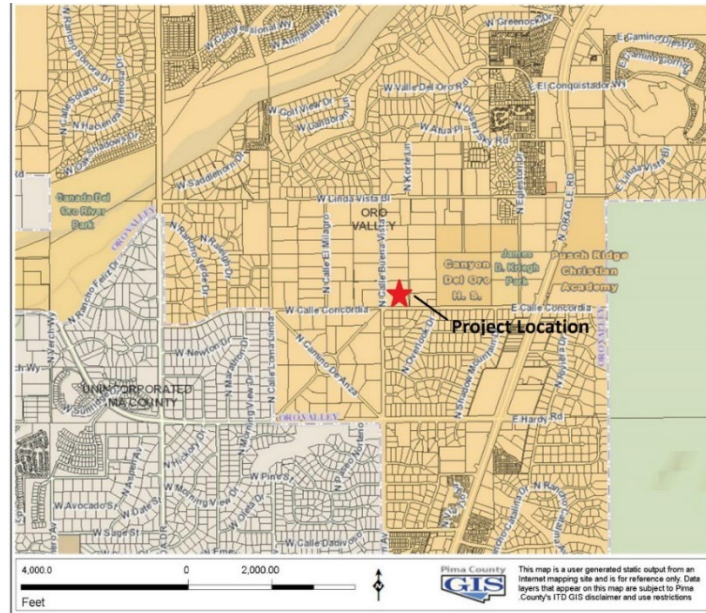

Church of the Nazarene

Traffic Statement



Prepared for submittal to:
Town of Oro Valley, AZ

M Esparza
Engineering, LLC

M Esparza Engineering, LLC
2934 W. Salvia Drive
Tucson, AZ 85745

November 25, 2020
Updated October 6, 2021
Updated November 8, 2021
Updated December 15, 2021
Updated February 4, 2022
Updated March 24, 2022
Updated October 13, 2022
Updated January 11, 2023

Church of the Nazarene Traffic Statement

Prepared for submittal to:

Town of Oro Valley, Arizona

Prepared by:

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Project No. 2020.19

Marcos Esparza, P.E., Principal



November 25, 2020

Updated October 6, 2021

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Updated December 15, 2021

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Updated January 11, 2023

NOTICE – This is NOT a Public Domain Document

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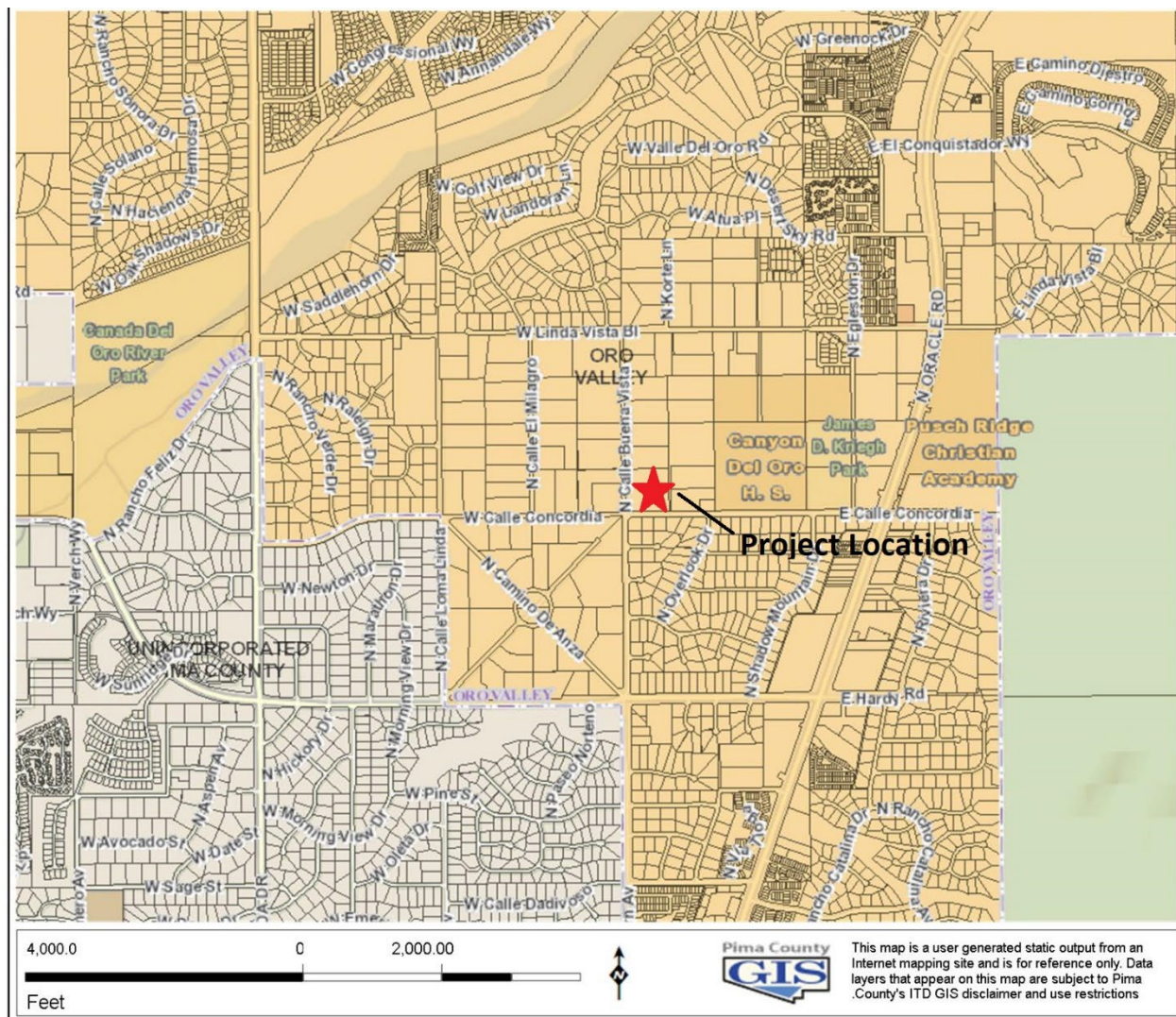
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1. Introduction and Executive Summary

Purpose of Report and Study Objectives

This report addresses the potential traffic impacts associated with the proposed expansion of the Church of the Nazarene campus in Oro Valley, Arizona. The project is located on the north side of Calle Concordia and east of Calle Buena Vista. It is west of Oracle Road (State Route 77, or SR 77) in the Town of Oro Valley, Arizona. This report is provided with the Planned Area Development (PAD) Amendment submittal and is intended to address the required elements in the Traffic sub-section of the PAD "Land Use Proposal" section. The project location is shown in Exhibit 1.

Exhibit 1 Project Location

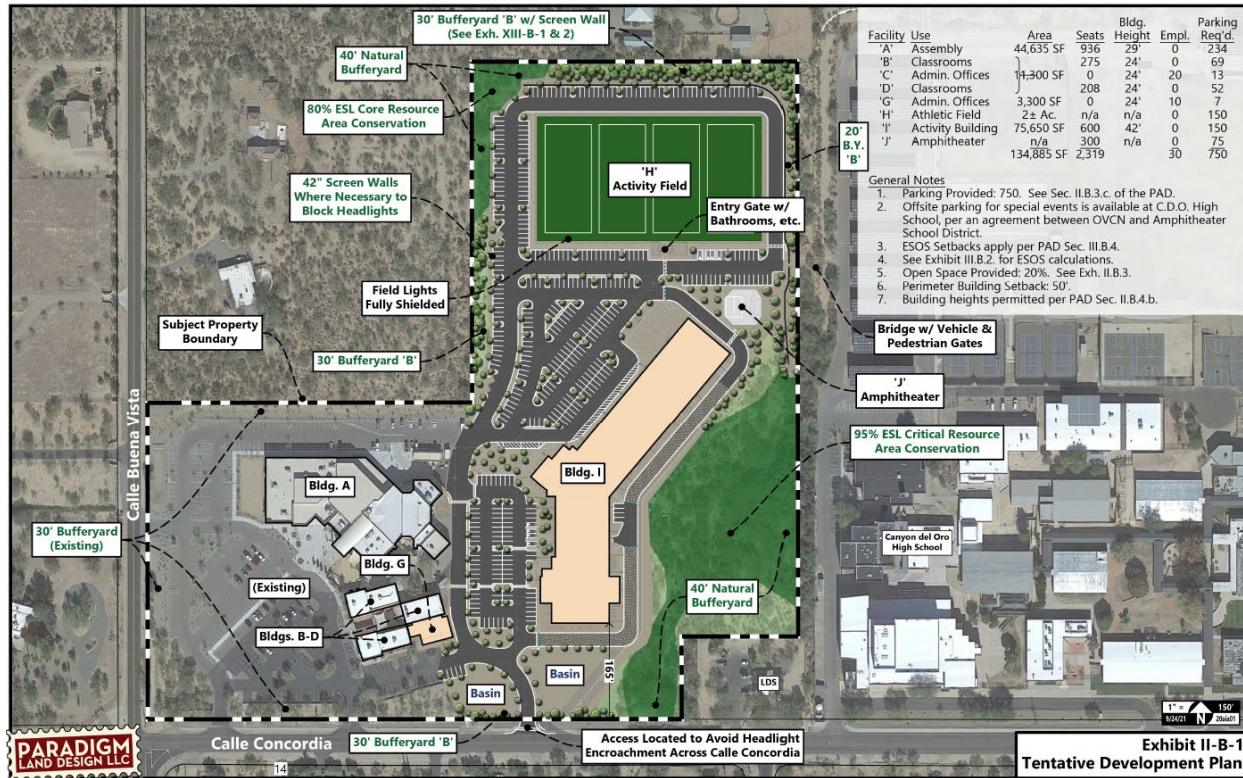


Source: Pima County GIS

As shown on the Tentative Development Plan (Exhibit 2), the project adds the following to the existing campus:

- Building G, Administration Expansion (3,300 square feet)
- “H”, Activity Field
- Building I, Activity Building (75,650)
- “J”, Outdoor Amphitheater

Exhibit 2 Tentative Development Plan



Source: Paradigm Land Design

The project also removes a youth worship building and a “portable” building.

The objectives of this traffic study are to determine the traffic impacts of the project on the local transportation system and to recommend improvements to maintain efficient and safe traffic operations for motor vehicle uses, pedestrians, and bicyclists. This report focuses on access management, trip generation and the potential for turn lanes at the project driveways on Calle Concordia and Calle Buena Vista.

This update includes a reevaluation of existing conditions at the Calle Concordia/Calle Buena Vista intersection, and adds a turn lane analysis for the project driveways on Calle Concordia and on Calle Buena Vista under existing conditions. To conduct these analyses, we collected traffic data at the church driveways from 5:30-8:30 PM on Wednesday, November 30, 2022. This three-hour period represents the highest weekday evening attendance time for church activities which includes a Wednesday church service beginning at 6:30 PM, as well as worship and meetings and

for middle school and high school students who meet on Wednesday evenings between 6:00-7:45 PM. There are also early childhood programs for babies, toddlers, and students from kindergarten through 5th grade during the evening Wednesday church service. The data were collected between 5:30-8:30 PM on Wednesday night to capture the highest traffic volumes entering and exiting the church campus during the week.

Summary of Findings

Study Area

The campus is located on the north side of Calle Concordia between Calle Buena Vista and Canyon Del Oro high school.

Development Description

The project is an expansion of the existing Oro Valley Church of the Nazarene campus.

Principal Findings

1. All study area roadways operate at LOS C or better based on 2021 daily traffic volumes with the project new trips added, and FDOT level of service standards.
2. Adding the projected site trips to the recorded Year 2022 5:30-6:30 PM and 7:30-8:30 PM driveway and intersection volumes, all movements at the project intersections will operate at LOS D or better.
3. No sports league activities will be scheduled: (1) On Sundays before 1:00 PM, (2) prior to Phase 2, and within 30 minutes of the start or end of the Wednesday evening service as its schedule may be adjusted from time to time, or (3) Starting or ending during the hour surrounding the CDO High School arrival and dismissal times. The intent of this condition is to prevent significant comingling of traffic from sports league activities, primary worship times, and CDO High School. Exceptions may be granted by the Town Engineer and Planning Director if requested in writing at least two working days prior to a scheduled event.
4. The driveway spacing, corner clearances and sight distances for the driveways and nearby intersections meet Oro Valley standards.
5. For Phase 2, the projected turn lane volumes meet the warrants for left turn lanes on Calle Concordia at each project driveway during the weekday off-peak hour on Wednesday, the highest site traffic hour. It is recommended that a continuous left turn lane should be constructed beginning immediately east of the western driveway and continuing along the project frontage to connect to the existing continuous left turn lane terminus. The design of this continuous turn lane will be provided with the off-site plans for improvements to Calle Concordia by others.
6. An alternative for the western driveway could be to restrict access to right-in, right-out only by constructing a raised barrier, or "pork chop". The Synchro analysis for this alternative found that the turn lane movements at the impacted intersections will continue to operate at LOS D or better conditions.

7. Roadway and subdivision design should conform to current jurisdictional standards. This includes ensuring that sight distance requirements are met.
8. All new traffic signs and markings, on-site and off-site, must comply fully with the *Manual on Uniform Traffic Control Devices* and Town requirements.

2. Proposed Development

Site Location

The project location is shown in Exhibit 1. It will have access from Calle Concordia on the south and on Calle Buena Vista on the west.

Land Use and Intensity

As shown on the Tentative Development Plan (Exhibit 2), the project includes the following new buildings:

- Building G, Administration Expansion (3,300 square feet)
- "H", Activity Field
- Building I, Activity Building (75,650)
- "J", Outdoor Amphitheater

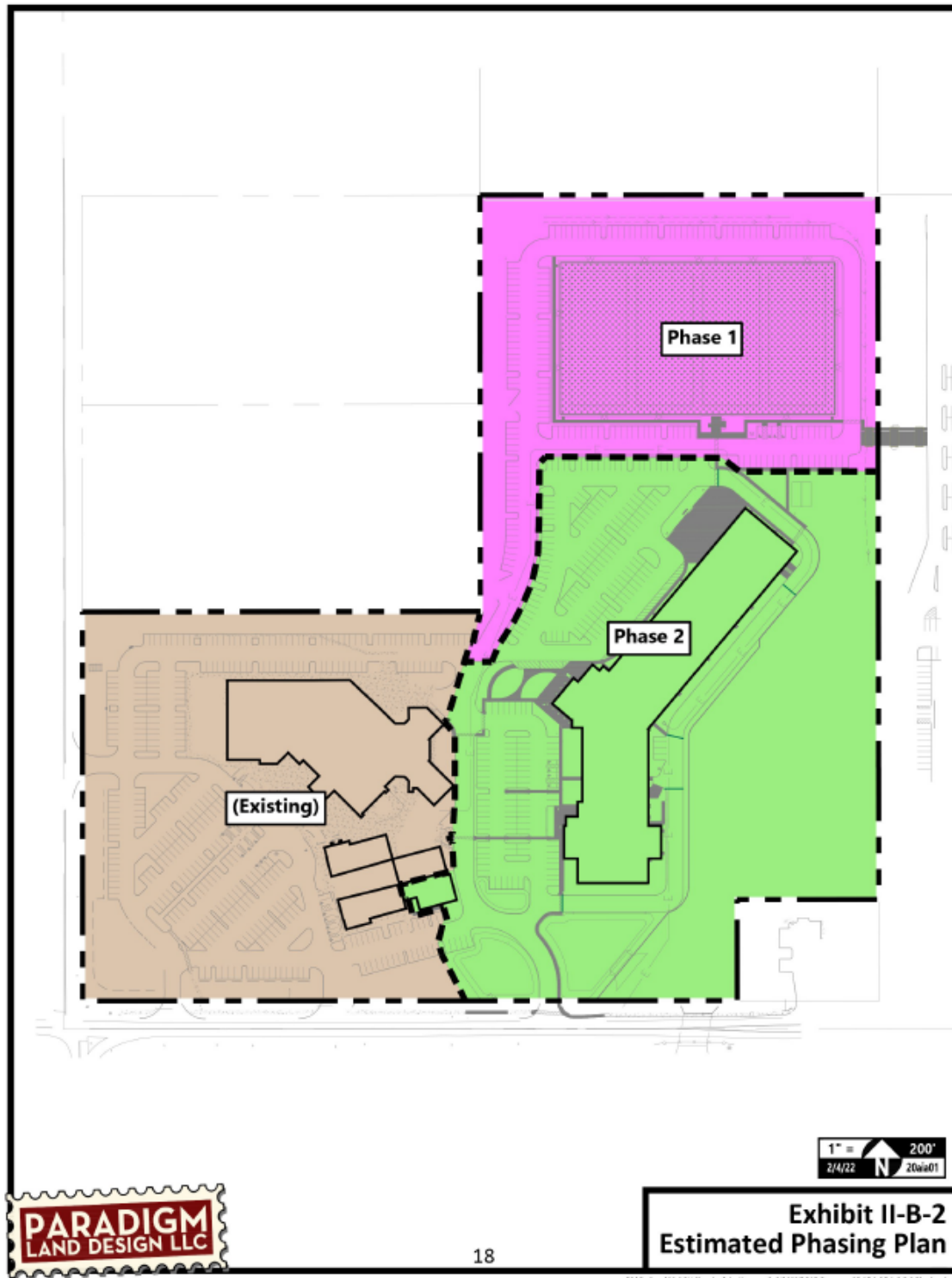
Proposed Access

As shown in the site plan, there are four access locations: three on Calle Concordia and one on Calle Buena Vista. The two west driveways on Calle Concordia and the one on Calle Buena Vista will continue to primarily serve the west campus. A new driveway on Calle Concordia will be constructed between the two existing eastern driveways. This access location was chosen to minimize headlight encroachment at an existing house across Calle Concordia. The two existing east driveways serving the east campus will be removed.

Development Phasing and Timing

For the purposes of this report, the buildout year is assumed to be 2022. As shown in Exhibit 3, the Activity Field is planned to be constructed first (Phase 1) with the remainder of the project to be constructed as Phase 2.

Exhibit 3 Preliminary Phasing Plan



3. Study Area Conditions

Area Characteristics

Land Use

The project is on the existing Oro Valley Church of the Nazarene campus. Existing buildings on the campus include the main sanctuary, classrooms, and an administration building. There is also a building for youth worship and a “portable” building, both of which will be removed with the expansion.

Anticipated Future Development

A rezoning for a mini-storage and offices building is planned for the northwest corner of the SR 77/Calle Concordia intersection, about ½ mile east of the project is currently under way.

Program for Completion of Roadway and Intersection Improvements

There are no projects in Oro Valley in the vicinity of the project listed in the current (2020-2024) Pima Association of Governments Transportation Improvement Program.

ADOT has a pavement preservation project on SR 77 from Calle Concordia to Miracle Mile that will underway later this year (2020).

Existing Roads

Calle Concordia is a minor arterial as designated in the Town of Oro Valley’s General Plan document. Calle Buena Vista is designated as a major collector. Exhibit 4 provides a physical inventory of the roadways within or near the study area.

Exhibit 4 Roadway Inventory

<i>Street</i>	<i>Segment</i>	<i>Travel Lanes</i>	<i>Speed Limit</i>	<i>Bike Route</i>	<i>Bus Route</i>
Calle Concordia	Calle Buena Vista to SR 77	2-3	25 MPH	Signed Bike Route with On-Street Bike	No
Calle Buena Vista	Vicinity of Project	2	25 MPH N. of Calle Concordia, 35 MPH S. of Calle Concordia	Signed Bike Route with On-Street Bike Lane (S. of Calle Concordia)	No

Bike route designation from the Town of Oro Valley Bikeways Map, 2017

Access

As shown in the site plan, there are four access locations: three on Calle Concordia and one on Calle Buena Vista. The two west driveways on Calle Concordia and the one on Calle Buena Vista will continue to serve the west campus. A new driveway on Calle Concordia will be constructed between the two existing eastern driveways as part of Phase 2. This access location was chosen to minimize headlight encroachment at an existing house across Calle Concordia. The two existing east driveways serving the east campus will be removed.

Study Area

The study area includes the roadways adjacent to the project (Calle Concordia, Calle Buena Vista).

Physical Characteristics

Roadway Characteristics

Calle Concordia is a two-lane road along the frontage of the property with striped bike lanes on both sides and a sidewalk along the north side. It is a minor arterial with a posted speed limit of 25 mph. Its east terminus is just east of SR 77 and its west continuous terminus is at La Canada Drive. West of the project site it widens to have a two-way left turn lane to SR 77. In the vicinity of the project, the pavement is in good condition. It provides access to the church, Canyon del Oro High School, and residential properties.

Calle Buena Vista is a two-lane major collector with unpaved shoulders and no sidewalks. It has a posted speed limit of 25 mph north of Calle Concordia and 35 mph south of Calle Concordia. Calle Buena Vista's northern terminus is at Linda Vista Road and continues south to Hardy Road. South of Hardy Road it becomes Northern Avenue.

Existing Intersections

The closest intersection is the unsignalized intersection of Calle Concordia/Calle Buena Vista (Exhibit 5). It is stop controlled on the north and south approaches (Calle Buena Vista). Each approach to the intersection has a single lane sharing the left, through and right turn movements except for the northbound approach. There is a stop controlled northbound right turn lane on Calle Buena Vista.

Ground Photos

Ground photos of the roadways adjacent to the project are provided in Exhibit 6.

Exhibit 5 Calle Concordia/Calle Buena Vista



Exhibit 6 Ground Photographs



Looking South on Calle Buena Vista – Project is on the Left



Looking East on Calle Concordia – Project is on the Left

Traffic Control Devices

The intersection of Calle Concordia/Calle Buena Vista is a four-leg intersection with stop control on Calle Buena Vista.

Transit Service

There are no fixed transit routes along Calle Concordia or Calle Buena Vista.

Pedestrian/Bicycle Facilities

There is a signed and striped bike route along Calle Concordia, and on Calle Buena Vista, south of Calle Concordia. There is an existing sidewalk along the north side of Calle Concordia.

Traffic Volumes

Daily Traffic Volumes

For this updated report, we collected traffic data on Calle Concordia and on Calle Buena Vista at locations approved by Town staff. The data were collected on Sunday, August 29, 2021, Tuesday, August 31, 2021, and Wednesday, September 1, 2021. Bidirectional counts were collected on each approach to the Calle Concordia/Calle Buena Vista intersection. Counts were also collected on Calle Buena Vista, north of the project driveway, and on Calle Concordia, east of the existing easternmost project driveway. These traffic data are shown in Exhibit 7.

Other daily traffic volumes for the study area roadways are available on PAG's website. Year 2019 daily volumes (pre-COVID 19) on Calle Concordia, east of the project site and on Calle Buena Vista, south of the project site are shown in Exhibit 8.

Intersection Traffic Volumes

We collected 24-hour approach volume data at the intersection of Calle Concordia/Calle Buena Vista on Sunday, August 29, 2021, Tuesday, August 31, 2021, and Wednesday, September 1, 2021. The purpose of these counts was to determine when the Sunday and weekday peak hours were at the intersection. Only the highest peak hour was determined for Sunday. The AM and PM peak hours at the intersection for the weekdays were determined. For this updated report, we also collected turning movement counts at the church driveways on November 30, 2022. These counts recorded the highest church-associated trips for activities that occur during the weekdays. Wednesday services and student worship classes take place between 6:00 PM and 7:45 PM on Wednesday evenings. The highest peak hour during this period was between 5:30-6:30 PM. The highest entering volumes were recorded during this time period. The second highest peak hour during this period was between 7:30-8:30 PM when the services and classes end, and attendees exit the campus. We updated the exhibits showing the 6:00-7:00 PM peak hour counts on Wednesday at the Calle Concordia/Calle Buena Vista intersection to show the volumes for the time periods from 5:30-6:30 PM and 7:30-8:30 PM at this intersection. The original counts from these time periods collected in 2021 were adjusted proportionally to estimate the November 2022 volumes based on the inbound and outbound volumes on Calle Concordia from the driveway counts. The traffic data for these hours are shown in Exhibit 9 (Calle Concordia/Calle Buena Vista intersection) and Exhibits 10 and 11 (Church driveways).

Level of service (LOS) is a qualitative description of how well a roadway or intersection operates under prevailing traffic conditions. A grading system of A through F, similar to academic grades, is utilized. LOS A is free-flowing traffic, whereas LOS F is forced flow and extreme congestion.

Based on Florida Department of Transportation's *Generalized Annual Average Daily Volumes for Florida's Urbanized Areas* level of service table, the LOS D/E threshold for Calle Concordia is approximately 13,320 vehicles per day and the LOS D/E threshold for Calle Buena Vista is 10,660. The traffic volumes shown on Exhibits 7 and 8 are well below these thresholds.

Exhibit 7

Roadway Daily Volumes (Year 2021)

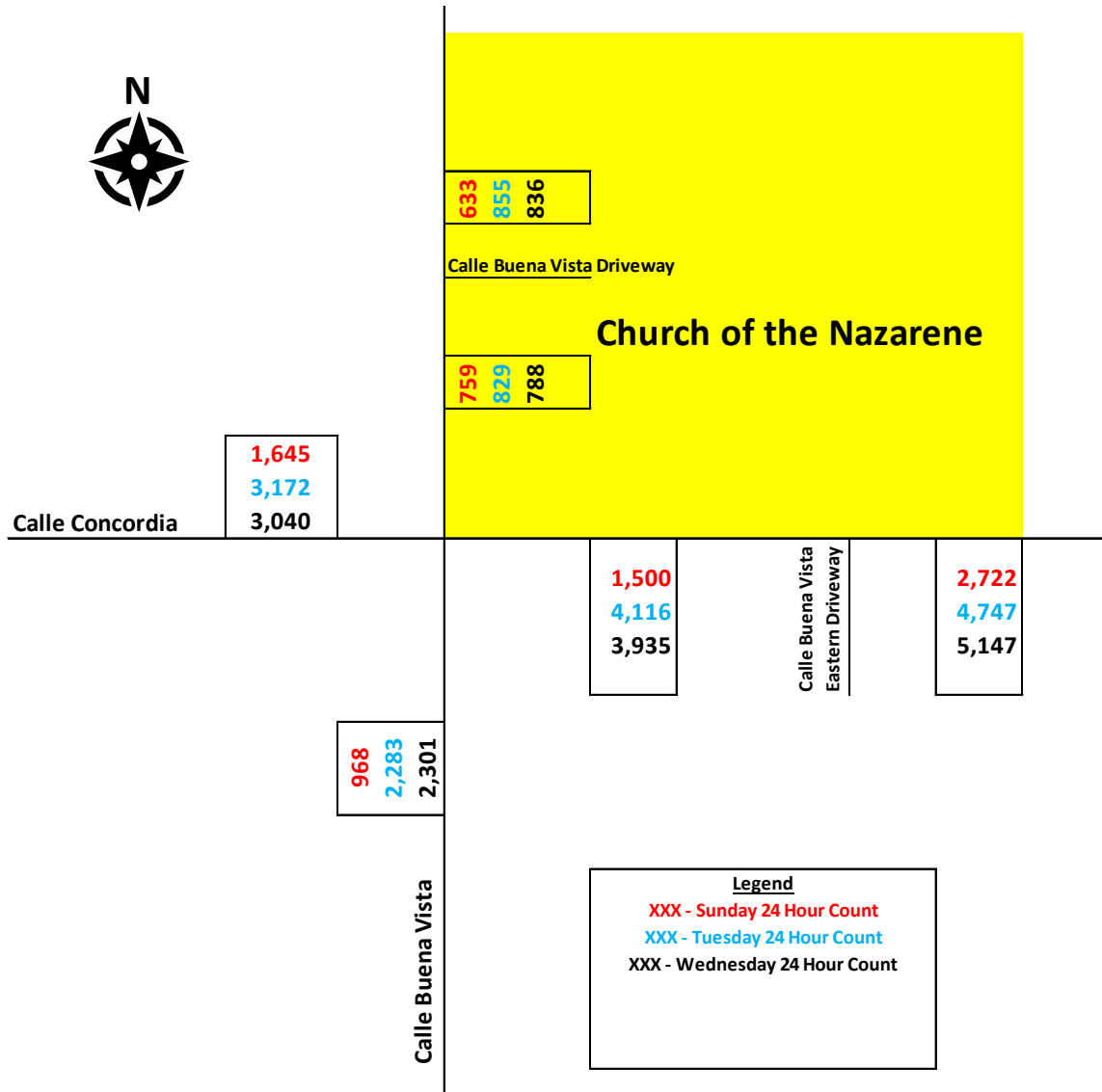
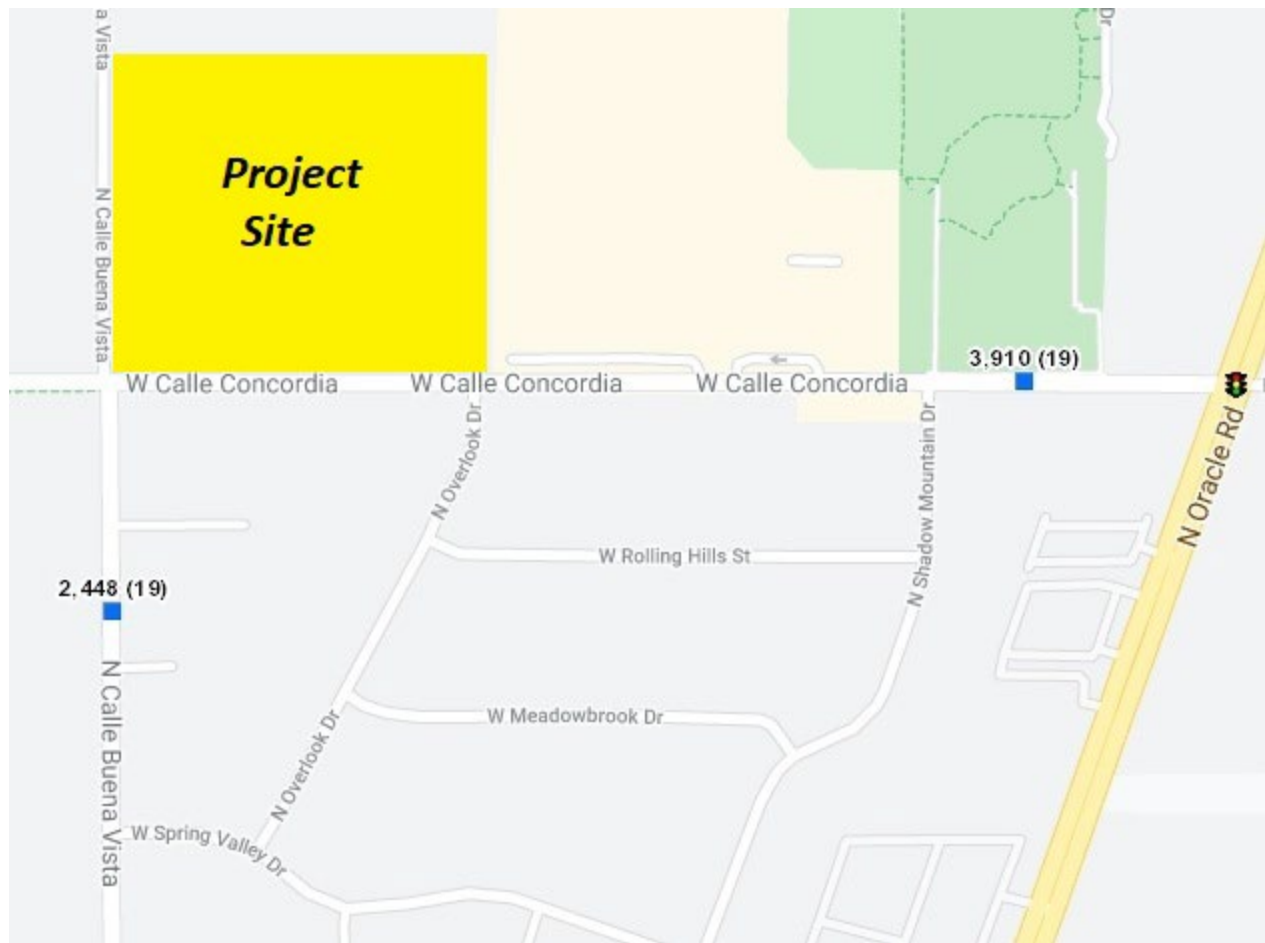
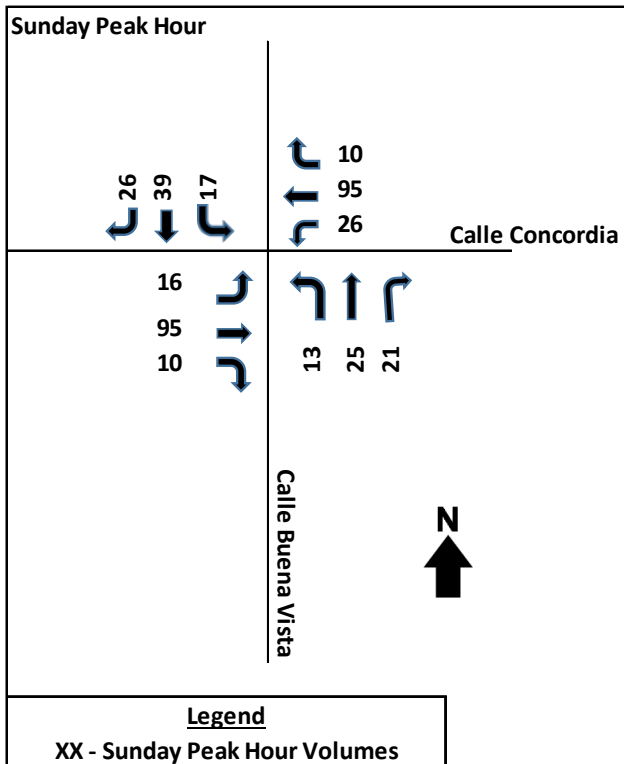


