NEIGHBORHOOD IMPACT ASSESSMENT

For Cien Aguas Charter School

Final Report

Prepared for

Rachel Matthew
Development

Prepared September 2021 by:

LEE ENGINEERING

Neighborhood Impact Assessment
Cien Aguas Charter School

Final Report

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EXECUTIVE SUMMARY

The following contains a Neighborhood Impact Assessment (NIA) for a charter school to be located at 2501 Buena Vista Drive within in the city of Albuquerque (CABQ), NM. This report has been completed by Lee Engineering for Rachel Matthew Development. All analyses and items contained herein conform to scoping requirements set forth in the CABQ Traffic Scoping Form dated on July 20, 2021. Scoping forms are located in Appendix A.

BACKGROUND

Currently, the Cien Aguas Charter School is located at 2000 Randolph Rd. and plans to relocate to an existing 4-story building at 2501 Buena Vista Dr. near the intersection of Randolph Rd. and Buena Vista Dr. within the CABQ, NM. The relocation is expected to be completed by the end of 2021. A detailed site plan is included in Figure 2 of this report. Access to the site is to be taken from Buena Vista Dr. via two existing full access driveways. Driveway 1 will serve as the entrance to the school for passenger vehicles and buses, and will operate (functionally) as a right-in driveway during pickup and drop off operations. Driveway 2 will serve as the exit from the school for passenger vehicles and buses, and will operate as a right-out driveway during pickup and drop off operations. Study Intersections, as shown in Figure 1, include:

- Yale Blvd & Renard Pl
- Yale Blvd & Randolph Rd
- Randolph Rd & Buena Vista Dr
- Buena Vista Dr & Renard Pl
- Buena Vista Dr & Miles Rd

9-hour turning movement counts were collected on July 27, 2021, for all study intersections. Construction is anticipated to begin in 2021 with full completion of the development in late 2021. The development is to be constructed in a single phase.

Analysis scenarios for this study include:

1. Existing Conditions (2021)
2. Full Build – Relocation Complete (2021)

SUMMARY OF RECOMMENDATIONS

As included at the end of this report, recommendations are summarized as follows:

- It is recommended that access to the site be maintained via the drop-off/pick-up operations map provided in this report.
- It is recommended that any pedestrian traffic use existing sidewalks and marking crosswalks and that bike traffic use existing bike routes.
- It is recommended parents, waiting to pick up students, wait for their pick-up notification in the northern parking lot and turn off their vehicles when not actively in motion.
- It is recommended that intersection sight distance, as detailed in the sight distance section of this report, be provided/maintained.

TABLE OF CONTENTS

TABLE OF FIGURES

TABLE OF TABLES

LIST OF APPENDICES

INTRODUCTION

This report details the procedures and findings of a Neighborhood Impact Assessment (NIA) performed by Lee Engineering for Rachel Matthew Development. This report and the analyses contained herein were performed for a charter school to be located at 2501 Buena Vista Drive within in the city of Albuquerque (CABQ), NM.

All analyses and items contained herein conform to scoping requirements set forth in the CABQ Traffic Scoping Form dated on July 27, 2021. Scoping forms are located in Appendix A. Analysis procedures, conclusions, and recommendations for this study were developed according to the *ITE Trip Generation Manual 10th Edition, and Highway Capacity Manual 6th Edition*.

The relocation is planning to occur in 2021 in one single phase.

Analysis procedures included in this report were performed for the following scenarios:

1. Existing Conditions (2021)
2. Full Build – Complete Construction (2021)

PROJECT LOCATION & SITE PLAN

The Cien Aguas Charter School will relocate to an existing 4-story building at 2501 Buena Vista Dr. near the intersection of Randolph Rd. and Buena Vista Dr. within the CABQ, NM. The development will be located in south Albuquerque, just north of the Albuquerque International Sunport (AIS). The project area is bounded by existing development, such as commercial and hospitality. North and east of the study area are industrial and business parks. South of the site is Health Leadership High School and a large pay for parking lot for AIS. West of the development is Bernalillo Academy and office buildings. Figure 2 shows the proposed site plan.

SITE ACCESS

Access to the site is to be taken from Buena Vista Dr. via two existing full access driveways. Driveway 1 will serve as the entrance to the school for passenger vehicles and buses and will operate as a right-in driveway. Driveway 2 will serve as the exit from the school for passenger vehicles and buses and will operate as a right-out driveway. Details of the driveway's location and access are included in subsequent sections of this report.

Figure 1. Vicinity Map

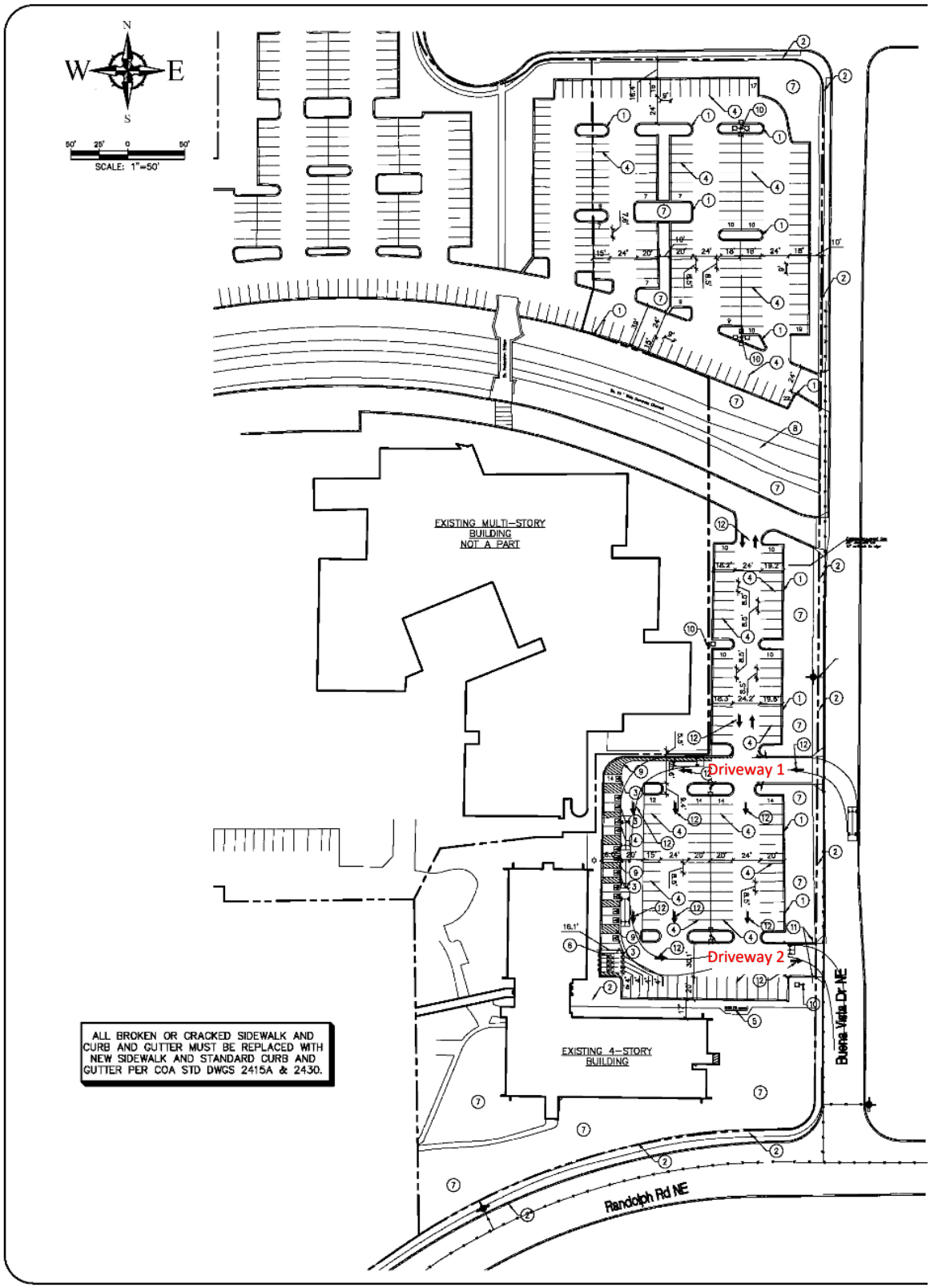


Figure 2. Site Plan

Study Area, Area Land Use, and Streets

STUDY AREA

The study area is defined as the area bounded by Yale Blvd., Buena Vista Dr., Miles Rd., and Randolph Rd. surrounding the site. The following intersections were identified and agreed upon in the scoping form, and will serve as the study intersections for this report:

- Yale Blvd & Renard Pl
- Yale Blvd & Randolph Rd
- Randolph Rd & Buena Vista Dr
- Buena Vista Dr & Renard Pl
- Buena Vista Dr & Miles Rd

AREA LAND USE

As described, the Cien Aguas Charter School is to be relocated to an existing 4-story building at 2501 Buena Vista Dr. near the intersection of Randolph Rd. and Buena Vista Dr. within the CABQ, NM. Adjacent to and surrounding the project site are land uses consisting of the following:

- Commercial: A majority of the surrounding land use is commercial in nature, with commercial developments located along the corridors surrounding the proposed development.
- Hospitality and Service: Several fast-food restaurants exist along the study area corridors, as well as hotels.
- Residential: Just beyond the commercial and service developments, there is multi-family housing as well as a single-family housing. Other developments in the area include educational facilities and the Albuquerque International Sunport.

STREETS

The following details the characteristics and features of streets included in the study area:

Yale Blvd is a six-lane median divided roadway classified by MRCOG as a Minor Arterial, running north and south. Travel lanes range from 10-12 feet wide. The roadway incorporates curb and gutter, and sidewalk is present on both sides of the road. The roadway incorporates auxiliary left and right turn lanes throughout the corridor at intersections has a posted speed limit of 35 MPH.

Randolph Pl is a two-lane undivided roadway, currently classified by MRCOG as a Regional Principal Arterial and runs east and west. Travel lanes are approximately 22 feet wide. Sidewalk is present on the south side of the road and in some locations on the north side. The roadway has a posted speed limit of 30 MPH.

Buena Vista Dr is a two-lane undivided roadway, currently classified by MRCOG as a local street and runs north and south. Travel lanes are approximately 15 feet wide. Sidewalk is present on the west side of the road. The roadway has a posted speed limit of 25 MPH.

Renard Pl is a two-lane undivided roadway, currently classified by MRCOG as a local street and runs east and west. Travel lanes are approximately 18 feet wide. Sidewalk is present on the north side of the road and in some locations on the south side. The roadway has a posted speed limit of 25 MPH.

Miles Rd is a two-lane undivided roadway, currently classified by MRCOG as a local street and runs north and south. Travel lanes are approximately 12 feet wide. There is no sidewalk is present along the road. The roadway has a posted speed limit of 25 MPH.

INTERSECTIONS

The following details the traffic control and characteristics of existing intersections in the study area:

Yale Blvd & Renard Pl is a 4-legged, unsignalized intersection with stop control on Renard Pl. The intersection is maintained by the City of Albuquerque.

Yale Blvd & Randolph Rd is a 4-legged signalized intersection maintained by the City of Albuquerque. The signal operates in actuated/free mode with detection on all four legs of the intersection. Pedestrian crosswalks exist at all approaches of the intersection.

Randolph Rd & Buena Vista Dr is a 3-legged, unsignalized intersection with stop control on Buena Vista Dr. The intersection is maintained by the City of Albuquerque.

Buena Vista Dr & Renard Pl is a 3-legged, unsignalized intersection with stop control on Buena Vista Dr. The intersection is maintained by the City of Albuquerque.

Buena Vista Dr & Miles Rd is a 3-legged, unsignalized intersection with stop control on Buena Vista Dr. The intersection is maintained by the City of Albuquerque.

TRANSIT

Currently, two bus routes operate within the study area, Route 50 and Route 222.

Route 50 operates every weekday with stops every 30 minutes and every weekend with stops every hour, in the northbound and southbound directions on Yale Blvd. The stops closest to the school are located just south of Randolph Blvd on the east side of Yale Blvd for the northbound direction and the west side of Yale Blvd for the south bound direction.

Adjacent to the proposed development, on Randolph Rd west of Buena Vista Dr, are two bus stops for Route 222. The stops are located on the north side of Randolph Rd for the eastbound direction and the south side for the westbound direction. The route operates every weekday, with two stops during the AM peaks and two stops during the PM peak in the eastbound and westbound directions.

MULTIMODAL CONNECTIVITY

Currently, bicycle facilities are present on Randolph Rd. Sidewalks exist on all streets within the study area in compliance with CABQ DPM. In addition, a crosswalk is present on the west leg of the Randolph Blvd. and Buena Vista Dr. intersection, accompanied by a school zone.

CURRENT ADJACENT PROJECTS

As discussed in the scoping meeting, there are pending improvements for commercial on the southwest corner of Gibson Blvd. and Yale Blvd.

ANALYSIS OF EXISTING CONDITIONS

DATA COLLECTION

Turning movement counts for the study intersections at Yale Blvd. & Renard Pl., Yale Blvd. & Randolph Rd., Randolph Rd. & Buena Vista Dr., Buena Vista Dr. & Renard Pl., and Buena Vista Dr. & Miles Rd. were collected for 9 hours in 2-periods: 6:00 AM-10:00 AM (morning) and 1:00 PM-6:00 PM (afternoon) on July 27, 2021. Based on discussions during the Scoping Meeting with the City, it was decided that the data collection take place during the summer, while school was not in session. This was done so that the existing school traffic would not be included within the data collection. Table 1 below shows the peak hours for each intersection used in the analysis. Current year turning movement counts, lane geometry, and traffic control for the study intersections are presented in Figure 3. Full turning movement count sheets can be found in Appendix B.

Table 1: Intersection Peak Hours

Intersection	Data Collection Date	AM Peak Hour	PM Peak Hour
Yale Blvd. & Renard Pl.	7/27/2021	7:30-8:30	4:15-5:15
Yale Blvd. & Randolph Blvd.	7/27/2021	7:30-8:30	4:15-5:15
Randolph Blvd. & Buena Vista Dr.	7/27/2021	7:30-8:30	4:15-5:15
Renard Pl. & Buena Vista Dr.	7/27/2021	7:30-8:30	4:15-5:15
Buena Vista Dr. & Miles Rd.	7/27/2021	7:30-8:30	4:15-5:15

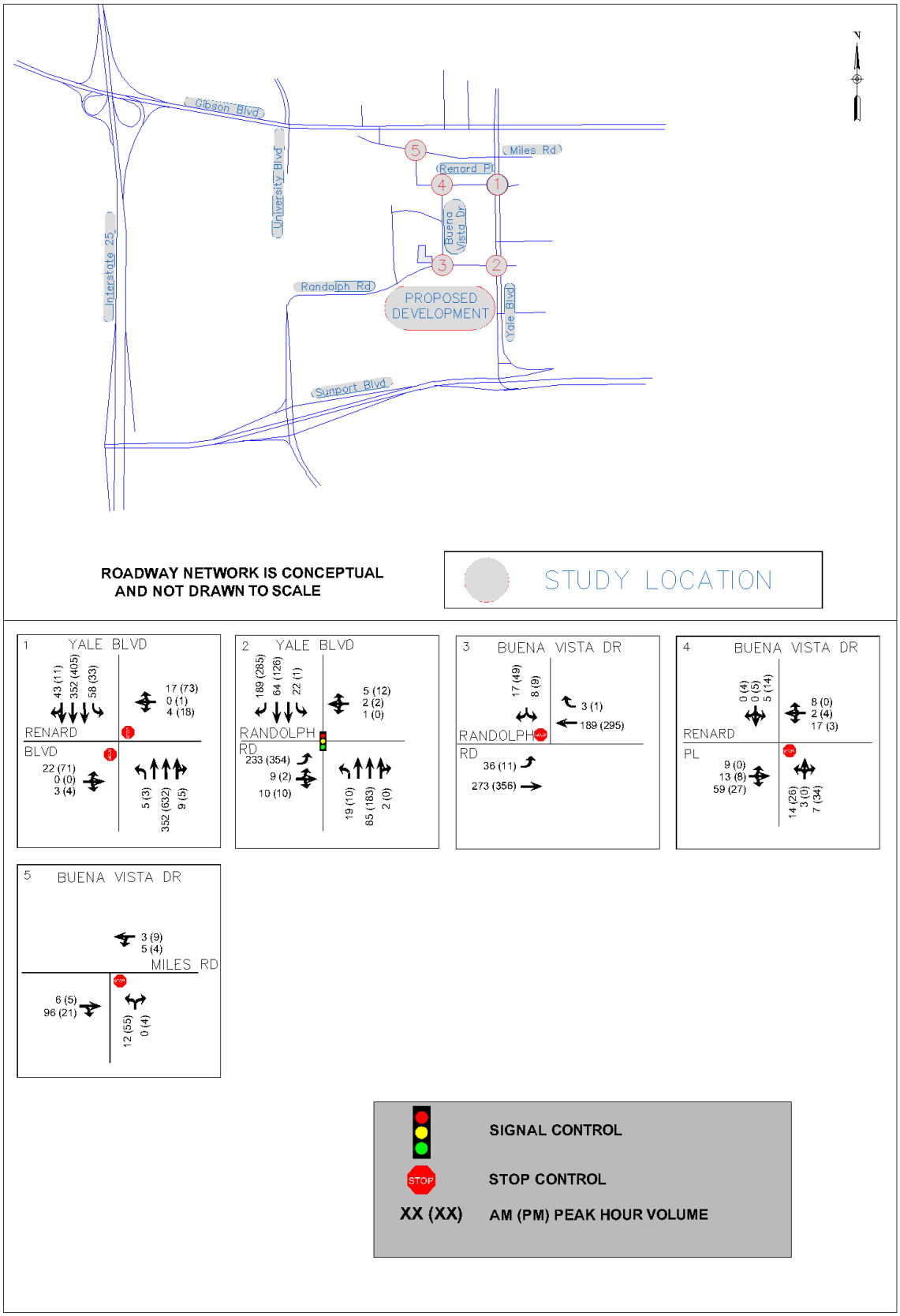


Figure 3. Existing 2021 Turning Movement Counts

Level of Service and Capacity Analysis

Intersection Analysis

Intersection Capacity and Level of Service (LOS) analysis were performed according to the methods and procedures provided in the *Highway Capacity Manual, 6th Edition (HCM6).* Highway Capacity software was used to facilitate the analysis. Per the Highway Capacity Manual, LOS is presented as a letter grade (A through F) based on the calculated average delay for an intersection or movement. Delay is calculated as a function of several variables, including signal phasing operations, cycle length, traffic volumes, and opposing traffic volumes, but is a measurement of the average wait time a driver can expect when moving through an intersection. Factors such as total cycle time (for all movements), queueing restrictions, and vehicle volumes can affect measurements of delay, especially for lower volume movements and side streets. Generally, these factors are only realized when delays reach or exceed LOS E thresholds. In such cases, a narrative is offered in subsequent sections specific to the individual movement in question.

Table 2 below, reproduced from the Highway Capacity Manual, shows delay thresholds and the associated Level of Service assigned to delay ranges. Generally, a LOS of D or better is considered an acceptable level of service.

Table 2: LOS Criteria and Descriptions for Signalized Intersections

Level of Service	Average Control Delay (sec/vehicle)	General Description (Signalized Intersections)
A	≤10	Free flow
B	>10 – 20	Stable flow (slight delays)
C	>10 – 35	Stable flow (acceptable delays)
D	>35 – 55	Approaching unstable flow (tolerable delay, occasionally wait through more than one signal cycle before proceeding)
E	>55 – 80	Unstable flow (intolerable delay)
F	>80	Forced flow (jammed)

Unsignalized intersection LOS is divided into two intersection types: all-way stop-controlled and two-way stop-controlled. All-way stop-controlled intersection LOS is expressed in terms of average vehicle delay of all the movements. Two-way stop-controlled intersection LOS is defined in terms of average vehicle delay of an individual movement. Table 3 shows LOS criteria for unsignalized intersections.

Table 3: LOS Criteria for Unsignalized Intersections

Level of Service	Average Control Delay (sec/veh)
A	≤10
B	>10 – 15
C	>15 – 25
D	>25 – 35
E	>35 – 50
F	>50

Based on procedures outlined in the Highway Capacity Manual, intersection delay and LOS for study intersections are reported as the delay and level of service for the worst-case movement. Per HCM6 procedures, peak hour factors obtained from collected traffic counts for the intersections were used in the existing conditions analysis and all other scenarios. Queues are reported for queue measurements falling within the 95th percentile. It should be noted that 95th percentile queues are statistically expected to occur during only 5% of the peak hour's sign cycles. It is also noted that un-reported average queueing at an intersection would statistically be much shorter than 95th percentile queueing.

Analysis of Signalized Intersections

Table 4 below summarizes intersection capacity and LOS analysis performed for existing conditions for the signalized intersection at Yale Blvd. & Randolph Rd. Per HCM6 procedures, peak hour factors obtained from collected traffic counts for the intersections were used in the existing conditions analysis and all other scenarios. Existing signal timings for Yale Blvd. & Randolph Rd. provided by CABQ, were used in each analysis scenario unless otherwise stated. Queueing is reported as a ratio Que Storage Ratio (QSR) for signalized intersections and indicates the ratio of demand to capacity based on possible lengths of waiting vehicles during "red" times for specific movements. Table 5 below summarizes queuing results. Detailed capacity output sheets can be found in Appendix D.

Table 4: 2021 Existing Signalized Capacity Analysis Summary

Study Intersection	Scenario	Worst Case Movement LOS and Delay								Intersection LOS			
		AM				PM				AM		PM	
		Worst Case Movements	Delay[1]	V/C	LOS[2]	Worst Case Movements	Delay[1]	V/C	LOS[2]	Delay[1]	LOS[2]	Delay[1]	LOS[2]
Yale Blvd & Randolph Rd	Existing 2021	WBL/T/R	38.0	0.28	D	WBL/T/R	44.5	N/A	D	15.9	B	17.5	B
		EBL	28.5	0.79	C	EBL	30.1	0.86	C				

[1]Average delay in seconds per vehicle.

[2]LOS stands for Level of Service.

Table 5: 2021 Existing Signalized Queue Storage Summary

Study Intersection	Movement	Existing 2021		Storage Length Present (ft)
		AM	PM	
		95th Percentile (QSR)	95th Percentile (QSR)	
Yale Blvd & Randolph Rd	EBL	0.52	0.82	325
	NBL	0.08	0.06	60
	SBL	0.08	0.01	70
	SBR	0.28	0.64	120

*95th Percentile (QSR)= Queue Storage Ratio

From the tables above, the following is summarized:

Yale Blvd. & Randolph Rd.

- Capacity Analysis:
  - Under existing conditions, the intersection is observed to operate at an acceptable level of service in both the AM and PM peak hours. Individual movements are also observed to operate at an acceptable Level of Service (LOS) for both AM and PM peak hours.
- Queueing Analysis:
  - Under existing conditions, 95th percentile Queue Storage Ratios (QSR) at the intersection are observed to be accommodated by existing storage lengths during the AM and PM peak hours.

Analysis of Stop Controlled Intersections

Table 6 below summarizes stop-controlled intersection capacity and LOS analysis performed for existing conditions for the unsignalized intersections. Queueing is reported as number of vehicles in the queue for stop-controlled intersections. Table 7 below summarizes queuing results. Detailed capacity output sheets can be found in Appendix D.

Table 6: 2021 Existing Stop Control Capacity Analysis Summary

Study Intersection	Scenario	Worst Case Movement LOS and Delay								Intersection LOS			
		AM				PM				AM		PM	
		Worst Case Movements	Delay[1]	V/C	LOS[2]	Worst Case Movements	Delay[1]	V/C	LOS[2]	Delay[1]	LOS[2]	Delay[1]	LOS[2]
Yale Blvd & Renard Pl	Existing 2021	EBL/T/R	15.8	0.08	C	EBL/T/R	18.1	0.24	C	15.8	C	18.1	C
		WBL/T/R	11.1	0.04	B	WBL/T/R	15.6	0.23	C				
Yale Blvd & Randolph Rd	Existing 2021	WBL/T/R	38.0	0.28	D	WBL/T/R	44.5	N/A	D	38.0	D	44.5	D
		EBL	28.5	0.79	C	EBL	30.1	0.86	C				
Randolph Rd & Buena Vista Dr	Existing 2021	SBL/R	10.9	0.04	B	SBL/R	11.3	0.10	B	10.9	B	11.3	B
Renard Pl & Buena Vista Dr	Existing 2021	NBL/T/R	9.2	0.03	A	NBL/T/R	9.0	0.10	A	9.3	A	9.3	A
		SBL/T/R	9.3	0.01	A	SBL/T/R	9.3	0.04	A				
Buena Vista Dr & Miles Rd	Existing 2021	NBL/R	9.1	0.02	A	NBL/R	9.3	0.11	A	9.1	A	9.3	A

[1]Average delay in seconds per vehicle.

[2]LOS stands for Level of Service.

Table 7: 2021 Existing Stop Control Queue Storage Summary

Study Intersection	Movement	Existing 2021	
		AM	PM
		95th Percentile (veh)	95th Percentile (veh)
Yale Blvd & Renard Pl	EBL/T/R	0.3	0.9
	WBL/T/R	0.1	0.9
	NBL	0.0	0.0
	SBL	0.3	0.2
Randolph Rd & Buena Vista Dr	EBL/T	0.1	0.0
	SBL/R	0.1	0.3
Renard Pl & Buena Vista Dr	EBL/T	0.1	0.0
	SBL/R	0.1	0.3
Buena Vista Dr & Miles Rd	WBL/T	0.0	0.0
	NBL/R	0.1	0.4

*95th Percentile Queues are calculated in vehicles

From the tables above, the following is summarized:

Yale Blvd. & Renard Pl.

- Capacity Analysis:
  - Under existing conditions, individual movements are observed to operate at an acceptable Level of Service (LOS) for both AM and PM peak hours.
- Queueing Analysis:
  - Under existing conditions, 95th percentile lengths at the intersection are observed to be less than 1 vehicle during the AM and PM peak hours.

Randolph Rd. & Buena Vista Dr.

- Capacity Analysis:
  - Under existing conditions, individual movements are observed to operate at an acceptable Level of Service (LOS) for both AM and PM peak hours.
- Queueing Analysis:
  - Under existing conditions, 95th percentile lengths at the intersection are observed to be less than 1 vehicle during the AM and PM peak hours.

Buena Vista Dr. & Renard Pl.

- Capacity Analysis:
  - Under existing conditions, individual movements are observed to operate at an acceptable Level of Service (LOS) for both AM and PM peak hours.
- Queueing Analysis:
  - Under existing conditions, 95th percentile lengths at the intersection are observed to be less than 1 vehicle during the AM and PM peak hours.

Buena Vista Dr. & Miles Rd.

- Capacity Analysis:
  - Under existing conditions, individual movements are observed to operate at an acceptable Level of Service (LOS) for both AM and PM peak hours.
- Queueing Analysis:
  - Under existing conditions, 95th percentile lengths at the intersection are observed to be less than 1 vehicle during the AM and PM peak hours.

ANALYSIS OF FUTURE CONDITIONS

The following sections detail the methods and calculations used to obtain traffic volumes for each analysis scenario. This process used the following tools as described below: Traffic Projections, and Site Trip Distributions & Assignment. Figures at the end of this section show the resulting traffic volumes determined for each analysis scenario.

TRAFFIC PROJECTIONS

The relocation of the existing charter school is expected to be completed in 2021, the same year as the data collection for the study area. Therefore, forecasting existing traffic volumes to future analysis conditions was not performed.

TRIP GENERATION

Trip generation for the development was performed using the procedures and methodologies provided in the Institute of Transportation Engineers (ITE) *Trip Generation Manual, 10th Edition.* The land use category Private School (K-8) (ITE 534) was used to generate trips for the development. Trips were calculated using rates for daily, AM peak hour, and PM peak hour generators. As previously stated, the relocation is to occur in one single phase. Total development trips and trips generated are shown below in the tables. Site trips for the Development site were generated using data and procedures according to the Institute of Transportation Engineer's Trip Generation Manual. Due to the nature of this development, trips generated by bus students were subtracted from the trip generation. The net site generated trips (gross trips generated minus bus student trips), were added to existing traffic volumes to create the build-out traffic volumes.

Table 8 provided below, shows expected primary trips generated by the development.

It should be noted that ITE Code 534 – Private School (K-8) does not account for bus operations within the trip generation. Therefore, the number of students expected to ride the bus, 216 students, was removed from the total number of students, 426 students, to better reflect the trip generation calculations.

Table 8: Trip Generation and Pass-by Trips

Use	Units		TRIP GENERATION							PEAK HOUR TRIPS			
			Weekday	AM Peak			PM Peak			AM Peak		PM Peak	
			Trips	Total	Enter	Exit	Total	Enter	Exit	In	Out	In	Out
ITE 534 - Private School (K-8)	210	Students (Minus Bus Students)	N/A	200	56%	44%	131	47%	53%	112	88	62	69

TRIP DISTRIBUTION AND ASSIGNMENT

Trip Distribution was determined based on the analysis of existing intersection demand characteristics within the study area. Overall, trips were distributed within the roadway network to and from the development based on the proportions of existing turning movement counts/demands. Trip routing was based on logical trip attractions and destinations for school-based trips. The figures below show the trip distribution and assignment for the development of each analysis scenario. Trips were then assigned to the background roadway networks to create build-out volumes and are shown in figures below.

TRAFFIC VOLUME CALCULATIONS

Traffic volumes used in the analysis were calculated based on the following:

1. Existing Conditions: direct turning movement counts from 2021
2. Full Build-out 2021: Existing traffic volumes plus site trips

As stated above, build-out traffic volumes were calculated using the existing traffic volumes, no traffic growth factors were used as the existing facility is anticipated to be occupied with the same year as the data collection. Primary site trips were added to study intersections with direct access to the proposed development. Figure 4 and Figure 5 show the traffic volumes used for each individual analysis scenario.

