00		0.00		0.00

Movement Group Results	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Assigned Movement	3	8	18	7	4	14	5	2	12	1	6	16
Adjusted Flow Rate (*v*), veh/h	150	143		36	128		62	429		41	495	
Adjusted Saturation Flow Rate (*s*), veh/h/ln	1262	1656		1245	1673		902	1852		959	1835	
Queue Service Time (*g s*), s	6.6	4.3		1.5	3.8		2.3	6.8		1.3	8.4	
Cycle Queue Clearance Time (*g c*), s	10.4	4.3		5.7	3.8		10.7	6.8		8.2	8.4	
Green Ratio (*g/C*)	0.22	0.22		0.22	0.22		0.61	0.61		0.61	0.61	
Capacity (*c*), veh/h	327	373		313	377		546	1136		598	1125	
Volume-to-Capacity Ratio (*X*)	0.459	0.383		0.115	0.340		0.114	0.378		0.069	0.440	
Back of Queue (*Q*), ft/ln (95 th percentile)	85.6	70.9		18.8	62.7		19.8	95.6		11.7	117.2	
Back of Queue (*Q*), veh/ln (95 th percentile)	3.4	2.8		0.7	2.5		0.8	3.8		0.5	4.6	
Queue Storage Ratio (*RQ*) (95 th percentile)	1.71	0.00		0.13	0.00		0.16	0.00		0.12	0.00	
Uniform Delay (*d 1*), s/veh	23.4	19.3		21.7	19.1		8.9	5.7		7.8	6.0	
Incremental Delay (*d 2*), s/veh	0.4	0.2		0.1	0.2		0.4	1.0		0.2	1.3	
Initial Queue Delay (*d 3*), s/veh	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Control Delay (*d*), s/veh	23.8	19.5		21.8	19.3		9.3	6.7		8.0	7.3	
Level of Service (LOS)	C	B		C	B		A	A		A	A	
Approach Delay, s/veh / LOS	21.7	C		19.8	B		7.0	A		7.3	A	
Intersection Delay, s/veh / LOS	11.4						B					

Multimodal Results	EB		WB		NB		SB	
Pedestrian LOS Score / LOS	1.91	B	1.91	B	1.86	B	1.86	B
Bicycle LOS Score / LOS	0.97	A	0.76	A	1.30	A	1.37	A

HCS7 Signalized Intersection Results Summary

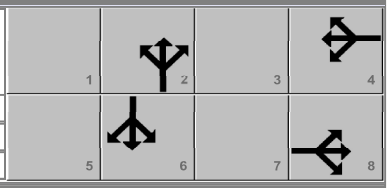
General Information				Intersection Information	
Agency	Terry O. Brown, P.E.			Duration, h	0.250
Analyst	J. Becker, P.E.	Analysis Date	12/9/2020	Area Type	Other
Jurisdiction	City of Albuquerque	Time Period	AM NO BUILD	PHF	1.00
Urban Street	Barstow	Analysis Year	2021	Analysis Period	1> 7:00
Intersection	W. Holly Ave. & Barstow…	File Name	4 BARSTOW 21ABX_S.xus		
Project Description	AM BUILD				



Demand Information	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand (*v*), veh/h	150	44	103	39	46	86	62	406	25	42	442	53

Signal Information			
Cycle, s	58.9	Reference Phase	2
Offset, s	0	Reference Point	End
Uncoordinated	Yes	Simult. Gap E/W	On
Force Mode	Fixed	Simult. Gap N/S	On

Green	36.0	13.4	0.0	0.0	0.0	0.0	
Yellow	3.5	3.5	0.0	0.0	0.0	0.0	
Red	1.5	1.0	0.0	0.0	0.0	0.0	



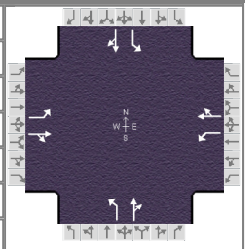
Timer Results	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Assigned Phase		8		4		2		6
Case Number		6.0		6.0		6.0		6.0
Phase Duration, s		17.9		17.9		41.0		41.0
Change Period, (*Y+R c*), s		4.5		4.5		5.0		5.0
Max Allow Headway (*MAH*), s		3.4		3.4		3.2		3.2
Queue Clearance Time (*g s*), s		12.5		8.0		12.8		10.5
Green Extension Time (*g e*), s		0.9		1.0		2.2		2.2
Phase Call Probability		0.99		0.94		1.00		1.00
Max Out Probability		0.01		0.00		0.00		0.00

Movement Group Results	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Assigned Movement	3	8	18	7	4	14	5	2	12	1	6	16
Adjusted Flow Rate (*v*), veh/h	150	147		39	132		62	431		42	495	
Adjusted Saturation Flow Rate (*s*), veh/h/ln	1258	1661		1241	1674		902	1851		957	1835	
Queue Service Time (*g s*), s	6.7	4.4		1.6	3.9		2.3	7.0		1.4	8.5	
Cycle Queue Clearance Time (*g c*), s	10.5	4.4		6.0	3.9		10.8	7.0		8.4	8.5	
Green Ratio (*g/C*)	0.23	0.23		0.23	0.23		0.61	0.61		0.61	0.61	
Capacity (*c*), veh/h	326	378		313	381		543	1131		594	1121	
Volume-to-Capacity Ratio (*X*)	0.459	0.389		0.125	0.346		0.114	0.381		0.071	0.441	
Back of Queue (*Q*), ft/ln (95 th percentile)	85.8	73		20.4	64.8		20	97.8		12.2	119.2	
Back of Queue (*Q*), veh/ln (95 th percentile)	3.4	2.9		0.8	2.6		0.8	3.8		0.5	4.7	
Queue Storage Ratio (*RQ*) (95 th percentile)	1.72	0.00		0.15	0.00		0.16	0.00		0.13	0.00	
Uniform Delay (*d 1*), s/veh	23.5	19.3		21.8	19.1		9.0	5.8		7.9	6.1	
Incremental Delay (*d 2*), s/veh	0.4	0.2		0.1	0.2		0.4	1.0		0.2	1.3	
Initial Queue Delay (*d 3*), s/veh	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Control Delay (*d*), s/veh	23.8	19.5		21.9	19.3		9.4	6.8		8.2	7.4	
Level of Service (LOS)	C	B		C	B		A	A		A	A	
Approach Delay, s/veh / LOS	21.7	C		19.9	B		7.1	A		7.4	A	
Intersection Delay, s/veh / LOS	11.6						B					