Exhibit 8 Roadway Daily Volumes (PAG)

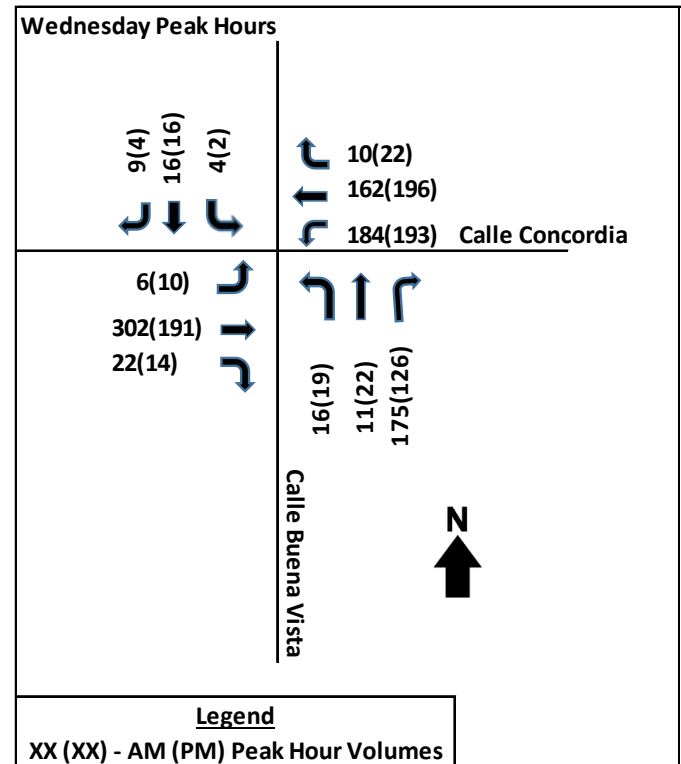


Source: Pima Association of Governments

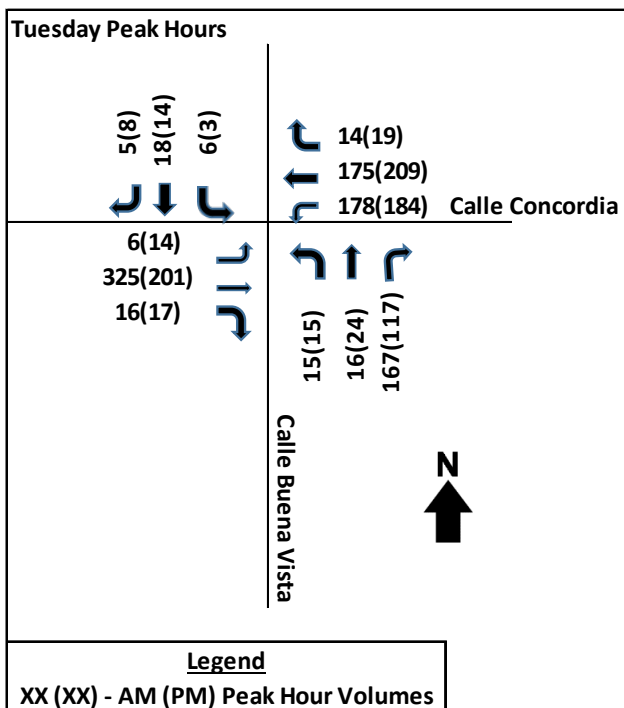
Exhibit 9 Intersection Volumes (2021)



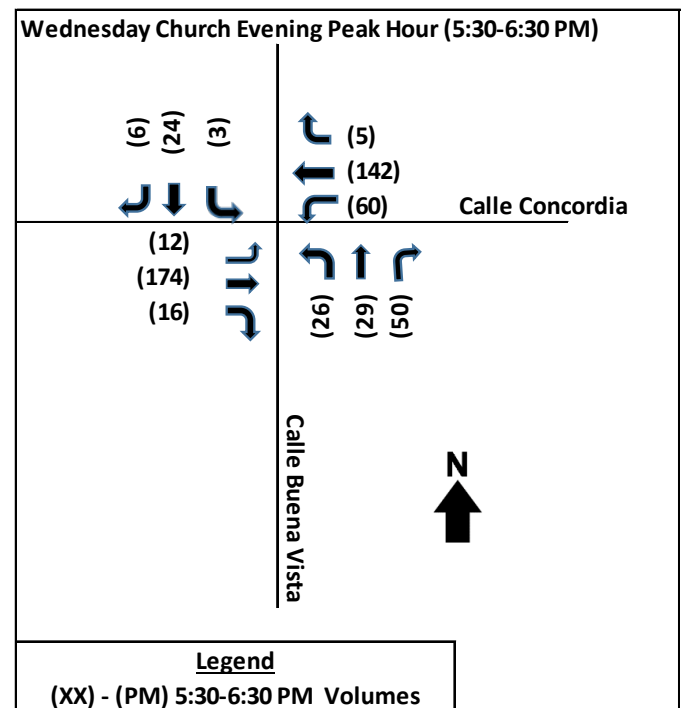
Sunday Peak Hour: 10:30 AM - 11:30AM



Wednesday AM Peak Hours: 8:00-9:00 AM, 3:30-4:30 PM



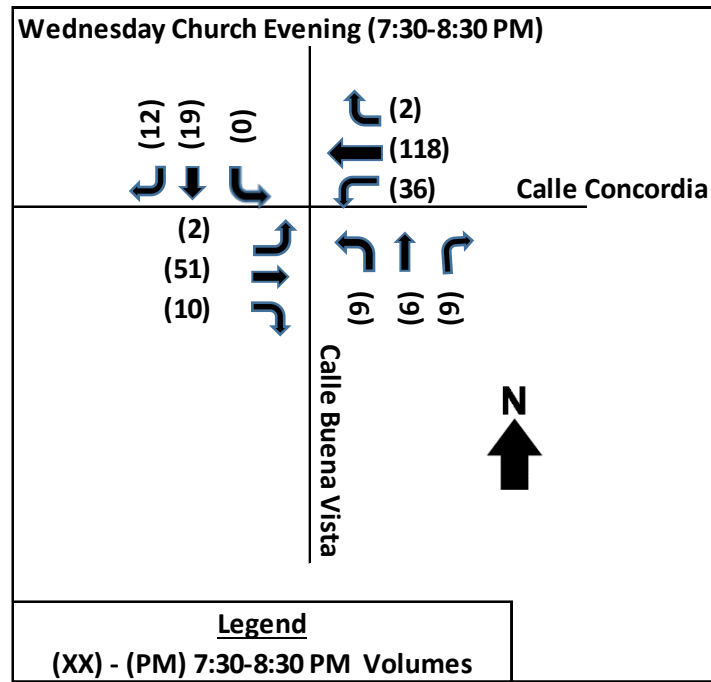
Tuesday AM Peak Hours: 8:00-9:00 AM, 3:30-4:30 PM



Wednesday PM Site Peak Hour: 5:30-6:30 PM

Adjusted proportionally based on 11/30/2022 Dwy Counts

Exhibit 9 (cont.) Intersection Volumes (2021)



Wednesday PM Site Peak Hour: 7:30-8:30 PM

Adjusted proportionally based on 11/30/2022 Dwy Counts

Exhibit 10 Church Driveway Volumes 5:30-6:30 PM (Wednesday November 30, 2022)

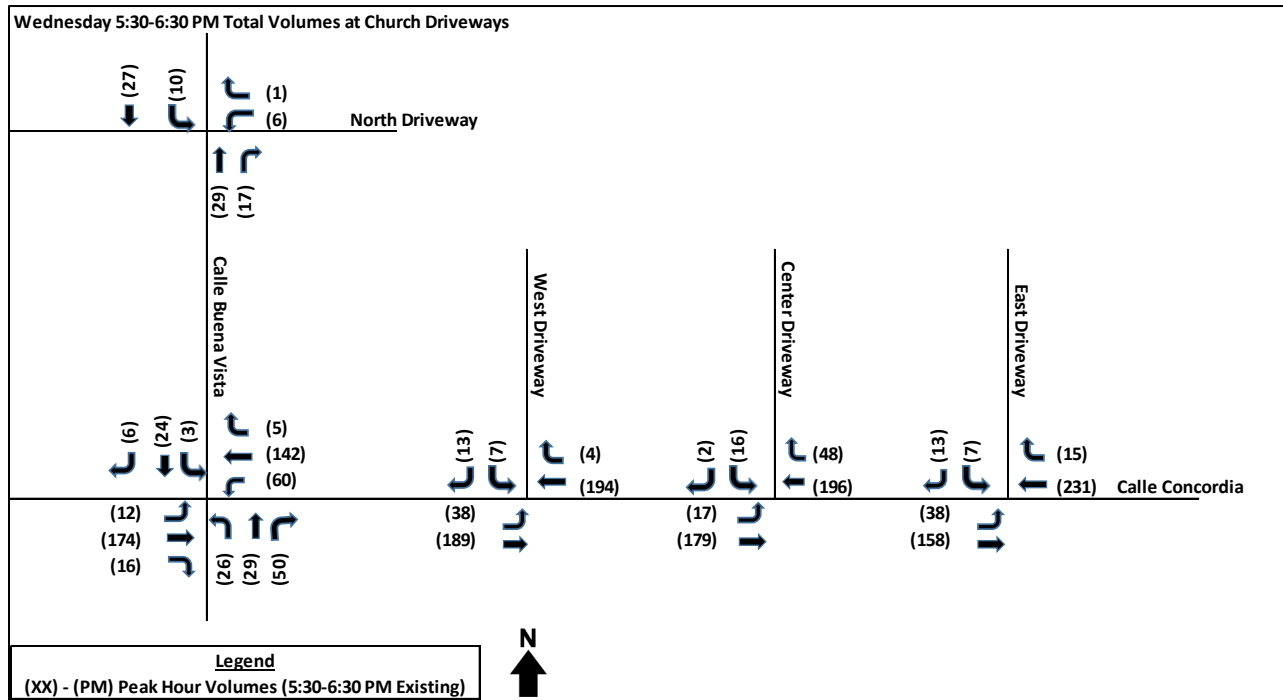
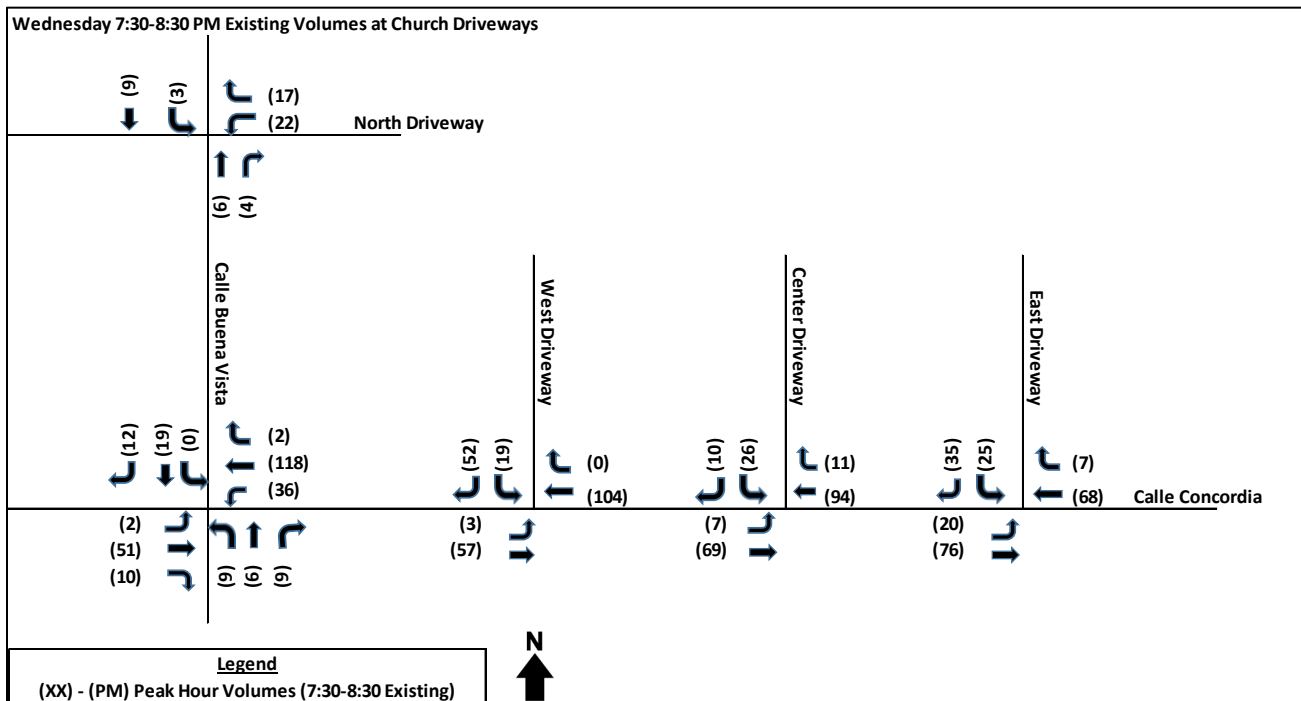


Exhibit 11 Church Driveway Volumes 7:30-8:30 PM (Wednesday November 30, 2022)



Safety Related Deficiencies

ADOT collects crash data for all roadways within the state. We reviewed the segments of Calle Concordia west of and east of Calle Buena Vista for the most recently available five-year period (2014-2018). There were no segment-related crashes on Calle Buena Vista during the five-year period. We also reviewed the “junction-related”, or intersection crashes in the vicinity of the project.

Roadway Segment Crashes

As shown in Exhibit 12a, on Calle Concordia between La Canada and Calle Buena Vista, there were four recorded crashes during the five-year period. Three were single-vehicle crashes with no injury. The five-year crash rate was 0.68 crashes per million vehicle-miles (MVM).

There were six crashes on the segment of Calle Concordia between Calle Buena Vista and Oracle Road. Four were rear-end crashes, and four were no-injury crashes. The five-year crash rate was 1.20 crashes per MVM. Although the crash rate on the east section seems high, one crash on this section results in a rate of 1.00 crashes per million-vehicle miles, indicating that the low traffic volumes on this segment result in a moderately high crash rate rather than an identifiable problem that can be mitigated.

Intersection Crashes

As shown in Exhibit 12b, there were nineteen “junction-related” crashes at the Calle Concordia intersection of Calle Buena Vista, Overlook Drive and Shadow Mountain Drive. Ten were at Calle Concordia/Calle Buena Vista and five were at Calle Concordia/Overlook Drive and four were at Calle Concordia/Shadow Mountain Drive. The most common crash types were left turn (six crashes) and rear end (five crashes). Thirteen of the crashes were no-injury crashes. The highest crash rate was at Calle Concordia/Calle Santa Cruz with 0.91 crashes per million entering vehicles.

Exhibit 12a Crash History - Roadways

Calle Concordia, La Canada Drive to Calle Buena Vista							
Crash Type	2014	2015	2016	2017	2018	5-Year Totals	%
Single Vehicle	1				2	3	75%
Other				1		1	25%
Total	1	0	0	1	2	4	
Crash Rate (per MVM)	0.86	0.00	0.00	0.86	1.71	0.68	
Severity	2014	2015	2016	2017	2018	Totals	%
Bodily Injury				1		1	25%
No Injury	1				2	3	75%

Calle Concordia, Calle Buena Vista to Oracle Road							
Crash Type	2014	2015	2016	2017	2018	5-Year Totals	%
Left Turn	1					1	17%
Rear End	1		2		1	4	67%
Sideswipe				1		1	17%
Total	2	0	2	1	1	6	
Crash Rate (per MVM)	2.01	0.00	2.01	1.00	1.00	1.20	
Severity	2014	2015	2016	2017	2018	Totals	%
Bodily Injury	1		1			2	33%
No Injury	1		1	1	1	4	67%

Exhibit 12b Crash History - Intersections

Calle Concordia/Calle Buena Vista							
Crash Type	2014	2015	2016	2017	2018	5-Year Totals	%
Single Vehicle	1					1	10%
Angle			1		1	2	20%
Left Turn	1			1		2	20%
Rear End			2	2		4	40%
Other		1				1	10%
Total	2	1	3	3	1	10	
Crash Rate (per MVE)	0.91	0.46	1.37	1.37	0.46	0.91	
Severity	2014	2015	2016	2017	2018	Totals	%
Bodily Injury	1	1	1			3	30%
No Injury	1		2	3	1	7	70%

Calle Concordia/Overlook Dr							
Crash Type	2014	2015	2016	2017	2018	5-Year Totals	%
Single Vehicle	1					1	20%
Angle		1				1	20%
Left Turn			2	1		3	60%
Total	1	1	2	1	0	5	
Crash Rate (per MVE)	0.55	0.55	1.10	0.55	0.00	0.55	
Severity	2014	2015	2016	2017	2018	Totals	%
Bodily Injury	1					1	20%
No Injury		1	2	1		4	80%

Calle Concordia/Shadow Mountain Dr							
Crash Type	2014	2015	2016	2017	2018	5-Year Totals	%
Single Vehicle	1					1	25%
Angle					1	1	25%
Left Turn			1			1	25%
Rear End		1				1	25%
Total	1	1	1	0	1	4	
Crash Rate (per MVE)	0.55	0.55	0.55	0.00	0.55	0.44	
Severity	2014	2015	2016	2017	2018	Totals	%
Bodily Injury	1				1	2	50%
No Injury		1	1			2	50%

4. Projected Traffic

Site Traffic Forecasting

Trip Generation

Trip generation is typically estimated using the trip rates contained in the Institute of Traffic Engineers' *Trip Generation Manual*, 11th Edition. The number of trips generated is the mathematical product of land use intensity (building square footage, number of dwelling units, etc.) and the trip generation rate, based on an average rate or from a fitted curve equation. The result is the total number of one-way trips (not round trips) expected to be generated by the project. These trips represent the number of vehicles estimated to enter and leave the project.

Although there are trip generation rates for the land use "Church" in the Trip Generation Manual, this project will include land use activities associated with sporting events and practices.

Current Sunday worship services are held at 8 am, 9:30 am and 11 am. There are activities for young church members during these services. In addition to a Wednesday evening service beginning at 6:30 PM, religious education classes for children between pre-kindergarten through high school are held on Wednesday evenings beginning at 6 pm. Other smaller weekly church events (women's Bible study, student ministry Bible study, etc.) are held during the week.

This project is expanding administrative buildings and adding supporting amenities to an existing church. Although the church wishes to increase its membership, the purpose of the expansion is to add resources such as youth participation facilities (classrooms, athletic spaces) to enhance the experiences of existing and potentially new church members.

The expansion of the campus includes the addition of indoor sports facilities, an outdoor activity field, an auditorium, conference rooms and new classrooms. The indoor sports facilities include basketball courts and a turf area.

The church plans on continuing their sports ministry programming including basketball, soccer, and other ministry league sports events within its new facilities. Currently, the church runs a sports ministry program in Oro Valley utilizing middle school gymnasiums and fields. The church views this new facility as an opportunity to pursue new ministry outreach to all ages in the community. Practices will generally occur during the week with games on Saturdays.

Because there are several church ministries, such as religious classes, that are attended between 6-7:45 PM on Wednesday nights, the church has committed to limiting league sports practice times outside of this time period, such as after 8:00 PM on Wednesday nights, so as to not overburden the church parking areas at this time or to generate a high number of site trips at any particular time. The church has also committed to not have Wednesday evening league sports practice on Wednesday evenings for the first phase of this redevelopment project. Because there are fewer church related activities on other days in the evenings during the week, there may be sports practices starting after the hour surrounding CDO High School dismissal times.

Estimates Provided by Church Staff

To determine when the site traffic peaks would occur, Church staff provided estimated attendance data for each of the activities (church services, classes, league sports activities) at the church. The data provided includes estimated vehicles during four peak periods of each day of the week.

Based on these estimates, the highest attendance time will continue to be on Sunday during the highest attended morning service. The Sunday traffic count data indicates that this is associated with the 11 AM service. Monday and Wednesday evenings between 6:00-8:00 PM have the highest anticipated site trips during the weekdays with approximately 365 vehicular trips estimated on Monday evenings and 511 vehicular trips estimated on Wednesday evenings. Various church classes are held during the weekdays, generally beginning at 6:00 pm or 6:30 pm. On Saturdays, traffic is estimated to be split evenly between each the morning and afternoon peak hours.

No sports league activities will be scheduled: (1) On Sundays before 1:00 PM, (2) prior to Phase 2, and within 30 minutes of the start or end of the Wednesday evening service as its schedule may be adjusted from time to time, or (3) Starting or ending during the hour surrounding the CDO High School arrival and dismissal times. The intent of this condition is to prevent significant comingling of traffic from sports league activities, primary worship times, and CDO High School. Exceptions may be granted by the Town Engineer and Planning Director if requested in writing at least two working days prior to a scheduled event.

To focus on the highest impact from the project, we used the recorded Wednesday peak period volumes and the future Wednesday evening site trip estimates to estimate the impacts on Calle Concordia, the intersection of Calle Concordia/Calle Buena Vista and the project driveways. Although Sunday site trips will continue to be the highest of the week, we did not use this time due to the much lower background traffic volumes on Sunday.

We reviewed the collected peak hour data at the Calle Concordia/Calle Buena Vista intersection, the Wednesday evening peak period driveway counts, the 24-hour counts collected on Calle Concordia east of the eastern project driveway and the 24-hour counts collected on Calle Buena Vista north of the project driveway. The counts indicate that although the Wednesday afternoon peak hour (3:30-4:30 pm) had the highest volumes during the day, the site related activities are less during this time than during the evening peak period (5:30-8:30 PM) for which the Church staff estimates 511 non-league sports associated vehicles for staff and visitors. Of this number, 219 vehicular site trips are associated with existing activities, and the remaining 292 are associated with the proposed expansion. This represents an estimated 133% increase in future site trips on Wednesday evenings over the existing site trips. For Phase 2, we applied this incremental percentage increase to the collected driveway counts to estimate the new site trips on Wednesday and added the new trips to the existing counts to estimate the total future site trips on Wednesday during the 5:30-6:30 PM peak hour when there would be the highest number of inbound church trips and between 7:30-8:30 PM when there would be the highest number of outbound site trips. This assumption of exiting vehicles during the 7:30-8:30 PM peak hour provides the conservative condition that the exiting site trips for all non-league sports related activities may overlap with the entering site trips for the league sports related activities on Wednesday nights for Phase 2.

The activity field activities will generate an estimated maximum of 96 participating children. This number was derived by assuming that there would be four separate practices occurring with twelve children per team with potentially two teams practicing on each of the four fields (24 X 4 fields = 96 children). Assuming one car per participating child, there will be an estimated maximum of 96 vehicles entering and 96 vehicles exiting during practice and game times during the week and weekend.

The project will be constructed in two phases with the first phase being the activity field. Church staff has indicated that for the first phase, there would be no sports league activities on Wednesday evenings. Also, the new eastern driveway will not be constructed as part Phase 1, and it is expected that most sports league- related traffic for this phase will be through the existing driveway on Calle Buena Vista although some of the Phase 1 trips have been assigned to the two western driveways on Calle Concordia.

Exhibit 13 shows the estimated (as provided by Church staff) existing and new vehicles during the evening time periods.

Trip Distribution and Assignment

Based on the location of the new facilities, it is estimated that most of the site traffic will ultimately enter the site via Calle Concordia at one of three driveways. However, for Phase 1 of the project, the activity field, the church will promote access to and from the existing driveway on Calle Buena Vista by informing parents of this preference so that most activity field trips during the first phase will use this access. It is expected that some activity field trips will still use the two existing western driveways on Calle Concordia to access the activity field. There will be no Wednesday evening sports league activities during Phase 1.

Exhibit 13 Highest Impact During the Weekday

	Persons	Vehicles
Activity Field		
Activity Field Weekday Evening: no Wednesday Phase 1, all weekday evenings, Phase 2	92	92
Non-Activity Field Trips (Existing and Phase 2)		
Totals	700	511
Wednesday Estimated Existing Activities (5:30-7:45 PM)	300	219
Wednesday Additional Future Activities (5:30-7:45 PM)	400	292

Note: For the activity field vehicles numbers, the number shown is assumed to be the same for the entering and exiting traffic. So for the activity field vehicles in Phase 2 on Wednesday evening, there would be 92 trips entering around 7:45 PM and exiting around 9:00 PM. However, to be conservative, the exiting trips are assumed to exit during the same 7:30-8:30 PM hour.

For Phase 2, the trips associated with sanctuary or classroom activities would use the existing driveways, and the new eastern driveway. Many of the trips associated with league sports-related activities would be redistributed from the Calle Buena Vista access and will primarily use the new eastern driveway. A bridge will be constructed to provide access to the adjacent property, Canyon del Oro (CDO) High School, to the left to provide overflow parking spaces, if needed, via an agreement between the church and the high school. A copy of the written agreement between CDO and OVCN will be provided to the Town prior to construction of the bridge. A locking gate will be installed at the property line, or at another mutually agreed location. It is difficult to estimate how many trips would be distributed to this bridge to this overflow parking area, but there are approximately 300 parking spaces on the west side within the high school property so the number of overflow spaces should be adequate. The bridge will likely be open during the high school graduation ceremonies, big swim meets at the Oro Valley Aquatic Center, and possibly for services on Easter and Christmas and any other time CDO and the church agree to open it.

We originally reviewed the intersection data collected at Calle Concordia/Calle Buena Vista to determine the existing traffic pattern distribution for the 6:00-7:00 Wednesday peak hour. Balancing the entering and exiting volumes, this results in a distribution of 40% to/from the east, 32% to/from the west, 21% to/from the south and 7% to/from the north. We reevaluated conditions for the

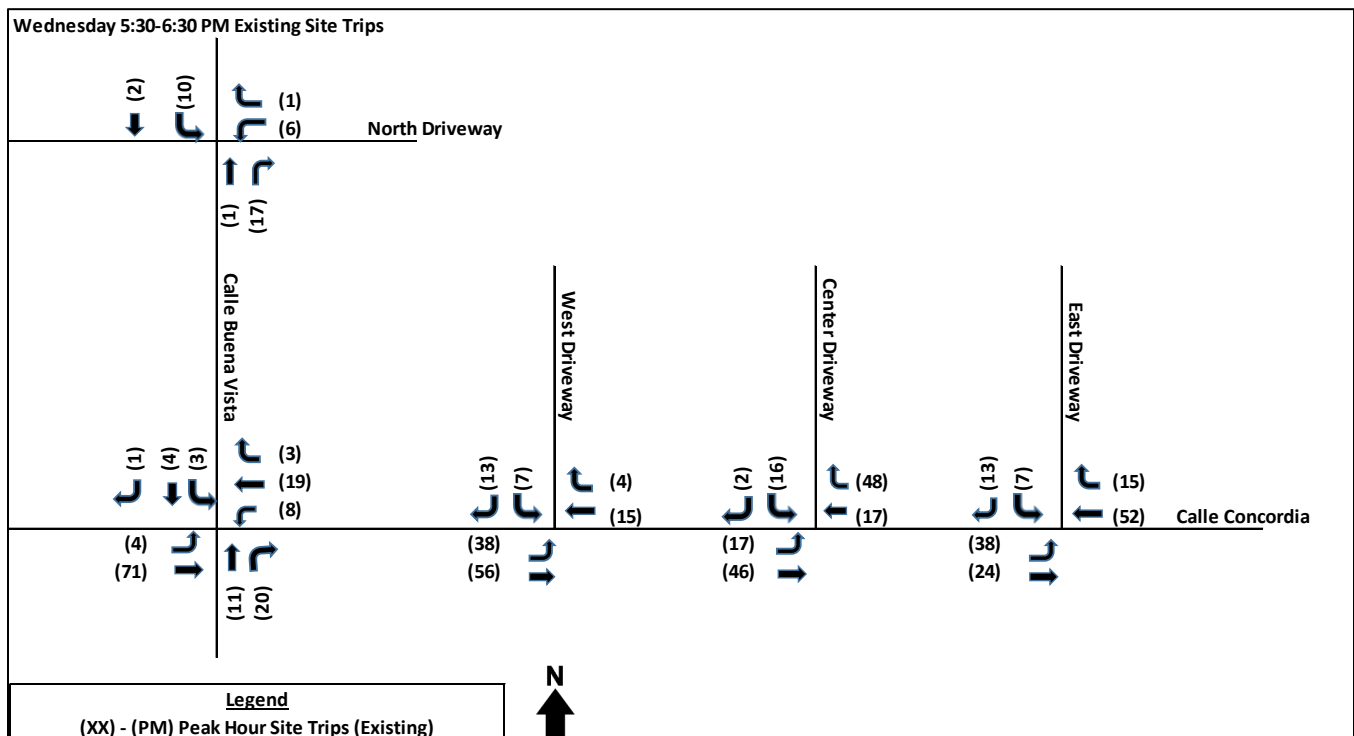
adjusted 5:30-6:30 PM peak hour volumes, and the distributions were close to the 6:00-7:00 PM volume distributions, so we did not revise them.¹

The existing site trips for the PM peak hours are shown in Exhibits 14 and 15. These trips were collected at the project driveways and represent actual volumes associated with Wednesday evening church activities during the 5:30-6:30 PM peak hour and the 7:30-8:30 PM peak hour. The site trips at the Calle Concordia/Calle Buena Vista intersection were proportionally assigned based on the existing volume distribution at the intersection.