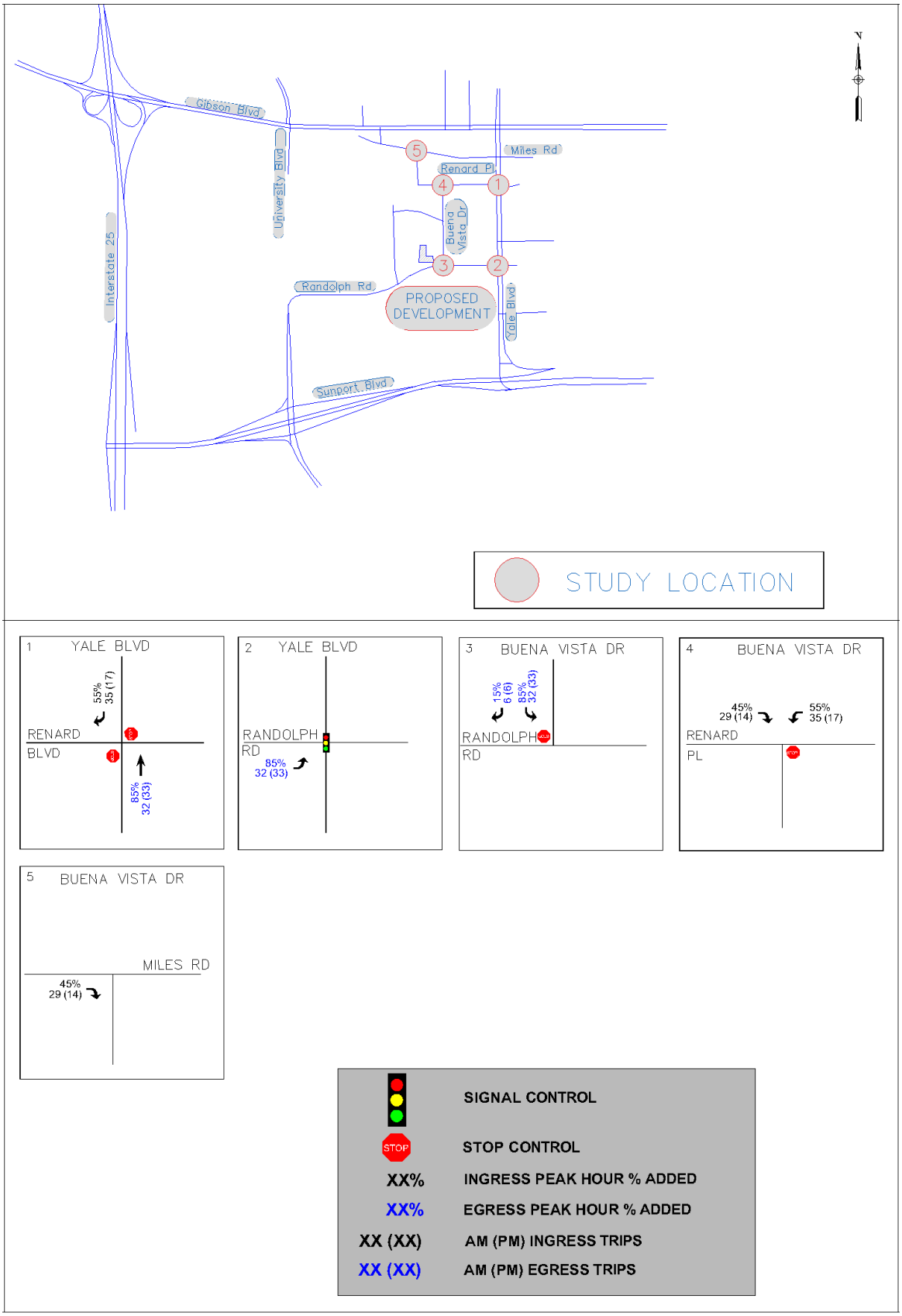


Figure 4. Trip Distribution and Assignment

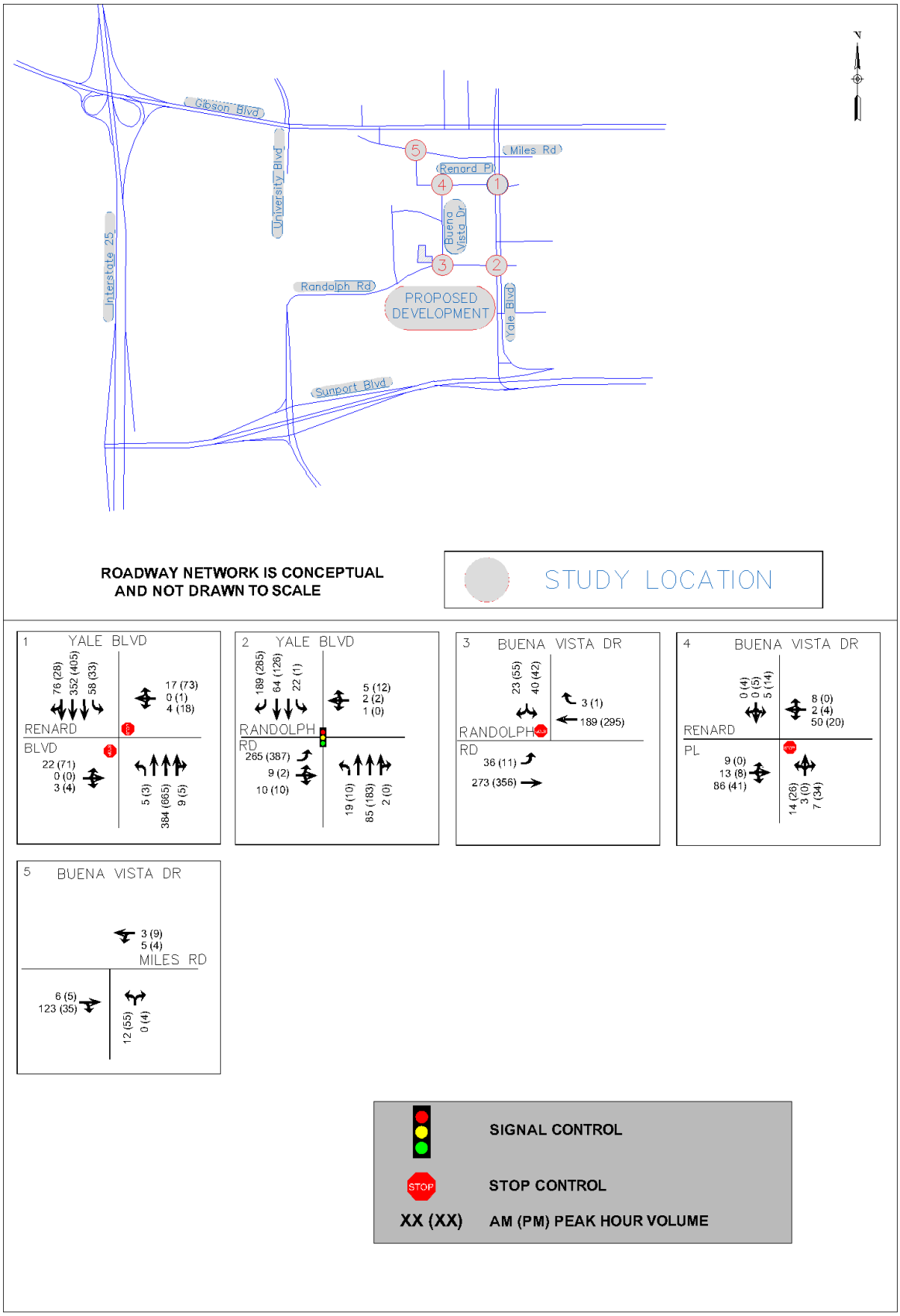


Figure 5. Full Build-Out 2021 Traffic Volumes

TRAFFIC ANALYSIS OF BUILD-OUT AND HORIZON YEAR

As performed for existing conditions, a LOS, capacity, and queuing analysis was performed for all future analysis scenarios using the same procedures and assumptions. Signal timings used in the existing conditions analysis were retained and used for build-out conditions.

2021 CONDITIONS

ANALYSIS OF SIGNALIZED INTERSECTIONS

Table 9 below summarizes intersection capacity and LOS analysis performed for 2021 conditions for the signalized intersection at Yale Blvd. & Randolph Rd.

Table 10 below summarizes queuing results. Detailed capacity output sheets can be found in Appendix D.

Table 9: 2021 Full Build-Out Signalized Capacity Analysis Summary

Study Intersection	Scenario	Worst Case Movement LOS and Delay								Intersection LOS			
		AM				PM				AM		PM	
		Worst Case Movements	Delay[1]	V/C	LOS[2]	Worst Case Movements	Delay[1]	V/C	LOS[2]	Delay[1]	LOS[2]	Delay[1]	LOS[2]
Yale Blvd & Randolph Rd	Full Build 2021	WBL/T/R	38.8	0.28	D	WBL/T/R	45.4	N/A	D	17.0	B	19.3	B
		EBL	28.5	0.81	C	EBL	32.1	0.87	C				

[1]Average delay in seconds per vehicle.

[2]LOS stands for Level of Service.

Table 10: 2021 Full Build-Out Signalized Queue Storage Summary

Study Intersection	Movement	Existing 2021	
		AM	PM
		95th Percentile (veh)	95th Percentile (veh)
Yale Blvd & Renard Pl	EBL/T/R	0.3	0.9
	WBL/T/R	0.1	0.9
	NBL	0.0	0.0
	SBL	0.3	0.2
Randolph Rd & Buena Vista Dr	EBL/T	0.1	0.0
	SBL/R	0.1	0.3
Renard Pl & Buena Vista Dr	NBL/T/R	0.1	0.3
	SBL/T/R	0.0	0.1
Buena Vista Dr & Miles Rd	WBL/T	0.0	0.0
	NBL/R	0.1	0.4

*95th Percentile Queues are calculated in vehicles

From the tables above, the following is summarized:

Yale Blvd. & Randolph Rd.

- Capacity Analysis:
  - Under full build-out conditions, the intersection is observed to operate at an acceptable level of service in both the AM and PM peak hours. Individual movements are also observed to operate at an acceptable Level of Service (LOS) for both AM and PM peak hours.
- Queueing Analysis:
  - Under full build-out conditions, 95th percentile Queue Storage Ratios (QSR) at the intersection are observed to be accommodated by existing storage lengths during the AM and PM peak hours.

Analysis of Stop Controlled Intersections

Table 11 below summarizes stop-controlled intersection capacity and LOS analysis performed for 2021 conditions for the unsignalized intersections. Queueing is reported as number of vehicles in the queue for stop-controlled intersections.

Table 12 below summarizes queuing results. Detailed capacity output sheets can be found in Appendix D.

Table 11: 2021 Full Build-Out Stop Control Capacity Analysis Summary

Study Intersection	Scenario	Worst Case Movement LOS and Delay								Intersection LOS			
		AM				PM				AM		PM	
		Worst Case Movements	Delay[1]	V/C	LOS[2]	Worst Case Movements	Delay[1]	V/C	LOS[2]	Delay[1]	LOS[2]	Delay[1]	LOS[2]
Yale Blvd & Renard Pl	Full Build 2021	EBL/T/R	16.3	0.08	C	EBL/T/R	18.5	0.24	C	16.3	C	18.5	C
		WBL/T/R	11.3	0.04	B	WBL/T/R	16.1	0.24	C				
Yale Blvd & Randolph Rd	Full Build 2021	WBL/T/R	38.8	0.28	D	WBL/T/R	45.4	N/A	D	17.0	B	19.3	B
		EBL	28.5	0.81	C	EBL	32.1	0.87	C				
Randolph Rd & Buena Vista Dr	Full Build 2021	SBL/R	12.9	0.14	B	SBL/R	13.5	0.20	B	12.9	B	13.5	B
Renard Pl & Buena Vista Dr	Full Build 2021	NBL/T/R	9.8	0.03	A	NBL/T/R	9.3	0.10	A	10.1	B	9.7	A
		SBL/T/R	10.1	0.01	B	SBL/T/R	9.7	0.04	A				
Buena Vista Dr & Miles Rd	Full Build 2021	NBL/R	9.2	0.02	A	NBL/R	9.3	0.11	A	9.2	A	9.3	A

[1]Average delay in seconds per vehicle.

[2]LOS stands for Level of Service.

Table 12: 2021 Full Build-Out Stop Control Queue Storage Summary

Study Intersection	Movement	Build-Out 2021	
		AM	PM
		95th Percentile (veh)	95th Percentile (veh)
Yale Blvd & Renard Pl	EBL/T/R	0.3	1.0
	WBL/T/R	0.1	1.0
	NBL	0.0	0.1
	SBL	0.3	0.2
Randolph Rd & Buena Vista Dr	EBL/T	0.1	0.0
	SBL/R	0.5	0.7
Renard Pl & Buena Vista Dr	NBL/T/R	0.1	0.3
	SBL/T/R	0.0	0.1
Buena Vista Dr & Miles Rd	WBL/T	0.0	0.0
	NBL/R	0.0	0.4

*95th Percentile Queues are calculated in vehicles

From the tables above, the following is summarized:

Yale Blvd. & Renard Pl.

- Capacity Analysis:
  - Under full build-out conditions, individual movements are observed to operate at an acceptable Level of Service (LOS) for both AM and PM peak hours.
- Queueing Analysis:
  - Under full build-out conditions, 95th percentile lengths at the intersection are observed to be less than 1 vehicle during the AM and PM peak hours.

Randolph Rd. & Buena Vista Dr.

- Capacity Analysis:
  - Under full build-out conditions, individual movements are observed to operate at an acceptable Level of Service (LOS) for both AM and PM peak hours.
- Queueing Analysis:
  - Under full build-out conditions, 95th percentile lengths at the intersection are observed to be less than 1 vehicle during the AM and PM peak hours.

Buena Vista Dr. & Renard Pl.

- Capacity Analysis:
  - Under full build-out conditions, individual movements are observed to operate at an acceptable Level of Service (LOS) for both AM and PM peak hours.
- Queueing Analysis:
  - Under full build-out conditions, 95th percentile lengths at the intersection are observed to be less than 1 vehicle during the AM and PM peak hours.

Buena Vista Dr. & Miles Rd.

- Capacity Analysis:
  - Under full build-out conditions, individual movements are observed to operate at an acceptable Level of Service (LOS) for both AM and PM peak hours.
- Queueing Analysis:
  - Under full build-out conditions, 95th percentile lengths at the intersection are observed to be less than 1 vehicle during the AM and PM peak hours.

DEVELOPMENT SITE SPECIFIC OBSERVATIONS AND RECOMMENDATIONS

SITE ACCESS AND SIGHT DISTANCE EVALUATION

The following presents a narrative detailing recommended intersection sight distance requirement for the development. Intersection sight distance requirements were calculated per the City of Albuquerque Design Process Manual using the 2018 AASHTO "Green Book" chapter 9.5. Two sight distance cases were used for this analysis:

- Case B1 – A stopped vehicle turning left from a minor street approach onto a major road.
- Case B2 – A stopped vehicle turning right from a minor street approach onto a major road.

Intersection sight distances were calculated based on the following assumptions:

- Required intersection sight distance for Case B1 at all four access driveways were calculated based on the design vehicle crossing a single lane of traffic on an undivided roadway.
- Required intersection sight distance for Case B2 at all four access driveways were calculated based on the design vehicle crossing into the nearest lane of traffic.

Due to the nature of this development, a single passenger vehicle was used as the design vehicle. Values shown below in

Table 13 were rounded up to the nearest 5-foot increment. Formulas, values, and calculations used in the sight distance analysis can be found in the Appendix E.

Table 13: Sight Distance Requirements

Case	Location	Speed	Sight Distance
Case B1 - Turning Left	Driveway 2 (Exit) on Buena Vista Dr	25 MPH	280 Feet
Case B2 - Turning Right	Driveway 2 (Exit) on Buena Vista Dr	25 MPH	240 Feet

Using the values shown above, it is recommended that all development driveways adhere to the sight distance provisions detailed in the AASHTO "Green Book." An area bounded by the above sight distances with the decision point placed 14.5 feet back from the edge of the shoulder midway between the outbound driving lane should be maintained clear of any obstructions.

TURN LANE ANALYSIS

The City of Albuquerque 2020 Development Process Manual (DPM) turn lane warrants were reviewed for the site access driveways. DPM Table 7.4.67 was used to determine if turn lanes are warranted, and Tables 7.4.68, 7.4.69, and 7.4.70 was used to determine deceleration length, transition length, and taper length, if applicable. The results of this analysis are shown in the table below. Full-Build turning movement volumes and full build-out trips were used in the analysis.

Table 14: Auxiliary Lane Analysis

Warrant Location	Design Speed (MPH)	Right Turning Volume AM(PM)	Right Turn Warrant Result (per Table 7.4.67)	Required Right Turn Length (per Table 7.4.68)	Required Right Turn Transition Length (per Table 7.4.68)	Required Taper (per Table 7.4.69)
SB Buena Vista Dr at Driveway 1	25	112 (88)	Required	240'	150'	NA

Based on the analysis presented above, a right turn lane is warranted for the Driveway 1.

DROP-OFF AND PICK-UP OPERATIONS

A map was prepared to designate routes for parent drop-off/pick-up and bus drop-off/pick-up. The routes were created with the intention that parent drop-off/pick-up and bus drop-off/pick-up will not occur at the same time. Therefore, parents and buses should not impact the operations of each other's drop-off/pick-up efficiency. The routes are shown below in Figure 6,

PARENT DROP-OFF/PICK-UP

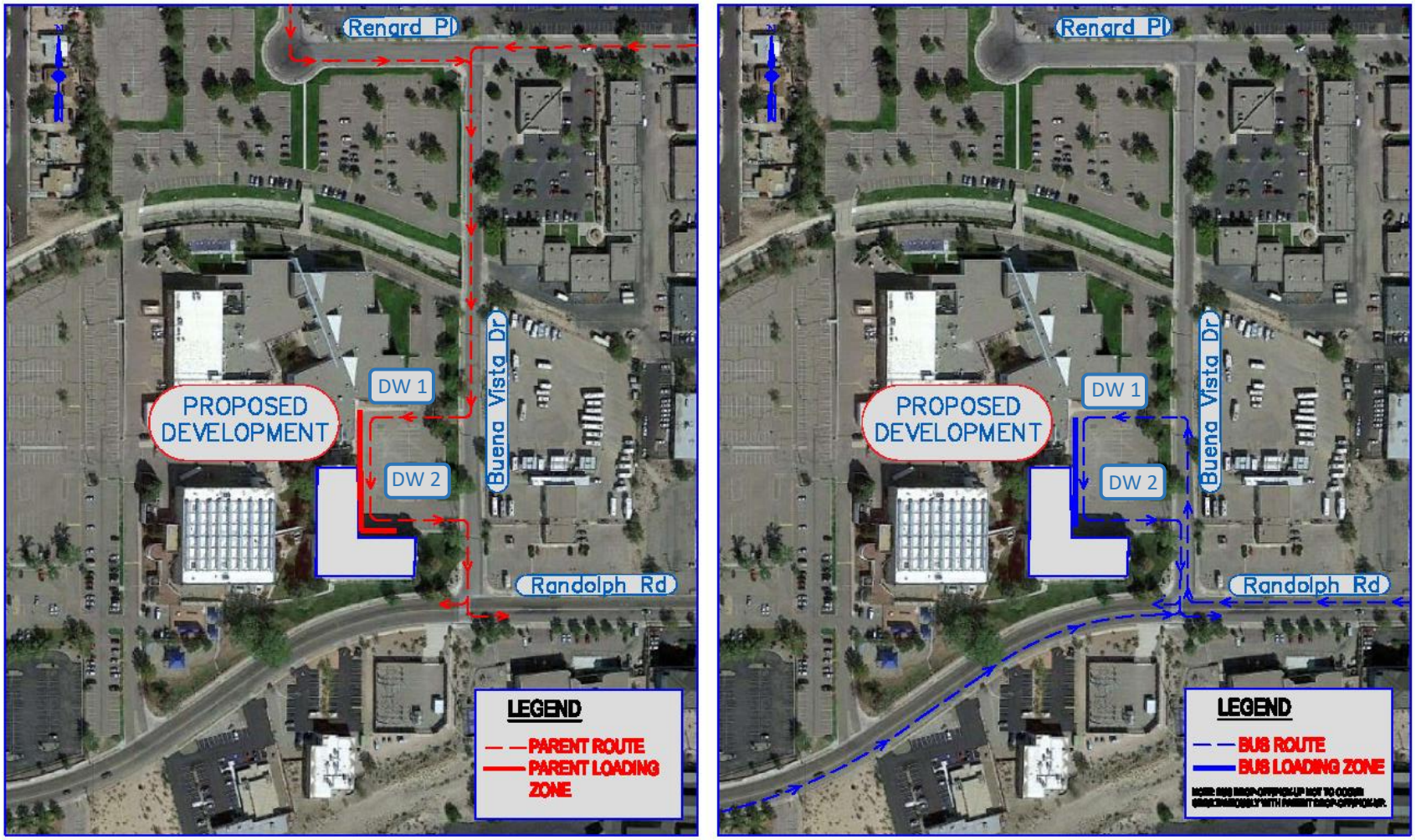
All parent drop-off/pick-up operations will access the development with a southbound right turn into Driveway 1 and depart using Driveway 2 with an eastbound right turn out of the development.

It is expected that parents will arrive from the north and head southbound on Buena Vista Dr. to allow for the right turn into Driveway 1. This operation provides for the maximum queue storage available on-site. The development parking lot has approximately 400 feet available for storage, allowing at least 20 vehicles to queue on-site.

BUS DROP-OFF/PICK-UP

The bus drop-off/pick-up operates in a similar manner as the parent drop-off/pick-up. Buses will enter the site with a southbound Buena Vista Dr. right turn into Driveway 1. The buses will then exit using Driveway 2 with an eastbound right turn out of the development.

It is expected that buses will arrive from the south using the intersection of Randolph Rd. and Buena Vista Dr. and heading northbound to enter Driveway 1 with a left turn into the site. This operation provides for the maximum queue storage available on-site. The development parking lot has approximately 400 feet available for storage.



PARENT DROP-OFF/PICK-UP

BUS DROP-OFF/PICK-UP

AM/PM DROP-OFF/PICK-UP OPERATIONS
CIEN AGUAS CHARTER SCHOOL

Figure 6. Drop-Off/Pick-Up Operations

PEDESTRIAN AND BIKE CIRCULATION

Charter schools do not typically generate a lot of pedestrian or bike traffic, and the majority of the students ride the bus or driven by parents. It is anticipated that the proposed development will not generate much pedestrian or bike traffic.

Currently, there are sidewalks present along all but one study roadway, Miles Rd. It is recommended that students follow the sidewalk and cross at marked crosswalks when necessary.

A bike route is present along Randolph Rd. for the eastbound and westbound directions. The remaining study roadways do not have bike facilities present.

NOISE AND AIR QUALITY IMPACTS

Overflow of parents waiting to pick up students are expected to wait for their pick-up notification in the northern parking lot and turn off their vehicles when not actively in motion.

This method, once adopted and consistently practiced, will help reduce air and noise pollution associated with the development's traffic.

CRASH SUMMARY

Aggregate crash data was obtained for the intersections of Yale Blvd. & Renard Pl., Yale Blvd. & Randolph Rd., Randolph Rd. & Buena Vista Dr., Buena Vista Dr. & Renard Pl., and Buena Vista Dr. & Miles Rd. for the most recently available five years of data. This included 2015 to 2019. Crashes are summarized by year, type, lighting conditions, severity, and cause. The table below summarizes crashes occurring at the intersection.

Table 15: Crash Summary

	Crash Summary	Buena Vista Dr & Renard Pl	Buena Vista Dr & Randolph Rd	Renard Pl & Yale Blvd	Randolph Rd & Yale Blvd	Buena Vista Dr & Miles Rd
	Total Crashes	0	4	14	30	1
By Year	2015	0	0	3	9	0
	2016	0	1	4	2	0
	2017	0	2	1	7	1
	2018	0	0	3	6	0
	2019	0	1	3	6	0
By Type	Fixed Object	0	0	1	1	0
	Invalid Code/Left Blank	0	1	2	6	1
	Other Vehicle - All Others/Entering At Angle	0	0	1	0	0
	Other Vehicle - Both Going Straight/Entering At Angle	0	0	3	0	0
	Other Vehicle - From Opposite Direction	0	0	1	3	0
	Other Vehicle - From Opposite Direction/Both Going	0	0	0	1	0
	Other Vehicle - From Opposite Direction/One Left Turn	0	0	3	0	0
	Other Vehicle - From Same Direction/Both Going Straight	0	0	0	2	0
	Other Vehicle - From Same Direction/Both Turn Left	0	0	0	1	0
	Other Vehicle - From Same Direction/One Right Turn	0	0	0	1	0
	Other Vehicle - From Same Direction/One Stopped	0	0	0	1	0
	Other Vehicle - From Same Direction/Rear End Collision	0	0	0	3	0
	Other Vehicle - From Same Direction/Sideswipe Collision	0	0	0	2	0
	Other Vehicle - From Same Direction/Vehicle Backing	0	0	0	1	0
	Other Vehicle - One Left Turn/Entering At Angle	0	1	3	2	0
	Other Vehicle - One Right Turn/Entering At Angle	0	0	0	2	0
	Other Vehicle - One Vehicle/Making A U-Turn	0	1	0	0	0
	Pedalcyclist	0	0	0	1	0
	Vehicle Parked in Proper Location	0	1	0	3	0
	%Invalid Code/Left Blank	0%	25%	14%	20%	100%
	%Other Vehicle - One Left Turn/Entering At Angle	0%	25%	21%	7%	0%
	%Other Vehicle - From Opposite Direction	0%	0%	7%	10%	0%
By Lighting Conditions	Day	0	4	11	18	1
	Dawn/Dusk	0	0	0	2	0
	Dark	0	0	3	5	0
	Invalid Code/Not Specified	0	0	0	5	0
	%Day	0%	100%	79%	60%	100%
	%Dark	0%	0%	21%	17%	0%
By Severity	PDO	0	3	10	22	1
	Injury	0	1	4	8	0
	%PDO	0%	75%	71%	73%	100%
	%Injury	0%	25%	29%	27%	0%
By Contributing Factors	Disregarded Traffic Signal	0	0	0	4	0
	Driver Inattention	0	1	3	9	0
	Driverless Moving Vehicle	0	0	0	1	0
	Excessive Speed	0	0	0	1	0
	Failed to Yield Right of Way	0	0	6	0	0
	Following Too Closely	0	0	0	2	0
	Improper Backing	0	0	0	1	0
	Improper Lane Change	0	0	0	1	0
	Improper Overtaking	0	1	0	1	0
	Made Improper Turn	0	1	2	1	0
	None/Missing Data	0	1	2	5	0
	Other - No Driver Error	0	0	0	0	1
	Other Improper Driving	0	0	0	1	0
	Other Mechanical Defect	0	0	0	1	0
	Passed Stop Sign	0	0	1	0	0
	Pedestrian Error	0	0	0	1	0
	Speed Too Fast for Conditions	0	0	0	1	0
	%Driver Inattention	0%	25%	21%	30%	0%
	%None/Missing Data	0%	25%	14%	17%	0%
	%Failed to Yield Right of Way	0%	0%	43%	0%	0%
	%Disregarded Traffic Signal	0%	0%	0%	13%	0%

Based on the above table, the following is observed for the signalized intersection of Randolph Rd and Yale Blvd:

- For the 5 years of data summarized, 30 crashes in total occurred at the study intersections.
- The most common classification of crash (other than an invalid code) is observed to be Other Vehicle – From Opposite Direction.
- The majority of the crashes occurred during daylight hours totaling 60% of the crashes.
- For the data reviewed, no fatal crashes were reported but injury crashes accounted for 27% of the total crashes.
- The most common contributing factor was observed to be Driver Inattention.

Based on the above table, the following is observed for the intersection of Renard Pl and Yale Blvd:

- For the 5 years of data summarized, 14 crashes in total occurred at the study intersections.
- The most common classification of crash (other than an invalid code) is observed to be Other Vehicle – One Left Turn/Entering at Angle.
- The majority of the crashes occurred during daylight hours totaling 79% of the crashes.
- For the data reviewed, no fatal crashes were reported but injury crashes accounted for 29% of the total crashes.
- The most common contributing factor was observed to be Failed to Yield Right of Way.

Based on the above table, the following is observed for the remaining study intersections:

- For the 5 years of data summarized, 5 crashes in total occurred at the study intersections.
- The most common classification of crash (other than an invalid code) is observed to be Other Vehicle – One Left Turn/Entering at Angle.
- The majority of the crashes occurred during daylight hours totaling 100% of the crashes.
- For the data reviewed, no fatal crashes were reported but injury crashes accounted for 20% of the total crashes.
- The most common contributing factor was observed to be Driver Inattention.

CAPACITY MITIGATIONS AND STREET IMPROVEMENTS

As shown in the above section, it is anticipated that the traffic generated by the proposed development will not present any capacity for the study intersections.

No recommendations are made for the study intersections at this time.

SUMMARY OF RECOMMENDATIONS

Based on the findings of this report, recommendations are summarized as follows:

- It is recommended that access to the site be maintained via the drop-off/pick-up operations map provided in this report.
- It is recommended that any pedestrian traffic use existing sidewalks and marking crosswalks and that bike traffic use existing bike routes.
- It is recommended parents, waiting to pick up students, wait for their pick-up notification in the northern parking lot and turn off their vehicles when not actively in motion.
- It is recommended that intersection sight distance, as detailed in the sight distance section of this report, be provided/maintained.

LEE ENGINEERING

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Appendix A:
Scoping Meeting Notes

City of Albuquerque

Planning Department

Development Review Services Division

Traffic Scoping Form (REV 07/2020)

Project Title: Cien Aguas Charter School

Building Permit #: BP-2021-11863 Hydrology File #: _____

Zone Atlas Page: M15-Z DRB#: _____ EPC#: _____ Work Order#: _____

Legal Description: Tract 2-B-1-A-2, Newport Industrial Park West

Development Street Address: 2501 Buena Vista Dr SE

Applicant: Wooten Engineering Contact: Jeffrey T. Wooten, P.E.

Address: PO Box 15814, Rio Rancho, NM 87174

Phone#: 505-980-3560 Fax#: _____

E-mail: jeffwooten.pe@gmail.com

Development Information

Build out/Implementation Year: 2021 Current/Proposed Zoning: NR-BP (No Change)

Project Type: New: ( ) Change of Use: (X) Same Use/Unchanged: ( ) Same Use/Increased Activity: ( )

Change of Zoning: ( )

Proposed Use (mark all that apply): Residential: ( ) Office: ( ) Retail: ( ) Mixed-Use: ( )

Describe development and Uses: The existing office building is being converted into a new Charter School that will have K-8 Grade Levels.

Days and Hours of Operation (if known): 830am to 3:30pm

Facility

Building Size (sq. ft.): +/-70,853 SF

Number of Residential Units: N/A

Number of Commercial Units: N/A

Traffic Considerations

ITE Trip Generation Land Use Code See attached Trip Gen Table

Expected Number of Daily Visitors/Patrons (if known):*

Expected Number of Employees (if known):*

Expected Number of Delivery Trucks/Buses per Day (if known):* 3 Buses will be Utilized for Student Pickup/Dropoff

Trip Generations during PM/AM Peak Hour (if known):* See attached Trip Gen Table

Driveway(s) Located on: Buena Vista Dr SE

Adjacent Roadway(s) Posted Speed: Buena Vista Dr SE Posted Speed: 25 mph

Street Name | Posted Speed

** If these values are not known, assumptions will be made by City staff. Depending on the assumptions, a full TIS may be required.)*

Roadway Information (adjacent to site)

Comprehensive Plan Corridor Designation/Functional Classification: Local
(arterial, collecdtor, local, main street)

Comprehensive Plan Center Designation: Employment Center
(urban center, employment center, activity center, etc.)