Multimodal Results	EB		WB		NB		SB	
Pedestrian LOS Score / LOS	1.91	B	1.91	B	1.86	B	1.86	B
Bicycle LOS Score / LOS	0.98	A	0.77	A	1.30	A	1.37	A

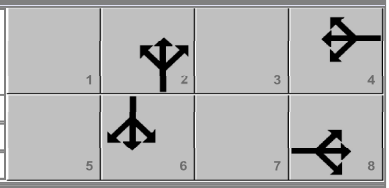
HCS7 Signalized Intersection Results Summary

General Information				Intersection Information	
Agency	Terry O. Brown, P.E.			Duration, h	0.250
Analyst	J. Becker, P.E.	Analysis Date	12/9/2020	Area Type	Other
Jurisdiction	City of Albuquerque	Time Period	AM NO BUILD	PHF	1.00
Urban Street	Barstow	Analysis Year	2021	Analysis Period	1> 7:00
Intersection	W. Holly Ave. & Barstow…	File Name	4 BARSTOW 21PNX_S.xus		
Project Description	PM NO BUILD				



Demand Information	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand (*v*), veh/h	75	174	198	72	0	85	101	221	97	66	323	56

Signal Information					EB		WB		NB		SB	
Cycle, s	64.2	Reference Phase	2									
Offset, s	0	Reference Point	End	Green	36.0	18.7	0.0	0.0	0.0	0.0		
Uncoordinated	Yes	Simult. Gap E/W	On	Yellow	3.5	3.5	0.0	0.0	0.0	0.0		
Force Mode	Fixed	Simult. Gap N/S	On	Red	1.5	1.0	0.0	0.0	0.0	0.0		



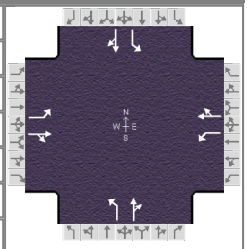
Timer Results	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Assigned Phase		8		4		2		6
Case Number		6.0		6.0		6.0		6.0
Phase Duration, s		23.2		23.2		41.0		41.0
Change Period, ($Y+R_c$), s		4.5		4.5		5.0		5.0
Max Allow Headway (*MAH*), s		3.3		3.3		3.3		3.3
Queue Clearance Time (g_s), s		14.7		19.1		13.4		10.5
Green Extension Time (g_e), s		1.1		0.8		1.9		1.9
Phase Call Probability		1.00		0.94		1.00		1.00
Max Out Probability		0.06		0.48		0.00		0.00

Movement Group Results	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Assigned Movement	3	8	18	7	4	14	5	2	12	1	6	16
Adjusted Flow Rate (*v*), veh/h	75	372		72	85		101	318		66	379	
Adjusted Saturation Flow Rate (*s*), veh/h/ln	1313	1707		1010	1585		1004	1773		1062	1822	
Queue Service Time (g_s), s	2.9	12.7		4.5	2.6		4.0	6.2		2.3	7.4	
Cycle Queue Clearance Time (g_c), s	5.5	12.7		17.1	2.6		11.4	6.2		8.5	7.4	
Green Ratio (*g/C*)	0.29	0.29		0.29	0.29		0.56	0.56		0.56	0.56	
Capacity (*c*), veh/h	442	497		207	462		559	994		605	1021	
Volume-to-Capacity Ratio (*X*)	0.170	0.748		0.347	0.184		0.181	0.320		0.109	0.371	
Back of Queue (*Q*), ft/ln (95 th percentile)	37.6	215.4		47.2	39.5		39.9	94.7		23.5	116.9	
Back of Queue (*Q*), veh/ln (95 th percentile)	1.5	8.5		1.9	1.6		1.6	3.7		0.9	4.6	
Queue Storage Ratio (*RQ*) (95 th percentile)	0.75	0.00		0.34	0.00		0.32	0.00		0.25	0.00	
Uniform Delay (d_1), s/veh	19.1	20.6		28.4	17.0		11.0	7.6		9.8	7.8	
Incremental Delay (d_2), s/veh	0.1	2.4		0.4	0.1		0.7	0.8		0.4	1.0	
Initial Queue Delay (d_3), s/veh	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Control Delay (*d*), s/veh	19.1	23.1		28.7	17.1		11.7	8.4		10.2	8.9	
Level of Service (LOS)	B	C		C	B		B	A		B	A	
Approach Delay, s/veh / LOS	22.4	C		22.4	C		9.2	A		9.1	A	
Intersection Delay, s/veh / LOS	14.6						B					

Multimodal Results	EB		WB		NB		SB	
Pedestrian LOS Score / LOS	1.91	B	1.91	B	1.87	B	1.87	B
Bicycle LOS Score / LOS	1.23	A	0.75	A	1.18	A	1.22	A

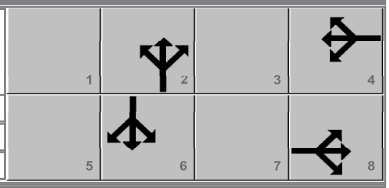
HCS7 Signalized Intersection Results Summary

General Information				Intersection Information	
Agency	Terry O. Brown, P.E.			Duration, h	0.250
Analyst	J. Becker, P.E.	Analysis Date	12/9/2020	Area Type	Other
Jurisdiction	City of Albuquerque	Time Period	AM NO BUILD	PHF	1.00
Urban Street	Barstow	Analysis Year	2021	Analysis Period	1> 4:00
Intersection	W. Holly Ave. & Barstow…	File Name	4 BARSTOW 21PBX_S.xus		
Project Description	PM BUILD				