For Phase 1, only the trips associated with the sports league activities are provided. As mentioned before, during Phase 1, there will not be any sports league activities on Wednesday. The weekday (except for Wednesday) sports league activities will be scheduled to begin any time after 5:30 PM. The site trips during Phase 1 are shown in Exhibit 16. There is no specific peak hour during when these trips will enter and exit the campus, and both total entering (96 entering trips) and total exiting (96 exiting trips) are represented in the exhibit.

For Phase 2, the new future site trips for the non-sports league activities are shown in Exhibit 17 (5:30-6:30 PM) and Exhibit 18 (7:30-8:30 PM). Also, for Phase 2, the new east driveway will be constructed, and much of the league sports activity field traffic will be redistributed to and from this location. Exhibit 19 shows the redistribution of Activity Field traffic during the 7:30-8:30 PM peak period. Although exiting activity field traffic will likely exit after 8:30 PM when background traffic volumes will be low, the exiting activity field traffic is provided in this exhibit to be conservative.

Exhibit 14 Existing Site Trips (Wednesday, 5:30-6:30 PM)



¹ The 5:30-6:30 updated distributions were 40% to/from the east, 34% to/from the west, 19% to/from the south and 7% to/from the north.

Exhibit 15 Existing Site Trips (Wednesday, 7:30-8:30 PM)

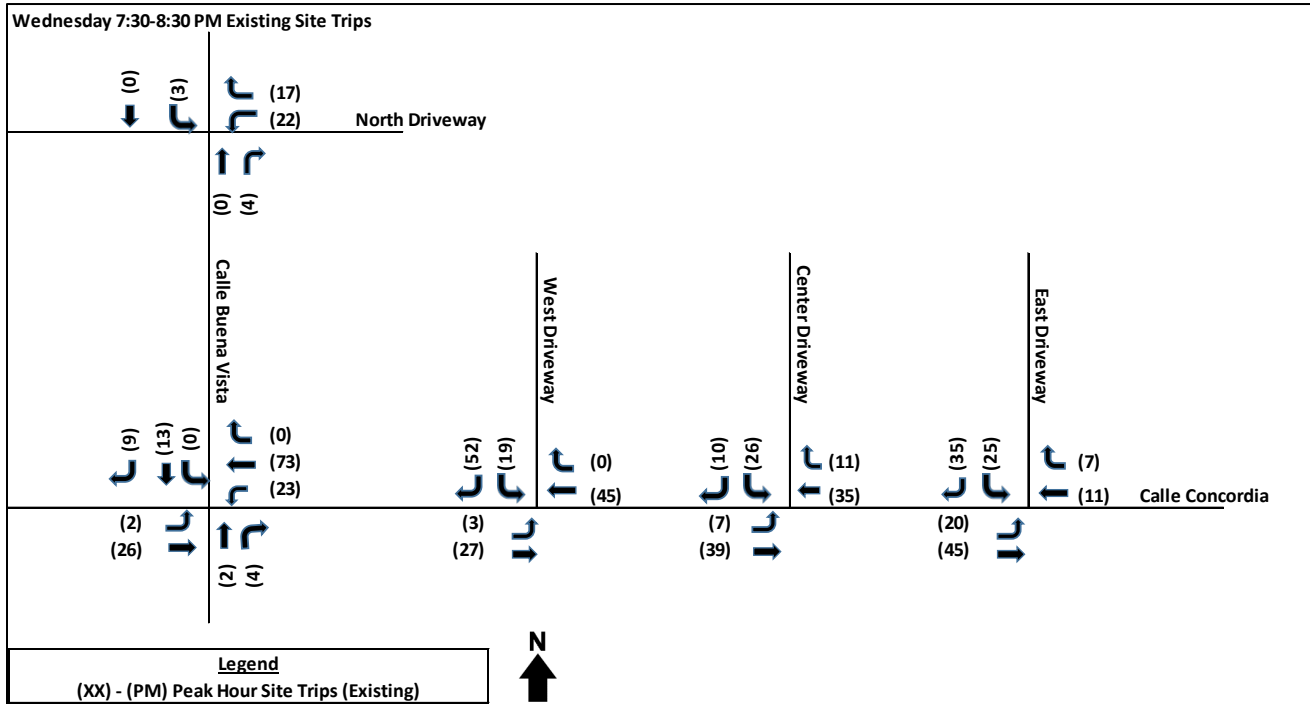


Exhibit 16 Phase 1 Activity Field Peak Hour Trips

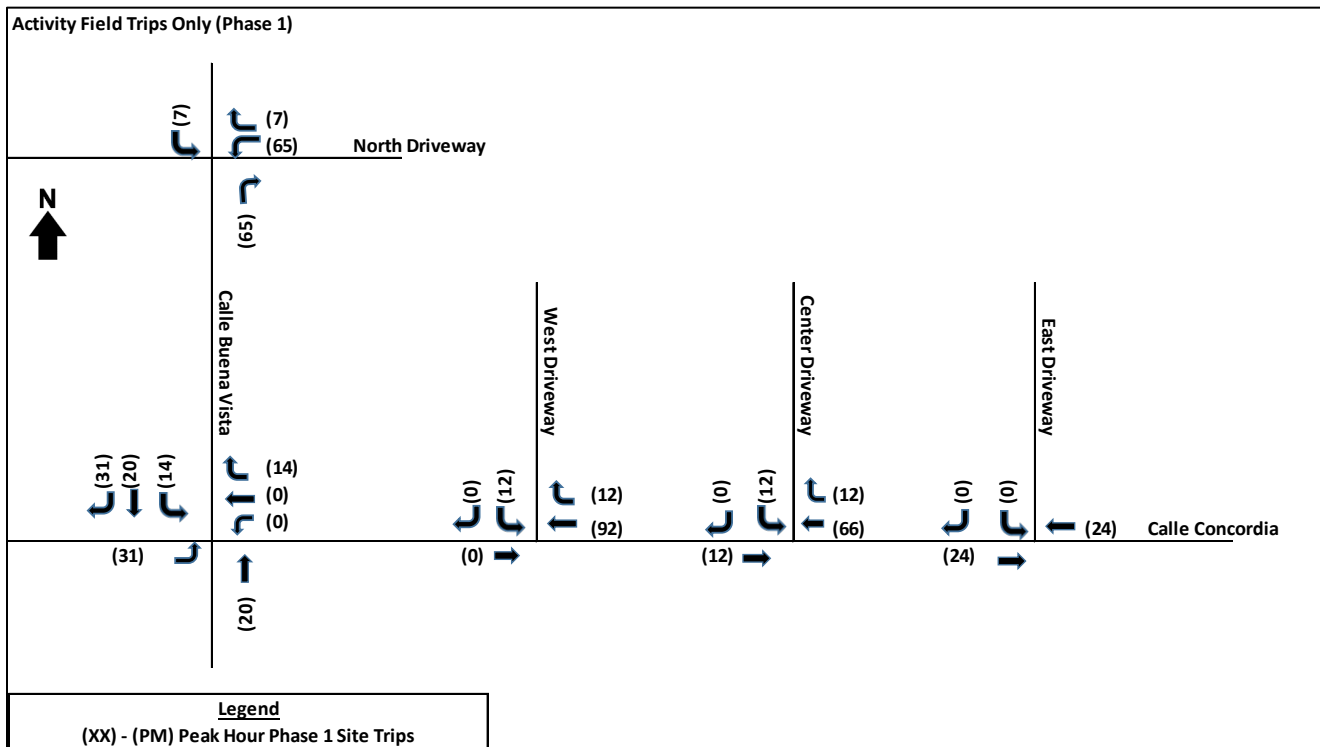


Exhibit 17 Phase 2 New Peak Hour (5:30-6:30) Site Trips (Non-Activity Field)

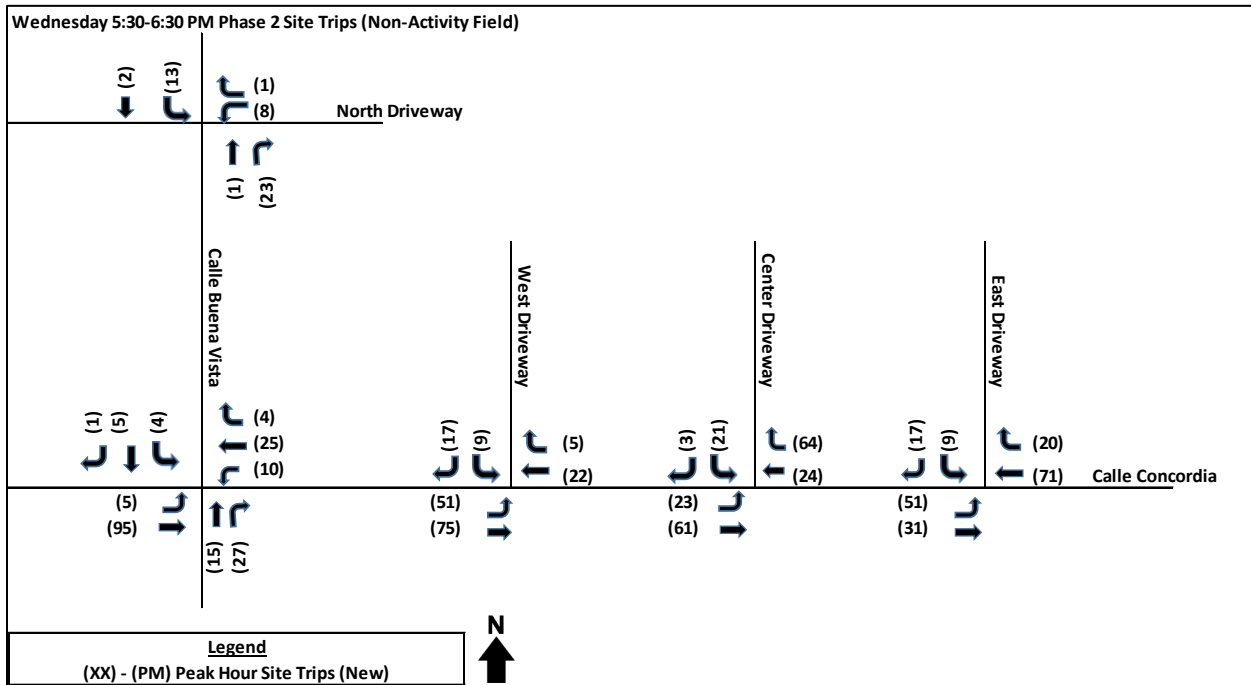


Exhibit 18 Phase 2 New Peak Hour (7:30-8:30) Site Trips (Non-Activity Field)

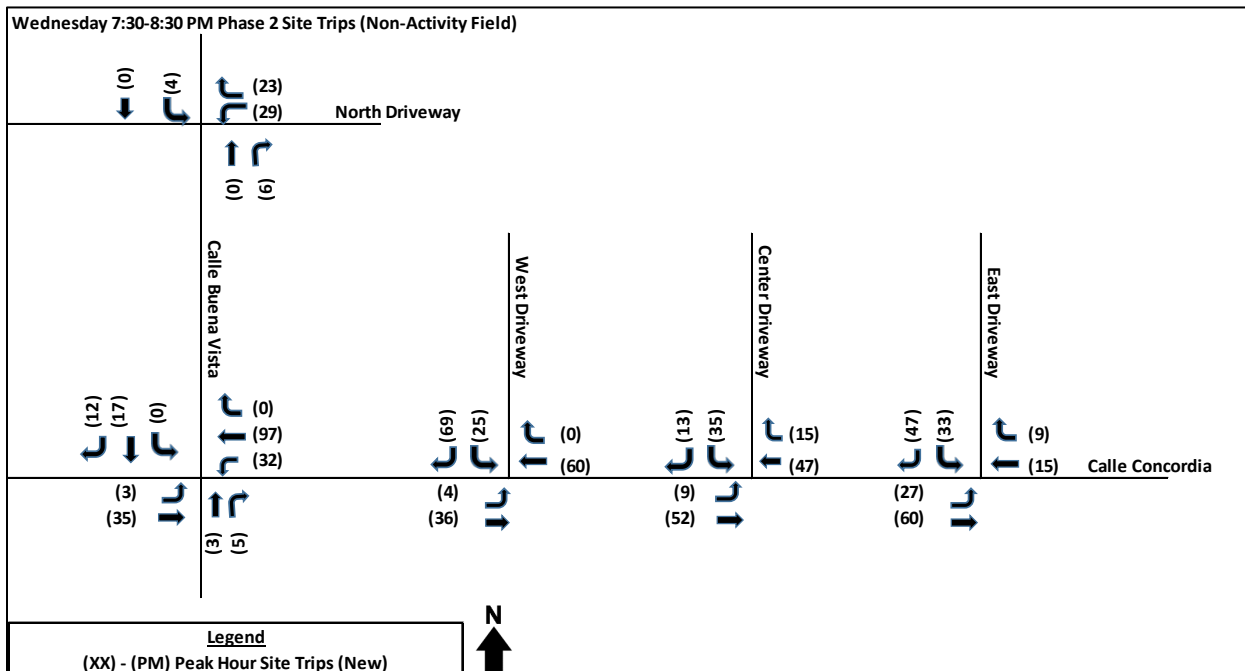
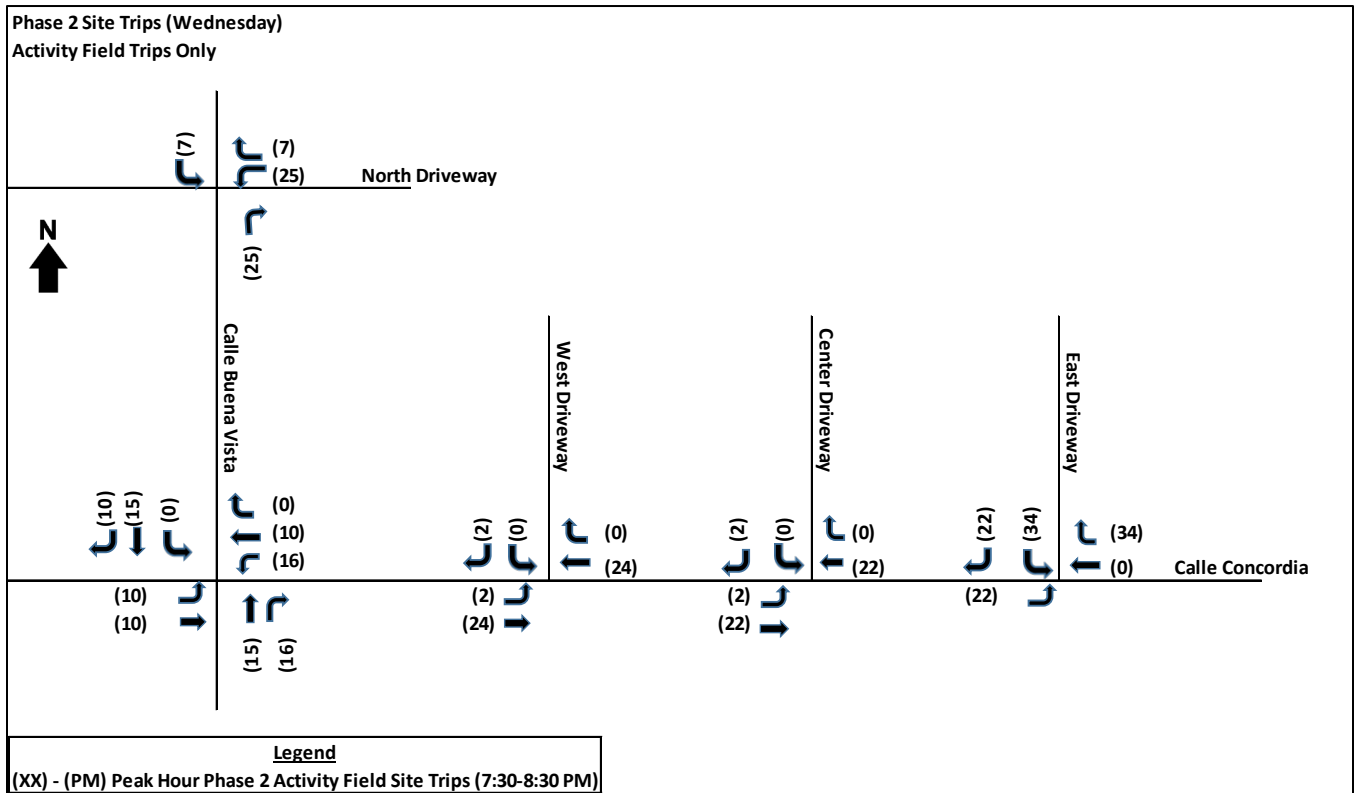


Exhibit 19 Phase 2 Redistributed Peak Hour (7:30-8:30) Site Trips (Activity Field)



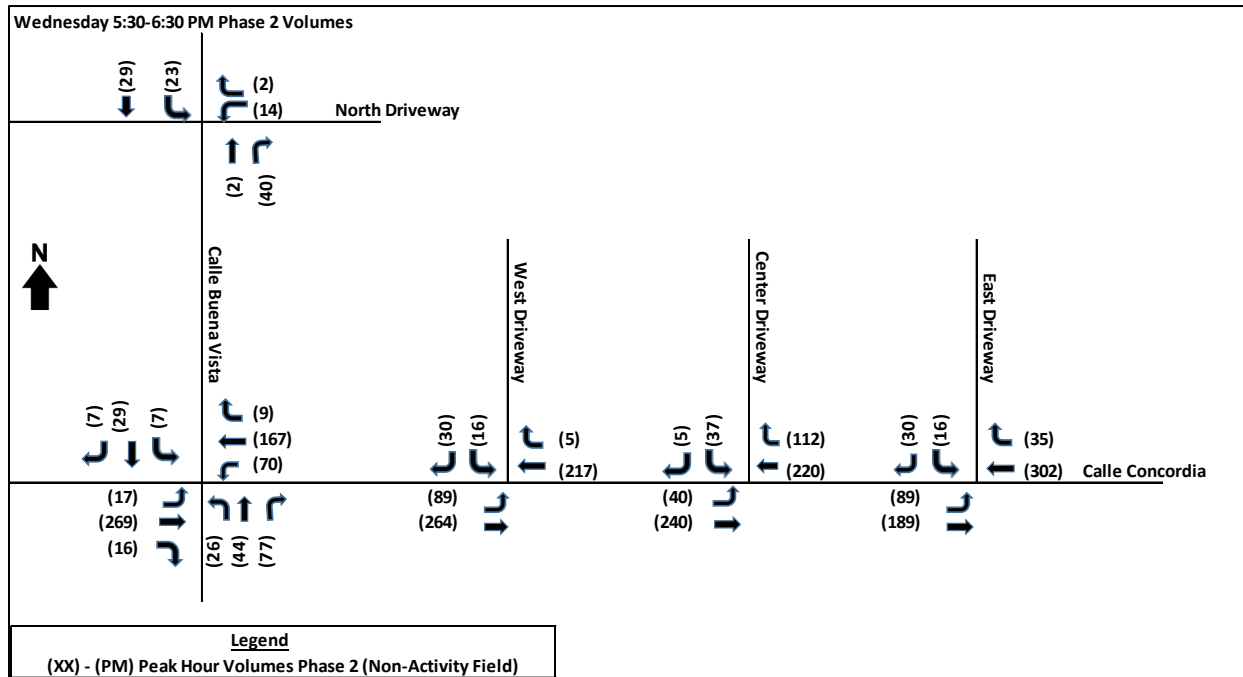
Total Traffic

Because the operational focus of this project is on the impact during the highest (Wednesday) peak hours, the total traffic volumes for Phase 1 are not provided here. The Phase 1 trips (sports league activities) will not occur on Wednesday, and may be spread out during the 5:30 PM to 9:00 PM peak hours on other weekdays. Because the Phase 1 activities will not occur during peak traffic hours during the week, we did not provide an analysis for the impacts of Phase 1 because the Wednesday peak hours will experience higher traffic volumes.

For Phase 2, the total projected volumes are shown in Exhibit 20 (5:30-6:30 PM) and Exhibit 21 (7:30-8:30 PM).

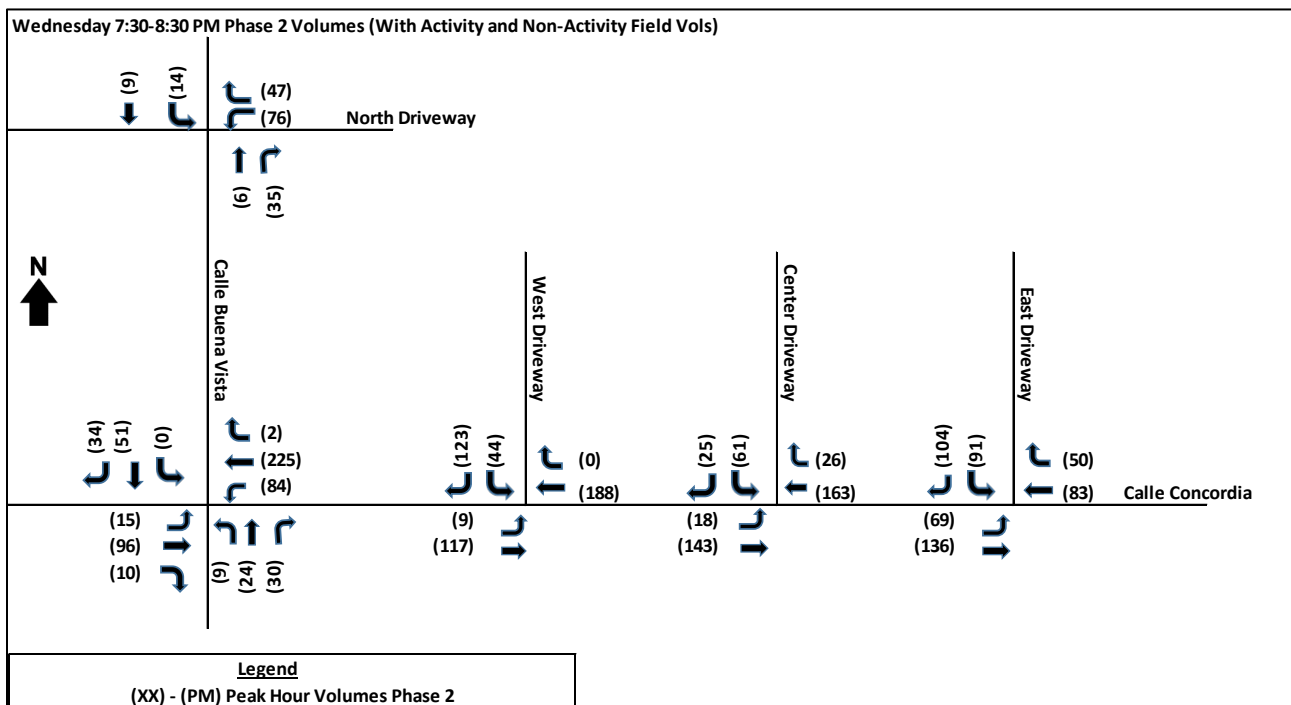
For Phase 2, the new east driveway will be constructed, and much of the league sports activity field traffic will be redistributed to and from this location. On Wednesday nights, these volumes will enter between 7:30-8:30. However, the non-activity field buildings will be constructed during this phase, and the exiting non-activity trips will exit during the 7:30-8:30 PM hour, so there will some overlap between sports league trips and non-sports league trips during this hour. These volumes are represented in Exhibit 21.

Exhibit 20 Phase 2 Total Volumes (5:30-6:30)



Note: No Sports League Activities will occur during this peak hour.

Exhibit 21 Phase 2 Total Volumes (7:30-8:30)



5. Traffic and Improvement Analysis

Site Access

The locations of the proposed project access locations on Calle Concordia and Calle Buena Vista meet Pima County intersection spacing guidelines for a 25-mph roadway. The spacing requirement is 105 feet from driveway to driveway, and each of the driveways meet this minimum spacing requirement.

Level of Service Analysis

Roadway Performance

The highest number of parked vehicles during a weekday is projected to be on Wednesday with 899 vehicles parked during the three peak periods (morning, afternoon, and evening). This does not mean that there are 899 vehicles parked at one time; rather, this number is spread out during the day. Doubling this volume to estimate the total number of inbound and outbound trips results in approximately 1,800 new peak period (morning, afternoon, and evening) trips associated with the project based on the data provided by the church staff. Assuming another 1,000 site trips during the non-peak hours results in potentially 3,000 trips during a Wednesday.

The highest recorded existing volume on Calle Concordia in the vicinity of the site is 5,147 vpd. The highest recorded existing volume on Calle Buena Vista is 2,301 vpd. Based on Florida Department of Transportation's *Generalized Annual Average Daily Volumes for Florida's Urbanized Areas* level of service table, the LOS D/E threshold for Calle Concordia is approximately 13,320 vehicles per day and the LOS D/E threshold for Calle Buena Vista is 10,660. The new trips added to the recorded volumes result in traffic volume projections well below the FDOT daily volume thresholds for LOS D conditions.

Intersection Performance

Three scenarios were analyzed: Existing conditions during the 5:30-6:30 and 7:30-8:30 PM peak hours on Wednesday evenings, Phase 2 from 5:30-6:30 PM which includes all new entering non-activity field trips, distributed to all driveways, and Phase 2 from 7:30-8:30 PM which includes all exiting new and existing non-league sports trips and all activity field trips. There is no Phase 1 analysis since all Phase 1 activity will occur on weekdays other than Wednesday, and traffic volumes on Wednesday during Phase 2 will be higher what will be experienced during other days of the week during Phase 1.

For each scenario, all movements will operate at LOS D or better. The results are shown in Exhibits 22-25.

Exhibit 22 Intersection Analysis Results – Existing Conditions (5:30-6:30 PM)

Existing Conditions - 5:30-6:30 PM Wednesday		
Calle Concordia/Calle Buena Vista	Delay (sec/veh)	LOS
Eastbound		
Left	7.8	A
Westbound		
Left	7.9	A
Northbound		
Left/Through	20.9	C
Right	9.7	A
Southbound		
Left/Through/Right	16.7	C
Calle Concordia/West Driveway	Delay (sec/veh)	LOS
Southbound		
Left/Right	11.7	B
Eastbound		
Left	8.0	A
Calle Concordia/Center Driveway	Delay (sec/veh)	LOS
Southbound		
Left/Right	13.6	B
Eastbound		
Left	8.1	A
Calle Concordia/East Driveway	Delay (sec/veh)	LOS
Southbound		
Left/Right	12.2	B
Eastbound		
Left	8.2	A
Calle Buena Vista/North Driveway	Delay (sec/veh)	LOS
Westbound		
Left/Right	9.1	A
Southbound		
Left	7.3	A

Exhibit 23 Intersection Analysis Results – Existing Conditions (7:30-8:30 PM)

Existing Conditions - 7:30-8:30 PM Wednesday		
Calle Concordia/Calle Buena Vista	Delay (sec/veh)	LOS
Eastbound		
Left	7.7	A
Westbound		
Left	7.5	A
Northbound		
Left/Through	13.3	B
Right	8.8	A
Southbound		
Left/Through/Right	12.1	B

Calle Concordia/West Driveway	Delay (sec/veh)	LOS
Southbound		
Left/Right	10.3	B
Eastbound		
Left	7.6	A

Calle Concordia/Center Driveway	Delay (sec/veh)	LOS
Southbound		
Left/Right	10.3	B
Eastbound		
Left	7.6	A

Calle Concordia/East Driveway	Delay (sec/veh)	LOS
Southbound		
Left/Right	10.2	B
Eastbound		
Left	7.5	A

Calle Buena Vista/North Driveway	Delay (sec/veh)	LOS
Westbound		
Left/Right	8.8	A
Southbound		
Left	7.3	A

Exhibit 24 Intersection Analysis Results With Phase 2 (5:30-6:30 PM)

Phase 2 - 5:30-6:30 PM		
Calle Concordia/Calle Buena Vista	Delay (sec/veh)	LOS
Eastbound		
Left	8.0	A
Westbound		
Left	8.3	A
Northbound		
Left/Through	34.6	D
Right	10.9	B
Southbound		
Left/Through/Right	25.5	D
Calle Concordia/West Driveway		
Delay (sec/veh)	LOS	
Southbound		
Left/Right	14.7	B
Eastbound		
Left	8.3	A
Calle Concordia/Center Driveway		
Delay (sec/veh)	LOS	
Southbound		
Left/Right	19.4	C
Eastbound		
Left	8.7	A
Calle Concordia/East Driveway		
Delay (sec/veh)	LOS	
Southbound		
Left/Right	17.1	C
Eastbound		
Left	9.0	A
Calle Buena Vista/North Driveway		
Delay (sec/veh)	LOS	
Westbound		
Left/Right	9.4	A
Southbound		
Left	7.4	A

Exhibit 25 Intersection Analysis Results With Phase 2 (7:30-8:30 PM)

Phase 2 - 7:30-8:30 PM		
Calle Concordia/Calle Buena Vista	Delay (sec/veh)	LOS
Eastbound		
Left	8.3	A
Westbound		
Left	7.9	A
Northbound		
Left/Through	31.5	D
Right	9.3	A
Southbound		
Left/Through/Right	27.9	D

Calle Concordia/West Driveway	Delay (sec/veh)	LOS
Southbound		
Left/Right	15.1	C
Eastbound		
Left	8.0	A

Calle Concordia/Center Driveway	Delay (sec/veh)	LOS
Southbound		
Left/Right	14.0	B
Eastbound		
Left	8.0	A

Calle Concordia/East Driveway	Delay (sec/veh)	LOS
Southbound		
Left/Right	25.2	D
Eastbound		
Left	7.9	A

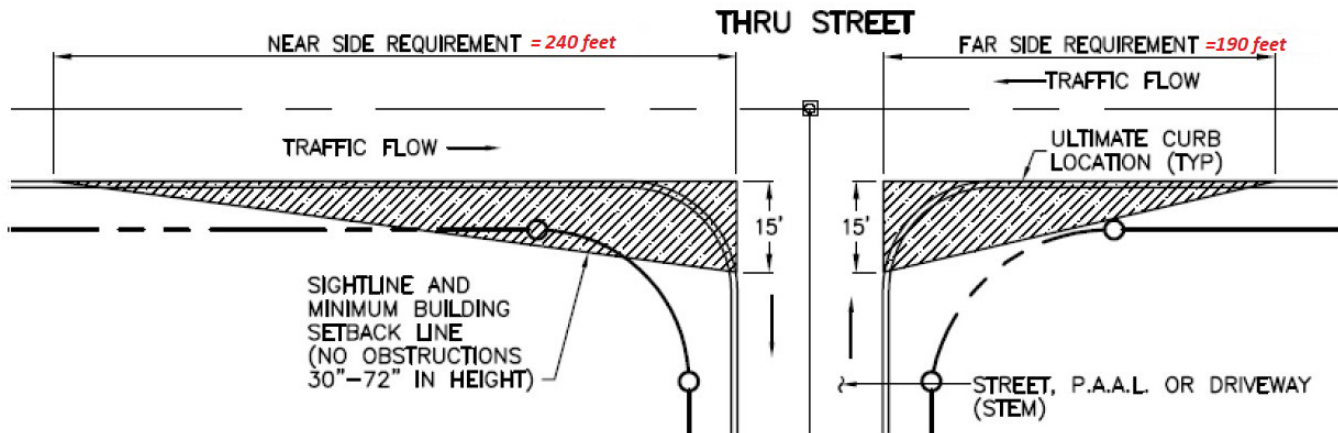
Calle Buena Vista/North Driveway	Delay (sec/veh)	LOS
Westbound		
Left/Right	9.9	A
Southbound		
Left	7.4	A

Traffic Safety

Sight Distance

Sight distances at the project driveways should meet the criteria in Oro Valley's Subdivision Street Standards and Policies Manual. Based on the speed limit of 25 mph on Calle Concordia (see Exhibit 26), the near side distance should be 240 feet. The far side distance should be 190 feet.