Jurisdiction of roadway (NMDOT, City, County): City

Adjacent Roadway(s) Traffic Volume: _____ Volume-to-Capacity Ratio (v/c): _____
(if applicable)

Adjacent Transit Service(s): Yes Nearest Transit Stop(s): Randolph and Buena Vista,

Is site within 660 feet of Premium Transit?: No

Current/Proposed Bicycle Infrastructure: Proposed bike lanes on Randolph
(bike lanes, trails)

Current/Proposed Sidewalk Infrastructure: Existing property perimeter sidewalks
Proposed sidewalks on Buena Vista to be 10 feet wide with 5 to 6 feet landscape buffer

Relevant Web-sites for Filling out Roadway Information:

City GIS Information: http://www.cabq.gov/gis/advanced-map-viewer

Comprehensive Plan Corridor/Designation: See GIS map.

Road Corridor Classification: https://www.mrcog-nm.gov/DocumentCenter/View/1920/Long-Range-Roadway-System-LRRS-PDF?bidId=

Traffic Volume and V/C Ratio: https://www.mrcog-nm.gov/285/Traffic-Counts and https://public.mrcog-nm.gov/taqa/

Bikeways: http://documents.cabq.gov/planning/adopted-longrange-plans/BTFP/Final/BTFP%20FINAL_Jun25.pdf (Map Pages 75 to 81)

TIS Determination

Note: Changes made to development proposals / assumptions, from the information provided above, will result in a new TIS determination.

Neighborhood Impact Analysis

~~**Traffic Impact Study (TIS)**~~ **Required: Yes [✓] No [ ]**

Thresholds Met? Yes [✓] No [ ]

Mitigating Reasons for Not Requiring TIS: Previously Studied: [ ]

Notes: A Neighborhood Impact Analysis (NIA) is required for the charter school development, see attached NIS scoping form

P.E.

TRAFFIC ENGINEER

6/8/2021

DATE

Submittal

The Scoping Form must be submitted as part of a Traffic Circulation Layout submittal, DRB application for site plan approval, or EPC application. See the Development Process Manual Chapter 7.4 for additional information.

Submit by email to plndrs@cabq.gov and to the City Traffic Engineer mgrush@cabq.gov. Call 924-3362 for information.

Site Plan/Traffic Scoping Checklist

Site plan, building size in sq. ft. (show new, existing, remodel), to include the following items as applicable:

1. Access -- location and width of driveways
2. Sidewalks (Check DPM and IDO for sidewalk requirements. Also, Centers have wider sidewalk requirements.)
3. Bike Lanes (check for designated bike routes, long range bikeway system) *(check MRCOG Bikeways and Trails in the 2040 MTP map)*
4. Location of nearby multi-use trails, if applicable *(check MRCOG Bikeways and Trails in the 2040 MTP map)*
5. Location of nearby transit stops, transit stop amenities (eg. bench, shelter). Note if site is within 660 feet of premium transit.
6. Adjacent roadway(s) configuration (number of lanes, lane widths, turn bays, medians, etc.)
7. Distance from access point(s) to nearest adjacent driveways/intersections.
8. Note if site is within a Center and more specifically if it is within an Urban Center.
9. Note if site is adjacent to a Main Street.
10. Identify traffic volumes on adjacent roadway per MRCOG information. If site generates more than 100 vehicles per hour, identify volume to capacity (v/c) ratio on this form.

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LEE ENGINEERING

Agenda for Cien Aguas Charter School Neighborhood Impact Assesment Scoping Meeting

July 20, 2021

-Meeting Notes in Red-

Attendees:

Matt Grush – CABQ
Jeffrey Wooten – Wooten Engineering
Jonathon Kruse- Lee Engineering
Paul Barricklow – Lee Engineering

1. Introductions
2. Review of Site Plan
3. Discussion of Scope for NIA
    a. Study Intersections
        i. Buena Vista and Renard
        ii. Buena Vista and Randolph
        iii. Renard and Yale
        iv. Randolph and Yale
        v. Buena Vista and Miles
    b. Trips
        i. Use bus reductions in trips

Trip Generation Tables

Use	Units		TRIP GENERATION							PEAK HOUR TRIPS			
			Weekday	AM Peak			PM Peak			AM Peak		PM Peak	
			Trips	Total	Enter	Exit	Total	Enter	Exit	In	Out	In	Out
ITE 534 - Private School (K-8)	426	Students	N/A	390	56%	44%	267	47%	53%	218	172	125	142

Use	Units		TRIP GENERATION							PEAK HOUR TRIPS			
			Weekday	AM Peak			PM Peak			AM Peak		PM Peak	
			Trips	Total	Enter	Exit	Total	Enter	Exit	In	Out	In	Out
ITE 534 - Private School (K-8)	210	Students (Minus Bus Students)	N/A	200	56%	44%	131	47%	53%	112	88	62	69

Notes:

ITE Trip Generation Manual Rates
Daily Rate: Weekday
Average Rate: N/A No Data Available
AM Peak: Peak Hour of Generator
Fitted Curve: 0.88(X) + 14.85
PM Peak: Peak Hour of Generator
Fitted Curve: 0.63(X) - 1.93

    c. Data Collection Discussion
        i. Data Sources
        ii. New Data Collection (July/August 2021)
    d. Known Developments or Pending Improvements in Area:
        i. Commercial on SW coner of Gibson and Yale
    e. Build-out Year and Growth Rate

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i. Build-Out Year (2021)
ii. MRCOG Growth Rates

f. Analysis scenarios
   i. Existing Conditions (2021)
   ~~ii. Opening Year Background (No Build)~~
   iii. Opening Year Buildout (Full Build)
   iv. Opening Year Buildout Optimized (if required)
      1. All scenarios with existing signal timings except opening year buildout optimized.

g. Required Analysis & Methodology
   i. LOS Capacity analysis based on HCM 6th Edition
      1. HCS Software
   ii. 95th Percentile Queue demands
      1. Capacity & Queueing for network peak rather than individual intersection peaks
   ~~iii. Auxiliary Lane Analysis~~
   iv. Sight Distance Analysis at Driveways
   v. NIA Specific Analyses/Data Review
      1. Impacts on pedestrian and bike circulation
      2. Pickup and Drop-off routing and circulation
      3. Noise and air quality impacts from idling vehicles
         a. Best practices for management
         b. "no idling" regulations
            i. Monitoring and regulation from school
   vi. Crash Summary 5-years

4. Agency Input (Comments & Issues)
5. Meeting Notes (distributed by Lee Engineering)

Appendix B:

Turning Movement Count Sheets

Lee Engineering, LLC
Phoenix, Arizona - Dallas, Texas
Oklahoma City, Oklahoma - San Antonio, Texas
Albuquerque, New Mexico, United States
jkruse@lee-eng.com

Count Name: NM 309.01 Cien Aguas Charter School
Site Code:
Start Date: 07/27/2021

Turning Movement Data

Start Time	Southbound Approach Southbound						Westbound Approach Westbound						Northbound Approach Northbound						Eastbound Approach Eastbound						Int. Total
	Right	Thru	Left	U-Turn	Peds	App. Total	Right	Thru	Left	U-Turn	Peds	App. Total	Right	Thru	Left	U-Turn	Peds	App. Total	Right	Thru	Left	U-Turn	Peds	App. Total	
6:00 AM	1	66	4	0	0	71	3	0	0	0	0	3	0	44	0	0	0	44	2	0	1	0	0	3	121
6:15 AM	6	57	2	1	0	66	2	0	1	0	0	3	1	48	0	0	0	49	1	0	1	0	0	2	120
6:30 AM	6	63	6	0	0	75	3	0	0	0	2	3	1	52	0	0	0	53	1	0	2	0	0	3	134
6:45 AM	7	80	20	0	1	107	2	0	0	0	2	2	3	66	0	0	0	69	0	0	0	0	1	0	178
Hourly Total	20	266	32	1	1	319	10	0	1	0	4	11	5	210	0	0	0	215	4	0	4	0	1	8	553
7:00 AM	2	68	16	0	1	86	3	0	1	0	1	4	3	87	0	0	0	90	0	0	1	0	0	1	181
7:15 AM	9	64	16	0	0	89	5	0	0	0	0	5	9	66	0	3	0	78	0	0	4	0	0	4	176
7:30 AM	5	73	12	0	1	90	5	0	1	0	0	6	4	105	3	1	0	113	1	0	5	0	1	6	215
7:45 AM	18	101	27	0	0	146	1	0	0	0	2	1	2	94	1	1	0	98	1	0	8	0	2	9	254
Hourly Total	34	306	71	0	2	411	14	0	2	0	3	16	18	352	4	5	0	379	2	0	18	0	3	20	826
8:00 AM	5	95	10	2	0	112	5	0	0	0	3	5	3	72	0	0	0	75	0	0	7	0	0	7	199
8:15 AM	15	83	9	0	1	107	6	0	3	0	5	9	0	81	1	0	1	82	1	0	2	0	1	3	201
8:30 AM	8	74	11	0	0	93	5	1	2	0	0	8	0	77	2	0	0	79	2	0	6	0	0	8	188
8:45 AM	11	90	12	1	0	114	8	0	1	0	4	9	3	85	0	0	0	88	0	0	12	0	1	12	223
Hourly Total	39	342	42	3	1	426	24	1	6	0	12	31	6	315	3	0	1	324	3	0	27	0	2	30	811
9:00 AM	6	78	8	0	0	92	3	0	1	0	0	4	2	79	0	0	0	81	1	1	7	0	0	9	186
9:15 AM	6	70	12	0	0	88	14	0	3	0	0	17	0	87	0	1	0	88	0	0	9	0	0	9	202
9:30 AM	9	59	10	1	0	79	4	0	1	0	0	5	0	106	0	1	0	107	0	0	3	1	0	4	195
9:45 AM	9	77	7	0	0	93	7	0	1	0	0	8	2	65	0	1	0	68	1	0	8	1	0	10	179
Hourly Total	30	284	37	1	0	352	28	0	6	0	0	34	4	337	0	3	0	344	2	1	27	2	0	32	762
*** BREAK ***	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1:00 PM	7	89	17	1	0	114	11	0	0	0	2	11	2	149	1	2	0	154	3	0	6	0	1	9	288
1:15 PM	4	113	6	0	1	123	14	0	2	0	1	16	3	135	1	2	0	141	1	0	7	0	0	8	288
1:30 PM	4	89	9	0	0	102	8	0	2	0	2	10	3	104	4	0	0	111	2	0	6	0	0	8	231
1:45 PM	8	102	14	1	0	125	5	0	4	0	0	9	3	120	2	0	0	125	1	0	5	0	1	6	265
Hourly Total	23	393	46	2	1	464	38	0	8	0	5	46	11	508	8	4	0	531	7	0	24	0	2	31	1072
2:00 PM	10	81	8	1	0	100	6	0	4	0	0	10	3	117	0	0	0	120	0	0	5	0	0	5	235
2:15 PM	5	84	7	0	0	96	15	0	4	0	0	19	1	102	2	1	0	106	3	0	8	0	1	11	232
2:30 PM	6	102	6	0	0	114	8	0	5	0	0	13	4	120	0	1	0	125	3	0	5	0	1	8	260
2:45 PM	6	93	7	1	0	107	13	0	2	0	1	15	5	110	1	1	0	117	3	0	2	0	0	5	244
Hourly Total	27	360	28	2	0	417	42	0	15	0	1	57	13	449	3	3	0	468	9	0	20	0	2	29	971
3:00 PM	7	85	7	0	0	99	13	1	2	0	0	16	3	122	1	0	0	126	2	0	12	0	0	14	255
3:15 PM	2	90	9	0	0	101	7	0	2	0	3	9	2	105	0	1	0	108	0	0	9	0	2	9	227
3:30 PM	10	93	8	0	0	111	12	1	0	0	0	13	0	160	1	0	0	161	1	0	19	0	0	20	305
3:45 PM	8	104	8	1	0	121	9	0	3	0	0	12	1	116	2	1	0	120	1	0	11	0	0	12	265

Hourly Total	27	372	32	1	0	432	41	2	7	0	3	50	6	503	4	2	0	515	4	0	51	0	2	55	1052
4:00 PM	3	93	7	1	0	104	8	0	4	0	0	12	1	128	2	1	1	132	1	1	14	0	1	16	264
4:15 PM	1	124	11	0	0	136	6	1	0	0	1	7	4	146	0	3	1	153	0	0	11	0	1	11	307
4:30 PM	4	84	12	0	0	100	23	0	8	0	1	31	0	136	2	3	0	141	1	0	19	0	0	20	292
4:45 PM	3	106	3	0	0	112	13	0	1	0	2	14	0	168	0	1	1	169	3	0	9	0	1	12	307
Hourly Total	11	407	33	1	0	452	50	1	13	0	4	64	5	578	4	8	3	595	5	1	53	0	3	59	1170
5:00 PM	3	91	7	1	0	102	31	0	9	0	0	40	1	182	1	3	1	187	0	0	32	0	1	32	361
5:15 PM	2	100	10	2	0	114	19	0	2	0	0	21	2	119	0	1	1	122	2	2	15	0	1	19	276
5:30 PM	2	99	7	1	0	109	9	0	2	0	4	11	2	121	2	0	0	125	4	0	14	0	2	18	263
5:45 PM	1	76	4	0	0	81	6	1	2	0	1	9	2	109	0	1	0	112	1	0	10	0	0	11	213
Hourly Total	8	366	28	4	0	406	65	1	15	0	5	81	7	531	3	5	2	546	7	2	71	0	4	80	1113
Grand Total	219	3096	349	15	5	3679	312	5	73	0	37	390	75	3783	29	30	6	3917	43	4	295	2	19	344	8330
Approach %	6.0	84.2	9.5	0.4	-	-	80.0	1.3	18.7	0.0	-	-	1.9	96.6	0.7	0.8	-	-	12.5	1.2	85.8	0.6	-	-	-
Total %	2.6	37.2	4.2	0.2	-	44.2	3.7	0.1	0.9	0.0	-	4.7	0.9	45.4	0.3	0.4	-	47.0	0.5	0.0	3.5	0.0	-	4.1	-
Lights	218	3013	331	15	-	3577	295	3	64	0	-	362	67	3698	29	29	-	3823	42	4	292	0	-	338	8100
% Lights	99.5	97.3	94.8	100.0	-	97.2	94.6	60.0	87.7	-	-	92.8	89.3	97.8	100.0	96.7	-	97.6	97.7	100.0	99.0	0.0	-	98.3	97.2
Mediums	1	69	10	0	-	80	12	2	7	0	-	21	8	69	0	1	-	78	1	0	3	2	-	6	185
% Mediums	0.5	2.2	2.9	0.0	-	2.2	3.8	40.0	9.6	-	-	5.4	10.7	1.8	0.0	3.3	-	2.0	2.3	0.0	1.0	100.0	-	1.7	2.2
Articulated Trucks	0	14	8	0	-	22	5	0	2	0	-	7	0	16	0	0	-	16	0	0	0	0	-	0	45
% Articulated Trucks	0.0	0.5	2.3	0.0	-	0.6	1.6	0.0	2.7	-	-	1.8	0.0	0.4	0.0	0.0	-	0.4	0.0	0.0	0.0	0.0	-	0.0	0.5
Bicycles on Crosswalk	-	-	-	-	0	-	-	-	-	-	1	-	-	-	-	-	0	-	-	-	-	-	1	-	-
% Bicycles on Crosswalk	-	-	-	-	0.0	-	-	-	-	-	2.7	-	-	-	-	-	0.0	-	-	-	-	-	5.3	-	-
Pedestrians	-	-	-	-	5	-	-	-	-	-	36	-	-	-	-	-	6	-	-	-	-	-	18	-	-
% Pedestrians	-	-	-	-	100.0	-	-	-	-	-	97.3	-	-	-	-	-	100.0	-	-	-	-	-	94.7	-	-

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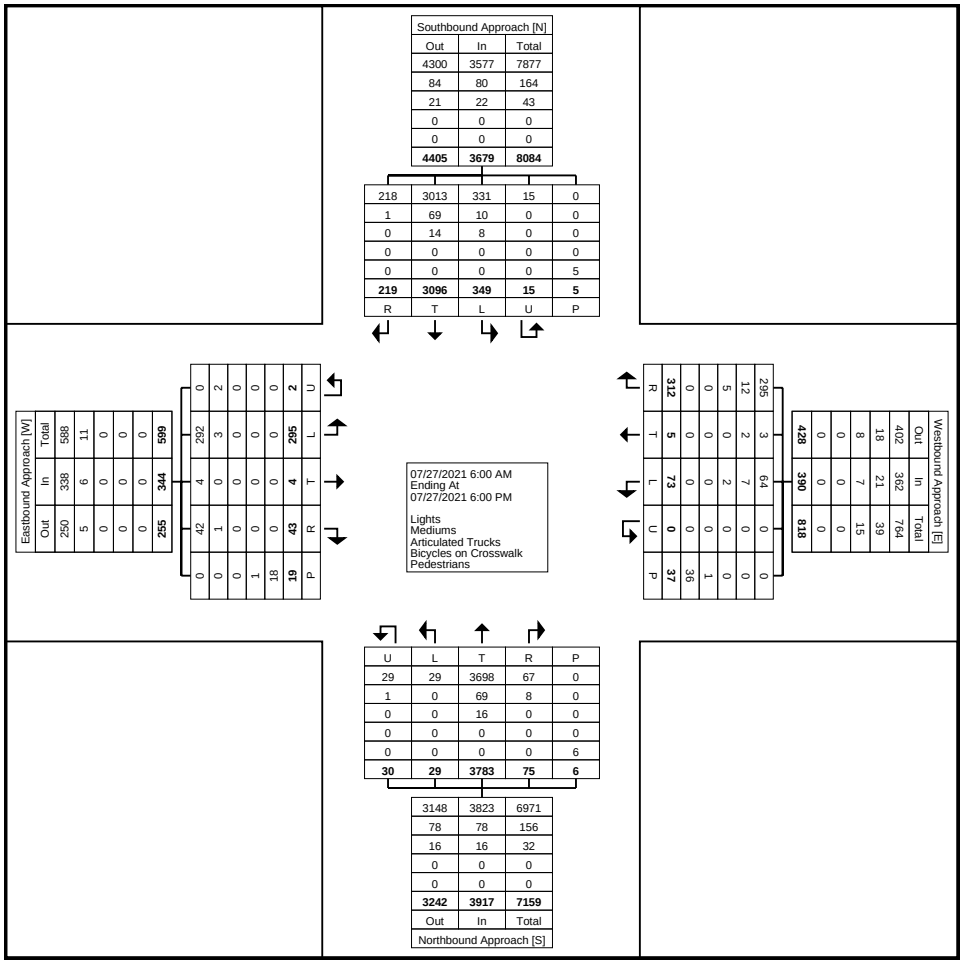
Site Code:
Start Date: 07/27/2021



Turning Movement Data Plot

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Count Name: NM 309.01 Cien Aguas Charter School
Site Code:
Start Date: 07/27/2021

Turning Movement Peak Hour Data (7:30 AM)

Start Time	Southbound Approach Southbound						Westbound Approach Westbound						Northbound Approach Northbound						Eastbound Approach Eastbound						
	Right	Thru	Left	U-Turn	Peds	App. Total	Right	Thru	Left	U-Turn	Peds	App. Total	Right	Thru	Left	U-Turn	Peds	App. Total	Right	Thru	Left	U-Turn	Peds	App. Total	Int. Total
7:30 AM	5	73	12	0	1	90	5	0	1	0	0	6	4	105	3	1	0	113	1	0	5	0	1	6	215
7:45 AM	18	101	27	0	0	146	1	0	0	0	2	1	2	94	1	1	0	98	1	0	8	0	2	9	254
8:00 AM	5	95	10	2	0	112	5	0	0	0	3	5	3	72	0	0	0	75	0	0	7	0	0	7	199
8:15 AM	15	83	9	0	1	107	6	0	3	0	5	9	0	81	1	0	1	82	1	0	2	0	1	3	201
Total	43	352	58	2	2	455	17	0	4	0	10	21	9	352	5	2	1	368	3	0	22	0	4	25	869
Approach %	9.5	77.4	12.7	0.4	-	-	81.0	0.0	19.0	0.0	-	-	2.4	95.7	1.4	0.5	-	-	12.0	0.0	88.0	0.0	-	-	-
Total %	4.9	40.5	6.7	0.2	-	52.4	2.0	0.0	0.5	0.0	-	2.4	1.0	40.5	0.6	0.2	-	42.3	0.3	0.0	2.5	0.0	-	2.9	-
PHF	0.597	0.871	0.537	0.250	-	0.779	0.708	0.000	0.333	0.000	-	0.583	0.563	0.838	0.417	0.500	-	0.814	0.750	0.000	0.688	0.000	-	0.694	0.855
Lights	43	342	56	2	-	443	15	0	4	0	-	19	8	341	5	1	-	355	3	0	22	0	-	25	842
% Lights	100.0	97.2	96.6	100.0	-	97.4	88.2	-	100.0	-	-	90.5	88.9	96.9	100.0	50.0	-	96.5	100.0	-	100.0	-	-	100.0	96.9
Mediums	0	8	0	0	-	8	2	0	0	0	-	2	1	9	0	1	-	11	0	0	0	0	-	0	21
% Mediums	0.0	2.3	0.0	0.0	-	1.8	11.8	-	0.0	-	-	9.5	11.1	2.6	0.0	50.0	-	3.0	0.0	-	0.0	-	-	0.0	2.4
Articulated Trucks	0	2	2	0	-	4	0	0	0	0	-	0	0	2	0	0	-	2	0	0	0	0	-	0	6
% Articulated Trucks	0.0	0.6	3.4	0.0	-	0.9	0.0	-	0.0	-	-	0.0	0.0	0.6	0.0	0.0	-	0.5	0.0	-	0.0	-	-	0.0	0.7
Bicycles on Crosswalk	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-
% Bicycles on Crosswalk	-	-	-	-	0.0	-	-	-	-	-	0.0	-	-	-	-	-	0.0	-	-	-	-	-	0.0	-	-
Pedestrians	-	-	-	-	2	-	-	-	-	-	10	-	-	-	-	-	1	-	-	-	-	-	4	-	-
% Pedestrians	-	-	-	-	100.0	-	-	-	-	-	100.0	-	-	-	-	-	100.0	-	-	-	-	-	100.0	-	-

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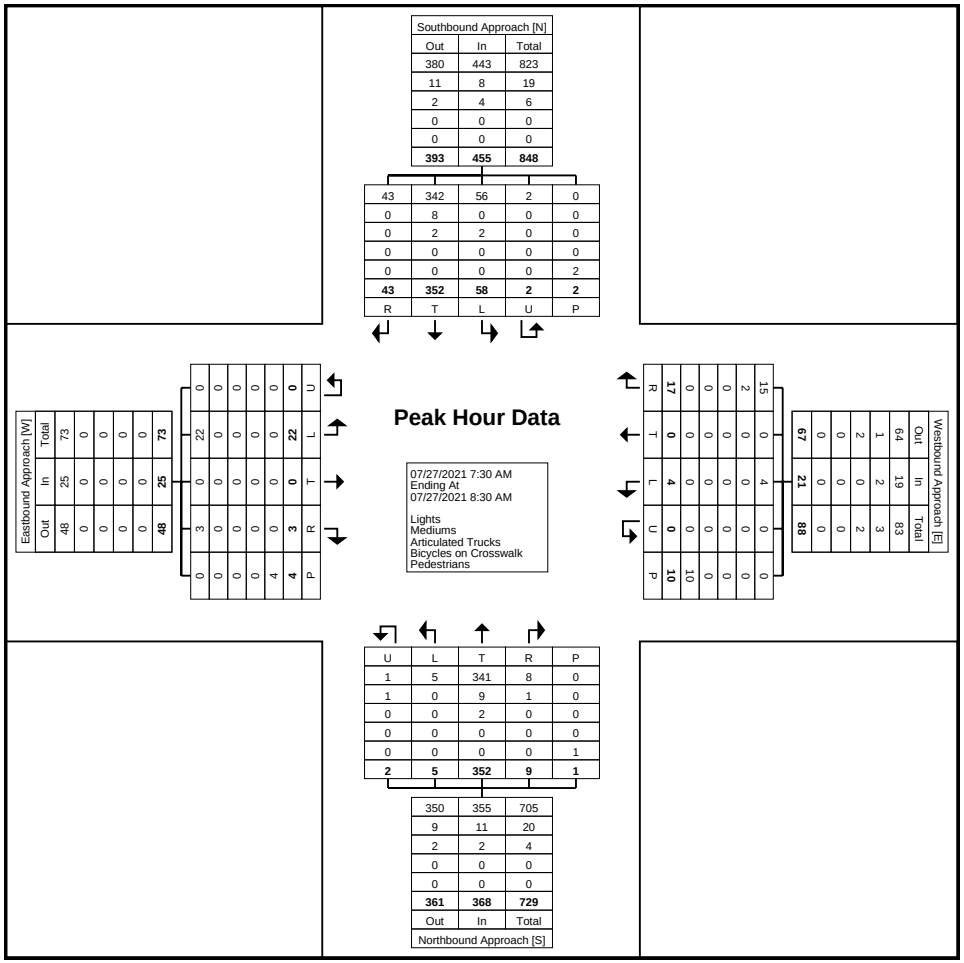
Site Code:
Start Date: 07/27/2021



Turning Movement Peak Hour Data Plot (7:30 AM)

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jkruse@lee-eng.com

Count Name: NM 309.01 Cien Aguas Charter School
Site Code:
Start Date: 07/27/2021

Turning Movement Peak Hour Data (4:15 PM)

Start Time	Southbound Approach Southbound						Westbound Approach Westbound						Northbound Approach Northbound						Eastbound Approach Eastbound						
	Right	Thru	Left	U-Turn	Peds	App. Total	Right	Thru	Left	U-Turn	Peds	App. Total	Right	Thru	Left	U-Turn	Peds	App. Total	Right	Thru	Left	U-Turn	Peds	App. Total	Int. Total
4:15 PM	1	124	11	0	0	136	6	1	0	0	1	7	4	146	0	3	1	153	0	0	11	0	1	11	307
4:30 PM	4	84	12	0	0	100	23	0	8	0	1	31	0	136	2	3	0	141	1	0	19	0	0	20	292
4:45 PM	3	106	3	0	0	112	13	0	1	0	2	14	0	168	0	1	1	169	3	0	9	0	1	12	307
5:00 PM	3	91	7	1	0	102	31	0	9	0	0	40	1	182	1	3	1	187	0	0	32	0	1	32	361
Total	11	405	33	1	0	450	73	1	18	0	4	92	5	632	3	10	3	650	4	0	71	0	3	75	1267
Approach %	2.4	90.0	7.3	0.2	-	-	79.3	1.1	19.6	0.0	-	-	0.8	97.2	0.5	1.5	-	-	5.3	0.0	94.7	0.0	-	-	-
Total %	0.9	32.0	2.6	0.1	-	35.5	5.8	0.1	1.4	0.0	-	7.3	0.4	49.9	0.2	0.8	-	51.3	0.3	0.0	5.6	0.0	-	5.9	-
PHF	0.688	0.817	0.688	0.250	-	0.827	0.589	0.250	0.500	0.000	-	0.575	0.313	0.868	0.375	0.833	-	0.869	0.333	0.000	0.555	0.000	-	0.586	0.877
Lights	11	394	31	1	-	437	70	0	16	0	-	86	3	626	3	10	-	642	4	0	70	0	-	74	1239
% Lights	100.0	97.3	93.9	100.0	-	97.1	95.9	0.0	88.9	-	-	93.5	60.0	99.1	100.0	100.0	-	98.8	100.0	-	98.6	-	-	98.7	97.8
Mediums	0	10	2	0	-	12	2	1	1	0	-	4	2	4	0	0	-	6	0	0	1	0	-	1	23
% Mediums	0.0	2.5	6.1	0.0	-	2.7	2.7	100.0	5.6	-	-	4.3	40.0	0.6	0.0	0.0	-	0.9	0.0	-	1.4	-	-	1.3	1.8
Articulated Trucks	0	1	0	0	-	1	1	0	1	0	-	2	0	2	0	0	-	2	0	0	0	0	-	0	5
% Articulated Trucks	0.0	0.2	0.0	0.0	-	0.2	1.4	0.0	5.6	-	-	2.2	0.0	0.3	0.0	0.0	-	0.3	0.0	-	0.0	-	-	0.0	0.4
Bicycles on Crosswalk	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-
% Bicycles on Crosswalk	-	-	-	-	-	-	-	-	-	-	0.0	-	-	-	-	-	0.0	-	-	-	-	-	0.0	-	-
Pedestrians	-	-	-	-	0	-	-	-	-	-	4	-	-	-	-	-	3	-	-	-	-	-	3	-	-
% Pedestrians	-	-	-	-	-	-	-	-	-	-	100.0	-	-	-	-	-	100.0	-	-	-	-	-	100.0	-	-

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Site Code:
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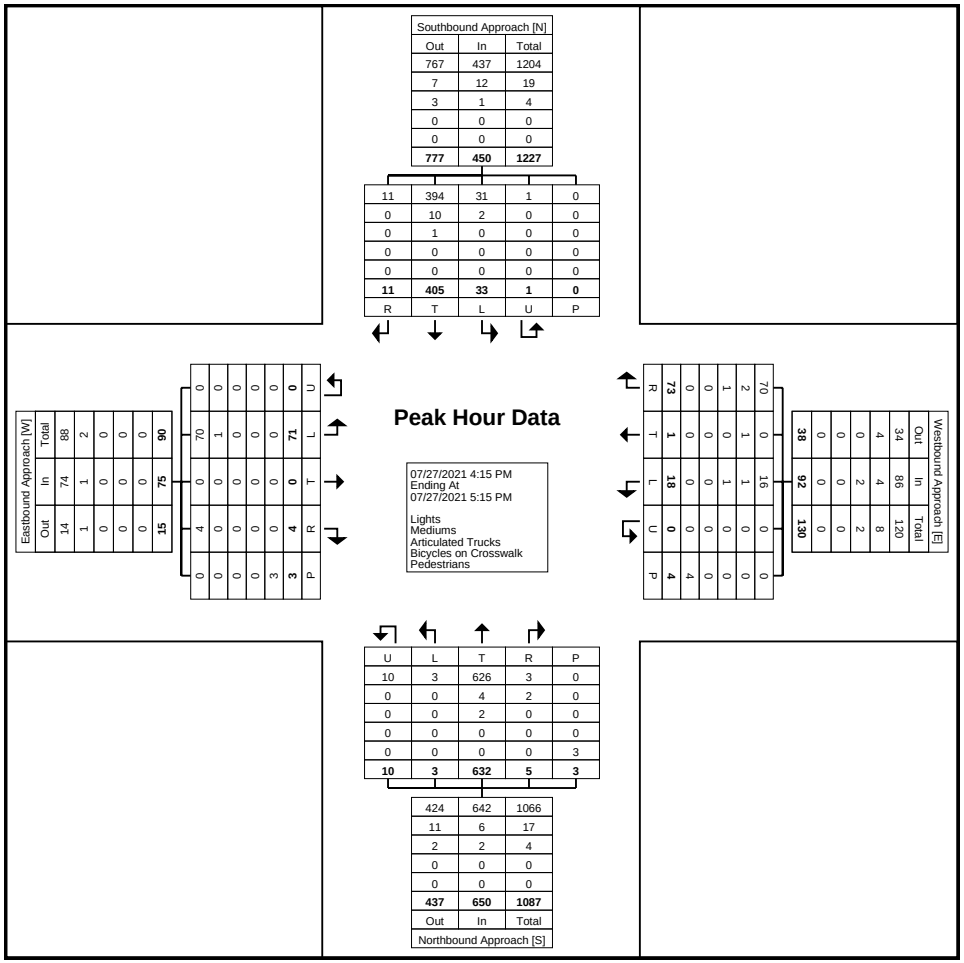