Demand Information	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand (*v*), veh/h	76	177	205	74	2	87	101	221	101	68	323	56

Signal Information												
Cycle, s	65.0	Reference Phase	2									
Offset, s	0	Reference Point	End									
Uncoordinated	Yes	Simult. Gap E/W	On									
Force Mode	Fixed	Simult. Gap N/S	On									
				Green	36.0	19.5	0.0	0.0	0.0	0.0		
				Yellow	3.5	3.5	0.0	0.0	0.0	0.0		
				Red	1.5	1.0	0.0	0.0	0.0	0.0		



Timer Results	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Assigned Phase		8		4		2		6
Case Number		6.0		6.0		6.0		6.0
Phase Duration, s		24.0		24.0		41.0		41.0
Change Period, ($Y+R_c$), s		4.5		4.5		5.0		5.0
Max Allow Headway (*MAH*), s		3.4		3.4		3.3		3.3
Queue Clearance Time (g_s), s		15.1		19.8		13.7		10.9
Green Extension Time (g_e), s		1.1		0.7		1.9		1.9
Phase Call Probability		1.00		0.95		1.00		1.00
Max Out Probability		0.09		0.70		0.00		0.00

Movement Group Results	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Assigned Movement	3	8	18	7	4	14	5	2	12	1	6	16
Adjusted Flow Rate (*v*), veh/h	76	382		74	89		101	322		68	379	
Adjusted Saturation Flow Rate (*s*), veh/h/ln	1308	1706		1001	1591		1004	1770		1058	1822	
Queue Service Time (g_s), s	3.0	13.1		4.7	2.7		4.1	6.4		2.4	7.6	
Cycle Queue Clearance Time (g_c), s	5.6	13.1		17.8	2.7		11.7	6.4		8.9	7.6	
Green Ratio (*g/C*)	0.30	0.30		0.30	0.30		0.55	0.55		0.55	0.55	
Capacity (*c*), veh/h	449	511		209	477		549	981		592	1009	
Volume-to-Capacity Ratio (*X*)	0.169	0.747		0.354	0.187		0.184	0.328		0.115	0.375	
Back of Queue (*Q*), ft/ln (95 th percentile)	39.1	226.9		50	42.4		41.4	99.9		25.3	121.5	
Back of Queue (*Q*), veh/ln (95 th percentile)	1.5	8.9		2.0	1.7		1.6	3.9		1.0	4.8	
Queue Storage Ratio (*RQ*) (95 th percentile)	0.78	0.00		0.36	0.00		0.33	0.00		0.27	0.00	
Uniform Delay (d_1), s/veh	19.0	20.5		28.5	16.9		11.5	7.9		10.3	8.2	
Incremental Delay (d_2), s/veh	0.1	2.8		0.4	0.1		0.7	0.9		0.4	1.1	
Initial Queue Delay (d_3), s/veh	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Control Delay (*d*), s/veh	19.0	23.3		28.9	16.9		12.2	8.8		10.7	9.2	
Level of Service (LOS)	B	C		C	B		B	A		B	A	
Approach Delay, s/veh / LOS	22.6	C		22.4	C		9.6	A		9.5	A	
Intersection Delay, s/veh / LOS	15.0						B					

Multimodal Results	EB		WB		NB		SB	
Pedestrian LOS Score / LOS	1.91	B	1.91	B	1.87	B	1.87	B
Bicycle LOS Score / LOS	1.24	A	0.76	A	1.19	A	1.23	A

HCS7 Two-Way Stop-Control Report

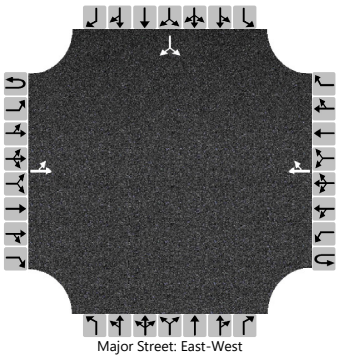
General Information

Analyst	J. Becker, P.E.
Agency/Co.	Terry O. Brown, P.E.
Date Performed	12/9/2020
Analysis Year	2021
Time Analyzed	AM NO BUILD
Intersection Orientation	East-West
Project Description	Holly-Ventura Apts.

Site Information

Intersection	E. Holly Ave./Ventura St.
Jurisdiction	City of Albuquerque
East/West Street	E. Holly Ave.
North/South Street	Ventura St.
Peak Hour Factor	1.00
Analysis Time Period (hrs)	0.25

Lanes



Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority	1U	1	2	3	4U	4	5	6		7	8	9		10	11	12
Number of Lanes	0	0	1	0	0	0	1	0		0	0	0		0	1	0
Configuration		LT						TR							LR	
Volume (veh/h)		3	164				152	8						12		7
Percent Heavy Vehicles (%)		3												3		3
Proportion Time Blocked																
Percent Grade (%)														0		
Right Turn Channelized																
Median Type | Storage	Undivided															

Critical and Follow-up Headways

Base Critical Headway (sec)		4.1												7.1		6.2
Critical Headway (sec)		4.13												6.43		6.23
Base Follow-Up Headway (sec)		2.2												3.5		3.3
Follow-Up Headway (sec)		2.23												3.53		3.33

Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)		3													19	
Capacity, c (veh/h)		1413													732	
v/c Ratio		0.00													0.03	
95% Queue Length, Q_{95} (veh)		0.0													0.1	
Control Delay (s/veh)		7.6													10.0	
Level of Service (LOS)		A													B	
Approach Delay (s/veh)	0.2												10.0			
Approach LOS													B			

HCS7 Two-Way Stop-Control Report

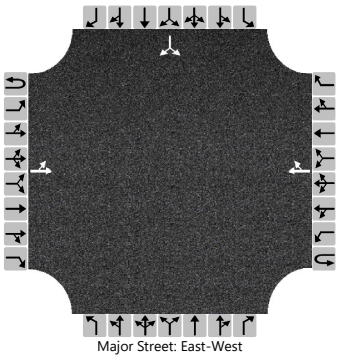
General Information

Analyst	J. Becker, P.E.
Agency/Co.	Terry O. Brown, P.E.
Date Performed	12/9/2020
Analysis Year	2021
Time Analyzed	PM BUILD
Intersection Orientation	East-West
Project Description	Holly-Ventura Apts.

