Neighborhood Impact Assessment
MAS Charter School

Report

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Prepared for:
Charter School Property Solutions

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LEE ENGINEERING

EXECUTIVE SUMMARY

Lee Engineering has completed this report for Charter School Property Solutions. This report summarizes a Neighborhood Impact Assessment (NIA) of a parking lot development at Mission Achievement and Success (MAS) Charter School located at 1718 Yale Boulevard in the southeast quadrant of Albuquerque, New Mexico. All analyses and items herein conform to the requirements outlined in the CABQ Traffic Scoping Form dated December 8, 2021, and City of Albuquerque comments received on May 10, 2022. Scoping forms and comments are in Appendix A.

Background

MAS Charter School is located at 1718 Yale Boulevard. Two alternatives were initially proposed to address traffic concerns along Yale Boulevard and Ross Avenue resulting from the parking lot development. First, the West Loop consists of constructing an additional parking area and student drop-off/pick-up loop on the northwest corner of Yale Boulevard SE and Ross Avenue SE, 1717 Yale Boulevard. The improvement of the parking lot was expected to be completed by the 2022/2023 academic year and used in conjunction with the East Alley Loop to house all drop-off and pick-up operations for the school. Secondly, a community initiative was proposed that uses the West Loop and the South Loop, Centre Avenue, and International Avenue.

9-hour turning movement counts were collected on December 8, 2021, for study intersections 1 through 4 (Figure 2) and December 15, 2021, for study intersections 5 and 6. Construction was anticipated to begin in 2022, with full completion of the development by Fall 2022. Analysis scenarios for this study included:

1. Existing Conditions (2021)
2. West Loop Build-out w/Yale Boulevard Road Diet (2022)
3. South Loop Build-out (2022)

Analysis of these alternatives was conducted, documented, and submitted to CABQ in May of 2022. CABQ provided feedback and comments on the report. The City's response comprised several significant changes:

1. Use of the East Alley Loop is prohibited
2. Analyze Ross Loop and Church Lot operations for the 2022/2023 school year
3. Analyze West Loop and Community Center Loop Site Plan

The CABQ Department of Municipal Development restricted access to the East Alley Loop. Excessive dust from the use of the East Alley has negatively impacted the air quality of adjacent residents. This restriction required the school to reevaluate and revise its drop-off and pick-up operations. CABQ Traffic Engineering Department granted use of the two-way left turn lane (TWLTL) on Ross Avenue for queuing during peak drop-off and pick-up hours as an intermediate solution. MAS Charter School will use this alternative for the 2022/2023 school year in conjunction with the Church Lot at 1717 Yale Boulevard. The City is looking at the potential for the school to acquire and develop the Community Center Loop. This loop is located along the south property line of the adjacent community center. Lastly, another alternative is evaluated, which uses the West Loop and Ross Avenue in place of the Community Center Loop.

In addition to the initial analyses, this report documents the results of the following scenario evaluations:

1. Ross Avenue Loop and Church Lot
2. West and Community Center Loops
3. West and Ross Avenue Loops

SUMMARY OF RECOMMENDATIONS

Either West Loop alternative with a concurrent lane reconfiguration on Yale Boulevard is recommended with adherence to the following recommendations:

- General Recommendations
  - A school zone is established on Yale Boulevard and the eastern leg of Ross Avenue, specific to MAS Charter School's bell schedule.
  - Implement a Rectangular Rapid Flashing Beacon for the established crosswalk on the northern leg of the intersection of Yale Boulevard and Ross Avenue.
  - Install four quadrant lighting at Yale Boulevard and Ross Avenue to mitigate overrepresented dark-hour crashes.
  - As detailed in the sight distance sections of this report, intersection sight distance should be provided and maintained.
- Recommendations for Ross Avenue Loop Alternative
  - Restricting traffic flow resulting from traffic queuing on Ross Avenue east of the school is prohibited. Do Not Block Intersection pavement markings shall be applied, communicated to parents, and firmly enforced.
  - An exclusive right-turn lane should be striped on northbound Yale Boulevard between Ross and International Avenues to add queuing capacity to the intermediate drop-off/pick-up (Ross Loop) scheme and per CABQ DPM.
- Recommendations for West Loop Alternatives
  - Blocking the business's driveway, north of Driveway 1, is prohibited. Do Not Block Intersection pavement markings shall be applied, communicated to parents, and firmly enforced.
  - An exclusive right-turn lane should be striped on northbound Yale Boulevard between Ross and International Avenues per the CABQ DPM for the West Loop alternatives.
  - Access to the site is maintained via the drop-off/pick-up operations map provided in this report.
    - Driveway 1 - right-in only
    - Driveway 2 – right-out only
    - Driveway 4 – right-out only
  - Stripe a through/right turn lane on Yale Boulevard for Driveway 2 egress.
  - Install plastic bollards between the turn and through lanes at Driveways 1 and 2 to communicate the right-in, right-out access of these driveways.
- Recommendations for Community Center Loop Alternative
  - For the Community Center Loop establish a median treatment to restrict left-turns from northbound traffic to access Driveway 2 while allowing southbound traffic to complete left-turns to access Driveway 3.
  - For the Community Center Loop, auxiliary right-turn lanes are established on Yale Boulevard for Driveways 1 and 3.

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INTRODUCTION

This report details the procedures and findings of a Neighborhood Impact Assessment (NIA) performed by Lee Engineering for Charter School Property Solutions. This report and the analyses were performed for a parking lot development that serves Mission Achievement and Success (MAS) Charter School, located at 1718 Yale Boulevard in the southeast quadrant of Albuquerque, New Mexico. All analyses and items herein conform to the requirements outlined in the CABQ Traffic Scoping Form dated December 8, 2021, and City of Albuquerque comments received on May 10, 2022. Scoping forms and comments are in Appendix A. Analysis procedures, conclusions, and recommendations for this study use guidance from the *ITE Trip Generation Manual 11th Edition and Highway Capacity Manual 6th Edition*. This report documents the results of the following scenarios:

1. Initial Proposed Development
    a. Existing Conditions (2021)
    b. West Loop Build-out w/Yale Boulevard Road Diet (2022)
    c. South Loop Build-out (2022)

2. Future Development
    d. Ross Avenue Loop and Church Lot (2022)
    e. West Loop and Community Center Loop (2023)
    f. West Loop and Ross Avenue Loop (2023)

This report is organized by discussing the initial proposed development and scenario analyses. Then discusses the City's comments regarding these analyses. Lastly, the report concludes with the final proposed development and scenario analyses.

PROJECT LOCATION & INITIAL SITE PLAN

MAS Charter School plans to expand its parking area and develop a student drop-off/pick-up loop at 1717 Yale Boulevard. The parking lot developments were initially expected to be completed before the 2022/2023 academic year; however, project coordination delays have extended the timeline. The project area is in southeast Albuquerque, north of Albuquerque International Sunport. The project area is bound by existing commercial, residential, and community developments. North of MAS Charter School is Loma Linda Community Center, and to the south are several hotels. The east and west of the development are zoned for residential use. Figure 1 shows the site plan for the initial development.

Figure 1. Initial Site Plan

Site Access

Three driveways provide access to the site via Yale Boulevard. Driveway 1 will serve as the ingress to the west drop-off/pick-up loop for passenger vehicles and will operate as a right-in driveway. Driveway 2 is an ingress point of the parking area for passenger vehicles and buses. Driveway 3 will be an egress point from the parking area and west drop-off/pick-up loop, operating as a right-out driveway. Figure 1 shows the driveway locations and configuration.

Study Area

Kathryn Avenue binds the study area on the north and Centre Avenue to the south. The alleyway to the east of MAS Charter School binds the study area on the east and the proposed parking lot development on the west. The following intersections, identified and agreed upon in the scoping form, are the study intersections for this Neighborhood Impact Analysis:

1. Yale Boulevard & Anderson Avenue
2. Yale Boulevard & Ross Avenue
3. Access Driveway on Ross Avenue
4. Access Driveways on Yale Boulevard (3)

Figure 2. Vicinity Map

Area Land Use

MAS Charter School is located at 1718 Yale Boulevard at the northeast corner of the intersection of Yale Boulevard and Ross Avenue in the southeast quadrant of Albuquerque, New Mexico. Adjacent to and surrounding the project site are land uses consisting of the following:

- Commercial: Some adjacent land use is commercial, with commercial developments located south of MAS Charter School and proposed parking lot development.
- Community: Abutting the school's property to the north is a community center; its property is zoned for community use.
- Residential: Just beyond the community and commercial developments to the north and the east and west of the school property and proposed parking lot development are multi-family and single-family residential zoned areas.
- Other uses within a quarter-mile of the school property and proposed parking lot development include office, drainage, and industrial.

Figure 3: Adjacent Land Uses

Streets

Yale Boulevard is a two-way, undivided five-lane roadway with a shared two-way left-turn lane in the center. There are four 11-foot travel lanes; two lanes are for southbound travel and two for northbound. The roadway incorporates a curb and gutter, and a sidewalk is on both sides. Its functional class is urban minor arterial with a posted speed limit of 40 MPH. A school zone is not implemented for MAS Charter School.

Kathryn Avenue is a two-lane, two-way undivided roadway, classified as a local urban street running east and west. The traveled way is approximately 28 feet wide west of Yale Boulevard and 36-wide on the east. Sidewalks are on both sides of the road, and the roadway has a posted speed limit of 25 MPH.

Anderson Avenue is a two-lane, two-way undivided roadway, classified as a local urban street, and runs east and west. The traveled way is approximately 28 feet wide, with sidewalks present on both sides of the road. The roadway has the standard speed limit for local urban streets of 25 MPH per the City of Albuquerque Code of Ordinances.

Ross Avenue is a two-lane undivided roadway, classified as a local urban street running east and west. The traveled way is approximately 36 feet wide. A sidewalk is present on both sides of the road. The roadway has a standard speed limit for local urban streets of 25 MPH.

International Avenue is a two-lane undivided roadway, classified as a local urban street running east from Yale Boulevard to Centre Avenue. The traveled way ranges between 56 feet wide on the approach to Yale Boulevard and 36 feet wide. A sidewalk is present along both sides of the road. The roadway has a standard speed limit for local urban streets of 25 MPH.

Centre Avenue is a two-lane undivided roadway, classified as a local urban street running east and west between Yale Boulevard and International Avenue. The traveled way is approximately 36 feet wide. Detached sidewalks are present along the road. The roadway has a standard speed limit for local urban streets of 25 MPH.

Intersections

The City of Albuquerque maintains all intersections in the study area.

Yale Boulevard & Kathryn Avenue is a 3-legged, signalized intersection with crosswalks marked at all approaches. The west side leg of Kathryn is not included in this study as it is not part of the signalized intersection, and no trips are projected to use this facility. Kathryn Avenue also extends to the west via an offset connection.

Yale Boulevard & Anderson Avenue is a 3-legged unsignalized intersection with stop control on Anderson Avenue. Pedestrian crossings are not marked on any approach to the intersection.

Yale Boulevard & Ross Avenue is a 4-legged, unsignalized intersection with stop control on Ross Avenue. A marked pedestrian crosswalk with a center refuge island exists on the northern intersection approach. All other pedestrian crossings are unmarked.

Yale Boulevard & International Avenue is a 3-legged, unsignalized intersection with stop control on International Avenue. Pedestrian crossings are unmarked.

Yale Boulevard & Centre Avenue is a 3-legged, unsignalized intersection with stop control on Centre Avenue. Crosswalks are unmarked.

Current Adjacent Projects

There are pending improvements for commercial land use on the southwest corner of Gibson and Yale Boulevards. Additionally, Loma Linda Community Center is developing a community garden as part of the Bernalillo County Urban Agriculture Project initiative.

TRANSIT

Two bus routes operate within the study area: Route 50 and Route 16. These routes operate on weekdays with stops every 30 minutes and on weekends with stops every hour in the north and southbound directions on Yale Boulevard. Figure 4 shows the transit routes and stop locations in the study area.

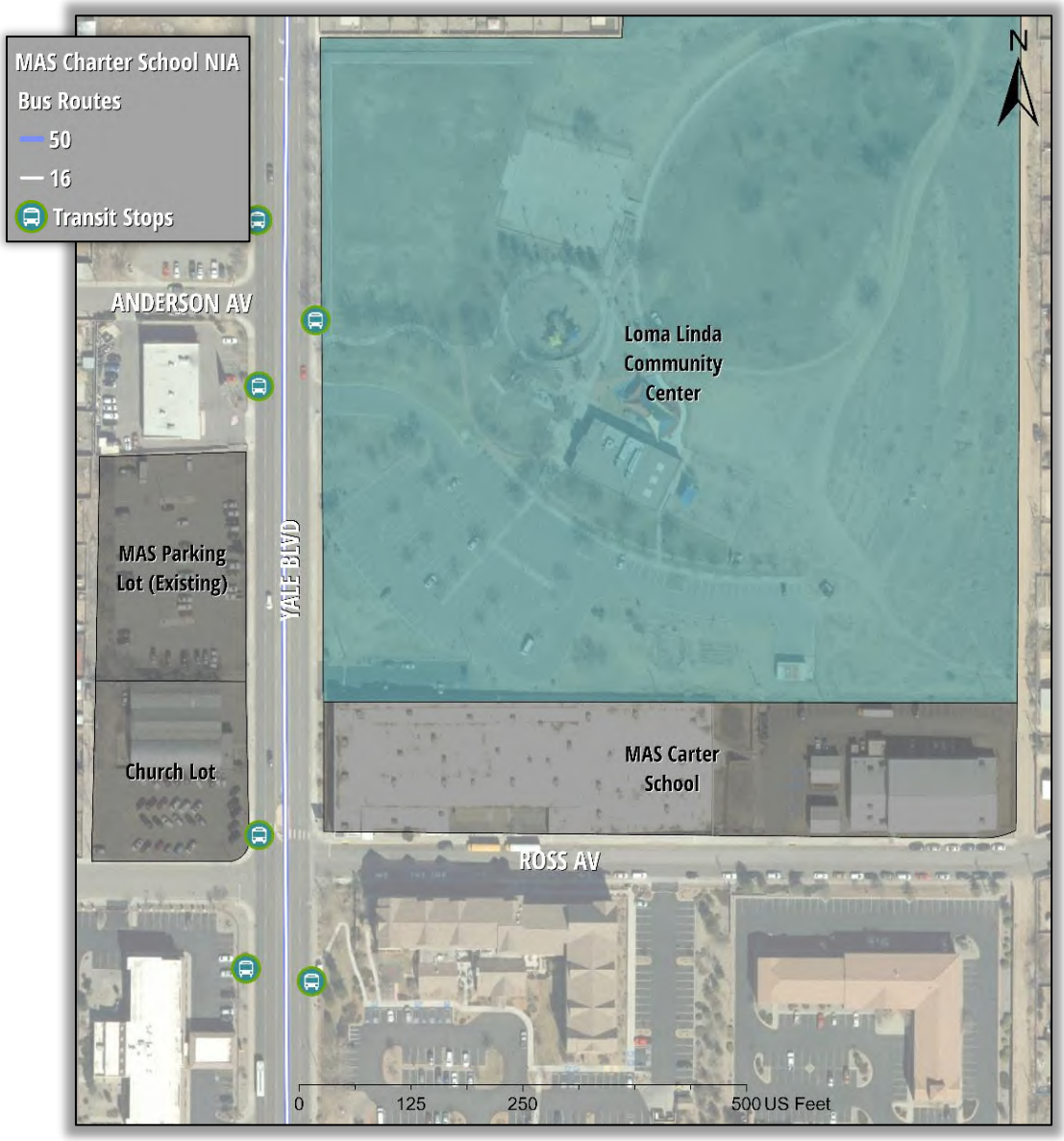

Figure 4: Transit Routes and Stops

PEDESTRIAN AND BICYCLE ACCESSIBILITY

Bicycle facilities are not present on any road in the study area. Sidewalks exist on all streets within the study area in compliance with CABQ DPM. In addition, a marked crosswalk with a pedestrian refuge island is on the northern leg of the Yale Boulevard and Ross Avenue intersection.

Figure 5: Bicycle Facilities

ANALYSIS OF EXISTING CONDITIONS

CRASH SUMMARY

This study analyzed five years of crashes occurring in the study corridor between 2015 and 2019 provided by The University of New Mexico, Geospatial and Population Studies, Traffic Research Unit. This crash dataset, the most recent available, contained forty-six crashes. Crash data is extracted from crash reports filed by law enforcement officers. The following injury codes identify crash severity in New Mexico:

- K – Killed (Fatal)
- A – Incapacitated (Serious Injury)
- B – Visible Injury (Minor Injury)
- C – Complaint of Injury (Suspected Injury)
- O – Property Damage Only (No Apparent Injury)

Of the reported crashes, one was fatal. None resulted in a serious injury, nineteen were minor or suspected injuries, and twenty-six did not involve an injury. A pedestrian involved in a crash at Yale Boulevard and Ross Avenue had a suspected injury. Bicyclists were involved in two crashes; one was reported as having a suspected injury from a crash at Yale and Kathryn. The other bicyclist was involved in the fatal crash at Yale And Ross. Only one crash involved alcohol or drugs. Table 1 summarizes the crashes by year, type, lighting conditions, severity, and top contributing factor.

Table 1: Crash Summary (2015-2019)

	Intersection/Segment	Yale Blvd & Kathryn Ave	Kathryn Ave to East Alley Loop	Yale Blvd & Academic Pl	Yale Blvd & Anderson Ave	Yale Blvd & Ross Ave	Yale Blvd & International Ave	International Ave to Centre Ave	Yale Blvd & Centre Ave
	Total Crashes	**11**	**4**	**1**	**4**	**18**	**2**	**2**	**4**
By Year	2015	1	1	1	2	1	0	0	1
	2016	5	0	0	1	6	0	1	2
	2017	1	1	0	1	3	2	0	0
	2018	3	2	0	0	6	0	1	0
	2019	1	0	0	0	2	0	0	1
By Type	Fixed Object - Median Raised Or Curb	0	0	0	0	2	0	0	0
	Fixed Object - Traffic Signal Standard	1	0	0	0	0	0	0	0
	Fixed Object - Tree	0	1	0	0	0	0	0	0
	Left Blank	2	1	0	0	3	0	1	0
	Non-Collision - Person Fell/Jumped/Pushed From Vehicle	1	0	0	0	0	0	0	0
	Other Vehicle - Both Going Straight/Entering At Angle	3	0	0	2	4	1	0	1
	Other Vehicle - Both Turn Left/Entering At Angle	0	0	0	0	1	0	0	0
	Other Vehicle - From Opposite Direction	0	0	0	0	0	0	0	1
	Other Vehicle - From Opposite Direction/One Left Turn	0	0	0	1	0	0	0	0
	Other Vehicle - From Same Direction/Both Going Straight	1	0	0	1	0	0	0	0
	Other Vehicle - From Same Direction/Rear End Collision	0	0	0	0	1	0	0	0
	Other Vehicle - One Left Turn/Entering At Angle	2	2	1	0	4	1	0	2
	Other Vehicle - One Right Turn/Entering At Angle	0	0	0	0	1	0	0	0
	Pedestrian Collision - Vehicle Going Straight	0	0	0	0	1	0	0	0
	Vehicle Parked in Proper Location	0	0	0	0	0	0	1	0
	Vehicle Struck Pedalcyclist At Angle	1	0	0	0	0	0	0	0
	Vehicle Struck Pedalcyclist From Behind	0	0	0	0	1	0	0	0
	%Other Vehicle - One Left Turn/Entering At Angle	18%	50%	100%	0%	22%	50%	0%	50%
	%Other Vehicle - Both Going Straight/Entering At Angle	27%	0%	0%	50%	22%	50%	0%	25%
	%Left Blank	18%	25%	0%	0%	17%	0%	50%	0%
By Lighting Conditions	Daylight	8	4	1	4	11	0	0	3
	Dawn/Dusk	0	0	0	0	2	1	0	0
	Dark	2	0	0	0	5	1	0	1
	Invalid Code/Not Specified	1	0	0	0	0	0	1	0
	%Daylight	73%	100%	100%	100%	61%	0%	0%	75%
	%Dark	18%	0%	0%	0%	28%	50%	0%	25%
By Severity	Fatal (K)	0	0	0	0	1	0	0	0
	Serious Injury (A)	0	0	0	0	0	0	0	0
	Visible Injury (B)	1	0	0	0	5	0	0	0
	Complaint of Injury (C)	4	0	0	1	7	0	0	1
	Property Damage Only (O)	6	4	1	3	5	2	2	3
	%Property Damage Only (O)	55%	100%	100%	75%	28%	100%	100%	75%
	%Complaint of Injury (C)	36%	0%	0%	25%	39%	0%	0%	25%
	%Visible Injury (B)	9%	0%	0%	0%	28%	0%	0%	0%
By Contributing Factors	Alcohol/Drug Involved	0	1	0	0	0	0	0	0
	Avoid No Contact - Vehicle	1	0	0	0	0	0	0	0
	Driver Inattention	2	1	0	1	5	0	0	4
	Excessive Speed	2	1	0	0	1	0	0	0
	Failed to Yield Right of Way	2	1	1	3	6	1	0	0
	Improper Backing	0	0	0	0	0	0	1	0
	Improper Lane Change	1	0	0	0	0	0	0	0
	Made Improper Turn	1	0	0	0	1	1	0	0
	Missing Data	1	0	0	0	1	0	1	0
	Other - No Driver Error	0	0	0	0	1	0	0	0
	Other Mechanical Defect	1	0	0	0	0	0	0	0
	Passed Stop Sign	0	0	0	0	2	0	0	0
	Pedestrian Error	0	0	0	0	1	0	0	0
	%Failed to Yield Right of Way	18%	25%	100%	75%	33%	50%	0%	0%
	%Driver Inattention	18%	25%	0%	25%	28%	0%	0%	100%
	%Excessive Speed	18%	25%	0%	0%	6%	0%	0%	0%
	%Made Improper Turn	9%	0%	0%	0%	6%	50%	0%	0%

Crash Summaries for Intersections/Segments

Yale Boulevard & Kathryn Avenue:

- 11 crashes
- The most common crash classification is *Other Vehicle – Both Going Straight/Entering at Angle*.
- 18% of crashes occurred under low light conditions.
- No fatal crashes were reported, but minor injury crashes accounted for 45% of crashes.
- The most common contributing factors are *Failed to Yield Right of Way, Driver Inattention, and Excessive Speed*.

Kathryn Avenue between Yale Boulevard and the East Alley Loop:

- 4 crashes
- The most common crash classification *is Other Vehicle – One Left Turn/Entering at Angle.*
- All crashes occurred during daylight conditions.
- None of the crashes were fatal or involved injuries.
- Alcohol/Drugs were a contributing factor in one crash.
- The most common contributing factors are *Failed to Yield Right of Way, Driver Inattention, and Excessive Speed*.

Yale Blvd & Anderson Avenue

- 4 crashes
- The most common crash classification is *Other Vehicle – Both Going Straight/Entering at Angle.*
- All crashes occurred during daylight conditions.
- None of the crashes were fatal, and only one had a suspected injury.
- The most common contributing factor is *Failed to Yield Right of Way*.

Yale Boulevard & Ross Avenue

- 18 crashes
- The most common crash classifications are *Other Vehicle – One Left Turn/Entering at Angle and Other Vehicle – Both Going Straight/Entering at Angle.*
- 28% of crashes occurred under low light conditions.
- None of the crashes were fatal; however, 67% of crashes resulted in injuries.
- The most common contributing factor is *Failed to Yield Right of Way.*

Yale Boulevard between International and Centre Avenues

- 8 crashes
- The most common crash classifications are *Other Vehicle – One Left Turn/Entering at Angle*.
- 43% of crashes occurred under low light conditions.
- None of the crashes were fatal, and only one had a suspected injury.
- The most common contributing factor is Driver Inattention.

DATA COLLECTION

Turning movement counts for the study intersections were collected for 9 hours in 2-periods: 6:00 AM-10:00 AM (morning) and 1:00 PM-6:00 PM (afternoon) on December 8 and December 15, 2021. Table 2 shows the observed 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 6. Complete turning movement count sheets are in Appendix B.

Table 2: Intersection Peak Hours

Intersection	Data Collection Date	AM Peak Hour	PM Peak Hour
Yale Boulevard & Kathryn Avenue	December 8, 2021	7:30 - 8:30	4:00 - 5:00
Kathryn Avenue at East Alley Loop	December 8, 2021	7:15 - 8:15	4:15 - 5:15
Yale Boulevard & Anderson Avenue	December 8, 2021	7:30 - 8:30	4:00 - 5:00
Yale Boulevard & Ross Avenue	December 8, 2021	7:30 - 8:30	4:00 - 5:00
Yale Boulevard & International Avenue	December 15, 2021	7:15 - 8:15	4:15 - 5:15
Yale Boulevard & Centre Avenue	December 15, 2021	7:15 - 8:15	4:00 - 5:00

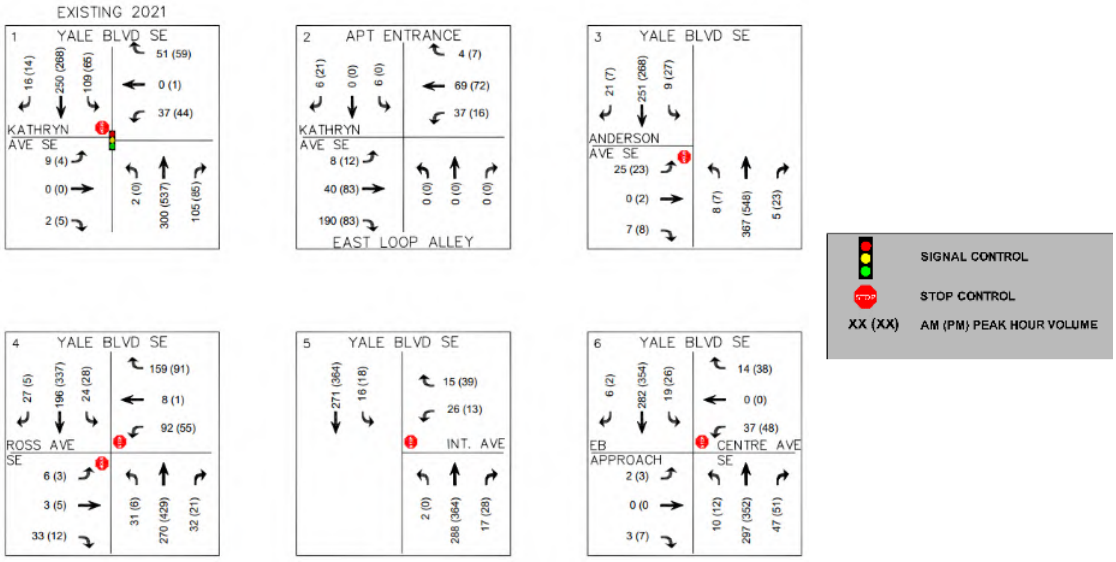

Figure 6. Existing 2021 Turning Movement Counts

LEVEL OF SERVICE AND CAPACITY ANALYSIS

Intersection Analysis

Intersection Capacity and Level of Service (LOS) analyses 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. According to the Highway Capacity Manual, LOS is presented as a letter grade (A through F) based on the 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; it is 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 delay measurements, 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 3, 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 3: 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 the average vehicle delay of all the movements. Two-way stop-controlled intersection LOS is defined as the average vehicle delay of an individual movement. Table 4 shows LOS criteria for unsignalized intersections.

Table 4: LOS Criteria for Unsignalized Intersections

Level of Service	Average Control Delay (sec/vehicle)
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 stated that unreported average queueing at an intersection would statistically be much shorter than 95th percentile queueing.

Analysis of Signalized Intersections

Table 5 summarizes the intersection capacity and LOS analysis performed for existing conditions at Yale Boulevard and Kathryn Avenue. Per HCM6 procedures, peak hour factors are derived from the collected traffic counts for the intersections and are used in the existing conditions analysis and all other scenarios. The current signal timings for Yale Boulevard and Kathryn Avenue, provided by CABQ, were used in each analysis scenario unless otherwise stated.

Table 5: 2021 Existing Signalized Capacity Analysis Summary

Intersection	Scenario	Worst Case Movement	Delay (sec/veh)	V/C	LOS	Intersection Delay (sec/veh)	Intersection LOS
Yale Boulevard & Kathryn Avenue	AM	WB L/R	57.9	0.65	E	6.3	A
	PM	WB L/R	39.9	0.22	D	8.8	A

Queueing is reported as a ratio Queue Storage Ratio (QSR) for signalized intersections. It indicates the ratio of demand to capacity based on possible lengths of vehicles waiting during "red" times for specific movements. Table 6 summarizes the queuing results for the existing conditions. Detailed capacity output sheets are in Appendix D.

Table 6: 2021 Existing Signalized Queue Storage Summary

Intersection	Scenario	Movement	95th Percentile (QSR)	Storage Length (ft)
Kathryn Avenue at East Alley Loop	AM	WB T	0.37	240
		NB T/R	0.16	105
		SB L/T	0.05	360
	PM	WB T	0.45	240
		NB T/R	0.27	105
		SB L/T	0.00	360

*95th Percentile (QSR)= Queue Storage Ratio

The summaries in Table 5 and Table 6 indicate:

Yale Boulevard & Kathryn Avenue

- Capacity Analysis:
  - Under existing conditions, the intersection operates at an acceptable level of service in both the AM and PM peak hours. Individual movements operate at a tolerable LOS for the PM peak. Still, the AM peak hour operates at a level of intolerable delay.
- Queueing Analysis:
  - 95th percentile Queue Storage Ratios (QSR) is accommodated by existing storage lengths during the AM and PM peak hours.

Analysis of Stop Controlled Intersections

Table 7 summarizes stop-controlled intersection capacity and LOS analysis performed for existing conditions of the unsignalized intersections.

Table 7: 2021 Existing Stop Control Capacity Analysis Summary

Intersection	Scenario	Worst Case Movement	Delay (sec/veh)	V/C	LOS
Kathryn Ave at	AM	SB T	10.2	0.02	A
East Alley Loop	PM	SB T	8.8	0.03	A
Yale Boulevard &	AM	EB L	12.3	0.05	B
Anderson Avenue	PM	EB L	13.7	0.06	B
Yale Boulevard &	AM	WB T	19.5	0.13	C
Ross Avenue	PM	WB T	31.0	0.69	D
Yale Boulevard &	AM	WB L	11.8	0.05	B
International Avenue	PM	WB L	12.7	0.03	B
Yale Boulevard &	AM	WB T	12.7	0.11	B
Centre Avenue	PM	WB T	13.4	0.18	B

Queueing is reported as the number of vehicles in the queue for stop-controlled intersections. Table 8 summarizes the queuing results. Detailed capacity output sheets are in Appendix D.

Table 8: 2021 Existing Stop Control Queue Storage Summary

Study Intersection	Movement	Existing 2021 AM 95th Percentile (veh)	Existing 2021 PM 95th Percentile (veh)
Kathryn Ave at East Alley Loop	EB L	0.0	0.0
	WB L	0.1	0.0
	SB T	0.1	0.1
Yale Boulevard & Anderson Avenue	EB L	0.2	0.2
	EB R	0.0	0.0
	NB L	0.0	0.0
	SB L	0.0	0.1
Yale Boulevard & Ross Avenue	EB T	0.3	0.0
	WB T	6.1	0.4
	NB L	0.1	0.0
	SB L	0.1	0.1
Yale Boulevard & International Avenue	WB L	0.2	0.1
	WB R	0.1	0.2
	SB L	0.0	0.1
Yale Boulevard & Centre Avenue	EB T	0.0	0.1
	WB T	0.4	0.7
	NB L	0.0	0.0
	SB L	0.1	0.1

*95th Percentile Queues are calculated in vehicles

The summaries in Table 7 and Table 8 indicate:

Kathryn Avenue at East Alley Loop

- Capacity Analysis:
  - Individual movements operate at an acceptable LOS for AM and PM peak hours.
- Queueing Analysis:
  - 95th percentile lengths at the intersection are less than one vehicle during the AM and PM peak hours.

Yale Boulevard & Anderson Avenue

- Capacity Analysis:
  - Individual movements operate at an acceptable LOS for AM and PM peak hours.
- Queueing Analysis:
  - 95th percentile lengths at the intersection are less than one vehicle during the AM and PM peak hours.

Yale Boulevard & Ross Avenue

- Capacity Analysis:
  - Individual movements operate at an acceptable LOS for the AM Peak Hour and a tolerable LOS for the PM peak hour.
- Queueing Analysis:
  - 95th percentile lengths at the intersection are less than one vehicle during the AM and PM peak hours except for the westbound through movement in the AM Peak hour.

Yale Boulevard & International Avenue

- Capacity Analysis:
  - Individual movements operate at an acceptable LOS for AM and PM peak hours.
- Queueing Analysis:
  - 95th percentile lengths at the intersection are less than one vehicle during the AM and PM peak hours.

Yale Boulevard & Centre Avenue

- Capacity Analysis:
  - Individual movements operate at an acceptable LOS for AM and PM peak hours.
- Queueing Analysis:
  - 95th percentile lengths at the intersection are less than one vehicle during the AM and PM peak hours.

Drop-off and Pick-up Operations

A map showing the existing parent drop-off/pick-up loops and bus drop-off/pick-up location are shown in Figure 7. The traffic circulation is designed to avoid conflicts between parent drop-off/pick-up operations and bus drop-off/pick-up operations while upholding student safety, not adversely impacting traffic operations on Yale Boulevard, and not posing a nuisance to adjacent neighborhoods during peak drop-off/pick-up hours. The East Alley Loop and existing drop-off/pick-up loop at 1717 Yale Boulevard, the Church Lot, are in use for the 2021/2022 academic year, with buses dropping students off curbside via westbound Ross Avenue. The East Alley Loop is designated for use by students in Pre-K through fourth grade.

Figure 7: Existing Drop-Off/Pick-Up Operations

Students in grades 5 through 12 use the Church Lot drop-off/pick-up area. The Church Lot is on the northwest corner of Yale Boulevard and Ross Avenue. Student traffic crosses Yale Boulevard via a marked crossing with a pedestrian refuge island on the northern leg of the intersection to access MAS Charter School.

MAS Charter School has developed specific operational rules governing drop-off and pick-up times and has communicated these to the parents. The standards apply to grades Pre-K to grade 4, grades 5 to 12, after-school program participants, and students who utilize the school's buses. This information is critical

to understanding the current measures and factors that provide operational context to the study and how the parents and students interface with the drop-off and pick-up daily.

The school's regular hours of operation are Monday through Friday, 8:20 AM to 4:20 PM (Before school program starts at 7:00 AM and after school program ends at 6:00 PM). Student drop-off in the morning is between 7:00 AM and 8:15 AM. Student pick-up is between 4:15 PM and 4:35 PM. Students participating in before and after school programs do not impact the peak drop-off and pick-up numbers.

The school owns five buses that pick students up at locations around the city, drop off students between 7:30 AM to 8:00 AM on Ross Avenue in the morning, and pick up students at 4:20 PM. There are approximately 208 students that currently utilize the MAS buses.

MAS has approximately 40 staff that assist with the drop-off and pick-up operations. This includes a contract crossing attendant that provides crossing assistance at Yale Boulevard and Ross Avenue. Staff and older siblings physically accompany younger students dropped off or picked up at the West Loop through the crosswalk from Ross Avenue to the Yale Boulevard campus. Multiple families with more than one child attend MAS Charter School. If siblings are apart in age, the younger child accompanies the older sibling to and from the West Loop. Table 9 shows real-world counts taken at the existing Church Lot, demonstrating the student-to-vehicle ratio.

Table 9: Observed Student-to-Vehicle Ratio

	Church Lot					
	AM			PM		
Day of the Week	Vehicles	Students	Students per Vehicle	Vehicles	Students	Students per Vehicle
Monday (2/28/22)	97	154	1.6	57	110	1.9
Tuesday (3/1/22)	-	-	-	65	118	1.8
Wednesday (3/2/22)	87	132	1.5	52	97	1.9
Thursday (3/4/22)	99	148	1.5	55	115	2.1

Grades PreK-12 students use the East Alley Loop for the after-school program pick-up and range in pick-up time over an hour and a half outside the PM peak hour. Approximately 226 students participate in after-school programs. These students are not part of the regular pick-up time slot, and their parents utilize the alley between 4:30 PM and 6:00 PM.

School Bus Drop-off/Pick-up

The bus drop-off/pick-up occurs on Ross Avenue in front of the school. Buses will not use the parking lot development other than for after-hours storage.