Turning Movement Peak Hour Data Plot (4:15 PM)

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Count Name: NM 309.01 Cien Aguas Charter School
Site Code:
Start Date: 07/27/2021

Turning Movement Data

Start Time	Southbound St. Southbound							Westbound St. Westbound							Northbound St. Northbound							Eastbound St. Eastbound							
	Right	Right on Red	Thru	Left	U-Turn	Peds	App. Total	Right	Right on Red	Thru	Left	U-Turn	Peds	App. Total	Right	Right on Red	Thru	Left	U-Turn	Peds	App. Total	Right	Right on Red	Thru	Left	U-Turn	Peds	App. Total	Int. Total
6:00 AM	22	4	23	2	0	0	51	0	0	0	0	0	0	0	0	0	18	1	0	0	19	0	0	2	26	0	0	28	98
6:15 AM	20	5	17	2	0	0	44	0	0	0	0	0	1	0	0	0	14	1	0	0	15	1	1	2	30	0	0	34	93
6:30 AM	26	10	13	3	0	1	52	0	0	0	0	0	0	0	0	0	19	2	0	0	21	1	1	1	33	0	1	36	109
6:45 AM	26	16	18	7	0	0	67	0	0	0	0	0	2	0	0	0	20	3	0	0	23	4	1	4	65	0	0	74	164
Hourly Total	94	35	71	14	0	1	214	0	0	0	0	0	3	0	0	0	71	7	0	0	78	6	3	9	154	0	1	172	464
7:00 AM	24	10	10	7	0	0	51	0	0	0	0	0	0	0	0	0	21	2	0	0	23	1	1	2	56	0	0	60	134
7:15 AM	20	12	11	4	0	0	47	0	0	0	0	0	1	0	0	0	14	4	0	1	18	2	0	0	71	0	1	73	138
7:30 AM	33	8	11	6	1	1	59	0	1	1	0	0	0	2	0	0	20	3	0	0	23	0	0	2	86	0	1	88	172
7:45 AM	30	19	26	5	0	0	80	0	2	0	1	0	0	3	0	1	13	3	1	0	18	2	2	6	61	0	2	71	172
Hourly Total	107	49	58	22	1	1	237	0	3	1	1	0	1	5	0	1	68	12	1	1	82	5	3	10	274	0	4	292	616
8:00 AM	32	17	12	7	0	0	68	1	0	0	0	0	2	1	1	0	30	6	0	3	37	0	2	0	34	0	0	36	142
8:15 AM	36	14	15	4	0	0	69	1	0	1	0	0	0	2	0	0	22	7	0	0	29	2	2	1	52	0	0	57	157
8:30 AM	32	11	15	4	0	0	62	0	1	0	0	0	0	1	0	0	18	3	0	0	21	3	1	0	50	0	0	54	138
8:45 AM	34	4	17	4	0	0	59	0	1	0	0	0	4	1	0	0	29	4	1	0	34	2	1	1	56	0	0	60	154
Hourly Total	134	46	59	19	0	0	258	2	2	1	0	0	6	5	1	0	99	20	1	3	121	7	6	2	192	0	0	207	591
9:00 AM	22	6	28	1	1	0	58	0	1	0	0	0	0	1	1	0	23	4	0	2	28	1	2	1	45	0	0	49	136
9:15 AM	31	11	22	2	1	0	67	1	0	0	0	0	0	1	0	0	28	0	0	1	28	1	2	0	47	0	0	50	146
9:30 AM	27	8	14	2	1	0	52	1	1	0	0	0	0	2	0	0	30	4	0	0	34	2	3	1	55	0	0	61	149
9:45 AM	23	7	27	3	0	0	60	0	0	0	0	0	0	0	0	0	22	5	0	0	27	2	2	0	36	0	0	40	127
Hourly Total	103	32	91	8	3	0	237	2	2	0	0	0	0	4	1	0	103	13	0	3	117	6	9	2	183	0	0	200	558
*** BREAK ***	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1:00 PM	44	16	29	1	0	0	90	0	0	0	0	0	2	0	0	0	79	4	0	0	83	4	0	0	66	0	1	70	243
1:15 PM	52	25	28	3	0	0	108	0	1	0	0	0	0	1	0	0	45	2	0	1	47	2	1	0	76	0	0	79	235
1:30 PM	38	19	19	2	0	0	78	2	2	0	0	0	0	4	2	0	33	5	3	0	43	1	2	1	58	0	0	62	187
1:45 PM	43	12	29	5	2	0	91	0	4	0	0	0	0	4	0	0	41	7	0	1	48	0	4	0	63	0	0	67	210
Hourly Total	177	72	105	11	2	0	367	2	7	0	0	0	2	9	2	0	198	18	3	2	221	7	7	1	263	0	1	278	875
2:00 PM	31	21	20	2	0	0	74	0	1	3	0	0	1	4	0	0	42	2	0	0	44	2	0	2	50	0	0	54	176
2:15 PM	38	18	23	1	1	0	81	1	2	3	0	0	0	6	0	0	43	3	1	0	47	1	0	0	47	0	0	48	182
2:30 PM	55	16	29	4	1	0	105	1	3	2	0	0	0	6	0	0	41	7	1	0	49	2	1	2	58	0	1	63	223
2:45 PM	41	13	26	2	0	0	82	1	3	1	0	0	0	5	0	0	34	4	0	0	38	1	2	1	66	0	0	70	195
Hourly Total	165	68	98	9	2	0	342	3	9	9	0	0	1	21	0	0	160	16	2	0	178	6	3	5	221	0	1	235	776
3:00 PM	44	18	13	2	0	0	77	4	2	4	0	0	0	10	1	0	38	5	0	0	44	0	0	0	68	0	0	68	199
3:15 PM	50	17	21	0	0	1	88	2	0	2	0	0	0	4	0	0	27	3	1	0	31	3	1	0	70	0	0	74	197
3:30 PM	53	17	20	0	0	0	90	1	0	3	0	0	0	4	0	0	56	4	1	0	61	3	0	1	75	0	0	79	234
3:45 PM	50	13	41	1	0	0	105	0	1	0	0	0	0	1	0	0	38	4	0	0	42	2	1	0	62	0	0	65	213

Hourly Total	197	65	95	3	0	1	360	7	3	9	0	0	0	19	1	0	159	16	2	0	178	8	2	1	275	0	0	286	843
4:00 PM	34	32	24	3	2	0	95	1	2	2	0	0	0	5	1	0	35	6	1	0	43	3	0	0	78	0	0	81	224
4:15 PM	54	23	37	0	0	0	114	1	5	0	0	0	1	6	0	0	27	0	0	0	27	1	1	1	98	0	0	101	248
4:30 PM	40	16	34	0	0	0	90	0	2	2	0	0	1	4	0	0	38	7	0	0	45	1	2	0	75	0	0	78	217
4:45 PM	45	21	34	1	1	0	102	0	2	0	0	0	0	2	0	0	65	2	0	0	67	3	1	0	97	0	0	101	272
Hourly Total	173	92	129	4	3	0	401	2	11	4	0	0	2	17	1	0	165	15	1	0	182	8	4	1	348	0	0	361	961
5:00 PM	60	26	21	0	1	0	108	0	2	0	0	0	0	2	0	0	53	1	0	0	54	1	0	1	84	0	0	86	250
5:15 PM	49	22	26	0	1	0	98	0	1	2	0	0	2	3	0	0	20	2	0	1	22	2	0	0	72	0	0	74	197
5:30 PM	47	22	29	0	0	0	98	0	0	2	0	0	0	2	0	0	46	5	0	0	51	0	1	0	64	0	0	65	216
5:45 PM	33	13	23	0	2	0	71	0	0	0	0	0	0	0	0	0	36	6	2	0	44	0	1	0	67	0	0	68	183
Hourly Total	189	83	99	0	4	0	375	0	3	4	0	0	2	7	0	0	155	14	2	1	171	3	2	1	287	0	0	293	846
Grand Total	1339	542	805	90	15	3	2791	18	40	28	1	0	17	87	6	1	1178	131	12	10	1328	56	39	32	2197	0	7	2324	6530
Approach %	48.0	19.4	28.8	3.2	0.5	-	-	20.7	46.0	32.2	1.1	0.0	-	-	0.5	0.1	88.7	9.9	0.9	-	-	2.4	1.7	1.4	94.5	0.0	-	-	-
Total %	20.5	8.3	12.3	1.4	0.2	-	42.7	0.3	0.6	0.4	0.0	0.0	-	1.3	0.1	0.0	18.0	2.0	0.2	-	20.3	0.9	0.6	0.5	33.6	0.0	-	35.6	-
Lights	1307	527	775	88	15	-	2712	18	39	28	1	0	-	86	6	1	1148	126	12	-	1293	52	37	32	2136	0	-	2257	6348
% Lights	97.6	97.2	96.3	97.8	100.0	-	97.2	100.0	97.5	100.0	100.0	-	-	98.9	100.0	100.0	97.5	96.2	100.0	-	97.4	92.9	94.9	100.0	97.2	-	-	97.1	97.2
Mediums	27	10	28	2	0	-	67	0	1	0	0	0	-	1	0	0	29	5	0	-	34	3	2	0	53	0	-	58	160
% Mediums	2.0	1.8	3.5	2.2	0.0	-	2.4	0.0	2.5	0.0	0.0	-	-	1.1	0.0	0.0	2.5	3.8	0.0	-	2.6	5.4	5.1	0.0	2.4	-	-	2.5	2.5
Articulated Trucks	5	5	2	0	0	-	12	0	0	0	0	0	-	0	0	0	1	0	0	-	1	1	0	0	8	0	-	9	22
% Articulated Trucks	0.4	0.9	0.2	0.0	0.0	-	0.4	0.0	0.0	0.0	0.0	-	-	0.0	0.0	0.0	0.1	0.0	0.0	-	0.1	1.8	0.0	0.0	0.4	-	-	0.4	0.3
Bicycles on Crosswalk	-	-	-	-	-	1	-	-	-	-	-	-	0	-	-	-	-	-	-	2	-	-	-	-	-	-	0	-	-
% Bicycles on Crosswalk	-	-	-	-	-	33.3	-	-	-	-	-	-	0.0	-	-	-	-	-	-	20.0	-	-	-	-	-	-	0.0	-	-
Pedestrians	-	-	-	-	-	2	-	-	-	-	-	-	17	-	-	-	-	-	-	8	-	-	-	-	-	-	7	-	-
% Pedestrians	-	-	-	-	-	66.7	-	-	-	-	-	-	100.0	-	-	-	-	-	-	80.0	-	-	-	-	-	-	100.0	-	-

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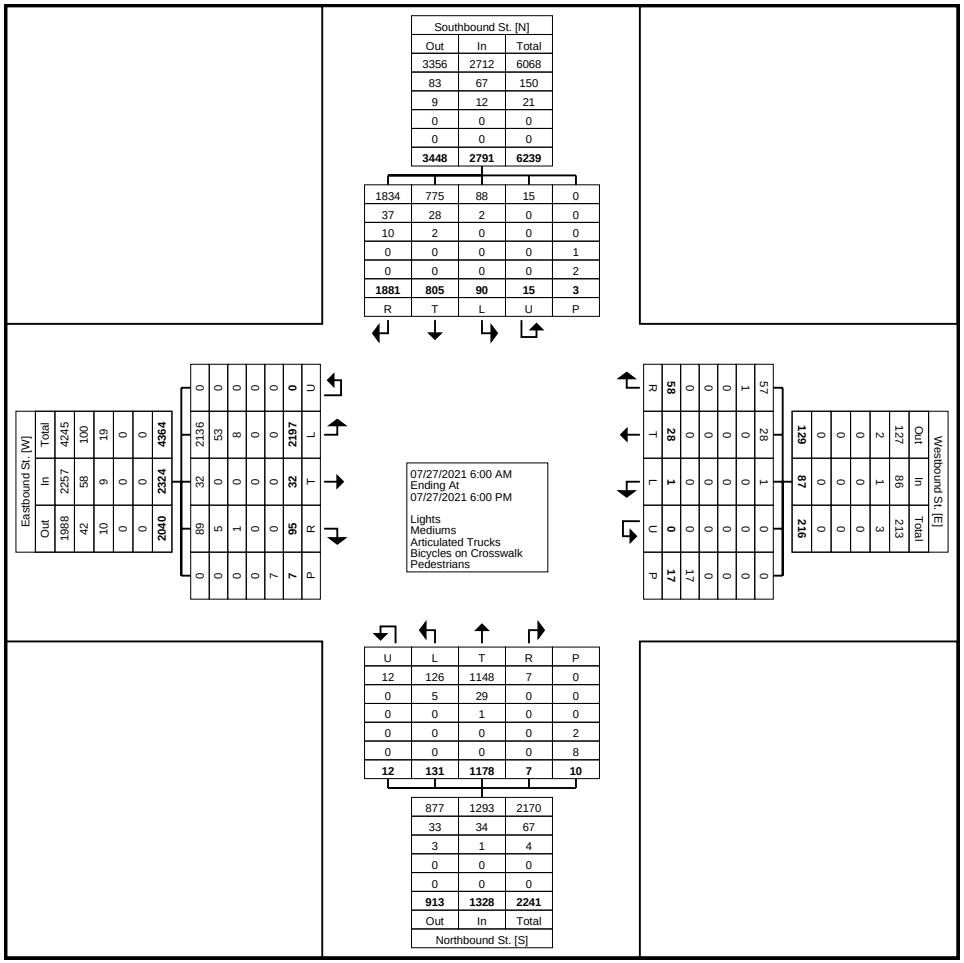
Site Code:
Start Date: 07/27/2021



Turning Movement Data Plot

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Albuquerque, New Mexico, United States
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Count Name: NM 309.01 Cien Aguas Charter School
Site Code:
Start Date: 07/27/2021

Turning Movement Peak Hour Data (7:30 AM)

Start Time	Southbound St. Southbound							Westbound St. Westbound							Northbound St. Northbound							Eastbound St. Eastbound							
	Right	Right on Red	Thru	Left	U-Turn	Peds	App. Total	Right	Right on Red	Thru	Left	U-Turn	Peds	App. Total	Right	Right on Red	Thru	Left	U-Turn	Peds	App. Total	Right	Right on Red	Thru	Left	U-Turn	Peds	App. Total	Int. Total
7:30 AM	33	8	11	6	1	1	59	0	1	1	0	0	0	2	0	0	20	3	0	0	23	0	0	2	86	0	1	88	172
7:45 AM	30	19	26	5	0	0	80	0	2	0	1	0	0	3	0	1	13	3	1	0	18	2	2	6	61	0	2	71	172
8:00 AM	32	17	12	7	0	0	68	1	0	0	0	0	2	1	1	0	30	6	0	3	37	0	2	0	34	0	0	36	142
8:15 AM	36	14	15	4	0	0	69	1	0	1	0	0	0	2	0	0	22	7	0	0	29	2	2	1	52	0	0	57	157
Total	131	58	64	22	1	1	276	2	3	2	1	0	2	8	1	1	85	19	1	3	107	4	6	9	233	0	3	252	643
Approach %	47.5	21.0	23.2	8.0	0.4	-	-	25.0	37.5	25.0	12.5	0.0	-	-	0.9	0.9	79.4	17.8	0.9	-	-	1.6	2.4	3.6	92.5	0.0	-	-	-
Total %	20.4	9.0	10.0	3.4	0.2	-	42.9	0.3	0.5	0.3	0.2	0.0	-	1.2	0.2	0.2	13.2	3.0	0.2	-	16.6	0.6	0.9	1.4	36.2	0.0	-	39.2	-
PHF	0.910	0.763	0.615	0.786	0.250	-	0.863	0.500	0.375	0.500	0.250	0.000	-	0.667	0.250	0.250	0.708	0.679	0.250	-	0.723	0.500	0.750	0.375	0.677	0.000	-	0.716	0.935
Lights	128	57	58	21	1	-	265	2	3	2	1	0	-	8	1	1	77	19	1	-	99	3	5	9	227	0	-	244	616
% Lights	97.7	98.3	90.6	95.5	100.0	-	96.0	100.0	100.0	100.0	100.0	-	-	100.0	100.0	100.0	90.6	100.0	100.0	-	92.5	75.0	83.3	100.0	97.4	-	-	96.8	95.8
Mediums	2	0	5	1	0	-	8	0	0	0	0	0	-	0	0	0	7	0	0	-	7	0	1	0	6	0	-	7	22
% Mediums	1.5	0.0	7.8	4.5	0.0	-	2.9	0.0	0.0	0.0	0.0	-	-	0.0	0.0	0.0	8.2	0.0	0.0	-	6.5	0.0	16.7	0.0	2.6	-	-	2.8	3.4
Articulated Trucks	1	1	1	0	0	-	3	0	0	0	0	0	-	0	0	0	1	0	0	-	1	1	0	0	0	0	-	1	5
% Articulated Trucks	0.8	1.7	1.6	0.0	0.0	-	1.1	0.0	0.0	0.0	0.0	-	-	0.0	0.0	0.0	1.2	0.0	0.0	-	0.9	25.0	0.0	0.0	0.0	-	-	0.4	0.8
Bicycles on Crosswalk	-	-	-	-	-	0	-	-	-	-	-	-	0	-	-	-	-	-	-	1	-	-	-	-	-	-	0	-	-
% Bicycles on Crosswalk	-	-	-	-	-	0.0	-	-	-	-	-	-	0.0	-	-	-	-	-	-	33.3	-	-	-	-	-	-	0.0	-	-
Pedestrians	-	-	-	-	-	1	-	-	-	-	-	-	2	-	-	-	-	-	-	2	-	-	-	-	-	-	3	-	-
% Pedestrians	-	-	-	-	-	100.0	-	-	-	-	-	-	100.0	-	-	-	-	-	-	66.7	-	-	-	-	-	-	100.0	-	-

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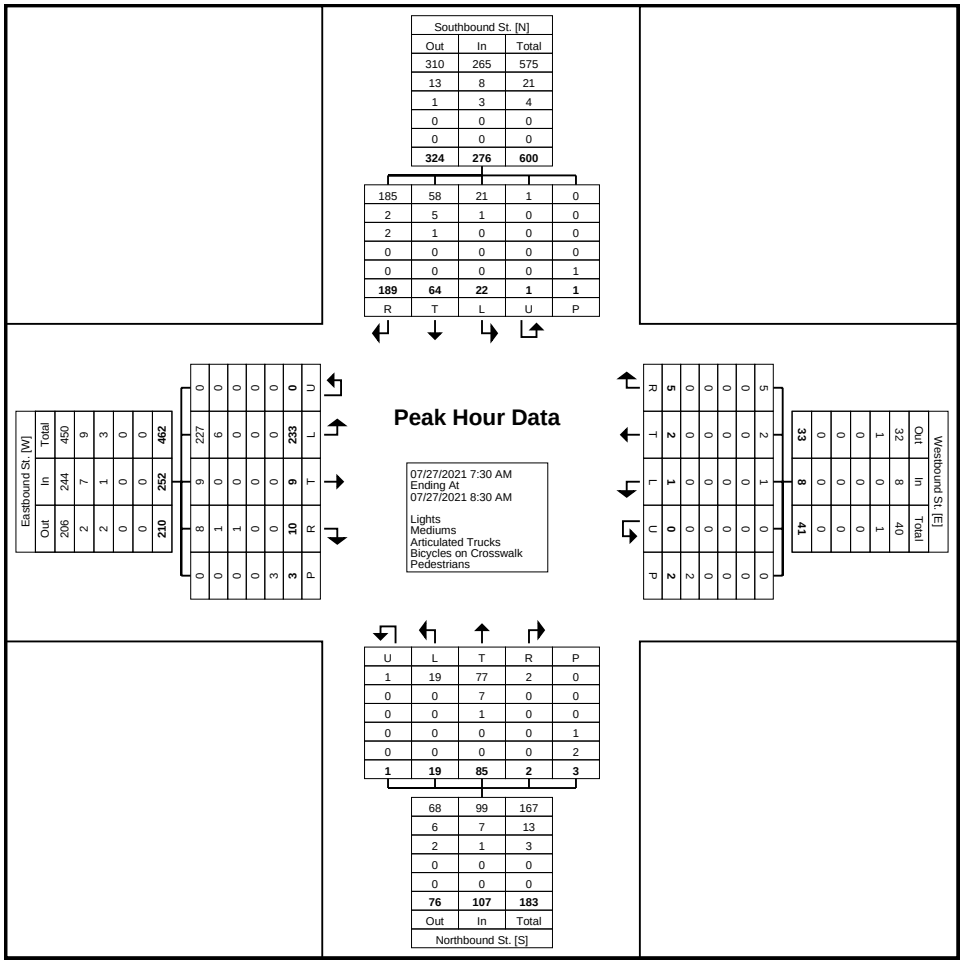
Site Code:
Start Date: 07/27/2021



Turning Movement Peak Hour Data Plot (7:30 AM)

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Count Name: NM 309.01 Cien Aguas Charter School
Site Code:
Start Date: 07/27/2021

Turning Movement Peak Hour Data (4:15 PM)

Start Time	Southbound St. Southbound							Westbound St. Westbound							Northbound St. Northbound							Eastbound St. Eastbound							
	Right	Right on Red	Thru	Left	U-Turn	Peds	App. Total	Right	Right on Red	Thru	Left	U-Turn	Peds	App. Total	Right	Right on Red	Thru	Left	U-Turn	Peds	App. Total	Right	Right on Red	Thru	Left	U-Turn	Peds	App. Total	Int. Total
4:15 PM	54	23	37	0	0	0	114	1	5	0	0	0	1	6	0	0	27	0	0	0	27	1	1	1	98	0	0	101	248
4:30 PM	40	16	34	0	0	0	90	0	2	2	0	0	1	4	0	0	38	7	0	0	45	1	2	0	75	0	0	78	217
4:45 PM	45	21	34	1	1	0	102	0	2	0	0	0	0	2	0	0	65	2	0	0	67	3	1	0	97	0	0	101	272
5:00 PM	60	26	21	0	1	0	108	0	2	0	0	0	0	2	0	0	53	1	0	0	54	1	0	1	84	0	0	86	250
Total	199	86	126	1	2	0	414	1	11	2	0	0	2	14	0	0	183	10	0	0	193	6	4	2	354	0	0	366	987
Approach %	48.1	20.8	30.4	0.2	0.5	-	-	7.1	78.6	14.3	0.0	0.0	-	-	0.0	0.0	94.8	5.2	0.0	-	-	1.6	1.1	0.5	96.7	0.0	-	-	-
Total %	20.2	8.7	12.8	0.1	0.2	-	41.9	0.1	1.1	0.2	0.0	0.0	-	1.4	0.0	0.0	18.5	1.0	0.0	-	19.6	0.6	0.4	0.2	35.9	0.0	-	37.1	-
PHF	0.829	0.827	0.851	0.250	0.500	-	0.908	0.250	0.550	0.250	0.000	0.000	-	0.583	0.000	0.000	0.704	0.357	0.000	-	0.720	0.500	0.500	0.500	0.903	0.000	-	0.906	0.907
Lights	196	84	124	1	2	-	407	1	11	2	0	0	-	14	0	0	179	10	0	-	189	6	4	2	348	0	-	360	970
% Lights	98.5	97.7	98.4	100.0	100.0	-	98.3	100.0	100.0	100.0	-	-	-	100.0	-	-	97.8	100.0	-	-	97.9	100.0	100.0	100.0	98.3	-	-	98.4	98.3
Mediums	2	2	2	0	0	-	6	0	0	0	0	0	-	0	0	0	4	0	0	-	4	0	0	0	4	0	-	4	14
% Mediums	1.0	2.3	1.6	0.0	0.0	-	1.4	0.0	0.0	0.0	-	-	-	0.0	-	-	2.2	0.0	-	-	2.1	0.0	0.0	0.0	1.1	-	-	1.1	1.4
Articulated Trucks	1	0	0	0	0	-	1	0	0	0	0	0	-	0	0	0	0	0	0	-	0	0	0	0	2	0	-	2	3
% Articulated Trucks	0.5	0.0	0.0	0.0	0.0	-	0.2	0.0	0.0	0.0	-	-	-	0.0	-	-	0.0	0.0	-	-	0.0	0.0	0.0	0.0	0.6	-	-	0.5	0.3
Bicycles on Crosswalk	-	-	-	-	-	0	-	-	-	-	-	-	0	-	-	-	-	-	-	0	-	-	-	-	-	-	0	-	-
% Bicycles on Crosswalk	-	-	-	-	-	-	-	-	-	-	-	-	0.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Pedestrians	-	-	-	-	-	0	-	-	-	-	-	-	2	-	-	-	-	-	-	0	-	-	-	-	-	-	0	-	-
% Pedestrians	-	-	-	-	-	-	-	-	-	-	-	-	100.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

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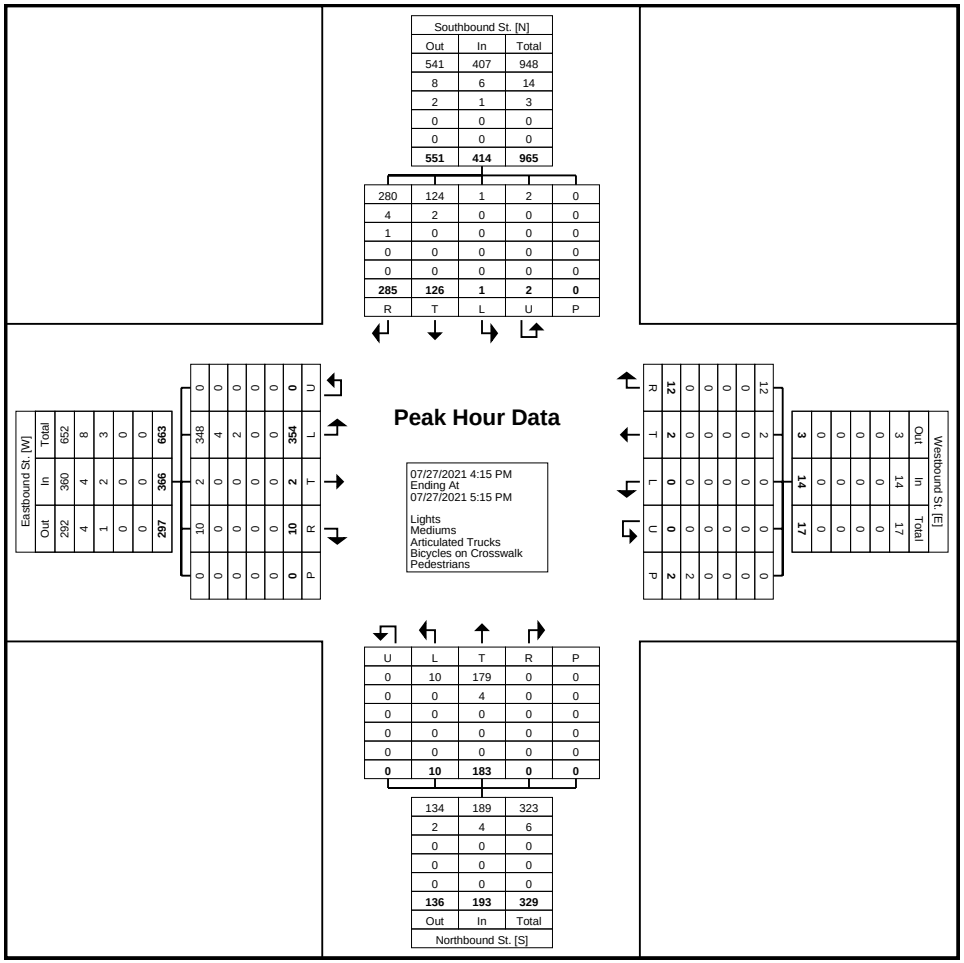

Turning Movement Peak Hour Data Plot (4:15 PM)

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Count Name: NM 309.01 Cien Aguas Charter School
Site Code:
Start Date: 07/27/2021

Turning Movement Data

Start Time	Southbound Approach Southbound					Westbound Approach Westbound					Eastbound Approach Eastbound					
	Right	Left	U-Turn	Peds	App. Total	Right	Thru	U-Turn	Peds	App. Total	Thru	Left	U-Turn	Peds	App. Total	Int. Total
6:00 AM	1	1	0	0	2	2	24	0	0	26	26	7	0	0	33	61
6:15 AM	2	0	0	0	2	0	25	0	0	25	31	7	0	0	38	65
6:30 AM	1	1	0	0	2	1	36	0	0	37	37	7	0	0	44	83
6:45 AM	4	0	0	0	4	0	48	0	0	48	62	5	0	0	67	119
Hourly Total	8	2	0	0	10	3	133	0	0	136	156	26	0	0	182	328
7:00 AM	6	0	0	0	6	1	34	0	0	35	67	6	0	0	73	114
7:15 AM	9	0	0	1	9	2	36	0	0	38	62	5	0	0	67	114
7:30 AM	4	1	0	2	5	1	36	0	0	37	82	11	0	0	93	135
7:45 AM	5	4	0	0	9	0	52	0	0	52	81	7	0	0	88	149
Hourly Total	24	5	0	3	29	4	158	0	0	162	292	29	0	0	321	512
8:00 AM	4	3	0	1	7	1	53	0	0	54	43	6	0	0	49	110
8:15 AM	4	0	0	2	4	1	48	0	0	49	67	12	0	0	79	132
8:30 AM	9	2	0	0	11	3	49	0	0	52	51	4	0	0	55	118
8:45 AM	1	2	1	0	4	1	39	0	0	40	58	1	0	0	59	103
Hourly Total	18	7	1	3	26	6	189	0	0	195	219	23	0	0	242	463
9:00 AM	3	0	0	2	3	1	32	0	0	33	49	5	0	0	54	90
9:15 AM	3	0	0	0	3	0	40	0	0	40	43	6	0	0	49	92
9:30 AM	4	1	2	0	7	0	42	0	0	42	68	4	0	0	72	121
9:45 AM	7	3	0	0	10	0	37	0	0	37	40	8	0	0	48	95
Hourly Total	17	4	2	2	23	1	151	0	0	152	200	23	0	0	223	398
*** BREAK ***	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1:00 PM	6	4	0	0	10	1	52	0	0	53	66	6	0	0	72	135
1:15 PM	5	3	0	0	8	0	73	0	0	73	74	4	0	0	78	159
1:30 PM	4	3	0	0	7	0	59	0	0	59	56	6	0	0	62	128
1:45 PM	7	3	0	0	10	1	65	0	0	66	64	5	0	0	69	145
Hourly Total	22	13	0	0	35	2	249	0	0	251	260	21	0	0	281	567
2:00 PM	5	2	0	0	7	1	56	0	0	57	59	3	0	0	62	126
2:15 PM	10	0	0	0	10	2	56	0	0	58	48	4	0	0	52	120
2:30 PM	5	2	0	1	7	2	75	0	0	77	56	0	0	0	56	140
2:45 PM	6	1	0	0	7	0	63	0	0	63	68	3	0	0	71	141
Hourly Total	26	5	0	1	31	5	250	0	0	255	231	10	0	0	241	527
3:00 PM	7	1	0	1	8	1	63	0	0	64	69	1	0	0	70	142
3:15 PM	6	3	0	3	9	2	68	0	0	70	66	1	0	0	67	146
3:30 PM	20	3	0	0	23	2	69	0	0	71	79	4	1	0	84	178
3:45 PM	17	2	0	0	19	0	75	0	0	75	60	3	0	0	63	157
Hourly Total	50	9	0	4	59	5	275	0	0	280	274	9	1	0	284	623