Exhibit 26 Sight Distance Requirements (Calle Concordia/New Project Driveway)



Speed Limit on Calle Concordia is 25 mph.

Acceleration/Deceleration Lanes, Auxiliary Lanes

Turn lane warrant criteria from the *Pima County Subdivision and Development Street Standards* are applied by Oro Valley to determine whether turn lanes are warranted at the project driveways. The volumes from Exhibit 20 (Phase 2, 5:30-6:30 PM, generally the hour with the highest peak hour volumes) were applied to the peak hour warrant criteria for right turn lanes and left turn lanes under the Phase 2 conditions. Because Phase 1 will not add traffic volumes during the busiest weekday (Wednesday), we only considered the impacts during Phase 2.

A northbound right turn lane warrant is not warranted at the existing driveway on Calle Buena Vista when all activity field traffic will enter at this driveway during Phase 1. There would need to be over 200 peak hour trips on the major roadway for a right turn lane to be warranted at the driveway on Calle Buena Vista.

As shown in Exhibit 27, right turn lanes are not warranted on Calle Concordia into the project driveways based on the expected volumes for Phase 2.

As shown on Exhibit 28, the left turn lane warrant is met during the 5:30-6:30 PM peak hour at each of the three driveways on Calle Concordia with Phase 2. Because the distance from the existing western driveway on Calle Concordia is only 115 feet from Calle Buena Vista, it will not be possible to provide a standard minimum turn lane length (110 feet) and taper for this driveway. For this reason, it is recommended that a left turn lane not be constructed on Calle Concordia at the west driveway.

Exhibit 27 Right Turn Warrant Results (Phase 2, 5:30-6:30 PM Peak Hour)

A-2 RIGHT TURN LANE GUIDELINES FOR TWO-LANE ROADS⁹

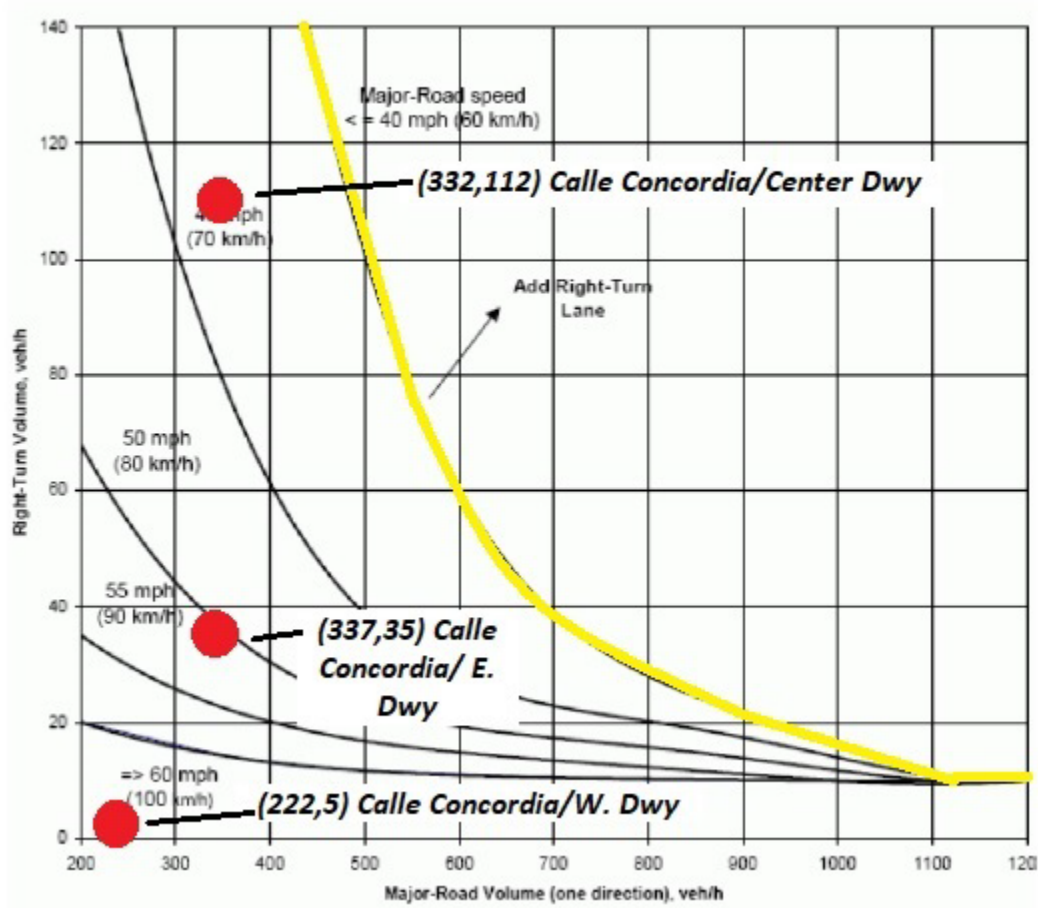
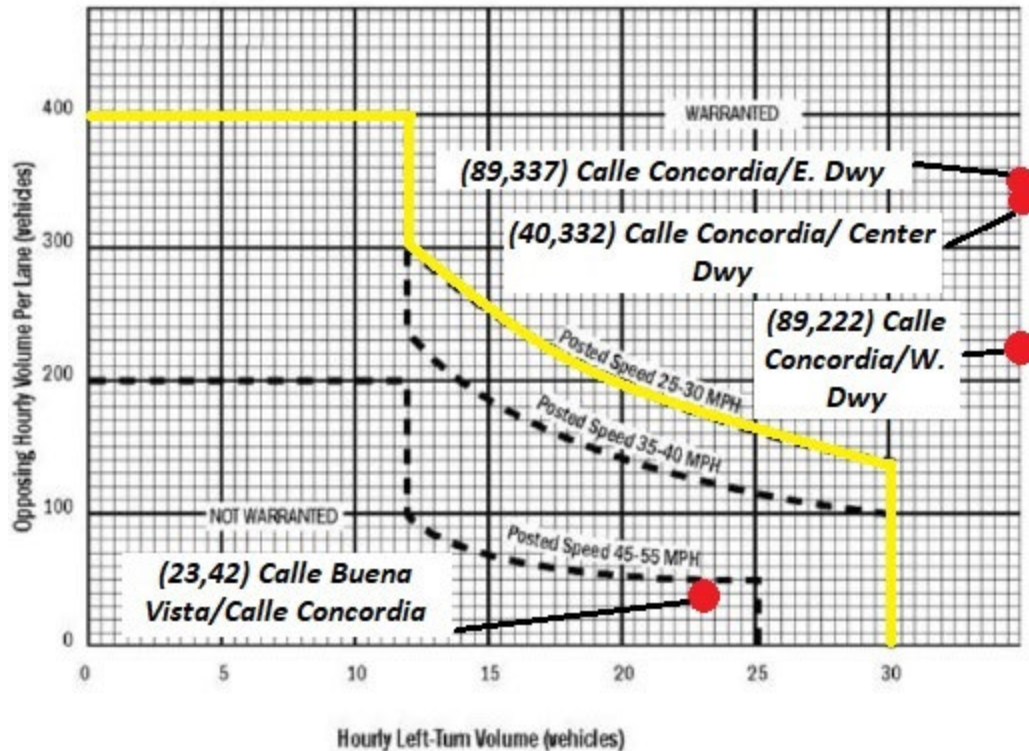


Exhibit 28 Left Turn Warrant Results (Phase 2, 5:30-6:30 PM Peak Hour)

A-1 LEFT TURN LANE GUIDELINES⁹



Note: Left turn lane storage should be a minimum 110 feet. A continuous two-way left turn lane is recommended on Calle Concordia from just east of the western driveway to the east project driveway.

The spacing between the center driveway and the new eastern driveway is over 228 feet. Because of the proximity of these center and east driveways, and because both driveways will meet the left turn lane warrant criteria, and because the taper to the east of the east driveway is approximately 80 feet west of the beginning of the existing taper for the existing continuous left turn lane, it is recommended that a continuous left turn lane should be constructed beginning immediately east of the western driveway and continuing along the project frontage. The design of this continuous turn lane will be provided with the off-site plans for improvements to Calle Concordia by others. The existing right-of-way on Calle Concordia is approximately 90 feet wide and the widening of the continuous left turn lane should fit within the existing right-of-way with the relocation of the bike lane and sidewalk on the north side of Calle Concordia. This will be verified by the project civil engineer.

The driveways onto Calle Concordia will share a lane for left and right turning vehicles exiting the site.

Restriction of Left Turns at West Driveway

Town staff has suggested that the west driveway on Calle Concordia be restricted to right turn movements only. A raised "pork chop" could be constructed that would restrict left turns in and out at this driveway. This is recommended because of the added traffic volumes at this driveway and to remove

potential traffic conflicts between traffic at the driveway and the Calle Concordia/Calle Buena Vista intersection. Because the highest traffic volumes at this driveway would occur with Phase 2 during the 5:30-6:30 PM period, a redistribution of traffic at the west and center driveways would occur. For simplicity, we reassigned all left in volumes from the west driveway to the center driveway and equally reassigned the left turn outbound volumes to the center and east driveways as shown in Exhibit 29. The volumes for the 7:30-8:30 PM peak hour are shown in Exhibit 30.

Exhibit 29 Phase 2 (Wednesday, 5:30-6:30 PM) with West Driveway Turn Lane Restrictions

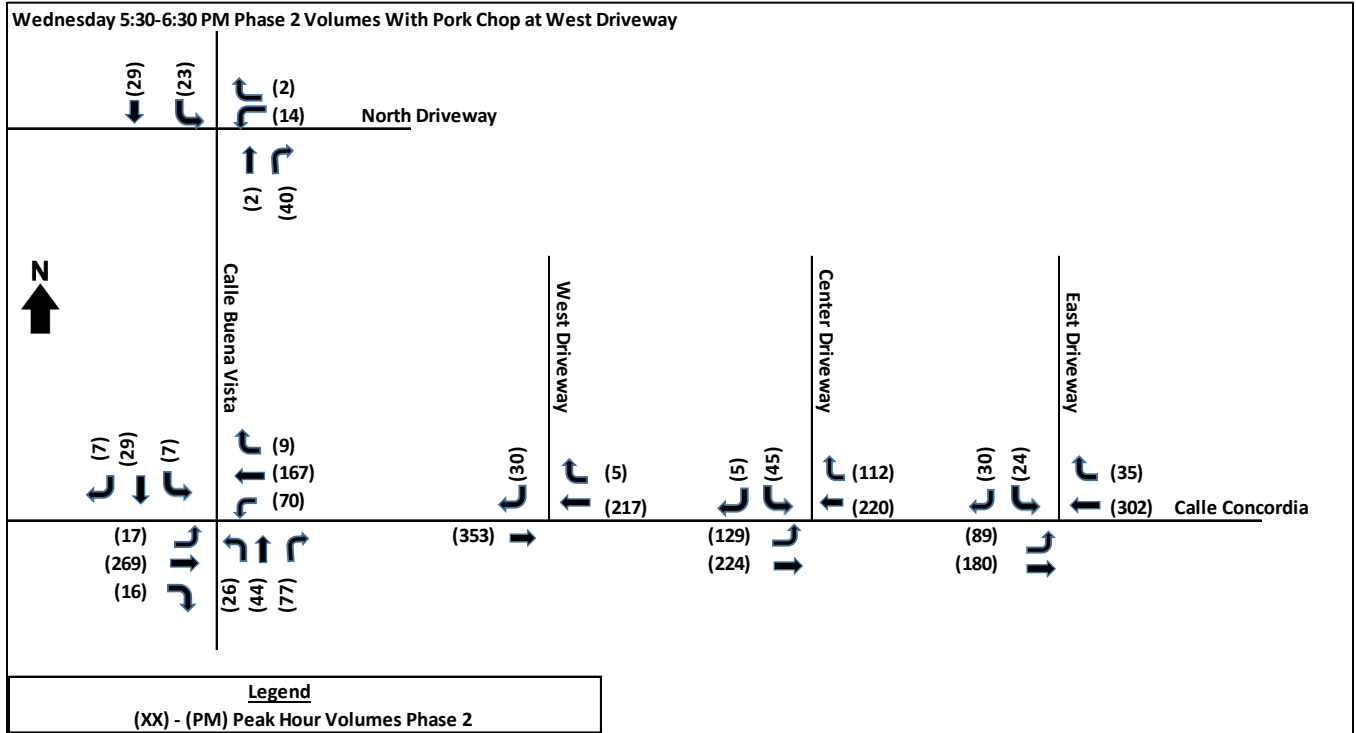
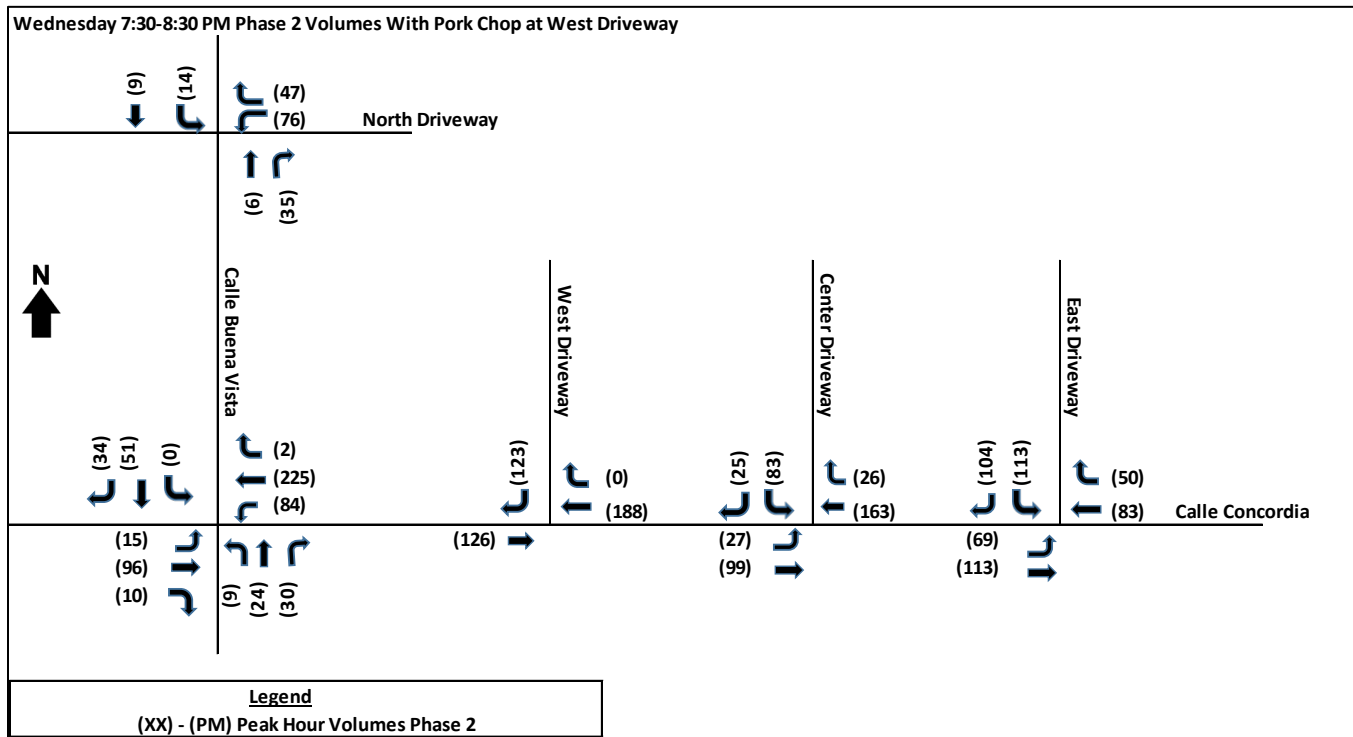


Exhibit 30 Phase 2 (Wednesday, 7:30-8:30 PM) with West Driveway Turn Lane Restrictions



We analyzed conditions at the driveways on Calle Concordia with the turn lane restrictions and the results are shown in Exhibit 31. All driveways will continue to operate at LOS D or better conditions. The Synchro analysis also found that the 95th percentile queues for turns into the center driveway will be below the minimum 110 feet storage length.

Driveway Spacing

As shown in the site plan, the location of the driveways meets Pima County standards for driveway spacing on a 25-mph road. Oro Valley defers to Pima County standards for driveway spacing.

Alternative Modes Considerations

Calle Concordia has sidewalks and bike routes in the vicinity of the project. The area is well served for alternate modes.

Exhibit 31 Intersection Results With Lane Restrictions Phase 2 (5:30-6:30 PM and 7:30-8:30 PM)

Phase 2 - 5:30-6:30 PM With Turn Lane Restrictions at West Driveway

Calle Concordia/West Driveway	Delay (sec/veh)	LOS
Southbound		
Right	10.6	B
Eastbound		
Left	N/A	N/A

Calle Concordia/Center Driveway	Delay (sec/veh)	LOS
Southbound		
Left/Right	34.3	D
Eastbound		
Left	9.2	A

Calle Concordia/East Driveway	Delay (sec/veh)	LOS
Southbound		
Left/Right	19.0	C
Eastbound		
Left	9.0	A

Phase 2 - 7:30-8:30 PM With Turn Lane Restrictions at West Driveway

Calle Concordia/West Driveway	Delay (sec/veh)	LOS
Southbound		
Right	12.2	B
Eastbound		
Left	N/A	N/A

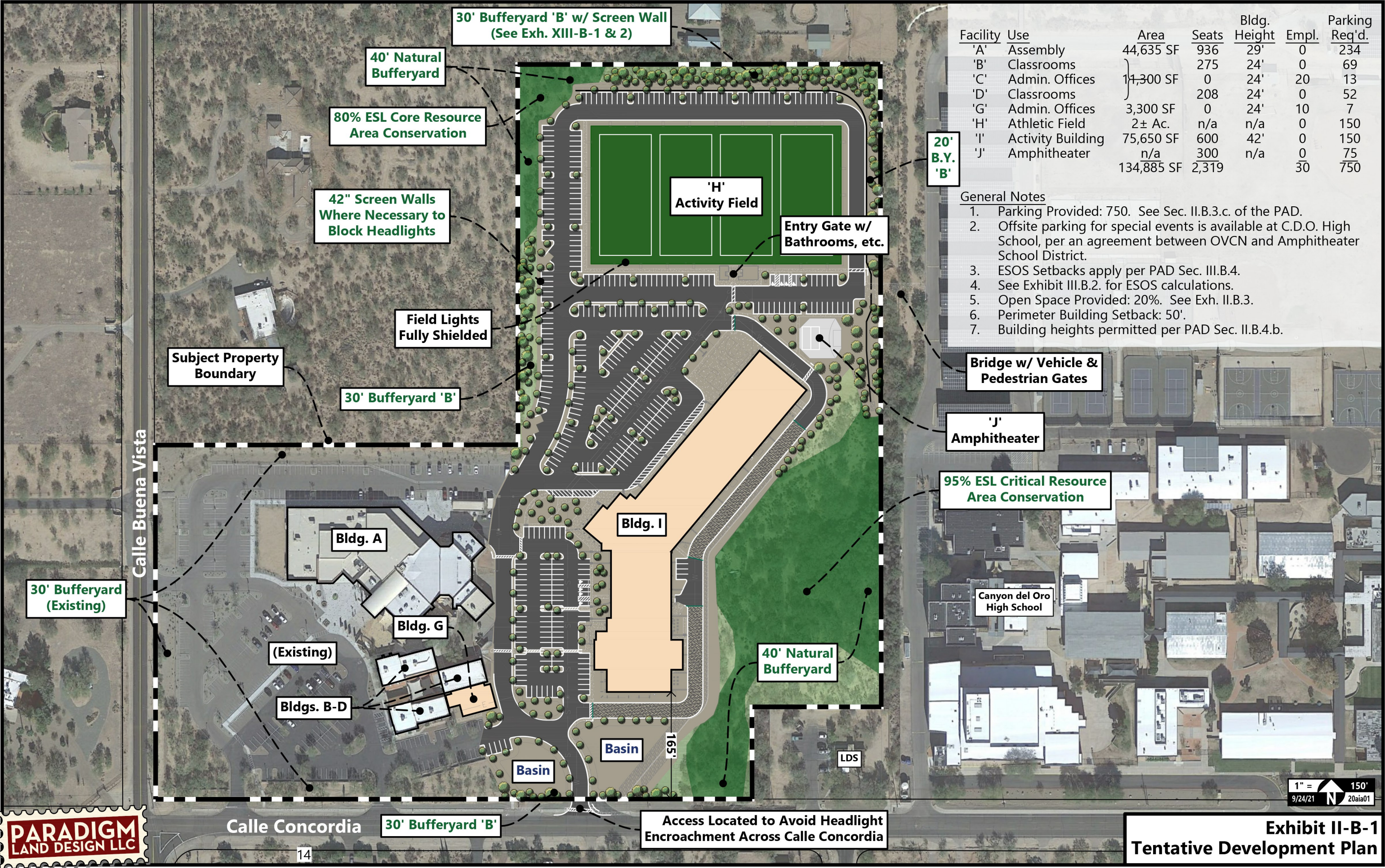
Calle Concordia/Center Driveway	Delay (sec/veh)	LOS
Southbound		
Left/Right	14.6	B
Eastbound		
Left	8.0	A

Calle Concordia/East Driveway	Delay (sec/veh)	LOS
Southbound		
Left/Right	31.2	D
Eastbound		
Left	7.9	A

6. Conclusions and Recommendations

1. All study area roadways operate at LOS C or better based on 2021 daily traffic volumes with the project new trips added, and FDOT level of service standards.
2. Adding the projected site trips to the recorded Year 2022 5:30-6:30 PM and 7:30-8:30 PM driveway and intersection volumes, all movements at the project intersections will operate at LOS D or better.
3. No sports league activities will be scheduled: (1) On Sundays before 1:00 PM, (2) prior to Phase 2, and within 30 minutes of the start or end of the Wednesday evening service as its schedule may be adjusted from time to time, or (3) Starting or ending during the hour surrounding the CDO High School arrival and dismissal times. The intent of this condition is to prevent significant comingling of traffic from sports league activities, primary worship times, and CDO High School. Exceptions may be granted by the Town Engineer and Planning Director if requested in writing at least two working days prior to a scheduled event.
4. The driveway spacing, corner clearances and sight distances for the driveways and nearby intersections meet Oro Valley standards.
5. For Phase 2, the projected turn lane volumes meet the warrants for left turn lanes on Calle Concordia at each project driveway during the weekday off-peak hour on Wednesday, the highest site traffic hour. It is recommended that a continuous left turn lane should be constructed beginning immediately east of the western driveway and continuing along the project frontage to connect to the existing continuous left turn lane terminus. The design of this continuous turn lane will be provided with the off-site plans for improvements to Calle Concordia by others.
6. An alternative for the western driveway could be to restrict access to right-in, right-out only by constructing a raised barrier, or "pork chop". The Synchro analysis for this alternative found that the turn lane movements at the impacted intersections will continue to operate at LOS D or better conditions.
7. Roadway and subdivision design should conform to current jurisdictional standards. This includes ensuring that sight distance requirements are met.
8. All new traffic signs and markings, on-site and off-site, must comply fully with the *Manual on Uniform Traffic Control Devices* and Town requirements.

- Site Plan
- ADT Location Map
- Traffic Data
- Synchro Analysis Sheets



Facility	Use	Area	Seats	Bldg. Height	Empl.	Parking Req'd.
'A'	Assembly	44,635 SF	936	29'	0	234
'B'	Classrooms	11,300 SF	275	24'	0	69
'C'	Admin. Offices		0	24'	20	13
'D'	Classrooms		208	24'	0	52
'G'	Admin. Offices	3,300 SF	0	24'	10	7
'H'	Athletic Field	2± Ac.	n/a	n/a	0	150
'I'	Activity Building	75,650 SF	600	42'	0	150
'J'	Amphitheater	n/a	300	n/a	0	75
		134,885 SF	2,319		30	750

- General Notes
1. Parking Provided: 750. See Sec. II.B.3.c. of the PAD.
 2. Offsite parking for special events is available at C.D.O. High School, per an agreement between OVCN and Amphitheater School District.
 3. ESOS Setbacks apply per PAD Sec. III.B.4.
 4. See Exhibit III.B.2. for ESOS calculations.
 5. Open Space Provided: 20%. See Exh. II.B.3.
 6. Perimeter Building Setback: 50'.
 7. Building heights permitted per PAD Sec. II.B.4.b.

ADT Count Locations



Intersection Turning Movement

Prepared by:



FIELD DATA SERVICES OF ARIZONA, INC.
520.316.6745



veracitytrafficgroup

N-S STREET: Calle Buena Vista

DATE: 08/29/21

LOCATION: Oro Valley

E-W STREET: Calle Concordia

DAY: SUNDAY

PROJECT# 21-1517-003

	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
LANES:	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
	0	1	1	0	1	0	0	1	0	0	1	0	
12:00 AM	1	0	0	0	0	0	0	1	0	0	0	0	2
12:15 AM	1	0	0	0	0	0	0	0	0	0	0	0	1
12:30 AM	0	0	0	0	0	0	0	2	1	0	1	0	4
12:45 AM	0	1	0	0	1	0	0	0	0	1	0	0	3
1:00 AM	0	0	0	0	0	0	0	0	0	0	1	0	1
1:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	
1:30 AM	0	0	0	0	1	0	0	0	0	0	0	0	1
1:45 AM	0	0	0	0	0	0	0	1	0	0	0	0	1
2:00 AM	1	0	0	0	0	0	0	0	0	0	1	0	2
2:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	
2:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	
2:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	
3:00 AM	1	0	0	0	0	0	0	0	0	0	2	0	3
3:15 AM	0	0	1	0	0	0	0	0	0	0	0	0	1
3:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	
3:45 AM	0	0	0	0	0	0	0	1	0	0	0	0	1
4:00 AM	1	0	0	0	0	0	0	0	0	0	0	0	1
4:15 AM	0	2	0	0	0	0	0	0	0	0	0	0	2
4:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	
4:45 AM	0	0	0	0	0	0	0	1	0	0	0	0	1
5:00 AM	0	0	1	0	0	0	0	1	0	0	1	0	3
5:15 AM	0	0	0	0	0	0	1	3	2	0	0	0	6
5:30 AM	1	0	1	0	1	0	0	0	2	0	1	0	6
5:45 AM	0	1	1	0	1	0	0	0	3	0	0	0	6
6:00 AM	1	0	1	1	0	0	1	2	1	0	0	0	7
6:15 AM	0	1	0	0	2	0	0	2	1	0	3	0	9
6:30 AM	1	1	2	0	2	0	2	8	0	0	1	0	17
6:45 AM	0	2	2	1	0	1	0	1	0	2	2	0	11
7:00 AM	0	0	2	1	2	0	0	8	0	0	1	0	14
7:15 AM	1	0	5	0	4	2	3	9	1	3	2	0	30
7:30 AM	1	2	3	1	0	3	3	13	0	2	2	1	31
7:45 AM	1	5	9	1	6	0	10	30	3	0	2	0	67
8:00 AM	4	2	4	0	1	1	2	1	3	0	5	0	23
8:15 AM	2	2	2	0	2	1	0	4	3	3	1	1	21
8:30 AM	2	0	2	0	2	1	1	11	0	1	6	0	26
8:45 AM	4	1	1	0	3	1	6	7	4	1	1	0	29
9:00 AM	5	7	4	1	5	4	12	18	2	6	18	1	83
9:15 AM	3	8	10	2	5	3	17	73	2	3	9	2	137
9:30 AM	0	10	8	1	7	5	12	37	2	2	6	1	91
9:45 AM	2	2	4	0	2	1	2	12	0	2	9	0	36
10:00 AM	3	4	3	1	3	0	3	10	3	3	3	1	37
10:15 AM	4	5	3	0	6	3	3	10	3	3	1	0	41

Intersection Turning Movement

Prepared by:



FIELD DATA SERVICES OF ARIZONA, INC.
520.316.6745



veracitytrafficgroup

N-S STREET: Calle Buena Vista

DATE: 08/29/21

LOCATION: Oro Valley

E-W STREET: Calle Concordia

DAY: SUNDAY

PROJECT# 21-1517-003

	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
LANES:	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
	0	1	1	0	1	0	0	1	0	0	1	0	
10:30 AM	0	4	5	0	1	0	3	19	3	2	8	1	46
10:45 AM	5	7	9	9	18	15	6	50	0	13	48	6	186
11:00 AM	4	8	6	7	13	8	3	15	5	8	24	2	103
11:15 AM	4	6	1	1	7	3	4	11	2	3	15	1	58
11:30 AM	4	4	2	0	3	4	0	5	5	0	5	1	33
11:45 AM	3	3	4	1	5	0	1	10	2	1	14	0	44
12:00 PM	2	7	0	1	2	4	1	5	0	1	7	0	30
12:15 PM	1	3	0	5	10	13	2	7	4	13	32	2	92
12:30 PM	5	7	2	3	6	17	3	6	4	8	26	1	88
12:45 PM	3	5	2	2	2	2	2	18	1	1	13	1	52
1:00 PM	2	2	3	1	7	2	2	9	2	4	17	2	53
1:15 PM	2	3	3	0	7	4	1	7	1	0	10	2	40
1:30 PM	4	1	0	0	3	2	2	14	2	1	10	1	40
1:45 PM	2	2	2	0	1	3	2	15	1	2	7	1	38
2:00 PM	1	6	1	0	1	1	1	2	4	2	4	0	23
2:15 PM	3	3	4	0	2	1	2	5	1	1	9	0	31
2:30 PM	3	3	2	0	4	0	1	6	4	2	11	0	36
2:45 PM	0	4	1	0	1	1	0	5	1	0	11	0	24
3:00 PM	3	1	1	1	7	0	1	5	1	3	8	1	32
3:15 PM	4	4	1	0	4	2	1	3	1	0	10	1	31
3:30 PM	2	4	1	0	3	2	2	1	0	4	8	1	28
3:45 PM	2	3	4	0	5	0	2	6	2	3	6	0	33
4:00 PM	5	2	2	0	2	1	3	2	1	2	13	0	33
4:15 PM	4	2	1	0	1	0	0	5	2	1	10	0	26
4:30 PM	3	3	1	1	4	0	1	12	1	0	2	0	28
4:45 PM	2	4	6	1	2	2	0	11	4	1	11	0	44
5:00 PM	4	3	1	0	2	0	2	16	3	2	5	0	38
5:15 PM	8	3	3	0	3	2	2	8	2	1	6	0	38
5:30 PM	3	1	0	0	1	1	3	4	2	11	24	2	52
5:45 PM	2	10	3	0	4	0	0	5	0	3	6	1	34
6:00 PM	0	3	1	0	2	0	1	7	2	2	5	0	23
6:15 PM	3	1	2	0	3	0	0	1	1	0	6	0	17
6:30 PM	1	0	1	2	1	0	0	4	1	2	7	2	21
6:45 PM	3	2	1	0	2	1	2	3	2	1	0	0	17
7:00 PM	2	3	1	0	2	1	2	2	0	1	7	0	21
7:15 PM	1	1	1	0	2	0	0	4	1	0	6	1	17
7:30 PM	0	0	0	0	3	1	1	5	1	0	1	0	12
7:45 PM	1	3	3	0	3	2	1	2	1	0	2	0	18
8:00 PM	1	3	1	0	0	0	2	4	1	2	2	0	16
8:15 PM	0	1	0	0	1	0	2	4	1	0	1	0	10
8:30 PM	1	1	2	0	0	0	0	3	1	1	1	0	10
8:45 PM	0	1	1	0	2	0	0	1	1	0	4	0	10

Intersection Turning Movement

Prepared by:



FIELD DATA SERVICES OF ARIZONA, INC.
520.316.6745



veracitytrafficgroup

N-S STREET: Calle Buena Vista

DATE: 08/29/21

LOCATION: Oro Valley

E-W STREET: Calle Concordia

DAY: SUNDAY

PROJECT# 21-1517-003

	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
LANES:	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
	0	1	1	0	1	0	0	1	0	0	1	0	
9:00 PM	0	2	0	0	0	0	0	2	0	0	7	0	11
9:15 PM	2	1	1	0	1	0	1	1	0	0	2	0	9
9:30 PM	0	1	0	0	0	1	1	0	0	1	1	0	5
9:45 PM	0	0	3	0	1	0	0	3	0	1	2	0	10
10:00 PM	0	0	1	0	0	0	0	2	0	4	0	0	7
10:15 PM	0	2	0	0	0	0	0	0	0	0	0	0	2
10:30 PM	1	0	0	0	0	0	0	0	1	0	0	0	2
10:45 PM	0	0	0	0	0	0	1	0	0	0	0	0	1
11:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	
11:15 PM	0	0	0	0	0	0	0	2	0	0	2	0	4
11:30 PM	0	0	0	0	0	0	0	1	2	0	0	0	3
11:45 PM	0	1	0	0	0	0	0	0	0	0	0	0	1

TOTAL	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
Volumes	146	200	159	45	210	122	145	604	113	140	515	37	2436
Approach %	28.91	39.60	31.49	11.94	55.70	32.36	16.82	70.07	13.11	20.23	74.42	5.35	
App/Depart	505	/	382	377	/	463	862	/	808	692	/	783	

AM Peak Hr Begins at: 1030 AM

PEAK

Volumes	13	25	21	17	39	26	16	95	10	26	95	10	393
Approach %	22.03	42.37	35.59	20.73	47.56	31.71	13.22	78.51	8.26	19.85	72.52	7.63	

PEAK HR.