Pedestrian and Bicycle Circulation

The proposed development will not create a change in pedestrian or bicycle traffic. Sidewalks are present along all roadways in the study area. Students should use the sidewalk and cross at the marked crosswalk at Ross Avenue and Yale Boulevard. No bicycle facilities are not present in the study area. Charter schools do not typically generate a lot of pedestrian or bicycle traffic; most students ride the bus or are driven by parents.

ANALYSIS OF INITIAL PROPOSED CONDITIONS

TRAFFIC PROJECTIONS

The West Loop's anticipated completion is Fall of 2022, within the same year as the data collection for the study. 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, 11th Edition.* This analysis uses trip generation tables from the ITE 528 Charter School (K-12) land use category. Trips were calculated using rates for AM peak hour and PM peak hour generators. Total development trips and trips generated are shown in Table 10. Site trips for the development site were generated using data and procedures according to the Institute of Transportation Engineer's Trip Generation Manual. ITE Code 538 – Charter School (K-12) does not account for bus operations within the trip generation. Therefore, the number of students expected to ride the bus, 208, was removed from the total number of students, 1180, to reflect the trip generation better.

Table 10: Trip Generation

Land Use Category	Units	Trip Generation				Peak Hour Trips	
	Students	Period	Total	Enter	Exit	In	Out
ITE 538 Charter School (K-12)	972	AM Peak	884	53%	47%	469	415
		PM Peak	661	50%	50%	330	331

Trip Distribution and Assignment

Trip Distribution is 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 uses the proportional split of the grade of students using the West Loop and the East Alley Loop.

Traffic Volume Calculations

As stated above, build-out traffic volumes are calculated using the existing traffic volumes. No traffic growth factors are used as the student enrollment is already at the school charter's maximum. Primary site trips were added to study intersections with direct access to the proposed development.

Queuing Analysis Methodology Applicability and Variances

The queuing analysis uses a methodology to estimate the maximum queue lengths. This method is a linear model using the school's student enrollment as the dependent variable. This model estimates the maximum queue length derived from observations at 55 public elementary schools in Houston, Texas[1]. While these analyses provide a best estimate of queue lengths during drop-off/pick-up operations, it is based on operational and procedural projections. The linear model used to determine maximum queue lengths is derived from the busiest time of day at a sample of Texas elementary schools, PM Peak hour pick-up operations. MAS Charter School's busiest time of day is AM Peak Hour. This may be due to their extended school day and no-cost after-school program used by 226 students. Additionally, MAS Charter School's student body consists of grades Pre-K through 12, which may indicate a higher student-to-vehicle ratio than an elementary school. In other words, multiple children from the same household arrive in one vehicle. This analysis also assumes full adherence to the outlined drop-off/pick-up procedures. It does not account for students who may be dropped off or picked up at other locations adjacent to the school.

[1] Qualls, "Strategies for the Greening of Student Pick-Ups at School Dismissal."

West Loop Build-out

This scenario evaluates the West Loop Build-out considering a road diet is implemented on Yale Boulevard from Anderson Avenue to Ross Avenue. The Yale Road Diet involves removing a travel lane for vehicles in each direction. The additional road space allows for an auxiliary right-turn lane to access the West Loop parking lot development and will add more queuing space for drop-off/pick-up operations. The narrowed vehicle traveled way can improve safety conditions for students crossing Yale Boulevard by encouraging a reduction in travel speeds of motor vehicles. The road diet also provides a safer environment for pedestrians when crossing the street by reducing the number of travel lanes crossed when traversing the street. In this analysis, the same traffic volumes on Yale Boulevard as the existing conditions are modeled with one less thru lane for each direction.

Drop-off and Pick-up Operations

A map showing the parent drop-off/pick-up loops and bus drop-off/pick-up location for the West Loop Build-out is shown in Figure 8. The West Loop Build-out offers more queuing space for vehicles than the existing configuration. Under the West Loop Build-out scenario, drop-off/pick-up operations for grades 5 through 12 will utilize the West Loop accessing the development with a southbound right turn into Driveway 1 and depart using Driveway 3 with an eastbound right turn out of the development. Students dropped off via the West Loop will still cross Yale Boulevard at the marked crosswalk on the north leg of the intersection.

Figure 8. West Loop Build-out Drop-Off/Pick-Up Operations

West Loop Parent drop-off/pick-up and Queuing Analysis

Queue length is estimated for the current student enrollment (1180, PreK-12) and future charter maximum student enrollment (1600, PreK-12). For the current conditions, the total student population not riding the bus is 972, and for the future conditions, 1,318. The East Alley Loop has approximately 1400 feet. The development of the West Loop will add an additional 700 feet of on-site storage, increasing the total vehicle storage capacity to 2100 feet. Table 11 summarizes the maximum queue lengths for existing and future conditions.

Table 11: Queuing Analysis

Enrollment (n)	1,180	1,600
Students (n)	972	1,318
Max. Queue Length (ft)	1,460	1,980
Available Vehicle Storage (ft)	2,100	

The queuing analysis indicates that with the West Loop development, MAS Charter School can provide sufficient storage space for the maximum queue resulting from drop-off/pick-up operations.

Analysis of Signalized Intersections

In this scenario, the intersection at Yale boulevard and Kathryn Avenue operates at an acceptable level of service in both the AM and PM peak hours. However, individual westbound movements operate at an intolerable LOS for the AM and PM peak hours. Additionally, the 95th percentile queues are accommodated by existing storage lengths during the AM and PM peak hours.

Analysis of Stop Controlled Intersections

The stop-controlled intersection capacity and LOS analysis performed for West Loop Build-out and Yale Road Diet indicated that individual movements at each of the stop controlled intersections operate at an acceptable level LOS for AM and PM peak hours. The queueing analysis indicates that 95th percentile lengths at the intersections are less than one vehicle during the AM and PM peak hours except for the westbound movements at Yale Boulevard and Ross Avenue in the AM peak hour when the 95th percentile lengths are more than one vehicle.

Site Access and Sight Distance Evaluation

The following details the recommended intersection sight distance requirements 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 access driveways is based on the design vehicle crossing two lanes of traffic on an undivided roadway.
- Required intersection sight distance for Case B2 at all access driveways is based on the design vehicle crossing into the nearest traffic lane.

The values in Table 12 are rounded up to the nearest 5-foot increment. A single passenger vehicle was used as the design vehicle. Formulas, values, and calculations used in the sight distance analysis can be found in Appendix E.

Table 12: Sight Distance Requirements

Location	Speed	Case	Sight Distance (ft)
Driveway 2 (Exit) on Yale Boulevard	40 MPH	B1 - Turning Left	530
		B2 - Turning Right	385

All development driveways are recommended to 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 15 feet back from the edge of the shoulder midway between the outbound driving lane should be 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 were used to assess deceleration length, transition length, and taper length, if applicable. Existing turning movement volumes and trips were used in this analysis. Driveway 1 warrants a right-turn lane based on this analysis. The results of this analysis are in Table 13.

Table 13: Right turn Auxiliary Lane Analysis

Warrant Location	Design Speed (MPH)	Turning Volume AM(PM)	Warrant Threshold[1]	Required Length[2]	Required Transition Length[2]
Driveway 1 (Entrance) on Yale Boulevard	40	114 (56)	50	240'	150'

1 - Per Table 7.4.67
2 - Per Table 7.4.68

Noise and Air Quality Impacts

EPA MOVES was used to generate emission factors corresponding to the motor vehicle activity associated with the east alley drop-off/pick-up loop. Using county-level data available through the MOVES database and observed vehicle volumes during AM and PM peak hours utilizing the east alley loop, average yearly emission factors were generated for $PM_{2.5}$ and CO. Table 14 summarizes the generated emission factors.

Table 14: Emission Factors, Annual Average

	PM 2.5 (µg /mile)	CO (g/mile)
7:30 AM - 8:30 AM	0.34	218.24
4:00 PM - 5:00 PM	0.34	267.00

This study uses CALINE4 to model $PM_{2.5}$ and CO dispersion along the study route. Figure 9 shows the link and receptor locations used to estimate $PM_{2.5}$ and CO concentrations. The blue links represent the vehicle travel path using the East Alley Loop. The green boxes are receptors located 100 feet from the East Alley Loop. The receptors were placed 100 feet from the emission source at 6 feet high. The 100-foot distance represents the distance from the center of the East Alley to the first row of houses abutting the alleyway, where concentrations will be relatively high; concentrations dissipate with increasing distance from the source.

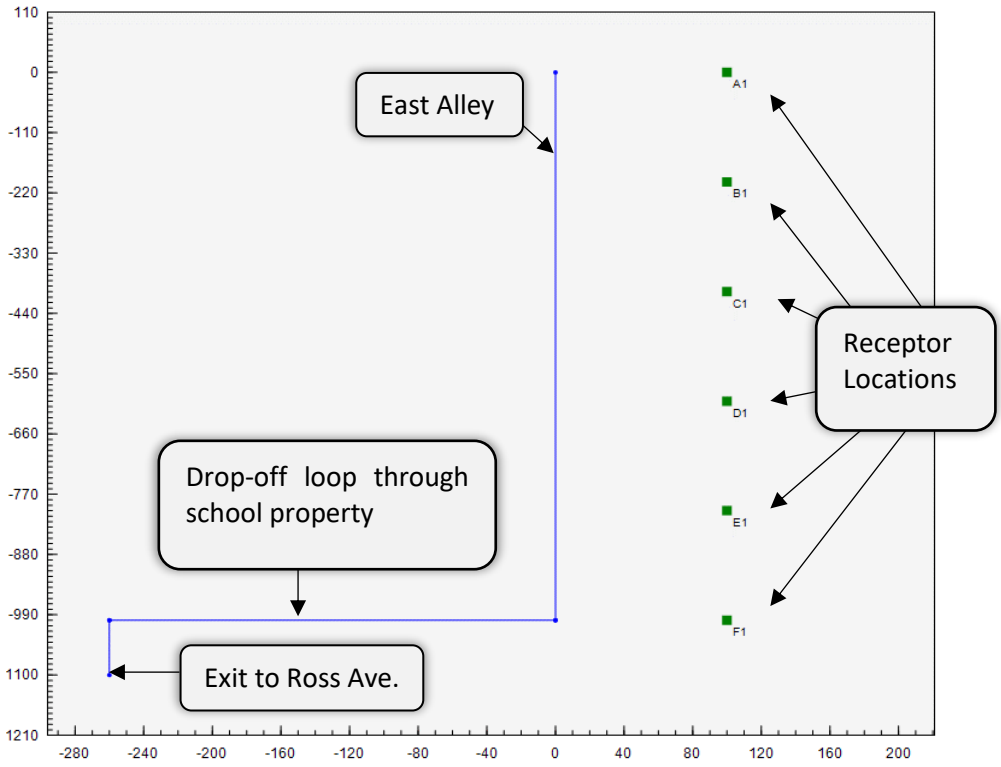

Figure 9: Diagram of links and receptors used in CALINE4.

Table 15 contains the modeled concentrations at the receptor locations for AM and PM peak hours. Concentrations for both pollutants resulting from drop-off and pick-up activity are minimal. For comparison, the annual average $PM_{2.5}$ concentration in Albuquerque for 2011-2020 was 6.14 µg/m^3 and for CO was 1.15 ppm.

Table 15: Emission concentrations at 100 feet from the source.

	PM 2.5 (µg/m^3)	CO (ppm)
7:30 AM - 8:30 AM	0.16	0.10
4:00 PM - 5:00 PM	0.11	0.07

Parents queued to pick up students shall be instructed to wait for their children with their vehicles turned off when not actively in motion. Once adopted and consistently practiced, this method will help minimize air and noise pollution associated with the East Alley drop-off/pick-up activity.

SOUTH LOOP BUILD-OUT (CENTRE AND INTERNATIONAL AVENUES)

Another drop-off/pick-up loop scheme utilizes Centre and International Avenues instead of the East Alley and West Loops. This alternative requires vehicles to access Centre Avenue from Yale Boulevard and travel eastbound to International Avenue. This loop depends on constructing an alleyway east of the Extended Stay America to allow student drop-off/pick-up activity. The necessary land parcel is privately owned, and a legal public alleyway does not currently exist. Students are dropped off and picked up off school property and then must walk through the alleyway and cross Ross Avenue to access the school's campus. In this scenario, school traffic is assigned to Centre and International Avenues.

Drop-off and Pick-up Operations

Figure 10 shows the circulation for this alternative, requiring vehicles to enter Centre Avenue from Yale Boulevard, travel eastbound, and make a left turn onto International Avenue. Dropping students off on International Avenue requires them to utilize the alleyway east of Extended Stay America and cross Ross Avenue to access MAS Charter School.

Figure 10: South Loop Build-out Drop-Off/Pick-Up Operations

A LOS, capacity, and queuing analysis was performed using the same procedures and assumptions for the West Build-out. Signal timings used in the existing conditions analysis were retained and used for build-out conditions. Figure 11 shows the traffic volumes used to analyze the South Loop Build-out scenario.

Figure 11: South Loop Build-out Traffic Volumes

Analysis of Signalized Intersections

In this scenario, the intersection at Yale boulevard and Kathryn Avenue operates at an acceptable level of service during the AM and PM peak hours. However, individual westbound movements operate at an intolerable LOS for the AM and PM peak hours. Additionally, the 95th percentile queues are managed by existing storage lengths during the AM and PM peak hours. Detailed capacity output sheets are in Appendix D.

Analysis of Stop Controlled Intersections

The stop-controlled intersection capacity and LOS analysis performed for South Loop Build-out and Yale Road Diet indicated that individual movements at each stop-controlled intersect intersection operate at an acceptable level LOS for AM and PM peak hours. However, the intersection at Yale Boulevard and International operates at an acceptable LOS for the PM peak hour and a congested LOS for the westbound through movement during the AM peak hour. The queuing analysis indicates that 95th percentile lengths at the intersections are less than one vehicle during the AM and PM peak hours except for the Intersections of Centre Avenue and International at Yale Boulevard. At Yale Boulevard and International Avenue, the 95th percentile lengths at the intersection are less than one vehicle during the AM and PM peak hours, except for the westbound left-turn movement during the AM peak hour. One block south at Centre Avenue, the 95th percentile lengths are more than one vehicle during the AM and PM peak hours for the westbound through movement and the southbound left movement in the AM peak.

South Loop Parent drop-off/pick-up and Queuing Analysis

The available storage space, measured from the east side of Extended Stay America's driveway to the easternmost driveway of Towne Place Suites on Centre Avenue, is approximately 1,400 feet. The maximum queue length and available storage are shown in Table 16.

Table 16: Queuing Analysis, South Loop Build-out

Enrollment (n)	1,180	1,600
Non-Bus Students (n)	972	1,318
Max. Queue Length (ft)	1,460	1,980
Available Vehicle Storage (ft)	1,400	

The queuing analysis indicates that the South Loop does not have sufficient storage space for the maximum queue resulting from drop-off/pick-up operations.

The alleyway east of Extended Stay America is partially owned by Extended Stay America and the State of New Mexico. The City of Albuquerque would have to use its eminent domain powers to provide a public or private alleyway for public access. Additionally, an ADA-compliant curb ramp will need to be developed on both ends of the alleyway, and a mid-block crossing established on Ross Avenue to ensure students safely arrive at the school's campus. Moreover, while this alternative shifts traffic from residential areas adjacent to the school, the traffic challenges resulting from the school’s operations are now for the commercial businesses on Centre and International Avenues to manage.

INITIAL CONCLUSIONS

While the South Loop scenario maintains LOS at the intersections of Kathryn at East Alley Loop and Yale Boulevard and Anderson, the LOS at Yale Boulevard and Ross Avenue is similar to the South Loop and West Loop scenarios. The South Loop adversely impacts traffic operations on Yale Boulevard at Centre and International Avenues. Furthermore, the South Loop does not have sufficient storage space to accommodate drop-off/pick-up operations without imposing on adjacent commercial businesses. Regarding student activity resulting from the South Loop, there are no sightlines from the school to the drop-off/pick-up area, students need to walk through an open alleyway, a new mid-block crossing on Ross Avenue will need to be established, and the alleyway property is adjacent to Extended Stay America, the property owner and is not municipal property. As a result, the West and East Alley Loops are the recommended scenario for MAS Charter School.

The West Loop with Yale Road Diet is the recommended scenario. It maintains an acceptable LOS during AM and PM peak hours for all the study intersections. Additionally, the West Loop provides MAS Charter School with enough vehicle storage to accommodate drop-off/pick-up operations during AM and PM peak hours. Moreover, the Yale Road Diet improves safety on Yale Boulevard for all roadway users, especially students accessing MAS Charter School from the West Loop parking lot development.

While the West Loop is recommended, there are some concurrent measures that must be taken to mitigate traffic impacts and improve safety conditions in the study area. Improving the driving surface of the East Alley by laying pavement will minimize dust and noise impacts on the adjacent residences. Adhering to right-out from the West Loop will ensure smooth and expeditious drop-off/pick-up operations during AM and PM peak hours. Reconfiguring Yale Boulevard with new striping to two travel lanes in each direction will aid with speed limit compliance and shorten the crossing distance for pedestrians utilizing the crosswalk at Ross Avenue. The additional road space can be used to add an auxiliary right turn lane for Driveway 1 of the proposed development and bicycle lanes between Avenida Cesar Chavez/Santa Clara and Ross Avenue. To further address the safety of students crossing Yale Boulevard, a School Zone with appropriate School Speed Limit sign assembly needs to be implemented. Additionally, implementing a Pedestrian Hybrid Beacon and enhanced roadway lighting at Yale Boulevard and Ross Avenue will improve safety at this crossing location.

INITIAL FEEDBACK AND REVISED SITE PLANS

The Initial Study was submitted to the City, and their comments included three significant changes:

1. Use of the East Alley Loop is prohibited
2. Analyze Ross Avenue Loop and Church Lot operations for the 2022/2023 school year
3. Analyze West Loop and Community Center Loop Site Plan

During the summer of 2022, the CABQ Department of Municipal Development restricted access to the East Alley Loop. It was reported that excessive dust from the use of the East Alley has negatively impacted the air quality of adjacent residents. Additionally, it was reported that using the East Alley Loop promotes a reduced quality of life for residents whose yards abut the alley. The City has been fined for these impacts; these fines precipitated the access restriction to the East Alley Loop. This restriction requires the school to reevaluate and revise its drop-off and pick-up operations. CABQ Traffic Engineering Department granted use of the TWLTL on Ross Avenue for queuing during peak drop-off and pick-up hours (Ross Loop). MAS Charter School will use this alternative for the 2022/2023 school year in conjunction with the Church Lot at 1717 Yale Boulevard. The City has requested that the Ross Loop operations be analyzed.

Figure 12: Restricted access to the East Alley Loop. Kathryn Ave looking south.

Additionally, the school and the City are looking at the potential of developing the Community Center Loop. This loop is located along the south property line of the adjacent community center. Figure 13 shows and conceptual image of the proposed Community Center Loop. It provides reconfigured parking spaces combined with two lanes of queuing, which connect to the existing traffic configuration used by the East Alley Loop.

Figure 13: West and Community Center Loop Site Plan and Study Intersections

Lastly, based on successful operations from the beginning of the 2022/2023 school year, the school has requested to analyze an additional alternative, the use of the West and Ross Avenue Loops. With this feedback in mind, the remainder of this report documents the evaluation of the following scenarios:

1. Ross Avenue Loop and Church Lot
2. West and Community Center Loops
3. West and Ross Avenue Loops

ANALYSIS OF REVISED SITE PLANS

ROSS AVENUE LOOP AND CHURCH LOT

This intermediate drop-off/pick-up plan uses the Church Lot and the TWLTL on Ross Avenue, east of Yale Boulevard. The traffic distribution proportions, and distributed traffic volumes are shown in Figure 14.

Figure 14: Ross Loop and Church Lot Traffic Distribution

Drop-off and Pick-up Operations

This drop-off/pick-up alternative, shown in Figure 15, requires vehicles with students in grades PreK through fourth to utilize Ross Avenue, travel eastbound, make a left turn northbound into the alley east of the school and make another left turn onto school property. At this point, students can be dropped off or picked up. Vehicles must then leave the school property by turning right on Ross Avenue towards Yale Boulevard. The circulation for vehicles with students in fifth through twelfth-grade is to access the Church Lot from Ross Avenue, east of Yale Boulevard. During peak drop-off and pick-up hours, left turns to Ross Avenue from Yale Boulevard are restricted. To access the Church Lot on Ross Avenue, vehicles must utilize Wilmoore or Buena Vista Drives.

Figure 15. Ross Loop and Church Lot Drop-Off/Pick-Up Operations

Analysis of Stop Controlled Intersections

Table 17 summarizes stop-controlled intersection capacity and LOS analysis performed for the unsignalized intersections under the conditions of the Ross Loop and Church Lot

Table 17: Ross Loop and Church Stop Control Capacity Analysis Summary

Intersection	Scenario	Worst Case Movement	Delay (sec/veh)	V/C	LOS
Yale Boulevard & Anderson Avenue	AM	EB LR	15.8	0.09	C
	PM	EB LR	15.9	0.09	C
Yale Boulevard & Ross Avenue	AM	WB R	293.1	1.10	F
	PM	WB L	71.8	0.68	F

Queueing is reported as the number of vehicles in the queue for stop-controlled intersections. Table 18 summarizes the queuing results. Detailed capacity output sheets are in Appendix D.

Table 18: Ross Loop and Church Lot Stop Control Queue Storage Summary

Study Intersection	Movement	Ross Loop and Church Lot AM 95th Percentile (veh)	Ross Loop and Church Lot PM 95th Percentile (veh)
Yale Boulevard & Anderson Avenue	EB LR	0.3	0.3
	NB L	0.0	0.0
	SB L	0.0	0.1
Yale Boulevard & Ross Avenue	EB T	-	-
	WB L	16.9	5.2
	WB R	27.8	7.6
	NB L	0.4	0.3
	SB L	0.4	0.4

*95th Percentile Queues are calculated in vehicles

The summaries in Table 17 and Table 18 indicate:

Yale Boulevard & Anderson Avenue

- Capacity Analysis:
  - Individual movements operate at an acceptable LOS for AM and PM peak hours.
- Queueing Analysis:
  - 95th percentile lengths at the intersection are less than one vehicle during the AM and PM peak hours.

Yale Boulevard & Ross Avenue

- Capacity Analysis:
  - The westbound movements operate with congestion during AM and PM peak hours.
- Queueing Analysis:
  - 95th percentile lengths at the westbound approach are more than one vehicle during the AM and PM peak hours.

Ross Loop Parent drop-off/pick-up and Queuing Analysis

The available storage space comprises 600 feet in the TWLTL on Ross Avenue, 125 feet on the south end of the alley, 375 feet on the school's property at 1718 Yale Boulevard, and 250 feet in the Church Lot is approximately 1350 feet. The maximum queue length and available storage are shown in Table 19.

Table 19: Queuing Analysis, Ross Loop/Church Lot

Enrollment (n)	1,180	1,600
Non-Bus Students (n)	972	1,318
Max. Queue Length (ft)	1,460	1,980
Available Vehicle Storage (ft)	1,350	

The queuing analysis indicates that the Ross Avenue Loop and Church Lot do not have sufficient storage space for the maximum queue resulting from drop-off/pick-up operations. An intermediate solution is to restripe northbound Yale Boulevard, south of Ross Avenue, to one through lane and an exclusive right turn lane to add 275 feet of storage capacity.

Figure 16: PM Pick-up queue at the eastern approach of Ross Ave and Yale Blvd

Site Access and Sight Distance Evaluation

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 access driveways is based on the design vehicle crossing two lanes of traffic on an undivided roadway.
- Required intersection sight distance for Case B2 at all access driveways is based on the design vehicle crossing into the nearest traffic lane.

The values in Table 20 are rounded up to the nearest 5-foot increment. A single passenger vehicle was used as the design vehicle. Formulas, values, and calculations used in the sight distance analysis can be found in Appendix E.

Table 20: Sight Distance Requirements, Ross Loop and Church Lot

Location	Speed (MPH)	Case	Sight Distance (ft)
Driveway 4 (Exit) on Ross Avenue	25	B2 - Turning Right	240

All development driveways are recommended to 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 15 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 were used to assess deceleration length, transition length, and taper length, if applicable. West Loop Build-out turning movement volumes and trips were used in the analysis. Northbound Yale Boulevard at Ross Avenue warrants a right-turn lane based on this analysis. The results of this analysis are in Table 13.

Table 21: Right turn Auxiliary Lane Analysis, Ross Loop and Church Lot

Warrant Location	Design Speed (MPH)	Turning Volume AM (PM)	Volume Threshold[1]	Required Length[2]	Required Transition Length[2]
NB Yale Boulevard at Ross Avenue	40	98 (67)	50	240'	150'

1 - Per Table 7.4.67
2 - Per Table 7.4.68

WEST LOOP ALTERNATIVES

The following sections evaluate alternatives utilizing the West Loop and consider a lane reconfiguration Yale Boulevard from Anderson Avenue to Ross Avenue. The lane reconfiguration involves restriping the south approach at Yale Boulevard and Ross Avenue from two through lanes to a single through lane and an exclusive right turn lane; with a Manual on Uniform Traffic Control Devices (MUTCD) compliant “Right Turn Must Turn Right” sign at the Northeast corner of International Avenue and Yale Boulevard. The east approach will be striped with Do Not Block Intersection pavement markings that are compliant with the (MUTCD). At the northeast corner, a curb extension will shorten the crossing distance for pedestrians, creating a safer environment for crossing the street. The narrowed vehicle traveled aims to encourage a reduction in travel speeds of motor vehicles. For northbound traffic, between this intersection and Driveway 3, Yale Boulevard will comprise a through and exclusive right turn lane; north of Driveway 3, Yale Boulevard returns to two travel lanes.

For southbound traffic, the south approach of Anderson Avenue and Yale Boulevard will be restriped to one through lane and an exclusive right turn lane through Driveway 1. Drivers will be notified by two signs, a “Right Turn Only” sign with a “500 FT” distance plaque, 500 feet north of Anderson Avenue and A “Right Turn Must Turn Right” sign on the southwest corner of Anderson Avenue and Yale Boulevard. This intersection and the driveway north of Driveway 1 will be striped with MUTCD complaint Do Not Block Intersection pavement markings. South of Driveway 1, Yale boulevard is a single through lane until Driveway 2. South of Driveway 2, at the north approach of Ross Avenue and Yale Boulevard, Yale returns to two through lanes. At Driveways 1 and 2 plastic bollards should be placed along the pavement striping separating the through lane from the turn lanes. This serves to communicate the right-in and right-out operations of Driveway 1 and 2, respectively.

Additional safety enhancements comprise of the installation of a Rapid Rectangular Flashing Beacon (RRFB) assembly, signage and yield pavement markings on the north side of Ross Avenue and Yale Boulevard. Plan view figures of the West Loop alternatives are in Appendix F.

West and Community Center Loops

This drop-off/pick-up alternative depends on acquiring the use of property belonging to CABQ. Drop-off and pick-up operations are anticipated to be split between the proposed West Loop and Community Center Loop. Students in PreK through fourth grade will utilize the Community Center Loop, and students in grades five through twelve will use the West Loop. The adjusted traffic volumes are shown in Figure 17.

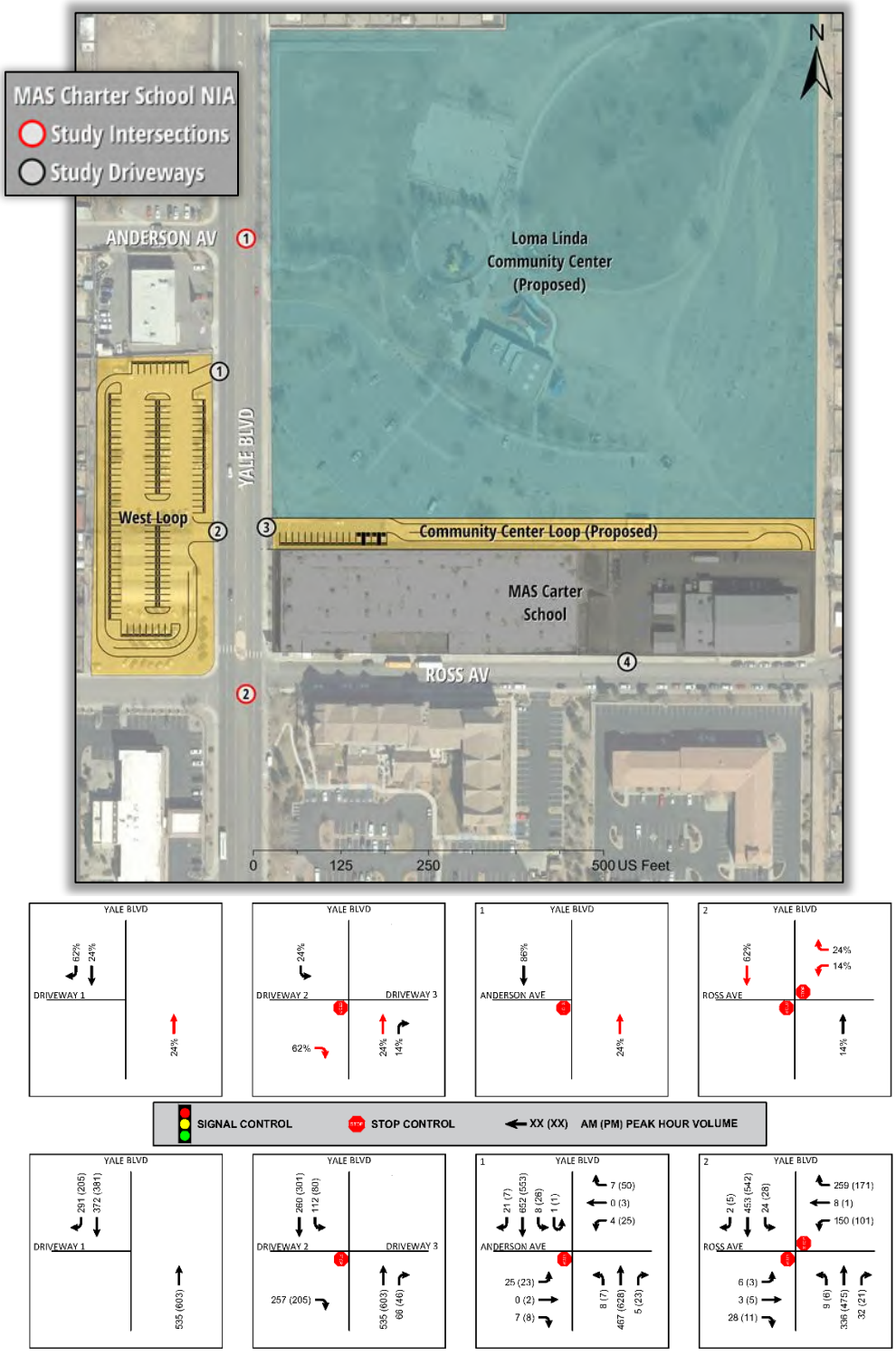

Figure 17: West and Community Center Loops Traffic Distribution

Drop-off and Pick-up Operations

This alternative uses the West Loop and Community Center Loop. This option, shown in Figure 18, requires vehicles with students in Pre-K through fourth grade to enter the school's property from Driveway 3, south or northbound Yale Boulevard. Once on the school's property, vehicles travel east until they reach the alley, make a right turn to the drop-off area, then exit onto Ross Avenue via a right turn towards Yale Boulevard. Vehicles with students in grades five through twelve will utilize the West Loop. Access to the West Loop is via right turn only from southbound Yale Boulevard. Vehicles will drop off/pick up students at the southern end of the lot just north of Ross Avenue, then exit to Yale Boulevard via a right turn at Yale Boulevard. The southern end of the West Loop contains a bypass lane for vehicles to exit the queue once students have been dropped-off/picked-up and relieve the queue's length.

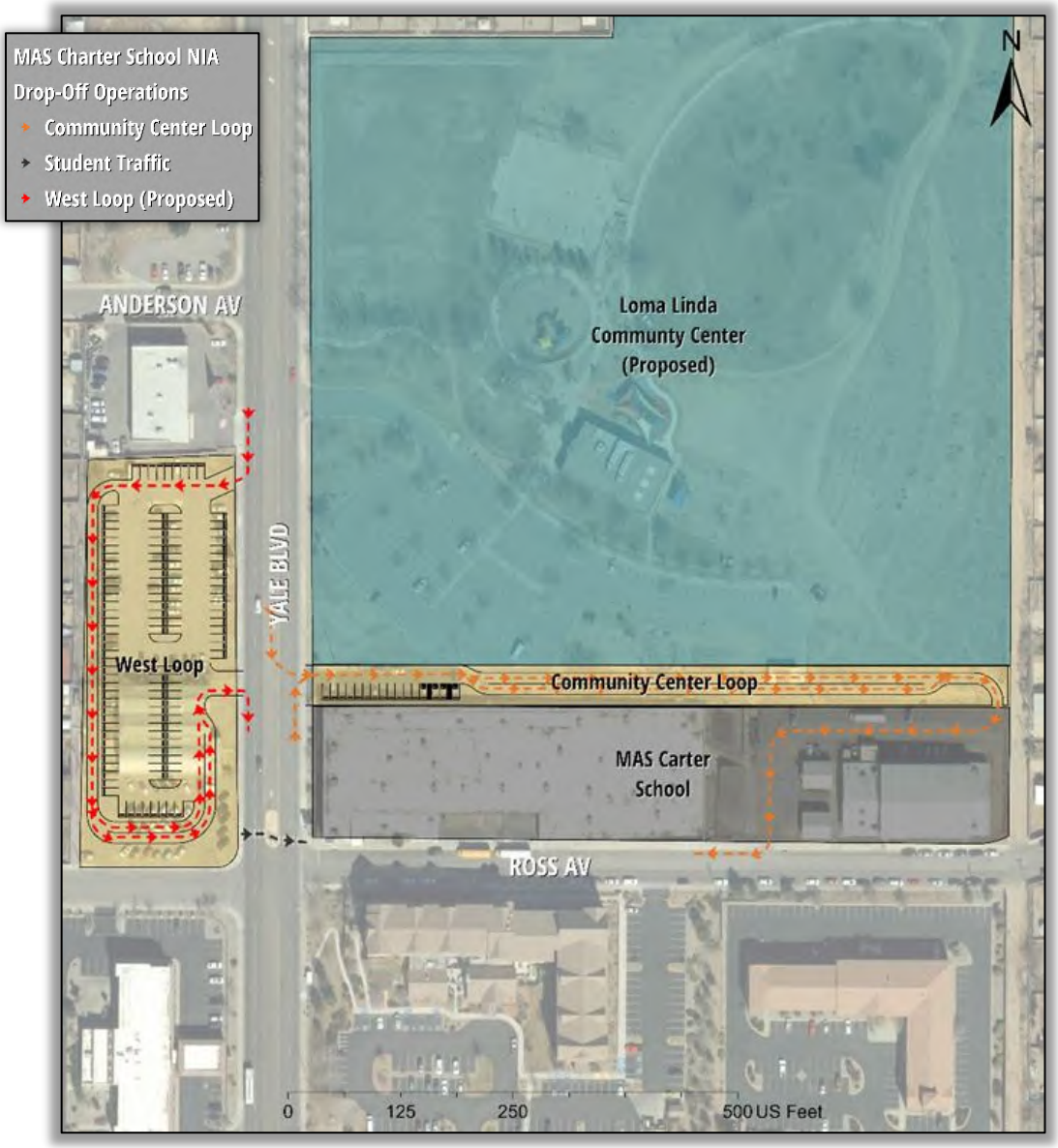

Figure 18. West and Community Center Loops Drop-Off/Pick-Up Operations

Analysis of Stop Controlled Intersections

Table 7 summarizes stop-controlled intersection capacity and LOS analysis performed for the West Loop and Community Center Loop.

Table 22: West and Community Center Loops Stop Control Capacity Analysis Summary

Intersection	Scenario	Worst Case Movement	Delay (sec/veh)	V/C	LOS
Yale Boulevard & Anderson Avenue	AM	EB LR	18.9	0.12	C
	PM	EB LR	19.7	0.12	C
Yale Boulevard & Ross Avenue	AM	WB R	380.7	1.15	F
	PM	WB R	150.3	0.93	F
Yale Boulevard & Driveways 2 and 3	AM	EB R	12.8	0.38	B
	PM	EB R	12.5	0.32	B

Queueing is reported as the number of vehicles in the queue for stop-controlled intersections. Table 23 summarizes the queuing results. Detailed capacity output sheets are in Appendix D.