4:00 PM	19	0	0	0	19	2	75	0	0	77	76	4	0	0	80	176
4:15 PM	10	0	0	0	10	0	81	0	0	81	94	0	0	0	94	185
4:30 PM	13	2	0	0	15	1	63	0	0	64	81	3	0	0	84	163
4:45 PM	11	3	0	0	14	0	72	0	0	72	89	4	0	0	93	179
Hourly Total	53	5	0	0	58	3	291	0	0	294	340	11	0	0	351	703
5:00 PM	15	4	0	0	19	0	79	0	0	79	92	4	0	0	96	194
5:15 PM	16	1	0	0	17	0	78	0	0	78	73	1	1	0	75	170
5:30 PM	10	2	0	0	12	0	77	0	0	77	63	2	0	0	65	154
5:45 PM	8	0	0	0	8	0	42	1	0	43	67	1	0	0	68	119
Hourly Total	49	7	0	0	56	0	276	1	0	277	295	8	1	0	304	637
Grand Total	267	57	3	13	327	29	1972	1	0	2002	2267	160	2	0	2429	4758
Approach %	81.7	17.4	0.9	-	-	1.4	98.5	0.0	-	-	93.3	6.6	0.1	-	-	-
Total %	5.6	1.2	0.1	-	6.9	0.6	41.4	0.0	-	42.1	47.6	3.4	0.0	-	51.1	-
Lights	262	56	1	-	319	28	1921	1	-	1950	2210	156	2	-	2368	4637
% Lights	98.1	98.2	33.3	-	97.6	96.6	97.4	100.0	-	97.4	97.5	97.5	100.0	-	97.5	97.5
Mediums	5	0	2	-	7	1	40	0	-	41	51	4	0	-	55	103
% Mediums	1.9	0.0	66.7	-	2.1	3.4	2.0	0.0	-	2.0	2.2	2.5	0.0	-	2.3	2.2
Articulated Trucks	0	1	0	-	1	0	11	0	-	11	6	0	0	-	6	18
% Articulated Trucks	0.0	1.8	0.0	-	0.3	0.0	0.6	0.0	-	0.5	0.3	0.0	0.0	-	0.2	0.4
Bicycles on Crosswalk	-	-	-	1	-	-	-	-	0	-	-	-	-	0	-	-
% Bicycles on Crosswalk	-	-	-	7.7	-	-	-	-	-	-	-	-	-	-	-	-
Pedestrians	-	-	-	12	-	-	-	-	0	-	-	-	-	0	-	-
% Pedestrians	-	-	-	92.3	-	-	-	-	-	-	-	-	-	-	-	-

Lee Engineering, LLC
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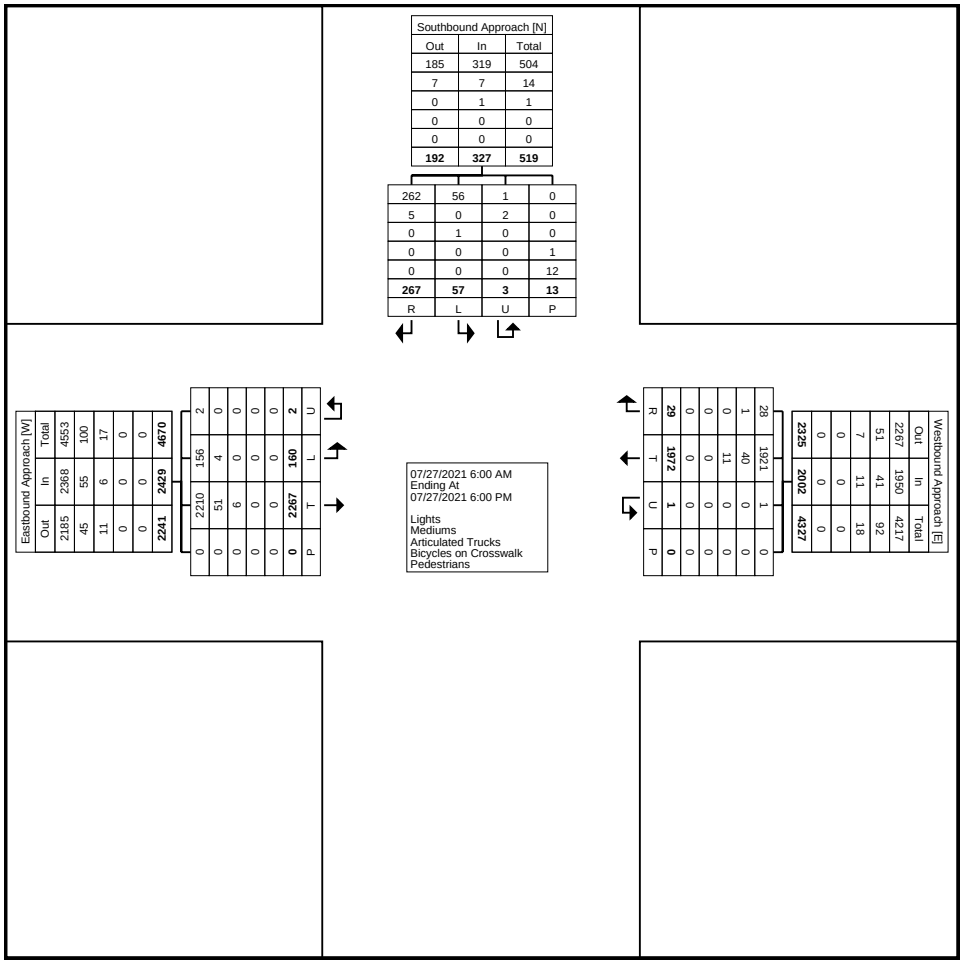
Count Name: NM 309.01 Cien Aguas Charter School
Site Code:
Start Date: 07/27/2021



Turning Movement Data Plot

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Albuquerque, New Mexico, United States
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Count Name: NM 309.01 Cien Aguas Charter School
Site Code:
Start Date: 07/27/2021

Turning Movement Peak Hour Data (7:30 AM)

Start Time	Southbound Approach Southbound Right	Left	U-Turn	Peds	App. Total	Westbound Approach Westbound Right	Thru	U-Turn	Peds	App. Total	Eastbound Approach Eastbound Thru	Left	U-Turn	Peds	App. Total	Int. Total
7:30 AM	4	1	0	2	5	1	36	0	0	37	82	11	0	0	93	135
7:45 AM	5	4	0	0	9	0	52	0	0	52	81	7	0	0	88	149
8:00 AM	4	3	0	1	7	1	53	0	0	54	43	6	0	0	49	110
8:15 AM	4	0	0	2	4	1	48	0	0	49	67	12	0	0	79	132
Total	17	8	0	5	25	3	189	0	0	192	273	36	0	0	309	526
Approach %	68.0	32.0	0.0	-	-	1.6	98.4	0.0	-	-	88.3	11.7	0.0	-	-	-
Total %	3.2	1.5	0.0	-	4.8	0.6	35.9	0.0	-	36.5	51.9	6.8	0.0	-	58.7	-
PHF	0.850	0.500	0.000	-	0.694	0.750	0.892	0.000	-	0.889	0.832	0.750	0.000	-	0.831	0.883
Lights	17	8	0	-	25	3	185	0	-	188	266	36	0	-	302	515
% Lights	100.0	100.0	-	-	100.0	100.0	97.9	-	-	97.9	97.4	100.0	-	-	97.7	97.9
Mediums	0	0	0	-	0	0	3	0	-	3	6	0	0	-	6	9
% Mediums	0.0	0.0	-	-	0.0	0.0	1.6	-	-	1.6	2.2	0.0	-	-	1.9	1.7
Articulated Trucks	0	0	0	-	0	0	1	0	-	1	1	0	0	-	1	2
% Articulated Trucks	0.0	0.0	-	-	0.0	0.0	0.5	-	-	0.5	0.4	0.0	-	-	0.3	0.4
Bicycles on Crosswalk	-	-	-	0	-	-	-	-	0	-	-	-	-	0	-	-
% Bicycles on Crosswalk	-	-	-	0.0	-	-	-	-	-	-	-	-	-	-	-	-
Pedestrians	-	-	-	5	-	-	-	-	0	-	-	-	-	0	-	-
% Pedestrians	-	-	-	100.0	-	-	-	-	-	-	-	-	-	-	-	-

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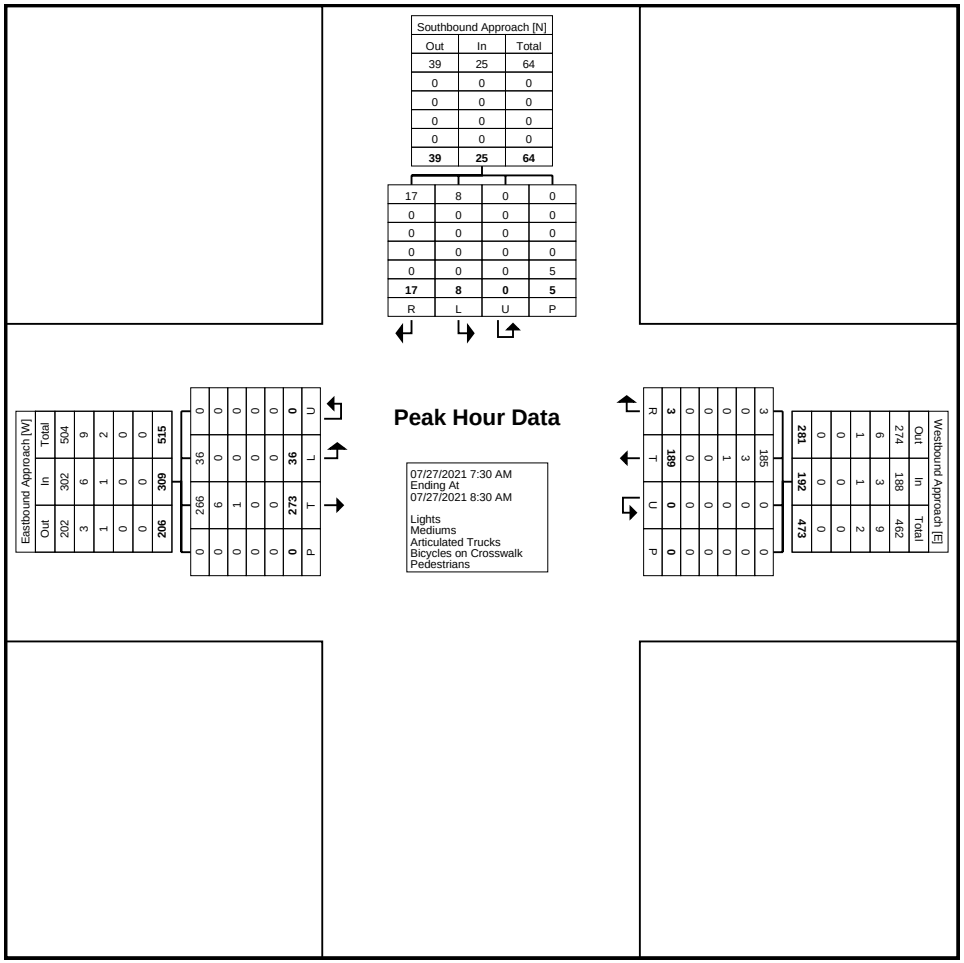
Site Code:
Start Date: 07/27/2021



Turning Movement Peak Hour Data Plot (7:30 AM)

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Count Name: NM 309.01 Cien Aguas Charter School
Site Code:
Start Date: 07/27/2021

Turning Movement Peak Hour Data (4:15 PM)

Start Time	Southbound Approach Southbound					Westbound Approach Westbound					Eastbound Approach Eastbound					
	Right	Left	U-Turn	Peds	App. Total	Right	Thru	U-Turn	Peds	App. Total	Thru	Left	U-Turn	Peds	App. Total	Int. Total
4:15 PM	10	0	0	0	10	0	81	0	0	81	94	0	0	0	94	185
4:30 PM	13	2	0	0	15	1	63	0	0	64	81	3	0	0	84	163
4:45 PM	11	3	0	0	14	0	72	0	0	72	89	4	0	0	93	179
5:00 PM	15	4	0	0	19	0	79	0	0	79	92	4	0	0	96	194
Total	49	9	0	0	58	1	295	0	0	296	356	11	0	0	367	721
Approach %	84.5	15.5	0.0	-	-	0.3	99.7	0.0	-	-	97.0	3.0	0.0	-	-	-
Total %	6.8	1.2	0.0	-	8.0	0.1	40.9	0.0	-	41.1	49.4	1.5	0.0	-	50.9	-
PHF	0.817	0.563	0.000	-	0.763	0.250	0.910	0.000	-	0.914	0.947	0.688	0.000	-	0.956	0.929
Lights	49	9	0	-	58	1	288	0	-	289	352	11	0	-	363	710
% Lights	100.0	100.0	-	-	100.0	100.0	97.6	-	-	97.6	98.9	100.0	-	-	98.9	98.5
Mediums	0	0	0	-	0	0	4	0	-	4	3	0	0	-	3	7
% Mediums	0.0	0.0	-	-	0.0	0.0	1.4	-	-	1.4	0.8	0.0	-	-	0.8	1.0
Articulated Trucks	0	0	0	-	0	0	3	0	-	3	1	0	0	-	1	4
% Articulated Trucks	0.0	0.0	-	-	0.0	0.0	1.0	-	-	1.0	0.3	0.0	-	-	0.3	0.6
Bicycles on Crosswalk	-	-	-	0	-	-	-	-	0	-	-	-	-	0	-	-
% Bicycles on Crosswalk	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Pedestrians	-	-	-	0	-	-	-	-	0	-	-	-	-	0	-	-
% Pedestrians	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

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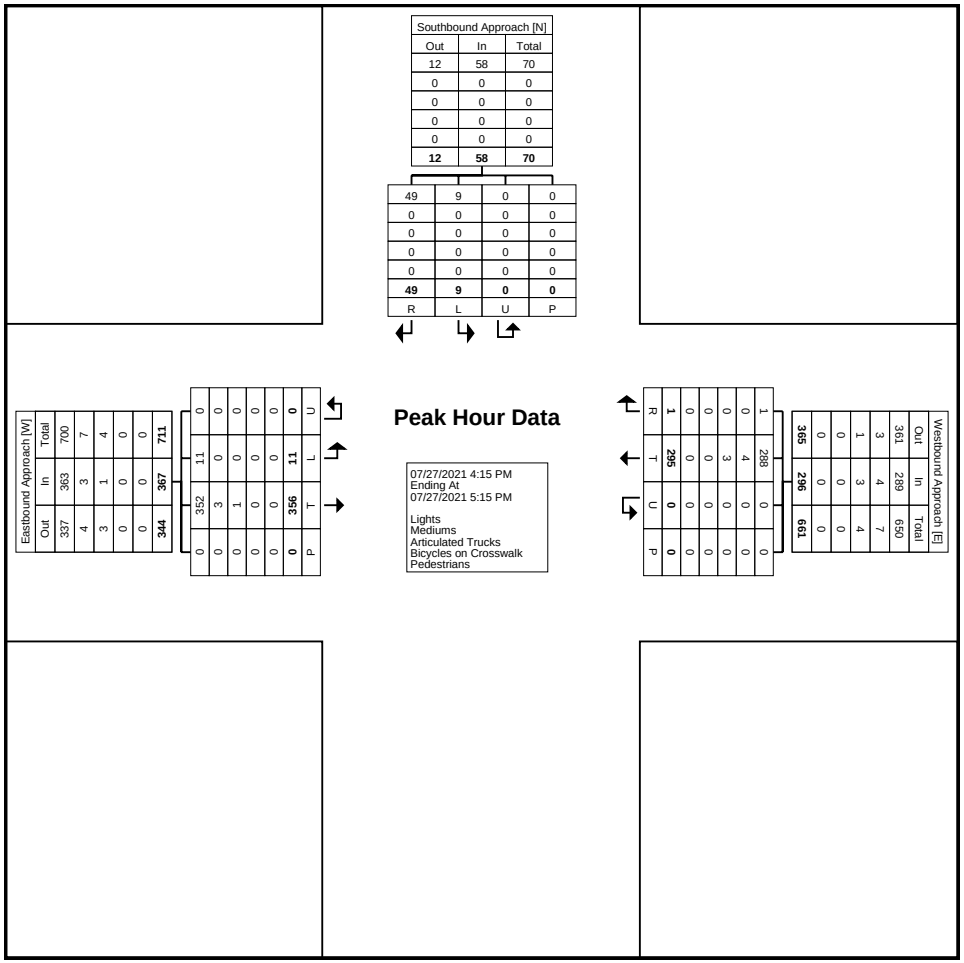

Turning Movement Peak Hour Data Plot (4:15 PM)

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Count Name: NM 309.01 Cien Aguas Charter School
Site Code:
Start Date: 07/27/2021

Turning Movement Data

Start Time	Southbound Approach Southbound						Westbound Approach Westbound						Northbound Approach Northbound						Eastbound Approach Eastbound						Int. Total
	Right	Thru	Left	U-Turn	Peds	App. Total	Right	Thru	Left	U-Turn	Peds	App. Total	Right	Thru	Left	U-Turn	Peds	App. Total	Right	Thru	Left	U-Turn	Peds	App. Total	
6:00 AM	0	0	0	0	0	0	0	0	1	0	0	1	1	0	0	0	0	1	6	2	1	0	0	9	11
6:15 AM	0	1	0	0	0	1	0	0	3	0	0	3	2	2	0	0	0	4	2	0	0	0	0	2	10
6:30 AM	0	1	0	0	0	1	0	0	5	0	0	5	0	1	4	0	0	5	6	1	0	0	0	7	18
6:45 AM	0	0	0	0	0	0	0	0	6	0	0	6	0	0	2	0	0	2	21	5	0	0	0	26	34
Hourly Total	0	2	0	0	0	2	0	0	15	0	0	15	3	3	6	0	0	12	35	8	1	0	0	44	73
7:00 AM	0	1	0	0	0	1	0	0	3	0	0	3	0	2	4	0	0	6	12	3	0	0	0	15	25
7:15 AM	0	1	0	0	2	1	3	0	3	0	0	6	2	1	2	0	0	5	13	1	5	0	0	19	31
7:30 AM	0	0	2	0	0	2	0	2	2	0	0	4	3	0	4	0	0	7	19	4	3	0	0	26	39
7:45 AM	0	0	2	0	0	2	3	0	10	0	0	13	0	1	2	0	0	3	22	6	1	0	0	29	47
Hourly Total	0	2	4	0	2	6	6	2	18	0	0	26	5	4	12	0	0	21	66	14	9	0	0	89	142
8:00 AM	0	0	1	0	0	1	2	0	3	0	0	5	3	1	1	0	0	5	9	1	1	0	0	11	22
8:15 AM	0	0	0	0	0	0	3	0	2	0	0	5	1	1	7	0	0	9	9	2	4	0	0	15	29
8:30 AM	0	0	1	0	0	1	6	1	4	0	0	11	5	0	2	0	0	7	10	0	3	0	0	13	32
8:45 AM	0	1	4	0	0	5	5	1	2	0	0	8	2	1	0	0	0	3	5	0	5	0	0	10	26
Hourly Total	0	1	6	0	0	7	16	2	11	0	0	29	11	3	10	0	0	24	33	3	13	0	0	49	109
9:00 AM	0	0	1	0	0	1	2	1	1	0	0	4	6	1	0	0	0	7	4	1	3	0	0	8	20
9:15 AM	0	0	3	0	0	3	2	0	1	0	0	3	1	0	6	0	0	7	6	3	3	0	0	12	25
9:30 AM	0	1	0	0	0	1	3	1	2	0	0	6	3	1	2	0	1	6	9	1	1	0	0	11	24
9:45 AM	0	1	4	0	0	5	0	4	7	0	0	11	2	0	4	0	1	6	7	2	0	1	1	10	32
Hourly Total	0	2	8	0	0	10	7	6	11	0	0	24	12	2	12	0	2	26	26	7	7	1	1	41	101
*** BREAK ***	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1:00 PM	3	0	1	0	0	4	0	1	3	0	0	4	3	2	3	0	0	8	5	3	1	0	0	9	25
1:15 PM	2	0	0	0	0	2	1	1	1	0	0	3	5	1	2	0	0	8	4	0	1	0	0	5	18
1:30 PM	0	1	1	0	2	2	0	2	2	0	0	4	2	0	6	0	0	8	4	1	1	0	2	6	20
1:45 PM	1	0	0	0	0	1	1	4	4	0	0	9	3	0	3	0	0	6	10	2	1	0	0	13	29
Hourly Total	6	1	2	0	2	9	2	8	10	0	0	20	13	3	14	0	0	30	23	6	4	0	2	33	92
2:00 PM	1	0	0	0	0	1	0	1	5	0	0	6	4	0	2	0	0	6	6	0	1	0	0	7	20
2:15 PM	0	0	2	0	0	2	0	3	0	0	0	3	4	1	5	0	0	10	6	4	0	0	0	10	25
2:30 PM	0	0	1	0	0	1	2	0	1	0	0	3	3	0	3	0	0	6	7	3	1	0	0	11	21
2:45 PM	1	1	2	0	1	4	0	1	1	0	0	2	1	0	2	0	0	3	5	3	2	0	1	10	19
Hourly Total	2	1	5	0	1	8	2	5	7	0	0	14	12	1	12	0	0	25	24	10	4	0	1	38	85
3:00 PM	0	1	2	0	1	3	0	1	2	0	0	3	4	0	1	0	0	5	2	2	2	0	1	6	17
3:15 PM	1	0	2	0	0	3	0	0	3	0	0	3	2	0	2	0	0	4	3	1	1	0	0	5	15
3:30 PM	0	2	0	0	0	2	0	1	2	0	0	3	9	0	7	0	0	16	6	1	0	0	0	7	28
3:45 PM	0	1	1	0	0	2	1	2	4	0	0	7	3	0	5	0	0	8	12	0	2	0	0	14	31

Hourly Total	1	4	5	0	1	10	1	4	11	0	0	16	18	0	15	0	0	33	23	4	5	0	1	32	91
4:00 PM	1	0	2	0	0	3	1	3	1	0	0	5	7	1	5	0	0	13	7	1	0	0	0	8	29
4:15 PM	0	1	1	0	0	2	0	0	0	0	0	0	7	0	1	0	0	8	6	2	0	0	0	8	18
4:30 PM	0	1	1	0	0	2	0	1	0	0	0	1	11	0	12	0	0	23	8	3	0	0	0	11	37
4:45 PM	0	2	3	0	0	5	0	1	2	0	0	3	4	0	3	0	0	7	6	0	0	0	0	6	21
Hourly Total	1	4	7	0	0	12	1	5	3	0	0	9	29	1	21	0	0	51	27	6	0	0	0	33	105
5:00 PM	4	1	9	0	0	14	0	2	1	0	0	3	12	0	10	0	0	22	7	3	0	0	0	10	49
5:15 PM	2	1	3	0	0	6	0	1	1	0	0	2	6	0	3	0	0	9	10	5	0	0	0	15	32
5:30 PM	0	0	2	0	0	2	0	2	1	0	0	3	5	0	3	0	0	8	7	2	0	0	0	9	22
5:45 PM	0	0	5	0	0	5	0	2	0	0	0	2	3	0	0	0	0	3	4	2	0	0	0	6	16
Hourly Total	6	2	19	0	0	27	0	7	3	0	0	10	26	0	16	0	0	42	28	12	0	0	0	40	119
Grand Total	16	19	56	0	6	91	35	39	89	0	0	163	129	17	118	0	2	264	285	70	43	1	5	399	917
Approach %	17.6	20.9	61.5	0.0	-	-	21.5	23.9	54.6	0.0	-	-	48.9	6.4	44.7	0.0	-	-	71.4	17.5	10.8	0.3	-	-	-
Total %	1.7	2.1	6.1	0.0	-	9.9	3.8	4.3	9.7	0.0	-	17.8	14.1	1.9	12.9	0.0	-	28.8	31.1	7.6	4.7	0.1	-	43.5	-
Lights	14	19	55	0	-	88	34	36	89	0	-	159	126	16	117	0	-	259	276	69	42	1	-	388	894
% Lights	87.5	100.0	98.2	-	-	96.7	97.1	92.3	100.0	-	-	97.5	97.7	94.1	99.2	-	-	98.1	96.8	98.6	97.7	100.0	-	97.2	97.5
Mediums	2	0	1	0	-	3	1	3	0	0	-	4	3	1	1	0	-	5	9	1	1	0	-	11	23
% Mediums	12.5	0.0	1.8	-	-	3.3	2.9	7.7	0.0	-	-	2.5	2.3	5.9	0.8	-	-	1.9	3.2	1.4	2.3	0.0	-	2.8	2.5
Articulated Trucks	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0
% Articulated Trucks	0.0	0.0	0.0	-	-	0.0	0.0	0.0	0.0	-	-	0.0	0.0	0.0	0.0	-	-	0.0	0.0	0.0	0.0	0.0	-	0.0	0.0
Bicycles on Crosswalk	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-
% Bicycles on Crosswalk	-	-	-	-	0.0	-	-	-	-	-	-	-	-	-	-	-	0.0	-	-	-	-	-	0.0	-	-
Pedestrians	-	-	-	-	6	-	-	-	-	-	0	-	-	-	-	-	2	-	-	-	-	-	5	-	-
% Pedestrians	-	-	-	-	100.0	-	-	-	-	-	-	-	-	-	-	-	100.0	-	-	-	-	-	100.0	-	-

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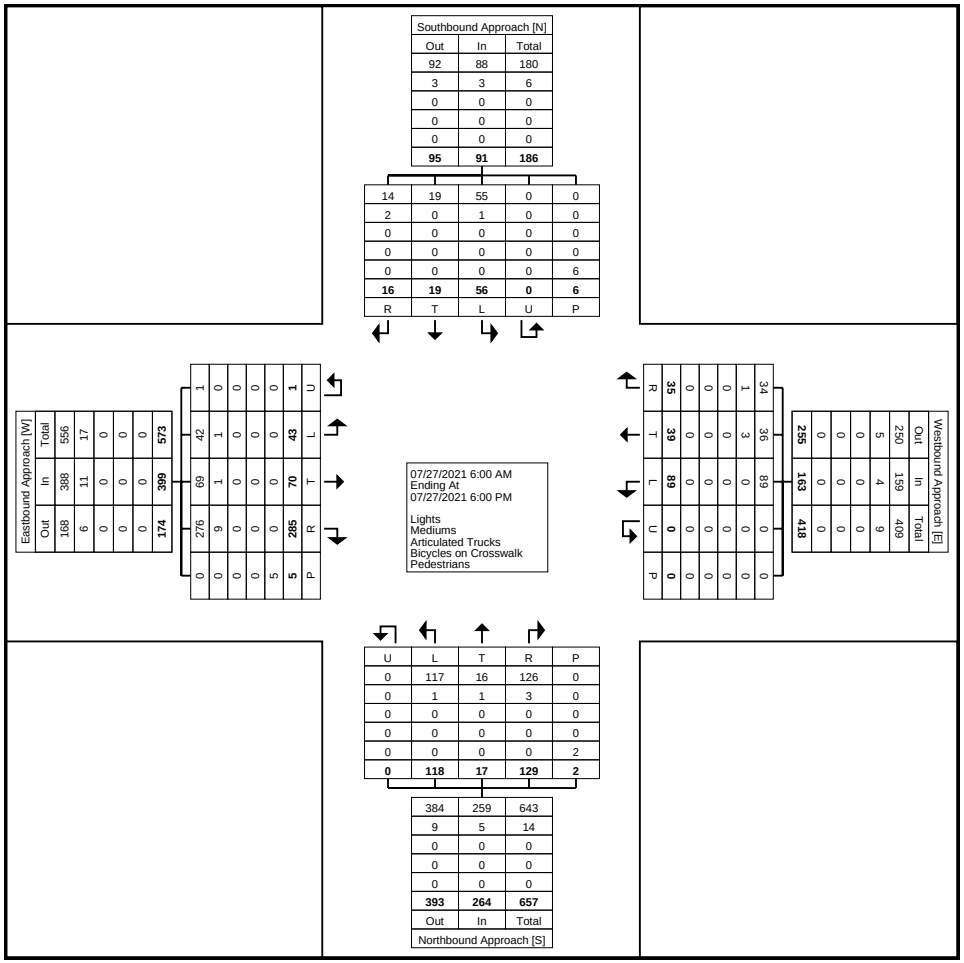

Turning Movement Data Plot

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Count Name: NM 309.01 Cien Aguas Charter School
Site Code:
Start Date: 07/27/2021

Turning Movement Peak Hour Data (7:00 AM)

Start Time	Southbound Approach Southbound						Westbound Approach Westbound						Northbound Approach Northbound						Eastbound Approach Eastbound						
	Right	Thru	Left	U-Turn	Peds	App. Total	Right	Thru	Left	U-Turn	Peds	App. Total	Right	Thru	Left	U-Turn	Peds	App. Total	Right	Thru	Left	U-Turn	Peds	App. Total	Int. Total
7:00 AM	0	1	0	0	0	1	0	0	3	0	0	3	0	2	4	0	0	6	12	3	0	0	0	15	25
7:15 AM	0	1	0	0	2	1	3	0	3	0	0	6	2	1	2	0	0	5	13	1	5	0	0	19	31
7:30 AM	0	0	2	0	0	2	0	2	2	0	0	4	3	0	4	0	0	7	19	4	3	0	0	26	39
7:45 AM	0	0	2	0	0	2	3	0	10	0	0	13	0	1	2	0	0	3	22	6	1	0	0	29	47
Total	**0**	**2**	**4**	**0**	**2**	**6**	**6**	**2**	**18**	**0**	**0**	**26**	**5**	**4**	**12**	**0**	**0**	**21**	**66**	**14**	**9**	**0**	**0**	**89**	**142**
Approach %	0.0	33.3	66.7	0.0	-	-	23.1	7.7	69.2	0.0	-	-	23.8	19.0	57.1	0.0	-	-	74.2	15.7	10.1	0.0	-	-	-
Total %	0.0	1.4	2.8	0.0	-	4.2	4.2	1.4	12.7	0.0	-	18.3	3.5	2.8	8.5	0.0	-	14.8	46.5	9.9	6.3	0.0	-	62.7	-
PHF	0.000	0.500	0.500	0.000	-	0.750	0.500	0.250	0.450	0.000	-	0.500	0.417	0.500	0.750	0.000	-	0.750	0.750	0.583	0.450	0.000	-	0.767	0.755
Lights	0	2	4	0	-	6	6	2	18	0	-	26	5	4	12	0	-	21	65	14	9	0	-	88	141
% Lights	-	100.0	100.0	-	-	100.0	100.0	100.0	100.0	-	-	100.0	100.0	100.0	100.0	-	-	100.0	98.5	100.0	100.0	-	-	98.9	99.3
Mediums	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	1	0	0	0	-	1	1
% Mediums	-	0.0	0.0	-	-	0.0	0.0	0.0	0.0	-	-	0.0	0.0	0.0	0.0	-	-	0.0	1.5	0.0	0.0	-	-	1.1	0.7
Articulated Trucks	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0
% Articulated Trucks	-	0.0	0.0	-	-	0.0	0.0	0.0	0.0	-	-	0.0	0.0	0.0	0.0	-	-	0.0	0.0	0.0	0.0	-	-	0.0	0.0
Bicycles on Crosswalk	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-
% Bicycles on Crosswalk	-	-	-	-	0.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Pedestrians	-	-	-	-	2	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-
% Pedestrians	-	-	-	-	100.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