Site Information

Intersection	E. Holly Ave./Ventura St.
Jurisdiction	City of Albuquerque
East/West Street	E. Holly Ave.
North/South Street	Ventura St.
Peak Hour Factor	1.00
Analysis Time Period (hrs)	0.25

Lanes



Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority	1U	1	2	3	4U	4	5	6		7	8	9		10	11	12
Number of Lanes	0	0	1	0	0	0	1	0		0	0	0		0	1	0
Configuration		LT						TR							LR	
Volume (veh/h)		7	172				220	24						8		5
Percent Heavy Vehicles (%)		3												3		3
Proportion Time Blocked																
Percent Grade (%)														0		
Right Turn Channelized																
Median Type | Storage	Undivided															

Critical and Follow-up Headways

Base Critical Headway (sec)		4.1												7.1		6.2
Critical Headway (sec)		4.13												6.43		6.23
Base Follow-Up Headway (sec)		2.2												3.5		3.3
Follow-Up Headway (sec)		2.23												3.53		3.33

Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)		7													13	
Capacity, c (veh/h)		1316													654	
v/c Ratio		0.01													0.02	
95% Queue Length, Q_{95} (veh)		0.0													0.1	
Control Delay (s/veh)		7.7													10.6	
Level of Service (LOS)		A													B	
Approach Delay (s/veh)	0.3												10.6			
Approach LOS													B			

ASC3 COORDINATION PLAN DATA

12/16/2020 4:04 PM

Paseo Del Norte & Ventura

COORDINATOR OPTIONS (MM 3-1)

MANUAL PATTERN	AUTO	ECPI COORD	YES
SYSTEM SOURCE	TBC	SYSTEM FORMAT	PTN
SPLITS IN	PERCENT	OFFSET IN	PERCENT
TRANSITION	SMOOTH	MAX SELECT	MAXINH
DWELL/ADD TIME	0	ENABLE MAN SYNC	NO
DLY COORD WK-LZ	NO	FORCE OFF	FIXED
OFFSET REF	LEAD	CAL USE PED TM	NO
PED RECALL	NO	PED RESERVE	YES
LOCAL ZERO OVRD	NO	FO ADD INI GRN	NO
RE-SYNC COUNT	0	MULTISYNC	NO

COORDINATION PATTERN 21 (MM 3-2)

USE SPLIT PATTERN	21	SPLIT SUM	100%
TS2 (PAT-OFF)	6,3		
CYCLE	140s	STD (COS)	111
OFFSET VAL	1%		
ACTUATED COORD	YES	TIMING PLAN	0
ACT WALK REST	NO	SEQUENCE	5
PHASE RESRVCE	NO	ACTION PLAN	0

PHASE	1	2	3	4	5	6	7	8
DIRECTION	W-S	EB	S-E	NB	E-N	WB	N-W	SB
SPLITS	13	34	18	35	12	35	18	35

PHASE	1	2	3	4	5	6	7	8
COORD PHASE		X				X		
VEH RECALL								
MAX RECALL		X				X		

COORDINATION PATTERN 23

USE SPLIT PATTERN	23	SPLIT SUM	100%
TS2 (PAT-OFF)	7,2		
CYCLE	120s	STD (COS)	131
OFFSET VAL	1%		
ACTUATED COORD	YES	TIMING PLAN	0
ACT WALK REST	NO	SEQUENCE	5
PHASE RESRVCE	NO	ACTION PLAN	0

PHASE	1	2	3	4	5	6	7	8
DIRECTION	W-S	EB	S-E	NB	E-N	WB	N-W	SB
SPLITS	12	35	12	41	16	31	12	41

PHASE	1	2	3	4	5	6	7	8
COORD PHASE		X				X		
VEH RECALL								
MAX RECALL		X				X		

ASC3 COORDINATION PLAN DATA

COORDINATION PATTERN 25

USE SPLIT PATTERN	25	SPLIT SUM	100%
TS2 (PAT-OFF)	8,1		
CYCLE	140s	STD (COS)	251
OFFSET VAL	21%		
ACTUATED COORD	YES	TIMING PLAN	0
ACT WALK REST	NO	SEQUENCE	5
PHASE RESRVCE	NO	ACTION PLAN	0

PHASE	1	2	3	4	5	6	7	8
DIRECTION	W-S	EB	S-E	NB	E-N	WB	N-W	SB
SPLITS	14	35	12	39	19	30	17	34

PHASE	1	2	3	4	5	6	7	8
COORD PHASE		X				X		
VEH RECALL								
MAX RECALL		X				X		

CLOCK / CALENDAR DATA (MM 5-1)

CURRENT DATE	CURRENT DOW		CURRENT TOD
ENA ACTION PLAN	0		
SYNC REF TIME	00:00	SYNC REF	REF TIME
TIME FROM GMT	+00	DAY LIGHT SAVE	NO
TIME RESET INPUT SET TIME		3:30:00	

ACTION PLAN 21 (MM 5-2)

PATTERN	21	SYS OVERRIDE	NO
TIMING PLAN	0	SEQUENCE	0
VEHICLE DETECTOR PLAN	0.00	DET LOG	NONE
FLASH	--	RED REST	NO
VEH DET DIAG PLN	0	PED DET DIAG PLN	0
DIMMING ENABLE	NO		

ACTION PLAN 23

PATTERN	23	SYS OVERRIDE	NO
TIMING PLAN	0	SEQUENCE	0
VEHICLE DETECTOR PLAN	0.00	DET LOG	NONE
FLASH	--	RED REST	NO
VEH DET DIAG PLN	0	PED DET DIAG PLN	0
DIMMING ENABLE	NO		

ACTION PLAN 25

PATTERN	25	SYS OVERRIDE	NO
TIMING PLAN	0	SEQUENCE	0
VEHICLE DETECTOR PLAN	0.00	DET LOG	NONE
FLASH	--	RED REST	NO
VEH DET DIAG PLN	0	PED DET DIAG PLN	0
DIMMING ENABLE	NO		