Table 23: West and Community Center Loops Stop Control Queue Storage Summary

Study Intersection	Movement	West and Community Center Loops AM 95th Percentile (veh)	West and Community Center Loops PM 95th Percentile (veh)
Yale Boulevard & Anderson Avenue	EB LR	0.4	0.4
	NB L	0.0	0.0
	SB L	0.0	0.1
Yale Boulevard & Ross Avenue	EB LR	-	-
	WB L	2.4	1.8
	WB R	32.2	13.7
	NB L	0.0	0.0
	SB L	0.1	0.1
Yale Boulevard & Driveways 2 and 3	EB R	1.8	1.4
	NB T	-	-
	NB TR	-	-
	SB L	0.5	0.3
	SB T	-	-

*95th Percentile Queues are calculated in vehicles

The summaries in Table 22 and Table 23 indicate:

Yale Boulevard & Anderson Avenue

- Capacity Analysis:
  - Individual movements operate at an acceptable LOS for AM and PM peak hours.
- Queueing Analysis:
  - 95th percentile lengths at the intersection are less than one vehicle during the AM and PM peak hours.

Yale Boulevard & Ross Avenue

- Capacity Analysis:
  - The westbound right movement operates with congestion during AM and PM peak hours.
- Queueing Analysis:
  - 95th percentile lengths at the westbound approach are more than one vehicle during the AM and PM peak hours.

Yale Boulevard & Driveways 2 and 3

- Capacity Analysis:
  - The westbound movements operate at an acceptable LOS during AM and PM peak hours.
- Queueing Analysis:
  - 95th percentile lengths for the eastbound right movement are more than one vehicle during the AM and PM peak hours.

West Loop and Community Center Loop Parent drop-off/pick-up and Queuing Analysis

The available storage space of the Community Center Loop on Yale Boulevard to its exit, Driveway 4, on Ross Avenue is approximately 1,600 feet. The West Loop provides an additional 780 feet of storage. The maximum queue length and available storage are shown in Table 24.

Table 24: Queuing Analysis, West and Community Center Loops

Enrollment (n)	1,180	1,600
Non-Bus Students (n)	972	1,318
Max. Queue Length (ft)	1,460	1,980
Available Vehicle Storage (ft)	2,380	

The queuing analysis indicates that the West and Community Center Loops have sufficient storage space for the anticipated maximum queue resulting from drop-off/pick-up operations.

Site Access and Sight Distance Evaluation

The following presents a narrative detailing recommended intersection sight distance requirements 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 are 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 was calculated based on the design vehicle crossing two lanes of traffic on an undivided roadway.
- Required intersection sight distance for Case B2 at all four access driveways was calculated based on the design vehicle crossing into the nearest traffic lane.

The values in Table 25 are rounded up to the nearest 5-foot increment. A single passenger vehicle was used as the design vehicle. Formulas, values, and calculations used in the sight distance analysis can be found in Appendix E.

Table 25: Sight Distance Requirements, West and Community Center Loops

Location	Speed (MPH)	Case	Sight Distance (ft)
Driveway 2	40	B2 - Turning Right	385
Driveway 4	25	B2 - Turning Right	240

All development driveways are recommended to 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 15 feet back from the edge of the shoulder midway between the outbound driving lane should be 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 were used to assess deceleration length, transition length, and taper length, if applicable. West and Community Center Loops turning movement volumes and trips are used in the analysis. Driveways 1 and 3 warrant right-turn lanes based on this analysis. The results of this analysis are in Table 26.

Table 26: Right turn Auxiliary Lane Analysis, West and Community Center Loops

Warrant Location	Design Speed (MPH)	Turning Volume AM(PM)	Volume Threshold[1]	Required Length[2]	Required Transition Length[2]
Driveway 1	40	291 (205)	50	240'	150'
Driveway 3	40	66 (46)	50	240’	150’

1 - Per Table 7.4.67
2 - Per Table 7.4.68

West and Community Center Loop Enhancements

The West and Community Center Loops require reconfiguring the travel lanes on Yale Boulevard to communicate turning movements, better accommodate peak hour traffic, and create a safer environment for pedestrians. The TWLTL on Yale Boulevard should communicate to drivers that northbound traffic can complete left turns into Driveway 3. This can be done by constructing medians or striping. A conceptual, plan view drawing id in Appendix F.

West and Ross Avenue Loops

Another drop-off/pick-up alternative uses the West Loop and the TWLTL on Ross Avenue. The traffic distribution and distributed traffic volumes are shown in Figure 19.

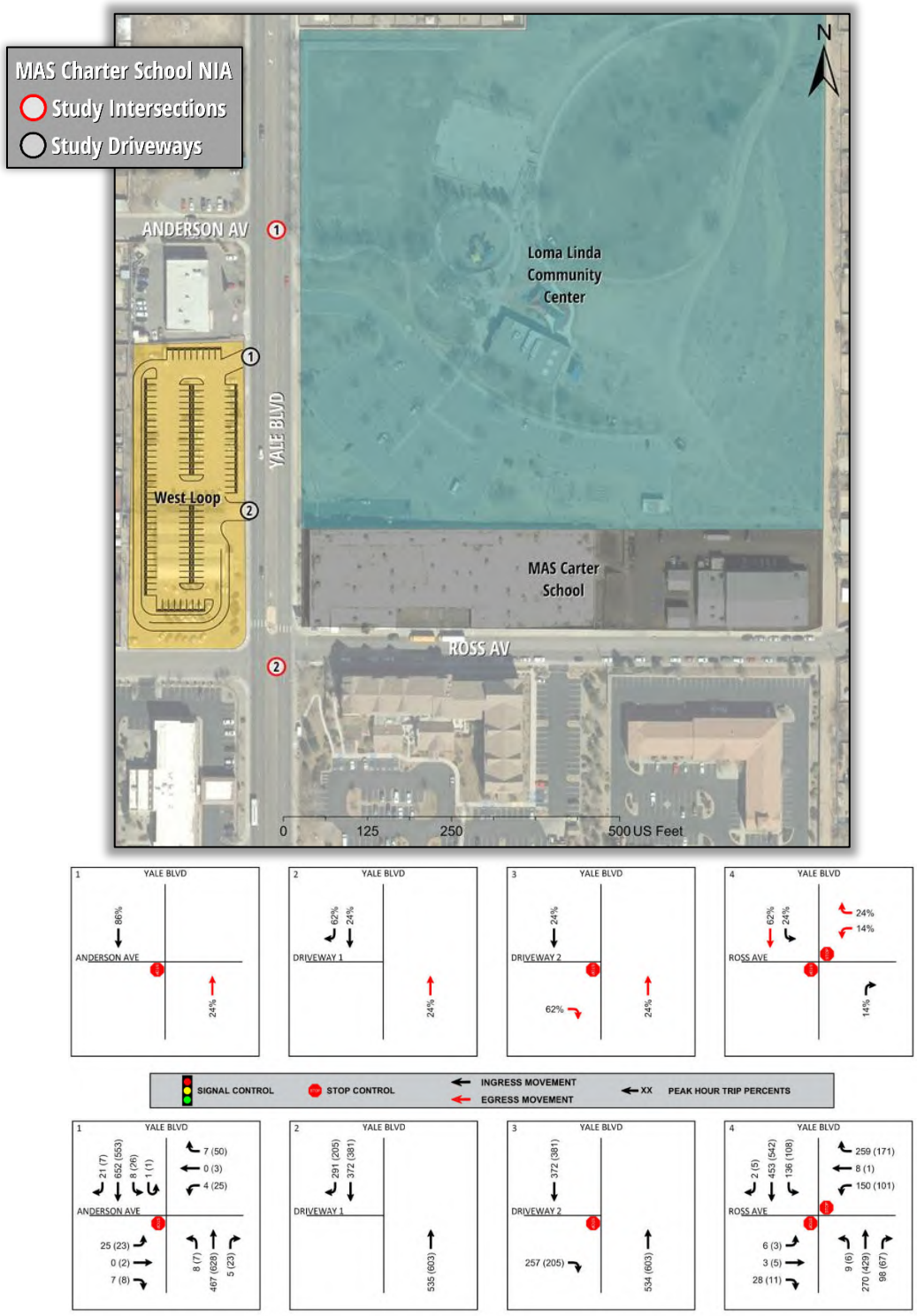

Figure 19: West and Ross Loops Traffic Distribution

Drop-off and Pick-up Operations

This drop-off and pick-up scheme, shown in Figure 20, requires vehicles with students in grades PreK through fourth grade to utilize Ross Avenue, travel eastbound, make a left turn to the alley east of the school and make another left turn on to school property. At this point, students can be dropped off or picked up. Vehicles must then leave the school property by turning right towards Yale Boulevard. Vehicles with students in grades five through twelve will utilize the West Loop. Access to the West Loop is via right turn only from southbound Yale Boulevard. Vehicles will drop off/pick up students at the southern end of the lot just north of Ross Avenue, then exit to Yale Boulevard via a right turn Yale Boulevard.

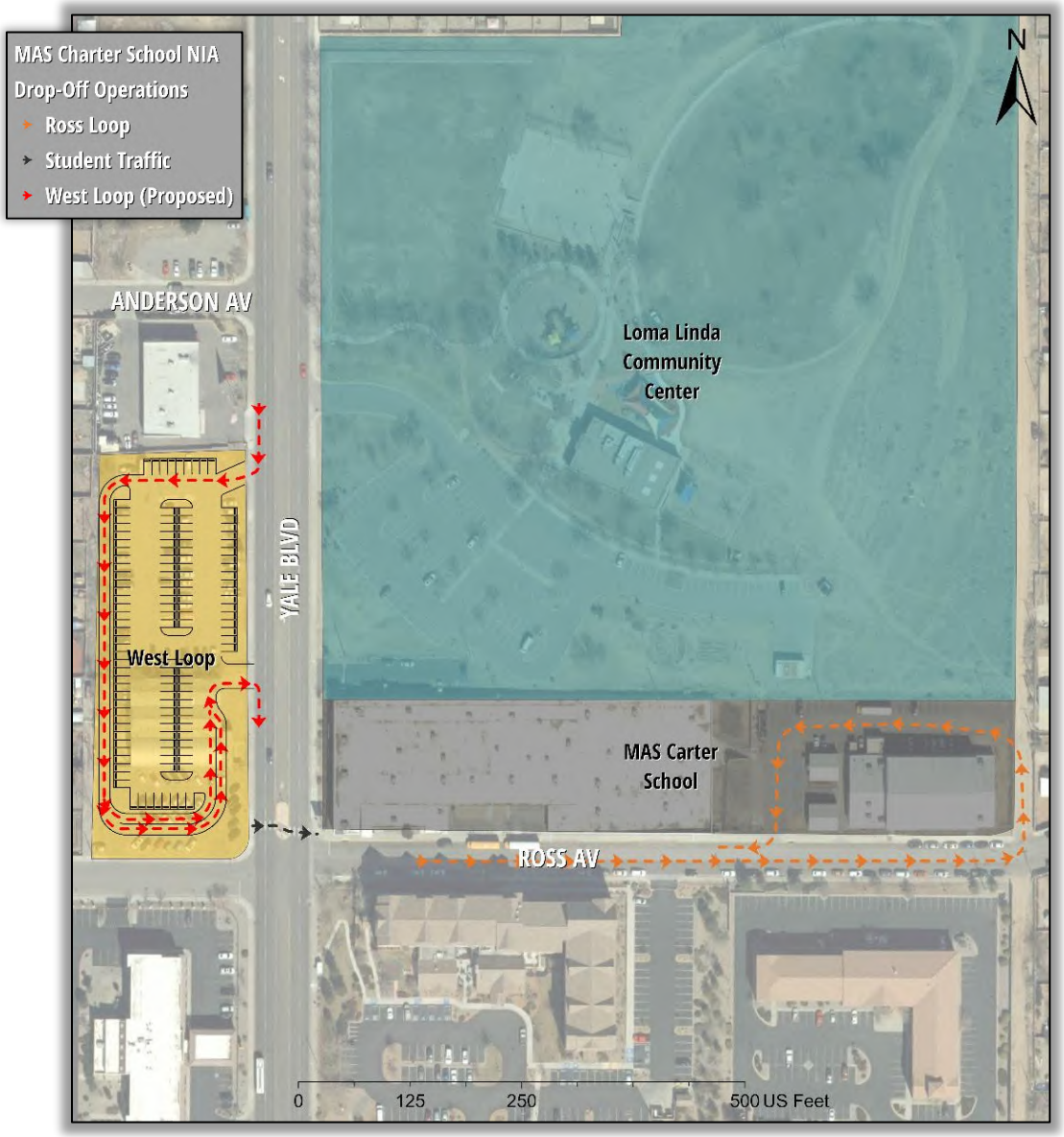

Figure 20. West and Ross Loops Drop-Off/Pick-Up Operations

Analysis of Stop Controlled Intersections

Table 27 summarizes stop-controlled intersection capacity and LOS analysis performed for the unsignalized intersections under the conditions of the West and Ross Avenue Loops

Table 27: West and Ross Avenue Loops Stop Control Capacity Analysis Summary

Intersection	Scenario	Worst Case Movement	Delay (sec/veh)	V/C	LOS
Yale Boulevard & Anderson Avenue	AM	EB LR	18.9	0.12	C
	PM	EB LR	19.7	0.12	C
Yale Boulevard & Ross Avenue	AM	WB R	277.4	1.09	F
	PM	WB R	165.5	0.95	F
Yale Boulevard & Driveways 2	AM	EB R	15.2	0.44	C
	PM	EB R	13.9	0.36	B

Queueing is reported as the number of vehicles in the queue for stop-controlled intersections. Table 28 summarizes the queuing results. Detailed capacity output sheets are in Appendix D.

Table 28: West and Ross Avenue Loops Stop Control Queue Storage Summary

Study Intersection	Movement	West and Community Center Loops AM 95th Percentile (veh)	West and Community Center Loops PM 95th Percentile (veh)
Yale Boulevard & Anderson Avenue	EB LR	0.4	0.4
	NB L	0.0	0.0
	SB L	0.0	0.1
Yale Boulevard & Ross Avenue	EB LTR	-	-
	WB L	5.3	3.0
	WB R	27.0	14.5
	NB L	0.0	0.0
	SB L	0.4	0.4
Yale Boulevard & Driveways 2	EB R	2.3	1.6
	NB T	-	-
	NB TR	-	-
	SB L	0.0	0.0
	SB T	-	-

*95th Percentile Queues are calculated in vehicles

The summaries in Table 27 and Table 28 indicate:

Yale Boulevard & Anderson Avenue

- Capacity Analysis:
  - Individual movements operate at an acceptable LOS for AM and PM peak hours.
- Queueing Analysis:
  - 95th percentile lengths at the intersection are less than one vehicle during the AM and PM peak hours.

Yale Boulevard & Ross Avenue

- Capacity Analysis:
  - The westbound right movement operates with congestion during AM and PM peak hours.
- Queueing Analysis:
  - 95th percentile lengths at the westbound approach are more than one vehicle during the AM and PM peak hours.

Yale Boulevard & Driveways 2

- Capacity Analysis:
  - All movements operate at an acceptable LOS or better during AM and PM peak hours.
- Queueing Analysis:
  - 95th percentile lengths for the eastbound right movement are more than one vehicle during the AM and PM peak hours.

West and Ross Avenue Loops Parent drop-off/pick-up and Queuing Analysis

The available storage space on Ross Avenue comprises 600 feet in the TWLTL, 125 feet on the south end of the alley, 375 feet on the school's property at 1718 Yale Boulevard, and 780 feet in the West Loop is approximately 1,880 feet. The maximum queue length and available storage are shown in Table 29.

Table 29: Queuing Analysis, West and Ross Loops

Enrollment (n)	1,180	1,600
Non-Bus Students (n)	972	1,318
Max. Queue Length (ft)	1,460	1,980
Available Vehicle Storage (ft)	1,880	

The queuing analysis indicates that the West and Ross Loops do have sufficient storage space for the maximum queue resulting from drop-off/pick-up operations.

Site Access and Sight Distance Evaluation

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 access driveways is based on the design vehicle crossing two lanes of traffic on an undivided roadway.
- Required intersection sight distance for Case B2 at all access driveways is based on the design vehicle crossing into the nearest traffic lane.

The values in Table 30 are rounded up to the nearest 5-foot increment. A single passenger vehicle was used as the design vehicle. Formulas, values, and calculations used in the sight distance analysis can be found in Appendix E.

Table 30: Sight Distance Requirements, West and Ross Loops

Location	Speed (MPH)	Case	Sight Distance (ft)
Driveway 2	40	B2 - Turning Right	385
Driveway 4	25	B2 - Turning Right	240

All development driveways are recommended to 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 15 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 were used to assess deceleration length, transition length, and taper length, if applicable. West Loop Build-out turning movement volumes and trips were used in the analysis. Northbound Tale at Ross Avenue, Driveway 1, and Driveway 2 warrant right-turn lanes based on this analysis. The results of this analysis are in Table 31.

Table 31: Right turn Auxiliary Lane Analysis, West and Ross Loops

Warrant Location	Design Speed (MPH)	Turning Volume AM (PM)	Volume Threshold[1]	Required Length[2]	Required Transition Length[2]
NB Yale Boulevard at Ross Avenue	40	98 (67)	50	240'	150'
Driveway 1	40	291 (205)	50	240'	150'
Driveway 2	40	257 (205)	50	240’	150’

1 - Per Table 7.4.67
2 - Per Table 7.4.68

CONCLUSION

MAS Charter School is using the Ross Avenue TWLTL in conjunction with the Church Lot at 1717 Yale Boulevard for the 2022/2023 school year. Per CABQ's request, this alternative was analyzed. The intersection of Anderson Avenue with Yale Boulevard operates at an acceptable LOS during AM and PM peak hours; 95th percentile queuing is also less than one vehicle. However, the east approach of Ross Avenue at Yale Boulevard is expected to operate with congestion during AM and PM peak hours; 95th percentile queuing is expected to be exorbitant for vehicles traveling making a right-turn to Yale Boulevard during AM and PM peak hours, more so during the AM peak. Additionally, the queuing analysis suggests there is insufficient storage space to accommodate the maximum queue resulting from drop-off/pick-up operations. Restriping the south approach of Yale Boulevard at Ross to a single through lane and exclusive right-turn lane will add 240 feet of storage space making the total storage space sufficient to support the maximum queue length in this intermediate alternative.

Both West Loop alternatives provide MAS Charter School with enough vehicle storage to accommodate drop-off and pick-up operations during AM and PM peak hours. The traffic analyses for these alternatives are also similar. Under either scenario, the intersection of Anderson Avenue and Yale boulevard operates at an acceptable LOS and 95th percentile queue lengths are less than one vehicle. The access driveways for both alternatives operate at an acceptable LOS and 95th percentile queuing for eastbound traffic exceeds one vehicle during AM and PM peak hours. The east approach of Ross Avenue is congested for either alternative. Both are expected to operate with significant delays and long 95th percentile queuing. However, delay per vehicle and 95th percentile queue lengths are expected to be shorter under the West and Ross Avenue Loop alternative.

With either of the West Loop alternatives, similar concurrent measures must be taken to mitigate traffic impacts and improve safety conditions in the study area. Adhering to right-in for Driveway 1 and right-out for Driveway 2 during operations during AM and PM peak hours, ingress and egress from the West Loop to Yale Boulevard will ensure smooth and expeditious drop-off/pick-up. For the Community Center alternative, both left and right turns are permitted to access the entrance at Driveway 3. Communication of these movement shall be accomplished by constructing raised medians or striping in the existing TWLTL on Yale Boulevard.

Egress from the school's campus on to Ross shall be restricted to right out, ultimately guiding traffic back to Yale Boulevard instead of the adjacent neighborhood. However, this traffic circulation is expected to create significant delay for the westbound movements at Yale Boulevard due to the high volume of vehicular traffic entering Yale Boulevard, the steady flow of background traffic traveling north and southbound on Yale Boulevard, and the high pedestrian traffic from students accessing MAS Charter School's Campus from the West Loop on the northern approach of the Ross Avenue and Yale Boulevard. Critical to either West Loop alternative is judicious, efficient, and comprehensive traffic control by MAS Staff during drop-off and pick-up hours.

Reconfiguring Yale Boulevard with new striping to a narrowed single through-lane in each direction will aid with speed limit compliance and shorten the crossing distance for pedestrians utilizing the crosswalk at Ross Avenue. To further address the safety of students crossing Yale Boulevard, a School Zone with appropriate School Speed Limit sign assembly needs to be implemented on Yale Boulevard, and also on Ross Avenue between Cornell Drive and Yale Boulevard. Additionally, implementing a Rectangular Rapid Flashing Beacon and four quadrant lighting at Yale Boulevard and Ross Avenue will enhance safety at this crossing location.

SUMMARY OF RECOMMENDATIONS

Either West Loop alternative with a concurrent lane reconfiguration on Yale Boulevard is recommended with adherence to the following recommendations:

- General Recommendations
  - A school zone is established on Yale Boulevard and the eastern leg of Ross Avenue, specific to MAS Charter School's bell schedule.
  - Implement a Rectangular Rapid Flashing Beacon for the established crosswalk on the northern leg of the intersection of Yale Boulevard and Ross Avenue.
  - Install four quadrant lighting at Yale Boulevard and Ross Avenue to mitigate overrepresented dark-hour crashes.
  - As detailed in the sight distance sections of this report, intersection sight distance should be provided and maintained.
- Recommendations for Ross Avenue Loop Alternative
  - Restricting traffic flow resulting from traffic queuing on Ross Avenue east of the school is prohibited. Do Not Block Intersection pavement markings shall be applied, communicated to parents, and firmly enforced.
  - An exclusive right-turn lane should be striped on northbound Yale Boulevard between Ross and International Avenues to add queuing capacity to the intermediate drop-off/pick-up (Ross Loop) scheme and per CABQ DPM.
- Recommendations for West Loop Alternatives
  - Blocking the business's driveway, north of Driveway 1, is prohibited. Do Not Block Intersection pavement markings shall be applied, communicated to parents, and firmly enforced.
  - An exclusive right-turn lane should be striped on northbound Yale Boulevard between Ross and International Avenues per the CABQ DPM for the West Loop alternatives.
  - Access to the site is maintained via the drop-off/pick-up operations map provided in this report.
    - Driveway 1 - right-in only
    - Driveway 2 – right-out only
    - Driveway 4 – right-out only
  - Stripe a through/right turn lane on Yale Boulevard for Driveway 2 egress.
  - Install plastic bollards between the turn and through lanes at Driveways 1 and 2 to communicate the right-in, right-out access of these driveways.
- Recommendations for Community Center Loop Alternative
  - For the Community Center Loop establish a median treatment to restrict left-turns from northbound traffic to access Driveway 2 while allowing southbound traffic to complete left-turns to access Driveway 3.
  - For the Community Center Loop, auxiliary right-turn lanes are established on Yale Boulevard for Driveways 1 and 3.

Appendix A:
Scoping Forms

City of Albuquerque

Planning Department

Development Review Services Division

Traffic Scoping Form (REV 07/2020)

Project Title: Mission Achievement Success (MAS) Charter School 1.0

Building Permit #: _____ Hydrology File #: _____

Zone Atlas Page: L-16-Z DRB#: _____ EPC#: _____ Work Order#: _____

Legal Description: Lots numbered Nine (9) and Ten (10), in Block numbered Five (5) of Clayton Heights, a subdivision of a Tract of Land in Section 28, Township 10 North, Range 3 East, Bernalillo County, New Mexico

Development Street Address: 1709 - 1717 Yale Blvd. SE

Applicant: Lee Engineering on behalf of Charter School Property Solutions Contact: Paul Barricklow

Address: 8220 San Pedro Dr NE, Albuquerque, NM 87113

Phone#: (505)338-0588 Fax#: _____

E-mail: pbarricklow@lee-eng.com

Development Information

Build out/Implementation Year: 2022 Current/Proposed Zoning: MX-M / 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:

Existing lots are being converted into a single parking lot for use by MAS Charter School.

Days and Hours of Operation (if known): 7:00 AM - 8:00 AM, 4:00 PM - 6:00 PM

Facility

Building Size (sq. ft.): +/- 71,584

Number of Residential Units: N/A

Number of Commercial Units: N/A

Traffic Considerations

ITE Trip Generation Land Use Code 538 - Charter School (K-12)

Expected Number of Daily Visitors/Patrons (if known):* 1156 (Students)

Expected Number of Employees (if known):* 146

Expected Number of Delivery Trucks/Buses per Day (if known):* 5 Buses will be used for student pickup/drop-off

Trip Generations during PM/AM Peak Hour (if known):* PM Peak - 831/AM Peak - 1079

Driveway(s) Located on: Yale Blvd. SE, Ross Ave., Alley on east side of school

Adjacent Roadway(s) Posted Speed: Yale Blvd. SE 40 MPH

Kathryn Ave. SE 25 MPH

Ross Ave. SE 25 MPH

** 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: Minor Arterial
(arterial, collecdtor, local, main street)

Comprehensive Plan Center Designation: N/A
(urban center, employment center, activity center, etc.)

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

Adjacent Roadway(s) Traffic Volume: 2021 AADT - 7,016 Volume-to-Capacity Ratio (v/c): PM - 0.25 - 0.5 AM - 0.25 - 0.5
(if applicable)

Adjacent Transit Service(s): Yes Nearest Transit Stop(s): Yale Blvd. and Ross Ave.

Is site within 660 feet of Premium Transit?: No

Current/Proposed Bicycle Infrastructure: Proposed bicycle lanes on Yale Blvd.
(bike lanes, trails)

Current/Proposed Sidewalk Infrastructure: Existing property perimeter sidewalks.

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.

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

Thresholds Met? Yes [✓] No [ ]

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

Notes: A Neighbor Impact Analysis is required.

P.E.

TRAFFIC ENGINEER

12/8/2021

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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Agenda

Mission Achievement Charter School Neighborhood Impact Assessment Scoping Meeting

December 10, 2021

Meeting Notes in Red

Attendees:

Matt Grush – CABQ
Jeanne Wolfenbarger – CABQ
Tim Brown – CABQ
Larry Rieder – Charter School Property Solutions
Paul Barricklow - Lee Engineering
Jonathon Kruse - Lee Engineering
Stephen Montaño - Lee Engineering

1. Introductions

   Tim Brown

   Jeanne Wolfenbarger

   Matt Grush

   Larry Rieder

   Jon Kruse

   Paul Barricklow

   Stephen Montaño
2. Review of Site Plan
3. Discussion of Scope for NIA
   a. Study Intersections
      i. Yale and Ross
      ii. Yale and Anderson
      iii. Yale and Kathryn
      iv. Kathryn at East Loop Alley
      v. Access on Ross
      vi. Access sites on Yale (3)
      vii. International/Yale
      viii. Center Ave/Yale
   b. Trips

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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 538 Charter School (K-12)	1156	Students	N/A	1079	53%	47%	831	50%	50%	572	507	416	415
	948	Students (w/o Bus Students)	N/A	859	53%	47%	640	50%	50%	455	404	320	320

Notes:

ITE Trip Generation Manual Rates
Daily Rate: Weekday
Average Rate: N/A No Data Available
AM Peak: Peak Hour of Generator
Fitted Curve: 1.06(x)-146.78 (R^2 = 0.97)
PM Peak: Peak Hour of Generator
Fitted Curve: 0.92(x)-232.86 (R^2 = 0.91)

c. Data Collection Discussion
    i. Data Sources
    ii. Yale and Ross
    iii. Yale and Anderson
    iv. Yale and Kathryn
    v. Kathryn at East Loop Alley
    vi. International/Yale
    vii. Center Ave/Yale

d. Known Developments or Pending Improvements in Area:
    i. None identified

e. Build-out Year
    i. Build-Out Year (2022)

f. Analysis scenarios
    i. Existing Conditions (2021)
    ii. Full Build Out Year 2022
        1. 1 or 2 school zones on Yale?
        2. Enhanced crossing at Yale/Ross
    iii. Mitigated Conditions (if needed)
    iv. South drop-off loop (Center/International)
    v. Road Diet (Yale - Santa Clara to Ross)

g. Required Analysis & Methodology
    i. LOS Capacity analysis based on HCM 6th Edition

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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/Drop-off routing and circulation
    3. Noise and air quality impacts from idling vehicles
        a. Air quality and noise impacts on residence from east alley loop use (Jeanne checking on guidance for analysis)

vi. Crash Summary 5-years

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

CITY OF ALBUQUERQUE

Planning Department
Alan Varela, Director

Mayor Timothy M. Keller

May 10, 2022

Stephen Montano
Lee Engineering, LLC
8220 San Pedro Dr. NE
Suite 150
Albuquerque, NM 87113
email smontano@lee-eng.com

Re: MAS Charter School
Neighborhood Impact Assessment, HT#L16D037
Report dated April 2022
Engineer's Stamp ------

Dear Mr. Montano,

The subject Neighborhood Impact Assessment (NIA) received April 5, 2022, has been reviewed by the City of Albuquerque Planning Development Transportation Section. The City had project meeting on May 6, 2022 to discuss the NIA and potential improvements. The City has the following comments that should be addressed in the next submittal.

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Albuquerque

NM 87103

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- The East Alley loop will be eliminated. The City has decided to not improve the alley and will construct a gate near the south end of the alley. Neighboring homes will continue to have access to the alley from Kathryn Ave.
    - The traffic analysis should be reevaluated excluding the use of the East Alley loop.

- Will the spacing between Driveway 1 and 2 be a problem? Is it clear to the drives which driveway to use? Are these areas in the proposed parking lot segregated? Is it possible to correct after entering the wrong driveway; drivers that wish to park can access the parking area or vehicle dropping off can access the queue?

- Driveway 2 should be right in only. A NB left turn may conflict the SB right turn at Driveway 2 thinking the SB vehicle is turning into Driveway 1.
    - Provide a discussion on the conflict points for Driveway #1 and #2 including the business access immediately north of Driveway #1.

- Provide a crossection and plan view of the proposed Road-diet configuration. Bike lanes are proposed on Yale Blvd, see MRCOG Long Range Bikeway system mapping.

- Show the location of the School Bus drop-off/pick-up location. Provide an estimated maximum storage required and show that on the site plan.

- Ross Ave. is proposed as a Bike route, was this considered in the NIA?

- Table 24: Queuing Analysis, South Loop Build-out; Label the columns. The available queue storage is deficient (1460' max required, 1400' available) The sentence following Table 24 says the storage is a sufficient, is that correct?

- Provide mitigation of the failing movement at signalized intersection of Yale Blvd. and Kathryn Ave.

Please resubmit the NIA for review by the City. If you have any questions, feel free to contact me at (505) 924-3633.

Sincerely,

MP P.E.

Matt Grush, P.E., PTOE
City of Albuquerque
Senior Engineer, Planning Dept.
Development Review Services

via: email
C: Applicant, File
Jeanne Wolfenbarger, CABQ Planning Transportation Manager

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Appendix B:

Turning Movement Count Sheets

Lee Engineering, LLC
Phoenix, Arizona - Dallas, Texas
Oklahoma City, Oklahoma - San Antonio, Texas
Albuquerque, New Mexico, United States 87113
5053380988 zbaiamonte@lee-eng.com

Count Name: NM 319.01 -001 Mas Charter School
Site Code:
Start Date: 12/09/2021

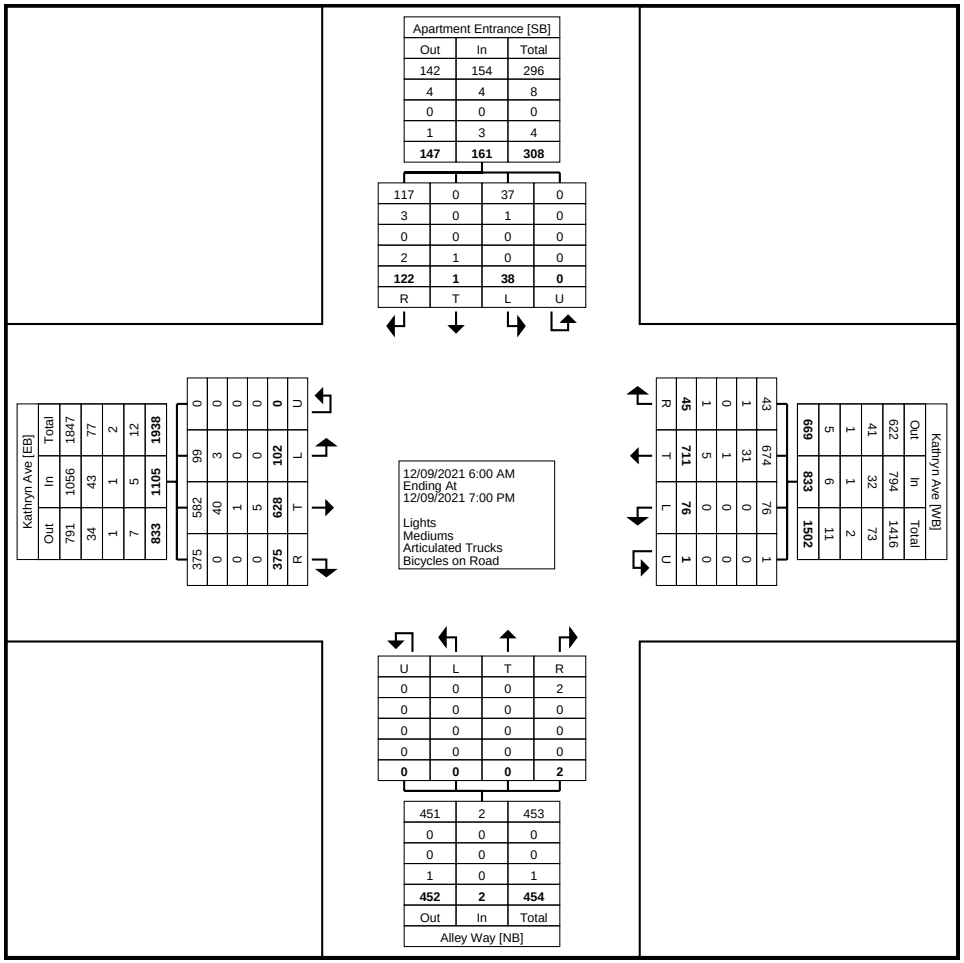
Turning Movement Data

Start Time	Apartment Entrance Southbound					Kathryn Ave Westbound					Alley Way Northbound					Kathryn Ave Eastbound					
	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Int. Total
6:00 AM	1	0	0	0	1	0	3	0	0	3	0	0	0	0	0	0	2	0	0	2	6
6:15 AM	2	0	0	0	2	0	5	0	0	5	0	0	0	0	0	0	2	1	0	3	10
6:30 AM	1	0	0	0	1	0	3	0	0	3	0	0	0	0	0	0	4	1	0	5	9
6:45 AM	1	0	1	0	2	0	9	1	0	10	0	0	0	0	0	5	8	1	0	14	26
Hourly Total	5	0	1	0	6	0	20	1	0	21	0	0	0	0	0	5	16	3	0	24	51
7:00 AM	2	0	0	0	2	0	7	4	1	12	0	0	0	0	0	18	6	1	0	25	39
7:15 AM	0	0	2	0	2	1	18	5	0	24	0	0	0	0	0	34	7	1	0	42	68
7:30 AM	1	0	2	0	3	0	10	7	0	17	0	0	0	0	0	46	14	2	0	62	82
7:45 AM	3	0	1	0	4	3	21	10	0	34	0	0	0	0	0	48	10	3	0	61	99
Hourly Total	6	0	5	0	11	4	56	26	1	87	0	0	0	0	0	146	37	7	0	190	288
8:00 AM	2	0	1	0	3	0	20	15	0	35	0	0	0	0	0	62	9	2	0	73	111
8:15 AM	3	0	2	0	5	0	21	1	0	22	0	0	0	0	0	7	24	4	0	35	62
8:30 AM	4	0	1	0	5	2	7	0	0	9	0	0	0	0	0	0	14	4	0	18	32
8:45 AM	1	0	0	0	1	2	12	0	0	14	0	0	0	0	0	0	7	0	0	7	22
Hourly Total	10	0	4	0	14	4	60	16	0	80	0	0	0	0	0	69	54	10	0	133	227
9:00 AM	1	0	1	0	2	1	10	0	0	11	0	0	0	0	0	0	7	1	0	8	21
9:15 AM	1	0	2	0	3	0	9	0	0	9	0	0	0	0	0	0	5	2	0	7	19
9:30 AM	3	0	0	0	3	0	8	0	0	8	0	0	0	0	0	0	16	1	0	17	28
9:45 AM	4	0	1	0	5	1	10	0	0	11	0	0	0	0	0	0	9	2	0	11	27
Hourly Total	9	0	4	0	13	2	37	0	0	39	0	0	0	0	0	0	37	6	0	43	95
10:00 AM	1	0	1	0	2	0	17	1	0	18	0	0	0	0	0	0	9	1	0	10	30
10:15 AM	0	0	0	0	0	1	12	0	0	13	0	0	0	0	0	0	4	3	0	7	20
10:30 AM	2	0	0	0	2	1	14	0	0	15	0	0	0	0	0	0	8	0	0	8	25
10:45 AM	4	0	0	0	4	1	19	0	0	20	0	0	0	0	0	0	11	0	0	11	35
Hourly Total	7	0	1	0	8	3	62	1	0	66	0	0	0	0	0	0	32	4	0	36	110
11:00 AM	2	0	1	0	3	2	12	0	0	14	0	0	0	0	0	0	7	2	0	9	26
11:15 AM	3	0	0	0	3	1	9	0	0	10	0	0	0	0	0	0	6	1	0	7	20
11:30 AM	2	0	1	0	3	2	8	0	0	10	0	0	0	0	0	0	10	3	0	13	26
11:45 AM	2	0	0	0	2	0	13	0	0	13	0	0	0	0	0	0	15	1	0	16	31
Hourly Total	9	0	2	0	11	5	42	0	0	47	0	0	0	0	0	0	38	7	0	45	103
12:00 PM	2	0	0	0	2	2	14	0	0	16	0	0	0	0	0	0	10	0	0	10	28
12:15 PM	0	0	1	0	1	2	16	0	0	18	0	0	0	0	0	0	7	2	0	9	28
12:30 PM	3	0	0	0	3	0	9	0	0	9	0	0	0	0	0	0	11	1	0	12	24
12:45 PM	1	0	0	0	1	2	9	0	0	11	0	0	0	0	0	0	9	1	0	10	22
Hourly Total	6	0	1	0	7	6	48	0	0	54	0	0	0	0	0	0	37	4	0	41	102
1:00 PM	4	0	1	0	5	0	10	0	0	10	1	0	0	0	1	0	7	2	0	9	25