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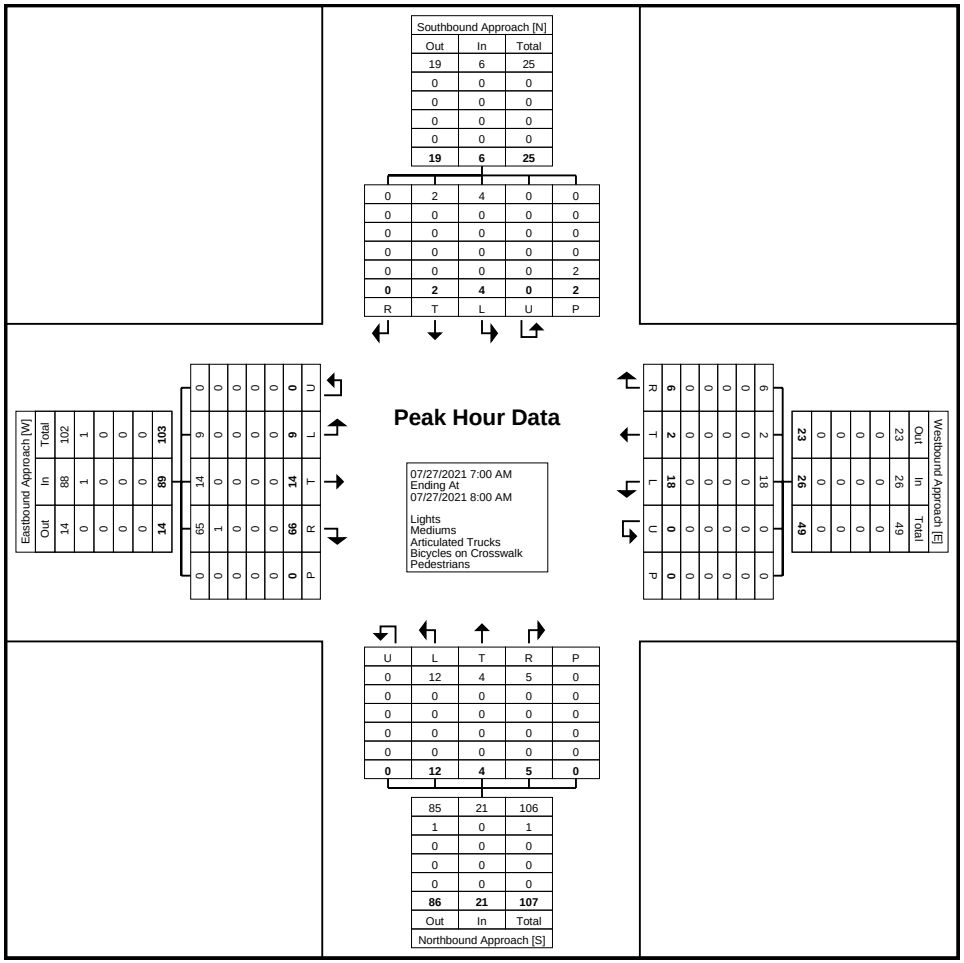

Turning Movement Peak Hour Data Plot (7:00 AM)

Lee Engineering, LLC
Phoenix, Arizona - Dallas, Texas
Oklahoma City, Oklahoma - San Antonio, Texas
Albuquerque, New Mexico, United States
jkruse@lee-eng.com

Count Name: NM 309.01 Cien Aguas Charter School
Site Code:
Start Date: 07/27/2021

Turning Movement Peak Hour Data (4:30 PM)

Start Time	Southbound Approach Southbound						Westbound Approach Westbound						Northbound Approach Northbound						Eastbound Approach Eastbound						
	Right	Thru	Left	U-Turn	Peds	App. Total	Right	Thru	Left	U-Turn	Peds	App. Total	Right	Thru	Left	U-Turn	Peds	App. Total	Right	Thru	Left	U-Turn	Peds	App. Total	Int. Total
4:30 PM	0	1	1	0	0	2	0	1	0	0	0	1	11	0	12	0	0	23	8	3	0	0	0	11	37
4:45 PM	0	2	3	0	0	5	0	1	2	0	0	3	4	0	3	0	0	7	6	0	0	0	0	6	21
5:00 PM	4	1	9	0	0	14	0	2	1	0	0	3	12	0	10	0	0	22	7	3	0	0	0	10	49
5:15 PM	2	1	3	0	0	6	0	1	1	0	0	2	6	0	3	0	0	9	10	5	0	0	0	15	32
Total	**6**	**5**	**16**	**0**	**0**	**27**	**0**	**5**	**4**	**0**	**0**	**9**	**33**	**0**	**28**	**0**	**0**	**61**	**31**	**11**	**0**	**0**	**0**	**42**	**139**
Approach %	22.2	18.5	59.3	0.0	-	-	0.0	55.6	44.4	0.0	-	-	54.1	0.0	45.9	0.0	-	-	73.8	26.2	0.0	0.0	-	-	-
Total %	4.3	3.6	11.5	0.0	-	19.4	0.0	3.6	2.9	0.0	-	6.5	23.7	0.0	20.1	0.0	-	43.9	22.3	7.9	0.0	0.0	-	30.2	-
PHF	0.375	0.625	0.444	0.000	-	0.482	0.000	0.625	0.500	0.000	-	0.750	0.688	0.000	0.583	0.000	-	0.663	0.775	0.550	0.000	0.000	-	0.700	**0.709**
Lights	6	5	16	0	-	27	0	5	4	0	-	9	33	0	28	0	-	61	30	11	0	0	-	41	138
% Lights	100.0	100.0	100.0	-	-	100.0	-	100.0	100.0	-	-	100.0	100.0	-	100.0	-	-	100.0	96.8	100.0	-	-	-	97.6	99.3
Mediums	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	1	0	0	0	-	1	1
% Mediums	0.0	0.0	0.0	-	-	0.0	-	0.0	0.0	-	-	0.0	0.0	-	0.0	-	-	0.0	3.2	0.0	-	-	-	2.4	0.7
Articulated Trucks	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0
% Articulated Trucks	0.0	0.0	0.0	-	-	0.0	-	0.0	0.0	-	-	0.0	0.0	-	0.0	-	-	0.0	0.0	0.0	-	-	-	0.0	0.0
Bicycles on Crosswalk	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-
% Bicycles on Crosswalk	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Pedestrians	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-
% Pedestrians	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Lee Engineering, LLC
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Count Name: NM 309.01 Cien Aguas Charter School
Site Code:
Start Date: 07/27/2021
Page No: 7

Peak Hour Data

07/27/2021 4:30 PM
Ending At
07/27/2021 5:30 PM

Lights
Mediums
Articulated Trucks
Bicycles on Crosswalk
Pedestrians

Southbound Approach [N]

Out	In	Total
0	27	27
0	0	0
0	0	0
0	0	0
0	0	0
0	**27**	**27**

R	T	L	U	P
6	5	16	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
6	**5**	**16**	**0**	**0**

Eastbound Approach [W]

Out	In	Total
39	41	80
0	1	1
0	0	0
0	0	0
0	0	0
39	**42**	**81**

U	L	T	R	P
0	0	11	30	0
0	0	0	1	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	**0**	**11**	**31**	**0**

Westbound Approach [E]

Out	In	Total
60	9	69
0	0	0
0	0	0
0	0	0
0	0	0
60	**9**	**69**

R	T	L	U	P
0	5	4	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	**5**	**4**	**0**	**0**

Northbound Approach [S]

U	L	T	R	P
0	28	0	33	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	**28**	**0**	**33**	**0**

Out	In	Total
39	61	100
1	0	1
0	0	0
0	0	0
0	0	0
40	**61**	**101**

Turning Movement Peak Hour Data Plot (4:30 PM)

Lee Engineering, LLC
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Oklahoma City, Oklahoma - San Antonio, Texas
Albuquerque, New Mexico, United States
jkruse@lee-eng.com

Count Name: NM 309.01 Cien Aguas Charter School
Site Code:
Start Date: 07/27/2021

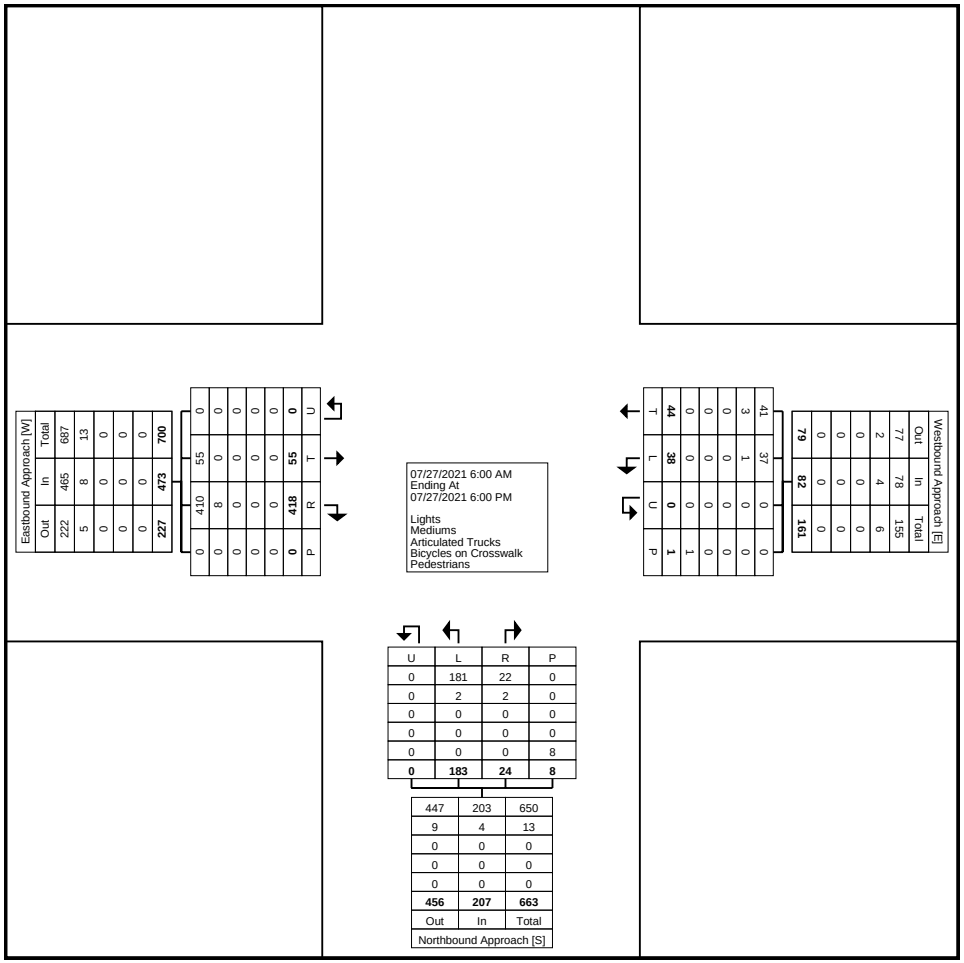
Turning Movement Data

Start Time	Westbound Approach					Northbound Approach					Eastbound Approach					
	Westbound					Northbound					Eastbound					
	Thru	Left	U-Turn	Peds	App. Total	Right	Left	U-Turn	Peds	App. Total	Right	Thru	U-Turn	Peds	App. Total	Int. Total
6:00 AM	0	0	0	0	0	0	0	0	0	0	10	0	0	0	10	10
6:15 AM	0	0	0	0	0	0	0	0	1	0	5	0	0	0	5	5
6:30 AM	0	1	0	0	1	1	3	0	1	4	8	1	0	0	9	14
6:45 AM	1	0	0	0	1	0	1	0	0	1	29	3	0	0	32	34
Hourly Total	1	1	0	0	2	1	4	0	2	5	52	4	0	0	56	63
7:00 AM	1	0	0	0	1	0	4	0	0	4	16	1	0	0	17	22
7:15 AM	0	0	0	0	0	0	1	0	0	1	25	2	0	0	27	28
7:30 AM	1	1	0	0	2	0	5	0	1	5	28	1	0	0	29	36
7:45 AM	1	3	0	0	4	0	1	0	0	1	33	4	0	0	37	42
Hourly Total	3	4	0	0	7	0	11	0	1	11	102	8	0	0	110	128
8:00 AM	0	0	0	0	0	0	1	0	0	1	13	0	0	0	13	14
8:15 AM	1	1	0	1	2	0	5	0	0	5	22	1	0	0	23	30
8:30 AM	1	2	0	0	3	0	3	0	0	3	21	3	0	0	24	30
8:45 AM	2	2	0	0	4	0	0	0	2	0	18	1	0	0	19	23
Hourly Total	4	5	0	1	9	0	9	0	2	9	74	5	0	0	79	97
9:00 AM	1	2	0	0	3	1	1	0	0	2	11	0	0	0	11	16
9:15 AM	1	3	0	0	4	2	5	0	0	7	15	0	0	0	15	26
9:30 AM	3	0	0	0	3	0	2	0	0	2	12	0	0	0	12	17
9:45 AM	2	1	0	0	3	2	9	0	1	11	9	2	0	0	11	25
Hourly Total	7	6	0	0	13	5	17	0	1	22	47	2	0	0	49	84
*** BREAK ***	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1:00 PM	2	1	0	0	3	1	6	0	0	7	10	2	0	0	12	22
1:15 PM	0	3	0	0	3	2	5	0	2	7	7	0	0	0	7	17
1:30 PM	1	1	0	0	2	0	7	0	0	7	5	4	0	0	9	18
1:45 PM	4	2	0	0	6	0	7	0	0	7	12	5	0	0	17	30
Hourly Total	7	7	0	0	14	3	25	0	2	28	34	11	0	0	45	87
2:00 PM	0	2	0	0	2	2	1	0	0	3	6	2	0	0	8	13
2:15 PM	1	1	0	0	2	1	6	0	0	7	11	1	0	0	12	21
2:30 PM	1	0	0	0	1	0	3	0	0	3	9	3	0	0	12	16
2:45 PM	0	2	0	0	2	0	4	0	0	4	9	2	0	0	11	17
Hourly Total	2	5	0	0	7	3	14	0	0	17	35	8	0	0	43	67
3:00 PM	0	1	0	0	1	1	3	0	0	4	2	1	0	0	3	8
3:15 PM	2	3	0	0	5	2	3	0	0	5	5	0	0	0	5	15
3:30 PM	1	1	0	0	2	3	9	0	0	12	6	1	0	0	7	21
3:45 PM	2	0	0	0	2	0	10	0	0	10	11	1	0	0	12	24
Hourly Total	5	5	0	0	10	6	25	0	0	31	24	3	0	0	27	68

4:00 PM	1	0	0	0	1	0	11	0	0	11	6	0	0	0	6	18
4:15 PM	2	1	0	0	3	0	3	0	0	3	4	0	0	0	4	10
4:30 PM	0	1	0	0	1	0	17	0	0	17	8	0	0	0	8	26
4:45 PM	1	1	0	0	2	2	8	0	0	10	4	3	0	0	7	19
Hourly Total	4	3	0	0	7	2	39	0	0	41	22	3	0	0	25	73
5:00 PM	6	1	0	0	7	2	27	0	0	29	5	2	0	0	7	43
5:15 PM	2	1	0	0	3	2	5	0	0	7	13	5	0	0	18	28
5:30 PM	1	0	0	0	1	0	7	0	0	7	6	2	0	0	8	16
5:45 PM	2	0	0	0	2	0	0	0	0	0	4	2	0	0	6	8
Hourly Total	11	2	0	0	13	4	39	0	0	43	28	11	0	0	39	95
Grand Total	44	38	0	1	82	24	183	0	8	207	418	55	0	0	473	762
Approach %	53.7	46.3	0.0	-	-	11.6	88.4	0.0	-	-	88.4	11.6	0.0	-	-	-
Total %	5.8	5.0	0.0	-	10.8	3.1	24.0	0.0	-	27.2	54.9	7.2	0.0	-	62.1	-
Lights	41	37	0	-	78	22	181	0	-	203	410	55	0	-	465	746
% Lights	93.2	97.4	-	-	95.1	91.7	98.9	-	-	98.1	98.1	100.0	-	-	98.3	97.9
Mediums	3	1	0	-	4	2	2	0	-	4	8	0	0	-	8	16
% Mediums	6.8	2.6	-	-	4.9	8.3	1.1	-	-	1.9	1.9	0.0	-	-	1.7	2.1
Articulated Trucks	0	0	0	-	0	0	0	0	-	0	0	0	0	-	0	0
% Articulated Trucks	0.0	0.0	-	-	0.0	0.0	0.0	-	-	0.0	0.0	0.0	-	-	0.0	0.0
Bicycles on Crosswalk	-	-	-	0	-	-	-	-	0	-	-	-	-	0	-	-
% Bicycles on Crosswalk	-	-	-	0.0	-	-	-	-	0.0	-	-	-	-	-	-	-
Pedestrians	-	-	-	1	-	-	-	-	8	-	-	-	-	0	-	-
% Pedestrians	-	-	-	100.0	-	-	-	-	100.0	-	-	-	-	-	-	-

Lee Engineering, LLC
Phoenix, Arizona - Dallas, Texas
Oklahoma City, Oklahoma - San Antonio, Texas
Albuquerque, New Mexico, United States
jkruse@lee-eng.com

Count Name: NM 309.01 Cien Aguas Charter School
Site Code:
Start Date: 07/27/2021



Turning Movement Data Plot

Lee Engineering, LLC
Phoenix, Arizona - Dallas, Texas
Oklahoma City, Oklahoma - San Antonio, Texas
Albuquerque, New Mexico, United States
jkruse@lee-eng.com

Count Name: NM 309.01 Cien Aguas Charter School
Site Code:
Start Date: 07/27/2021

Turning Movement Peak Hour Data (7:00 AM)

Start Time	Westbound Approach					Northbound Approach					Eastbound Approach					
	Westbound					Northbound					Eastbound					
	Thru	Left	U-Turn	Peds	App. Total	Right	Left	U-Turn	Peds	App. Total	Right	Thru	U-Turn	Peds	App. Total	Int. Total
7:00 AM	1	0	0	0	1	0	4	0	0	4	16	1	0	0	17	22
7:15 AM	0	0	0	0	0	0	1	0	0	1	25	2	0	0	27	28
7:30 AM	1	1	0	0	2	0	5	0	1	5	28	1	0	0	29	36
7:45 AM	1	3	0	0	4	0	1	0	0	1	33	4	0	0	37	42
Total	**3**	**4**	**0**	**0**	**7**	**0**	**11**	**0**	**1**	**11**	**102**	**8**	**0**	**0**	**110**	**128**
Approach %	42.9	57.1	0.0	-	-	0.0	100.0	0.0	-	-	92.7	7.3	0.0	-	-	-
Total %	2.3	3.1	0.0	-	5.5	0.0	8.6	0.0	-	8.6	79.7	6.3	0.0	-	85.9	-
PHF	0.750	0.333	0.000	-	0.438	0.000	0.550	0.000	-	0.550	0.773	0.500	0.000	-	0.743	0.762
Lights	3	4	0	-	7	0	11	0	-	11	101	8	0	-	109	127
% Lights	100.0	100.0	-	-	100.0	-	100.0	-	-	100.0	99.0	100.0	-	-	99.1	99.2
Mediums	0	0	0	-	0	0	0	0	-	0	1	0	0	-	1	1
% Mediums	0.0	0.0	-	-	0.0	-	0.0	-	-	0.0	1.0	0.0	-	-	0.9	0.8
Articulated Trucks	0	0	0	-	0	0	0	0	-	0	0	0	0	-	0	0
% Articulated Trucks	0.0	0.0	-	-	0.0	-	0.0	-	-	0.0	0.0	0.0	-	-	0.0	0.0
Bicycles on Crosswalk	-	-	-	0	-	-	-	-	0	-	-	-	-	0	-	-
% Bicycles on Crosswalk	-	-	-	-	-	-	-	-	0.0	-	-	-	-	-	-	-
Pedestrians	-	-	-	0	-	-	-	-	1	-	-	-	-	0	-	-
% Pedestrians	-	-	-	-	-	-	-	-	100.0	-	-	-	-	-	-	-

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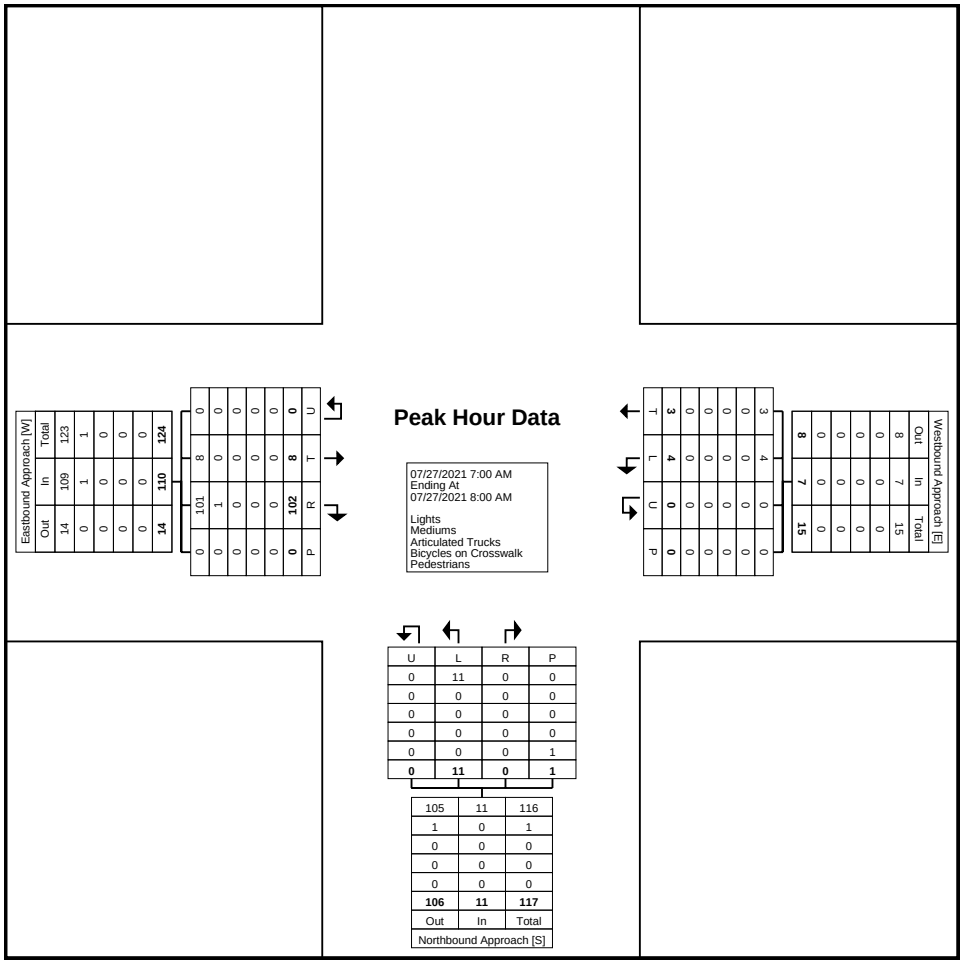

U	L	R	P
0	11	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	1
0	**11**	**0**	**1**

105	11	116
1	0	1
0	0	0
0	0	0
0	0	0
106	**11**	**117**
Out	In	Total
Northbound Approach [S]		

Turning Movement Peak Hour Data Plot (7:00 AM)

Lee Engineering, LLC
Phoenix, Arizona - Dallas, Texas
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Albuquerque, New Mexico, United States
jkruse@lee-eng.com

Count Name: NM 309.01 Cien Aguas Charter School
Site Code:
Start Date: 07/27/2021

Turning Movement Peak Hour Data (4:30 PM)

Start Time	Westbound Approach Westbound					Northbound Approach Northbound					Eastbound Approach Eastbound					
	Thru	Left	U-Turn	Peds	App. Total	Right	Left	U-Turn	Peds	App. Total	Right	Thru	U-Turn	Peds	App. Total	Int. Total
4:30 PM	0	1	0	0	1	0	17	0	0	17	8	0	0	0	8	26
4:45 PM	1	1	0	0	2	2	8	0	0	10	4	3	0	0	7	19
5:00 PM	6	1	0	0	7	2	27	0	0	29	5	2	0	0	7	43
5:15 PM	2	1	0	0	3	2	5	0	0	7	13	5	0	0	18	28
Total	**9**	**4**	**0**	**0**	**13**	**6**	**57**	**0**	**0**	**63**	**30**	**10**	**0**	**0**	**40**	**116**
Approach %	69.2	30.8	0.0	-	-	9.5	90.5	0.0	-	-	75.0	25.0	0.0	-	-	-
Total %	7.8	3.4	0.0	-	11.2	5.2	49.1	0.0	-	54.3	25.9	8.6	0.0	-	34.5	-
PHF	0.375	1.000	0.000	-	0.464	0.750	0.528	0.000	-	0.543	0.577	0.500	0.000	-	0.556	0.674
Lights	8	4	0	-	12	6	57	0	-	63	30	10	0	-	40	115
% Lights	88.9	100.0	-	-	92.3	100.0	100.0	-	-	100.0	100.0	100.0	-	-	100.0	99.1
Mediums	1	0	0	-	1	0	0	0	-	0	0	0	0	-	0	1
% Mediums	11.1	0.0	-	-	7.7	0.0	0.0	-	-	0.0	0.0	0.0	-	-	0.0	0.9
Articulated Trucks	0	0	0	-	0	0	0	0	-	0	0	0	0	-	0	0
% Articulated Trucks	0.0	0.0	-	-	0.0	0.0	0.0	-	-	0.0	0.0	0.0	-	-	0.0	0.0
Bicycles on Crosswalk	-	-	-	0	-	-	-	-	0	-	-	-	-	0	-	-
% Bicycles on Crosswalk	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Pedestrians	-	-	-	0	-	-	-	-	0	-	-	-	-	0	-	-
% Pedestrians	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

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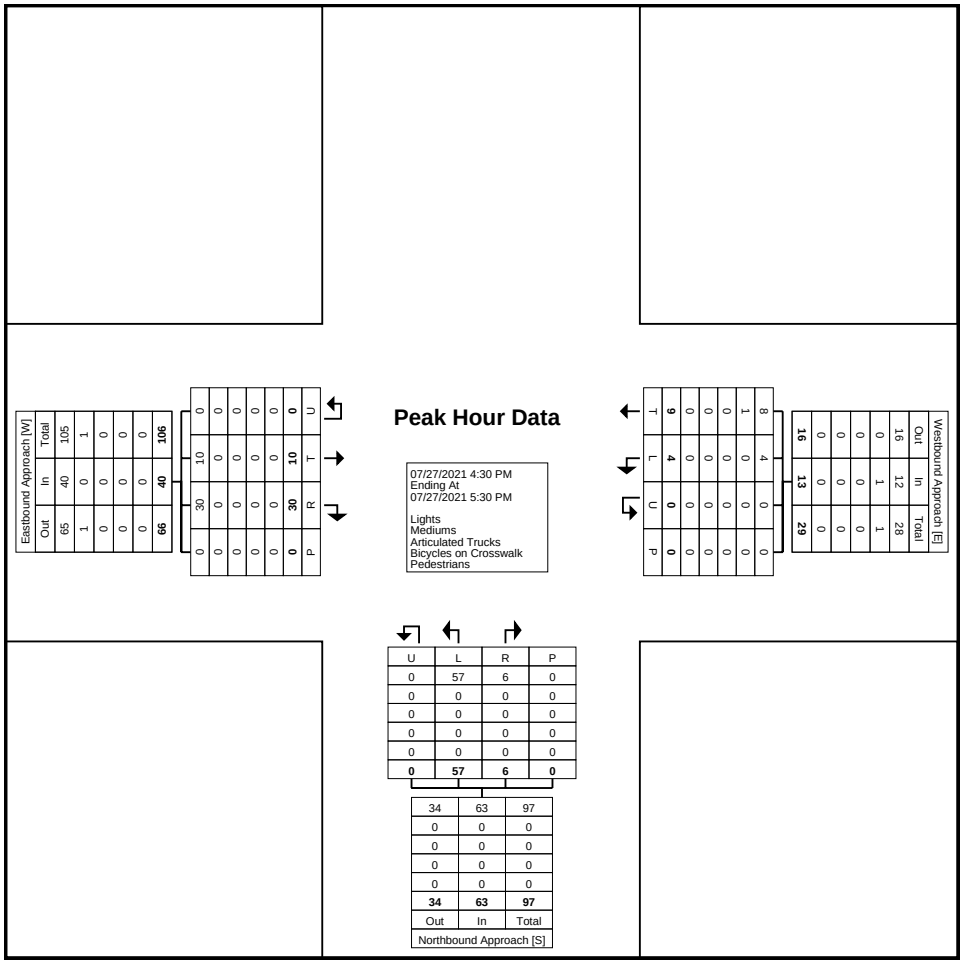


U	L	R	P
0	57	6	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	**57**	**6**	**0**

34	63	97
0	0	0
0	0	0
0	0	0
0	0	0
34	**63**	**97**
Out	In	Total
Northbound Approach [S]		

Turning Movement Peak Hour Data Plot (4:30 PM)

Appendix C:

Trip Generation Manual Excerpts

Private School (K-8)
(534)