ASC3 COORDINATION PLAN DATA

ACTION PLAN 100

PATTERN	254	SYS OVERRIDE	NO
TIMING PLAN	0	SEQUENCE	0
VEHICLE DETECTOR PLAN	0.00	DET LOG	NONE
FLASH	--	RED REST	NO
VEH DET DIAG PLN	0	PED DET DIAG PLN	0
DIMMING ENABLE	NO		

DAY PLAN/EVENT 1 (MM 5-3)

EVENT	ACTION PLAN	START TIME
1	21	7:00
2	100	22:00
3	0	00:00

DAY PLAN/EVENT 2

EVENT	ACTION PLAN	START TIME
1	21	6:00
2	23	9:00
3	25	15:00
4	23	18:30
5	100	22:00
6	0	00:00
7	0	00:00

DAY PLAN/EVENT 3

EVENT	ACTION PLAN	START TIME
1	3	7:00
2	100	22:00
3	0	00:00

SCHEDULE NUMBER 1 (MM 5-4)

SCHEDULE NUMBER	1											
DAY PLAN NO	1	CLEAR ALL FIELDS										
SELECT ALL MONTHS						DOW		DOM				
MONTH	J	F	M	A	M	J	J	A	S	O	N	D
	X	X	X	X	X	X	X	X	X	X	X	X
DAY(DOW)	SUN	MON	TUE	WED	THU	FRI	SAT					
	X	.	.	.	.	.	.					
DAY(DOM)	1	2	3	4	5	6	7	8	9	10	11	
	X	X	X	X	X	X	X	X	X	X	X	
	12	13	14	15	16	17	18	19	20	21	22	
	X	X	X	X	X	X	X	X	X	X	X	
	23	24	25	26	27	28	29	30	31			
	X	X	X	X	X	X	X	X	X			

SCHEDULE NUMBER 2

SCHEDULE NUMBER	2											
DAY PLAN NO	2	CLEAR ALL FIELDS										
SELECT ALL MONTHS						DOW		DOM				
MONTH	J	F	M	A	M	J	J	A	S	O	N	D

ASC3 COORDINATION PLAN DATA

12/16/2020 4:04 PM

	X	X	X	X	X	X	X	X	X	X	X	X
DAY(DOW)	SUN	MON	TUE	WED	THU	FRI	SAT					
	.	X	X	X	X	X	.					
DAY(DOM)	1	2	3	4	5	6	7	8	9	10	11	
	X	X	X	X	X	X	X	X	X	X	X	
	12	13	14	15	16	17	18	19	20	21	22	
	X	X	X	X	X	X	X	X	X	X	X	
	23	24	25	26	27	28	29	30	31			
	X	X	X	X	X	X	X	X	X			

SCHEDULE NUMBER 3

SCHEDULE NUMBER	3		
DAY PLAN NO	3	CLEAR ALL FIELDS	

SELECT ALL MONTHS DOW DOM

MONTH	J	F	M	A	M	J	J	A	S	O	N	D
	X	X	X	X	X	X	X	X	X	X	X	X
DAY(DOW)	SUN	MON	TUE	WED	THU	FRI	SAT					
	.	.	.	.	.	.	X					
DAY(DOM)	1	2	3	4	5	6	7	8	9	10	11	
	X	X	X	X	X	X	X	X	X	X	X	
	12	13	14	15	16	17	18	19	20	21	22	
	X	X	X	X	X	X	X	X	X	X	X	
	23	24	25	26	27	28	29	30	31			
	X	X	X	X	X	X	X	X	X			

NOTES:

1. Coord sheet created 3-25-09, by BB.
2. January 2010 - New Coordination - Lee Engineering
3. Phase 5 splits adjusted 1-27-2012.
4. Final Coordination Plan due to I-25 Construction on 12-15-2014.
5. ASC 3 coord sheet created, 1/31/17.
6. Increased E-N split increased due to volume in AM, 10-18-17.

Intersection No.: 254

System: ARIES
Address: 2

Intersection Name: PASEO DEL NORTE - VENTURA

Revision Date 8/21/2015

Timing Data

Phase I.D.:	1	2	3	4	5	6	7	8
Phase Dir.:	W-S	EB	S-E	NB	E-N	WB	N-W	SB
Min Grn	3	16	3	8	3	16	3	8
Walk:	0	7	0	7	0	7	0	7
Ped Clr:	0	25	0	36	0	24	0	36
Veh Ext:	2.0	4.0	2.0	3.0	2.0	4.0	2.0	3.0
Veh Ext2:								
Max 1:	16	48	20	24	16	48	20	24
Max 2:								
Max 3:								
Yellow:	3.0	5.0	3.0	4.0	3.0	5.0	3.0	4.0
Red Clr	1.0	1.0	1.0	2.0	0.5	1.0	1.0	2.0

Recall Data

Locking Memory:								
Vehicle Recall:								
Ped Recall:								
Recall To Max:		X				X		

Flash Mode: ALL RED

Start Up Mode: ALL RED
Time: 8 SEC.
First Phases: 2 & 6
Start In: GREEN

Overlap Phases: NONE

Overlap	Par Ph	Grn	Yel	Red
A				
B				
C				
D				

NOTES:
1. Timing sheet updated, 7/26/05.
2. Detection set back to NL for all movements previously on L. Ped clearance time changed for NB and SB from 27 sec. to 30 sec., intersection remeasured and 3 sec. added, 7/22/08.
3. Yellow and red clearances and ped clearances adjusted, 6/9/09
4. Clearance intervals updated to NMDOT standard by BB, 12/16/13.
5. New timing sheet created, 8/21/15.