1:15 PM	1	0	1	0	2	1	12	0	0	13	0	0	0	0	0	0	12	0	0	12	27
1:30 PM	0	0	0	0	0	1	15	0	0	16	0	0	0	0	0	0	15	2	0	17	33
1:45 PM	5	0	1	0	6	0	10	0	0	10	0	0	0	0	0	0	16	2	0	18	34
Hourly Total	10	0	3	0	13	2	47	0	0	49	1	0	0	0	1	0	50	6	0	56	119
2:00 PM	3	0	0	0	3	0	18	0	0	18	0	0	0	0	0	2	9	2	0	13	34
2:15 PM	1	0	1	0	2	0	13	0	0	13	0	0	0	0	0	0	10	1	0	11	26
2:30 PM	2	0	1	0	3	3	11	0	0	14	0	0	0	0	0	0	18	1	0	19	36
2:45 PM	2	0	2	0	4	0	13	0	0	13	0	0	0	0	0	0	12	1	0	13	30
Hourly Total	8	0	4	0	12	3	55	0	0	58	0	0	0	0	0	2	49	5	0	56	126
3:00 PM	4	0	0	0	4	1	19	0	0	20	0	0	0	0	0	3	18	4	0	25	49
3:15 PM	2	0	0	0	2	0	17	2	0	19	0	0	0	0	0	8	17	3	0	28	49
3:30 PM	0	0	1	0	1	2	21	1	0	24	0	0	0	0	0	3	9	5	0	17	42
3:45 PM	4	1	1	0	6	0	24	2	0	26	0	0	0	0	0	11	20	4	0	35	67
Hourly Total	10	1	2	0	13	3	81	5	0	89	0	0	0	0	0	25	64	16	0	105	207
4:00 PM	3	0	2	0	5	0	25	0	0	25	0	0	0	0	0	9	10	4	0	23	53
4:15 PM	5	0	0	0	5	1	19	0	0	20	0	0	0	0	0	28	37	1	0	66	91
4:30 PM	4	0	0	0	4	2	21	6	0	29	0	0	0	0	0	23	21	5	0	49	82
4:45 PM	6	0	0	0	6	2	16	9	0	27	0	0	0	0	0	22	10	2	0	34	67
Hourly Total	18	0	2	0	20	5	81	15	0	101	0	0	0	0	0	82	78	12	0	172	293
5:00 PM	6	0	0	0	6	2	16	1	0	19	0	0	0	0	0	10	15	4	0	29	54
5:15 PM	4	0	0	0	4	0	15	5	0	20	1	0	0	0	1	14	22	3	0	39	64
5:30 PM	5	0	1	0	6	3	14	5	0	22	0	0	0	0	0	13	20	0	0	33	61
5:45 PM	1	0	2	0	3	0	13	1	0	14	0	0	0	0	0	9	18	3	0	30	47
Hourly Total	16	0	3	0	19	5	58	12	0	75	1	0	0	0	1	46	75	10	0	131	226
6:00 PM	1	0	1	0	2	1	19	0	0	20	0	0	0	0	0	0	15	2	0	17	39
6:15 PM	5	0	2	0	7	0	15	0	0	15	0	0	0	0	0	0	15	3	0	18	40
6:30 PM	0	0	3	0	3	1	16	0	0	17	0	0	0	0	0	0	14	5	0	19	39
6:45 PM	2	0	0	0	2	1	14	0	0	15	0	0	0	0	0	0	17	2	0	19	36
Hourly Total	8	0	6	0	14	3	64	0	0	67	0	0	0	0	0	0	61	12	0	73	154
Grand Total	122	1	38	0	161	45	711	76	1	833	2	0	0	0	2	375	628	102	0	1105	2101
Approach %	75.8	0.6	23.6	0.0	-	5.4	85.4	9.1	0.1	-	100.0	0.0	0.0	0.0	-	33.9	56.8	9.2	0.0	-	-
Total %	5.8	0.0	1.8	0.0	7.7	2.1	33.8	3.6	0.0	39.6	0.1	0.0	0.0	0.0	0.1	17.8	29.9	4.9	0.0	52.6	-
Lights	117	0	37	0	154	43	674	76	1	794	2	0	0	0	2	375	582	99	0	1056	2006
% Lights	95.9	0.0	97.4	-	95.7	95.6	94.8	100.0	100.0	95.3	100.0	-	-	-	100.0	100.0	92.7	97.1	-	95.6	95.5
Mediums	3	0	1	0	4	1	31	0	0	32	0	0	0	0	0	0	40	3	0	43	79
% Mediums	2.5	0.0	2.6	-	2.5	2.2	4.4	0.0	0.0	3.8	0.0	-	-	-	0.0	0.0	6.4	2.9	-	3.9	3.8
Articulated Trucks	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	1	0	0	1	2
% Articulated Trucks	0.0	0.0	0.0	-	0.0	0.0	0.1	0.0	0.0	0.1	0.0	-	-	-	0.0	0.0	0.2	0.0	-	0.1	0.1
Bicycles on Road	2	1	0	0	3	1	5	0	0	6	0	0	0	0	0	0	5	0	0	5	14
% Bicycles on Road	1.6	100.0	0.0	-	1.9	2.2	0.7	0.0	0.0	0.7	0.0	-	-	-	0.0	0.0	0.8	0.0	-	0.5	0.7

Lee Engineering, LLC
Phoenix, Arizona - Dallas, Texas
Oklahoma City, Oklahoma - San Antonio, Texas
Albuquerque, New Mexico, United States 87113
5053380988 zbaiamonte@lee-eng.com

Count Name: NM 319.01 -001 Mas Charter School
Site Code:
Start Date: 12/09/2021



Turning Movement Data Plot

Lee Engineering, LLC
Phoenix, Arizona - Dallas, Texas
Oklahoma City, Oklahoma - San Antonio, Texas
Albuquerque, New Mexico, United States 87113
5053380988 zbaiamonte@lee-eng.com

Count Name: NM 319.01 -001 Mas Charter School
Site Code:
Start Date: 12/09/2021

Turning Movement Peak Hour Data (7:15 AM)

Start Time	Apartment Entrance Southbound					Kathryn Ave Westbound					Alley Way Northbound					Kathryn Ave Eastbound					
	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Int. Total
7:15 AM	0	0	2	0	2	1	18	5	0	24	0	0	0	0	0	34	7	1	0	42	68
7:30 AM	1	0	2	0	3	0	10	7	0	17	0	0	0	0	0	46	14	2	0	62	82
7:45 AM	3	0	1	0	4	3	21	10	0	34	0	0	0	0	0	48	10	3	0	61	99
8:00 AM	2	0	1	0	3	0	20	15	0	35	0	0	0	0	0	62	9	2	0	73	111
Total	6	0	6	0	12	4	69	37	0	110	0	0	0	0	0	190	40	8	0	238	360
Approach %	50.0	0.0	50.0	0.0	-	3.6	62.7	33.6	0.0	-	0.0	0.0	0.0	0.0	-	79.8	16.8	3.4	0.0	-	-
Total %	1.7	0.0	1.7	0.0	3.3	1.1	19.2	10.3	0.0	30.6	0.0	0.0	0.0	0.0	0.0	52.8	11.1	2.2	0.0	66.1	-
PHF	0.500	0.000	0.750	0.000	0.750	0.333	0.821	0.617	0.000	0.786	0.000	0.000	0.000	0.000	0.000	0.766	0.714	0.667	0.000	0.815	0.811
Lights	5	0	6	0	11	4	64	37	0	105	0	0	0	0	0	190	34	7	0	231	347
% Lights	83.3	-	100.0	-	91.7	100.0	92.8	100.0	-	95.5	-	-	-	-	-	100.0	85.0	87.5	-	97.1	96.4
Mediums	1	0	0	0	1	0	4	0	0	4	0	0	0	0	0	0	6	1	0	7	12
% Mediums	16.7	-	0.0	-	8.3	0.0	5.8	0.0	-	3.6	-	-	-	-	-	0.0	15.0	12.5	-	2.9	3.3
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
Bicycles on Road	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	1
% Bicycles on Road	0.0	-	0.0	-	0.0	0.0	1.4	0.0	-	0.9	-	-	-	-	-	0.0	0.0	0.0	-	0.0	0.3

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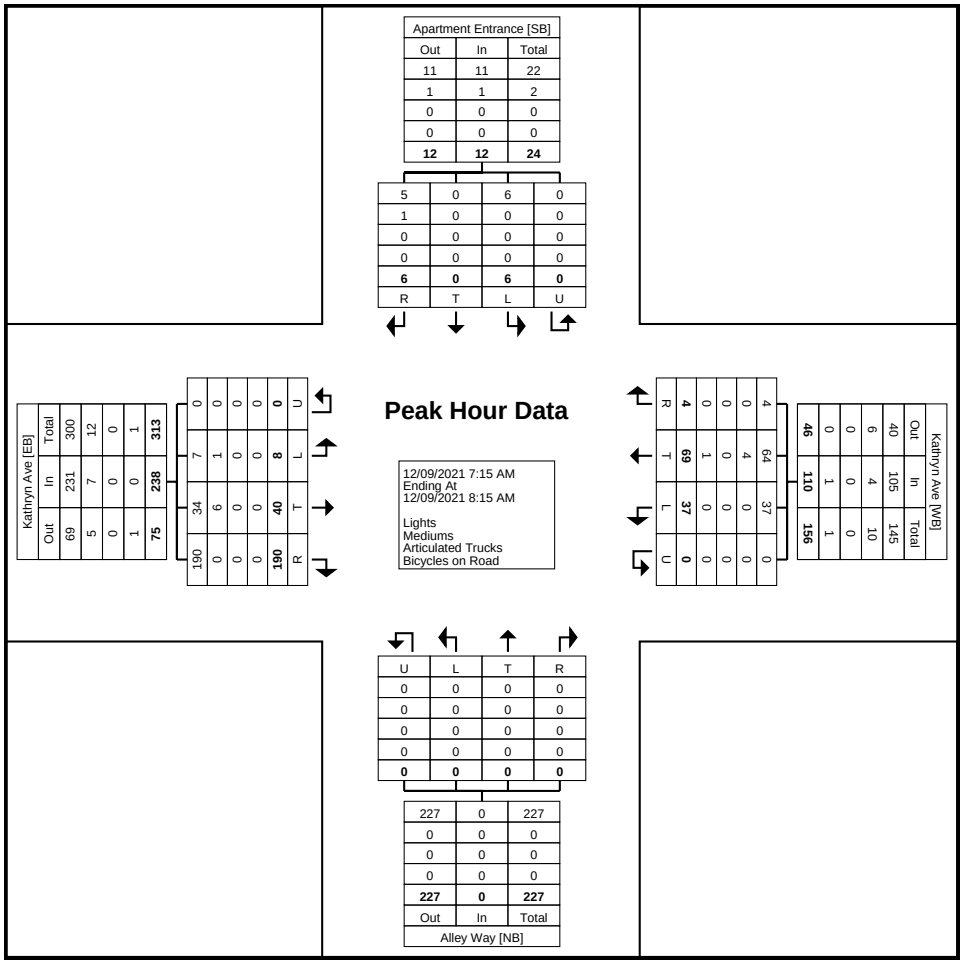

Turning Movement Peak Hour Data Plot (7:15 AM)

Lee Engineering, LLC
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5053380988 zbaiamonte@lee-eng.com

Count Name: NM 319.01 -001 Mas Charter School
Site Code:
Start Date: 12/09/2021

Turning Movement Peak Hour Data (4:15 PM)

Start Time	Apartment Entrance Southbound					Kathryn Ave Westbound					Alley Way Northbound					Kathryn Ave Eastbound					
	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Int. Total
4:15 PM	5	0	0	0	5	1	19	0	0	20	0	0	0	0	0	28	37	1	0	66	91
4:30 PM	4	0	0	0	4	2	21	6	0	29	0	0	0	0	0	23	21	5	0	49	82
4:45 PM	6	0	0	0	6	2	16	9	0	27	0	0	0	0	0	22	10	2	0	34	67
5:00 PM	6	0	0	0	6	2	16	1	0	19	0	0	0	0	0	10	15	4	0	29	54
Total	21	0	0	0	21	7	72	16	0	95	0	0	0	0	0	83	83	12	0	178	294
Approach %	100.0	0.0	0.0	0.0	-	7.4	75.8	16.8	0.0	-	0.0	0.0	0.0	0.0	-	46.6	46.6	6.7	0.0	-	-
Total %	7.1	0.0	0.0	0.0	7.1	2.4	24.5	5.4	0.0	32.3	0.0	0.0	0.0	0.0	0.0	28.2	28.2	4.1	0.0	60.5	-
PHF	0.875	0.000	0.000	0.000	0.875	0.875	0.857	0.444	0.000	0.819	0.000	0.000	0.000	0.000	0.000	0.741	0.561	0.600	0.000	0.674	0.808
Lights	20	0	0	0	20	6	71	16	0	93	0	0	0	0	0	83	79	12	0	174	287
% Lights	95.2	-	-	-	95.2	85.7	98.6	100.0	-	97.9	-	-	-	-	-	100.0	95.2	100.0	-	97.8	97.6
Mediums	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	4	0	0	4	5
% Mediums	0.0	-	-	-	0.0	0.0	1.4	0.0	-	1.1	-	-	-	-	-	0.0	4.8	0.0	-	2.2	1.7
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
Bicycles on Road	1	0	0	0	1	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	2
% Bicycles on Road	4.8	-	-	-	4.8	14.3	0.0	0.0	-	1.1	-	-	-	-	-	0.0	0.0	0.0	-	0.0	0.7

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Count Name: NM 319.01 -001 Mas Charter School
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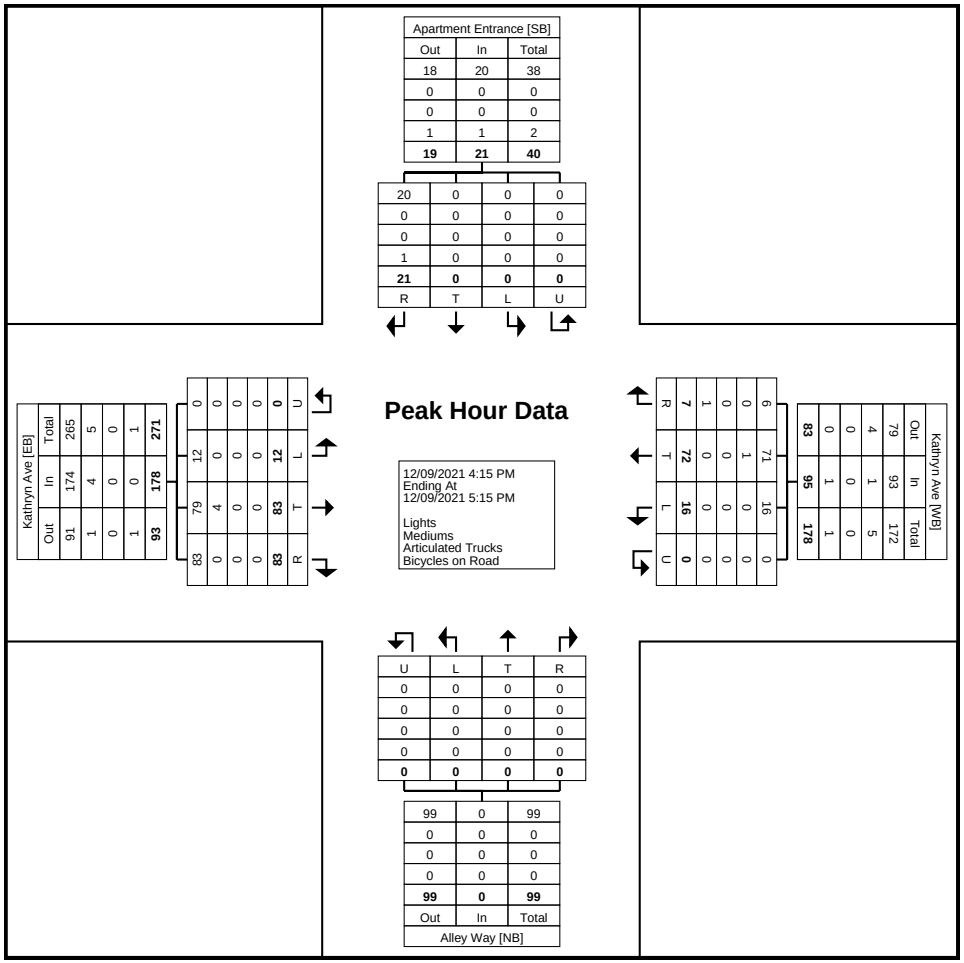

Turning Movement Peak Hour Data Plot (4:15 PM)

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Oklahoma City, Oklahoma - San Antonio, Texas
Albuquerque, New Mexico, United States 87113
5053380988 zbaiamonte@lee-eng.com

Count Name: NM 319.01 -001 Mas Charter School
Site Code:
Start Date: 12/08/2021

Turning Movement Data

Start Time	Yale Blvd Southbound					1700 Yale Westbound					Yale Blvd Northbound					Anderson Ave Eastbound					Int. Total
	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	
6:00 AM	0	23	0	0	23	0	0	0	0	0	0	16	0	0	16	0	0	0	0	0	39
6:15 AM	0	31	0	0	31	0	0	0	0	0	0	13	0	0	13	0	0	0	0	0	44
6:30 AM	0	47	1	0	48	0	0	0	0	0	1	29	0	0	30	0	0	0	0	0	78
6:45 AM	0	60	0	0	60	0	0	1	0	1	0	40	0	0	40	0	0	1	0	1	102
Hourly Total	0	161	1	0	162	0	0	1	0	1	1	98	0	0	99	0	0	1	0	1	263
7:00 AM	1	48	1	0	50	1	0	0	0	1	0	60	0	0	60	0	0	0	0	0	111
7:15 AM	0	63	0	0	63	0	0	0	0	0	0	61	0	0	61	0	0	2	0	2	126
7:30 AM	2	82	3	0	87	2	0	0	0	2	3	72	2	0	77	2	0	4	0	6	172
7:45 AM	5	62	1	1	69	0	0	1	0	1	0	111	3	0	114	2	0	4	0	6	190
Hourly Total	8	255	5	1	269	3	0	1	0	4	3	304	5	0	312	4	0	10	0	14	599
8:00 AM	8	55	2	0	65	1	0	1	0	2	2	108	2	0	112	1	0	8	0	9	188
8:15 AM	6	52	2	0	60	1	0	2	0	3	0	76	1	0	77	2	0	9	0	11	151
8:30 AM	2	47	0	0	49	3	0	0	0	3	0	68	0	0	68	1	0	4	0	5	125
8:45 AM	0	49	0	0	49	1	0	0	0	1	0	63	0	0	63	0	0	2	0	2	115
Hourly Total	16	203	4	0	223	6	0	3	0	9	2	315	3	0	320	4	0	23	0	27	579
9:00 AM	0	43	1	0	44	0	0	0	0	0	0	56	4	0	60	0	0	1	0	1	105
9:15 AM	1	42	1	0	44	0	0	0	0	0	0	41	0	0	41	0	0	1	0	1	86
9:30 AM	0	41	1	0	42	1	0	0	0	1	1	44	0	0	45	1	0	1	0	2	90
9:45 AM	0	53	1	0	54	2	0	0	0	2	0	41	0	0	41	0	0	1	0	1	98
Hourly Total	1	179	4	0	184	3	0	0	0	3	1	182	4	0	187	1	0	4	0	5	379
10:00 AM	1	26	0	0	27	0	0	0	0	0	0	53	0	0	53	0	0	2	0	2	82
10:15 AM	2	33	3	0	38	2	0	0	0	2	0	53	3	0	56	1	0	2	0	3	99
10:30 AM	2	31	0	1	34	0	0	0	0	0	0	51	0	0	51	1	0	1	0	2	87
10:45 AM	0	53	1	0	54	0	0	0	0	0	0	51	0	0	51	0	0	2	0	2	107
Hourly Total	5	143	4	1	153	2	0	0	0	2	0	208	3	0	211	2	0	7	0	9	375
11:00 AM	4	50	2	0	56	1	0	0	0	1	0	49	1	0	50	0	0	1	0	1	108
11:15 AM	0	53	1	0	54	2	1	0	0	3	1	51	2	0	54	1	0	1	0	2	113
11:30 AM	2	54	0	0	56	2	0	0	0	2	0	69	0	0	69	1	0	0	0	1	128
11:45 AM	2	59	2	0	63	1	0	2	0	3	1	59	0	0	60	1	0	3	0	4	130
Hourly Total	8	216	5	0	229	6	1	2	0	9	2	228	3	0	233	3	0	5	0	8	479
12:00 PM	0	88	3	0	91	2	0	1	0	3	0	85	0	1	86	3	0	2	0	5	185
12:15 PM	1	78	2	0	81	1	0	2	0	3	2	88	0	0	90	1	0	4	0	5	179
12:30 PM	1	76	1	0	78	4	0	1	0	5	0	69	0	0	69	0	1	3	0	4	156
12:45 PM	2	72	2	0	76	1	0	1	0	2	2	77	2	0	81	0	0	1	0	1	160
Hourly Total	4	314	8	0	326	8	0	5	0	13	4	319	2	1	326	4	1	10	0	15	680
1:00 PM	4	49	0	0	53	0	0	1	0	1	0	76	1	0	77	2	0	2	0	4	135

1:15 PM	1	71	0	0	72	1	0	0	0	1	2	63	1	0	66	1	0	3	0	4	143
1:30 PM	1	63	2	0	66	0	0	0	0	0	0	71	1	0	72	1	0	1	0	2	140
1:45 PM	3	66	0	1	70	2	0	1	0	3	0	55	0	0	55	1	0	0	0	1	129
Hourly Total	9	249	2	1	261	3	0	2	0	5	2	265	3	0	270	5	0	6	0	11	547
2:00 PM	4	58	2	0	64	1	0	0	0	1	0	62	2	0	64	1	1	2	0	4	133
2:15 PM	1	54	1	0	56	2	0	0	0	2	3	72	0	0	75	0	0	6	0	6	139
2:30 PM	1	42	5	0	48	1	0	2	0	3	3	57	0	0	60	4	0	4	0	8	119
2:45 PM	1	52	7	0	60	5	0	7	0	12	4	63	0	0	67	2	0	2	0	4	143
Hourly Total	7	206	15	0	228	9	0	9	0	18	10	254	2	0	266	7	1	14	0	22	534
3:00 PM	1	60	1	1	63	2	0	1	0	3	4	52	0	0	56	2	0	4	0	6	128
3:15 PM	4	61	4	0	69	2	0	1	0	3	2	69	1	0	72	0	0	3	0	3	147
3:30 PM	5	53	9	0	67	0	0	0	0	0	3	82	3	0	88	0	0	4	0	4	159
3:45 PM	10	67	13	0	90	2	1	3	0	6	6	76	0	0	82	4	0	10	0	14	192
Hourly Total	20	241	27	1	289	6	1	5	0	12	15	279	4	0	298	6	0	21	0	27	626
4:00 PM	1	73	16	0	90	21	2	15	0	38	10	92	2	0	104	3	2	6	0	11	243
4:15 PM	2	58	5	1	66	20	0	8	0	28	6	156	1	0	163	4	0	11	0	15	272
4:30 PM	2	63	3	0	68	8	1	2	0	11	6	175	3	0	184	0	0	3	0	3	266
4:45 PM	2	74	2	0	78	1	0	0	0	1	1	125	1	0	127	1	0	3	0	4	210
Hourly Total	7	268	26	1	302	50	3	25	0	78	23	548	7	0	578	8	2	23	0	33	991
5:00 PM	1	81	1	0	83	4	0	2	0	6	1	128	1	0	130	2	0	3	0	5	224
5:15 PM	1	79	0	0	80	2	0	0	0	2	0	109	0	0	109	0	0	2	0	2	193
5:30 PM	1	65	1	0	67	4	0	1	0	5	0	83	0	0	83	2	0	0	0	2	157
5:45 PM	1	66	1	0	68	2	0	1	0	3	2	53	1	0	56	1	0	4	0	5	132
Hourly Total	4	291	3	0	298	12	0	4	0	16	3	373	2	0	378	5	0	9	0	14	706
6:00 PM	2	49	0	0	51	1	0	3	0	4	0	62	0	0	62	0	0	0	0	0	117
6:15 PM	1	51	0	0	52	3	0	1	0	4	1	45	0	0	46	0	0	1	0	1	103
6:30 PM	2	61	1	0	64	0	0	0	0	0	0	42	0	0	42	0	0	2	0	2	108
6:45 PM	0	44	0	0	44	1	0	0	0	1	0	53	0	0	53	0	0	2	0	2	100
Hourly Total	5	205	1	0	211	5	0	4	0	9	1	202	0	0	203	0	0	5	0	5	428
Grand Total	94	2931	105	5	3135	113	5	61	0	179	67	3575	38	1	3681	49	4	138	0	191	7186
Approach %	3.0	93.5	3.3	0.2	-	63.1	2.8	34.1	0.0	-	1.8	97.1	1.0	0.0	-	25.7	2.1	72.3	0.0	-	-
Total %	1.3	40.8	1.5	0.1	43.6	1.6	0.1	0.8	0.0	2.5	0.9	49.7	0.5	0.0	51.2	0.7	0.1	1.9	0.0	2.7	-
Lights	93	2813	96	5	3007	106	5	57	0	168	66	3453	35	1	3555	44	4	136	0	184	6914
% Lights	98.9	96.0	91.4	100.0	95.9	93.8	100.0	93.4	-	93.9	98.5	96.6	92.1	100.0	96.6	89.8	100.0	98.6	-	96.3	96.2
Mediums	1	115	9	0	125	7	0	4	0	11	1	118	3	0	122	5	0	1	0	6	264
% Mediums	1.1	3.9	8.6	0.0	4.0	6.2	0.0	6.6	-	6.1	1.5	3.3	7.9	0.0	3.3	10.2	0.0	0.7	-	3.1	3.7
Articulated Trucks	0	1	0	0	1	0	0	0	0	0	0	3	0	0	3	0	0	0	0	0	4
% Articulated Trucks	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-	0.0	0.0	0.1	0.0	0.0	0.1	0.0	0.0	0.0	-	0.0	0.1
Bicycles on Road	0	2	0	0	2	0	0	0	0	0	0	1	0	0	1	0	0	1	0	1	4
% Bicycles on Road	0.0	0.1	0.0	0.0	0.1	0.0	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.7	-	0.5	0.1

Lee Engineering, LLC
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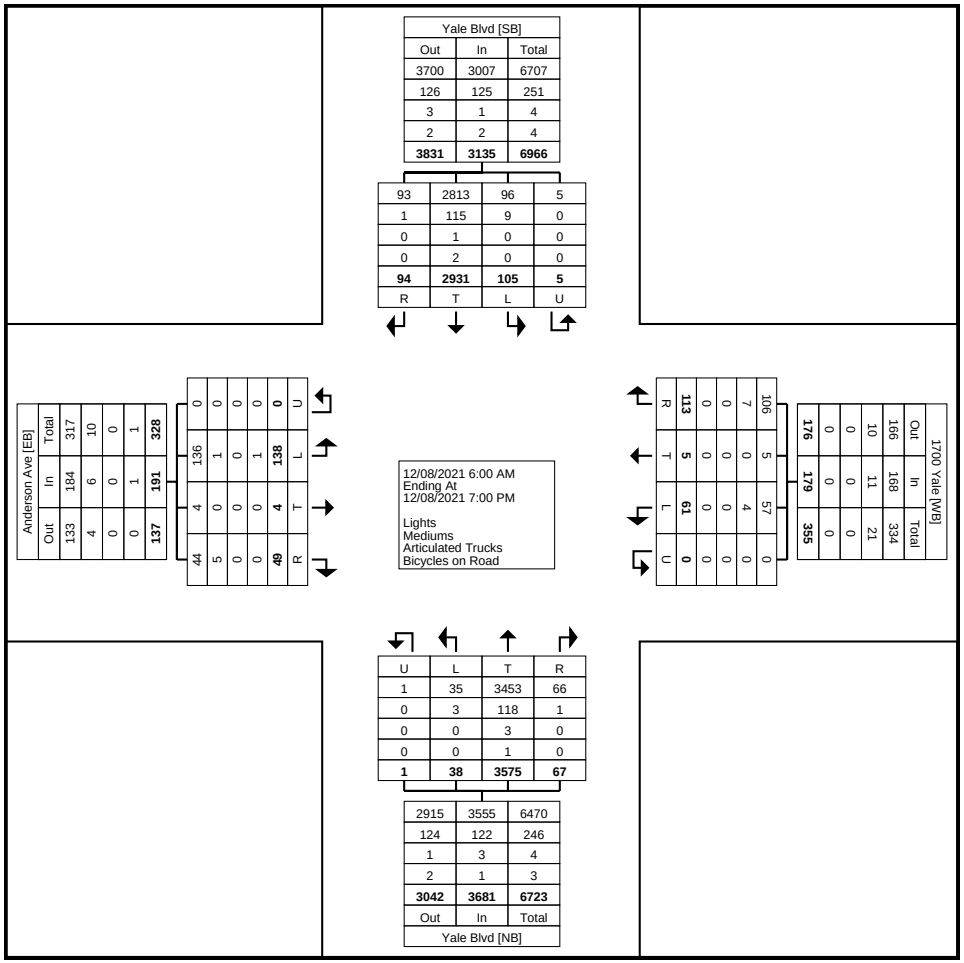
Albuquerque, New Mexico, United States 87113
5053380988 zbaiamonte@lee-eng.com

Count Name: NM 319.01 -001 Mas Charter School
Site Code:
Start Date: 12/08/2021



Turning Movement Data Plot

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5053380988 zbaiamonte@lee-eng.com

Count Name: NM 319.01 -001 Mas Charter School
Site Code:
Start Date: 12/08/2021

Turning Movement Peak Hour Data (7:30 AM)

Start Time	Yale Blvd Southbound					1700 Yale Westbound					Yale Blvd Northbound					Anderson Ave Eastbound					
	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Int. Total
7:30 AM	2	82	3	0	87	2	0	0	0	2	3	72	2	0	77	2	0	4	0	6	172
7:45 AM	5	62	1	1	69	0	0	1	0	1	0	111	3	0	114	2	0	4	0	6	190
8:00 AM	8	55	2	0	65	1	0	1	0	2	2	108	2	0	112	1	0	8	0	9	188
8:15 AM	6	52	2	0	60	1	0	2	0	3	0	76	1	0	77	2	0	9	0	11	151
Total	21	251	8	1	281	4	0	4	0	8	5	367	8	0	380	7	0	25	0	32	701
Approach %	7.5	89.3	2.8	0.4	-	50.0	0.0	50.0	0.0	-	1.3	96.6	2.1	0.0	-	21.9	0.0	78.1	0.0	-	-
Total %	3.0	35.8	1.1	0.1	40.1	0.6	0.0	0.6	0.0	1.1	0.7	52.4	1.1	0.0	54.2	1.0	0.0	3.6	0.0	4.6	-
PHF	0.656	0.765	0.667	0.250	0.807	0.500	0.000	0.500	0.000	0.667	0.417	0.827	0.667	0.000	0.833	0.875	0.000	0.694	0.000	0.727	0.922
Lights	21	242	7	1	271	4	0	3	0	7	4	352	8	0	364	7	0	25	0	32	674
% Lights	100.0	96.4	87.5	100.0	96.4	100.0	-	75.0	-	87.5	80.0	95.9	100.0	-	95.8	100.0	-	100.0	-	100.0	96.1
Mediums	0	9	1	0	10	0	0	1	0	1	1	13	0	0	14	0	0	0	0	0	25
% Mediums	0.0	3.6	12.5	0.0	3.6	0.0	-	25.0	-	12.5	20.0	3.5	0.0	-	3.7	0.0	-	0.0	-	0.0	3.6
Articulated Trucks	0	0	0	0	0	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	2
% Articulated Trucks	0.0	0.0	0.0	0.0	0.0	0.0	-	0.0	-	0.0	0.0	0.5	0.0	-	0.5	0.0	-	0.0	-	0.0	0.3
Bicycles on Road	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% Bicycles on Road	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

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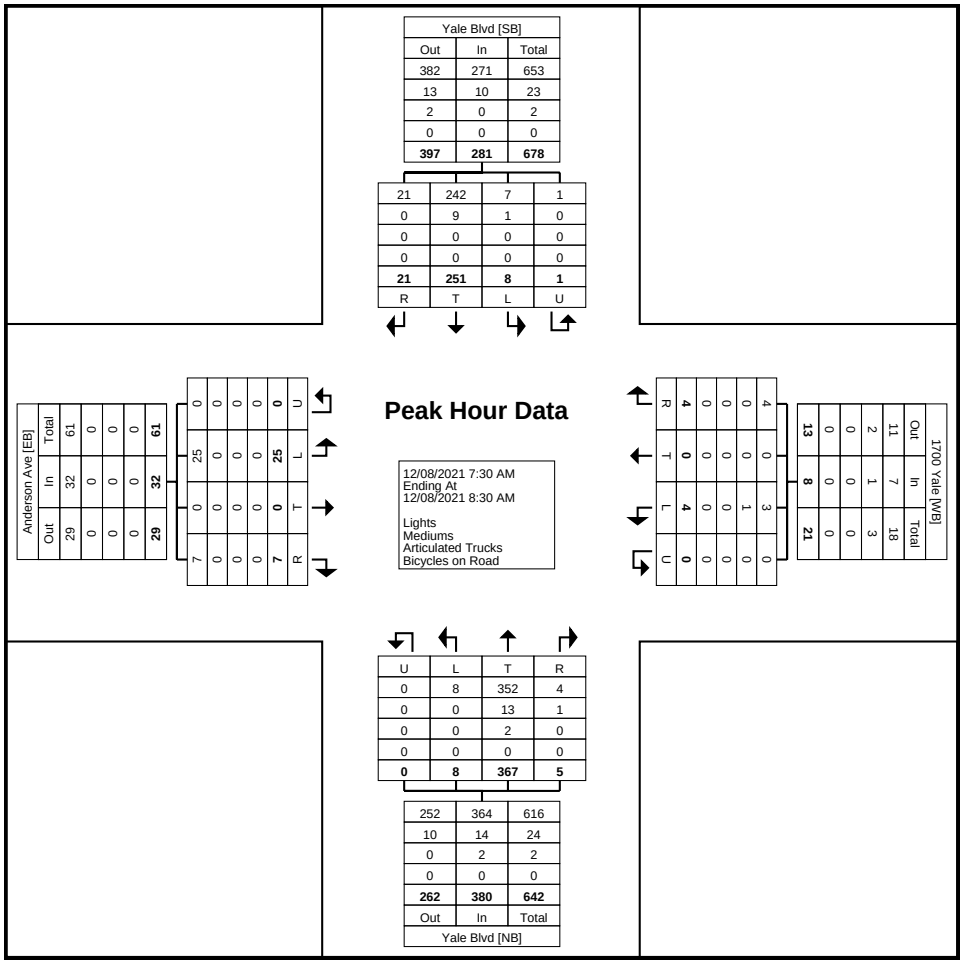
Count Name: NM 319.01 -001 Mas Charter School
Site Code:
Start Date: 12/08/2021