FACTOR:	0.702	0.488	0.540	0.489	0.528
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CONTROL: 2-Way Stop (NB & SB)

COMMENT 1:

GPS: 32.373613, -110.978624

Prepared by: Field Data Services of Arizona/Veracity Traffic Group (520) 316-6745

Volumes for: Sunday, August 29, 2021

City: Oro Valley

Project #: 21-1517-003

Location: Calle Buena Vista north of Calle Concordia

AM Period	NB	SB	EB	WB	PM Period	NB	SB	EB	WB
00:00	0	0			12:00	8	7		
00:15	0	0			12:15	7	28		
00:30	0	0			12:30	11	26		
00:45	1	1	1	1	12:45	8	34	6	67
01:00	0	0			13:00	6	10		
01:15	0	0			13:15	6	11		
01:30	0	1			13:30	4	5		
01:45	0	0	0	1	13:45	5	21	4	30
02:00	0	0			14:00	7	2		
02:15	0	0			14:15	5	3		
02:30	0	0			14:30	4	4		
02:45	0	0	0	0	14:45	4	20	2	11
03:00	0	0			15:00	3	8		
03:15	0	0			15:15	6	6		
03:30	0	0			15:30	7	5		
03:45	0	0	0	0	15:45	5	21	5	24
04:00	0	0			16:00	5	3		
04:15	2	0			16:15	2	1		
04:30	0	0			16:30	4	5		
04:45	0	2	0	0	16:45	4	15	5	14
05:00	0	0			17:00	5	2		
05:15	1	0			17:15	5	5		
05:30	0	1			17:30	6	2		
05:45	1	2	1	2	17:45	11	27	4	13
06:00	1	1			18:00	4	2		
06:15	1	2			18:15	1	3		
06:30	3	2			18:30	2	3		
06:45	2	7	2	7	18:45	4	11	3	11
07:00	0	3			19:00	5	3		
07:15	3	6			19:15	2	2		
07:30	6	4			19:30	1	4		
07:45	15	24	7	20	19:45	4	12	5	14
08:00	4	2			20:00	5	0		
08:15	3	3			20:15	3	1		
08:30	1	3			20:30	1	0		
08:45	7	15	4	12	20:45	1	10	2	3
09:00	20	10			21:00	2	0		
09:15	27	10			21:15	2	1		
09:30	23	13			21:30	2	1		
09:45	4	74	3	36	21:45	0	6	1	3
10:00	8	4			22:00	0	0		
10:15	8	9			22:15	2	0		
10:30	8	1			22:30	0	0		
10:45	19	43	42	56	22:45	1	3	0	0
11:00	13	28			23:00	0	0		
11:15	11	11			23:15	0	0		
11:30	5	7			23:30	0	0		
11:45	4	33	6	52	23:45	1	1	0	0

Total Vol. 201 187 **388** 181 190 **371**

GPS Coordinates: 32.373895, -110.978625

Daily Totals

NB	SB	EB	WB	Combined
382	377			759

AM

PM

Split %	51.8%	48.2%	51.1%	48.8%	51.2%	48.9%
Peak Hour	08:45	10:45	10:45	12:00	12:15	12:15
Volume	77	88	136	34	70	102
P.H.F.	0.71	0.52	0.56	0.77	0.63	0.69

Prepared by: Field Data Services of Arizona/Veracity Traffic Group (520) 316-6745

Volumes for: Sunday, August 29, 2021

City: Oro Valley

Project #: 21-1517-003

Location: Calle Buena Vista south of Calle Concordia

AM Period	NB	SB	EB	WB	PM Period	NB	SB	EB	WB
00:00	1	0			12:00	9	3		
00:15	1	0			12:15	4	27		
00:30	0	1			12:30	14	18		
00:45	1	3	2	3	12:45	10	37	4	52
01:00	0	0			13:00	7	13		
01:15	0	0			13:15	8	8		
01:30	0	1			13:30	5	6		
01:45	0	0	0	1	13:45	6	26	4	31
02:00	1	0			14:00	8	7		
02:15	0	0			14:15	10	4		
02:30	0	0			14:30	8	10		
02:45	0	1	0	0	14:45	5	31	2	23
03:00	1	0			15:00	5	11		
03:15	1	0			15:15	9	5		
03:30	0	0			15:30	7	7		
03:45	0	2	0	0	15:45	9	30	10	33
04:00	1	0			16:00	9	5		
04:15	2	0			16:15	7	4		
04:30	0	0			16:30	7	5		
04:45	0	3	0	0	16:45	12	35	7	21
05:00	1	0			17:00	8	7		
05:15	0	2			17:15	14	6		
05:30	2	3			17:30	4	14		
05:45	2	5	4	9	17:45	15	41	7	34
06:00	2	1			18:00	4	6		
06:15	1	3			18:15	6	4		
06:30	4	2			18:30	2	4		
06:45	4	11	2	8	18:45	6	18	5	19
07:00	2	2			19:00	6	3		
07:15	6	8			19:15	3	3		
07:30	6	2			19:30	0	4		
07:45	15	29	9	21	19:45	7	16	4	14
08:00	10	4			20:00	5	3		
08:15	6	8			20:15	1	2		
08:30	4	3			20:30	4	2		
08:45	6	26	8	23	20:45	2	12	3	10
09:00	16	13			21:00	2	0		
09:15	21	10			21:15	4	1		
09:30	18	11			21:30	1	1		
09:45	8	63	4	38	21:45	3	10	2	4
10:00	10	9			22:00	1	4		
10:15	12	12			22:15	2	0		
10:30	9	6			22:30	1	1		
10:45	21	52	31	58	22:45	0	4	0	5
11:00	18	26			23:00	0	0		
11:15	11	12			23:15	0	0		
11:30	10	8			23:30	0	2		
11:45	10	49	8	54	23:45	1	1	0	2

Total Vol. 244 215 **459** 261 248 **509**

GPS Coordinates: 32.373313, -110.978553

Daily Totals

NB	SB	EB	WB	Combined
505	463			968

AM

PM

Split %	53.2%	46.8%	47.4%	51.3%	48.7%	52.6%
Peak Hour	09:00	10:45	10:45	16:30	12:15	12:15
Volume	63	77	137	41	62	97
P.H.F.	0.75	0.62	0.66	0.73	0.57	0.76

Prepared by: Field Data Services of Arizona/Veracity Traffic Group (520) 316-6745

Volumes for: Sunday, August 29, 2021

City: Oro Valley

Project #: 21-1517-003

Location: Calle Concordia east of Calle Buena Vista

AM Period	NB	SB	EB	WB	PM Period	NB	SB	EB	WB
00:00			1	0	12:00			6	8
00:15			0	0	12:15			12	47
00:30			2	1	12:30			11	35
00:45			0	3	12:45			22	51
01:00			0	1	13:00			13	23
01:15			0	0	13:15			10	12
01:30			0	0	13:30			14	12
01:45			1	1	13:45			17	54
02:00			0	1	14:00			3	6
02:15			0	0	14:15			9	10
02:30			0	0	14:30			8	13
02:45			0	0	14:45			6	26
03:00			0	2	15:00			7	12
03:15			1	0	15:15			4	11
03:30			0	0	15:30			2	13
03:45			1	2	15:45			10	23
04:00			0	0	16:00			4	15
04:15			0	0	16:15			6	11
04:30			0	0	16:30			14	2
04:45			1	1	16:45			18	42
05:00			2	1	17:00			17	7
05:15			3	0	17:15			11	7
05:30			1	1	17:30			4	37
05:45			1	7	17:45			8	40
06:00			4	0	18:00			8	7
06:15			2	3	18:15			3	6
06:30			10	1	18:30			7	11
06:45			4	20	18:45			4	22
07:00			11	1	19:00			3	8
07:15			14	5	19:15			5	7
07:30			17	5	19:30			5	1
07:45			40	82	19:45			5	18
08:00			5	5	20:00			5	4
08:15			6	5	20:15			4	1
08:30			13	7	20:30			5	2
08:45			8	32	20:45			2	16
09:00			23	25	21:00			2	7
09:15			85	14	21:15			2	2
09:30			46	9	21:30			0	2
09:45			16	170	21:45			6	10
10:00			14	7	22:00			3	4
10:15			13	4	22:15			0	0
10:30			24	11	22:30			0	0
10:45			68	119	22:45			0	3
11:00			28	34	23:00			0	0
11:15			13	19	23:15			2	2
11:30			7	6	23:30			1	0
11:45			15	63	23:45			0	3

Total Vol. 500 270 **770** 308 422 **730**

GPS Coordinates: 32.373616, -110.978319

Daily Totals

NB	SB	EB	WB	Combined
		808	692	1500

AM

PM

Split %	64.9%	35.1%	51.3%	42.2%	57.8%	48.7%
Peak Hour	09:00	10:30	10:30	16:30	12:15	12:15
Volume	170	131	264	60	120	178
P.H.F.	0.50	0.49	0.49	0.83	0.64	0.75

Prepared by: Field Data Services of Arizona/Veracity Traffic Group (520) 316-6745

Volumes for: Sunday, August 29, 2021

City: Oro Valley

Project #: 21-1517-003

Location: Calle Concordia west of Calle Buena Vista

AM Period	NB	SB	EB	WB	PM Period	NB	SB	EB	WB			
00:00			1	1	12:00			6	13			
00:15			0	1	12:15			13	46			
00:30			3	1	12:30			13	48			
00:45			0	4	0	3	7	21	53	18	125	178
01:00			0	1	13:00			13	21			
01:15			0	0	13:15			9	16			
01:30			0	0	13:30			18	16			
01:45			1	1	0	1	2	18	58	12	65	123
02:00			0	2	14:00			7	6			
02:15			0	0	14:15			8	13			
02:30			0	0	14:30			11	14			
02:45			0	0	0	2	2	6	32	12	45	77
03:00			0	3	15:00			7	11			
03:15			0	0	15:15			5	16			
03:30			0	0	15:30			3	12			
03:45			1	1	0	3	4	10	25	8	47	72
04:00			0	1	16:00			6	19			
04:15			0	0	16:15			7	14			
04:30			0	0	16:30			14	5			
04:45			1	1	0	1	2	15	42	15	53	95
05:00			1	1	17:00			21	9			
05:15			6	0	17:15			12	16			
05:30			2	2	17:30			9	28			
05:45			3	12	0	3	15	5	47	8	61	108
06:00			4	1	18:00			10	5			
06:15			3	3	18:15			2	9			
06:30			10	2	18:30			5	8			
06:45			1	18	3	9	27	7	24	4	26	50
07:00			8	1	19:00			4	10			
07:15			13	5	19:15			5	7			
07:30			16	6	19:30			7	2			
07:45			43	80	3	15	95	4	20	5	24	44
08:00			6	10	20:00			7	3			
08:15			7	4	20:15			7	1			
08:30			12	9	20:30			4	2			
08:45			17	42	6	29	71	2	20	4	10	30
09:00			32	27	21:00			2	7			
09:15			92	15	21:15			2	4			
09:30			51	11	21:30			1	2			
09:45			14	189	12	65	254	3	8	2	15	23
10:00			16	6	22:00			2	0			
10:15			16	8	22:15			0	0			
10:30			25	8	22:30			1	1			
10:45			56	113	68	90	203	1	4	0	1	5
11:00			23	36	23:00			0	0			
11:15			17	22	23:15			2	2			
11:30			10	13	23:30			3	0			
11:45			13	63	17	88	151	0	5	0	2	7

Total Vol. 524 309 **833** 338 474 **812**

GPS Coordinates: 32.373614, -110.978912

Daily Totals

NB	SB	EB	WB	Combined
		862	783	1645

AM

PM

Split %	62.9%	37.1%	50.6%	41.6%	58.4%	49.4%
Peak Hour	08:45	10:45	10:30	16:30	12:15	12:15
Volume	192	139	255	62	133	193
P.H.F.	0.52	0.51	0.51	0.74	0.69	0.79

Prepared by: Field Data Services of Arizona/Veracity Traffic Group (520) 316-6745

Volumes for: Sunday, August 29, 2021

City: Oro Valley

Project #: 21-1517-004

Location: Calle Buena Vista north of Church Driveway

AM Period	NB	SB	EB	WB	PM Period	NB	SB	EB	WB
00:00	1	0			12:00	9	8		
00:15	0	0			12:15	18	8		
00:30	0	0			12:30	15	4		
00:45	0	1	1	1	12:45	9	51	3	23
01:00	0	0			13:00	6	6		
01:15	0	0			13:15	7	7		
01:30	0	1			13:30	4	2		
01:45	0	0	0	1	13:45	4	21	2	17
02:00	0	0			14:00	6	1		
02:15	0	0			14:15	4	3		
02:30	0	0			14:30	4	4		
02:45	0	0	0	0	14:45	4	18	3	11
03:00	0	0			15:00	3	8		
03:15	0	0			15:15	6	8		
03:30	0	0			15:30	6	5		
03:45	0	0	0	0	15:45	3	18	4	25
04:00	0	0			16:00	4	4		
04:15	2	0			16:15	2	3		
04:30	0	0			16:30	6	4		
04:45	0	2	0	0	16:45	3	15	5	16
05:00	0	0			17:00	5	2		
05:15	1	0			17:15	5	4		
05:30	0	1			17:30	9	3		
05:45	2	3	2	3	17:45	10	29	4	13
06:00	0	1			18:00	4	2		
06:15	0	2			18:15	1	3		
06:30	2	3			18:30	3	3		
06:45	1	3	1	7	18:45	4	12	3	11
07:00	0	3			19:00	3	3		
07:15	1	7			19:15	2	2		
07:30	2	12			19:30	2	1		
07:45	2	5	26	48	19:45	3	10	5	11
08:00	2	3			20:00	5	0		
08:15	1	2			20:15	3	1		
08:30	0	2			20:30	1	1		
08:45	1	4	5	12	20:45	1	10	1	3
09:00	12	8			21:00	2	0		
09:15	9	23			21:15	2	1		
09:30	8	10			21:30	2	1		
09:45	4	33	3	44	21:45	0	6	1	3
10:00	5	5			22:00	0	0		
10:15	6	11			22:15	2	0		
10:30	7	4			22:30	0	0		
10:45	25	43	12	32	22:45	1	3	0	0
11:00	15	13			23:00	0	0		
11:15	11	6			23:15	0	0		
11:30	6	3			23:30	0	0		
11:45	5	37	5	27	23:45	1	1	0	0

Total Vol. 131 175 **306** 194 133 **327**

GPS Coordinates: 32.375627, -110.978601

Daily Totals

NB	SB	EB	WB	Combined
325	308			633

AM

PM

Split %	42.8%	57.2%	48.3%	59.3%	40.7%	51.7%
Peak Hour	10:30	07:00	10:15	12:00	15:00	12:00
Volume	58	48	93	51	25	74
P.H.F.	0.58	0.46	0.63	0.71	0.78	0.71

Prepared by: Field Data Services of Arizona/Veracity Traffic Group (520) 316-6745

Volumes for: Sunday, August 29, 2021

City: Oro Valley

Project #: 21-1517-005

Location: Calle Concordia east of Church Driveway

AM Period	NB	SB	EB	WB	PM Period	NB	SB	EB	WB
00:00			1	1	12:00			9	13
00:15			2	0	12:15			87	86
00:30			0	3	12:30			55	57
00:45			0	3	12:45			63	214
01:00			0	0	13:00			28	26
01:15			0	0	13:15			24	27
01:30			0	0	13:30			21	26
01:45			1	1	13:45			41	114
02:00			2	1	14:00			8	9
02:15			0	0	14:15			11	20
02:30			0	0	14:30			10	18
02:45			0	2	14:45			14	43
03:00			0	2	15:00			16	20
03:15			1	1	15:15			13	15
03:30			1	0	15:30			18	18
03:45			2	4	15:45			11	58
04:00			0	0	16:00			10	17
04:15			0	0	16:15			14	16
04:30			0	0	16:30			19	14
04:45			1	1	16:45			16	59
05:00			3	3	17:00			13	18
05:15			5	3	17:15			11	12
05:30			2	3	17:30			10	29
05:45			8	18	17:45			14	48
06:00			5	4	18:00			8	17
06:15			9	5	18:15			5	8
06:30			11	12	18:30			9	16
06:45			14	39	18:45			6	28
07:00			19	10	19:00			11	12
07:15			19	16	19:15			10	10
07:30			20	17	19:30			7	8
07:45			56	114	19:45			4	32
08:00			7	7	20:00			8	9
08:15			4	12	20:15			5	6
08:30			8	19	20:30			6	5
08:45			13	32	20:45			3	22
09:00			28	47	21:00			2	8
09:15			87	91	21:15			5	5
09:30			55	40	21:30			2	2
09:45			14	184	21:45			4	13
10:00			19	20	22:00			1	6
10:15			20	15	22:15			1	0
10:30			28	38	22:30			0	0
10:45			122	189	22:45			0	2
11:00			28	49	23:00			0	0
11:15			16	27	23:15			1	4
11:30			9	14	23:30			1	1
11:45			13	66	23:45			2	4

Total Vol. 653 687 **1340** 637 745 **1382**

GPS Coordinates: 32.373618, -110.976633

Daily Totals

NB	SB	EB	WB	Combined
		1290	1432	2722

AM

PM

Split %	48.7%	51.3%	49.2%	46.1%	53.9%	50.8%
Peak Hour	10:15	10:30	10:30	12:15	12:15	12:15
Volume	198	232	426	233	209	442
P.H.F.	0.41	0.49	0.44	0.67	0.61	0.64

Intersection Turning Movement

Prepared by:



FIELD DATA SERVICES OF ARIZONA, INC.
520.316.6745



veracitytrafficgroup

N-S STREET: Calle Buena Vista

DATE: 08/31/21

LOCATION: Oro Valley

E-W STREET: Calle Concordia

DAY: TUESDAY

PROJECT# 21-1517-001

	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
LANES:	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
	0	1	1	0	1	0	0	1	0	0	1	0	
12:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	
12:15 AM	0	0	0	0	1	0	0	0	0	1	2	0	4
12:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	
12:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	
1:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	
1:15 AM	0	0	0	0	0	0	0	1	0	1	0	0	2
1:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	
1:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	
2:00 AM	0	0	1	0	0	0	0	0	0	0	0	0	1
2:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	
2:30 AM	1	0	0	0	0	0	0	0	0	0	0	0	1
2:45 AM	0	0	0	0	0	0	0	0	0	1	0	0	1
3:00 AM	0	0	0	0	1	0	0	0	0	0	0	0	1
3:15 AM	0	0	0	0	1	0	0	0	0	0	1	0	2
3:30 AM	0	1	0	0	0	1	0	0	0	0	0	0	2
3:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	
4:00 AM	0	0	0	0	0	0	0	1	0	0	0	0	1
4:15 AM	0	0	2	0	0	0	1	2	0	0	1	0	6
4:30 AM	0	0	0	0	1	0	0	2	0	0	0	0	3
4:45 AM	0	0	6	0	1	1	1	12	0	0	2	0	23
5:00 AM	0	2	0	0	0	0	1	2	0	0	1	0	6
5:15 AM	0	1	2	0	0	1	2	6	1	1	4	0	18
5:30 AM	0	1	2	0	0	1	1	5	1	0	4	0	15
5:45 AM	2	0	4	1	0	1	0	8	0	0	5	0	21
6:00 AM	2	0	2	1	2	0	1	9	1	1	11	0	30
6:15 AM	0	0	8	0	2	0	2	12	3	1	8	0	36
6:30 AM	4	3	2	2	4	0	2	7	1	2	5	0	32
6:45 AM	1	3	4	0	1	1	0	13	1	1	4	1	30
7:00 AM	2	0	13	0	2	1	0	18	8	7	8	1	60
7:15 AM	5	5	42	3	6	1	4	60	9	29	23	2	189
7:30 AM	2	3	16	1	6	0	1	34	4	14	21	1	103
7:45 AM	2	5	8	4	8	1	2	48	5	6	7	1	97
8:00 AM	2	6	26	2	6	1	5	47	9	9	16	1	130
8:15 AM	6	6	39	1	3	0	0	77	1	28	35	2	198
8:30 AM	6	3	52	2	6	1	1	103	3	64	53	2	296
8:45 AM	1	1	50	1	3	3	0	98	3	77	71	9	317
9:00 AM	3	7	3	0	2	1	1	25	8	9	26	0	85
9:15 AM	4	5	4	0	6	3	1	7	2	1	8	0	41
9:30 AM	8	2	8	1	8	4	0	10	7	3	10	0	61
9:45 AM	3	2	11	0	9	0	1	16	1	2	11	0	56
10:00 AM	7	5	2	0	5	1	2	6	3	4	14	0	49
10:15 AM	1	7	3	0	7	1	0	10	1	1	9	0	40

Intersection Turning Movement

Prepared by:



FIELD DATA SERVICES OF ARIZONA, INC.
520.316.6745



veracitytrafficgroup

N-S STREET: Calle Buena Vista

DATE: 08/31/21

LOCATION: Oro Valley

E-W STREET: Calle Concordia

DAY: TUESDAY

PROJECT# 21-1517-001

	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
LANES:	NL 0	NT 1	NR 1	SL 0	ST 1	SR 0	EL 0	ET 1	ER 0	WL 0	WT 1	WR 0	TOTAL
10:30 AM	2	3	2	0	4	0	0	14	2	4	8	0	39
10:45 AM	2	5	3	0	4	3	7	11	1	2	13	0	51
11:00 AM	4	2	5	1	9	4	2	8	4	5	15	1	60
11:15 AM	7	3	2	0	5	2	3	8	2	7	8	2	49
11:30 AM	6	0	3	0	3	3	5	13	2	5	10	0	50
11:45 AM	5	4	6	0	3	1	3	22	2	1	19	0	66
12:00 PM	3	3	5	0	0	1	0	16	1	7	7	1	44
12:15 PM	5	4	1	0	6	5	2	16	2	16	26	3	86
12:30 PM	2	9	12	2	4	2	1	16	3	4	12	1	68
12:45 PM	1	5	5	0	2	1	3	11	0	2	10	0	40
1:00 PM	3	7	2	1	4	1	1	8	4	1	8	2	42
1:15 PM	3	6	8	1	4	3	0	5	3	16	19	0	68
1:30 PM	0	1	5	2	5	1	2	13	2	6	9	0	46
1:45 PM	1	4	7	0	7	0	2	23	6	16	17	4	87
2:00 PM	3	6	5	0	3	5	2	10	3	8	9	0	54
2:15 PM	8	3	2	0	6	1	1	14	4	5	11	1	56
2:30 PM	4	3	5	0	3	1	0	11	4	7	18	0	56
2:45 PM	1	5	10	1	7	1	2	21	2	10	16	1	77
3:00 PM	1	5	9	0	5	2	3	22	1	29	33	2	112
3:15 PM	3	5	10	1	8	1	4	22	4	8	6	1	73
3:30 PM	6	10	36	1	4	1	4	41	2	3	8	1	117
3:45 PM	0	5	36	0	6	0	5	79	4	6	22	2	165
4:00 PM	4	3	28	2	2	4	4	51	4	109	97	11	319
4:15 PM	5	6	17	0	2	3	1	30	7	66	82	5	224
4:30 PM	6	6	10	1	6	1	4	16	5	7	17	0	79
4:45 PM	4	5	2	0	3	2	1	12	1	5	18	1	54
5:00 PM	3	3	6	0	2	1	5	15	2	10	17	1	65
5:15 PM	4	7	7	1	5	0	1	20	4	6	15	1	71
5:30 PM	0	7	15	2	6	4	2	28	3	14	27	1	109
5:45 PM	2	6	11	2	3	2	7	29	1	14	24	2	103
6:00 PM	0	3	12	0	3	4	0	29	1	11	12	0	75
6:15 PM	3	2	12	0	4	3	1	29	3	15	31	0	103
6:30 PM	1	6	13	0	1	0	2	18	1	17	30	1	90
6:45 PM	1	3	3	0	3	0	0	10	3	24	20	0	67
7:00 PM	4	5	1	0	4	1	0	11	1	2	11	1	41
7:15 PM	3	4	0	0	2	2	2	5	1	0	2	0	21
7:30 PM	2	0	2	0	2	0	0	7	1	1	13	0	28
7:45 PM	2	2	4	0	2	0	2	9	0	3	6	1	31
8:00 PM	2	3	1	1	5	4	4	5	1	2	16	0	44
8:15 PM	2	3	1	0	1	0	1	7	2	0	8	0	25
8:30 PM	0	3	3	0	2	1	0	5	0	7	23	0	44
8:45 PM	1	0	5	0	0	0	0	6	0	4	16	0	32

Intersection Turning Movement

Prepared by:



FIELD DATA SERVICES OF ARIZONA, INC.
520.316.6745



veracitytrafficgroup

N-S STREET: Calle Buena Vista

DATE: 08/31/21

LOCATION: Oro Valley

E-W STREET: Calle Concordia

DAY: TUESDAY

PROJECT# 21-1517-001

	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
LANES:	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
	0	1	1	0	1	0	0	1	0	0	1	0	
9:00 PM	1	0	3	1	2	0	0	15	0	10	11	0	43
9:15 PM	0	0	1	0	0	1	1	3	0	7	15	0	28
9:30 PM	1	2	1	0	3	2	0	1	0	1	0	0	11
9:45 PM	1	1	1	0	0	1	1	2	0	1	0	0	8
10:00 PM	0	0	0	0	1	0	0	3	2	1	1	0	8
10:15 PM	0	0	0	0	0	0	1	0	0	0	1	0	2
10:30 PM	0	0	0	0	0	0	0	0	0	0	2	0	2
10:45 PM	0	0	0	0	0	0	0	0	0	0	1	0	1
11:00 PM	1	0	1	0	0	0	0	0	0	0	1	0	3
11:15 PM	2	0	0	0	0	0	0	0	1	2	0	0	5
11:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	
11:45 PM	0	0	0	0	0	0	0	0	0	0	1	0	1

TOTAL	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
Volumes	187	246	649	39	257	99	121	1409	174	770	1182	67	5200
Approach %	17.28	22.74	59.98	9.87	65.06	25.06	7.10	82.69	10.21	38.14	58.54	3.32	
App/Depart	1082	/	434	395	/	1201	1704	/	2097	2019	/	1468	

AM Peak Hr Begins at: 800 AM

PEAK

Volumes	15	16	167	6	18	5	6	325	16	178	175	14	941
Approach %	7.58	8.08	84.34	20.69	62.07	17.24	1.73	93.66	4.61	48.50	47.68	3.81	

PEAK HR.