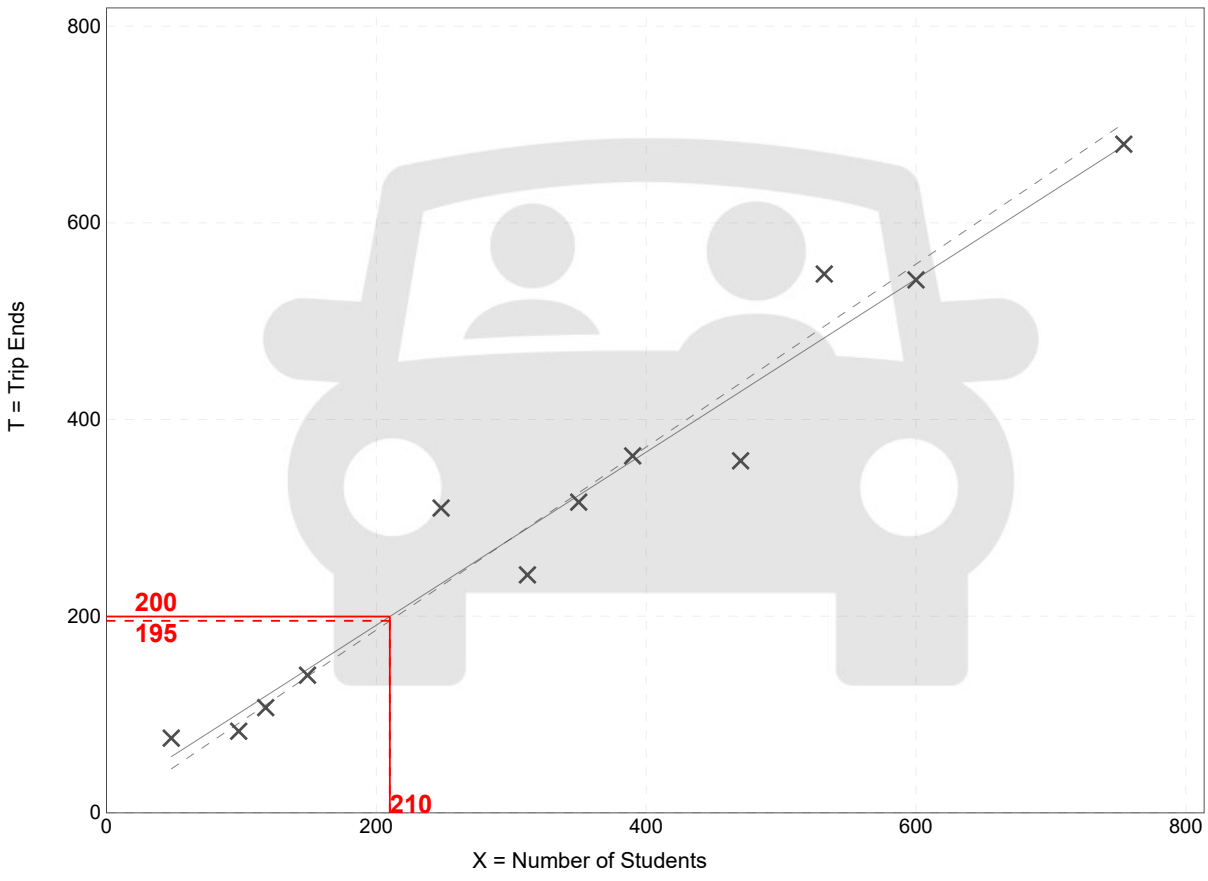
Vehicle Trip Ends vs: **Students**
On a: **Weekday,**
AM Peak Hour of Generator

Setting/Location: **General Urban/Suburban**
Number of Studies: 12
Avg. Num. of Students: 339
Directional Distribution: 56% entering, 44% exiting

Vehicle Trip Generation per Student

Average Rate	Range of Rates	Standard Deviation
0.93	0.76 - 1.58	0.14

Data Plot and Equation



Fitted Curve Equation: T = 0.88(X) + 14.85

R^2= 0.96

Private School (K-8)
(534)

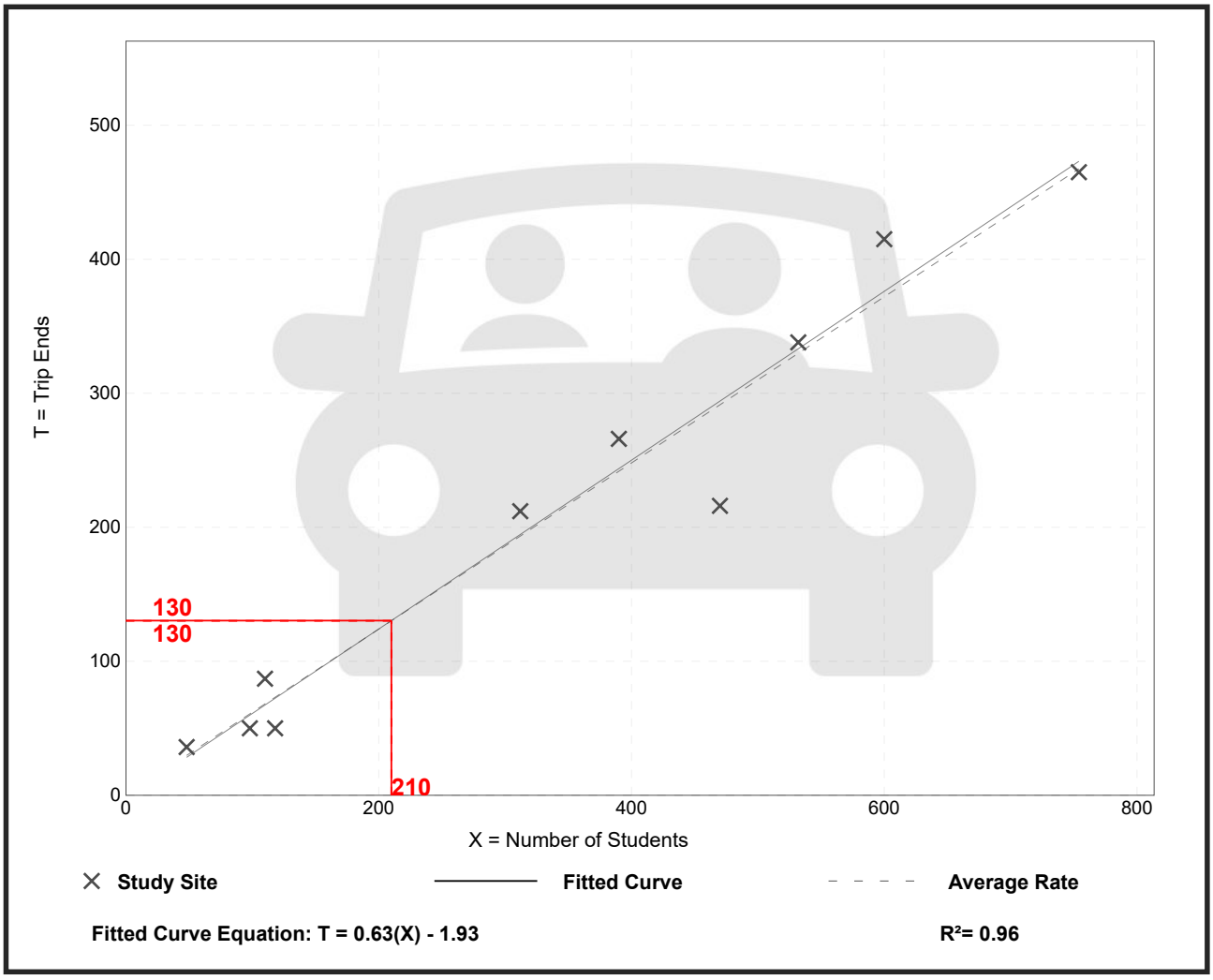
Vehicle Trip Ends vs: **Students**
On a: **Weekday,**
PM Peak Hour of Generator

Setting/Location: **General Urban/Suburban**
Number of Studies: 10
Avg. Num. of Students: 343
Directional Distribution: 47% entering, 53% exiting

Vehicle Trip Generation per Student

Average Rate	Range of Rates	Standard Deviation
0.62	0.42 - 0.79	0.09

Data Plot and Equation



Fitted Curve Equation: T = 0.63(X) - 1.93

R^2= 0.96

Appendix D:

HCS Software LOS & Capacity Output Sheets

YALE BLVD AT RENARD PL

HCS7 Two-Way Stop-Control Report

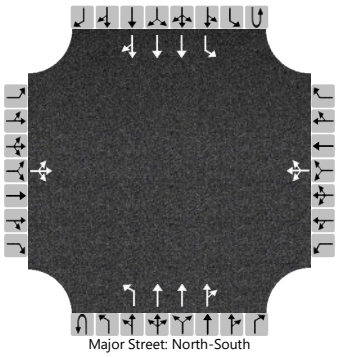
General Information

Analyst	MRM
Agency/Co.	Lee Engineering
Date Performed	7/29/2021
Analysis Year	2021
Time Analyzed	Existing AM
Intersection Orientation	North-South
Project Description	Cien Aguas Charter School

Site Information

Intersection	Yale Blvd & Renard Pl
Jurisdiction	CABQ
East/West Street	Renard Pl
North/South Street	Yale Blvd
Peak Hour Factor	0.86
Analysis Time Period (hrs)	1.00

Lanes


Major Street: North-South

Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority		10	11	12		7	8	9	1U	1	2	3	4U	4	5	6
Number of Lanes		0	1	0		0	1	0	0	1	3	0	0	1	3	0
Configuration			LTR				LTR			L	T	TR		L	T	TR
Volume (veh/h)		22	0	3		4	0	17	2	5	352	9	2	58	352	43
Percent Heavy Vehicles (%)		3	3	3		3	3	3	3	3			3	3		
Proportion Time Blocked																
Percent Grade (%)	0				0											
Right Turn Channelized																
Median Type | Storage	Left Only								3							

Critical and Follow-up Headways

Base Critical Headway (sec)		6.4	6.5	7.1		6.4	6.5	7.1	5.6	5.3			5.6	5.3		
Critical Headway (sec)		6.46	6.56	7.16		6.46	6.56	7.16	5.66	5.36			5.66	5.36		
Base Follow-Up Headway (sec)		3.8	4.0	3.9		3.8	4.0	3.9	2.3	3.1			2.3	3.1		
Follow-Up Headway (sec)		3.83	4.03	3.93		3.83	4.03	3.93	2.33	3.13			2.33	3.13		

Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)			29				24			8				70		
Capacity, c (veh/h)			361				615			771				742		
v/c Ratio			0.08				0.04			0.01				0.09		
95% Queue Length, Q_{95} (veh)			0.3				0.1			0.0				0.3		
Control Delay (s/veh)			15.8				11.1			9.7				10.4		
Level of Service (LOS)			C				B			A				B		
Approach Delay (s/veh)	15.8				11.1				0.2				1.4			
Approach LOS	C				B											

HCS7 Two-Way Stop-Control Report

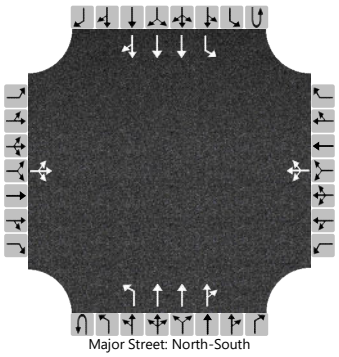
General Information

Analyst	MRM
Agency/Co.	Lee Engineering
Date Performed	7/29/2021
Analysis Year	2021
Time Analyzed	Existing PM
Intersection Orientation	North-South
Project Description	Cien Aguas Charter School

Site Information

Intersection	Yale Blvd & Renard Pl
Jurisdiction	CABQ
East/West Street	Renard Pl
North/South Street	Yale Blvd
Peak Hour Factor	0.88
Analysis Time Period (hrs)	1.00

Lanes


Major Street: North-South

Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority		10	11	12		7	8	9	1U	1	2	3	4U	4	5	6
Number of Lanes		0	1	0		0	1	0	0	1	3	0	0	1	3	0
Configuration			LTR				LTR			L	T	TR		L	T	TR
Volume (veh/h)		71	0	4		18	1	73	10	3	632	5	1	33	405	11
Percent Heavy Vehicles (%)		3	3	3		3	3	3	3	3			3	3		
Proportion Time Blocked																
Percent Grade (%)	0				0											
Right Turn Channelized																
Median Type | Storage	Left Only								3							

Critical and Follow-up Headways

Base Critical Headway (sec)		6.4	6.5	7.1		6.4	6.5	7.1	5.6	5.3			5.6	5.3		
Critical Headway (sec)		6.46	6.56	7.16		6.46	6.56	7.16	5.66	5.36			5.66	5.36		
Base Follow-Up Headway (sec)		3.8	4.0	3.9		3.8	4.0	3.9	2.3	3.1			2.3	3.1		
Follow-Up Headway (sec)		3.83	4.03	3.93		3.83	4.03	3.93	2.33	3.13			2.33	3.13		

Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)			85				105			15				39		
Capacity, c (veh/h)			360				445			904				531		
v/c Ratio			0.24				0.23			0.02				0.07		
95% Queue Length, Q_{95} (veh)			0.9				0.9			0.0				0.2		
Control Delay (s/veh)			18.1				15.6			9.0				12.3		
Level of Service (LOS)			C				C			A				B		
Approach Delay (s/veh)	18.1				15.6				0.2				0.9			
Approach LOS	C				C											

HCS7 Two-Way Stop-Control Report

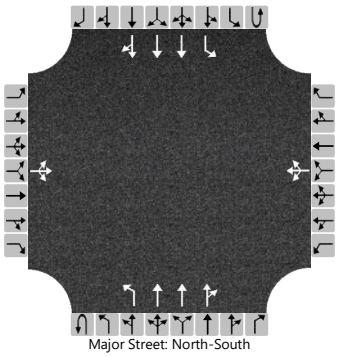
General Information

Analyst	MRM
Agency/Co.	Lee Engineering
Date Performed	7/29/2021
Analysis Year	2021
Time Analyzed	Build Out AM
Intersection Orientation	North-South
Project Description	Cien Aguas Charter School

Site Information

Intersection	Yale Blvd & Renard Pl
Jurisdiction	CABQ
East/West Street	Renard Pl
North/South Street	Yale Blvd
Peak Hour Factor	0.86
Analysis Time Period (hrs)	1.00

Lanes


Major Street: North-South

Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority		10	11	12		7	8	9	1U	1	2	3	4U	4	5	6
Number of Lanes		0	1	0		0	1	0	0	1	3	0	0	1	3	0
Configuration			LTR				LTR			L	T	TR		L	T	TR
Volume (veh/h)		22	0	3		4	0	17	2	5	385	9	2	58	352	78
Percent Heavy Vehicles (%)		3	3	3		3	3	3	3	3			3	3		
Proportion Time Blocked																
Percent Grade (%)	0				0											
Right Turn Channelized																
Median Type | Storage	Left Only								3							

Critical and Follow-up Headways

Base Critical Headway (sec)		6.4	6.5	7.1		6.4	6.5	7.1	5.6	5.3			5.6	5.3		
Critical Headway (sec)		6.46	6.56	7.16		6.46	6.56	7.16	5.66	5.36			5.66	5.36		
Base Follow-Up Headway (sec)		3.8	4.0	3.9		3.8	4.0	3.9	2.3	3.1			2.3	3.1		
Follow-Up Headway (sec)		3.83	4.03	3.93		3.83	4.03	3.93	2.33	3.13			2.33	3.13		

Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)			29				24			8				70		
Capacity, c (veh/h)			348				595			738				712		
v/c Ratio			0.08				0.04			0.01				0.10		
95% Queue Length, Q_{95} (veh)			0.3				0.1			0.0				0.3		
Control Delay (s/veh)			16.3				11.3			9.9				10.6		
Level of Service (LOS)			C				B			A				B		
Approach Delay (s/veh)	16.3				11.3				0.2				1.3			
Approach LOS	C				B											

HCS7 Two-Way Stop-Control Report

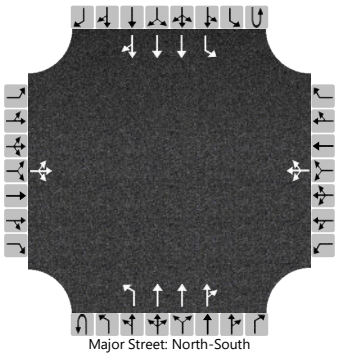
General Information

Analyst	MRM
Agency/Co.	Lee Engineering
Date Performed	7/29/2021
Analysis Year	2021
Time Analyzed	Build Out AM
Intersection Orientation	North-South
Project Description	Cien Aguas Charter School

Site Information

Intersection	Yale Blvd & Renard Pl
Jurisdiction	CABQ
East/West Street	Renard Pl
North/South Street	Yale Blvd
Peak Hour Factor	0.88
Analysis Time Period (hrs)	1.00

Lanes


Major Street: North-South

Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority		10	11	12		7	8	9	1U	1	2	3	4U	4	5	6
Number of Lanes		0	1	0		0	1	0	0	1	3	0	0	1	3	0
Configuration			LTR				LTR			L	T	TR		L	T	TR
Volume (veh/h)		71	0	4		18	1	73	10	3	664	5	1	33	405	28
Percent Heavy Vehicles (%)		3	3	3		3	3	3	3	3			3	3		
Proportion Time Blocked																
Percent Grade (%)	0				0											
Right Turn Channelized																
Median Type | Storage	Left Only								3							

Critical and Follow-up Headways

Base Critical Headway (sec)		6.4	6.5	7.1		6.4	6.5	7.1	5.6	5.3			5.6	5.3		
Critical Headway (sec)		6.46	6.56	7.16		6.46	6.56	7.16	5.66	5.36			5.66	5.36		
Base Follow-Up Headway (sec)		3.8	4.0	3.9		3.8	4.0	3.9	2.3	3.1			2.3	3.1		
Follow-Up Headway (sec)		3.83	4.03	3.93		3.83	4.03	3.93	2.33	3.13			2.33	3.13		

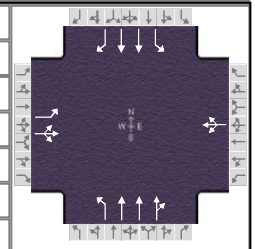
Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)			85				105			15				39		
Capacity, c (veh/h)			352				429			888				510		
v/c Ratio			0.24				0.24			0.02				0.08		
95% Queue Length, Q_{95} (veh)			1.0				1.0			0.1				0.2		
Control Delay (s/veh)			18.5				16.1			9.1				12.6		
Level of Service (LOS)			C				C			A				B		
Approach Delay (s/veh)	18.5				16.1				0.2				0.9			
Approach LOS	C				C											

YALE BLVD AT RANDOLPH RD

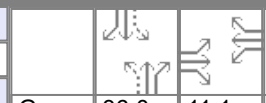
HCS7 Signalized Intersection Results Summary

General Information				Intersection Information	
Agency				Duration, h	0.250
Analyst		Analysis Date	8/17/2021	Area Type	Other
Jurisdiction		Time Period	AM Existing	PHF	0.94
Urban Street	Yale Blvd	Analysis Year	2021	Analysis Period	1> 7:30
Intersection	Yale Blvd at Randolph Rd	File Name	2021 AM Existing.xus		
Project Description	2021 AM Existing				



Demand Information	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand (*v*), veh/h	233	9	10	1	2	5	19	85	2	22	64	189

Signal Information			
Cycle, s	62.3	Reference Phase	2
Offset, s	0	Reference Point	End
Uncoordinated	Yes	Simult. Gap E/W	On
Force Mode	Fixed	Simult. Gap N/S	On



							1	2	3	4
Green	36.0	11.1	0.7	0.0	0.0	0.0	5	6	7	8
Yellow	4.0	3.5	3.5	0.0	0.0	0.0				
Red	1.5	1.0	1.0	0.0	0.0	0.0				

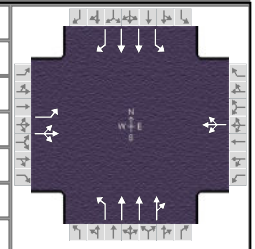
Timer Results	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Assigned Phase		4		8		2		6
Case Number		10.0		12.0		6.0		5.0
Phase Duration, s		15.6		5.2		41.5		41.5
Change Period, ($Y+R_c$), s		4.5		4.5		5.5		5.5
Max Allow Headway (*MAH*), s		4.2		4.2		5.2		5.2
Queue Clearance Time (g_s), s		10.4		2.2		2.9		4.6
Green Extension Time (g_e), s		0.8		0.0		2.1		2.1
Phase Call Probability		0.99		0.09		1.00		1.00
Max Out Probability		0.00		0.00		0.00		0.00

Movement Group Results	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Assigned Movement	7	4	14	3	8	18	5	2	12	1	6	16
Adjusted Flow Rate (*v*), veh/h	248	14			5		20	61	30	23	68	139
Adjusted Saturation Flow Rate (*s*), veh/h/ln	1767	1751			1708		1322	1856	1829	1295	1766	1560
Queue Service Time (g_s), s	8.4	0.4			0.2		0.4	0.4	0.4	0.5	0.5	2.6
Cycle Queue Clearance Time (g_c), s	8.4	0.4			0.2		0.9	0.4	0.4	0.9	0.5	2.6
Green Ratio (*g/C*)	0.18	0.18			0.01		0.58	0.58	0.58	0.58	0.58	0.58
Capacity (*c*), veh/h	314	312			19		869	2145	1057	855	2042	902
Volume-to-Capacity Ratio (*X*)	0.788	0.044			0.275		0.023	0.029	0.029	0.027	0.033	0.155
Back of Queue (*Q*), ft/ln (95 th percentile)	168.4	7.5			5.3		4.7	6.3	6.5	5.4	7.1	33.6
Back of Queue (*Q*), veh/ln (95 th percentile)	6.6	0.3			0.2		0.2	0.2	0.3	0.2	0.3	1.3
Queue Storage Ratio (*RQ*) (95 th percentile)	0.52	0.00			0.00		0.08	0.00	0.00	0.08	0.00	0.28
Uniform Delay (d_1), s/veh	24.5	21.2			30.5		5.9	5.6	5.6	5.8	5.7	6.1
Incremental Delay (d_2), s/veh	4.4	0.1			7.4		0.0	0.0	0.1	0.1	0.0	0.4
Initial Queue Delay (d_3), s/veh	0.0	0.0			0.0		0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (*d*), s/veh	28.9	21.3			38.0		5.9	5.7	5.7	5.9	5.7	6.5
Level of Service (LOS)	C	C			D		A	A	A	A	A	A
Approach Delay, s/veh / LOS	28.5	C		38.0	D		5.7	A		6.2	A	
Intersection Delay, s/veh / LOS	15.9						B					

Multimodal Results	EB		WB		NB		SB	
Pedestrian LOS Score / LOS	2.45	B	2.68	C	1.65	B	1.87	B
Bicycle LOS Score / LOS	0.92	A	0.50	A	0.55	A	0.68	A

HCS7 Signalized Intersection Results Summary

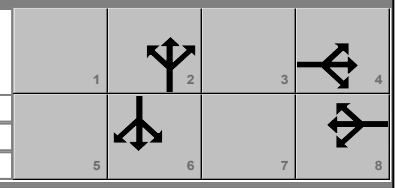
General Information				Intersection Information	
Agency				Duration, h	0.250
Analyst		Analysis Date	8/17/2021	Area Type	Other
Jurisdiction		Time Period	PM Existing	PHF	0.91
Urban Street	Yale Blvd	Analysis Year	2021	Analysis Period	1> 16:15
Intersection	Yale Blvd at Randolph Rd	File Name	2021 PM Existing.xus		
Project Description	2021 PM Existing				



Demand Information	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand (*v*), veh/h	354	2	10	0	2	12	10	183	0	1	126	285

Signal Information			
Cycle, s	68.4	Reference Phase	2
Offset, s	0	Reference Point	End
Uncoordinated	Yes	Simult. Gap E/W	On
Force Mode	Fixed	Simult. Gap N/S	On

Green	36.0	17.5	0.5	0.0	0.0	0.0	
Yellow	4.0	3.5	3.5	0.0	0.0	0.0	
Red	1.5	1.0	1.0	0.0	0.0	0.0	



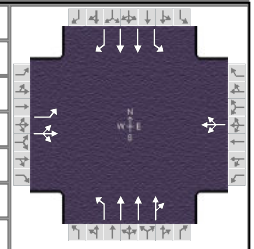
Timer Results	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Assigned Phase		4		8		2		6
Case Number		10.0		12.0		6.0		5.0
Phase Duration, s		22.0		5.0		41.5		41.5
Change Period, ($Y+R_c$), s		4.5		4.5		5.5		5.5
Max Allow Headway (*MAH*), s		4.2		4.2		5.2		5.2
Queue Clearance Time (g_s), s		16.2		2.1		3.6		7.2
Green Extension Time (g_e), s		1.2		0.0		3.8		3.8
Phase Call Probability		1.00		0.06		1.00		1.00
Max Out Probability		0.04		0.00		0.00		0.00

Movement Group Results	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Assigned Movement	7	4	14	3	8	18	5	2	12	1	6	16
Adjusted Flow Rate (*v*), veh/h	389	9			0		11	201	0	1	138	219
Adjusted Saturation Flow Rate (*s*), veh/h/ln	1781	1641			0		1250	1803	0	1181	1781	1572
Queue Service Time (g_s), s	14.2	0.3			0.0		0.3	1.3	0.0	0.0	1.3	5.2
Cycle Queue Clearance Time (g_c), s	14.2	0.3			0.0		1.6	1.3	0.0	1.3	1.3	5.2
Green Ratio (*g/C*)	0.26	0.26					0.53	0.53		0.53	0.53	0.53
Capacity (*c*), veh/h	454	419					739	2845		705	1873	827
Volume-to-Capacity Ratio (*X*)	0.856	0.021			0.000		0.015	0.071	0.000	0.002	0.074	0.264
Back of Queue (*Q*), ft/ln (95 th percentile)	266	4.7			0		3.5	19.4	0	0.4	20.3	76.8
Back of Queue (*Q*), veh/ln (95 th percentile)	10.5	0.2			0.0		0.1	0.8	0.0	0.0	0.8	3.0
Queue Storage Ratio (*RQ*) (95 th percentile)	0.82	0.00			0.00		0.06	0.00	0.00	0.01	0.00	0.64
Uniform Delay (d_1), s/veh	24.3	19.1					8.4	8.0		8.3	8.0	8.9
Incremental Delay (d_2), s/veh	5.8	0.0			0.0		0.0	0.0	0.0	0.0	0.1	0.8
Initial Queue Delay (d_3), s/veh	0.0	0.0			0.0		0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (*d*), s/veh	30.1	19.1					8.4	8.0		8.3	8.1	9.7
Level of Service (LOS)	C	B					A	A		A	A	A
Approach Delay, s/veh / LOS	29.9	C		44.5	D		8.1	A		9.1	A	
Intersection Delay, s/veh / LOS	17.5						B					

Multimodal Results	EB		WB		NB		SB	
Pedestrian LOS Score / LOS	2.45	B	2.72	C	1.67	B	1.88	B
Bicycle LOS Score / LOS	1.14	A	0.49	A	0.60	A	0.78	A

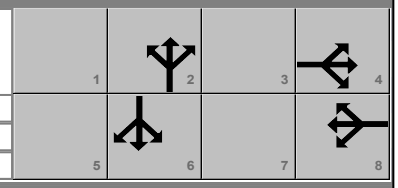
HCS7 Signalized Intersection Results Summary

General Information				Intersection Information	
Agency				Duration, h	0.250
Analyst		Analysis Date	8/17/2021	Area Type	Other
Jurisdiction		Time Period	AM Build-Out	PHF	0.94
Urban Street	Yale Blvd	Analysis Year	2021	Analysis Period	1> 7:30
Intersection	Yale Blvd at Randolph Rd	File Name	2021 AM Build-Out.xus		
Project Description	2021 AM Build-Out				



Demand Information	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand (*v*), veh/h	266	9	10	1	2	5	19	85	2	22	64	189

Signal Information					EB			WB			NB			SB		
Cycle, s	63.9	Reference Phase	2													
Offset, s	0	Reference Point	End	Green	36.0	12.7		0.7	0.0	0.0	0.0					
Uncoordinated	Yes	Simult. Gap E/W	On	Yellow	4.0	3.5		3.5	0.0	0.0	0.0					
Force Mode	Fixed	Simult. Gap N/S	On	Red	1.5	1.0		1.0	0.0	0.0	0.0					



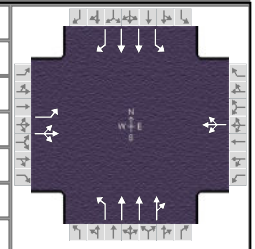
Timer Results	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Assigned Phase		4		8		2		6
Case Number		10.0		12.0		6.0		5.0
Phase Duration, s		17.2		5.2		41.5		41.5
Change Period, ($Y+R_c$), s		4.5		4.5		5.5		5.5
Max Allow Headway (*MAH*), s		4.2		4.2		5.2		5.2
Queue Clearance Time (g_s), s		11.8		2.2		3.0		4.7
Green Extension Time (g_e), s		1.0		0.0		2.1		2.1
Phase Call Probability		0.99		0.09		1.00		1.00
Max Out Probability		0.00		0.00		0.00		0.00

Movement Group Results	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Assigned Movement	7	4	14	3	8	18	5	2	12	1	6	16
Adjusted Flow Rate (*v*), veh/h	283	14			5		20	61	30	23	68	139
Adjusted Saturation Flow Rate (*s*), veh/h/ln	1767	1751			1708		1322	1856	1829	1295	1766	1560
Queue Service Time (g_s), s	9.8	0.4			0.2		0.4	0.5	0.5	0.5	0.5	2.7
Cycle Queue Clearance Time (g_c), s	9.8	0.4			0.2		1.0	0.5	0.5	1.0	0.5	2.7
Green Ratio (*g/C*)	0.20	0.20			0.01		0.56	0.56	0.56	0.56	0.56	0.56
Capacity (*c*), veh/h	350	347			19		846	2091	1031	833	1991	879
Volume-to-Capacity Ratio (*X*)	0.808	0.040			0.275		0.024	0.029	0.029	0.028	0.034	0.159
Back of Queue (*Q*), ft/ln (95 th percentile)	195.4	7.5			5.4		5.1	7	7.1	5.9	7.8	37
Back of Queue (*Q*), veh/ln (95 th percentile)	7.6	0.3			0.2		0.2	0.3	0.3	0.2	0.3	1.4
Queue Storage Ratio (*RQ*) (95 th percentile)	0.60	0.00			0.00		0.08	0.00	0.00	0.08	0.00	0.31
Uniform Delay (d_1), s/veh	24.4	20.7			31.3		6.4	6.2	6.2	6.4	6.2	6.7
Incremental Delay (d_2), s/veh	4.4	0.0			7.5		0.1	0.0	0.1	0.1	0.0	0.4
Initial Queue Delay (d_3), s/veh	0.0	0.0			0.0		0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (*d*), s/veh	28.9	20.7			38.8		6.5	6.2	6.2	6.5	6.2	7.1
Level of Service (LOS)	C	C			D		A	A	A	A	A	A
Approach Delay, s/veh / LOS	28.5	C		38.8	D		6.3	A		6.8	A	
Intersection Delay, s/veh / LOS	17.0						B					

Multimodal Results	EB		WB		NB		SB	
Pedestrian LOS Score / LOS	2.45	B	2.68	C	1.65	B	1.88	B
Bicycle LOS Score / LOS	0.98	A	0.50	A	0.55	A	0.68	A