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

Lee Engineering, LLC
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Albuquerque, New Mexico, United States 87113
5053380988 zbaiamonte@lee-eng.com

Count Name: NM 319.01 -001 Mas Charter School
Site Code:
Start Date: 12/08/2021

Turning Movement Peak Hour Data (4:00 PM)

Start Time	Yale Blvd Southbound					1700 Yale Westbound					Yale Blvd Northbound					Anderson Ave Eastbound					
	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Int. Total
4:00 PM	1	73	16	0	90	21	2	15	0	38	10	92	2	0	104	3	2	6	0	11	243
4:15 PM	2	58	5	1	66	20	0	8	0	28	6	156	1	0	163	4	0	11	0	15	272
4:30 PM	2	63	3	0	68	8	1	2	0	11	6	175	3	0	184	0	0	3	0	3	266
4:45 PM	2	74	2	0	78	1	0	0	0	1	1	125	1	0	127	1	0	3	0	4	210
Total	7	268	26	1	302	50	3	25	0	78	23	548	7	0	578	8	2	23	0	33	991
Approach %	2.3	88.7	8.6	0.3	-	64.1	3.8	32.1	0.0	-	4.0	94.8	1.2	0.0	-	24.2	6.1	69.7	0.0	-	-
Total %	0.7	27.0	2.6	0.1	30.5	5.0	0.3	2.5	0.0	7.9	2.3	55.3	0.7	0.0	58.3	0.8	0.2	2.3	0.0	3.3	-
PHF	0.875	0.905	0.406	0.250	0.839	0.595	0.375	0.417	0.000	0.513	0.575	0.783	0.583	0.000	0.785	0.500	0.250	0.523	0.000	0.550	0.911
Lights	7	255	26	1	289	50	3	25	0	78	23	534	7	0	564	7	2	23	0	32	963
% Lights	100.0	95.1	100.0	100.0	95.7	100.0	100.0	100.0	-	100.0	100.0	97.4	100.0	-	97.6	87.5	100.0	100.0	-	97.0	97.2
Mediums	0	13	0	0	13	0	0	0	0	0	0	14	0	0	14	1	0	0	0	1	28
% Mediums	0.0	4.9	0.0	0.0	4.3	0.0	0.0	0.0	-	0.0	0.0	2.6	0.0	-	2.4	12.5	0.0	0.0	-	3.0	2.8
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 Road	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% Bicycles on Road	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

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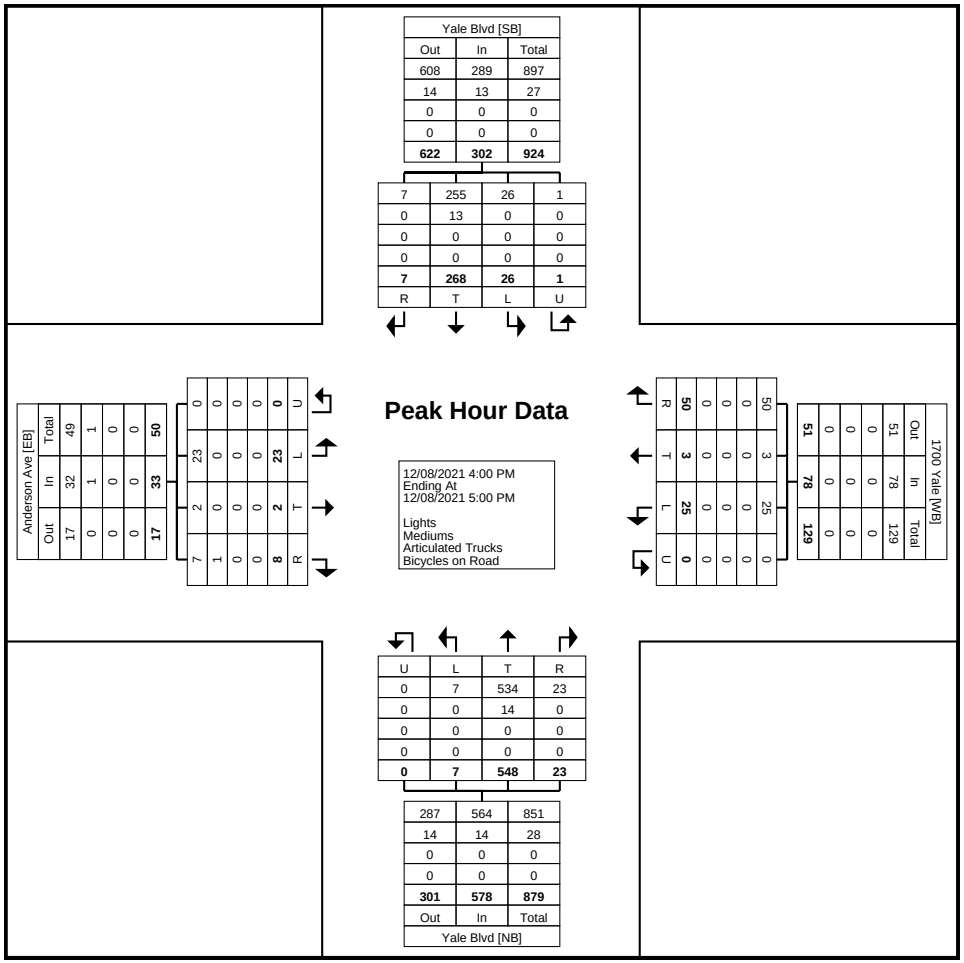
Count Name: NM 319.01 -001 Mas Charter School
Site Code:
Start Date: 12/08/2021



Turning Movement Peak Hour Data Plot (4:00 PM)

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Count Name: NM 319.01 -001 Mas Charter School
Site Code:
Start Date: 12/08/2021

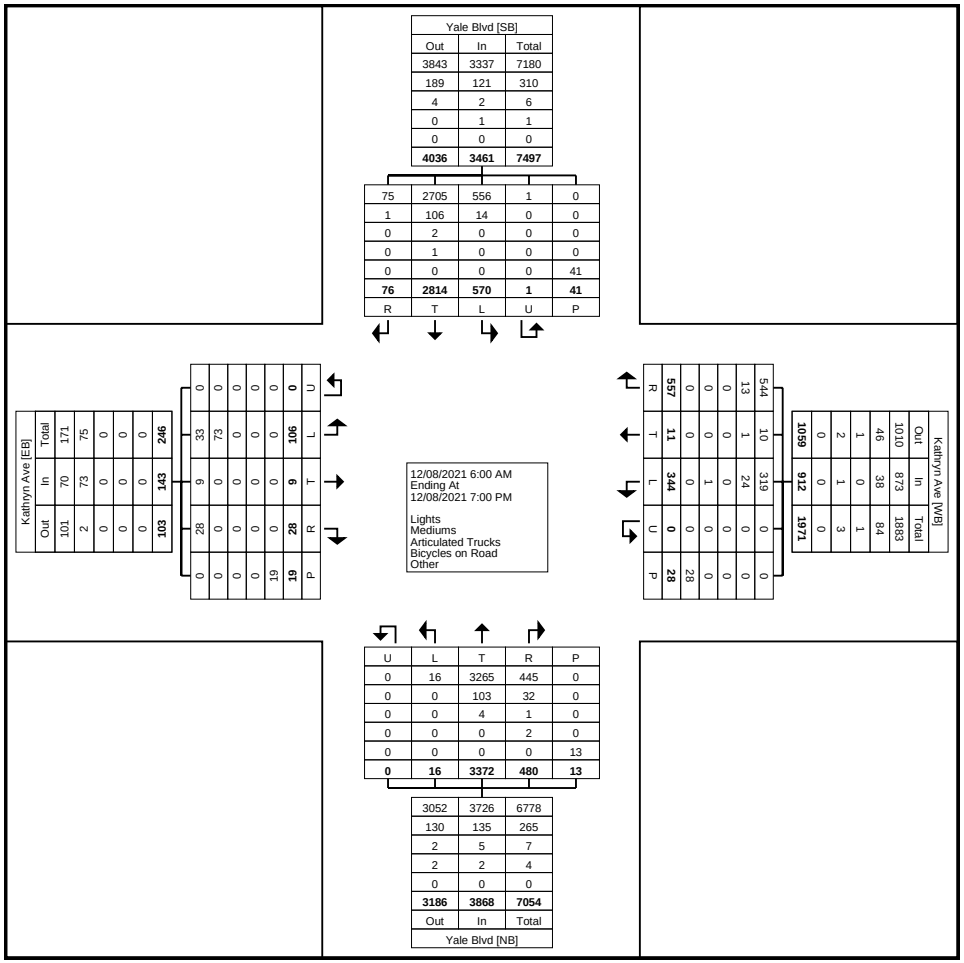
Turning Movement Data

Start Time	Yale Blvd Southbound							Kathryn Ave Westbound							Yale Blvd Northbound							Kathryn Ave 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	0	0	21	3	0	0	24	2	6	0	2	0	0	10	1	1	15	0	0	0	17	0	0	0	0	0	0	0	51
6:15 AM	0	0	27	2	0	0	29	3	3	0	1	0	1	7	1	1	11	0	0	0	13	0	0	0	0	0	0	0	49
6:30 AM	0	0	51	3	0	0	54	2	4	0	0	0	0	6	3	0	26	0	0	0	29	0	1	0	1	0	2	2	91
6:45 AM	0	0	53	10	0	0	63	6	5	0	4	0	1	15	3	1	37	0	0	0	41	0	0	0	1	0	0	1	120
Hourly Total	0	0	152	18	0	0	170	13	18	0	7	0	2	38	8	3	89	0	0	0	100	0	1	0	2	0	2	3	311
7:00 AM	0	0	48	19	0	0	67	6	4	0	2	0	0	12	10	1	48	0	0	1	59	0	0	0	3	0	1	3	141
7:15 AM	1	0	56	18	0	0	75	6	4	0	6	0	0	16	14	0	54	1	0	1	69	0	0	0	1	0	1	1	161
7:30 AM	2	0	76	19	0	0	97	7	4	0	11	0	0	22	18	3	55	0	0	0	76	0	0	0	3	0	0	3	198
7:45 AM	3	0	69	39	0	0	111	9	3	0	6	0	0	18	27	7	85	1	0	2	120	0	0	0	2	0	0	2	251
Hourly Total	6	0	249	95	0	0	350	28	15	0	25	0	0	68	69	11	242	2	0	4	324	0	0	0	9	0	2	9	751
8:00 AM	2	3	51	40	0	6	96	9	1	0	10	0	0	20	30	6	82	0	0	2	118	0	1	0	3	0	0	4	238
8:15 AM	5	1	54	11	0	4	71	15	3	0	10	0	1	28	11	3	78	1	0	1	93	0	1	0	1	0	0	2	194
8:30 AM	0	0	35	7	0	0	42	13	3	2	9	0	1	27	9	0	65	1	0	0	75	0	1	0	3	0	0	4	148
8:45 AM	5	0	44	5	0	0	54	8	0	0	6	0	0	14	2	0	63	1	0	1	66	0	0	0	4	0	0	4	138
Hourly Total	12	4	184	63	0	10	263	45	7	2	35	0	2	89	52	9	288	3	0	4	352	0	3	0	11	0	0	14	718
9:00 AM	0	1	34	7	0	0	42	1	2	0	8	0	0	11	3	0	58	0	0	0	61	0	1	0	3	0	0	4	118
9:15 AM	0	0	41	7	0	0	48	6	4	0	3	0	0	13	3	2	37	1	0	0	43	1	0	0	3	0	0	4	108
9:30 AM	1	0	40	5	0	0	46	6	7	1	4	0	0	18	4	0	38	0	0	0	42	0	0	0	2	0	0	2	108
9:45 AM	0	0	47	5	0	0	52	6	3	0	5	0	1	14	3	0	41	0	0	0	44	0	0	1	3	0	0	4	114
Hourly Total	1	1	162	24	0	0	188	19	16	1	20	0	1	56	13	2	174	1	0	0	190	1	1	1	11	0	0	14	448
10:00 AM	1	0	29	4	1	0	35	4	1	0	1	0	1	6	1	1	56	0	0	0	58	0	0	0	2	0	0	2	101
10:15 AM	0	0	32	6	0	0	38	6	2	0	5	0	1	13	3	1	53	0	0	0	57	0	1	1	1	0	1	3	111
10:30 AM	0	0	27	7	0	0	34	8	5	0	7	0	0	20	6	1	48	0	0	0	55	0	0	0	1	0	0	1	110
10:45 AM	1	1	47	5	0	0	54	7	4	0	2	0	0	13	3	0	52	0	0	0	55	0	1	1	1	0	0	3	125
Hourly Total	2	1	135	22	1	0	161	25	12	0	15	0	2	52	13	3	209	0	0	0	225	0	2	2	5	0	1	9	447
11:00 AM	1	0	55	9	0	1	65	7	0	1	6	0	1	14	4	0	48	0	0	1	52	0	1	0	2	0	1	3	134
11:15 AM	1	1	49	4	0	1	55	2	2	0	2	0	1	6	3	0	53	0	0	0	56	0	0	0	1	0	1	1	118
11:30 AM	0	0	48	5	0	0	53	6	6	0	10	0	0	22	4	0	65	1	0	0	70	0	1	0	1	0	0	2	147
11:45 AM	2	0	56	7	0	0	65	9	4	0	11	0	0	24	4	0	64	0	0	0	68	0	0	0	5	0	0	5	162
Hourly Total	4	1	208	25	0	2	238	24	12	1	29	0	2	66	15	0	230	1	0	1	246	0	2	0	9	0	2	11	561
12:00 PM	1	0	82	11	0	0	94	4	7	0	8	0	1	19	9	1	78	0	0	0	88	1	2	1	1	0	0	5	206
12:15 PM	0	2	78	6	0	1	86	8	3	0	4	0	0	15	6	0	88	0	0	0	94	0	0	1	2	0	1	3	198
12:30 PM	1	1	68	6	0	1	76	6	3	0	7	0	0	16	3	1	75	0	0	0	79	0	1	0	3	0	2	4	175
12:45 PM	1	0	71	5	0	1	77	7	4	0	8	0	0	19	6	0	69	1	0	0	76	0	0	1	3	0	0	4	176
Hourly Total	3	3	299	28	0	3	333	25	17	0	27	0	1	69	24	2	310	1	0	0	337	1	3	3	9	0	3	16	755

1:00 PM	0	0	53	10	0	0	63	7	3	1	5	0	0	16	5	2	73	0	0	1	80	0	0	0	2	0	0	2	161
1:15 PM	1	0	64	11	0	0	76	5	4	0	6	0	0	15	9	0	56	1	0	0	66	0	0	0	4	0	0	4	161
1:30 PM	0	0	58	10	0	0	68	5	1	0	12	0	0	18	7	1	61	1	0	0	70	0	0	0	4	0	0	4	160
1:45 PM	0	0	67	10	0	1	77	8	4	1	6	0	0	19	4	1	54	0	0	0	59	0	1	0	5	0	0	6	161
Hourly Total	1	0	242	41	0	1	284	25	12	2	29	0	0	68	25	4	244	2	0	1	275	0	1	0	15	0	0	16	643
2:00 PM	1	0	57	10	0	0	68	5	3	0	7	0	0	15	7	0	62	0	0	0	69	0	2	0	3	0	1	5	157
2:15 PM	1	0	51	9	0	0	61	9	1	0	4	0	0	14	8	1	71	0	0	0	80	0	0	2	2	0	0	4	159
2:30 PM	0	1	43	6	0	0	50	8	6	0	4	0	1	18	3	1	57	0	0	0	61	0	0	0	1	0	0	1	130
2:45 PM	3	0	51	7	0	0	61	6	3	2	9	0	1	20	6	2	61	1	0	0	70	0	2	0	3	0	0	5	156
Hourly Total	5	1	202	32	0	0	240	28	13	2	24	0	2	67	24	4	251	1	0	0	280	0	4	2	9	0	1	15	602
3:00 PM	2	0	59	12	0	0	73	13	3	0	4	0	0	20	5	1	53	0	0	0	59	0	0	0	1	0	2	1	153
3:15 PM	1	0	55	13	0	0	69	7	1	1	13	0	0	22	7	2	64	1	0	1	74	0	0	0	2	0	0	2	167
3:30 PM	4	0	61	10	0	2	75	14	3	1	6	0	0	24	6	2	74	1	0	0	83	0	1	0	2	0	0	3	185
3:45 PM	0	2	71	17	0	3	90	12	7	0	20	0	2	39	11	11	66	1	0	1	89	0	1	0	3	0	0	4	222
Hourly Total	7	2	246	52	0	5	307	46	14	2	43	0	2	105	29	16	257	3	0	2	305	0	2	0	8	0	2	10	727
4:00 PM	1	5	78	20	0	9	104	10	3	1	16	0	2	30	10	3	93	0	0	1	106	0	0	0	1	0	1	1	241
4:15 PM	2	0	59	12	0	8	73	13	2	0	8	0	4	23	20	6	167	0	0	0	193	0	2	0	1	0	1	3	292
4:30 PM	3	0	58	17	0	3	78	17	1	0	9	0	2	27	24	7	159	0	0	0	190	1	2	0	2	0	0	5	300
4:45 PM	3	0	73	16	0	0	92	6	7	0	11	0	0	24	11	4	118	0	0	0	133	0	0	0	0	0	0	0	249
Hourly Total	9	5	268	65	0	20	347	46	13	1	44	0	8	104	65	20	537	0	0	1	622	1	4	0	4	0	2	9	1082
5:00 PM	1	0	69	12	0	0	82	8	1	0	4	0	2	13	12	2	119	0	0	0	133	0	0	1	2	0	0	3	231
5:15 PM	2	1	77	23	0	0	103	7	2	0	7	0	1	16	10	3	99	0	0	0	112	0	1	0	3	0	1	4	235
5:30 PM	0	0	65	20	0	0	85	11	4	0	7	0	0	22	11	2	75	0	0	0	88	0	0	0	3	0	0	3	198
5:45 PM	3	0	63	13	0	0	79	8	1	0	6	0	1	15	5	2	58	0	0	0	65	0	1	0	1	0	1	2	161
Hourly Total	6	1	274	68	0	0	349	34	8	0	24	0	4	66	38	9	351	0	0	0	398	0	2	1	9	0	2	12	825
6:00 PM	0	0	43	10	0	0	53	9	2	0	9	0	1	20	4	0	56	0	0	0	60	0	0	0	1	0	2	1	134
6:15 PM	0	0	50	10	0	0	60	10	2	0	4	0	1	16	5	0	51	0	0	0	56	0	0	0	2	0	0	2	134
6:30 PM	1	0	60	9	0	0	70	6	4	0	6	0	0	16	7	1	36	2	0	0	46	0	0	0	1	0	0	1	133
6:45 PM	0	0	40	8	0	0	48	7	2	0	3	0	0	12	4	1	47	0	0	0	52	0	0	0	1	0	0	1	113
Hourly Total	1	0	193	37	0	0	231	32	10	0	22	0	2	64	20	2	190	2	0	0	214	0	0	0	5	0	2	5	514
Grand Total	57	19	2814	570	1	41	3461	390	167	11	344	0	28	912	395	85	3372	16	0	13	3868	3	25	9	106	0	19	143	8384
Approach %	1.6	0.5	81.3	16.5	0.0	-	-	42.8	18.3	1.2	37.7	0.0	-	-	10.2	2.2	87.2	0.4	0.0	-	-	2.1	17.5	6.3	74.1	0.0	-	-	-
Total %	0.7	0.2	33.6	6.8	0.0	-	41.3	4.7	2.0	0.1	4.1	0.0	-	10.9	4.7	1.0	40.2	0.2	0.0	-	46.1	0.0	0.3	0.1	1.3	0.0	-	1.7	-
Lights	56	19	2705	556	1	-	3337	381	163	10	319	0	-	873	362	83	3265	16	0	-	3726	3	25	9	33	0	-	70	8006
% Lights	98.2	100.0	96.1	97.5	100.0	-	96.4	97.7	97.6	90.9	92.7	-	-	95.7	91.6	97.6	96.8	100.0	-	-	96.3	100.0	100.0	100.0	31.1	-	-	49.0	95.5
Mediums	1	0	106	14	0	-	121	9	4	1	24	0	-	38	31	1	103	0	0	-	135	0	0	0	73	0	-	73	367
% Mediums	1.8	0.0	3.8	2.5	0.0	-	3.5	2.3	2.4	9.1	7.0	-	-	4.2	7.8	1.2	3.1	0.0	-	-	3.5	0.0	0.0	0.0	68.9	-	-	51.0	4.4
Articulated Trucks	0	0	2	0	0	-	2	0	0	0	0	0	-	0	0	1	4	0	0	-	5	0	0	0	0	0	-	0	7
% Articulated Trucks	0.0	0.0	0.1	0.0	0.0	-	0.1	0.0	0.0	0.0	0.0	-	-	0.0	0.0	1.2	0.1	0.0	-	-	0.1	0.0	0.0	0.0	0.0	-	-	0.0	0.1
Bicycles on Road	0	0	1	0	0	-	1	0	0	0	1	0	-	1	2	0	0	0	0	-	2	0	0	0	0	0	-	0	4
% Bicycles on Road	0.0	0.0	0.0	0.0	0.0	-	0.0	0.0	0.0	0.0	0.3	-	-	0.1	0.5	0.0	0.0	0.0	-	-	0.1	0.0	0.0	0.0	0.0	-	-	0.0	0.0
Bicycles on Crosswalk	-	-	-	-	-	2	-	-	-	-	-	-	2	-	-	-	-	-	-	1	-	-	-	-	-	-	2	-	-
% Bicycles on Crosswalk	-	-	-	-	-	4.9	-	-	-	-	-	-	7.1	-	-	-	-	-	-	7.7	-	-	-	-	-	-	10.5	-	-
Pedestrians	-	-	-	-	-	39	-	-	-	-	-	-	26	-	-	-	-	-	-	12	-	-	-	-	-	-	17	-	-
% Pedestrians	-	-	-	-	-	95.1	-	-	-	-	-	-	92.9	-	-	-	-	-	-	92.3	-	-	-	-	-	-	89.5	-	-

Lee Engineering, LLC
Phoenix, Arizona - Dallas, Texas
Oklahoma City, Oklahoma - San Antonio, Texas
Albuquerque, New Mexico, United States 87113
5053380988 zbaiamonte@lee-eng.com

Count Name: NM 319.01 -001 Mas Charter School
Site Code:
Start Date: 12/08/2021



Turning Movement Data Plot

Lee Engineering, LLC
Phoenix, Arizona - Dallas, Texas
Oklahoma City, Oklahoma - San Antonio, Texas
Albuquerque, New Mexico, United States 87113
5053380988 zbaiamonte@lee-eng.com

Count Name: NM 319.01 -001 Mas Charter School
Site Code:
Start Date: 12/08/2021

Turning Movement Peak Hour Data (7:30 AM)

Start Time	Yale Blvd Southbound							Kathryn Ave Westbound							Yale Blvd Northbound							Kathryn Ave 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	2	0	76	19	0	0	97	7	4	0	11	0	0	22	18	3	55	0	0	0	76	0	0	0	3	0	0	3	198
7:45 AM	3	0	69	39	0	0	111	9	3	0	6	0	0	18	27	7	85	1	0	2	120	0	0	0	2	0	0	2	251
8:00 AM	2	3	51	40	0	6	96	9	1	0	10	0	0	20	30	6	82	0	0	2	118	0	1	0	3	0	0	4	238
8:15 AM	5	1	54	11	0	4	71	15	3	0	10	0	1	28	11	3	78	1	0	1	93	0	1	0	1	0	0	2	194
Total	12	4	250	109	0	10	375	40	11	0	37	0	1	88	86	19	300	2	0	5	407	0	2	0	9	0	0	11	881
Approach %	3.2	1.1	66.7	29.1	0.0	-	-	45.5	12.5	0.0	42.0	0.0	-	-	21.1	4.7	73.7	0.5	0.0	-	-	0.0	18.2	0.0	81.8	0.0	-	-	-
Total %	1.4	0.5	28.4	12.4	0.0	-	42.6	4.5	1.2	0.0	4.2	0.0	-	10.0	9.8	2.2	34.1	0.2	0.0	-	46.2	0.0	0.2	0.0	1.0	0.0	-	1.2	-
PHF	0.600	0.333	0.822	0.681	0.000	-	0.845	0.667	0.688	0.000	0.841	0.000	-	0.786	0.717	0.679	0.882	0.500	0.000	-	0.848	0.000	0.500	0.000	0.750	0.000	-	0.688	0.877
Lights	11	4	242	107	0	-	364	39	11	0	33	0	-	83	81	18	286	2	0	-	387	0	2	0	2	0	-	4	838
% Lights	91.7	100.0	96.8	98.2	-	-	97.1	97.5	100.0	-	89.2	-	-	94.3	94.2	94.7	95.3	100.0	-	-	95.1	-	100.0	-	22.2	-	-	36.4	95.1
Mediums	1	0	8	2	0	-	11	1	0	0	4	0	-	5	5	0	12	0	0	-	17	0	0	0	7	0	-	7	40
% Mediums	8.3	0.0	3.2	1.8	-	-	2.9	2.5	0.0	-	10.8	-	-	5.7	5.8	0.0	4.0	0.0	-	-	4.2	-	0.0	-	77.8	-	-	63.6	4.5
Articulated Trucks	0	0	0	0	0	-	0	0	0	0	0	0	-	0	0	1	2	0	0	-	3	0	0	0	0	0	-	0	3
% Articulated Trucks	0.0	0.0	0.0	0.0	-	-	0.0	0.0	0.0	-	0.0	-	-	0.0	0.0	5.3	0.7	0.0	-	-	0.7	-	0.0	-	0.0	-	-	0.0	0.3
Bicycles on Road	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 Road	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	-	-	-	-	-	1	-	-	-	-	-	-	0	-	-	-	-	-	-	0	-	-	-	-	-	-	0	-	-
% Bicycles on Crosswalk	-	-	-	-	-	10.0	-	-	-	-	-	-	0.0	-	-	-	-	-	-	0.0	-	-	-	-	-	-	-	-	-
Pedestrians	-	-	-	-	-	9	-	-	-	-	-	-	1	-	-	-	-	-	-	5	-	-	-	-	-	-	0	-	-
% Pedestrians	-	-	-	-	-	90.0	-	-	-	-	-	-	100.0	-	-	-	-	-	-	100.0	-	-	-	-	-	-	-	-	-

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Count Name: NM 319.01 -001 Mas Charter School
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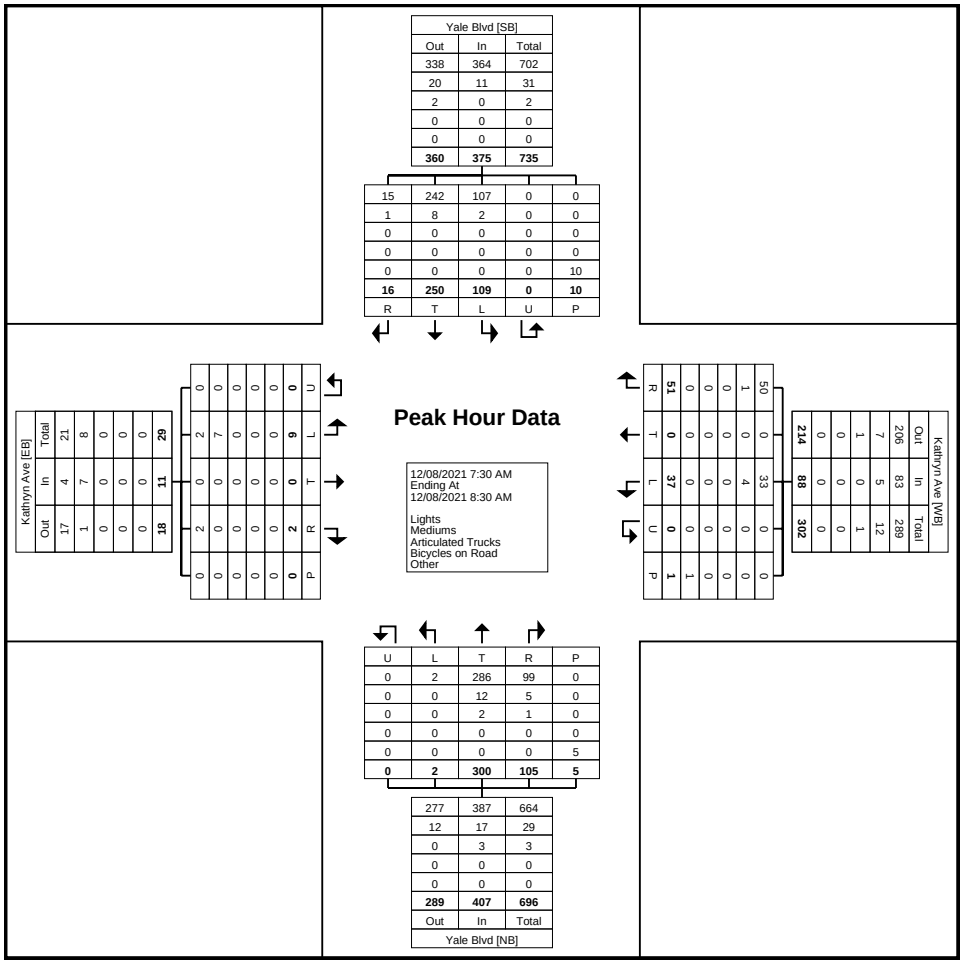


Turning Movement Peak Hour Data Plot (7:30 AM)

Lee Engineering, LLC
Phoenix, Arizona - Dallas, Texas
Oklahoma City, Oklahoma - San Antonio, Texas
Albuquerque, New Mexico, United States 87113
5053380988 zbaiamonte@lee-eng.com

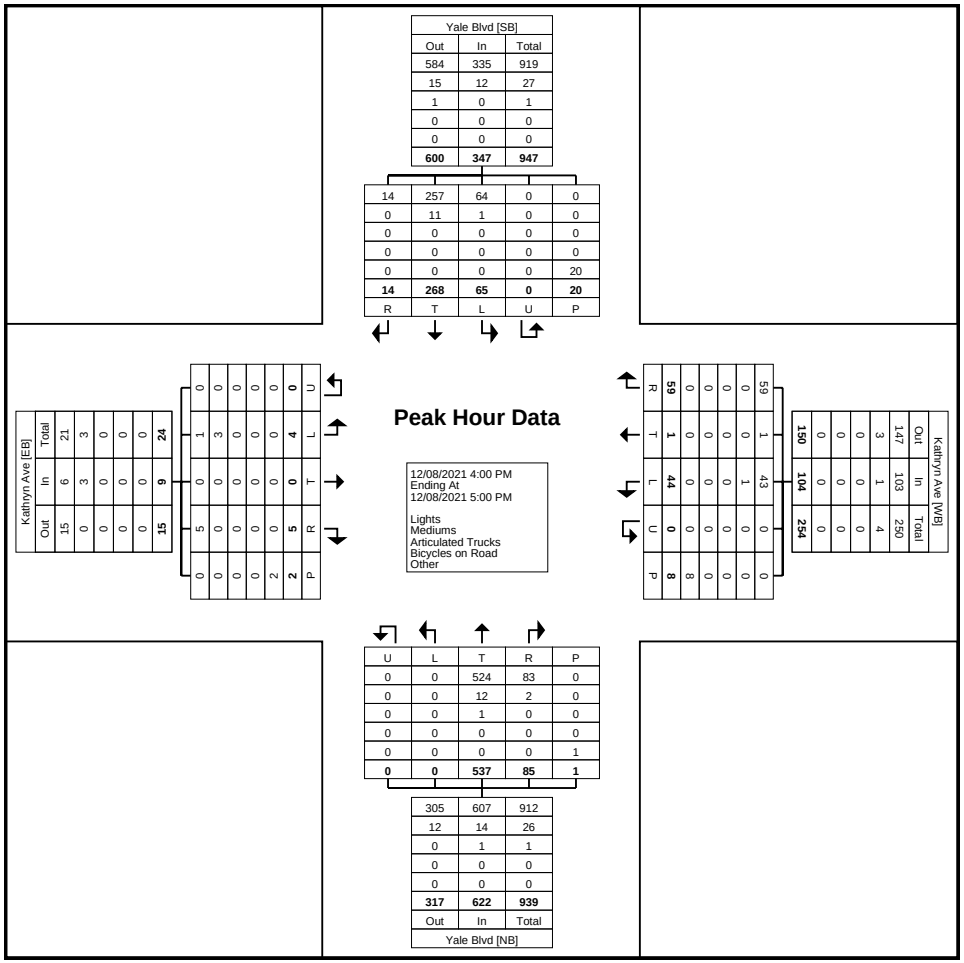
Count Name: NM 319.01 -001 Mas Charter School
Site Code:
Start Date: 12/08/2021

Turning Movement Peak Hour Data (4:00 PM)

Start Time	Yale Blvd Southbound							Kathryn Ave Westbound							Yale Blvd Northbound							Kathryn Ave 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
4:00 PM	1	5	78	20	0	9	104	10	3	1	16	0	2	30	10	3	93	0	0	1	106	0	0	0	1	0	1	1	241
4:15 PM	2	0	59	12	0	8	73	13	2	0	8	0	4	23	20	6	167	0	0	0	193	0	2	0	1	0	1	3	292
4:30 PM	3	0	58	17	0	3	78	17	1	0	9	0	2	27	24	7	159	0	0	0	190	1	2	0	2	0	0	5	300
4:45 PM	3	0	73	16	0	0	92	6	7	0	11	0	0	24	11	4	118	0	0	0	133	0	0	0	0	0	0	0	249
Total	9	5	268	65	0	20	347	46	13	1	44	0	8	104	65	20	537	0	0	1	622	1	4	0	4	0	2	9	1082
Approach %	2.6	1.4	77.2	18.7	0.0	-	-	44.2	12.5	1.0	42.3	0.0	-	-	10.5	3.2	86.3	0.0	0.0	-	-	11.1	44.4	0.0	44.4	0.0	-	-	-
Total %	0.8	0.5	24.8	6.0	0.0	-	32.1	4.3	1.2	0.1	4.1	0.0	-	9.6	6.0	1.8	49.6	0.0	0.0	-	57.5	0.1	0.4	0.0	0.4	0.0	-	0.8	-
PHF	0.750	0.250	0.859	0.813	0.000	-	0.834	0.676	0.464	0.250	0.688	0.000	-	0.867	0.677	0.714	0.804	0.000	0.000	-	0.806	0.250	0.500	0.000	0.500	0.000	-	0.450	0.902
Lights	9	5	257	64	0	-	335	46	13	1	43	0	-	103	63	20	524	0	0	-	607	1	4	0	1	0	-	6	1051
% Lights	100.0	100.0	95.9	98.5	-	-	96.5	100.0	100.0	100.0	97.7	-	-	99.0	96.9	100.0	97.6	-	-	-	97.6	100.0	100.0	-	25.0	-	-	66.7	97.1
Mediums	0	0	11	1	0	-	12	0	0	0	1	0	-	1	2	0	12	0	0	-	14	0	0	0	3	0	-	3	30
% Mediums	0.0	0.0	4.1	1.5	-	-	3.5	0.0	0.0	0.0	2.3	-	-	1.0	3.1	0.0	2.2	-	-	-	2.3	0.0	0.0	-	75.0	-	-	33.3	2.8
Articulated Trucks	0	0	0	0	0	-	0	0	0	0	0	0	-	0	0	0	1	0	0	-	1	0	0	0	0	0	-	0	1
% 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	0.2	-	-	-	0.2	0.0	0.0	-	0.0	-	-	0.0	0.1
Bicycles on Road	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 Road	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	0.0
Bicycles on Crosswalk	-	-	-	-	-	1	-	-	-	-	-	-	0	-	-	-	-	-	-	1	-	-	-	-	-	-	0	-	-
% Bicycles on Crosswalk	-	-	-	-	-	5.0	-	-	-	-	-	-	0.0	-	-	-	-	-	-	100.0	-	-	-	-	-	-	0.0	-	-
Pedestrians	-	-	-	-	-	19	-	-	-	-	-	-	8	-	-	-	-	-	-	0	-	-	-	-	-	-	2	-	-
% Pedestrians	-	-	-	-	-	95.0	-	-	-	-	-	-	100.0	-	-	-	-	-	-	0.0	-	-	-	-	-	-	100.0	-	-