FACTOR:	0.811	0.806	0.811	0.584	0.742
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CONTROL: 2-Way Stop (NB & SB)

COMMENT 1:

GPS: 32.373613, -110.978624

Prepared by: Field Data Services of Arizona/Veracity Traffic Group (520) 316-6745

Volumes for: Tuesday, August 31, 2021

City: Oro Valley

Project #: 21-1517-001

Location: Calle Buena Vista north of Calle Concordia

AM Period	NB	SB	EB	WB	PM Period	NB	SB	EB	WB
00:00	0	0			12:00	4	1		
00:15	0	1			12:15	9	11		
00:30	0	0			12:30	11	8		
00:45	0	0	0	1	12:45	8	32	3	23
01:00	0	0			13:00	10	6		
01:15	0	0			13:15	6	8		
01:30	0	0			13:30	3	8		
01:45	0	0	0	0	13:45	10	29	7	29
02:00	0	0			14:00	8	8		
02:15	0	0			14:15	5	7		
02:30	0	0			14:30	3	4		
02:45	0	0	0	0	14:45	8	24	9	28
03:00	0	1			15:00	10	7		
03:15	0	1			15:15	10	10		
03:30	1	1			15:30	15	6		
03:45	0	1	0	3	15:45	12	47	6	29
04:00	0	0			16:00	18	8		
04:15	1	0			16:15	12	5		
04:30	0	1			16:30	10	8		
04:45	1	2	2	3	16:45	7	47	5	26
05:00	3	0			17:00	9	3		
05:15	3	1			17:15	9	6		
05:30	2	1			17:30	10	12		
05:45	0	8	2	4	17:45	15	43	7	28
06:00	1	3			18:00	3	7		
06:15	2	2			18:15	3	7		
06:30	5	6			18:30	9	1		
06:45	4	12	2	13	18:45	3	18	3	18
07:00	1	3			19:00	6	5		
07:15	11	10			19:15	6	4		
07:30	5	7			19:30	0	2		
07:45	8	25	13	33	19:45	5	17	2	13
08:00	12	9			20:00	7	10		
08:15	8	4			20:15	4	1		
08:30	6	9			20:30	3	3		
08:45	10	36	7	29	20:45	0	14	0	14
09:00	8	3			21:00	0	3		
09:15	6	9			21:15	1	1		
09:30	2	13			21:30	2	5		
09:45	3	19	9	34	21:45	2	5	1	10
10:00	7	6			22:00	0	1		
10:15	7	8			22:15	1	0		
10:30	3	4			22:30	0	0		
10:45	12	29	7	25	22:45	0	1	0	1
11:00	5	14			23:00	0	0		
11:15	8	7			23:15	0	0		
11:30	5	6			23:30	0	0		
11:45	7	25	4	31	23:45	0	0	0	0

Total Vol. 157 176 **333** 277 219 **496**

GPS Coordinates: 32.373895, -110.978625

Daily Totals

NB	SB	EB	WB	Combined
434	395			829

AM

PM

Split %	47.1%	52.9%	40.2%	55.8%	44.2%	59.8%
Peak Hour	07:15	07:15	07:15	15:30	17:30	15:15
Volume	36	39	75	57	33	85
P.H.F.	0.75	0.75	0.89	0.79	0.69	0.82

Prepared by: Field Data Services of Arizona/Veracity Traffic Group (520) 316-6745

Volumes for: Tuesday, August 31, 2021

City: Oro Valley

Project #: 21-1517-001

Location: Calle Buena Vista south of Calle Concordia

AM Period	NB	SB	EB	WB	PM Period	NB	SB	EB	WB
00:00	0	0			12:00	11	8		
00:15	0	2			12:15	10	24		
00:30	0	0			12:30	23	11		
00:45	0	0	2		12:45	11	55	4	47
01:00	0	0			13:00	12	9		
01:15	0	1			13:15	17	23		
01:30	0	0			13:30	6	13		
01:45	0	0	0	1	13:45	12	47	29	74
02:00	1	0			14:00	14	14		
02:15	0	0			14:15	13	15		
02:30	1	0			14:30	12	14		
02:45	0	2	1	1	14:45	16	55	19	62
03:00	0	1			15:00	15	35		
03:15	0	1			15:15	18	20		
03:30	1	0			15:30	52	9		
03:45	0	1	0	2	15:45	41	126	16	80
04:00	0	0			16:00	35	115		
04:15	2	0			16:15	28	75		
04:30	0	1			16:30	22	18		
04:45	6	8	1	2	16:45	11	96	9	217
05:00	2	0			17:00	12	14		
05:15	3	2			17:15	18	15		
05:30	3	1			17:30	22	23		
05:45	6	14	0	3	17:45	19	71	18	70
06:00	4	4			18:00	15	15		
06:15	8	6			18:15	17	22		
06:30	9	7			18:30	20	19		
06:45	8	29	3	20	18:45	7	59	30	86
07:00	15	17			19:00	10	7		
07:15	52	44			19:15	7	3		
07:30	21	24			19:30	4	4		
07:45	15	103	19	104	19:45	8	29	5	19
08:00	34	24			20:00	6	8		
08:15	51	32			20:15	6	3		
08:30	61	73			20:30	6	9		
08:45	52	198	83	212	20:45	6	24	4	24
09:00	13	19			21:00	4	12		
09:15	13	9			21:15	1	7		
09:30	18	18			21:30	4	4		
09:45	16	60	12	58	21:45	3	12	1	24
10:00	14	12			22:00	0	4		
10:15	11	9			22:15	0	0		
10:30	7	10			22:30	0	0		
10:45	10	42	7	38	22:45	0	0	0	4
11:00	11	18			23:00	2	0		
11:15	12	14			23:15	2	3		
11:30	9	10			23:30	0	0		
11:45	15	47	6	48	23:45	0	4	0	3

Total Vol. 504 491 **995** 578 710 **1288**

GPS Coordinates: 32.373313, -110.978553

Daily Totals

NB	SB	EB	WB	Combined
1082	1201			2283

AM

PM

Split %	50.7%	49.3%	43.6%	44.9%	55.1%	56.4%
Peak Hour	08:00	08:00	08:00	15:30	15:45	15:30
Volume	198	212	410	156	224	371
P.H.F.	0.81	0.64	0.76	0.75	0.49	0.62

Prepared by: Field Data Services of Arizona/Veracity Traffic Group (520) 316-6745

Volumes for: Tuesday, August 31, 2021

City: Oro Valley

Project #: 21-1517-001

Location: Calle Concordia east of Calle Buena Vista

AM Period	NB	SB	EB	WB	PM Period	NB	SB	EB	WB
00:00			0	0	12:00			21	15
00:15			0	3	12:15			17	45
00:30			0	0	12:30			30	17
00:45			0	0	12:45			16	84
01:00			0	0	13:00			11	11
01:15			1	1	13:15			14	35
01:30			0	0	13:30			20	15
01:45			0	1	13:45			30	75
02:00			1	0	14:00			15	17
02:15			0	0	14:15			16	17
02:30			0	0	14:30			16	25
02:45			0	1	14:45			32	79
03:00			0	0	15:00			31	64
03:15			0	1	15:15			33	15
03:30			0	0	15:30			78	12
03:45			0	0	15:45			115	257
04:00			1	0	16:00			81	217
04:15			4	1	16:15			47	153
04:30			2	0	16:30			27	24
04:45			18	25	16:45			14	169
05:00			2	1	17:00			21	28
05:15			8	5	17:15			28	22
05:30			7	4	17:30			45	42
05:45			13	30	17:45			42	136
06:00			12	12	18:00			41	23
06:15			20	9	18:15			41	46
06:30			11	7	18:30			31	48
06:45			17	60	18:45			13	126
07:00			31	16	19:00			12	14
07:15			105	54	19:15			5	2
07:30			51	36	19:30			9	14
07:45			60	247	19:45			13	39
08:00			75	26	20:00			7	18
08:15			117	65	20:15			8	8
08:30			157	119	20:30			8	30
08:45			149	498	20:45			11	34
09:00			28	35	21:00			19	21
09:15			11	9	21:15			4	22
09:30			19	13	21:30			2	1
09:45			27	85	21:45			3	28
10:00			8	18	22:00			3	2
10:15			13	10	22:15			0	1
10:30			16	12	22:30			0	2
10:45			14	51	22:45			0	3
11:00			14	21	23:00			1	1
11:15			10	17	23:15			0	2
11:30			16	15	23:30			0	0
11:45			28	68	23:45			0	1

Total Vol. 1066 743 **1809** 1031 1276 **2307**

GPS Coordinates: 32.373616, -110.978319

Daily Totals

NB	SB	EB	WB	Combined
		2097	2019	4116

AM

PM

Split %	58.9%	41.1%	44.0%	44.7%	55.3%	56.0%
Peak Hour	08:00	08:15	08:00	15:30	15:45	15:30
Volume	498	376	865	321	424	733
P.H.F.	0.79	0.60	0.71	0.70	0.49	0.61

Prepared by: Field Data Services of Arizona/Veracity Traffic Group (520) 316-6745

Volumes for: Tuesday, August 31, 2021

City: Oro Valley

Project #: 21-1517-001

Location: Calle Concordia west of Calle Buena Vista

AM Period	NB	SB	EB	WB	PM Period	NB	SB	EB	WB
00:00			0	0	12:00			17	11
00:15			0	2	12:15			20	36
00:30			0	0	12:30			20	16
00:45			0	0	12:45			14	71
01:00			0	0	13:00			13	12
01:15			1	0	13:15			8	25
01:30			0	0	13:30			17	10
01:45			0	1	13:45			31	69
02:00			0	0	14:00			15	17
02:15			0	0	14:15			19	20
02:30			0	1	14:30			15	23
02:45			0	0	14:45			25	74
03:00			0	0	15:00			26	36
03:15			0	1	15:15			30	10
03:30			0	1	15:30			47	15
03:45			0	0	15:45			88	191
04:00			1	0	16:00			59	105
04:15			3	1	16:15			38	90
04:30			2	0	16:30			25	24
04:45			13	19	16:45			14	136
05:00			3	1	17:00			22	21
05:15			9	5	17:15			25	19
05:30			7	5	17:30			33	31
05:45			8	27	17:45			37	117
06:00			11	13	18:00			30	16
06:15			17	8	18:15			33	37
06:30			10	9	18:30			21	31
06:45			14	52	18:45			13	97
07:00			26	11	19:00			12	16
07:15			73	29	19:15			8	7
07:30			39	23	19:30			8	15
07:45			55	193	19:45			11	39
08:00			61	19	20:00			10	22
08:15			78	41	20:15			10	10
08:30			107	60	20:30			5	24
08:45			101	347	20:45			6	31
09:00			34	30	21:00			15	12
09:15			10	15	21:15			4	16
09:30			17	22	21:30			1	3
09:45			18	79	21:45			3	23
10:00			11	22	22:00			5	1
10:15			11	11	22:15			1	1
10:30			16	10	22:30			0	2
10:45			19	57	22:45			0	6
11:00			14	23	23:00			0	2
11:15			13	17	23:15			1	2
11:30			20	19	23:30			0	0
11:45			27	74	23:45			0	1

Total Vol. 849 558 **1407** 855 910 **1765**

GPS Coordinates: 32.373614, -110.978912

Daily Totals

NB	SB	EB	WB	Combined
		1704	1468	3172

AM

PM

Split %	60.3%	39.7%	44.4%	48.4%	51.6%	55.6%
Peak Hour	08:00	08:15	08:00	15:30	16:00	15:30
Volume	347	206	542	232	243	464
P.H.F.	0.81	0.69	0.77	0.66	0.58	0.71

Prepared by: Field Data Services of Arizona/Veracity Traffic Group (520) 316-6745

Volumes for: Tuesday, August 31, 2021

City: Oro Valley

Project #: 21-1517-004

Location: Calle Buena Vista north of Church Driveway

AM Period	NB	SB	EB	WB	PM Period	NB	SB	EB	WB
00:00	0	0			12:00	4	4		
00:15	0	1			12:15	9	14		
00:30	0	0			12:30	12	8		
00:45	0	0	0	1	12:45	9	34	6	32
01:00	0	0			13:00	8	4		
01:15	0	0			13:15	7	8		
01:30	0	0			13:30	3	6		
01:45	0	0	0	0	13:45	9	27	10	28
02:00	0	0			14:00	8	4		
02:15	0	0			14:15	5	7		
02:30	0	0			14:30	6	4		
02:45	0	0	0	0	14:45	9	28	13	28
03:00	0	1			15:00	9	6		
03:15	0	1			15:15	11	12		
03:30	1	1			15:30	14	5		
03:45	0	1	0	3	15:45	10	44	7	30
04:00	0	0			16:00	22	7		
04:15	1	0			16:15	12	4		
04:30	0	1			16:30	9	9		
04:45	0	1	2	3	16:45	8	51	5	25
05:00	2	1			17:00	12	3		
05:15	3	0			17:15	7	6		
05:30	3	1			17:30	14	9		
05:45	0	8	1	3	17:45	11	44	11	29
06:00	0	4			18:00	3	8		
06:15	2	1			18:15	3	7		
06:30	6	4			18:30	9	2		
06:45	3	11	2	11	18:45	4	19	2	19
07:00	1	3			19:00	6	6		
07:15	12	8			19:15	6	3		
07:30	7	10			19:30	1	1		
07:45	5	25	8	29	19:45	5	18	3	13
08:00	11	10			20:00	7	10		
08:15	8	7			20:15	5	2		
08:30	5	8			20:30	6	4		
08:45	10	34	9	34	20:45	0	18	0	16
09:00	8	3			21:00	3	2		
09:15	8	10			21:15	0	2		
09:30	2	12			21:30	2	7		
09:45	4	22	7	32	21:45	3	8	3	14
10:00	7	7			22:00	0	1		
10:15	8	8			22:15	1	0		
10:30	2	4			22:30	1	0		
10:45	11	28	12	31	22:45	0	2	0	1
11:00	7	5			23:00	0	0		
11:15	8	6			23:15	0	0		
11:30	8	6			23:30	0	0		
11:45	6	29	4	21	23:45	0	0	0	0

Total Vol. 159 168 **327** 293 235 **528**

GPS Coordinates: 32.375627, -110.978601

Daily Totals

NB	SB	EB	WB	Combined
452	403			855

AM

PM

Split %	48.6%	51.4%	38.2%	55.5%	44.5%	61.8%
Peak Hour	07:15	07:15	07:15	15:30	14:45	15:15
Volume	35	36	71	58	36	88
P.H.F.	0.73	0.90	0.85	0.66	0.69	0.76

Prepared by: Field Data Services of Arizona/Veracity Traffic Group (520) 316-6745

Volumes for: Tuesday, August 31, 2021

City: Oro Valley

Project #: 21-1517-005

Location: Calle Concordia east of Church Driveway

AM Period	NB	SB	EB	WB	PM Period	NB	SB	EB	WB
00:00			0	0	12:00			28	19
00:15			0	1	12:15			24	41
00:30			0	1	12:30			29	42
00:45			0	0	12:45			25	106
01:00			0	0	13:00			21	18
01:15			0	2	13:15			20	25
01:30			0	0	13:30			21	24
01:45			0	0	13:45			25	87
02:00			0	0	14:00			16	28
02:15			1	0	14:15			19	24
02:30			0	0	14:30			20	21
02:45			0	1	14:45			24	79
03:00			0	0	15:00			41	69
03:15			0	1	15:15			45	16
03:30			0	0	15:30			89	54
03:45			1	1	15:45			128	303
04:00			2	0	16:00			89	226
04:15			1	1	16:15			40	166
04:30			7	3	16:30			43	28
04:45			11	21	16:45			33	205
05:00			16	1	17:00			30	21
05:15			13	4	17:15			24	28
05:30			11	1	17:30			41	24
05:45			10	50	17:45			43	138
06:00			14	11	18:00			41	43
06:15			18	10	18:15			45	39
06:30			20	14	18:30			39	30
06:45			24	76	18:45			16	141
07:00			74	22	19:00			13	41
07:15			89	44	19:15			11	14
07:30			55	43	19:30			7	19
07:45			69	287	19:45			11	42
08:00			88	69	20:00			10	20
08:15			136	88	20:15			7	14
08:30			166	136	20:30			4	19
08:45			158	548	20:45			8	29
09:00			28	28	21:00			5	10
09:15			21	10	21:15			16	14
09:30			19	14	21:30			9	8
09:45			16	84	21:45			6	36
10:00			13	20	22:00			3	9
10:15			16	21	22:15			2	2
10:30			18	14	22:30			1	1
10:45			17	64	22:45			0	6
11:00			18	20	23:00			0	1
11:15			16	21	23:15			1	2
11:30			20	28	23:30			0	1
11:45			27	81	23:45			0	1

Total Vol. 1213 905 **2118** 1173 1456 **2629**

GPS Coordinates: 32.373618, -110.976633

Daily Totals

NB	SB	EB	WB	Combined
		2386	2361	4747

AM

PM

Split %	57.3%	42.7%	44.6%	44.6%	55.4%	55.4%
Peak Hour	08:00	08:00	08:00	15:15	15:30	15:30
Volume	548	459	1007	351	535	881
P.H.F.	0.83	0.69	0.78	0.69	0.59	0.70

Intersection Turning Movement

Prepared by:



FIELD DATA SERVICES OF ARIZONA, INC.
520.316.6745



veracitytrafficgroup

N-S STREET: Calle Buena Vista

DATE: 09/01/21

LOCATION: Oro Valley

E-W STREET: Calle Concordia

DAY: WEDNESDAY

PROJECT# 21-1517-002

	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
LANES:	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
	0	1	1	0	1	0	0	1	0	0	1	0	
12:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	
12:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	
12:30 AM	0	0	0	0	0	0	0	0	0	0	0	1	1
12:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	
1:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	
1:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	
1:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	
1:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	
2:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	
2:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	
2:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	
2:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	
3:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	
3:15 AM	0	0	1	0	1	0	0	0	0	0	0	0	2
3:30 AM	0	1	0	0	0	0	0	0	0	1	0	0	2
3:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	
4:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	
4:15 AM	0	0	0	0	0	0	1	1	0	0	0	0	2
4:30 AM	0	0	1	0	0	0	0	4	1	0	2	1	9
4:45 AM	0	0	2	1	1	0	0	14	0	0	3	0	21
5:00 AM	0	1	0	1	1	0	1	2	0	0	2	0	8
5:15 AM	0	0	0	0	0	0	1	5	1	1	2	0	10
5:30 AM	0	0	3	0	1	0	2	2	0	0	2	0	10
5:45 AM	1	1	0	1	0	0	1	9	1	1	6	0	21
6:00 AM	0	1	0	1	1	0	0	3	1	1	9	0	17
6:15 AM	1	1	0	0	0	0	1	8	2	2	5	1	21
6:30 AM	1	1	5	0	2	2	1	10	3	1	7	2	35
6:45 AM	2	1	3	1	2	0	1	16	1	0	2	1	30
7:00 AM	5	2	3	2	8	0	0	14	7	0	8	0	49
7:15 AM	2	3	10	1	6	2	2	31	6	4	13	0	80
7:30 AM	2	3	18	0	3	0	1	41	3	3	12	0	86
7:45 AM	3	3	49	1	7	2	3	89	2	27	19	0	205
8:00 AM	4	4	32	0	2	3	3	47	2	19	22	0	138
8:15 AM	3	3	17	2	4	2	1	61	4	19	24	0	140
8:30 AM	5	1	66	0	7	3	1	103	5	60	42	1	294
8:45 AM	4	3	60	2	3	1	1	91	11	86	74	9	345
9:00 AM	6	4	5	0	0	3	2	19	6	23	28	0	96
9:15 AM	4	1	4	2	9	1	3	9	3	2	6	1	45
9:30 AM	4	3	8	1	6	1	2	13	1	6	4	0	49
9:45 AM	2	2	6	1	8	3	0	14	4	8	7	1	56
10:00 AM	4	10	5	1	3	4	4	7	5	3	11	1	58
10:15 AM	3	1	2	0	5	1	2	7	5	2	6	0	34

Intersection Turning Movement

Prepared by:



FIELD DATA SERVICES OF ARIZONA, INC.
520.316.6745



veracitytrafficgroup

N-S STREET: Calle Buena Vista

DATE: 09/01/21

LOCATION: Oro Valley

E-W STREET: Calle Concordia

DAY: WEDNESDAY

PROJECT# 21-1517-002

	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
LANES:	NL 0	NT 1	NR 1	SL 0	ST 1	SR 0	EL 0	ET 1	ER 0	WL 0	WT 1	WR 0	TOTAL
10:30 AM	2	1	4	0	6	0	0	6	1	3	8	1	32
10:45 AM	7	9	2	1	9	3	2	14	3	2	9	2	63
11:00 AM	4	6	0	0	4	1	1	10	2	5	9	0	42
11:15 AM	8	3	5	0	0	3	3	10	2	4	5	2	45
11:30 AM	5	4	5	1	3	2	2	15	6	3	4	1	51
11:45 AM	2	8	4	0	2	0	2	8	5	4	9	1	45
12:00 PM	5	3	5	1	2	2	1	8	6	7	14	2	56
12:15 PM	6	5	4	0	1	3	3	6	4	26	15	3	76
12:30 PM	2	7	11	2	6	1	3	7	1	4	8	1	53
12:45 PM	4	7	2	0	4	0	3	9	5	3	6	0	43
1:00 PM	4	7	2	0	3	2	0	15	3	0	6	0	42
1:15 PM	5	6	7	1	2	2	1	8	3	16	24	4	79
1:30 PM	6	6	7	1	1	5	3	16	5	3	9	0	62
1:45 PM	4	3	8	1	4	4	3	20	8	20	9	0	84
2:00 PM	6	3	6	1	6	1	1	6	3	3	10	1	47
2:15 PM	6	6	6	0	5	0	2	12	3	5	9	2	56
2:30 PM	3	4	7	0	7	0	2	12	3	2	12	1	53
2:45 PM	3	5	20	0	4	3	5	36	5	7	16	1	105
3:00 PM	5	7	8	2	1	1	0	13	6	33	37	5	118
3:15 PM	3	3	9	2	2	0	3	17	2	7	17	1	66
3:30 PM	8	8	28	1	7	1	2	37	2	13	13	1	121
3:45 PM	4	3	46	0	4	0	2	69	1	9	14	1	153
4:00 PM	3	7	34	1	2	3	5	51	3	100	87	14	310
4:15 PM	4	4	18	0	3	0	1	34	8	71	82	6	231
4:30 PM	5	11	4	0	3	3	3	18	1	18	26	3	95
4:45 PM	5	6	7	0	2	2	1	21	4	10	23	1	82
5:00 PM	9	6	8	0	6	2	0	20	4	15	30	1	101
5:15 PM	1	5	8	0	3	0	3	21	3	4	17	1	66
5:30 PM	8	4	8	1	4	2	3	30	4	3	21	0	88
5:45 PM	3	5	9	0	2	0	2	41	3	10	19	2	96
6:00 PM	4	3	9	0	3	2	2	37	2	12	19	0	93
6:15 PM	3	4	8	1	8	0	1	24	2	21	51	2	125
6:30 PM	4	5	6	0	8	0	1	11	2	21	15	1	74
6:45 PM	4	2	4	0	3	2	2	14	1	9	19	0	60
7:00 PM	0	2	1	1	2	1	1	7	0	8	19	1	43
7:15 PM	2	4	0	0	1	0	0	7	6	3	6	0	29
7:30 PM	2	2	0	0	2	1	1	1	1	2	5	0	17
7:45 PM	0	1	2	0	2	1	0	6	1	3	5	0	21
8:00 PM	3	0	0	0	0	0	0	2	2	6	24	1	38
8:15 PM	2	2	0	0	1	1	1	2	0	4	15	0	28
8:30 PM	1	2	0	0	1	1	2	2	1	0	7	1	18
8:45 PM	2	0	0	0	3	0	0	1	0	0	3	0	9

Intersection Turning Movement

Prepared by:



FIELD DATA SERVICES OF ARIZONA, INC.
520.316.6745



veracitytrafficgroup

N-S STREET: Calle Buena Vista

DATE: 09/01/21

LOCATION: Oro Valley

E-W STREET: Calle Concordia

DAY: WEDNESDAY

PROJECT# 21-1517-002

	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
LANES:	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
	0	1	1	0	1	0	0	1	0	0	1	0	
9:00 PM	0	2	1	1	2	1	0	0	0	0	5	0	12
9:15 PM	0	2	0	0	0	0	0	3	0	0	2	0	7
9:30 PM	1	1	0	0	3	0	0	1	0	1	0	0	7
9:45 PM	0	1	1	0	0	0	1	1	0	0	1	0	5
10:00 PM	1	0	0	0	1	0	0	2	0	0	1	0	5
10:15 PM	0	0	2	0	0	0	0	0	0	1	0	0	3
10:30 PM	0	0	0	0	0	0	0	1	0	0	0	0	1
10:45 PM	0	0	0	0	0	0	0	0	1	0	0	0	1
11:00 PM	0	0	0	0	1	0	0	1	0	0	0	0	2
11:15 PM	0	0	0	0	0	0	2	0	0	0	2	0	4
11:30 PM	2	0	0	0	0	0	0	0	0	0	0	0	2
11:45 PM	0	0	1	0	0	0	0	0	0	1	1	0	3

TOTAL	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
Volumes	227	245	627	37	229	84	110	1333	202	771	1084	83	5032
Approach %	20.66	22.29	57.05	10.57	65.43	24.00	6.69	81.03	12.28	39.78	55.93	4.28	
App/Depart	1099	/	438	350	/	1202	1645	/	1997	1938	/	1395	

AM Peak Hr Begins at: 800 AM

PEAK

Volumes	16	11	175	4	16	9	6	302	22	184	162	10	917
Approach %	7.92	5.45	86.63	13.79	55.17	31.03	1.82	91.52	6.67	51.69	45.51	2.81	

PEAK HR.

FACTOR:	0.701	0.725	0.757	0.527	0.664
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CONTROL: 2-Way Stop (NB & SB)

COMMENT 1:

GPS: 32.373613, -110.978624

Prepared by: Field Data Services of Arizona/Veracity Traffic Group (520) 316-6745

Volumes for: Wednesday, September 1, 2021

City: Oro Valley

Project #: 21-1517-002

Location: Calle Buena Vista north of Calle Concordia

AM Period	NB	SB	EB	WB	PM Period	NB	SB	EB	WB
00:00	0	0			12:00	6	5		
00:15	0	0			12:15	11	4		
00:30	1	0			12:30	11	9		
00:45	0	1	0	0	12:45	10	38	4	22
01:00	0	0			13:00	7	5		
01:15	0	0			13:15	11	5		
01:30	0	0			13:30	9	7		
01:45	0	0	0	0	13:45	6	33	9	26
02:00	0	0			14:00	5	8		
02:15	0	0			14:15	10	5		
02:30	0	0			14:30	7	7		
02:45	0	0	0	0	14:45	11	33	7	27
03:00	0	0			15:00	12	4		
03:15	0	1			15:15	7	4		
03:30	1	0			15:30	11	9		
03:45	0	1	0	1	15:45	6	36	4	21
04:00	0	0			16:00	26	6		
04:15	1	0			16:15	11	3		
04:30	1	0			16:30	17	6		
04:45	0	2	2	2	16:45	8	62	4	19
05:00	2	2			17:00	7	8		
05:15	1	0			17:15	9	3		
05:30	2	1			17:30	7	7		
05:45	2	7	1	4	17:45	9	32	2	20
06:00	1	2			18:00	5	5		
06:15	3	0			18:15	7	9		
06:30	4	4			18:30	7	8		
06:45	3	11	3	9	18:45	4	23	5	27
07:00	2	10			19:00	4	4		
07:15	5	9			19:15	4	1		
07:30	4	3			19:30	3	3		
07:45	6	17	10	32	19:45	1	12	3	11
08:00	7	5			20:00	1	0		
08:15	4	8			20:15	3	2		
08:30	3	10			20:30	5	2		
08:45	13	27	6	29	20:45	0	9	3	7
09:00	6	3			21:00	2	4		
09:15	5	12			21:15	2	0		
09:30	5	8			21:30	1	3		
09:45	3	19	12	35	21:45	2	7	0	7
10:00	15	8			22:00	0	1		
10:15	3	6			22:15	0	0		
10:30	2	6			22:30	0	0		
10:45	13	33	13	33	22:45	0	0	0	1
11:00	7	5			23:00	0	1		
11:15	8	3			23:15	2	0		
11:30	7	6			23:30	0	0		
11:45	11	33	2	16	23:45	0	2	0	1

Total Vol. 151 161 **312** 287 189 **476**

GPS Coordinates: 32.373895, -110.978625

Daily Totals

NB	SB	EB	WB	Combined
438	350			788

AM

PM

Split %	48.4%	51.6%	39.6%	60.3%	39.7%	60.4%
Peak Hour	11:45	09:15	09:15	16:00	13:15	16:00
Volume	39	40	68	62	29	81
P.H.F.	0.89	0.83	0.74	0.60	0.81	0.63

Prepared by: Field Data Services of Arizona/Veracity Traffic Group (520) 316-6745

Volumes for: Wednesday, September 1, 2021

City: Oro Valley

Project #: 21-1517-002

Location: Calle Buena Vista south of Calle Concordia

AM Period	NB	SB	EB	WB	PM Period	NB	SB	EB	WB
00:00	0	0			12:00	13	15		
00:15	0	0			12:15	15	31		
00:30	0	0			12:30	20	11		
00:45	0	0	0	0	12:45	13	61	12	69
01:00	0	0			13:00	13	6		
01:15	0	0			13:15	18	21		
01:30	0	0			13:30	19	9		
01:45	0	0	0	0	13:45	15	65	32	68
02:00	0	0			14:00	15	12		
02:15	0	0			14:15	18	13		
02:30	0	0			14:30	14	12		
02:45	0	0	0	0	14:45	28	75	16	53
03:00	0	0			15:00	20	40		
03:15	1	1			15:15	15	11		
03:30	1	1			15:30	44	22		
03:45	0	2	0	2	15:45	53	132	14	87
04:00	0	0			16:00	44	105		
04:15	0	0			16:15	26	82		
04:30	1	1			16:30	20	22		
04:45	2	3	1	2	16:45	18	108	16	225
05:00	1	1			17:00	23	25		
05:15	0	2			17:15	14	10		
05:30	3	1			17:30	20	11		
05:45	2	6	2	6	17:45	17	74	15	61
06:00	1	3			18:00	16	17		
06:15	2	4			18:15	15	31		
06:30	7	6			18:30	15	31		
06:45	6	16	3	16	18:45	10	56	13	92
07:00	10	15			19:00	3	10		
07:15	15	16			19:15	6	10		
07:30	23	9			19:30	4	5		
07:45	55	103	36	76	19:45	3	16	6	31
08:00	40	23			20:00	3	8		
08:15	23	27			20:15	4	5		
08:30	72	72			20:30	3	2		
08:45	67	202	100	222	20:45	2	12	3	18
09:00	15	29			21:00	3	2		
09:15	9	14			21:15	2	0		
09:30	15	13			21:30	2	4		
09:45	10	49	20	76	21:45	2	9	0	6
10:00	19	11			22:00	1	1		
10:15	6	12			22:15	2	1		
10:30	7	10			22:30	0	0		
10:45	18	50	14	47	22:45	0	3	1	3
11:00	10	11			23:00	0	1		
11:15	16	6			23:15	0	0		
11:30	14	12			23:30	2	0		
11:45	14	54	11	40	23:45	1	3	1	2

Total Vol. 485 487 **972** 614 715 **1329**

GPS Coordinates: 32.373313, -110.978553

Daily Totals

NB	SB	EB	WB	Combined
1099	1202			2301

AM

PM

Split %	49.9%	50.1%	42.2%	46.2%	53.8%	57.8%
Peak Hour	08:00	08:15	08:00	15:30	16:00	15:30
Volume	202	228	424	167	225	390
P.H.F.	0.70	0.57	0.63	0.79	0.54	0.65

Prepared by: Field Data Services of Arizona/Veracity Traffic Group (520) 316-6745