Intersection No.:	254	System:	ARIES
		Address:	2
Intersection Name:	PASEO DEL NORTE - VENTURA	RIU:	NONE

Phase I.D.:	1	2	3	4	5	6	7	8
Phase Dir.:	W-S	EB	S-E	NB	E-N	WB	N-W	SB
Recall:	OFF	MAX	OFF	OFF	OFF	MAX	OFF	OFF
Added Initial:	0	0	0	0	0	0	0	0
Initial - Min:	3	16	3	8	3	16	3	8
Initial - Max:	3	16	3	8	3	16	3	8
Ped-Walk:	0	7	0	7	0	7	0	7
Ped-Clear:	0	25	0	36	0	24	0	36
Ext-Preset:	2.0	4.0	2.0	3.0	2.0	4.0	2.0	3.0
Ext-Minimum:	2.0	4.0	2.0	3.0	2.0	4.0	2.0	3.0
Reduce-Before:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Reduce-To Min:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Maximum-#1:	16	48	20	24	16	48	20	24
Maximum-#2:	16	48	20	24	16	48	20	24
Maximum-#3:								
Clear-Yellow:	3.0	5.0	3.0	4.0	5.0	5.0	3.0	4.0
Clear-Red:	1.0	1.0	1.0	2.0	1.0	1.0	1.0	2.0
Det Memory:	NL	*****	NL	NL	NL	*****	NL	NL

Flash Mode:	ALL RED		
Start Up Mode:	ALL RED	Approved:	RS
Time:	8 SEC.		
First Phases:	2 & 6	Print Date:	7/7/2016
Start In:	GREEN		
Overlap Phases:	NONE		

Overlap	Par Ph	Grn	Yel	Red
A				
B				
C				
D				

E/W	E/W	N/S	N/S	X/Y
xNA	xSA	xEA	xWA	xZA
Ped Heads:	YES	YES	YES	YES	NONE
Ped Buttons:	YES	YES	YES	YES	NONE
Bike Buttons:	NONE	NONE	NONE	NONE	NONE

CRASH REPO	CRASH YE/	PRIMARY STREET	SECONDARY STREET	HIGHEST CONTRIBUTING FAC	WEATHER	LIGHTING
710404185	2017	PASEO DEL NORTE BLVD NE	VENTURA ST NE	Alcohol/Drug Involved	Clear	Daylight
710203874	2017	PASEO DEL NORTE BLVD NE	VENTURA ST NE	Alcohol/Drug Involved	Clear	Dark-Lighted
710403411	2017	VENTURA ST NE	HOLLY DR	Disregarded Traffic Signal	Clear	Dark-Not Lighted
710399229	2017	VENTURA ST NE	PASEO DEL NORTE BLVD NE	Disregarded Traffic Signal	Raining	Dark-Lighted
23064201	2017	VENTURA NE	PASEO DEL NORTE	Disregarded Traffic Signal	Clear	Daylight
710401131	2018	PASEO DEL NORTE BLVD NE	VENTURA ST NE	Disregarded Traffic Signal	Clear	Dark-Lighted
23465377	2017	WESTBOUND PASEO DEL NOR	VENTURA	Disregarded Traffic Signal	Clear	Daylight
710399682	2017	VENTURA ST NE	PASEO DEL NORTE BLVD NE	Disregarded Traffic Signal	Clear	Daylight
23448115	2017	VENTURE BLVD	PASEO DEL NORTE	Disregarded Traffic Signal	Clear	Daylight
23065813	2018	PASEO DEL NORTE STOPLIGHT	VENTURA AVE	Disregarded Traffic Signal	Clear	Dusk
23477233	2019	PASEO DEL NORTE AND VENT	VENTURA	Disregarded Traffic Signal	Clear	Daylight
23458534	2018	PASEO DEL NORTE NE	VENTURA CT NE	Disregarded Traffic Signal	Clear	Daylight
710452970	2017	HOLLY DR	8100 VENTURA ST NE	Following Too Closely	Clear	Daylight
23063953	2017	VENTURA	HOLLY AVE	Missing Data	Clear	Daylight
23473613	2018	CORNER OF VENTURA AND PA	SEO DEL NORTE	Driver Inattention	Clear	Daylight
710399221	2017	PASEO DEL NORTE BLVD NE	VENTURA ST	Driver Inattention	Clear	Dark-Lighted
710551499	2018	PASEO DEL NORTE BLVD NE	VENTURA ST NE	Driver Inattention	Clear	Daylight
710548569	2018	PASEO DEL NORTE BLVD NE	VENTURA ST NE	Driver Inattention	Clear	Daylight
23484658	2017	PASEO DEL NORTE	HARPER	Driver Inattention	Clear	Dark-Not Lighted
710456184	2018	PASEO DEL NORTE BLVD NE	VENTURA ST NE	Driver Inattention	Clear	Daylight
23476785	2019	VENTURA	PASEO DEL NORTE	Driver Inattention	Clear	Daylight
710550806	2019	VENTURA ST NE	PASEO DEL NORTE BLVD NE	Driver Inattention	Clear	Daylight