Lee Engineering, LLC
Phoenix, Arizona - Dallas, Texas
Oklahoma City, Oklahoma - San Antonio, Texas
Albuquerque, New Mexico, United States 87113
5053380988 zbaiamonte@lee-eng.com

Count Name: NM 319.01 -001 Mas Charter School
Site Code:
Start Date: 12/08/2021



Turning Movement Peak Hour Data Plot (4:00 PM)

Lee Engineering, LLC
Phoenix, Arizona - Dallas, Texas
Oklahoma City, Oklahoma - San Antonio, Texas
Albuquerque, New Mexico, United States 87113
5053380988 zbaiamonte@lee-eng.com

Count Name: NM 319.01 -001 Mas Charter School
Site Code:
Start Date: 12/15/2021

Turning Movement Data

Start Time	Yale Blvd Southbound						Centre Ave Westbound						Yale Blvd 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	29	2	0	0	31	2	0	4	0	0	6	4	22	0	0	0	26	0	0	0	0	1	0	63
6:15 AM	0	26	0	0	0	26	1	0	5	0	0	6	3	15	0	0	0	18	0	0	0	0	0	0	50
6:30 AM	0	50	1	0	0	51	0	0	16	0	0	16	7	28	0	1	0	36	0	0	0	0	0	0	103
6:45 AM	0	57	6	0	0	63	1	0	9	0	0	10	15	39	0	0	0	54	0	0	0	0	0	0	127
Hourly Total	0	162	9	0	0	171	4	0	34	0	0	38	29	104	0	1	0	134	0	0	0	0	1	0	343
7:00 AM	0	59	4	0	1	63	2	0	13	0	0	15	9	57	0	0	0	66	0	0	0	0	0	0	144
7:15 AM	0	53	1	0	0	54	3	0	12	0	1	15	9	68	0	0	0	77	0	0	0	0	1	0	146
7:30 AM	3	79	7	0	0	89	4	0	14	0	2	18	11	69	0	0	0	80	0	0	0	0	0	0	187
7:45 AM	1	81	6	0	0	88	3	0	8	0	0	11	19	83	4	0	0	106	2	0	1	0	1	3	208
Hourly Total	4	272	18	0	1	294	12	0	47	0	3	59	48	277	4	0	0	329	2	0	1	0	2	3	685
8:00 AM	2	69	5	0	4	76	4	0	3	0	2	7	8	77	4	2	0	91	1	0	1	0	0	2	176
8:15 AM	1	66	5	0	0	72	1	0	4	0	2	5	9	51	1	0	0	61	1	0	0	0	0	1	139
8:30 AM	1	47	1	0	0	49	2	0	9	0	0	11	7	43	0	0	0	50	0	0	2	0	0	2	112
8:45 AM	1	43	2	0	0	46	2	0	16	0	0	18	7	36	1	0	0	44	0	0	0	0	0	0	108
Hourly Total	5	225	13	0	4	243	9	0	32	0	4	41	31	207	6	2	0	246	2	0	3	0	0	5	535
9:00 AM	1	38	3	1	0	43	2	0	8	0	0	10	3	42	0	0	0	45	0	0	1	0	1	1	99
9:15 AM	0	49	2	0	0	51	3	0	6	0	4	9	5	40	1	0	0	46	0	0	1	0	0	1	107
9:30 AM	0	51	1	0	0	52	0	0	5	0	3	5	4	51	0	0	0	55	0	0	0	0	0	0	112
9:45 AM	2	41	0	0	0	43	3	0	6	0	0	9	5	47	2	0	0	54	1	0	0	0	0	1	107
Hourly Total	3	179	6	1	0	189	8	0	25	0	7	33	17	180	3	0	0	200	1	0	2	0	1	3	425
10:00 AM	1	40	1	0	0	42	2	0	9	0	2	11	6	42	1	0	0	49	1	0	2	0	0	3	105
10:15 AM	1	50	6	0	0	57	3	0	11	0	0	14	7	43	0	0	0	50	0	0	0	0	1	0	121
10:30 AM	2	48	1	0	0	51	1	0	11	0	1	12	10	62	1	0	0	73	1	0	2	0	2	3	139
10:45 AM	0	52	1	0	2	53	4	0	6	0	0	10	4	56	1	0	0	61	2	0	2	0	2	4	128
Hourly Total	4	190	9	0	2	203	10	0	37	0	3	47	27	203	3	0	0	233	4	0	6	0	5	10	493
11:00 AM	2	46	2	0	0	50	5	0	12	0	0	17	15	57	0	0	0	72	1	0	1	0	2	2	141
11:15 AM	0	58	2	0	0	60	3	0	9	0	1	12	12	48	0	1	0	61	0	0	0	0	0	0	133
11:30 AM	0	72	3	0	0	75	7	0	10	0	3	17	12	60	0	0	0	72	0	0	0	0	1	0	164
11:45 AM	0	60	3	0	0	63	8	0	12	0	0	20	10	71	0	0	0	81	1	0	0	0	0	1	165
Hourly Total	2	236	10	0	0	248	23	0	43	0	4	66	49	236	0	1	0	286	2	0	1	0	3	3	603
12:00 PM	1	50	8	0	0	59	5	0	14	0	0	19	10	65	0	0	0	75	1	0	0	0	2	1	154
12:15 PM	0	68	2	0	0	70	6	0	12	0	4	18	12	62	1	0	0	75	2	0	0	0	1	2	165
12:30 PM	2	63	4	0	0	69	2	0	7	0	0	9	9	53	1	0	0	63	2	1	0	0	0	3	144
12:45 PM	0	63	7	0	0	70	2	0	9	0	0	11	8	83	0	0	0	91	0	0	2	0	0	2	174
Hourly Total	3	244	21	0	0	268	15	0	42	0	4	57	39	263	2	0	0	304	5	1	2	0	3	8	637

1:00 PM	1	66	4	0	0	71	6	0	8	0	1	14	5	64	0	0	0	69	0	0	0	0	0	0	154
1:15 PM	1	50	2	0	0	53	3	0	7	0	0	10	6	64	0	0	0	70	0	0	1	0	0	1	134
1:30 PM	0	57	2	0	0	59	3	0	6	0	0	9	9	50	3	0	0	62	1	0	0	0	0	1	131
1:45 PM	1	66	1	0	0	68	3	0	4	0	0	7	9	82	1	0	0	92	1	0	1	0	1	2	169
Hourly Total	3	239	9	0	0	251	15	0	25	0	1	40	29	260	4	0	0	293	2	0	2	0	1	4	588
2:00 PM	0	62	3	0	0	65	6	0	9	0	1	15	3	74	1	0	0	78	3	0	0	0	1	3	161
2:15 PM	1	63	2	0	0	66	4	0	6	0	0	10	7	87	1	1	0	96	0	0	0	0	0	0	172
2:30 PM	1	47	2	0	0	50	6	0	9	0	4	15	10	106	1	0	0	117	0	0	1	0	1	1	183
2:45 PM	1	69	2	0	0	72	4	0	5	0	1	9	10	99	1	0	0	110	0	0	2	0	1	2	193
Hourly Total	3	241	9	0	0	253	20	0	29	0	6	49	30	366	4	1	0	401	3	0	3	0	3	6	709
3:00 PM	1	55	5	0	1	61	3	0	11	0	2	14	11	61	0	0	0	72	1	0	0	0	1	1	148
3:15 PM	2	66	2	0	0	70	9	0	11	0	1	20	10	63	0	0	0	73	3	1	1	0	1	5	168
3:30 PM	0	56	1	0	0	57	7	0	12	0	0	19	15	102	0	0	0	117	0	0	1	0	0	1	194
3:45 PM	1	58	10	0	0	69	1	0	10	0	3	11	16	92	2	0	0	110	1	0	0	0	2	1	191
Hourly Total	4	235	18	0	1	257	20	0	44	0	6	64	52	318	2	0	0	372	5	1	2	0	4	8	701
4:00 PM	1	73	6	1	0	81	11	0	15	0	1	26	20	91	4	0	0	115	2	0	1	0	2	3	225
4:15 PM	0	95	6	0	0	101	6	0	8	0	0	14	13	88	2	1	0	104	1	0	0	0	1	1	220
4:30 PM	0	105	3	1	0	109	13	0	13	0	1	26	13	94	3	0	0	110	2	0	0	0	0	2	247
4:45 PM	1	81	8	1	0	91	8	0	12	0	0	20	5	79	2	0	0	86	2	0	2	0	0	4	201
Hourly Total	2	354	23	3	0	382	38	0	48	0	2	86	51	352	11	1	0	415	7	0	3	0	3	10	893
5:00 PM	2	77	1	0	0	80	10	0	18	0	2	28	13	99	0	0	0	112	1	0	0	0	0	1	221
5:15 PM	1	74	4	0	0	79	5	0	10	0	0	15	17	61	1	1	0	80	2	0	0	0	1	2	176
5:30 PM	0	63	3	1	0	67	7	0	10	0	1	17	19	69	1	0	0	89	2	0	2	0	0	4	177
5:45 PM	0	82	3	0	0	85	5	0	9	0	3	14	22	80	1	0	0	103	3	0	1	0	1	4	206
Hourly Total	3	296	11	1	0	311	27	0	47	0	6	74	71	309	3	1	0	384	8	0	3	0	2	11	780
6:00 PM	0	70	5	0	0	75	5	0	14	0	4	19	16	60	0	0	0	76	1	0	3	0	1	4	174
6:15 PM	0	49	2	0	0	51	3	0	8	0	2	11	9	62	0	0	0	71	0	0	0	0	0	0	133
6:30 PM	0	54	2	0	1	56	2	0	5	0	6	7	12	39	1	0	1	52	2	0	0	0	4	2	117
6:45 PM	0	44	4	0	0	48	2	0	11	0	2	13	11	39	1	0	1	51	1	0	0	0	0	1	113
Hourly Total	0	217	13	0	1	230	12	0	38	0	14	50	48	200	2	0	2	250	4	0	3	0	5	7	537
Grand Total	36	3090	169	5	9	3300	213	0	491	0	60	704	521	3275	44	7	2	3847	45	2	31	0	33	78	7929
Approach %	1.1	93.6	5.1	0.2	-	-	30.3	0.0	69.7	0.0	-	-	13.5	85.1	1.1	0.2	-	-	57.7	2.6	39.7	0.0	-	-	-
Total %	0.5	39.0	2.1	0.1	-	41.6	2.7	0.0	6.2	0.0	-	8.9	6.6	41.3	0.6	0.1	-	48.5	0.6	0.0	0.4	0.0	-	1.0	-
Lights	35	2961	167	5	-	3168	207	0	486	0	-	693	518	3143	44	7	-	3712	45	2	30	0	-	77	7650
% Lights	97.2	95.8	98.8	100.0	-	96.0	97.2	-	99.0	-	-	98.4	99.4	96.0	100.0	100.0	-	96.5	100.0	100.0	96.8	-	-	98.7	96.5
Mediums	1	126	1	0	-	128	5	0	4	0	-	9	3	128	0	0	-	131	0	0	1	0	-	1	269
% Mediums	2.8	4.1	0.6	0.0	-	3.9	2.3	-	0.8	-	-	1.3	0.6	3.9	0.0	0.0	-	3.4	0.0	0.0	3.2	-	-	1.3	3.4
Articulated Trucks	0	2	1	0	-	3	1	0	1	0	-	2	0	4	0	0	-	4	0	0	0	0	-	0	9
% Articulated Trucks	0.0	0.1	0.6	0.0	-	0.1	0.5	-	0.2	-	-	0.3	0.0	0.1	0.0	0.0	-	0.1	0.0	0.0	0.0	-	-	0.0	0.1
Bicycles on Road	0	1	0	0	-	1	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	1
% Bicycles on Road	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	-	-	-	-	-	2	-	-	-	-	-	0	-	-	-	-	-	0	-	-
% Bicycles on Crosswalk	-	-	-	-	0.0	-	-	-	-	-	3.3	-	-	-	-	-	0.0	-	-	-	-	-	0.0	-	-
Pedestrians	-	-	-	-	9	-	-	-	-	-	58	-	-	-	-	-	2	-	-	-	-	-	33	-	-
% Pedestrians	-	-	-	-	100.0	-	-	-	-	-	96.7	-	-	-	-	-	100.0	-	-	-	-	-	100.0	-	-

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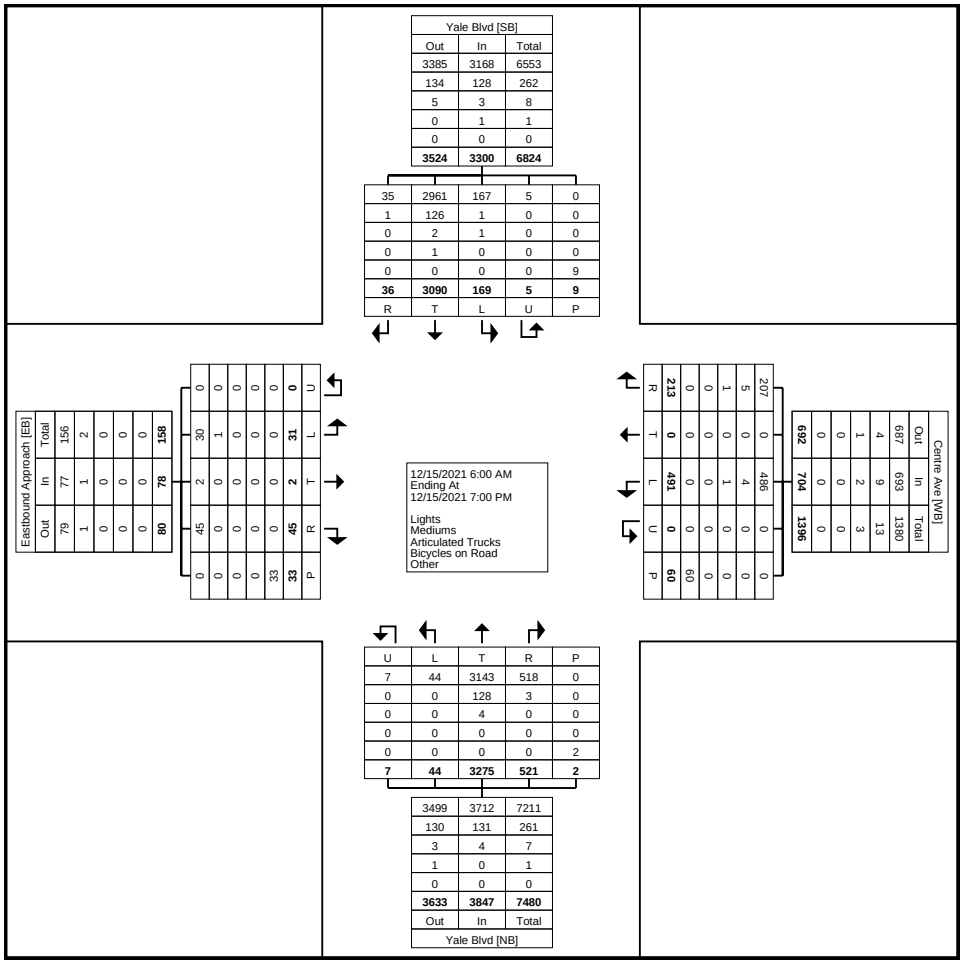
5053380988 zbaiamonte@lee-eng.com

Count Name: NM 319.01 -001 Mas Charter School
Site Code:
Start Date: 12/15/2021



Turning Movement Data Plot

Lee Engineering, LLC
Phoenix, Arizona - Dallas, Texas
Oklahoma City, Oklahoma - San Antonio, Texas
Albuquerque, New Mexico, United States 87113
5053380988 zbaiamonte@lee-eng.com

Count Name: NM 319.01 -001 Mas Charter School
Site Code:
Start Date: 12/15/2021

Turning Movement Peak Hour Data (7:15 AM)

Start Time	Yale Blvd Southbound						Centre Ave Westbound						Yale Blvd 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	
7:15 AM	0	53	1	0	0	54	3	0	12	0	1	15	9	68	0	0	0	77	0	0	0	0	1	0	146
7:30 AM	3	79	7	0	0	89	4	0	14	0	2	18	11	69	0	0	0	80	0	0	0	0	0	0	187
7:45 AM	1	81	6	0	0	88	3	0	8	0	0	11	19	83	4	0	0	106	2	0	1	0	1	3	208
8:00 AM	2	69	5	0	4	76	4	0	3	0	2	7	8	77	4	2	0	91	1	0	1	0	0	2	176
Total	6	282	19	0	4	307	14	0	37	0	5	51	47	297	8	2	0	354	3	0	2	0	2	5	717
Approach %	2.0	91.9	6.2	0.0	-	-	27.5	0.0	72.5	0.0	-	-	13.3	83.9	2.3	0.6	-	-	60.0	0.0	40.0	0.0	-	-	-
Total %	0.8	39.3	2.6	0.0	-	42.8	2.0	0.0	5.2	0.0	-	7.1	6.6	41.4	1.1	0.3	-	49.4	0.4	0.0	0.3	0.0	-	0.7	-
PHF	0.500	0.870	0.679	0.000	-	0.862	0.875	0.000	0.661	0.000	-	0.708	0.618	0.895	0.500	0.250	-	0.835	0.375	0.000	0.500	0.000	-	0.417	0.862
Lights	6	272	19	0	-	297	13	0	37	0	-	50	47	284	8	2	-	341	3	0	2	0	-	5	693
% Lights	100.0	96.5	100.0	-	-	96.7	92.9	-	100.0	-	-	98.0	100.0	95.6	100.0	100.0	-	96.3	100.0	-	100.0	-	-	100.0	96.7
Mediums	0	10	0	0	-	10	1	0	0	0	-	1	0	13	0	0	-	13	0	0	0	0	-	0	24
% Mediums	0.0	3.5	0.0	-	-	3.3	7.1	-	0.0	-	-	2.0	0.0	4.4	0.0	0.0	-	3.7	0.0	-	0.0	-	-	0.0	3.3
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 Road	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0
% Bicycles on Road	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	-	-	-	-	4	-	-	-	-	-	5	-	-	-	-	-	0	-	-	-	-	-	2	-	-
% Pedestrians	-	-	-	-	100.0	-	-	-	-	-	100.0	-	-	-	-	-	-	-	-	-	-	-	100.0	-	-

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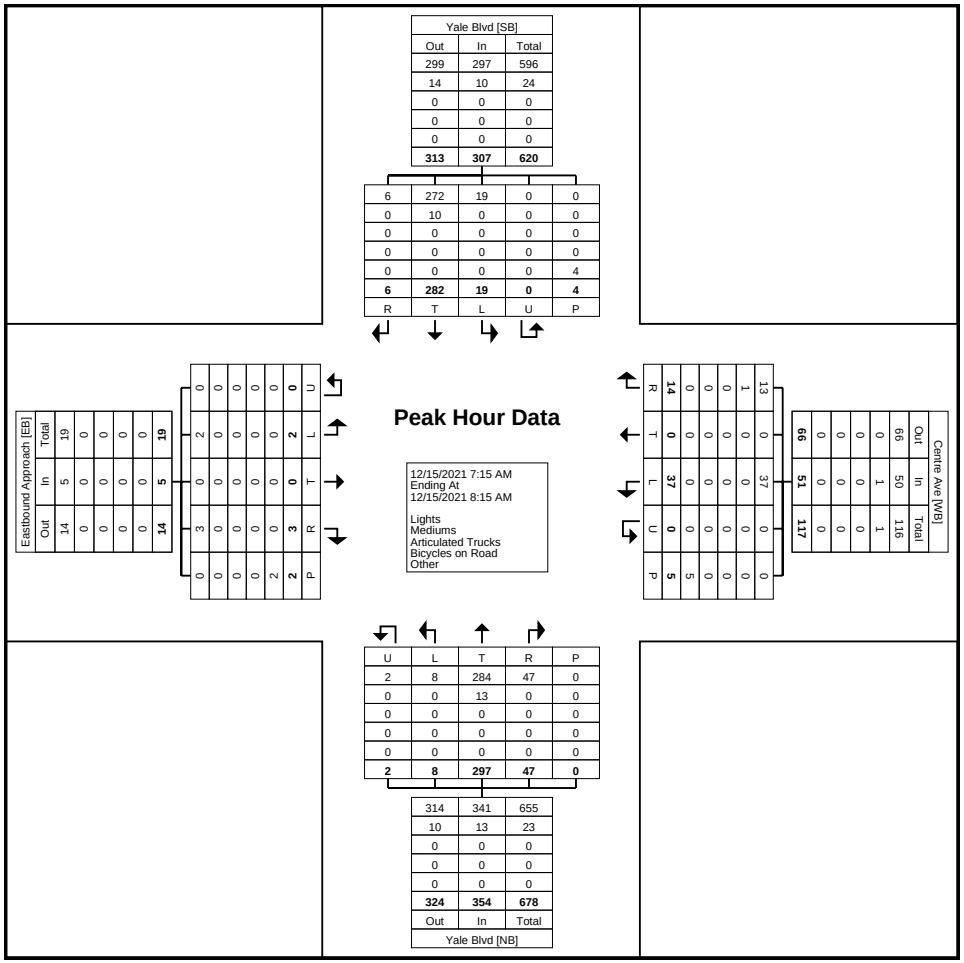

Turning Movement Peak Hour Data Plot (7:15 AM)

Lee Engineering, LLC
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5053380988 zbaiamonte@lee-eng.com

Count Name: NM 319.01 -001 Mas Charter School
Site Code:
Start Date: 12/15/2021

Turning Movement Peak Hour Data (4:00 PM)

Start Time	Yale Blvd Southbound						Centre Ave Westbound						Yale Blvd 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	
4:00 PM	1	73	6	1	0	81	11	0	15	0	1	26	20	91	4	0	0	115	2	0	1	0	2	3	225
4:15 PM	0	95	6	0	0	101	6	0	8	0	0	14	13	88	2	1	0	104	1	0	0	0	1	1	220
4:30 PM	0	105	3	1	0	109	13	0	13	0	1	26	13	94	3	0	0	110	2	0	0	0	0	2	247
4:45 PM	1	81	8	1	0	91	8	0	12	0	0	20	5	79	2	0	0	86	2	0	2	0	0	4	201
Total	2	354	23	3	0	382	38	0	48	0	2	86	51	352	11	1	0	415	7	0	3	0	3	10	893
Approach %	0.5	92.7	6.0	0.8	-	-	44.2	0.0	55.8	0.0	-	-	12.3	84.8	2.7	0.2	-	-	70.0	0.0	30.0	0.0	-	-	-
Total %	0.2	39.6	2.6	0.3	-	42.8	4.3	0.0	5.4	0.0	-	9.6	5.7	39.4	1.2	0.1	-	46.5	0.8	0.0	0.3	0.0	-	1.1	-
PHF	0.500	0.843	0.719	0.750	-	0.876	0.731	0.000	0.800	0.000	-	0.827	0.638	0.936	0.688	0.250	-	0.902	0.875	0.000	0.375	0.000	-	0.625	0.904
Lights	2	343	23	3	-	371	38	0	48	0	-	86	51	344	11	1	-	407	7	0	3	0	-	10	874
% Lights	100.0	96.9	100.0	100.0	-	97.1	100.0	-	100.0	-	-	100.0	100.0	97.7	100.0	100.0	-	98.1	100.0	-	100.0	-	-	100.0	97.9
Mediums	0	11	0	0	-	11	0	0	0	0	-	0	0	8	0	0	-	8	0	0	0	0	-	0	19
% Mediums	0.0	3.1	0.0	0.0	-	2.9	0.0	-	0.0	-	-	0.0	0.0	2.3	0.0	0.0	-	1.9	0.0	-	0.0	-	-	0.0	2.1
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
Bicycles on Road	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0
% Bicycles on Road	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	-	-
Pedestrians	-	-	-	-	0	-	-	-	-	-	2	-	-	-	-	-	0	-	-	-	-	-	3	-	-
% Pedestrians	-	-	-	-	-	-	-	-	-	-	100.0	-	-	-	-	-	-	-	-	-	-	-	100.0	-	-

Lee Engineering, LLC
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Oklahoma City, Oklahoma - San Antonio, Texas
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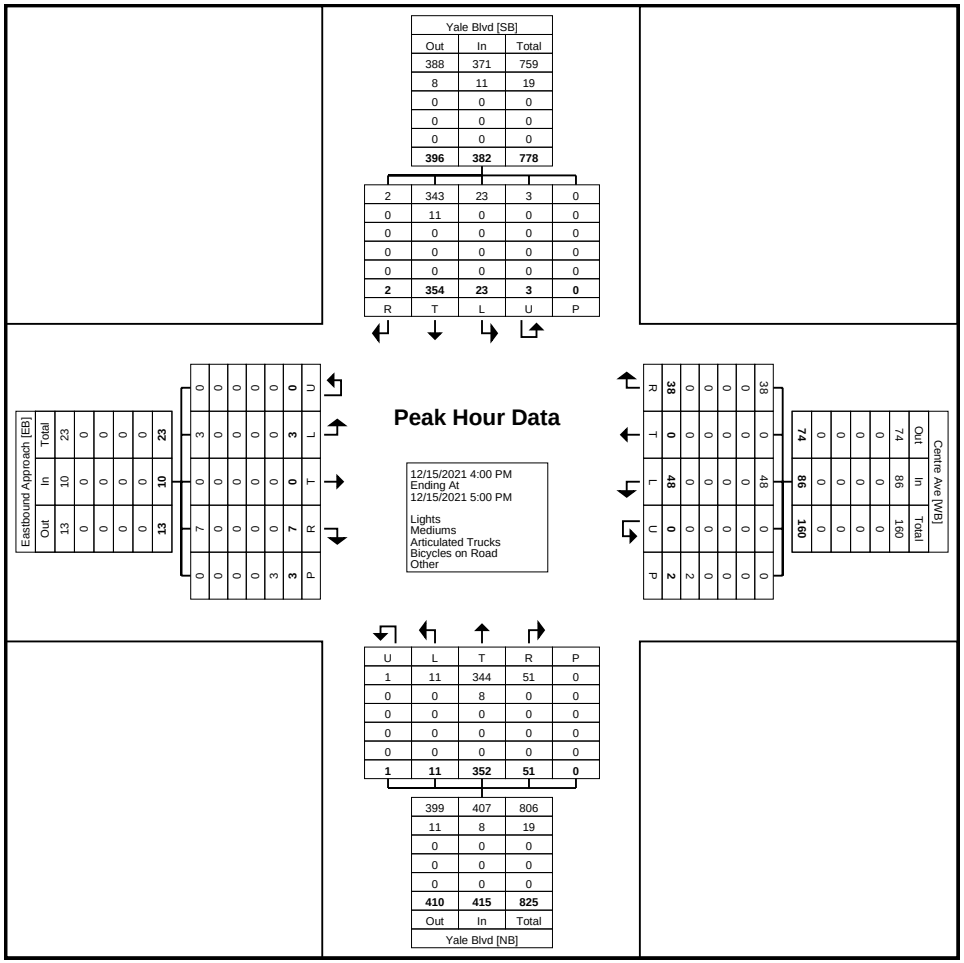
Count Name: NM 319.01 -001 Mas Charter School
Site Code:
Start Date: 12/15/2021



Turning Movement Peak Hour Data Plot (4:00 PM)

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Count Name: NM 319.01 -001 Mas Charter School
Site Code:
Start Date: 12/09/2021

Turning Movement Data

Start Time	Yale Blvd Southbound						Ross Ave Westbound						Yale Blvd Northbound						Ross Ave 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	20	0	0	1	20	1	0	0	0	0	1	0	16	0	0	0	16	0	0	0	0	0	0	37
6:15 AM	0	24	0	0	0	24	0	0	1	0	0	1	0	20	0	0	0	20	1	0	0	0	0	1	46
6:30 AM	0	40	3	0	2	43	2	0	5	0	0	7	1	19	4	0	0	24	1	0	0	0	2	1	75
6:45 AM	2	40	14	0	7	56	15	1	5	0	0	21	7	31	2	0	0	40	2	2	0	0	0	4	121
Hourly Total	2	124	17	0	10	143	18	1	11	0	0	30	8	86	6	0	0	100	4	2	0	0	2	6	279
7:00 AM	0	29	6	0	24	35	28	5	18	0	1	51	10	40	1	0	0	51	3	1	2	0	0	6	143
7:15 AM	3	41	5	0	34	49	14	0	28	0	1	42	6	50	2	0	0	58	3	2	0	0	0	5	154
7:30 AM	4	54	7	0	44	65	32	1	19	0	0	52	6	64	8	0	0	78	6	0	1	0	0	7	202
7:45 AM	14	54	1	0	46	69	37	2	27	0	0	66	5	88	12	0	0	105	11	1	3	0	0	15	255
Hourly Total	21	178	19	0	148	218	111	8	92	0	2	211	27	242	23	0	0	292	23	4	6	0	0	33	754
8:00 AM	6	42	2	0	74	50	44	2	31	0	0	77	9	78	7	0	0	94	10	1	1	0	0	12	233
8:15 AM	3	46	14	0	30	63	46	3	15	0	0	64	12	40	4	0	0	56	6	1	1	0	0	8	191
8:30 AM	0	36	5	0	15	41	9	2	5	0	0	16	4	46	2	0	0	52	2	1	3	0	1	6	115
8:45 AM	1	43	3	0	4	47	6	0	1	0	7	7	2	48	3	0	0	53	3	0	1	0	0	4	111
Hourly Total	10	167	24	0	123	201	105	7	52	0	7	164	27	212	16	0	0	255	21	3	6	0	1	30	650
9:00 AM	3	38	5	0	2	46	2	2	1	0	0	5	0	34	1	0	0	35	0	1	0	0	0	1	87
9:15 AM	0	46	3	0	0	49	1	0	1	0	0	2	4	44	0	0	1	48	0	0	0	0	0	0	99
9:30 AM	1	47	2	0	1	50	6	0	2	0	0	8	4	40	1	0	0	45	2	0	1	0	0	3	106
9:45 AM	0	36	3	0	1	39	6	1	2	0	3	9	3	44	1	0	0	48	0	0	0	0	0	0	96
Hourly Total	4	167	13	0	4	184	15	3	6	0	3	24	11	162	3	0	1	176	2	1	1	0	0	4	388
10:00 AM	0	31	6	0	2	37	5	1	4	0	0	10	3	46	1	0	0	50	2	0	0	0	0	2	99
10:15 AM	2	39	1	0	2	42	4	0	0	0	0	4	2	46	2	1	0	51	1	1	0	0	2	2	99
10:30 AM	0	51	3	0	2	54	2	0	6	0	1	8	3	47	1	0	0	51	0	1	1	0	0	2	115
10:45 AM	3	58	2	0	2	63	5	1	3	0	0	9	2	47	3	0	0	52	2	0	1	0	0	3	127
Hourly Total	5	179	12	0	8	196	16	2	13	0	1	31	10	186	7	1	0	204	5	2	2	0	2	9	440
11:00 AM	1	45	5	1	2	52	1	0	0	0	1	1	2	53	1	0	0	56	0	0	0	0	0	0	109
11:15 AM	0	46	0	0	2	46	1	0	1	0	0	2	2	45	0	0	0	47	1	0	1	0	0	2	97
11:30 AM	4	46	3	0	4	53	2	0	2	0	0	4	3	52	0	0	0	55	0	1	0	0	0	1	113
11:45 AM	1	47	1	0	4	49	3	0	0	0	0	3	2	62	0	0	0	64	1	0	0	0	1	1	117
Hourly Total	6	184	9	1	12	200	7	0	3	0	1	10	9	212	1	0	0	222	2	1	1	0	1	4	436
12:00 PM	1	62	7	0	0	70	3	0	3	0	0	6	2	78	1	0	1	81	0	0	0	0	2	0	157
12:15 PM	1	59	4	0	0	64	6	1	4	0	1	11	3	72	0	0	1	75	0	1	0	0	2	1	151
12:30 PM	0	59	3	0	4	62	3	0	5	0	0	8	4	62	0	0	0	66	4	0	2	0	1	6	142
12:45 PM	1	58	4	0	8	63	3	0	3	0	0	6	2	62	0	0	0	64	3	0	0	0	0	3	136
Hourly Total	3	238	18	0	12	259	15	1	15	0	1	31	11	274	1	0	2	286	7	1	2	0	5	10	586

1:00 PM	3	35	3	0	10	41	4	0	3	0	0	7	0	49	1	0	0	50	2	1	8	0	1	11	109
1:15 PM	1	50	3	0	6	54	8	0	3	0	0	11	3	55	3	0	0	61	0	0	3	0	0	3	129
1:30 PM	3	47	3	0	0	53	4	0	4	0	0	8	3	51	1	0	1	55	2	0	1	0	0	3	119
1:45 PM	2	77	2	0	2	81	3	0	6	0	0	9	2	57	1	0	0	60	1	0	3	0	0	4	154
Hourly Total	9	209	11	0	18	229	19	0	16	0	0	35	8	212	6	0	1	226	5	1	15	0	1	21	511
2:00 PM	1	60	1	0	1	62	6	1	0	0	0	7	0	53	1	0	0	54	1	0	1	0	1	2	125
2:15 PM	1	62	4	0	11	67	3	0	0	0	3	3	4	51	3	0	0	58	3	0	3	0	0	6	134
2:30 PM	1	66	8	0	24	75	10	0	5	0	1	15	8	71	0	0	0	79	4	0	1	0	4	5	174
2:45 PM	2	54	8	0	1	64	10	1	5	0	0	16	4	51	2	0	0	57	6	1	0	0	1	7	144
Hourly Total	5	242	21	0	37	268	29	2	10	0	4	41	16	226	6	0	0	248	14	1	5	0	6	20	577
3:00 PM	5	60	6	0	4	71	2	0	3	0	0	5	5	68	2	0	3	75	0	0	7	0	4	7	158
3:15 PM	2	75	7	0	1	84	8	0	5	0	0	13	5	84	1	0	0	90	2	0	1	0	2	3	190
3:30 PM	2	55	4	0	3	61	5	2	3	0	0	10	4	89	1	0	0	94	3	1	2	0	0	6	171
3:45 PM	2	80	4	0	18	86	5	0	0	0	2	5	3	99	1	0	0	103	4	1	1	0	1	6	200
Hourly Total	11	270	21	0	26	302	20	2	11	0	2	33	17	340	5	0	3	362	9	2	11	0	7	22	719
4:00 PM	0	83	2	0	256	85	14	0	3	0	7	17	5	121	5	0	0	131	6	0	0	0	11	6	239
4:15 PM	2	94	7	0	25	103	40	1	23	0	0	64	5	87	0	0	0	92	3	1	0	0	1	4	263
4:30 PM	3	78	8	0	78	89	20	0	12	0	0	32	5	111	1	0	0	117	2	3	1	0	0	6	244
4:45 PM	0	82	11	0	5	93	17	0	17	0	1	34	6	110	0	0	0	116	1	1	2	0	0	4	247
Hourly Total	5	337	28	0	364	370	91	1	55	0	8	147	21	429	6	0	0	456	12	5	3	0	12	20	993
5:00 PM	3	68	10	0	3	81	17	0	8	0	3	25	12	108	0	0	0	120	0	0	1	0	0	1	227
5:15 PM	0	71	9	0	0	80	13	1	8	0	1	22	12	107	1	0	0	120	4	0	4	0	0	8	230
5:30 PM	2	73	16	0	2	91	18	0	10	0	1	28	9	83	1	0	0	93	1	0	2	0	0	3	215
5:45 PM	2	82	8	0	3	92	10	3	12	0	0	25	10	87	1	0	0	98	2	1	0	0	0	3	218
Hourly Total	7	294	43	0	8	344	58	4	38	0	5	100	43	385	3	0	0	431	7	1	7	0	0	15	890
6:00 PM	1	59	6	0	0	66	6	1	11	0	0	18	6	67	1	0	0	74	1	0	0	0	0	1	159
6:15 PM	2	52	6	0	0	60	4	1	0	0	0	5	4	62	1	0	0	67	1	2	2	0	0	5	137
6:30 PM	0	55	9	0	0	64	5	0	3	1	0	9	11	69	1	0	0	81	2	0	3	0	0	5	159
6:45 PM	0	55	11	0	0	66	12	0	6	1	0	19	13	44	4	0	0	61	1	2	3	0	0	6	152
Hourly Total	3	221	32	0	0	256	27	2	20	2	0	51	34	242	7	0	0	283	5	4	8	0	0	17	607
Grand Total	91	2810	268	1	770	3170	531	33	342	2	34	908	242	3208	90	1	7	3541	116	28	67	0	37	211	7830
Approach %	2.9	88.6	8.5	0.0	-	-	58.5	3.6	37.7	0.2	-	-	6.8	90.6	2.5	0.0	-	-	55.0	13.3	31.8	0.0	-	-	-
Total %	1.2	35.9	3.4	0.0	-	40.5	6.8	0.4	4.4	0.0	-	11.6	3.1	41.0	1.1	0.0	-	45.2	1.5	0.4	0.9	0.0	-	2.7	-
Lights	90	2681	264	1	-	3036	518	29	332	2	-	881	235	3079	89	1	-	3404	110	26	66	0	-	202	7523
% Lights	98.9	95.4	98.5	100.0	-	95.8	97.6	87.9	97.1	100.0	-	97.0	97.1	96.0	98.9	100.0	-	96.1	94.8	92.9	98.5	-	-	95.7	96.1
Mediums	1	119	3	0	-	123	11	3	8	0	-	22	6	119	1	0	-	126	6	2	1	0	-	9	280
% Mediums	1.1	4.2	1.1	0.0	-	3.9	2.1	9.1	2.3	0.0	-	2.4	2.5	3.7	1.1	0.0	-	3.6	5.2	7.1	1.5	-	-	4.3	3.6
Articulated Trucks	0	8	1	0	-	9	2	0	1	0	-	3	1	10	0	0	-	11	0	0	0	0	-	0	23
% Articulated Trucks	0.0	0.3	0.4	0.0	-	0.3	0.4	0.0	0.3	0.0	-	0.3	0.4	0.3	0.0	0.0	-	0.3	0.0	0.0	0.0	-	-	0.0	0.3
Bicycles on Road	0	2	0	0	-	2	0	1	1	0	-	2	0	0	0	0	-	0	0	0	0	0	-	0	4
% Bicycles on Road	0.0	0.1	0.0	0.0	-	0.1	0.0	3.0	0.3	0.0	-	0.2	0.0	0.0	0.0	0.0	-	0.0	0.0	0.0	0.0	-	-	0.0	0.1
Bicycles on Crosswalk	-	-	-	-	0	-	-	-	-	-	2	-	-	-	-	-	0	-	-	-	-	-	6	-	-
% Bicycles on Crosswalk	-	-	-	-	0.0	-	-	-	-	-	5.9	-	-	-	-	-	0.0	-	-	-	-	-	16.2	-	-
Pedestrians	-	-	-	-	770	-	-	-	-	-	32	-	-	-	-	-	7	-	-	-	-	-	31	-	-
% Pedestrians	-	-	-	-	100.0	-	-	-	-	-	94.1	-	-	-	-	-	100.0	-	-	-	-	-	83.8	-	-