Volumes for: Wednesday, September 1, 2021

City: Oro Valley

Project #: 21-1517-002

Location: Calle Concordia east of Calle Buena Vista

AM Period	NB	SB	EB	WB	PM Period	NB	SB	EB	WB
00:00			0	0	12:00			14	23
00:15			0	0	12:15			10	44
00:30			0	1	12:30			20	13
00:45			0	0	12:45			11	55
01:00			0	0	13:00			17	6
01:15			0	0	13:15			16	44
01:30			0	0	13:30			24	12
01:45			0	0	13:45			29	86
02:00			0	0	14:00			13	14
02:15			0	0	14:15			18	16
02:30			0	0	14:30			19	15
02:45			0	0	14:45			56	106
03:00			0	0	15:00			23	75
03:15			1	0	15:15			28	25
03:30			0	1	15:30			66	27
03:45			0	1	15:45			115	232
04:00			0	0	16:00			86	201
04:15			1	0	16:15			52	159
04:30			5	3	16:30			22	47
04:45			17	23	16:45			28	188
05:00			3	2	17:00			28	46
05:15			5	3	17:15			29	22
05:30			5	2	17:30			39	24
05:45			10	23	17:45			50	146
06:00			4	10	18:00			46	31
06:15			8	8	18:15			33	74
06:30			15	10	18:30			17	37
06:45			20	47	18:45			18	114
07:00			19	8	19:00			9	28
07:15			42	17	19:15			7	9
07:30			59	15	19:30			1	7
07:45			139	259	19:45			8	25
08:00			79	41	20:00			2	31
08:15			80	43	20:15			2	19
08:30			169	103	20:30			2	8
08:45			153	481	20:45			1	7
09:00			24	51	21:00			2	5
09:15			15	9	21:15			3	2
09:30			22	10	21:30			1	1
09:45			21	82	21:45			2	8
10:00			13	15	22:00			2	1
10:15			9	8	22:15			2	1
10:30			10	12	22:30			1	0
10:45			17	49	22:45			0	5
11:00			10	14	23:00			1	0
11:15			15	11	23:15			0	2
11:30			21	8	23:30			0	0
11:45			12	58	23:45			1	2

Total Vol. 1023 676 **1699** 974 1262 **2236**

GPS Coordinates: 32.373616, -110.978319

Daily Totals

NB	SB	EB	WB	Combined
		1997	1938	3935

AM

PM

Split %	60.2%	39.8%	43.2%	43.6%	56.4%	56.8%
Peak Hour	08:00	08:15	08:00	15:30	16:00	15:30
Volume	481	366	837	319	441	730
P.H.F.	0.71	0.54	0.65	0.69	0.55	0.64

Prepared by: Field Data Services of Arizona/Veracity Traffic Group (520) 316-6745

Volumes for: Wednesday, September 1, 2021

City: Oro Valley

Project #: 21-1517-002

Location: Calle Concordia west of Calle Buena Vista

AM Period	NB	SB	EB	WB	PM Period	NB	SB	EB	WB
00:00			0	0	12:00			15	21
00:15			0	0	12:15			13	24
00:30			0	0	12:30			11	11
00:45			0	0	12:45			17	56
01:00			0	0	13:00			18	12
01:15			0	0	13:15			12	31
01:30			0	0	13:30			24	20
01:45			0	0	13:45			31	85
02:00			0	0	14:00			10	17
02:15			0	0	14:15			17	15
02:30			0	0	14:30			17	15
02:45			0	0	14:45			46	90
03:00			0	0	15:00			19	43
03:15			0	0	15:15			22	20
03:30			0	0	15:30			41	22
03:45			0	0	15:45			72	154
04:00			0	0	16:00			59	93
04:15			2	0	16:15			43	86
04:30			5	2	16:30			22	34
04:45			14	21	16:45			26	150
05:00			3	2	17:00			24	41
05:15			7	2	17:15			27	18
05:30			4	2	17:30			37	31
05:45			11	25	17:45			46	134
06:00			4	9	18:00			41	25
06:15			11	6	18:15			27	54
06:30			14	10	18:30			14	19
06:45			18	47	18:45			17	99
07:00			21	13	19:00			8	20
07:15			39	17	19:15			13	8
07:30			45	14	19:30			3	8
07:45			94	199	19:45			7	31
08:00			52	29	20:00			4	27
08:15			66	29	20:15			3	18
08:30			109	50	20:30			5	9
08:45			103	330	20:45			1	13
09:00			27	37	21:00			0	6
09:15			15	11	21:15			3	2
09:30			16	9	21:30			1	1
09:45			18	76	21:45			2	6
10:00			16	19	22:00			2	2
10:15			14	10	22:15			0	0
10:30			7	10	22:30			1	0
10:45			19	56	22:45			1	4
11:00			13	14	23:00			1	0
11:15			15	16	23:15			2	2
11:30			23	11	23:30			0	2
11:45			15	66	23:45			0	3

Total Vol. 820 481 **1301** 825 914 **1739**

GPS Coordinates: 32.373614, -110.978912

Daily Totals

NB	SB	EB	WB	Combined
		1645	1395	3040

AM

PM

Split %	63.0%	37.0%	42.8%	47.4%	52.6%	57.2%
Peak Hour	08:00	08:15	08:00	15:30	16:00	15:30
Volume	330	195	517	215	243	434
P.H.F.	0.76	0.62	0.71	0.75	0.65	0.71

Prepared by: Field Data Services of Arizona/Veracity Traffic Group (520) 316-6745

Volumes for: Wednesday, September 1, 2021

City: Oro Valley

Project #: 21-1517-004

Location: Calle Buena Vista north of Church Driveway

AM Period	NB	SB	EB	WB	PM Period	NB	SB	EB	WB
00:00	0	0			12:00	6	8		
00:15	0	0			12:15	10	9		
00:30	1	0			12:30	4	6		
00:45	0	1	0	0	12:45	9	29	9	32
01:00	0	0			13:00	10	9		
01:15	0	0			13:15	4	13		
01:30	0	0			13:30	13	8		
01:45	0	0	0	0	13:45	18	45	5	35
02:00	0	0			14:00	6	14		
02:15	0	0			14:15	6	1		
02:30	0	0			14:30	14	4		
02:45	0	0	0	0	14:45	7	33	8	27
03:00	0	1			15:00	13	14		
03:15	0	0			15:15	9	8		
03:30	1	0			15:30	7	4		
03:45	0	1	0	1	15:45	7	36	8	34
04:00	0	0			16:00	14	1		
04:15	1	0			16:15	10	4		
04:30	1	0			16:30	4	6		
04:45	0	2	2	2	16:45	9	37	4	15
05:00	2	2			17:00	12	4		
05:15	1	0			17:15	12	4		
05:30	2	1			17:30	11	8		
05:45	2	7	1	4	17:45	9	44	7	23
06:00	1	2			18:00	9	4		
06:15	3	0			18:15	10	5		
06:30	3	5			18:30	8	7		
06:45	3	10	5	12	18:45	3	30	5	21
07:00	2	13			19:00	5	2		
07:15	6	8			19:15	3	3		
07:30	3	3			19:30	4	1		
07:45	6	17	13	37	19:45	5	17	0	6
08:00	7	4			20:00	4	4		
08:15	5	5			20:15	2	3		
08:30	12	11			20:30	6	1		
08:45	13	37	7	27	20:45	3	15	1	9
09:00	7	9			21:00	1	1		
09:15	7	7			21:15	0	2		
09:30	8	10			21:30	4	1		
09:45	2	24	12	38	21:45	5	10	1	5
10:00	6	8			22:00	1	0		
10:15	3	3			22:15	0	0		
10:30	9	8			22:30	0	0		
10:45	7	25	5	24	22:45	0	1	1	1
11:00	7	8			23:00	0	0		
11:15	8	4			23:15	0	0		
11:30	7	7			23:30	1	0		
11:45	12	34	8	27	23:45	0	1	0	0

Total Vol. 158 172 **330** 298 208 **506**

GPS Coordinates: 32.375627, -110.978601

Daily Totals

NB	SB	EB	WB	Combined
456	380			836

AM

PM

Split %	47.9%	52.1%	39.5%	58.9%	41.1%	60.5%
Peak Hour	08:30	09:00	08:30	13:00	13:15	13:15
Volume	39	38	73	45	40	81
P.H.F.	0.75	0.79	0.79	0.63	0.71	0.88

Prepared by: Field Data Services of Arizona/Veracity Traffic Group (520) 316-6745

Volumes for: Wednesday, September 1, 2021

City: Oro Valley

Project #: 21-1517-005

Location: Calle Concordia east of Church Driveway

AM Period	NB	SB	EB	WB	PM Period	NB	SB	EB	WB
00:00			0	0	12:00			28	29
00:15			0	0	12:15			24	41
00:30			0	1	12:30			19	12
00:45			0	0	12:45			20	91
01:00			0	0	13:00			24	10
01:15			0	0	13:15			41	46
01:30			0	0	13:30			45	60
01:45			0	0	13:45			28	138
02:00			0	0	14:00			24	41
02:15			0	0	14:15			59	42
02:30			0	0	14:30			66	28
02:45			1	1	14:45			60	209
03:00			0	0	15:00			85	79
03:15			0	0	15:15			74	50
03:30			1	0	15:30			89	41
03:45			0	1	15:45			141	389
04:00			0	1	16:00			101	263
04:15			1	2	16:15			55	169
04:30			2	1	16:30			41	41
04:45			8	11	16:45			43	240
05:00			11	2	17:00			39	39
05:15			7	1	17:15			30	30
05:30			9	4	17:30			32	32
05:45			6	33	17:45			54	155
06:00			9	5	18:00			41	27
06:15			11	9	18:15			28	69
06:30			10	11	18:30			21	50
06:45			24	54	18:45			19	109
07:00			41	14	19:00			11	28
07:15			45	28	19:15			10	14
07:30			69	59	19:30			7	16
07:45			166	321	19:45			6	34
08:00			89	60	20:00			3	28
08:15			87	89	20:15			2	21
08:30			176	128	20:30			5	8
08:45			169	521	20:45			2	12
09:00			28	55	21:00			1	9
09:15			26	41	21:15			4	6
09:30			22	19	21:30			1	3
09:45			20	96	21:45			2	8
10:00			24	18	22:00			1	5
10:15			28	16	22:15			3	2
10:30			21	13	22:30			2	1
10:45			19	92	22:45			1	7
11:00			16	17	23:00			0	1
11:15			20	19	23:15			0	0
11:30			21	16	23:30			1	0
11:45			17	74	23:45			1	2

Total Vol. 1204 942 **2146** 1394 1607 **3001**

GPS Coordinates: 32.373618, -110.976633

Daily Totals

NB	SB	EB	WB	Combined
		2598	2549	5147

AM

PM

Split %	56.1%	43.9%	41.7%	46.5%	53.5%	58.3%
Peak Hour	08:00	08:00	08:00	15:15	15:30	15:30
Volume	521	458	979	405	518	904
P.H.F.	0.74	0.63	0.70	0.72	0.49	0.62

Intersection Turning Movement



FIELD DATA SERVICES OF ARIZONA, INC.
520.316.6745



veracitytrafficgroup

N-S STREET: Church West Driveway

DATE: 11/30/22

LOCATION: Oro Valley

E-W STREET: Calle Concordia

DAY: WEDNESDAY

PROJECT#: 22-1639-002

	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
LANES:	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
	0	1	0	0	1	0	0	0	0	0	1	0	
4:00 PM													
4:15 PM													
4:30 PM													
4:45 PM													
5:00 PM													
5:15 PM													
5:30 PM	0	0	0	1	0	3	5	37	0	0	20	1	67
5:45 PM	0	0	0	4	0	3	10	64	0	0	54	1	136
6:00 PM	0	0	0	1	0	4	11	50	0	0	81	0	147
6:15 PM	0	0	0	1	0	3	12	38	0	0	39	2	95
6:30 PM	0	0	0	0	0	3	0	10	0	0	14	0	27
6:45 PM	0	0	0	1	0	1	0	8	0	0	21	0	31
7:00 PM	0	0	0	0	0	0	2	5	0	0	15	0	22
7:15 PM	0	0	0	1	0	1	4	9	0	0	13	0	28
7:30 PM	0	0	0	8	0	19	2	12	0	0	13	0	54
7:45 PM	0	0	0	4	0	21	1	24	0	0	14	0	64
8:00 PM	0	0	0	5	0	12	0	18	0	0	50	0	85
8:15 PM	0	0	0	2	0	0	0	3	0	0	27	0	32
8:30 PM													
8:45 PM													
9:00 PM													
9:15 PM													
9:30 PM													
9:45 PM													

TOTAL	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
Volumes	0	0	0	28	0	70	47	278	0	0	361	4	788
Approach %	####	####	####	28.57	0.00	71.43	14.46	85.54	0.00	0.00	98.90	1.10	
App/Depart	0	/	51	98	/	0	325	/	306	365	/	431	

PM Peak Hr Begins at: 530 PM

PEAK													
Volumes	0	0	0	7	0	13	38	189	0	0	194	4	445
Approach %	####	####	####	35.00	0.00	65.00	16.74	83.26	0.00	0.00	97.98	2.02	

PEAK HR.

FACTOR: | 0.000 | 0.714 | 0.767 | 0.611 | 0.757 |

CONTROL: 1-Way Stop (SB)

COMMENT 1:

GPS: 32.373628, -110.978102

Intersection Turning Movement



FIELD DATA SERVICES OF ARIZONA, INC.
520.316.6745



veracitytrafficgroup

N-S STREET: Church East Driveway

DATE: 11/30/22

LOCATION: Oro Valley

E-W STREET: Calle Concordia

DAY: WEDNESDAY

PROJECT#: 22-1639-004

	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
LANES:	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
	0	1	0	0	1	0	0	0	0	0	1	0	
4:00 PM													
4:15 PM													
4:30 PM													
4:45 PM													
5:00 PM													
5:15 PM													
5:30 PM	0	0	0	1	0	1	6	31	0	0	32	3	74
5:45 PM	0	0	0	2	0	3	11	53	0	0	55	5	129
6:00 PM	0	0	0	4	0	5	13	38	0	0	95	5	160
6:15 PM	0	0	0	0	0	4	8	36	0	0	49	2	99
6:30 PM	0	0	0	0	0	1	1	9	0	0	18	0	29
6:45 PM	0	0	0	0	0	2	2	8	0	0	20	1	33
7:00 PM	0	0	0	1	0	0	0	4	0	0	17	1	23
7:15 PM	0	0	0	1	0	1	1	6	0	0	18	0	27
7:30 PM	0	0	0	0	0	1	3	22	0	0	11	0	37
7:45 PM	0	0	0	3	0	10	8	29	0	0	11	5	66
8:00 PM	0	0	0	16	0	15	8	19	0	0	29	1	88
8:15 PM	0	0	0	6	0	9	1	6	0	0	17	1	40
8:30 PM													
8:45 PM													
9:00 PM													
9:15 PM													
9:30 PM													
9:45 PM													

TOTAL	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
Volumes	0	0	0	34	0	52	62	261	0	0	372	24	805
Approach %	####	####	####	39.53	0.00	60.47	19.20	80.80	0.00	0.00	93.94	6.06	
App/Depart	0	/	86	86	/	0	323	/	295	396	/	424	

PM Peak Hr Begins at: 530 PM

PEAK Volumes	0	0	0	7	0	13	38	158	0	0	231	15	462
Approach %	####	####	####	35.00	0.00	65.00	19.39	80.61	0.00	0.00	93.90	6.10	

PEAK HR. FACTOR:	0.000	0.556	0.766	0.615	0.722
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CONTROL: 1-Way Stop (SB)

COMMENT 1:
GPS: 32.373653, -110.976066

Intersection Turning Movement



FIELD DATA SERVICES OF ARIZONA, INC.
520.316.6745



veracitytrafficgroup

N-S STREET: Church Center Driveway

DATE: 11/30/22

LOCATION: Oro Valley

E-W STREET: Calle Concordia

DAY: WEDNESDAY

PROJECT#: 22-1639-003

	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
LANES:	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
	0	1	0	0	1	0	0	0	0	0	1	0	
4:00 PM													
4:15 PM													
4:30 PM													
4:45 PM													
5:00 PM													
5:15 PM													
5:30 PM	0	0	0	1	0	0	2	36	0	0	21	10	70
5:45 PM	0	0	0	2	0	1	7	61	0	0	54	11	136
6:00 PM	0	0	0	6	0	1	5	46	0	0	80	17	155
6:15 PM	0	0	0	7	0	0	3	36	0	0	41	10	97
6:30 PM	0	0	0	1	0	0	3	7	0	0	14	4	29
6:45 PM	0	0	0	1	0	0	0	9	0	0	21	1	32
7:00 PM	0	0	0	0	0	0	0	5	0	0	15	1	21
7:15 PM	0	0	0	0	0	0	1	9	0	0	13	6	29
7:30 PM	0	0	0	9	0	1	0	20	0	0	12	1	43
7:45 PM	0	0	0	8	0	1	5	23	0	0	13	7	57
8:00 PM	0	0	0	7	0	6	2	21	0	0	44	2	82
8:15 PM	0	0	0	2	0	2	0	5	0	0	25	1	35
8:30 PM													
8:45 PM													
9:00 PM													
9:15 PM													
9:30 PM													
9:45 PM													

TOTAL	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
Volumes	0	0	0	44	0	12	28	278	0	0	353	71	786
Approach %	####	####	####	78.57	0.00	21.43	9.15	90.85	0.00	0.00	83.25	16.75	
App/Depart	0	/	99	56	/	0	306	/	322	424	/	365	

PM Peak Hr Begins at: 530 PM

PEAK													
Volumes	0	0	0	16	0	2	17	179	0	0	196	48	458
Approach %	####	####	####	88.89	0.00	11.11	8.67	91.33	0.00	0.00	80.33	19.67	

PEAK HR. FACTOR:	0.000	0.643	0.721	0.629	0.739
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CONTROL: 1-Way Stop (SB)

COMMENT 1:

GPS: 32.373619, -110.977284

Intersection Turning Movement



FIELD DATA SERVICES OF ARIZONA, INC.
520.316.6745



veracitytrafficgroup

N-S STREET: Calle Buena Vista

DATE: 11/30/22

LOCATION: Oro Valley

E-W STREET: Church North Driveway

DAY: WEDNESDAY

PROJECT#: 22-1639-001

	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
LANES:	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
	0	1	0	0	1	0	0	0	0	0	1	0	
4:00 PM													
4:15 PM													
4:30 PM													
4:45 PM													
5:00 PM													
5:15 PM													
5:30 PM	0	7	1	2	7	0	0	0	0	1	0	0	18
5:45 PM	0	9	2	2	6	0	0	0	0	0	0	1	20
6:00 PM	0	10	4	4	9	0	0	0	0	0	0	0	27
6:15 PM	0	3	10	2	5	0	0	0	0	5	0	0	25
6:30 PM	0	4	2	1	2	0	0	0	0	0	0	1	10
6:45 PM	0	8	0	0	3	0	0	0	0	1	0	1	13
7:00 PM	0	7	1	1	2	0	0	0	0	0	0	0	11
7:15 PM	0	5	1	1	2	0	0	0	0	1	0	0	10
7:30 PM	0	2	1	0	2	0	0	0	0	7	0	8	20
7:45 PM	0	3	2	2	3	0	0	0	0	8	0	6	24
8:00 PM	0	1	1	1	2	0	0	0	0	7	0	2	14
8:15 PM	0	0	0	0	2	0	0	0	0	0	0	1	3
8:30 PM													
8:45 PM													
9:00 PM													
9:15 PM													
9:30 PM													
9:45 PM													

TOTAL	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
Volumes	0	59	25	16	45	0	0	0	0	30	0	20	195
Approach %	0.00	70.24	29.76	26.23	73.77	0.00	####	####	####	60.00	0.00	40.00	
App/Depart	84	/	79	61	/	75	0	/	41	50	/	0	

PM Peak Hr Begins at: 530 PM

PEAK

Volumes	0	29	17	10	27	0	0	0	0	6	0	1	90
Approach %	0.00	63.04	36.96	27.03	72.97	0.00	####	####	####	85.71	0.00	14.29	

PEAK HR.

FACTOR:	0.821	0.712	0.000	0.350	0.833
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CONTROL: 1-Way Stop (WB)

COMMENT 1:

GPS: 32.374763, -110.978641

HCM 6th TWSC
3: Calle Buena Vista & Calle Concordia




01/03/2023

Intersection												
Int Delay, s/veh	4.5											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	12	174	16	60	142	5	26	29	50	3	24	6
Future Vol, veh/h	12	174	16	60	142	5	26	29	50	3	24	6
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	Stop	-	-	None
Storage Length	-	-	-	-	-	-	-	-	50	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	82	82	82	54	54	54	85	85	85	64	100	64
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	15	212	20	111	263	9	31	34	59	5	24	9
Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	272	0	0	232	0	0	758	746	222	759	752	268
Stage 1	-	-	-	-	-	-	252	252	-	490	490	-
Stage 2	-	-	-	-	-	-	506	494	-	269	262	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1291	-	-	1336	-	-	324	342	818	323	339	771
Stage 1	-	-	-	-	-	-	752	698	-	560	549	-
Stage 2	-	-	-	-	-	-	549	546	-	737	691	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1291	-	-	1336	-	-	276	304	818	251	302	771
Mov Cap-2 Maneuver	-	-	-	-	-	-	276	304	-	251	302	-
Stage 1	-	-	-	-	-	-	742	689	-	553	495	-
Stage 2	-	-	-	-	-	-	465	492	-	642	682	-
Approach	EB			WB			NB			SB		
HCM Control Delay, s	0.5			2.3			15.6			16.7		
HCM LOS							C			C		
Minor Lane/Major Mvmt	NBLn1	NBLn2	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1			
Capacity (veh/h)	290	818	1291	-	-	1336	-	-	345			
HCM Lane V/C Ratio	0.223	0.072	0.011	-	-	0.083	-	-	0.11			
HCM Control Delay (s)	20.9	9.7	7.8	0	-	7.9	0	-	16.7			
HCM Lane LOS	C	A	A	A	-	A	A	-	C			
HCM 95th %tile Q(veh)	0.8	0.2	0	-	-	0.3	-	-	0.4			

HCM 6th TWSC

6: Calle Buena Vista & North Driveway




01/03/2023

Intersection						
Int Delay, s/veh	2.2					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	6	1	29	17	10	27
Future Vol, veh/h	6	1	29	17	10	27
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	35	35	82	82	71	71
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	17	3	35	21	14	38
Major/Minor	Minor1	Major1	Major2			
Conflicting Flow All	112	46	0	0	56	0
Stage 1	46	-	-	-	-	-
Stage 2	66	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	885	1023	-	-	1549	-
Stage 1	976	-	-	-	-	-
Stage 2	957	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	877	1023	-	-	1549	-
Mov Cap-2 Maneuver	877	-	-	-	-	-
Stage 1	976	-	-	-	-	-
Stage 2	948	-	-	-	-	-
Approach	WB	NB	SB			
HCM Control Delay, s	9.1	0	2			
HCM LOS	A					
Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT		
Capacity (veh/h)	-	-	895	1549	-	
HCM Lane V/C Ratio	-	-	0.022	0.009	-	
HCM Control Delay (s)	-	-	9.1	7.3	0	
HCM Lane LOS	-	-	A	A	A	
HCM 95th %tile Q(veh)	-	-	0.1	0	-	

HCM 6th TWSC




8: Calle Concordia & West Driveway

01/03/2023

Intersection						
Int Delay, s/veh	1.1					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	38	189	194	4	7	13
Future Vol, veh/h	38	189	194	4	7	13
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	77	77	61	61	71	71
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	49	245	318	7	10	18
Major/Minor	Major1	Major2		Minor2		
Conflicting Flow All	325	0	-	0	665	322
Stage 1	-	-	-	-	322	-
Stage 2	-	-	-	-	343	-
Critical Hdwy	4.12	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	1235	-	-	-	425	719
Stage 1	-	-	-	-	735	-
Stage 2	-	-	-	-	719	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1235	-	-	-	405	719
Mov Cap-2 Maneuver	-	-	-	-	405	-
Stage 1	-	-	-	-	701	-
Stage 2	-	-	-	-	719	-
Approach	EB	WB		SB		
HCM Control Delay, s	1.3	0		11.7		
HCM LOS				B		
Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	
Capacity (veh/h)	1235	-	-	-	566	
HCM Lane V/C Ratio	0.04	-	-	-	0.05	
HCM Control Delay (s)	8	0	-	-	11.7	
HCM Lane LOS	A	A	-	-	B	
HCM 95th %tile Q(veh)	0.1	-	-	-	0.2	

HCM 6th TWSC
10: Calle Concordia & Center Driveway

01/03/2023




Intersection						
Int Delay, s/veh	0.8					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	17	179	196	48	16	2
Future Vol, veh/h	17	179	196	48	16	2
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	72	72	63	63	64	64
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	24	249	311	76	25	3
Major/Minor	Major1	Major2		Minor2		
Conflicting Flow All	387	0	-	0	646	349
Stage 1	-	-	-	-	349	-
Stage 2	-	-	-	-	297	-
Critical Hdwy	4.12	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	1171	-	-	-	436	694
Stage 1	-	-	-	-	714	-
Stage 2	-	-	-	-	754	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1171	-	-	-	426	694
Mov Cap-2 Maneuver	-	-	-	-	426	-
Stage 1	-	-	-	-	697	-
Stage 2	-	-	-	-	754	-
Approach	EB	WB		SB		
HCM Control Delay, s	0.7	0		13.6		
HCM LOS				B		
Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	
Capacity (veh/h)	1171	-	-	-	445	
HCM Lane V/C Ratio	0.02	-	-	-	0.063	
HCM Control Delay (s)	8.1	0	-	-	13.6	
HCM Lane LOS	A	A	-	-	B	
HCM 95th %tile Q(veh)	0.1	-	-	-	0.2	

HCM 6th TWSC
12: Calle Concordia & East Driveway

01/03/2023

Intersection

Int Delay, s/veh 1.2

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	38	158	231	15	7	13
Future Vol, veh/h	38	158	231	15	7	13
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	77	77	62	62	56	56
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	49	205	373	24	13	23

Major/Minor	Major1	Major2	Minor2
Conflicting Flow All	397	0	0 688 385
Stage 1	-	-	- 385 -
Stage 2	-	-	- 303 -
Critical Hdwy	4.12	-	- 6.42 6.22
Critical Hdwy Stg 1	-	-	- 5.42 -
Critical Hdwy Stg 2	-	-	- 5.42 -
Follow-up Hdwy	2.218	-	- 3.518 3.318
Pot Cap-1 Maneuver	1162	-	- 412 663
Stage 1	-	-	- 688 -
Stage 2	-	-	- 749 -
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	1162	-	- 392 663
Mov Cap-2 Maneuver	-	-	- 392 -
Stage 1	-	-	- 655 -
Stage 2	-	-	- 749 -

Approach	EB	WB	SB
HCM Control Delay, s	1.6	0	12.2
HCM LOS			B




Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1162	-	-	-	534
HCM Lane V/C Ratio	0.042	-	-	-	0.067
HCM Control Delay (s)	8.2	0	-	-	12.2
HCM Lane LOS	A	A	-	-	B
HCM 95th %tile Q(veh)	0.1	-	-	-	0.2

Intersection												
Int Delay, s/veh	3											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕	↕		↕	
Traffic Vol, veh/h	2	51	10	36	118	2	9	6	9	0	19	12
Future Vol, veh/h	2	51	10	36	118	2	9	6	9	0	19	12
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	Stop	-	-	None
Storage Length	-	-	-	-	-	-	-	-	50	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	61	61	61	52	52	52	88	88	88	67	67	67
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	3	84	16	69	227	4	10	7	10	0	28	18
Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	231	0	0	100	0	0	488	467	92	469	473	229
Stage 1	-	-	-	-	-	-	98	98	-	367	367	-
Stage 2	-	-	-	-	-	-	390	369	-	102	106	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1337	-	-	1493	-	-	490	493	965	505	490	810
Stage 1	-	-	-	-	-	-	908	814	-	653	622	-
Stage 2	-	-	-	-	-	-	634	621	-	904	807	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1337	-	-	1493	-	-	438	466	965	473	463	810
Mov Cap-2 Maneuver	-	-	-	-	-	-	438	466	-	473	463	-
Stage 1	-	-	-	-	-	-	906	812	-	652	589	-
Stage 2	-	-	-	-	-	-	559	588	-	885	805	-
Approach	EB			WB			NB			SB		
HCM Control Delay, s	0.2			1.7			11.6			12.1		
HCM LOS							B			B		
Minor Lane/Major Mvmt	NBLn1	NBLn2	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1			
Capacity (veh/h)	449	965	1337	-	-	1493	-	-	555			
HCM Lane V/C Ratio	0.038	0.011	0.002	-	-	0.046	-	-	0.083			
HCM Control Delay (s)	13.3	8.8	7.7	0	-	7.5	0	-	12.1			
HCM Lane LOS	B	A	A	A	-	A	A	-	B			
HCM 95th %tile Q(veh)	0.1	0	0	-	-	0.1	-	-	0.3			

HCM 6th TWSC

6: Calle Buena Vista & North Driveway




01/03/2023

Intersection						
Int Delay, s/veh	5.6					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	22	17	6	4	3	9
Future Vol, veh/h	22	17	6	4	3	9
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	65	65	50	50	60	60
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	34	26	12	8	5	15
Major/Minor	Minor1	Major1	Major2			
Conflicting Flow All	41	16	0	0	20	0
Stage 1	16	-	-	-	-	-
Stage 2	25	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	970	1063	-	-	1596	-
Stage 1	1007	-	-	-	-	-
Stage 2	998	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	967	1063	-	-	1596	-
Mov Cap-2 Maneuver	967	-	-	-	-	-
Stage 1	1007	-	-	-	-	-
Stage 2	995	-	-	-	-	-
Approach	WB	NB	SB			
HCM Control Delay, s	8.8	0	1.8			
HCM LOS	A					
Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT		
Capacity (veh/h)	-	-	1007	1596	-	
HCM Lane V/C Ratio	-	-	0.06	0.003	-	
HCM Control Delay (s)	-	-	8.8	7.3	0	
HCM Lane LOS	-	-	A	A	A	
HCM 95th %tile Q(veh)	-	-	0.2	0	-	

HCM 6th TWSC

8: Calle Concordia & West Driveway

01/03/2023




Intersection						
Int Delay, s/veh	2.8					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	3	57	104	0	19	52
Future Vol, veh/h	3	57	104	0	19	52
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	60	60	52	52	66	66
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	5	95	200	0	29	79
Major/Minor	Major1	Major2		Minor2		
Conflicting Flow All	200	0	-	0	305	200
Stage 1	-	-	-	-	200	-
Stage 2	-	-	-	-	105	-
Critical Hdwy	4.12	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	1372	-	-	-	687	841
Stage 1	-	-	-	-	834	-
Stage 2	-	-	-	-	919	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1372	-	-	-	684	841
Mov Cap-2 Maneuver	-	-	-	-	684	-
Stage 1	-	-	-	-	831	-
Stage 2	-	-	-	-	919	-
Approach	EB	WB		SB		
HCM Control Delay, s	0.4	0		10.3		
HCM LOS				B		
Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	
Capacity (veh/h)	1372	-	-	-	792	
HCM Lane V/C Ratio	0.004	-	-	-	0.136	
HCM Control Delay (s)	7.6	0	-	-	10.3	
HCM Lane LOS	A	A	-	-	B	
HCM 95th %tile Q(veh)	0	-	-	-	0.5	