710546182	2018	PASEO DEL NORTE	VENTURA ST NE	Driver Inattention	Clear	Daylight
710407860	2017	PASEO DEL NORTE BLVD NE	VENTURA ST NE	Driver Inattention	Clear	Daylight
710664405	2019	VENTURA STREET NE	PASEO DEL NORTE BLVD NE	Driver Inattention	Clear	Daylight
710258288	2017	PASEO DEL NORTE BLVD NE	VENTURA ST NE	Driver Inattention	Clear	Daylight
23458577	2018	PASEO DEL NORTE	VENTURA	Driver Inattention	Clear	Daylight
23465049	2019	PASEO DEL NORTE	VENTURA ST NE	Drove Left Of Center	Clear	Daylight
23066035	2017	9001 HOLLY AVE NE	VENTURA	Excessive Speed	Clear	Daylight
710456118	2018	HOLLY ST	VENTURA ST NE	Other - No Driver Error	Clear	Daylight
22014864	2018	HOLLY AVE NE	VENTURA CT NE	Other Improper Driving	Clear	Daylight
23473582	2018	PASEO DEL NORTE AND VENT	PASEO AND VENTURA	Excessive Speed	Clear	Daylight
710552225	2018	PASEO DEL NORTE BLVD NE	VENTURA ST NE	Excessive Speed	Clear	Daylight
710401562	2017	VENTURA ST	PASEO DEL NORTE BLVD NE	Excessive Speed	Clear	Daylight
710400671	2017	PASEO DEL NORTE BLVD NE	VENTURA ST NE	Excessive Speed	Raining	Dark-Lighted
710408254	2017	PASEO DEL NORTE BLVD NE	VENTURA ST NE	Excessive Speed	Clear	Daylight
710546767	2019	PASEO DEL NORTE BLVD NE	VENTURA ST NE	Excessive Speed	Clear	Daylight
710554336	2019	PASEO DEL NORTE BLVD NE	VENTURA ST NE	Failed to Yield Right of Way	Clear	Daylight
710541441	2019	VENTURA ST	PALOMAS AVE	Failed to Yield Right of Way	Clear	Daylight
23460452	2018	VENTURA NE	PALOMAS AVE NE	Failed to Yield Right of Way	Clear	Daylight
30260402	2019	VENTURA BLVD NE	PALOMAS ST NE	Failed to Yield Right of Way	Clear	Daylight
710573618	2019	VENTURA ST NE	HOLLY AVE NE	Driver Inattention	Clear	Daylight
710451588	2018	PASEO DEL NORTE BLVD NE	VENTURA ST NE	Following Too Closely	Clear	Daylight
23066071	2019	PASEO DEL NORTE	VENTURA CT NE	Following Too Closely	Clear	Daylight
710401720	2017	PASEO DEL NORTE BLVD NE	VENTURA ST NE	Following Too Closely	Clear	Daylight
710570561	2019	PASEO DEL NORTE BLVD NE	VENTURA ST NE	Following Too Closely	Clear	Daylight
22005650	2019	VENTURA	PASEO DEL N	Following Too Closely	Clear	Daylight
710366990	2017	VENTURA ST NE	PASEO DEL NORTE BLVD NE	Improper Lane Change	Clear	Daylight
710552681	2019	VENTURA ST NE	HOLLY AVE NE	Driver Inattention	Clear	Daylight
23473488	2018	8100 VENTURA		Missing Data	Clear	Dark-Lighted
23440191	2017	PASEO DEL NORTE	VENTARA	Missing Data	Left Blank	Left Blank
23447107	2017	PASEO DEL NORTE	VENTURA	Missing Data	Left Blank	Left Blank
710448072	2019	VENTURA ST NE	HOLLY ST	Excessive Speed	Clear	Dark-Lighted
710554337	2019	VENTURA ST NE	PALOMAS AVE NE	None	Clear	Daylight
22014590	2019	HOLLY AVE NE	HOLLY / VENTURA	Excessive Speed	Clear	Dark-Lighted
710580173	2019	PASEO DEL NORTE BLVD NE	VENTURA ST NE	Other - No Driver Error	Clear	Dark-Lighted
710561156	2019	VENTURA ST NE	HOLLY AVE NE	None	Clear	Dark-Not Lighted
710451631	2017	HOLLY DR		Other Improper Driving	Clear	Dark-Not Lighted
710567303	2019	PASEO DEL NORTE BLVD NE	VENTURA ST NE	Other Improper Driving	Clear	Dark-Not Lighted
710456123	2018	PASEO DEL NORTE N FRON NE	VENTURA ST NE	Speed Too Fast for Conditions	Raining	Dark-Lighted