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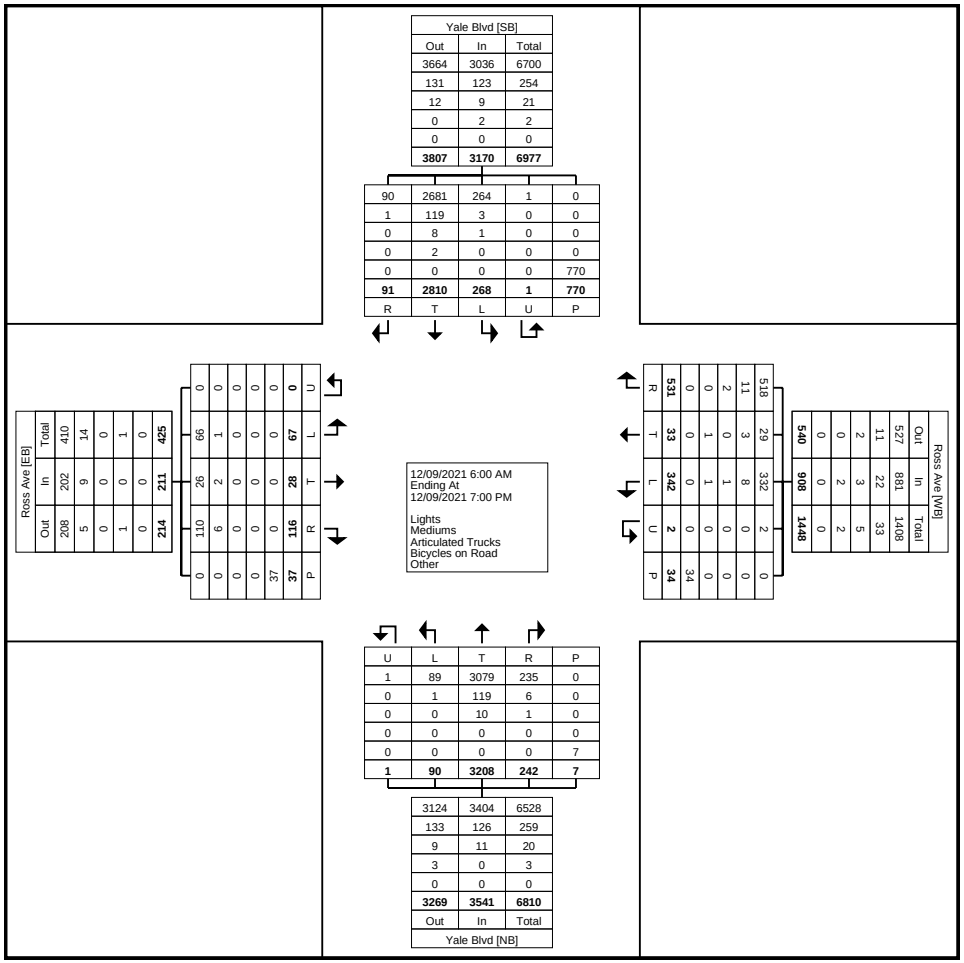
Count Name: NM 319.01 -001 Mas Charter School
Site Code:
Start Date: 12/09/2021



Turning Movement Data Plot

Lee Engineering, LLC
Phoenix, Arizona - Dallas, Texas
Oklahoma City, Oklahoma - San Antonio, Texas
Albuquerque, New Mexico, United States 87113
5053380988 zbaiamonte@lee-eng.com

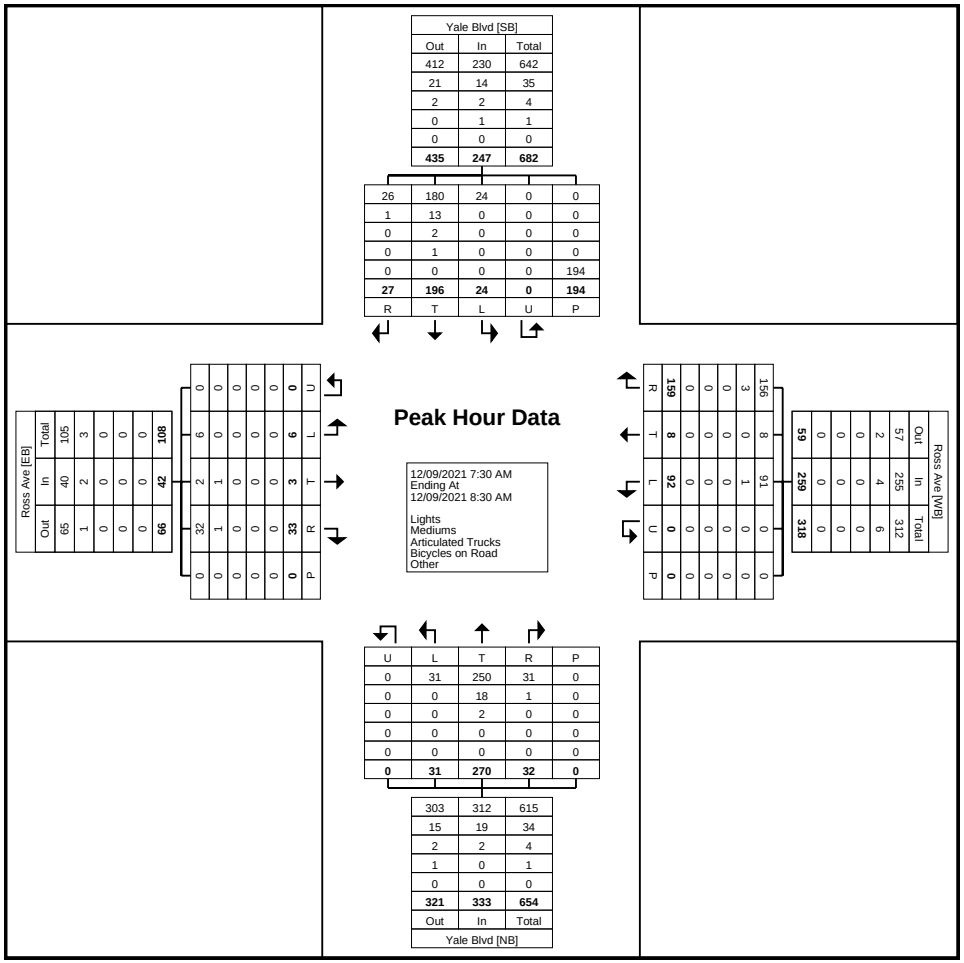
Count Name: NM 319.01 -001 Mas Charter School
Site Code:
Start Date: 12/09/2021

Turning Movement Peak Hour Data (7:30 AM)

Start Time	Yale Blvd Southbound						Ross Ave Westbound						Yale Blvd Northbound						Ross Ave 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	
7:30 AM	4	54	7	0	44	65	32	1	19	0	0	52	6	64	8	0	0	78	6	0	1	0	0	7	202
7:45 AM	14	54	1	0	46	69	37	2	27	0	0	66	5	88	12	0	0	105	11	1	3	0	0	15	255
8:00 AM	6	42	2	0	74	50	44	2	31	0	0	77	9	78	7	0	0	94	10	1	1	0	0	12	233
8:15 AM	3	46	14	0	30	63	46	3	15	0	0	64	12	40	4	0	0	56	6	1	1	0	0	8	191
Total	27	196	24	0	194	247	159	8	92	0	0	259	32	270	31	0	0	333	33	3	6	0	0	42	881
Approach %	10.9	79.4	9.7	0.0	-	-	61.4	3.1	35.5	0.0	-	-	9.6	81.1	9.3	0.0	-	-	78.6	7.1	14.3	0.0	-	-	-
Total %	3.1	22.2	2.7	0.0	-	28.0	18.0	0.9	10.4	0.0	-	29.4	3.6	30.6	3.5	0.0	-	37.8	3.7	0.3	0.7	0.0	-	4.8	-
PHF	0.482	0.907	0.429	0.000	-	0.895	0.864	0.667	0.742	0.000	-	0.841	0.667	0.767	0.646	0.000	-	0.793	0.750	0.750	0.500	0.000	-	0.700	0.864
Lights	26	180	24	0	-	230	156	8	91	0	-	255	31	250	31	0	-	312	32	2	6	0	-	40	837
% Lights	96.3	91.8	100.0	-	-	93.1	98.1	100.0	98.9	-	-	98.5	96.9	92.6	100.0	-	-	93.7	97.0	66.7	100.0	-	-	95.2	95.0
Mediums	1	13	0	0	-	14	3	0	1	0	-	4	1	18	0	0	-	19	1	1	0	0	-	2	39
% Mediums	3.7	6.6	0.0	-	-	5.7	1.9	0.0	1.1	-	-	1.5	3.1	6.7	0.0	-	-	5.7	3.0	33.3	0.0	-	-	4.8	4.4
Articulated Trucks	0	2	0	0	-	2	0	0	0	0	-	0	0	2	0	0	-	2	0	0	0	0	-	0	4
% Articulated Trucks	0.0	1.0	0.0	-	-	0.8	0.0	0.0	0.0	-	-	0.0	0.0	0.7	0.0	-	-	0.6	0.0	0.0	0.0	-	-	0.0	0.5
Bicycles on Road	0	1	0	0	-	1	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	1
% Bicycles on Road	0.0	0.5	0.0	-	-	0.4	0.0	0.0	0.0	-	-	0.0	0.0	0.0	0.0	-	-	0.0	0.0	0.0	0.0	-	-	0.0	0.1
Bicycles on Crosswalk	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-
% Bicycles on Crosswalk	-	-	-	-	0.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Pedestrians	-	-	-	-	194	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-
% Pedestrians	-	-	-	-	100.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Lee Engineering, LLC
Phoenix, Arizona - Dallas, Texas
Oklahoma City, Oklahoma - San Antonio, Texas
Albuquerque, New Mexico, United States 87113
5053380988 zbaiamonte@lee-eng.com

Count Name: NM 319.01 -001 Mas Charter School
Site Code:
Start Date: 12/09/2021



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

Lee Engineering, LLC
Phoenix, Arizona - Dallas, Texas
Oklahoma City, Oklahoma - San Antonio, Texas
Albuquerque, New Mexico, United States 87113
5053380988 zbaiamonte@lee-eng.com

Count Name: NM 319.01 -001 Mas Charter School
Site Code:
Start Date: 12/09/2021

Turning Movement Peak Hour Data (4:00 PM)

Start Time	Yale Blvd Southbound						Ross Ave Westbound						Yale Blvd Northbound						Ross Ave 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
4:00 PM	0	83	2	0	256	85	14	0	3	0	7	17	5	121	5	0	0	131	6	0	0	0	11	6	239
4:15 PM	2	94	7	0	25	103	40	1	23	0	0	64	5	87	0	0	0	92	3	1	0	0	1	4	263
4:30 PM	3	78	8	0	78	89	20	0	12	0	0	32	5	111	1	0	0	117	2	3	1	0	0	6	244
4:45 PM	0	82	11	0	5	93	17	0	17	0	1	34	6	110	0	0	0	116	1	1	2	0	0	4	247
Total	5	337	28	0	364	370	91	1	55	0	8	147	21	429	6	0	0	456	12	5	3	0	12	20	993
Approach %	1.4	91.1	7.6	0.0	-	-	61.9	0.7	37.4	0.0	-	-	4.6	94.1	1.3	0.0	-	-	60.0	25.0	15.0	0.0	-	-	-
Total %	0.5	33.9	2.8	0.0	-	37.3	9.2	0.1	5.5	0.0	-	14.8	2.1	43.2	0.6	0.0	-	45.9	1.2	0.5	0.3	0.0	-	2.0	-
PHF	0.417	0.896	0.636	0.000	-	0.898	0.569	0.250	0.598	0.000	-	0.574	0.875	0.886	0.300	0.000	-	0.870	0.500	0.417	0.375	0.000	-	0.833	0.944
Lights	5	329	27	0	-	361	88	1	53	0	-	142	21	419	6	0	-	446	12	5	3	0	-	20	969
% Lights	100.0	97.6	96.4	-	-	97.6	96.7	100.0	96.4	-	-	96.6	100.0	97.7	100.0	-	-	97.8	100.0	100.0	100.0	-	-	100.0	97.6
Mediums	0	8	1	0	-	9	3	0	2	0	-	5	0	10	0	0	-	10	0	0	0	0	-	0	24
% Mediums	0.0	2.4	3.6	-	-	2.4	3.3	0.0	3.6	-	-	3.4	0.0	2.3	0.0	-	-	2.2	0.0	0.0	0.0	-	-	0.0	2.4
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
Bicycles on Road	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0
% Bicycles on Road	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	-	-	-	-	364	-	-	-	-	-	8	-	-	-	-	-	0	-	-	-	-	-	12	-	-
% Pedestrians	-	-	-	-	100.0	-	-	-	-	-	100.0	-	-	-	-	-	-	-	-	-	-	-	100.0	-	-

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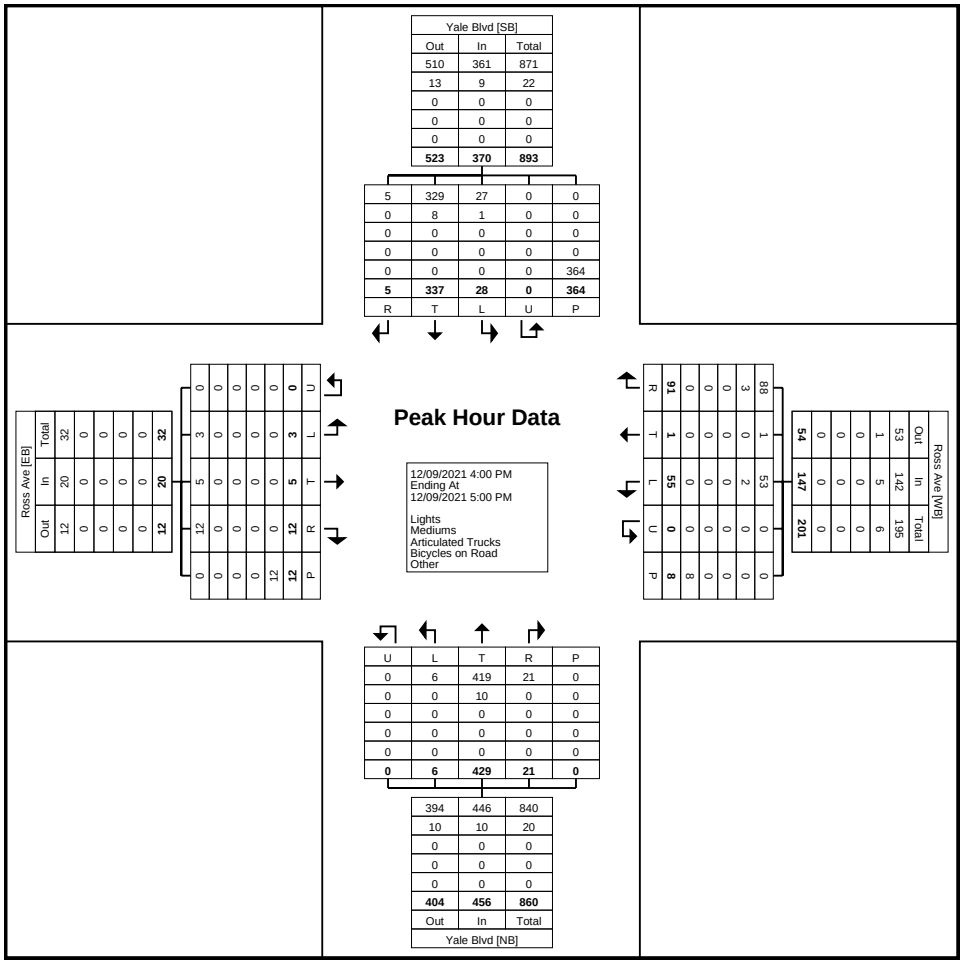
Count Name: NM 319.01 -001 Mas Charter School
Site Code:
Start Date: 12/09/2021



Turning Movement Peak Hour Data Plot (4:00 PM)

Lee Engineering, LLC
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Oklahoma City, Oklahoma - San Antonio, Texas
Albuquerque, New Mexico, United States 87113
5053380988 zbaiamonte@lee-eng.com

Count Name: NM 319.01 -001 Mas Charter School
Site Code:
Start Date: 12/15/2021

Turning Movement Data

Start Time	Yale Blvd Southbound					International Ave Westbound					Yale Blvd Northbound					Int. Total
	Thru	Left	U-Turn	Peds	App. Total	Right	Left	U-Turn	Peds	App. Total	Right	Thru	U-Turn	Peds	App. Total	
6:00 AM	20	4	0	0	24	2	3	0	0	5	2	19	0	0	21	50
6:15 AM	25	1	0	0	26	5	5	0	0	10	1	13	0	0	14	50
6:30 AM	40	5	0	0	45	3	13	0	0	16	2	25	0	0	27	88
6:45 AM	52	5	0	0	57	3	5	0	0	8	4	39	0	0	43	108
Hourly Total	137	15	0	0	152	13	26	0	0	39	9	96	0	0	105	296
7:00 AM	60	4	0	0	64	2	2	0	0	4	5	47	0	0	52	120
7:15 AM	48	4	0	0	52	4	3	0	0	7	5	66	0	0	71	130
7:30 AM	74	8	0	0	82	4	9	0	0	13	5	65	0	0	70	165
7:45 AM	76	1	0	2	77	4	7	0	0	11	4	74	2	0	80	168
Hourly Total	258	17	0	2	275	14	21	0	0	35	19	252	2	0	273	583
8:00 AM	73	3	0	0	76	3	7	0	0	10	3	83	0	0	86	172
8:15 AM	64	2	0	0	66	2	8	0	2	10	5	48	0	0	53	129
8:30 AM	41	3	0	0	44	5	6	0	0	11	6	42	0	0	48	103
8:45 AM	36	7	0	0	43	7	2	0	0	9	5	34	0	0	39	91
Hourly Total	214	15	0	0	229	17	23	0	2	40	19	207	0	0	226	495
9:00 AM	36	1	0	0	37	0	11	0	2	11	3	39	0	0	42	90
9:15 AM	41	2	0	0	43	2	6	0	3	8	5	39	0	0	44	95
9:30 AM	49	0	0	0	49	3	4	0	2	7	3	51	0	0	54	110
9:45 AM	34	2	0	0	36	3	2	0	2	5	1	47	0	0	48	89
Hourly Total	160	5	0	0	165	8	23	0	9	31	12	176	0	0	188	384
10:00 AM	40	1	0	0	41	2	5	0	1	7	3	38	0	0	41	89
10:15 AM	49	1	1	0	51	7	5	0	0	12	2	46	0	0	48	111
10:30 AM	48	5	0	0	53	2	1	0	1	3	4	54	0	0	58	114
10:45 AM	44	4	0	0	48	5	7	0	0	12	4	54	0	0	58	118
Hourly Total	181	11	1	0	193	16	18	0	2	34	13	192	0	0	205	432
11:00 AM	47	1	0	0	48	7	5	0	1	12	3	60	0	0	63	123
11:15 AM	52	2	0	0	54	4	1	0	1	5	2	47	1	0	50	109
11:30 AM	75	2	0	0	77	6	5	0	0	11	1	59	0	0	60	148
11:45 AM	54	2	0	0	56	3	1	0	1	4	4	72	0	0	76	136
Hourly Total	228	7	0	0	235	20	12	0	3	32	10	238	1	0	249	516
12:00 PM	55	5	0	0	60	3	4	0	0	7	2	70	0	0	72	139
12:15 PM	66	1	0	0	67	3	3	0	0	6	5	60	0	0	65	138
12:30 PM	56	4	0	0	60	5	4	0	2	9	1	53	0	0	54	123
12:45 PM	66	4	0	0	70	3	2	0	0	5	3	81	0	0	84	159
Hourly Total	243	14	0	0	257	14	13	0	2	27	11	264	0	0	275	559
1:00 PM	68	2	1	0	71	4	6	0	1	10	7	67	0	0	74	155

1:15 PM	52	2	0	0	54	5	3	0	0	8	1	66	0	0	67	129
1:30 PM	50	4	0	0	54	2	3	0	1	5	2	53	0	0	55	114
1:45 PM	70	4	0	0	74	2	2	0	0	4	6	70	0	0	76	154
Hourly Total	240	12	1	0	253	13	14	0	2	27	16	256	0	0	272	552
2:00 PM	64	0	0	0	64	3	0	0	1	3	5	80	0	0	85	152
2:15 PM	57	5	0	0	62	1	3	0	0	4	5	81	0	0	86	152
2:30 PM	50	2	0	0	52	6	2	0	2	8	6	105	0	0	111	171
2:45 PM	72	4	0	0	76	3	3	0	1	6	5	99	0	0	104	186
Hourly Total	243	11	0	0	254	13	8	0	4	21	21	365	0	0	386	661
3:00 PM	62	2	0	0	64	3	2	0	1	5	6	58	0	0	64	133
3:15 PM	69	4	0	0	73	4	0	0	0	4	0	69	0	0	69	146
3:30 PM	56	3	1	0	60	4	1	0	1	5	9	97	0	0	106	171
3:45 PM	55	4	0	0	59	3	4	0	3	7	5	87	0	0	92	158
Hourly Total	242	13	1	0	256	14	7	0	5	21	20	311	0	0	331	608
4:00 PM	71	4	0	0	75	7	11	0	7	18	8	90	0	0	98	191
4:15 PM	101	5	0	0	106	7	4	0	1	11	8	82	0	0	90	207
4:30 PM	100	2	0	0	102	9	4	0	0	13	5	101	0	0	106	221
4:45 PM	84	6	0	0	90	4	4	0	0	8	7	79	0	0	86	184
Hourly Total	356	17	0	0	373	27	23	0	8	50	28	352	0	0	380	803
5:00 PM	79	5	0	0	84	19	1	0	1	20	8	102	0	0	110	214
5:15 PM	78	8	0	0	86	6	1	0	0	7	6	59	0	0	65	158
5:30 PM	55	5	0	0	60	6	8	0	1	14	12	72	0	1	84	158
5:45 PM	79	8	1	0	88	15	9	0	2	24	8	72	0	0	80	192
Hourly Total	291	26	1	0	318	46	19	0	4	65	34	305	0	1	339	722
6:00 PM	73	6	0	0	79	4	6	0	2	10	6	61	0	0	67	156
6:15 PM	38	5	0	0	43	4	7	0	2	11	5	50	0	0	55	109
6:30 PM	51	2	0	0	53	8	3	0	1	11	10	25	0	0	35	99
6:45 PM	49	2	0	0	51	2	3	0	1	5	4	41	0	0	45	101
Hourly Total	211	15	0	0	226	18	19	0	6	37	25	177	0	0	202	465
Grand Total	3004	178	4	2	3186	233	226	0	47	459	237	3191	3	1	3431	7076
Approach %	94.3	5.6	0.1	-	-	50.8	49.2	0.0	-	-	6.9	93.0	0.1	-	-	-
Total %	42.5	2.5	0.1	-	45.0	3.3	3.2	0.0	-	6.5	3.3	45.1	0.0	-	48.5	-
Lights	2873	174	4	-	3051	227	223	0	-	450	230	3060	3	-	3293	6794
% Lights	95.6	97.8	100.0	-	95.8	97.4	98.7	-	-	98.0	97.0	95.9	100.0	-	96.0	96.0
Mediums	126	3	0	-	129	6	3	0	-	9	5	126	0	-	131	269
% Mediums	4.2	1.7	0.0	-	4.0	2.6	1.3	-	-	2.0	2.1	3.9	0.0	-	3.8	3.8
Articulated Trucks	4	0	0	-	4	0	0	0	-	0	2	5	0	-	7	11
% Articulated Trucks	0.1	0.0	0.0	-	0.1	0.0	0.0	-	-	0.0	0.8	0.2	0.0	-	0.2	0.2
Bicycles on Road	1	1	0	-	2	0	0	0	-	0	0	0	0	-	0	2
% Bicycles on Road	0.0	0.6	0.0	-	0.1	0.0	0.0	-	-	0.0	0.0	0.0	0.0	-	0.0	0.0
Bicycles on Crosswalk	-	-	-	0	-	-	-	-	1	-	-	-	-	0	-	-
% Bicycles on Crosswalk	-	-	-	0.0	-	-	-	-	2.1	-	-	-	-	0.0	-	-
Pedestrians	-	-	-	2	-	-	-	-	46	-	-	-	-	1	-	-
% Pedestrians	-	-	-	100.0	-	-	-	-	97.9	-	-	-	-	100.0	-	-

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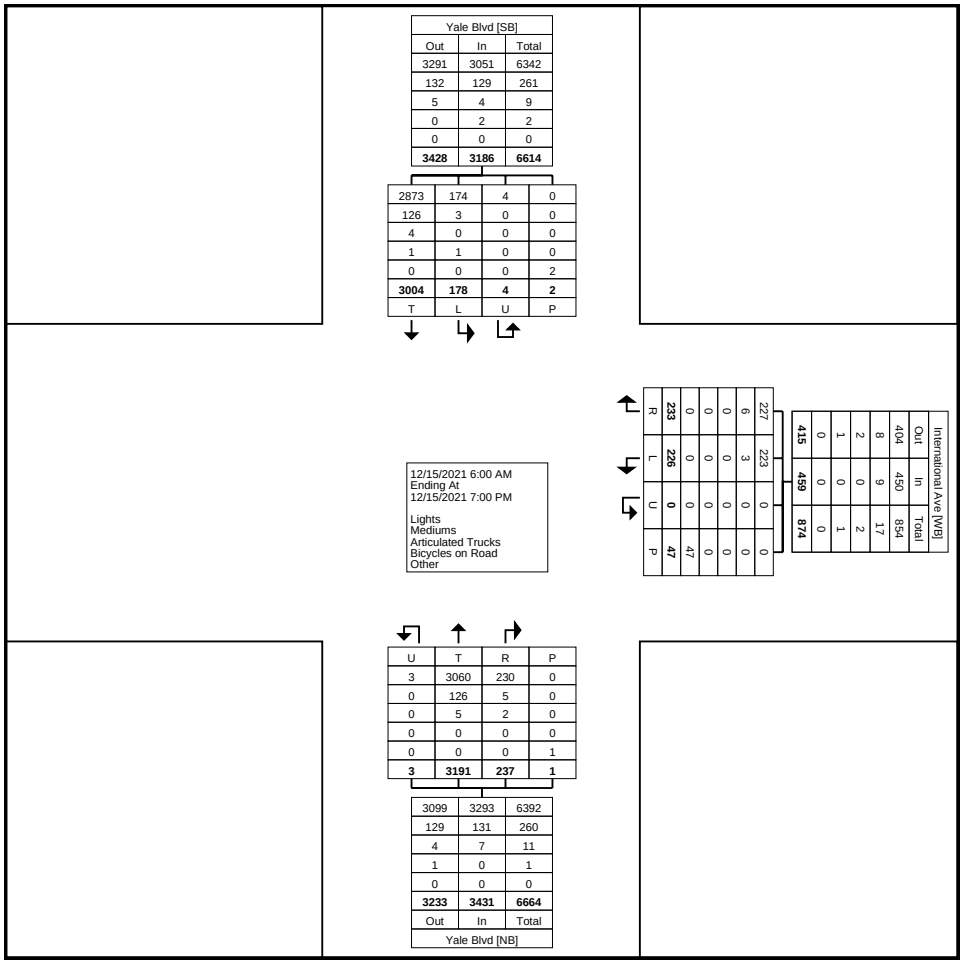
Site Code:
Start Date: 12/15/2021



Turning Movement Data Plot

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Albuquerque, New Mexico, United States 87113
5053380988 zbaiamonte@lee-eng.com

Count Name: NM 319.01 -001 Mas Charter School
Site Code:
Start Date: 12/15/2021

Turning Movement Peak Hour Data (7:15 AM)

Start Time	Yale Blvd Southbound					International Ave Westbound					Yale Blvd Northbound					
	Thru	Left	U-Turn	Peds	App. Total	Right	Left	U-Turn	Peds	App. Total	Right	Thru	U-Turn	Peds	App. Total	Int. Total
7:15 AM	48	4	0	0	52	4	3	0	0	7	5	66	0	0	71	130
7:30 AM	74	8	0	0	82	4	9	0	0	13	5	65	0	0	70	165
7:45 AM	76	1	0	2	77	4	7	0	0	11	4	74	2	0	80	168
8:00 AM	73	3	0	0	76	3	7	0	0	10	3	83	0	0	86	172
Total	271	16	0	2	287	15	26	0	0	41	17	288	2	0	307	635
Approach %	94.4	5.6	0.0	-	-	36.6	63.4	0.0	-	-	5.5	93.8	0.7	-	-	-
Total %	42.7	2.5	0.0	-	45.2	2.4	4.1	0.0	-	6.5	2.7	45.4	0.3	-	48.3	-
PHF	0.891	0.500	0.000	-	0.875	0.938	0.722	0.000	-	0.788	0.850	0.867	0.250	-	0.892	0.923
Lights	263	16	0	-	279	15	25	0	-	40	17	273	2	-	292	611
% Lights	97.0	100.0	-	-	97.2	100.0	96.2	-	-	97.6	100.0	94.8	100.0	-	95.1	96.2
Mediums	8	0	0	-	8	0	1	0	-	1	0	15	0	-	15	24
% Mediums	3.0	0.0	-	-	2.8	0.0	3.8	-	-	2.4	0.0	5.2	0.0	-	4.9	3.8
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	-	0.0	0.0
Bicycles on Road	0	0	0	-	0	0	0	0	-	0	0	0	0	-	0	0
% Bicycles on Road	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	-	-
% Bicycles on Crosswalk	-	-	-	0.0	-	-	-	-	-	-	-	-	-	-	-	-
Pedestrians	-	-	-	2	-	-	-	-	0	-	-	-	-	0	-	-
% Pedestrians	-	-	-	100.0	-	-	-	-	-	-	-	-	-	-	-	-

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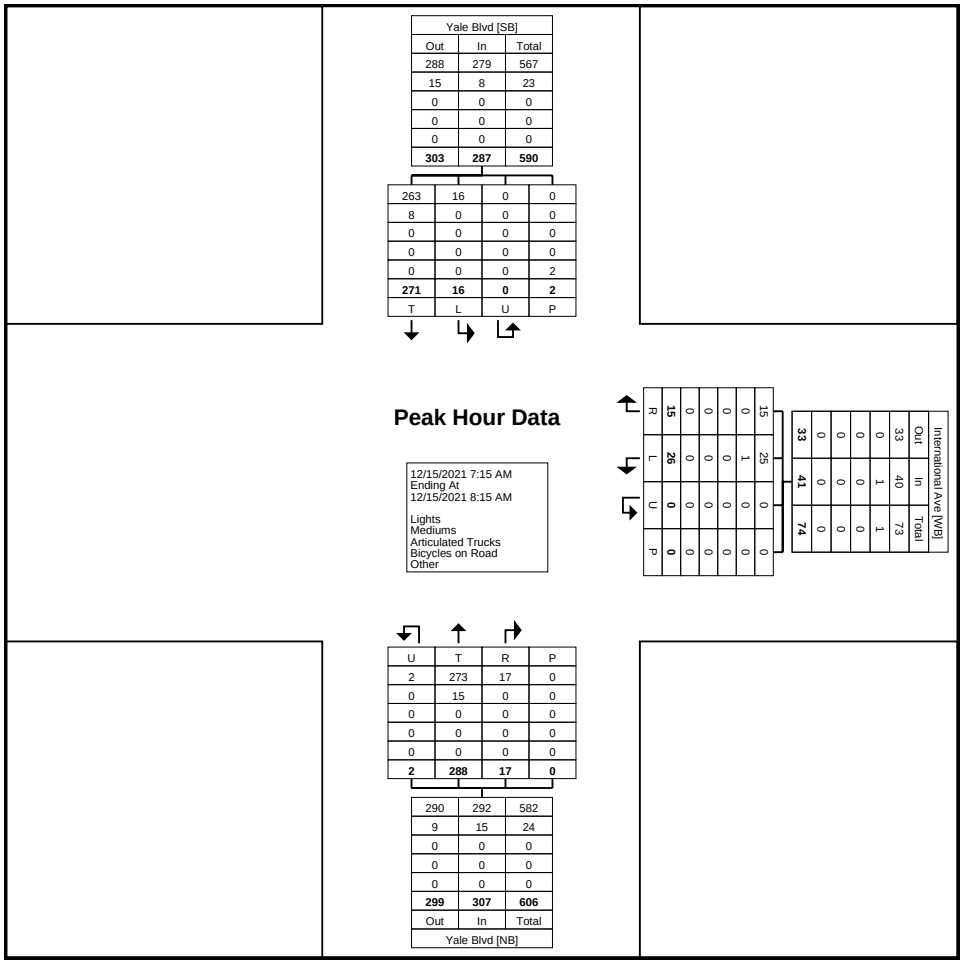

Turning Movement Peak Hour Data Plot (7:15 AM)

Lee Engineering, LLC
Phoenix, Arizona - Dallas, Texas
Oklahoma City, Oklahoma - San Antonio, Texas
Albuquerque, New Mexico, United States 87113
5053380988 zbaiamonte@lee-eng.com

Count Name: NM 319.01 -001 Mas Charter School
Site Code:
Start Date: 12/15/2021

Turning Movement Peak Hour Data (4:15 PM)