HCM 6th TWSC
10: Calle Concordia & Center Driveway

01/03/2023

Intersection

Int Delay, s/veh 1.8

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	7	69	94	11	26	10
Future Vol, veh/h	7	69	94	11	26	10
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	68	68	57	57	69	69
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	10	101	165	19	38	14

Major/Minor	Major1	Major2	Minor2
Conflicting Flow All	184	0	0 296 175
Stage 1	-	-	- 175 -
Stage 2	-	-	- 121 -
Critical Hdwy	4.12	-	- 6.42 6.22
Critical Hdwy Stg 1	-	-	- 5.42 -
Critical Hdwy Stg 2	-	-	- 5.42 -
Follow-up Hdwy	2.218	-	- 3.518 3.318
Pot Cap-1 Maneuver	1391	-	- 695 868
Stage 1	-	-	- 855 -
Stage 2	-	-	- 904 -
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	1391	-	- 689 868
Mov Cap-2 Maneuver	-	-	- 689 -
Stage 1	-	-	- 848 -
Stage 2	-	-	- 904 -

Approach	EB	WB	SB
HCM Control Delay, s	0.7	0	10.3
HCM LOS			B




Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1391	-	-	-	731
HCM Lane V/C Ratio	0.007	-	-	-	0.071
HCM Control Delay (s)	7.6	0	-	-	10.3
HCM Lane LOS	A	A	-	-	B
HCM 95th %tile Q(veh)	0	-	-	-	0.2

HCM 6th TWSC
12: Calle Concordia & East Driveway

01/03/2023

Intersection

Int Delay, s/veh 3.9

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	20	76	68	7	25	35
Future Vol, veh/h	20	76	68	7	25	35
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	65	65	63	63	48	48
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	31	117	108	11	52	73






Major/Minor	Major1	Major2	Minor2
Conflicting Flow All	119	0	0 293 114
Stage 1	-	-	- 114 -
Stage 2	-	-	- 179 -
Critical Hdwy	4.12	-	- 6.42 6.22
Critical Hdwy Stg 1	-	-	- 5.42 -
Critical Hdwy Stg 2	-	-	- 5.42 -
Follow-up Hdwy	2.218	-	- 3.518 3.318
Pot Cap-1 Maneuver	1469	-	- 698 939
Stage 1	-	-	- 911 -
Stage 2	-	-	- 852 -
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	1469	-	- 682 939
Mov Cap-2 Maneuver	-	-	- 682 -
Stage 1	-	-	- 890 -
Stage 2	-	-	- 852 -

Approach	EB	WB	SB
HCM Control Delay, s	1.6	0	10.2
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1469	-	-	-	812
HCM Lane V/C Ratio	0.021	-	-	-	0.154
HCM Control Delay (s)	7.5	0	-	-	10.2
HCM Lane LOS	A	A	-	-	B
HCM 95th %tile Q(veh)	0.1	-	-	-	0.5

HCM 6th TWSC
3: Calle Buena Vista & Calle Concordia




01/03/2023

Intersection												
Int Delay, s/veh	6.1											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	17	269	16	70	167	9	26	44	77	7	29	7
Future Vol, veh/h	17	269	16	70	167	9	26	44	77	7	29	7
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	Stop	-	-	None
Storage Length	-	-	-	-	-	-	-	-	50	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	82	82	82	54	54	54	85	85	85	64	100	64
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	21	328	20	130	309	17	31	52	91	11	29	11
Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	326	0	0	348	0	0	978	966	338	984	968	318
Stage 1	-	-	-	-	-	-	380	380	-	578	578	-
Stage 2	-	-	-	-	-	-	598	586	-	406	390	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1234	-	-	1211	-	-	230	255	704	228	254	723
Stage 1	-	-	-	-	-	-	642	614	-	501	501	-
Stage 2	-	-	-	-	-	-	489	497	-	622	608	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1234	-	-	1211	-	-	181	217	704	144	216	723
Mov Cap-2 Maneuver	-	-	-	-	-	-	181	217	-	144	216	-
Stage 1	-	-	-	-	-	-	629	601	-	490	435	-
Stage 2	-	-	-	-	-	-	391	432	-	485	595	-
Approach	EB			WB			NB			SB		
HCM Control Delay, s	0.4			2.4			22.2			25.5		
HCM LOS							C			D		
Minor Lane/Major Mvmt	NBLn1	NBLn2	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1			
Capacity (veh/h)	202	704	1234	-	-	1211	-	-	226			
HCM Lane V/C Ratio	0.408	0.129	0.017	-	-	0.107	-	-	0.225			
HCM Control Delay (s)	34.6	10.9	8	0	-	8.3	0	-	25.5			
HCM Lane LOS	D	B	A	A	-	A	A	-	D			
HCM 95th %tile Q(veh)	1.8	0.4	0.1	-	-	0.4	-	-	0.8			

HCM 6th TWSC

6: Calle Buena Vista & North Driveway




01/03/2023

Intersection						
Int Delay, s/veh	3.9					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	14	2	2	40	23	29
Future Vol, veh/h	14	2	2	40	23	29
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	35	35	82	82	71	71
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	40	6	2	49	32	41
Major/Minor	Minor1	Major1		Major2		
Conflicting Flow All	132	27	0	0	51	0
Stage 1	27	-	-	-	-	-
Stage 2	105	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	862	1048	-	-	1555	-
Stage 1	996	-	-	-	-	-
Stage 2	919	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	844	1048	-	-	1555	-
Mov Cap-2 Maneuver	844	-	-	-	-	-
Stage 1	996	-	-	-	-	-
Stage 2	900	-	-	-	-	-
Approach	WB	NB		SB		
HCM Control Delay, s	9.4	0		3.3		
HCM LOS	A					
Minor Lane/Major Mvmt	NBT	NBRWBLn1		SBL	SBT	
Capacity (veh/h)	-	865		1555	-	
HCM Lane V/C Ratio	-	0.053		0.021	-	
HCM Control Delay (s)	-	9.4		7.4	0	
HCM Lane LOS	-	A		A	A	
HCM 95th %tile Q(veh)	-	0.2		0.1	-	

HCM 6th TWSC

8: Calle Concordia & West Driveway

01/03/2023




Intersection						
Int Delay, s/veh	2.2					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	89	264	217	5	16	30
Future Vol, veh/h	89	264	217	5	16	30
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	77	77	61	61	71	71
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	116	343	356	8	23	42
Major/Minor	Major1	Major2	Minor2			
Conflicting Flow All	364	0	-	0	935	360
Stage 1	-	-	-	-	360	-
Stage 2	-	-	-	-	575	-
Critical Hdwy	4.12	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	1195	-	-	-	295	684
Stage 1	-	-	-	-	706	-
Stage 2	-	-	-	-	563	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1195	-	-	-	260	684
Mov Cap-2 Maneuver	-	-	-	-	260	-
Stage 1	-	-	-	-	621	-
Stage 2	-	-	-	-	563	-
Approach	EB	WB		SB		
HCM Control Delay, s	2.1	0		14.7		
HCM LOS				B		
Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	
Capacity (veh/h)	1195	-	-	-	436	
HCM Lane V/C Ratio	0.097	-	-	-	0.149	
HCM Control Delay (s)	8.3	0	-	-	14.7	
HCM Lane LOS	A	A	-	-	B	
HCM 95th %tile Q(veh)	0.3	-	-	-	0.5	

HCM 6th TWSC
10: Calle Concordia & Center Driveway

01/03/2023

Intersection

Int Delay, s/veh 1.8

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	40	240	220	112	37	5
Future Vol, veh/h	40	240	220	112	37	5
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	72	72	63	63	64	64
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	56	333	349	178	58	8

Major/Minor	Major1	Major2	Minor2
Conflicting Flow All	527	0	883
Stage 1	-	-	438
Stage 2	-	-	445
Critical Hdwy	4.12	-	6.42
Critical Hdwy Stg 1	-	-	5.42
Critical Hdwy Stg 2	-	-	5.42
Follow-up Hdwy	2.218	-	3.518
Pot Cap-1 Maneuver	1040	-	316
Stage 1	-	-	651
Stage 2	-	-	646
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	1040	-	295
Mov Cap-2 Maneuver	-	-	295
Stage 1	-	-	608
Stage 2	-	-	646




Approach	EB	WB	SB
HCM Control Delay, s	1.2	0	19.4
HCM LOS			C

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1040	-	-	-	315
HCM Lane V/C Ratio	0.053	-	-	-	0.208
HCM Control Delay (s)	8.7	0	-	-	19.4
HCM Lane LOS	A	A	-	-	C
HCM 95th %tile Q(veh)	0.2	-	-	-	0.8

HCM 6th TWSC

12: Calle Concordia & East Driveway

01/03/2023

Intersection						
Int Delay, s/veh	2.5					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	89	189	302	35	16	30
Future Vol, veh/h	89	189	302	35	16	30
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	77	77	62	62	56	56
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	116	245	487	56	29	54
Major/Minor	Major1	Major2		Minor2		
Conflicting Flow All	543	0	-	0	992	515
Stage 1	-	-	-	-	515	-
Stage 2	-	-	-	-	477	-
Critical Hdwy	4.12	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	1026	-	-	-	272	560
Stage 1	-	-	-	-	600	-
Stage 2	-	-	-	-	624	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1026	-	-	-	236	560
Mov Cap-2 Maneuver	-	-	-	-	236	-
Stage 1	-	-	-	-	521	-
Stage 2	-	-	-	-	624	-
Approach	EB	WB		SB		
HCM Control Delay, s	2.9	0		17.1		
HCM LOS	C					
Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	
Capacity (veh/h)	1026	-	-	-	379	
HCM Lane V/C Ratio	0.113	-	-	-	0.217	
HCM Control Delay (s)	9	0	-	-	17.1	
HCM Lane LOS	A	A	-	-	C	
HCM 95th %tile Q(veh)	0.4	-	-	-	0.8	

HCM 6th TWSC
3: Calle Buena Vista & Calle Concordia




01/03/2023

Intersection												
Int Delay, s/veh	6.5											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕	↕		↕	
Traffic Vol, veh/h	15	96	10	84	225	2	9	24	30	0	51	34
Future Vol, veh/h	15	96	10	84	225	2	9	24	30	0	51	34
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	Stop	-	-	None
Storage Length	-	-	-	-	-	-	-	-	50	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	61	61	61	52	52	52	88	88	88	67	67	67
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	25	157	16	162	433	4	10	27	34	0	76	51
Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	437	0	0	173	0	0	1038	976	165	988	982	435
Stage 1	-	-	-	-	-	-	215	215	-	759	759	-
Stage 2	-	-	-	-	-	-	823	761	-	229	223	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1123	-	-	1404	-	-	209	251	879	226	249	621
Stage 1	-	-	-	-	-	-	787	725	-	399	415	-
Stage 2	-	-	-	-	-	-	368	414	-	774	719	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1123	-	-	1404	-	-	120	208	879	170	206	621
Mov Cap-2 Maneuver	-	-	-	-	-	-	120	208	-	170	206	-
Stage 1	-	-	-	-	-	-	767	707	-	389	352	-
Stage 2	-	-	-	-	-	-	225	351	-	697	701	-
Approach	EB			WB			NB			SB		
HCM Control Delay, s	1			2.1			20.9			27.9		
HCM LOS							C			D		
Minor Lane/Major Mvmt	NBLn1	NBLn2	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1			
Capacity (veh/h)	173	879	1123	-	-	1404	-	-	281			
HCM Lane V/C Ratio	0.217	0.039	0.022	-	-	0.115	-	-	0.451			
HCM Control Delay (s)	31.5	9.3	8.3	0	-	7.9	0	-	27.9			
HCM Lane LOS	D	A	A	A	-	A	A	-	D			
HCM 95th %tile Q(veh)	0.8	0.1	0.1	-	-	0.4	-	-	2.2			

HCM 6th TWSC

6: Calle Buena Vista & North Driveway




01/03/2023

Intersection						
Int Delay, s/veh	6.6					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	76	47	6	35	14	9
Future Vol, veh/h	76	47	6	35	14	9
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	65	65	50	50	60	60
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	117	72	12	70	23	15
Major/Minor	Minor1	Major1		Major2		
Conflicting Flow All	108	47	0	0	82	0
Stage 1	47	-	-	-	-	-
Stage 2	61	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	889	1022	-	-	1515	-
Stage 1	975	-	-	-	-	-
Stage 2	962	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	876	1022	-	-	1515	-
Mov Cap-2 Maneuver	876	-	-	-	-	-
Stage 1	975	-	-	-	-	-
Stage 2	948	-	-	-	-	-
Approach	WB	NB		SB		
HCM Control Delay, s	9.9	0		4.5		
HCM LOS	A					
Minor Lane/Major Mvmt	NBT	NBRWBLn1		SBL	SBT	
Capacity (veh/h)	-	-		927	1515	
HCM Lane V/C Ratio	-	-		0.204	0.015	
HCM Control Delay (s)	-	-		9.9	7.4	
HCM Lane LOS	-	-		A	A	
HCM 95th %tile Q(veh)	-	-		0.8	0	

HCM 6th TWSC

8: Calle Concordia & West Driveway

01/03/2023




Intersection						
Int Delay, s/veh	4.8					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	9	117	188	0	44	123
Future Vol, veh/h	9	117	188	0	44	123
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	60	60	52	52	66	66
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	15	195	362	0	67	186
Major/Minor	Major1	Major2		Minor2		
Conflicting Flow All	362	0	-	0	587	362
Stage 1	-	-	-	-	362	-
Stage 2	-	-	-	-	225	-
Critical Hdwy	4.12	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	1197	-	-	-	472	683
Stage 1	-	-	-	-	704	-
Stage 2	-	-	-	-	812	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1197	-	-	-	465	683
Mov Cap-2 Maneuver	-	-	-	-	465	-
Stage 1	-	-	-	-	694	-
Stage 2	-	-	-	-	812	-
Approach	EB	WB		SB		
HCM Control Delay, s	0.6	0		15.1		
HCM LOS	C					
Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	
Capacity (veh/h)	1197	-	-	-	608	
HCM Lane V/C Ratio	0.013	-	-	-	0.416	
HCM Control Delay (s)	8	0	-	-	15.1	
HCM Lane LOS	A	A	-	-	C	
HCM 95th %tile Q(veh)	0	-	-	-	2	

HCM 6th TWSC
10: Calle Concordia & Center Driveway

01/03/2023

Intersection

Int Delay, s/veh 2.8

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	18	143	163	26	61	25
Future Vol, veh/h	18	143	163	26	61	25
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	68	68	57	57	69	69
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	26	210	286	46	88	36

Major/Minor	Major1	Major2	Minor2
Conflicting Flow All	332	0	0 571 309
Stage 1	-	-	- - 309 -
Stage 2	-	-	- - 262 -
Critical Hdwy	4.12	-	- - 6.42 6.22
Critical Hdwy Stg 1	-	-	- - 5.42 -
Critical Hdwy Stg 2	-	-	- - 5.42 -
Follow-up Hdwy	2.218	-	- - 3.518 3.318
Pot Cap-1 Maneuver	1227	-	- - 482 731
Stage 1	-	-	- - 745 -
Stage 2	-	-	- - 782 -
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	1227	-	- - 470 731
Mov Cap-2 Maneuver	-	-	- - 470 -
Stage 1	-	-	- - 727 -
Stage 2	-	-	- - 782 -

Approach	EB	WB	SB
HCM Control Delay, s	0.9	0	14
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1227	-	-	-	524
HCM Lane V/C Ratio	0.022	-	-	-	0.238
HCM Control Delay (s)	8	0	-	-	14
HCM Lane LOS	A	A	-	-	B
HCM 95th %tile Q(veh)	0.1	-	-	-	0.9




HCM 6th TWSC

12: Calle Concordia & East Driveway

01/03/2023

Intersection

Int Delay, s/veh 11.9

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	69	136	83	54	95	104
Future Vol, veh/h	69	136	83	54	95	104
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	65	65	63	63	48	48
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	106	209	132	86	198	217

Major/Minor	Major1	Major2	Minor2
Conflicting Flow All	218	0	0
Stage 1	-	-	-
Stage 2	-	-	-
Critical Hdwy	4.12	-	-
Critical Hdwy Stg 1	-	-	-
Critical Hdwy Stg 2	-	-	-
Follow-up Hdwy	2.218	-	-
Pot Cap-1 Maneuver	1352	-	-
Stage 1	-	-	-
Stage 2	-	-	-
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	1352	-	-
Mov Cap-2 Maneuver	-	-	-
Stage 1	-	-	-
Stage 2	-	-	-

Approach	EB	WB	SB
HCM Control Delay, s	2.7	0	25.2
HCM LOS			D

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1352	-	-	-	580
HCM Lane V/C Ratio	0.079	-	-	-	0.715
HCM Control Delay (s)	7.9	0	-	-	25.2
HCM Lane LOS	A	A	-	-	D
HCM 95th %tile Q(veh)	0.3	-	-	-	5.9

HCM 6th TWSC

3: Calle Buena Vista & Calle Concordia




01/03/2023

Intersection												
Int Delay, s/veh	6.1											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕	↕		↕	
Traffic Vol, veh/h	17	269	16	70	167	9	26	44	77	7	29	7
Future Vol, veh/h	17	269	16	70	167	9	26	44	77	7	29	7
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	Stop	-	-	None
Storage Length	-	-	-	-	-	-	-	-	50	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	82	82	82	54	54	54	85	85	85	64	100	64
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	21	328	20	130	309	17	31	52	91	11	29	11
Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	326	0	0	348	0	0	978	966	338	984	968	318
Stage 1	-	-	-	-	-	-	380	380	-	578	578	-
Stage 2	-	-	-	-	-	-	598	586	-	406	390	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1234	-	-	1211	-	-	230	255	704	228	254	723
Stage 1	-	-	-	-	-	-	642	614	-	501	501	-
Stage 2	-	-	-	-	-	-	489	497	-	622	608	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1234	-	-	1211	-	-	181	217	704	144	216	723
Mov Cap-2 Maneuver	-	-	-	-	-	-	181	217	-	144	216	-
Stage 1	-	-	-	-	-	-	629	601	-	490	435	-
Stage 2	-	-	-	-	-	-	391	432	-	485	595	-
Approach	EB			WB			NB			SB		
HCM Control Delay, s	0.4			2.4			22.2			25.5		
HCM LOS							C			D		
Minor Lane/Major Mvmt	NBLn1	NBLn2	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1			
Capacity (veh/h)	202	704	1234	-	-	1211	-	-	226			
HCM Lane V/C Ratio	0.408	0.129	0.017	-	-	0.107	-	-	0.225			
HCM Control Delay (s)	34.6	10.9	8	0	-	8.3	0	-	25.5			
HCM Lane LOS	D	B	A	A	-	A	A	-	D			
HCM 95th %tile Q(veh)	1.8	0.4	0.1	-	-	0.4	-	-	0.8			

HCM 6th TWSC

6: Calle Buena Vista & North Driveway

01/03/2023

Intersection						
Int Delay, s/veh	3.9					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	14	2	2	40	23	29
Future Vol, veh/h	14	2	2	40	23	29
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	35	35	82	82	71	71
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	40	6	2	49	32	41
Major/Minor	Minor1	Major1	Major2			
Conflicting Flow All	132	27	0	0	51	0
Stage 1	27	-	-	-	-	-
Stage 2	105	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	862	1048	-	-	1555	-
Stage 1	996	-	-	-	-	-
Stage 2	919	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	844	1048	-	-	1555	-
Mov Cap-2 Maneuver	844	-	-	-	-	-
Stage 1	996	-	-	-	-	-
Stage 2	900	-	-	-	-	-
Approach	WB	NB		SB		
HCM Control Delay, s	9.4	0		3.3		
HCM LOS	A					
Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT		
Capacity (veh/h)	-	-	865	1555	-	
HCM Lane V/C Ratio	-	-	0.053	0.021	-	
HCM Control Delay (s)	-	-	9.4	7.4	0	
HCM Lane LOS	-	-	A	A	A	
HCM 95th %tile Q(veh)	-	-	0.2	0.1	-	

HCM 6th TWSC

8: Calle Concordia & West Driveway

01/03/2023




Intersection						
Int Delay, s/veh	0.5					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑	↑			↑
Traffic Vol, veh/h	0	353	217	5	0	30
Future Vol, veh/h	0	353	217	5	0	30
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	77	77	61	61	71	71
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	458	356	8	0	42
Major/Minor	Major1	Major2	Minor2			
Conflicting Flow All	-	0	-	0	-	360
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	3.318
Pot Cap-1 Maneuver	0	-	-	-	0	684
Stage 1	0	-	-	-	0	-
Stage 2	0	-	-	-	0	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	-	-	-	-	-	684
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Approach	EB	WB		SB		
HCM Control Delay, s	0	0		10.6		
HCM LOS	B					
Minor Lane/Major Mvmt	EBT	WBT	WBR	SBLn1		
Capacity (veh/h)	-	-	-	684		
HCM Lane V/C Ratio	-	-	-	0.062		
HCM Control Delay (s)	-	-	-	10.6		
HCM Lane LOS	-	-	-	B		
HCM 95th %tile Q(veh)	-	-	-	0.2		

HCM 6th TWSC
10: Calle Concordia & Center Driveway

01/03/2023

Intersection

Int Delay, s/veh 4

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	129	224	220	112	45	5
Future Vol, veh/h	129	224	220	112	45	5
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	72	72	63	63	64	64
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	179	311	349	178	70	8

Major/Minor	Major1	Major2	Minor2
Conflicting Flow All	527	0	0 1107 438
Stage 1	-	-	- 438 -
Stage 2	-	-	- 669 -
Critical Hdwy	4.12	-	- 6.42 6.22
Critical Hdwy Stg 1	-	-	- 5.42 -
Critical Hdwy Stg 2	-	-	- 5.42 -
Follow-up Hdwy	2.218	-	- 3.518 3.318
Pot Cap-1 Maneuver	1040	-	- 233 619
Stage 1	-	-	- 651 -
Stage 2	-	-	- 509 -
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	1040	-	- 185 619
Mov Cap-2 Maneuver	-	-	- 185 -
Stage 1	-	-	- 516 -
Stage 2	-	-	- 509 -

Approach	EB	WB	SB
HCM Control Delay, s	3.4	0	34.3
HCM LOS			D




Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1040	-	-	-	199
HCM Lane V/C Ratio	0.172	-	-	-	0.393
HCM Control Delay (s)	9.2	0	-	-	34.3
HCM Lane LOS	A	A	-	-	D
HCM 95th %tile Q(veh)	0.6	-	-	-	1.7

HCM 6th TWSC
12: Calle Concordia & East Driveway

01/03/2023

Intersection

Int Delay, s/veh 2.9

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	89	180	302	35	24	30
Future Vol, veh/h	89	180	302	35	24	30
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	77	77	62	62	56	56
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	116	234	487	56	43	54

Major/Minor	Major1	Major2	Minor2
Conflicting Flow All	543	0	0 981 515
Stage 1	-	-	- 515 -
Stage 2	-	-	- 466 -
Critical Hdwy	4.12	-	- 6.42 6.22
Critical Hdwy Stg 1	-	-	- 5.42 -
Critical Hdwy Stg 2	-	-	- 5.42 -
Follow-up Hdwy	2.218	-	- 3.518 3.318
Pot Cap-1 Maneuver	1026	-	- 277 560
Stage 1	-	-	- 600 -
Stage 2	-	-	- 632 -
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	1026	-	- 241 560
Mov Cap-2 Maneuver	-	-	- 241 -
Stage 1	-	-	- 522 -
Stage 2	-	-	- 632 -

Approach	EB	WB	SB
HCM Control Delay, s	3	0	19
HCM LOS			C

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1026	-	-	-	353
HCM Lane V/C Ratio	0.113	-	-	-	0.273
HCM Control Delay (s)	9	0	-	-	19
HCM Lane LOS	A	A	-	-	C
HCM 95th %tile Q(veh)	0.4	-	-	-	1.1

HCM 6th TWSC

3: Calle Buena Vista & Calle Concordia




01/03/2023

Intersection												
Int Delay, s/veh	6.5											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔			↔			↔	↔		↔	
Traffic Vol, veh/h	15	96	10	84	225	2	9	24	30	0	51	34
Future Vol, veh/h	15	96	10	84	225	2	9	24	30	0	51	34
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	Stop	-	-	None
Storage Length	-	-	-	-	-	-	-	-	50	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	61	61	61	52	52	52	88	88	88	67	67	67
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	25	157	16	162	433	4	10	27	34	0	76	51
Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	437	0	0	173	0	0	1038	976	165	988	982	435
Stage 1	-	-	-	-	-	-	215	215	-	759	759	-
Stage 2	-	-	-	-	-	-	823	761	-	229	223	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1123	-	-	1404	-	-	209	251	879	226	249	621
Stage 1	-	-	-	-	-	-	787	725	-	399	415	-
Stage 2	-	-	-	-	-	-	368	414	-	774	719	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1123	-	-	1404	-	-	120	208	879	170	206	621
Mov Cap-2 Maneuver	-	-	-	-	-	-	120	208	-	170	206	-
Stage 1	-	-	-	-	-	-	767	707	-	389	352	-
Stage 2	-	-	-	-	-	-	225	351	-	697	701	-
Approach	EB			WB			NB			SB		
HCM Control Delay, s	1			2.1			20.9			27.9		
HCM LOS							C			D		
Minor Lane/Major Mvmt	NBLn1 NBLn2		EBL	EBT	EBR	WBL	WBT	WBR	SBLn1			
Capacity (veh/h)	173	879	1123	-	-	1404	-	-	281			
HCM Lane V/C Ratio	0.217	0.039	0.022	-	-	0.115	-	-	0.451			
HCM Control Delay (s)	31.5	9.3	8.3	0	-	7.9	0	-	27.9			
HCM Lane LOS	D	A	A	A	-	A	A	-	D			
HCM 95th %tile Q(veh)	0.8	0.1	0.1	-	-	0.4	-	-	2.2			

HCM 6th TWSC

6: Calle Buena Vista & North Driveway

01/03/2023

Intersection						
Int Delay, s/veh	6.6					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	76	47	6	35	14	9
Future Vol, veh/h	76	47	6	35	14	9
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	65	65	50	50	60	60
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	117	72	12	70	23	15
Major/Minor	Minor1	Major1		Major2		
Conflicting Flow All	108	47	0	0	82	0
Stage 1	47	-	-	-	-	-
Stage 2	61	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	889	1022	-	-	1515	-
Stage 1	975	-	-	-	-	-
Stage 2	962	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	876	1022	-	-	1515	-
Mov Cap-2 Maneuver	876	-	-	-	-	-
Stage 1	975	-	-	-	-	-
Stage 2	948	-	-	-	-	-
Approach	WB	NB		SB		
HCM Control Delay, s	9.9	0		4.5		
HCM LOS	A					
Minor Lane/Major Mvmt	NBT	NBRWBLn1		SBL	SBT	
Capacity (veh/h)	-	- 927		1515	-	
HCM Lane V/C Ratio	-	- 0.204		0.015	-	
HCM Control Delay (s)	-	- 9.9		7.4	0	
HCM Lane LOS	-	- A		A	A	
HCM 95th %tile Q(veh)	-	- 0.8		0	-	

HCM 6th TWSC

8: Calle Concordia & West Driveway

01/03/2023




Intersection						
Int Delay, s/veh	3					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑	↑			↑
Traffic Vol, veh/h	0	126	188	0	0	123
Future Vol, veh/h	0	126	188	0	0	123
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	60	60	52	52	66	66
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	210	362	0	0	186
Major/Minor	Major1	Major2		Minor2		
Conflicting Flow All	-	0	-	0	-	362
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	3.318
Pot Cap-1 Maneuver	0	-	-	-	0	683
Stage 1	0	-	-	-	0	-
Stage 2	0	-	-	-	0	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	-	-	-	-	-	683
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Approach	EB	WB		SB		
HCM Control Delay, s	0	0		12.2		
HCM LOS				B		
Minor Lane/Major Mvmt	EBT	WBT	WBR	SBLn1		
Capacity (veh/h)	-	-	-	683		
HCM Lane V/C Ratio	-	-	-	0.273		
HCM Control Delay (s)	-	-	-	12.2		
HCM Lane LOS	-	-	-	B		
HCM 95th %tile Q(veh)	-	-	-	1.1		

HCM 6th TWSC
10: Calle Concordia & Center Driveway

01/03/2023

Intersection

Int Delay, s/veh 3.9

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	27	99	163	26	83	25
Future Vol, veh/h	27	99	163	26	83	25
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	68	68	57	57	69	69
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	40	146	286	46	120	36

Major/Minor	Major1	Major2	Minor2
Conflicting Flow All	332	0	0 535 309
Stage 1	-	-	- - 309 -
Stage 2	-	-	- - 226 -
Critical Hdwy	4.12	-	- - 6.42 6.22
Critical Hdwy Stg 1	-	-	- - 5.42 -
Critical Hdwy Stg 2	-	-	- - 5.42 -
Follow-up Hdwy	2.218	-	- - 3.518 3.318
Pot Cap-1 Maneuver	1227	-	- - 506 731
Stage 1	-	-	- - 745 -
Stage 2	-	-	- - 812 -
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	1227	-	- - 488 731
Mov Cap-2 Maneuver	-	-	- - 488 -
Stage 1	-	-	- - 719 -
Stage 2	-	-	- - 812 -

Approach	EB	WB	SB
HCM Control Delay, s	1.7	0	14.6
HCM LOS			B




Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1227	-	-	-	529
HCM Lane V/C Ratio	0.032	-	-	-	0.296
HCM Control Delay (s)	8	0	-	-	14.6
HCM Lane LOS	A	A	-	-	B
HCM 95th %tile Q(veh)	0.1	-	-	-	1.2

HCM 6th TWSC
12: Calle Concordia & East Driveway

01/03/2023

Intersection

Int Delay, s/veh 15.9

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	69	113	83	54	117	104
Future Vol, veh/h	69	113	83	54	117	104
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	65	65	63	63	48	48
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	106	174	132	86	244	217

Major/Minor	Major1	Major2	Minor2
Conflicting Flow All	218	0	0 561 175
Stage 1	-	-	- - 175 -
Stage 2	-	-	- - 386 -
Critical Hdwy	4.12	-	- - 6.42 6.22
Critical Hdwy Stg 1	-	-	- - 5.42 -
Critical Hdwy Stg 2	-	-	- - 5.42 -
Follow-up Hdwy	2.218	-	- - 3.518 3.318
Pot Cap-1 Maneuver	1352	-	- - 489 868
Stage 1	-	-	- - 855 -
Stage 2	-	-	- - 687 -
Platoon blocked, %		-	- -
Mov Cap-1 Maneuver	1352	-	- - 446 868
Mov Cap-2 Maneuver	-	-	- - 446 -
Stage 1	-	-	- - 781 -
Stage 2	-	-	- - 687 -

Approach	EB	WB	SB
HCM Control Delay, s	3	0	31.2
HCM LOS			D

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1352	-	-	-	578
HCM Lane V/C Ratio	0.079	-	-	-	0.797
HCM Control Delay (s)	7.9	0	-	-	31.2
HCM Lane LOS	A	A	-	-	D
HCM 95th %tile Q(veh)	0.3	-	-	-	7.7