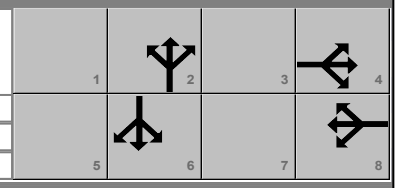
HCS7 Signalized Intersection Results Summary

General Information				Intersection Information	
Agency				Duration, h	0.250
Analyst		Analysis Date	8/17/2021	Area Type	Other
Jurisdiction		Time Period	PM Build-Out	PHF	0.91
Urban Street	Yale Blvd	Analysis Year	2021	Analysis Period	1> 16:15
Intersection	Yale Blvd at Randolph Rd	File Name	2021 PM Build-Out.xus		
Project Description	2021 PM Build-Out				



Demand Information	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand (*v*), veh/h	386	2	10	0	2	12	10	183	0	1	126	285

Signal Information					EB		WB			NB			SB		
Cycle, s	70.2	Reference Phase	2		L	T	R	L	T	R	L	T	R	L	T	R
Offset, s	0	Reference Point	End	Green	36.0	19.2		0.5	0.0	0.0	0.0					
Uncoordinated	Yes	Simult. Gap E/W	On	Yellow	4.0	3.5		3.5	0.0	0.0	0.0					
Force Mode	Fixed	Simult. Gap N/S	On	Red	1.5	1.0		1.0	0.0	0.0	0.0					



Timer Results	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Assigned Phase		4		8		2		6
Case Number		10.0		12.0		6.0		5.0
Phase Duration, s		23.7		5.0		41.5		41.5
Change Period, ($Y+R_c$), s		4.5		4.5		5.5		5.5
Max Allow Headway (*MAH*), s		4.2		4.2		5.2		5.2
Queue Clearance Time (g_s), s		17.9		2.1		3.7		7.5
Green Extension Time (g_e), s		1.3		0.0		3.8		3.8
Phase Call Probability		1.00		0.06		1.00		1.00
Max Out Probability		0.09		0.00		0.00		0.00

Movement Group Results	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Assigned Movement	7	4	14	3	8	18	5	2	12	1	6	16
Adjusted Flow Rate (*v*), veh/h	424	9			0		11	201	0	1	138	219
Adjusted Saturation Flow Rate (*s*), veh/h/ln	1781	1641			0		1250	1803	0	1181	1781	1572
Queue Service Time (g_s), s	15.9	0.3			0.0		0.3	1.3	0.0	0.0	1.4	5.5
Cycle Queue Clearance Time (g_c), s	15.9	0.3			0.0		1.7	1.3	0.0	1.4	1.4	5.5
Green Ratio (*g/C*)	0.27	0.27					0.51	0.51		0.51	0.51	0.51
Capacity (*c*), veh/h	487	449					719	2774		686	1826	806
Volume-to-Capacity Ratio (*X*)	0.871	0.020			0.000		0.015	0.072	0.000	0.002	0.076	0.271
Back of Queue (*Q*), ft/ln (95 th percentile)	300.6	4.7			0		3.8	20.9	0	0.4	22	82.9
Back of Queue (*Q*), veh/ln (95 th percentile)	11.8	0.2			0.0		0.1	0.8	0.0	0.0	0.9	3.3
Queue Storage Ratio (*RQ*) (95 th percentile)	0.93	0.00			0.00		0.06	0.00	0.00	0.01	0.00	0.69
Uniform Delay (d_1), s/veh	24.3	18.6					9.1	8.7		9.0	8.7	9.7
Incremental Delay (d_2), s/veh	8.0	0.0			0.0		0.0	0.1	0.0	0.0	0.1	0.8
Initial Queue Delay (d_3), s/veh	0.0	0.0			0.0		0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (*d*), s/veh	32.4	18.6					9.1	8.7		9.0	8.7	10.5
Level of Service (LOS)	C	B					A	A		A	A	B
Approach Delay, s/veh / LOS	32.1	C		45.4	D		8.7	A		9.8	A	
Intersection Delay, s/veh / LOS	19.3						B					

Multimodal Results	EB		WB		NB		SB	
Pedestrian LOS Score / LOS	2.45	B	2.72	C	1.67	B	1.89	B
Bicycle LOS Score / LOS	1.20	A	0.49	A	0.60	A	0.78	A

RANDOLPH RD AT BUENA VISTA DR

HCS7 Two-Way Stop-Control Report

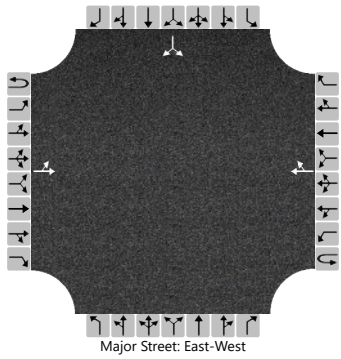
General Information

Analyst	MRM
Agency/Co.	Lee Engineering
Date Performed	7/30/2021
Analysis Year	2021
Time Analyzed	Existing AM
Intersection Orientation	East-West
Project Description	Cien Aguas Charter School

Site Information

Intersection	Randolph & Buena Vista
Jurisdiction	CABQ
East/West Street	Randolph Rd
North/South Street	Buena Vista Dr
Peak Hour Factor	0.88
Analysis Time Period (hrs)	1.00

Lanes



Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority	1U	1	2	3	4U	4	5	6		7	8	9		10	11	12
Number of Lanes	0	0	1	0	0	0	1	0		0	0	0		0	1	0
Configuration		LT						TR							LR	
Volume (veh/h)		36	273				189	3						8		17
Percent Heavy Vehicles (%)		3												3		3
Proportion Time Blocked																
Percent Grade (%)														0		
Right Turn Channelized																
Median Type | Storage			Undivided													

Critical and Follow-up Headways

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

Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)		41													28	
Capacity, c (veh/h)		1345													643	
v/c Ratio		0.03													0.04	
95% Queue Length, Q_{95} (veh)		0.1													0.1	
Control Delay (s/veh)		7.8													10.9	
Level of Service (LOS)		A													B	
Approach Delay (s/veh)		1.2												10.9		
Approach LOS														B		

HCS7 Two-Way Stop-Control Report

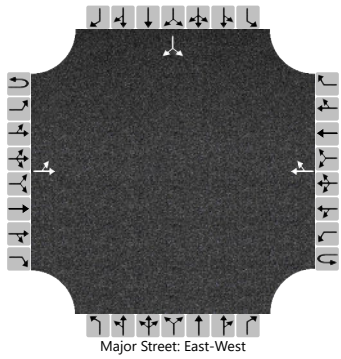
General Information

Analyst	MRM
Agency/Co.	Lee Engineering
Date Performed	7/30/2021
Analysis Year	2021
Time Analyzed	Existing PM
Intersection Orientation	East-West
Project Description	Cien Aguas Charter School

Site Information

Intersection	Randolph & Buena Vista
Jurisdiction	CABQ
East/West Street	Randolph Rd
North/South Street	Buena Vista Dr
Peak Hour Factor	0.93
Analysis Time Period (hrs)	1.00

Lanes



Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority	1U	1	2	3	4U	4	5	6		7	8	9		10	11	12
Number of Lanes	0	0	1	0	0	0	1	0		0	0	0		0	1	0
Configuration		LT						TR							LR	
Volume (veh/h)		11	356				295	1						9		49
Percent Heavy Vehicles (%)		3												3		3
Proportion Time Blocked																
Percent Grade (%)														0		
Right Turn Channelized																
Median Type | Storage			Undivided													

Critical and Follow-up Headways

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

Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)		12													62	
Capacity, c (veh/h)		1236													635	
v/c Ratio		0.01													0.10	
95% Queue Length, Q_{95} (veh)		0.0													0.3	
Control Delay (s/veh)		7.9													11.3	
Level of Service (LOS)		A													B	
Approach Delay (s/veh)		0.3												11.3		
Approach LOS														B		

HCS7 Two-Way Stop-Control Report

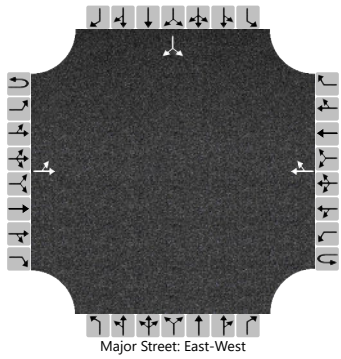
General Information

Analyst	MRM
Agency/Co.	Lee Engineering
Date Performed	7/30/2021
Analysis Year	2021
Time Analyzed	Build Out AM
Intersection Orientation	East-West
Project Description	Cien Aguas Charter School

Site Information

Intersection	Randolph & Buena Vista
Jurisdiction	CABQ
East/West Street	Randolph Rd
North/South Street	Buena Vista Dr
Peak Hour Factor	0.88
Analysis Time Period (hrs)	1.00

Lanes



Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority	1U	1	2	3	4U	4	5	6		7	8	9		10	11	12
Number of Lanes	0	0	1	0	0	0	1	0		0	0	0		0	1	0
Configuration		LT						TR							LR	
Volume (veh/h)		36	273				189	3						41		23
Percent Heavy Vehicles (%)		3												3		3
Proportion Time Blocked																
Percent Grade (%)														0		
Right Turn Channelized																
Median Type | Storage			Undivided													

Critical and Follow-up Headways

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

Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)		41													73	
Capacity, c (veh/h)		1345													528	
v/c Ratio		0.03													0.14	
95% Queue Length, Q_{95} (veh)		0.1													0.5	
Control Delay (s/veh)		7.8													12.9	
Level of Service (LOS)		A													B	
Approach Delay (s/veh)		1.2												12.9		
Approach LOS														B		

HCS7 Two-Way Stop-Control Report

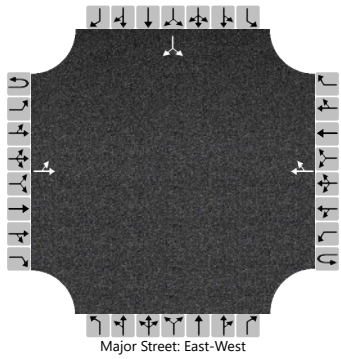
General Information

Analyst	MRM
Agency/Co.	Lee Engineering
Date Performed	7/30/2021
Analysis Year	2021
Time Analyzed	Build Out PM
Intersection Orientation	East-West
Project Description	Cien Aguas Charter School

Site Information

Intersection	Randolph & Buena Vista
Jurisdiction	CABQ
East/West Street	Randolph Rd
North/South Street	Buena Vista Dr
Peak Hour Factor	0.93
Analysis Time Period (hrs)	1.00

Lanes



Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority	1U	1	2	3	4U	4	5	6		7	8	9		10	11	12
Number of Lanes	0	0	1	0	0	0	1	0		0	0	0		0	1	0
Configuration		LT						TR							LR	
Volume (veh/h)		11	356				295	1						41		55
Percent Heavy Vehicles (%)		3												3		3
Proportion Time Blocked																
Percent Grade (%)														0		
Right Turn Channelized																
Median Type | Storage			Undivided													

Critical and Follow-up Headways

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

Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)		12													103	
Capacity, c (veh/h)		1236													526	
v/c Ratio		0.01													0.20	
95% Queue Length, Q_{95} (veh)		0.0													0.7	
Control Delay (s/veh)		7.9													13.5	
Level of Service (LOS)		A													B	
Approach Delay (s/veh)		0.3												13.5		
Approach LOS														B		

RENARD PL AT BUENA VISTA DR

HCS7 Two-Way Stop-Control Report

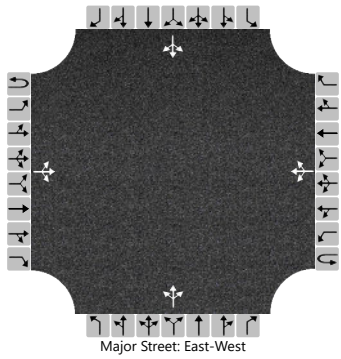
General Information

Analyst	MRM
Agency/Co.	Lee Engineering
Date Performed	8/2/2021
Analysis Year	2021
Time Analyzed	Existing AM
Intersection Orientation	East-West
Project Description	Cien Aguas Charter School

Site Information

Intersection	Renard at Buena Vista Dr
Jurisdiction	CABQ
East/West Street	Renard Pl
North/South Street	Buena Vista Dr
Peak Hour Factor	0.92
Analysis Time Period (hrs)	1.00

Lanes



Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority	1U	1	2	3	4U	4	5	6		7	8	9		10	11	12
Number of Lanes	0	0	1	0	0	0	1	0		0	1	0		0	1	0
Configuration			LTR				LTR				LTR				LTR	
Volume (veh/h)		9	13	59		17	2	8		14	3	7		5	0	0
Percent Heavy Vehicles (%)		3				3				3	3	3		3	3	3
Proportion Time Blocked																
Percent Grade (%)										0				0		
Right Turn Channelized																
Median Type | Storage			Undivided													

Critical and Follow-up Headways

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

Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)		10				18					26				5	
Capacity, c (veh/h)		1602				1514					883				839	
v/c Ratio		0.01				0.01					0.03				0.01	
95% Queue Length, Q_{95} (veh)		0.0				0.0					0.1				0.0	
Control Delay (s/veh)		7.3				7.4					9.2				9.3	
Level of Service (LOS)		A				A					A				A	
Approach Delay (s/veh)		0.8				4.7				9.2				9.3		
Approach LOS										A				A		

HCS7 Two-Way Stop-Control Report

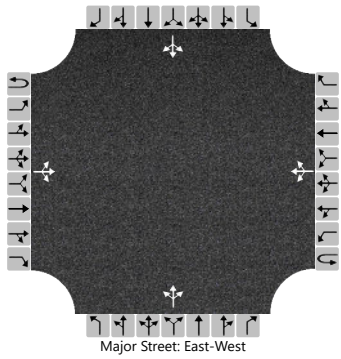
General Information

Analyst	MRM
Agency/Co.	Lee Engineering
Date Performed	8/2/2021
Analysis Year	2021
Time Analyzed	Existing PM
Intersection Orientation	East-West
Project Description	Cien Aguas Charter School

Site Information

Intersection	Renard at Buena Vista Dr
Jurisdiction	CABQ
East/West Street	Renard Pl
North/South Street	Buena Vista Dr
Peak Hour Factor	0.64
Analysis Time Period (hrs)	1.00

Lanes



Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority	1U	1	2	3	4U	4	5	6		7	8	9		10	11	12
Number of Lanes	0	0	1	0	0	0	1	0		0	1	0		0	1	0
Configuration			LTR				LTR				LTR				LTR	
Volume (veh/h)		0	8	27		3	4	0		26	0	34		14	5	4
Percent Heavy Vehicles (%)		3				3				3	3	3		3	3	3
Proportion Time Blocked																
Percent Grade (%)										0				0		
Right Turn Channelized																
Median Type | Storage			Undivided													

Critical and Follow-up Headways

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

Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)		0				5					94				36	
Capacity, c (veh/h)		1608				1544					985				882	
v/c Ratio		0.00				0.00					0.10				0.04	
95% Queue Length, Q_{95} (veh)		0.0				0.0					0.3				0.1	
Control Delay (s/veh)		7.2				7.3					9.0				9.3	
Level of Service (LOS)		A				A					A				A	
Approach Delay (s/veh)		0.0				3.2				9.0				9.3		
Approach LOS										A				A		

HCS7 Two-Way Stop-Control Report

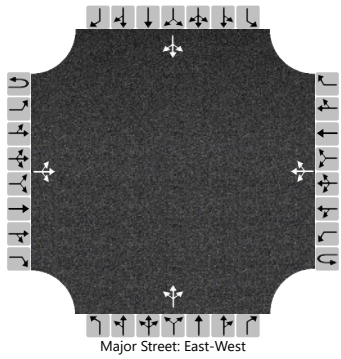
General Information

Analyst	MRM
Agency/Co.	Lee Engineering
Date Performed	8/2/2021
Analysis Year	2021
Time Analyzed	Build Out AM
Intersection Orientation	East-West
Project Description	Cien Aguas Charter School

Site Information

Intersection	Renard at Buena Vista Dr
Jurisdiction	CABQ
East/West Street	Renard Pl
North/South Street	Buena Vista Dr
Peak Hour Factor	0.92
Analysis Time Period (hrs)	1.00

Lanes



Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority	1U	1	2	3	4U	4	5	6		7	8	9		10	11	12
Number of Lanes	0	0	1	0	0	0	1	0		0	1	0		0	1	0
Configuration			LTR				LTR				LTR				LTR	
Volume (veh/h)		9	13	88		52	2	8		14	3	7		5	0	0
Percent Heavy Vehicles (%)		3				3				3	3	3		3	3	3
Proportion Time Blocked																
Percent Grade (%)										0				0		
Right Turn Channelized																
Median Type | Storage			Undivided													

Critical and Follow-up Headways

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

Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)		10				57					26				5	
Capacity, c (veh/h)		1602				1474					780				715	
v/c Ratio		0.01				0.04					0.03				0.01	
95% Queue Length, Q_{95} (veh)		0.0				0.1					0.1				0.0	
Control Delay (s/veh)		7.3				7.5					9.8				10.1	
Level of Service (LOS)		A				A					A				B	
Approach Delay (s/veh)		0.6				6.4				9.8				10.1		
Approach LOS										A				B		

HCS7 Two-Way Stop-Control Report

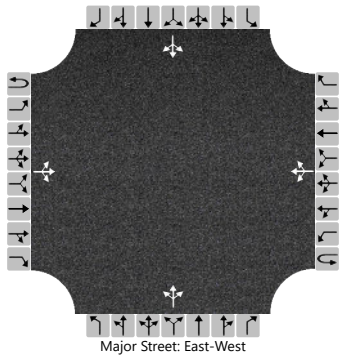
General Information

Analyst	MRM
Agency/Co.	Lee Engineering
Date Performed	8/2/2021
Analysis Year	2021
Time Analyzed	Build Out PM
Intersection Orientation	East-West
Project Description	Cien Aguas Charter School

Site Information

Intersection	Renard at Buena Vista Dr
Jurisdiction	CABQ
East/West Street	Renard Pl
North/South Street	Buena Vista Dr
Peak Hour Factor	0.64
Analysis Time Period (hrs)	1.00

Lanes



Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority	1U	1	2	3	4U	4	5	6		7	8	9		10	11	12
Number of Lanes	0	0	1	0	0	0	1	0		0	1	0		0	1	0
Configuration			LTR				LTR				LTR				LTR	
Volume (veh/h)		0	8	41		20	4	0		26	0	34		14	5	4
Percent Heavy Vehicles (%)		3				3				3	3	3		3	3	3
Proportion Time Blocked																
Percent Grade (%)										0				0		
Right Turn Channelized																
Median Type | Storage			Undivided													

Critical and Follow-up Headways

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

Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)		0				31					94				36	
Capacity, c (veh/h)		1608				1516					928				801	
v/c Ratio		0.00				0.02					0.10				0.04	
95% Queue Length, Q_{95} (veh)		0.0				0.1					0.3				0.1	
Control Delay (s/veh)		7.2				7.4					9.3				9.7	
Level of Service (LOS)		A				A					A				A	
Approach Delay (s/veh)		0.0				6.2				9.3				9.7		
Approach LOS										A				A		

MILES RD AT BUENA VISTA DR

HCS7 Two-Way Stop-Control Report

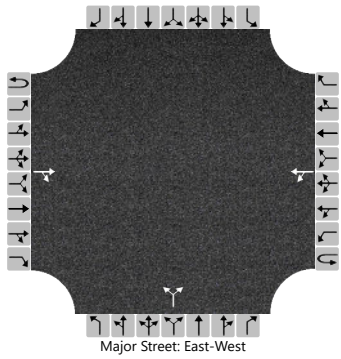
General Information

Analyst	MRM
Agency/Co.	Lee Engineering
Date Performed	8/2/2021
Analysis Year	2021
Time Analyzed	Existing AM
Intersection Orientation	East-West
Project Description	Cien Aguas Charter School

Site Information

Intersection	Miles Rd at Buena Vista
Jurisdiction	CABQ
East/West Street	Miles Rd
North/South Street	Buena Vista Dr
Peak Hour Factor	0.73
Analysis Time Period (hrs)	0.25

Lanes



Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority	1U	1	2	3	4U	4	5	6		7	8	9		10	11	12
Number of Lanes	0	0	1	0	0	0	1	0		0	1	0		0	0	0
Configuration				TR		LT					LR					
Volume (veh/h)			6	96		5	3			12		0				
Percent Heavy Vehicles (%)						3				3		3				
Proportion Time Blocked																
Percent Grade (%)										0						
Right Turn Channelized																
Median Type | Storage	Undivided															

Critical and Follow-up Headways

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

Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)						7					16					
Capacity, c (veh/h)						1437					902					
v/c Ratio						0.00					0.02					
95% Queue Length, Q_{95} (veh)						0.0					0.1					
Control Delay (s/veh)						7.5					9.1					
Level of Service (LOS)						A					A					
Approach Delay (s/veh)					4.7				9.1							
Approach LOS									A							

HCS7 Two-Way Stop-Control Report

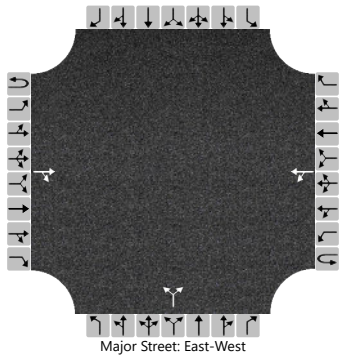
General Information

Analyst	MRM
Agency/Co.	Lee Engineering
Date Performed	8/2/2021
Analysis Year	2021
Time Analyzed	Existing PM
Intersection Orientation	East-West
Project Description	Cien Aguas Charter School

Site Information

Intersection	Miles Rd at Buena Vista
Jurisdiction	CABQ
East/West Street	Miles Rd
North/South Street	Buena Vista Dr
Peak Hour Factor	0.57
Analysis Time Period (hrs)	0.25

Lanes



Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority	1U	1	2	3	4U	4	5	6		7	8	9		10	11	12
Number of Lanes	0	0	1	0	0	0	1	0		0	1	0		0	0	0
Configuration				TR		LT					LR					
Volume (veh/h)			5	21		4	9			55		4				
Percent Heavy Vehicles (%)						3				3		3				
Proportion Time Blocked																
Percent Grade (%)										0						
Right Turn Channelized																
Median Type | Storage	Undivided															

Critical and Follow-up Headways

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

Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)						7					104					
Capacity, c (veh/h)						1556					950					
v/c Ratio						0.00					0.11					
95% Queue Length, Q_{95} (veh)						0.0					0.4					
Control Delay (s/veh)						7.3					9.3					
Level of Service (LOS)						A					A					
Approach Delay (s/veh)					2.3				9.3							
Approach LOS									A							

HCS7 Two-Way Stop-Control Report

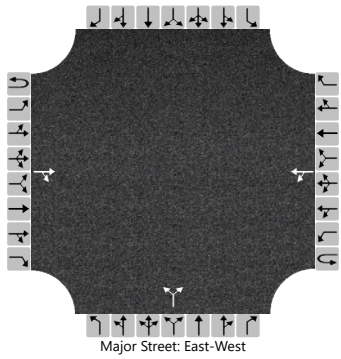
General Information

Analyst	MRM
Agency/Co.	Lee Engineering
Date Performed	8/2/2021
Analysis Year	2021
Time Analyzed	Build Out AM
Intersection Orientation	East-West
Project Description	Cien Aguas Charter School

Site Information

Intersection	Miles Rd at Buena Vista
Jurisdiction	CABQ
East/West Street	Miles Rd
North/South Street	Buena Vista Dr
Peak Hour Factor	0.73
Analysis Time Period (hrs)	0.25

Lanes



Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority	1U	1	2	3	4U	4	5	6		7	8	9		10	11	12
Number of Lanes	0	0	1	0	0	0	1	0		0	1	0		0	0	0
Configuration				TR		LT					LR					
Volume (veh/h)			6	125		5	3			12		0				
Percent Heavy Vehicles (%)						3				3		3				
Proportion Time Blocked																
Percent Grade (%)										0						
Right Turn Channelized																
Median Type | Storage						Undivided										

Critical and Follow-up Headways

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

Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)						7					16					
Capacity, c (veh/h)						1390					878					
v/c Ratio						0.00					0.02					
95% Queue Length, Q_{95} (veh)						0.0					0.1					
Control Delay (s/veh)						7.6					9.2					
Level of Service (LOS)						A					A					
Approach Delay (s/veh)						4.8				9.2						
Approach LOS										A						

HCS7 Two-Way Stop-Control Report

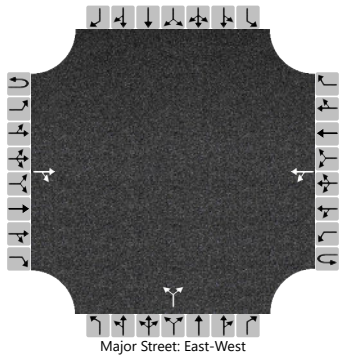
General Information

Analyst	MRM
Agency/Co.	Lee Engineering
Date Performed	8/2/2021
Analysis Year	2021
Time Analyzed	Build Out PM
Intersection Orientation	East-West
Project Description	Cien Aguas Charter School

Site Information

Intersection	Miles Rd at Buena Vista
Jurisdiction	CABQ
East/West Street	Miles Rd
North/South Street	Buena Vista Dr
Peak Hour Factor	0.57
Analysis Time Period (hrs)	0.25

Lanes



Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority	1U	1	2	3	4U	4	5	6		7	8	9		10	11	12
Number of Lanes	0	0	1	0	0	0	1	0		0	1	0		0	0	0
Configuration				TR		LT					LR					
Volume (veh/h)			5	35		4	9			55		4				
Percent Heavy Vehicles (%)						3				3		3				
Proportion Time Blocked																
Percent Grade (%)										0						
Right Turn Channelized																
Median Type | Storage	Undivided															

Critical and Follow-up Headways

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

Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)						7					104					
Capacity, c (veh/h)						1524					935					
v/c Ratio						0.00					0.11					
95% Queue Length, Q_{95} (veh)						0.0					0.4					
Control Delay (s/veh)						7.4					9.3					
Level of Service (LOS)						A					A					
Approach Delay (s/veh)					2.3				9.3							
Approach LOS									A							

Appendix E:

AASHTO Greenbook Intersection Sight Distance Calculations

Table 9-6. Time Gap for Case B1, Left Turn from Stop

Design Vehicle	Time Gap (t_g)(s) at Design Speed of Major Road
Passenger car	7.5
Single-unit truck	9.5
Combination truck	11.5

Note: Time gaps are for a stopped vehicle to turn left onto a two-lane highway with no median and with minor-road approach grades of 3 percent or less. The time gaps are applicable to determining sight distance to the right in left-turn maneuvers. The table values should be adjusted as follows:

For multilane roadways or medians—For left turns onto two-way roadways with more than two lanes, including turn lanes, add 0.5 s for passenger cars or 0.7 s for trucks for each additional lane, from the left, in excess of one, to be crossed by the turning vehicle. Median widths should be converted to an equivalent number of lanes in applying the 0.5 and 0.7 s criteria presented above; for example, an 18-ft [5.5-m] median is equivalent to one and a half lanes, and would require an additional 0.75 s for a passenger to cross and an additional 1.05 s for a truck to cross.

For minor-road approach grades—If the approach grade is an upgrade that exceeds 3 percent, add 0.2 s for each percent grade by which the approach grade exceeds zero percent.

Table 9-8. Time Gap for Case B2—Right Turn from Stop

Design Vehicle	Time Gap (t_g)(s) at Design Speed of Major Road
Passenger car	6.5
Single-unit truck	8.5
Combination truck	10.5

Note: Time gaps are for a stopped vehicle to turn right onto or to cross a two-lane roadway with no median and with minor-road approach grades of 3 percent or less. The table values should be adjusted as follows:

For minor-road approach grades—If the approach grade is an upgrade that exceeds 3 percent, add 0.1 s for each percent grade by which the approach grade exceeds zero percent.

U.S. Customary	Metric	
$ISD = 1.47\ V_{major}\ t_g$	$ISD = 0.278\ V_{major}\ t_g$	(9-1)
where:	where:	
ISD = intersection sight distance (length of the leg of sight triangle along the major road) (ft)	ISD = intersection sight distance (length of the leg of sight triangle along the major road) (m)	
V_{major} = design speed of major road (mph)	V_{major} = design speed of major road (km/h)	
t_g = time gap for minor road vehicle to enter the major road (s)	t_g = time gap for minor road vehicle to enter the major road (s)	

Table 9-7. Design Intersection Sight Distance—Case B1, Left Turn from Stop

U.S. Customary			
Design Speed (mph)	Stopping Sight Distance (ft)	Intersection Sight Distance for Passenger Cars	
		Calculated (ft)	Design (ft)
15	80	165.4	170
20	115	220.5	225
25	155	275.6	280
30	200	330.8	335
35	250	385.9	390
40	305	441.0	445
45	360	496.1	500
50	425	551.3	555
55	495	606.4	610
60	570	661.5	665
65	645	716.6	720
70	730	771.8	775
75	820	826.9	830
80	910	882.0	885

Metric			
Design Speed (km/h)	Stopping Sight Distance (m)	Intersection Sight Distance for Passenger Cars	
		Calculated (m)	Design (m)
20	20	41.7	45
30	35	62.6	65
40	50	83.4	85
50	65	104.3	105
60	85	125.1	130
70	105	146.0	150
80	130	166.8	170
90	160	187.7	190
100	185	208.5	210
110	220	229.4	230
120	250	250.2	255
130	285	271.1	275

Note: Intersection sight distance shown is for a stopped passenger car to turn left onto a two-lane highway with no median and grades 3 percent or less. For other conditions, the time gap should be adjusted and the sight distance recalculated.

Table 9-9. Design Intersection Sight Distance—Case B2, Right Turn from Stop

U.S. Customary			
Design Speed (mph)	Stopping Sight Distance (ft)	Intersection Sight Distance for Passenger Cars	
		Calculated (ft)	Design (ft)
15	80	143.3	145
20	115	191.1	195
25	155	238.9	240
30	200	286.7	290
35	250	334.4	335
40	305	382.2	385
45	360	430.0	430
50	425	477.8	480
55	495	525.5	530
60	570	573.3	575
65	645	621.1	625
70	730	668.9	670
75	820	716.6	720
80	910	764.4	765

Metric			
Design Speed (km/h)	Stopping Sight Distance (m)	Intersection Sight Distance for Passenger Cars	
		Calculated (m)	Design (m)
20	20	36.1	40
30	35	54.2	55
40	50	72.3	75
50	65	90.4	95
60	85	108.4	110
70	105	126.5	130
80	130	144.6	145
90	160	162.6	165
100	185	180.7	185
110	220	198.8	200
120	250	216.8	220
130	285	234.9	235

Note: Intersection sight distance shown is for a stopped passenger car to turn right onto or to cross a two-lane roadway with no median and with grades of 3 percent or less. For other conditions, the time gap should be adjusted and the sight distance recalculated.