E. Holly / Ventura Intersection

W. Holly / Ventura Intersection

Paseo del Norte / Ventura Intersection

Corridor South of PdN

CRASH REPORT	CRASH DATE	CRASH YEA	PRIMARY STREET	SECONDARY STREE	LANDMARK	HIGHEST CONTRIBUTING FACTOR TO CR	WEATHER	LIGHTING
710371214	2/21/2017	2017	BARSTOW ST NE	ANAHEIM AVE NE		Following Too Closely	Clear	Daylight
710558085	9/12/2019	2019	BARSTOW ST NE	ANAHEIM AVE NE		None	Clear	Dark-Not Lighted
710367902	9/6/2017	2017	BARSTOW ST NE	ANAHEIM AVE NE		Driver Inattention	Clear	Dark-Not Lighted
23064280	7/5/2018	2018	HOLLY AND BARST(	BARSTOW		Disregarded Traffic Signal	Clear	Daylight
23458518	10/9/2018	2018	PASEO DEL NORTE	BARSTOW ST NE		Disregarded Traffic Signal	Clear	Daylight
710557825	2/11/2019	2019	CARMEL AVE NE	OSO ABRAZO NE		Excessive Speed	Clear	Daylight
710454938	6/10/2018	2018	PASEO DEL NORTE	BARSTOW ST NE		Disregarded Traffic Signal	Clear	Daylight
23437930	6/29/2018	2018	PASEO DEL NORTE	BARSTON		Disregarded Traffic Signal	Clear	Daylight
710441009	10/3/2017	2017	BARSTOW ST NE	CARMEL AVE NE		Failed to Yield Right of Way	Clear	Dark-Lighted
710446165	11/20/2017	2017	BARSTOW ST NE	CARMEL AVE NE		None	Clear	Daylight
710576238	11/8/2019	2019	BARSTOW ST NE	HOLLY DR		Driver Inattention	Clear	Daylight
710443530	12/12/2017	2017	HOLLY ST	BARSTOW ST NE		Alcohol/Drug Involved	Clear	Daylight
30260706	12/23/2019	2019	BARSTOW ST NE	HOLLY AVE NE		None	Clear	Dark-Lighted
710557824	2/11/2019	2019	CARMEL AVE NE	BARSTOW ST NE		Improper Backing	Clear	Daylight
23455847	2/15/2017	2017	BARSTOW	HOLLY		Driver Inattention	Clear	Daylight
710543280	5/19/2018	2018	CARMEL AVE NE	BARSTOW ST NE		Driver Inattention	Clear	Daylight
23466085	6/6/2019	2019	HOLLY AVE NE	BARSTOW ST NE		Failed to Yield Right of Way	Clear	Dark-Lighted
710451849	8/27/2018	2018	BARSTOW ST NE	CARMEL AVE NE		Driver Inattention	Clear	Daylight
710442096	8/13/2017	2017	HOLLY AVE NE	BARSTOW ST NE		Following Too Closely	Clear	Daylight
710415527	1/8/2018	2018	PASEO DEL NORTE	BARSTOW ST NE		Driver Inattention	Clear	Daylight
22013453	9/17/2019	2019	BARSTOW RD SOUT	HOLLY		Driver Inattention	Clear	Daylight
23476068	8/2/2018	2018	BARSTOW ST NE	PASEO DEL NORTE NE		Driver Inattention	Left Blank	Daylight
710453647	1/2/2019	2019	PASEO DEL NORTE	BARSTOW ST NE		None	Snowing	Daylight
710400662	1/27/2017	2017	PASEO DEL NORTE	BARSTOW ST NE	BARSTOW ST NE	Driver Inattention	Clear	Dark-Lighted
710371396	1/6/2017	2017	PASEO DEL NORTE	BLVD NE	BARSTOW ST NE	Other Improper Driving	Clear	Daylight
710552226	10/18/2018	2018	NM 423	BARSTOW ST NE		Failed to Yield Right of Way	Clear	Daylight
710451327	10/28/2017	2017	PASEO DEL NORTE	BARSTOW ST NE		Driver Inattention	Clear	Daylight
710552406	10/4/2019	2019	PASEO DEL NORTE	BARSTOW ST NE		Following Too Closely	Clear	Daylight
23475746	6/22/2018	2018	BARSTOW ST NE	PASEO DEL NORTE NE		Following Too Closely	Clear	Daylight
710284188	11/16/2017	2017	PASEO DEL NORTE	BLVD NE		None	Clear	Dark-Lighted
23466462	11/3/2019	2019	423 WEST BOUND I	BARSTOW ST NE		None	Clear	Daylight
710452871	12/11/2017	2017	BARSTOW ST NE	PASEO DEL NORTE	BLVD NE	Driver Inattention	Clear	Daylight
710580212	12/13/2019	2019	PASEO DEL NORTE	BARSTOW ST NE		Failed to Yield Right of Way	Clear	Daylight
710455055	12/18/2017	2017	BARSTOW ST NE	PASEO DEL NORTE	BLVD NE	Driver Inattention	Clear	Daylight
710243013	12/9/2017	2017	PASEO DEL NORTE			Driver Inattention	Clear	Daylight
710561514	2/22/2019	2019	PASEO DEL NORTE	BARSTOW ST NE		Disregarded Traffic Signal	Snowing	Other/Not Stated
710403763	2/28/2017	2017	PASEO DEL NORTE	BARSTOW NE		Failed to Yield Right of Way	Clear	Daylight
710369804	2/9/2017	2017	PASEO DEL NORTE	BARSTOW ST NE		Disregarded Traffic Signal	Clear	Daylight
23464760	9/14/2018	2018	BARSTOW	PASEO DEL NORTE		Following Too Closely	Clear	Daylight
23440166	4/1/2017	2017	PASEO DEL NORTE	BARSTOW		Missing Data	Left Blank	Left Blank
710565175	4/11/2019	2019	PASEO DEL NORTE	BARSTOW ST NE		Failed to Yield Right of Way	Clear	Daylight
710370227	4/20/2017	2017	BARSTOW ST NE	PALOMAS AVE		Passed Stop Sign	Clear	Daylight
23066001	4/7/2017	2017	PASEO DEL NORTE	BARSTOW		Disregarded Traffic Signal	Clear	Daylight
710456580	3/14/2018	2018	PASEO DEL NORTE	BARSTOW ST NE		Improper Lane Change	Clear	Dark-Lighted
710456107	6/28/2018	2018	PASEO DEL NORTE	BARSTOW ST NE		None	Clear	Daylight
Barstow Corridor North								
710444548	6/14/2019	2019	PASEO DEL NORTE	BARSTOW ST NE		Other Improper Driving	Clear	Dark-Lighted
Corridor West of Barstow								
710568185	6/6/2019	2019	PALOMAR DR	BARSTOW ST NE		Failed to Yield Right of Way	Clear	Daylight
23477327	7/10/2019	2019	PASEO DEL NORTE/	BARSTOW		Disregarded Traffic Signal	Wind	Dark-Lighted
23064157	7/26/2017	2017	PASEO DEL NORTE	BARSTOW		Driver Inattention	Clear	Daylight
23064164	7/26/2017	2017	PASEO DEL NORTE	BARSTOW		Defective Tires	Clear	Daylight
710442565	7/26/2017	2017	PASEO DEL NORTE	BARSTOW ST NE		Driver Inattention	Clear	Daylight
Holly / Barstow Intersection								
710402261	8/20/2017	2017	PALOMAR AVE. NE	BARSTOW ST NE		Driver Inattention	Clear	Daylight
710664145	8/21/2019	2019	PASEO DEL NORTE	BARSTOW		Alcohol/Drug Involved	Clear	Dark-Lighted
710401735	8/25/2017	2017	PASEO DEL NORTE	BARSTOW ST NE		Following Too Closely	Clear	Daylight
710407680	8/3/2017	2017	PASEO DEL NORTE	BARSTOW ST NE		Failed to Yield Right of Way	Clear	Daylight
710566770	9/8/2019	2019	PASEO DEL NORTE	BARSTOW ST NE		Failed to Yield Right of Way	Clear	Daylight
Barstow Corridor South								
710560125	1/23/2019	2019	8850 HOLLY AVE NE			Driver Inattention	Clear	Daylight
Barstow to Ventura Corridor								

Right Turn Deceleration Lane Warrant Summary Table
HOLLY-VENTURA APARTMENTS
Northwest Corner of Holly Ave. & Ventura St. - Albuquerque, NM

			Peak Right Turn Volumes (veh/hour)			
Drive	Description	Posted Speed Limit	NO BUILD	BUILD	Warrant	Meets Volumes Warrant?
A	E. Holly Ave./Drive. A & Ventura St.	35	0	0	50	No
B	W. Holly Ave. & Drive. B	35	0	20	50	No