Start Time	Yale Blvd Southbound					International Ave Westbound					Yale Blvd Northbound					
	Thru	Left	U-Turn	Peds	App. Total	Right	Left	U-Turn	Peds	App. Total	Right	Thru	U-Turn	Peds	App. Total	Int. Total
4:15 PM	101	5	0	0	106	7	4	0	1	11	8	82	0	0	90	207
4:30 PM	100	2	0	0	102	9	4	0	0	13	5	101	0	0	106	221
4:45 PM	84	6	0	0	90	4	4	0	0	8	7	79	0	0	86	184
5:00 PM	79	5	0	0	84	19	1	0	1	20	8	102	0	0	110	214
Total	364	18	0	0	382	39	13	0	2	52	28	364	0	0	392	826
Approach %	95.3	4.7	0.0	-	-	75.0	25.0	0.0	-	-	7.1	92.9	0.0	-	-	-
Total %	44.1	2.2	0.0	-	46.2	4.7	1.6	0.0	-	6.3	3.4	44.1	0.0	-	47.5	-
PHF	0.901	0.750	0.000	-	0.901	0.513	0.813	0.000	-	0.650	0.875	0.892	0.000	-	0.891	0.934
Lights	354	18	0	-	372	39	12	0	-	51	27	355	0	-	382	805
% Lights	97.3	100.0	-	-	97.4	100.0	92.3	-	-	98.1	96.4	97.5	-	-	97.4	97.5
Mediums	10	0	0	-	10	0	1	0	-	1	1	9	0	-	10	21
% Mediums	2.7	0.0	-	-	2.6	0.0	7.7	-	-	1.9	3.6	2.5	-	-	2.6	2.5
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 Road	0	0	0	-	0	0	0	0	-	0	0	0	0	-	0	0
% Bicycles on Road	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	-	-	-	-	-	-	-
Pedestrians	-	-	-	0	-	-	-	-	2	-	-	-	-	0	-	-
% Pedestrians	-	-	-	-	-	-	-	-	100.0	-	-	-	-	-	-	-

Lee Engineering, LLC
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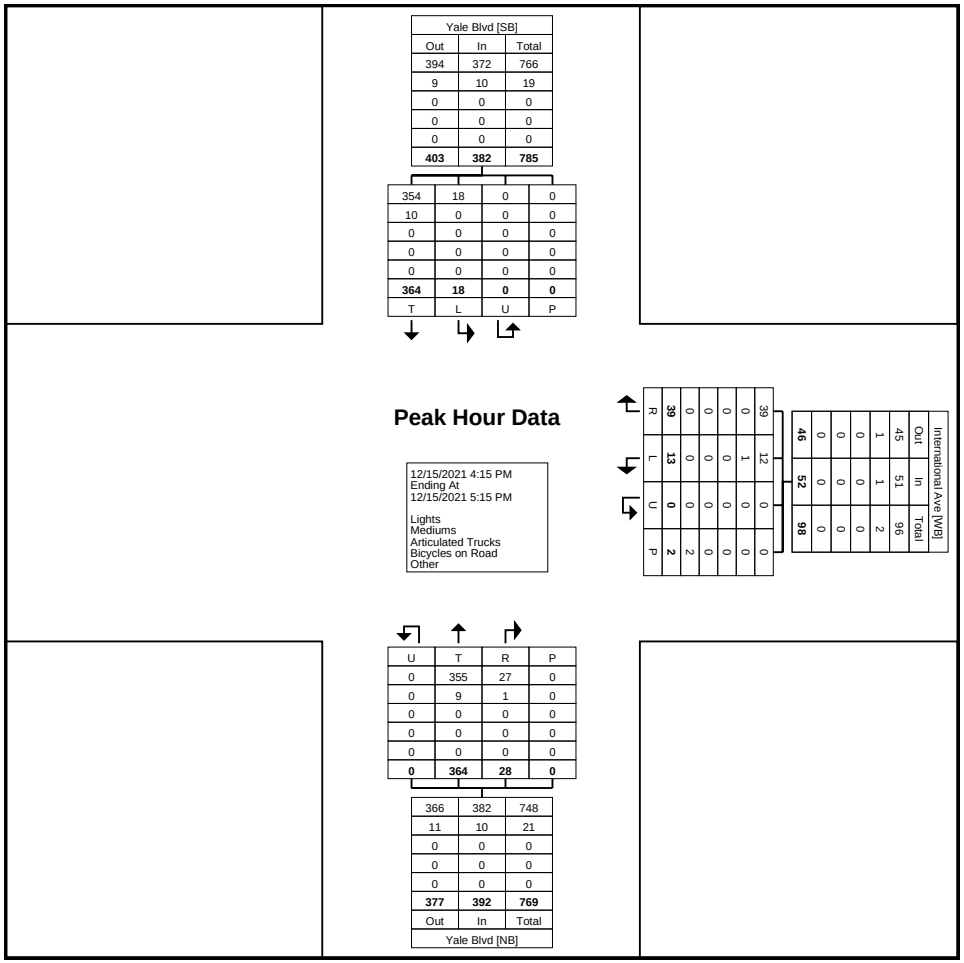
5053380988 zbaiamonte@lee-eng.com



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

Appendix C:

Trip Generation Manual Excerpts

Land Use: 538
Charter School (K-12)

Description

A charter school (K-12) is a school that is publicly funded and privately managed. The school serves students attending kindergarten through the 12th grade. The school may also offer extended care and day care. Elementary school (Land Use 520), middle school/junior high school (Land Use 522), high school (Land Use 525), private school (K-8) (Land Use 530), private school (K-12) (Land Use 532), private high school (Land Use 534), and charter elementary school (Land Use 536) are related uses.

Additional Data

The sites were surveyed in the 2010s in Minnesota and Nevada.

Source Numbers

1039, 1047

Charter School (K-12)
(538)

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

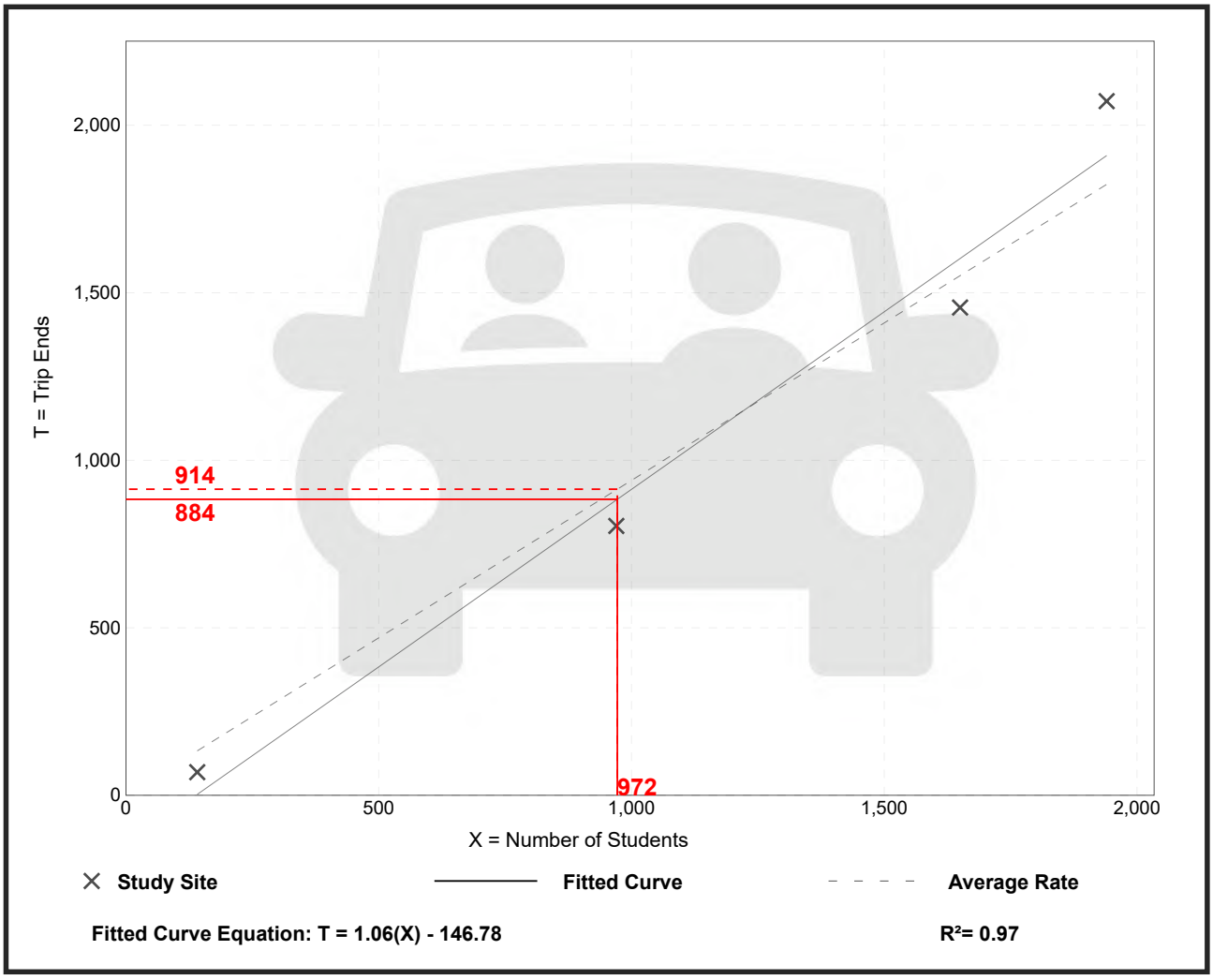
Setting/Location: **General Urban/Suburban**
Number of Studies: 4
Avg. Num. of Students: 1175
Directional Distribution: 53% entering, 47% exiting

Vehicle Trip Generation per Student

Average Rate	Range of Rates	Standard Deviation
0.94	0.49 - 1.07	0.15

Data Plot and Equation

Caution – Small Sample Size



Fitted Curve Equation: T = 1.06(X) - 146.78 **R^2= 0.97**

Trip Gen Manual, 11th Edition ● Institute of Transportation Engineers

Charter School (K-12)
(538)

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

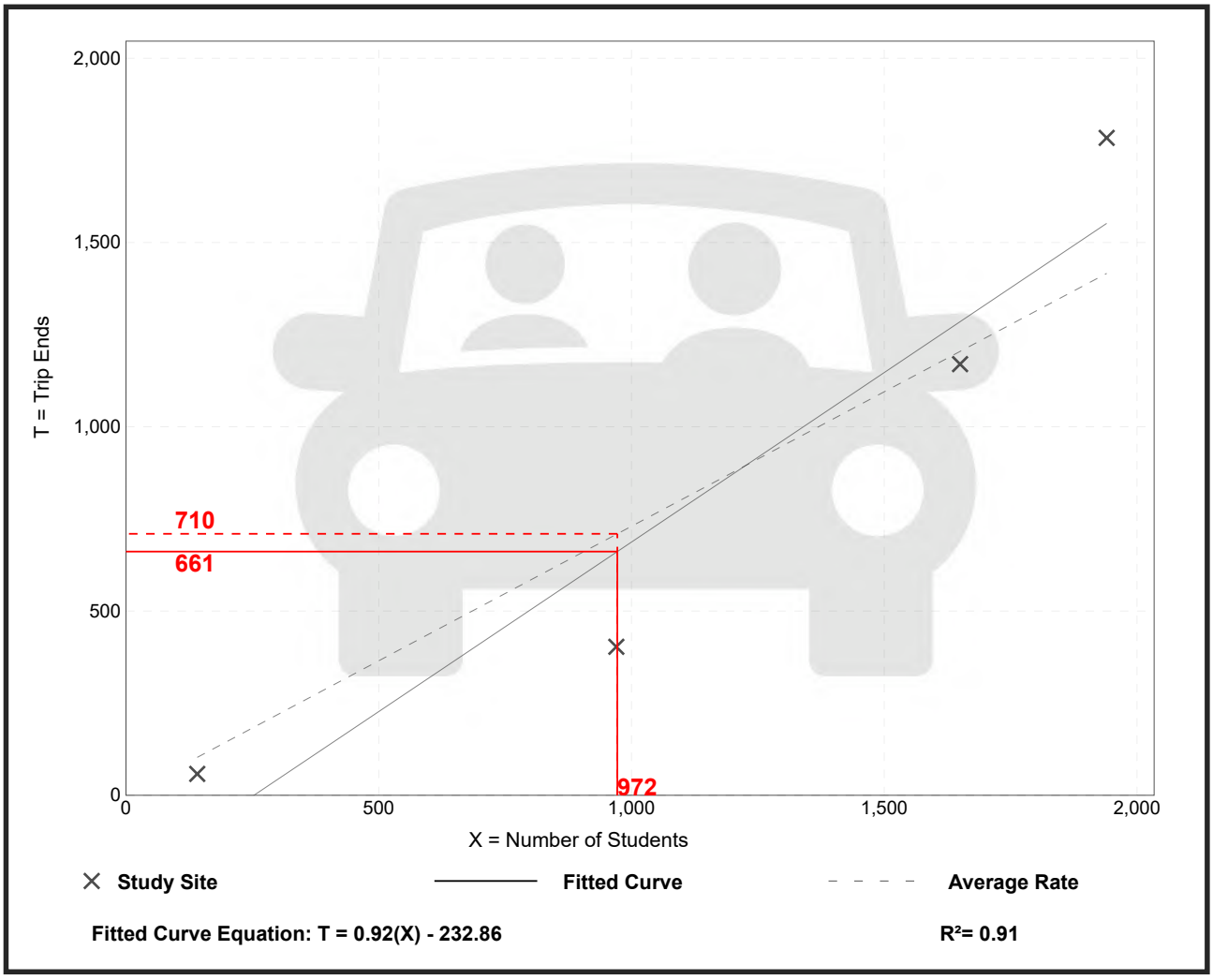
Setting/Location: **General Urban/Suburban**
Number of Studies: 4
Avg. Num. of Students: 1175
Directional Distribution: 50% entering, 50% exiting

Vehicle Trip Generation per Student

Average Rate	Range of Rates	Standard Deviation
0.73	0.41 - 0.92	0.23

Data Plot and Equation

Caution – Small Sample Size



Fitted Curve Equation: T = 0.92(X) - 232.86 **R^2= 0.91**

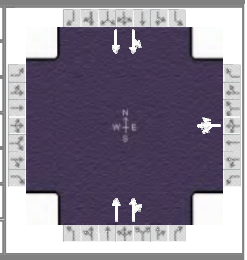
Trip Gen Manual, 11th Edition ● Institute of Transportation Engineers

Appendix D:

HCS Software Level of Service and Capacity Output Sheets

HCS7 Signalized Intersection Results Summary

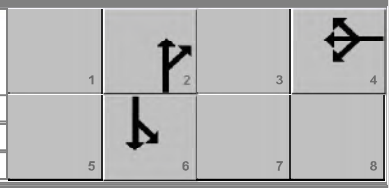
General Information				Intersection Information	
Agency				Duration, h	1.000
Analyst		Analysis Date	1/13/2022	Area Type	Other
Jurisdiction		Time Period		PHF	1.00
Urban Street	Yale Blvd	Analysis Year	2022	Analysis Period	1> 7:30
Intersection	Kathryn Ave	File Name	Kathryn_existingAM.xus		
Project Description	Existing AM (7:30 AM)				



Demand Information	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand (*v*), veh/h				37	0	40		300	86	109	250	

Signal Information			
Cycle, s	120.0	Reference Phase	2
Offset, s	0	Reference Point	End
Uncoordinated	No	Simult. Gap E/W	On
Force Mode	Fixed	Simult. Gap N/S	On

Green	102.9	7.1	0.0	0.0	0.0	0.0	
Yellow	4.0	3.5	0.0	0.0	0.0	0.0	
Red	1.0	1.5	0.0	0.0	0.0	0.0	



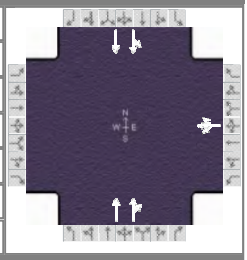
Timer Results	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Assigned Phase				4		2		6
Case Number				12.0		8.0		8.0
Phase Duration, s				12.1		107.9		107.9
Change Period, ($Y+R_c$), s				5.0		5.0		5.0
Max Allow Headway (*MAH*), s				3.2		0.0		0.0
Queue Clearance Time (g_s), s				6.5				
Green Extension Time (g_e), s				0.1		0.0		0.0
Phase Call Probability				0.89				
Max Out Probability				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		2	12	1	6	
Adjusted Flow Rate (*v*), veh/h					66			188	179	164	195	
Adjusted Saturation Flow Rate (*s*), veh/h/ln					1713			1806	1676	1154	1667	
Queue Service Time (g_s), s					4.5			4.1	2.0	1.6	4.3	
Cycle Queue Clearance Time (g_c), s					4.5			4.1	2.0	5.7	4.3	
Green Ratio (*g/C*)					0.06			0.86	0.86	0.86	0.86	
Capacity (*c*), veh/h					102			1548	1437	1040	1430	
Volume-to-Capacity Ratio (*X*)					0.650			0.121	0.125	0.158	0.136	
Back of Queue (*Q*), ft/ln (95 th percentile)					89.9			16.7	16.2	15.9	17.4	
Back of Queue (*Q*), veh/ln (95 th percentile)					3.6			0.7	0.6	0.6	0.7	
Queue Storage Ratio (*RQ*) (95 th percentile)					0.37			0.16	0.15	0.04	0.05	
Uniform Delay (d_1), s/veh					55.2			1.4	1.4	1.6	1.4	
Incremental Delay (d_2), s/veh					2.6			0.2	0.2	0.3	0.2	
Initial Queue Delay (d_3), s/veh					0.0			0.0	0.0	0.0	0.0	
Control Delay (*d*), s/veh					57.9			1.5	1.5	1.9	1.6	
Level of Service (LOS)					E			A	A	A	A	
Approach Delay, s/veh / LOS	0.0			57.9		E	1.5		A	1.7		A
Intersection Delay, s/veh / LOS	6.3						A					

Multimodal Results	EB		WB		NB		SB	
Pedestrian LOS Score / LOS	2.23	B	2.15	B	1.30	A	1.29	A
Bicycle LOS Score / LOS			0.60	A	3.07	C	3.06	C

HCS7 Signalized Intersection Results Summary

General Information				Intersection Information	
Agency				Duration, h	1.000
Analyst		Analysis Date	1/13/2022	Area Type	Other
Jurisdiction		Time Period		PHF	1.00
Urban Street	Yale Blvd	Analysis Year	2022	Analysis Period	1> 4:00
Intersection	Kathryn Ave	File Name	Kathryn_existingPM.xus		
Project Description	Existing PM (4:00 PM)				



Demand Information	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand (*v*), veh/h				44	0	46		537	65	65	268	

Signal Information			
Cycle, s	120.0	Reference Phase	2
Offset, s	0	Reference Point	End
Uncoordinated	No	Simult. Gap E/W	On
Force Mode	Fixed	Simult. Gap N/S	On

								1	2	3	4	
Green	0.0	0.0	0.0	0.0	0.0	0.0						
Yellow	0.0	0.0	0.0	0.0	0.0	0.0						
Red	0.0	0.0	0.0	0.0	0.0	0.0	5	6	7	8		

Timer Results	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Assigned Phase				4		2		6
Case Number				12.0		8.0		8.0
Phase Duration, s				12.4		107.6		107.6
Change Period, ($Y+R_c$), s				5.0		5.0		5.0
Max Allow Headway (*MAH*), s				0.0		0.0		0.0
Queue Clearance Time (g_s), s				0.0		0.0		0.0
Green Extension Time (g_e), s				0.0		0.0		0.0
Phase Call Probability				0.00		0.00		0.00
Max Out Probability				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		2	12	1	6	
Adjusted Flow Rate (*v*), veh/h					0			0	0	0	0	
Adjusted Saturation Flow Rate (*s*), veh/h/ln					0			0	0	0	0	
Queue Service Time (g_s), s					0.0			0.0	0.0	0.0	0.0	
Cycle Queue Clearance Time (g_c), s					0.0			0.0	0.0	0.0	0.0	
Green Ratio (*g/C*)					0.06			0.86	0.86	0.86	0.86	
Capacity (*c*), veh/h					101			1625	1561	1083	1467	
Volume-to-Capacity Ratio (*X*)					0.764			0.182	0.183	0.142	0.122	
Back of Queue (*Q*), ft/ln (95 th percentile)					107.4			28.3	27.9	14.9	16.6	
Back of Queue (*Q*), veh/ln (95 th percentile)					4.3			1.1	1.1	0.6	0.7	
Queue Storage Ratio (*RQ*) (95 th percentile)					0.45			0.27	0.27	0.00	0.00	
Uniform Delay (d_1), s/veh					55.4			1.5	1.5	1.4	1.4	
Incremental Delay (d_2), s/veh					4.6			0.2	0.3	0.3	0.2	
Initial Queue Delay (d_3), s/veh					0.0			0.0	0.0	0.0	0.0	
Control Delay (*d*), s/veh					60.1			1.7	1.8	1.7	1.6	
Level of Service (LOS)					E			A	A	A	A	
Approach Delay, s/veh / LOS	0.0			60.1		E	1.7		A	1.6		A
Intersection Delay, s/veh / LOS	6.2						A					

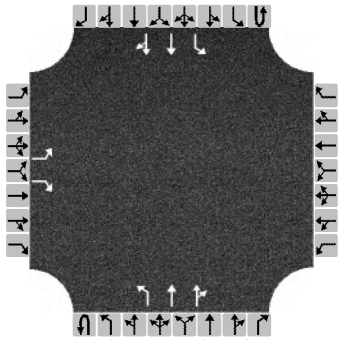
Multimodal Results	EB		WB		NB		SB	
Pedestrian LOS Score / LOS	2.23	B	2.15	B	1.31	A	1.29	A
Bicycle LOS Score / LOS			0.61	A	3.25	C	3.04	C

HCS7 Two-Way Stop-Control Report

General Information

Analyst	Stephen Montaño	Intersection	Yale/Anderson
Agency/Co.	Lee Engineering	Jurisdiction	CABQ
Date Performed	1/10/2022	East/West Street	Anderson Ave/Community Ce
Analysis Year	2022	North/South Street	Yale Blvd
Time Analyzed	Existing AM (7:30 AM)	Peak Hour Factor	0.91
Intersection Orientation	North-South	Analysis Time Period (hrs)	1.00
Project Description	MAS Charter School NIA		

Lanes



Major Street: North-South

Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority		10	11	12		7	8	9	1U	1	2	3	4U	4	5	6
Number of Lanes		1	0	1		0	0	0	0	1	2	0	0	1	2	0
Configuration		L		R						L	T	TR		L	T	TR
Volume (veh/h)		25		7					0	8	367	5	1	8	251	21
Percent Heavy Vehicles (%)		0		0					0	0			0	13		
Proportion Time Blocked																
Percent Grade (%)	0															
Right Turn Channelized	No															
Median Type | Storage	Left + Thru								1							

Critical and Follow-up Headways

Base Critical Headway (sec)		7.5		6.9						4.1			6.4	4.1		
Critical Headway (sec)		7.50		6.90						4.10			6.40	4.36		
Base Follow-Up Headway (sec)		3.5		3.3						2.2			2.5	2.2		
Follow-Up Headway (sec)		3.50		3.30						2.20			2.50	2.33		

Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)		27		8						9				10		
Capacity, c (veh/h)		522		877						1274				1033		
v/c Ratio		0.05		0.01						0.01				0.01		
95% Queue Length, Q_{95} (veh)		0.2		0.0						0.0				0.0		
Control Delay (s/veh)		12.3		9.1						7.8				8.5		
Level of Service (LOS)		B		A						A				A		
Approach Delay (s/veh)	11.6								0.2				0.3			
Approach LOS	B															

HCS7 Two-Way Stop-Control Report

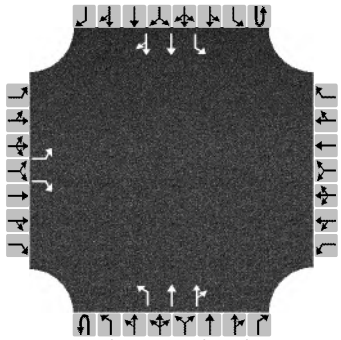
General Information

Analyst	Stephen Montaño
Agency/Co.	Lee Engineering
Date Performed	1/10/2022
Analysis Year	2022
Time Analyzed	Existing AM (4:00 PM)
Intersection Orientation	North-South
Project Description	MAS Charter School NIA

Site Information

Intersection	Yale/Anderson
Jurisdiction	CABQ
East/West Street	Anderson Ave/Community Ce
North/South Street	Yale Blvd
Peak Hour Factor	0.91
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		1	0	1		0	0	0	0	1	2	0	0	1	2	0
Configuration		L		R						L	T	TR		L	T	TR
Volume (veh/h)		25		8					0	7	548	23	1	26	268	7
Percent Heavy Vehicles (%)		0		1					0	0			0	13		
Proportion Time Blocked																
Percent Grade (%)	0															
Right Turn Channelized	No															
Median Type | Storage	Left + Thru								1							

Critical and Follow-up Headways

Base Critical Headway (sec)		7.5		6.9						4.1			6.4	4.1		
Critical Headway (sec)		7.50		6.92						4.10			6.40	4.36		
Base Follow-Up Headway (sec)		3.5		3.3						2.2			2.5	2.2		
Follow-Up Headway (sec)		3.50		3.31						2.20			2.50	2.33		

Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)		27		9						8				30		
Capacity, c (veh/h)		439		871						1270				863		
v/c Ratio		0.06		0.01						0.01				0.03		
95% Queue Length, Q_{95} (veh)		0.2		0.0						0.0				0.1		
Control Delay (s/veh)		13.7		9.2						7.9				9.3		
Level of Service (LOS)		B		A						A				A		
Approach Delay (s/veh)	12.6								0.1				0.8			
Approach LOS	B															

HCS7 Two-Way Stop-Control Report

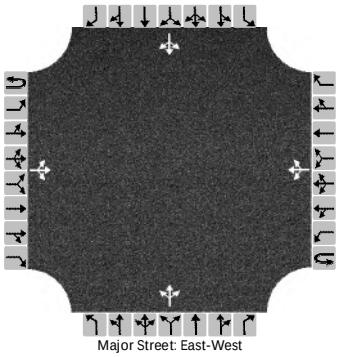
General Information

Analyst	Stephen Montaño
Agency/Co.	Lee Engineering
Date Performed	1/10/2022
Analysis Year	2022
Time Analyzed	Existing AM (7:15 AM)
Intersection Orientation	East-West
Project Description	MAS Charter School NIA

Site Information

Intersection	Kathryn/East Alley
Jurisdiction	CABQ
East/West Street	East Alley
North/South Street	East Alley
Peak Hour Factor	0.81
Analysis Time Period (hrs)	1.00

Lanes


Major Street: East-West

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)		8	40	190		37	69	4		0	0	0		6	0	6
Percent Heavy Vehicles (%)		13				0				0	0	0		0	0	17
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)		4.23				4.10				7.10	6.50	6.20		7.10	6.50	6.37
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)		2.32				2.20				3.50	4.00	3.30		3.50	4.00	3.45

Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)		10				46					0				15	
Capacity, c (veh/h)		1439				1290									710	
v/c Ratio		0.01				0.04									0.02	
95% Queue Length, Q_{95} (veh)		0.0				0.1									0.1	
Control Delay (s/veh)		7.5				7.9									10.2	
Level of Service (LOS)		A				A									B	
Approach Delay (s/veh)	0.3				2.9								10.2			
Approach LOS													B			

HCS7 Two-Way Stop-Control Report

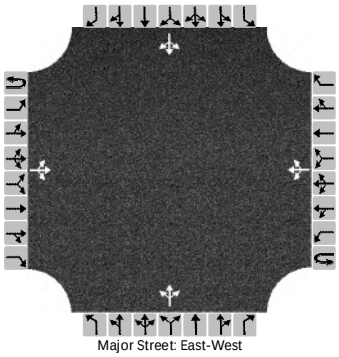
General Information

Analyst	Stephen Montaño
Agency/Co.	Lee Engineering
Date Performed	1/10/2022
Analysis Year	2022
Time Analyzed	Existing AM (4:15 PM)
Intersection Orientation	East-West
Project Description	MAS Charter School NIA

Site Information

Intersection	Kathryn/East Alley
Jurisdiction	CABQ
East/West Street	East Alley
North/South Street	East Alley
Peak Hour Factor	0.81
Analysis Time Period (hrs)	1.00

Lanes


Major Street: East-West

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)		12	83	83		16	72	7		0	0	0		0	0	21
Percent Heavy Vehicles (%)		0				0				0	0	0		0	0	0
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)		4.10				4.10				7.10	6.50	6.20		7.10	6.50	6.20
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)		2.20				2.20				3.50	4.00	3.30		3.50	4.00	3.30

Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)		15				20					0				26	
Capacity, c (veh/h)		1508				1379									969	
v/c Ratio		0.01				0.01									0.03	
95% Queue Length, Q_{95} (veh)		0.0				0.0									0.1	
Control Delay (s/veh)		7.4				7.6									8.8	
Level of Service (LOS)		A				A									A	
Approach Delay (s/veh)	0.6				1.4								8.8			
Approach LOS													A			

HCS7 Two-Way Stop-Control Report

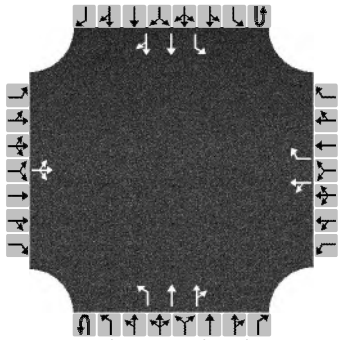
General Information

Analyst	Stephen Montaño
Agency/Co.	Lee Engineering
Date Performed	1/22/2022
Analysis Year	2022
Time Analyzed	Build-out AM (7:30 AM)
Intersection Orientation	North-South
Project Description	MAS Charter School NIA

Site Information

Intersection	Yale/Ross
Jurisdiction	CABQ
East/West Street	Ross Ave
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	1	0	1	2	0	0	1	2	0
Configuration			LTR			LT		R		L	T	TR		L	T	TR
Volume (veh/h)		6	3	33		92	8	159	0	31	270	32	0	24	196	27
Percent Heavy Vehicles (%)		0	33	3		1	0	2	0	0			0	0		
Proportion Time Blocked																
Percent Grade (%)	0				7											
Right Turn Channelized					No											
Median Type | Storage	Left + Thru								1							

Critical and Follow-up Headways

Base Critical Headway (sec)		7.5	6.5	6.9		7.5	6.5	6.9		4.1				4.1		
Critical Headway (sec)		7.50	7.16	6.96		8.92	7.90	7.64		4.10				4.10		
Base Follow-Up Headway (sec)		3.5	4.0	3.3		3.5	4.0	3.3		2.2				2.2		
Follow-Up Headway (sec)		3.50	4.33	3.33		3.51	4.00	3.32		2.20				2.20		

Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)			49			116		185		36				28		
Capacity, c (veh/h)			571			385		476		1317				1219		
v/c Ratio			0.09			0.30		0.39		0.03				0.02		
95% Queue Length, Q_{95} (veh)			0.3			1.3		1.9		0.1				0.1		
Control Delay (s/veh)			11.9			18.4		17.3		7.8				8.0		
Level of Service (LOS)			B			C		C		A				A		
Approach Delay (s/veh)	11.9				17.7				0.7				0.8			
Approach LOS	B				C											

HCS7 Two-Way Stop-Control Report

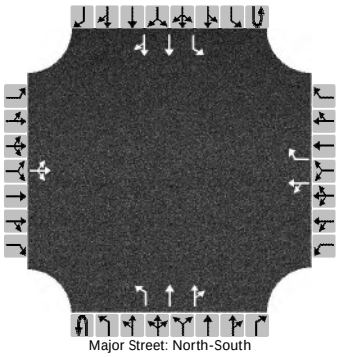
General Information

Analyst	Stephen Montaño
Agency/Co.	Lee Engineering
Date Performed	1/10/2022
Analysis Year	2022
Time Analyzed	Existing PM (4:00 PM)
Intersection Orientation	North-South
Project Description	MAS Charter School NIA

Site Information

Intersection	Yale/Ross
Jurisdiction	CABQ
East/West Street	Ross Ave
North/South Street	Yale Blvd
Peak Hour Factor	0.94
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	1	0	1	2	0	0	1	2	0
Configuration			LTR			LT		R		L	T	TR		L	T	TR
Volume (veh/h)		2	1	1		17	0	17	0	6	429	21	0	28	337	5
Percent Heavy Vehicles (%)		0	0	0		4	0	3	0	0			0	4		
Proportion Time Blocked																
Percent Grade (%)	0				7											
Right Turn Channelized					No											
Median Type | Storage	Left + Thru								1							

Critical and Follow-up Headways

Base Critical Headway (sec)		7.5	6.5	6.9		7.5	6.5	6.9		4.1				4.1		
Critical Headway (sec)		7.50	6.50	6.90		8.98	7.90	7.67		4.10				4.18		
Base Follow-Up Headway (sec)		3.5	4.0	3.3		3.5	4.0	3.3		2.2				2.2		
Follow-Up Headway (sec)		3.50	4.00	3.30		3.54	4.00	3.33		2.20				2.24		

Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)			4			18		18		6				30		
Capacity, c (veh/h)			280			330		249		1180				1051		
v/c Ratio			0.02			0.05		0.07		0.01				0.03		
95% Queue Length, Q_{95} (veh)			0.0			0.2		0.2		0.0				0.1		
Control Delay (s/veh)			18.0			16.6		20.6		8.1				8.5		
Level of Service (LOS)			C			C		C		A				A		
Approach Delay (s/veh)	18.0				18.6				0.1				0.6			
Approach LOS	C				C											

HCS7 Two-Way Stop-Control Report

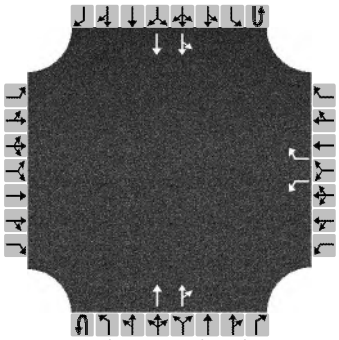
General Information

Analyst	Stephen Montaño
Agency/Co.	Lee Engineering
Date Performed	1/10/2022
Analysis Year	2022
Time Analyzed	Existing AM (7:15 AM)
Intersection Orientation	North-South
Project Description	MAS Charter School NIA

Site Information

Intersection	Yale/International
Jurisdiction	CABQ
East/West Street	International Ave
North/South Street	Yale Blvd
Peak Hour Factor	0.92
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	0	0		1	0	1	0	0	2	0	0	0	2	0
Configuration						L		R			T	TR		LT	T	
Volume (veh/h)						26		15			288	17		16	271	
Percent Heavy Vehicles (%)						4		0						0		
Proportion Time Blocked																
Percent Grade (%)						0										
Right Turn Channelized						No										
Median Type | Storage		Left + Thru								1						

Critical and Follow-up Headways

Base Critical Headway (sec)						7.5		6.9						4.1		
Critical Headway (sec)						6.88		6.90						4.10		
Base Follow-Up Headway (sec)						3.5		3.3						2.2		
Follow-Up Headway (sec)						3.54		3.30						2.20		

Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)						28		16						17		
Capacity, c (veh/h)						561		852						1239		
v/c Ratio						0.05		0.02						0.01		
95% Queue Length, Q_{95} (veh)						0.2		0.1						0.0		
Control Delay (s/veh)						11.8		9.3						7.9		
Level of Service (LOS)						B		A						A		
Approach Delay (s/veh)						10.9								0.5		
Approach LOS						B										

HCS7 Two-Way Stop-Control Report

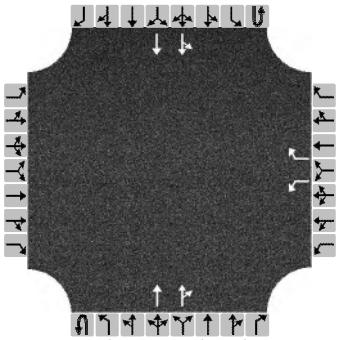
General Information

Analyst	Stephen Montaño
Agency/Co.	Lee Engineering
Date Performed	1/10/2022
Analysis Year	2022
Time Analyzed	Existing PM (4:15 PM)
Intersection Orientation	North-South
Project Description	MAS Charter School NIA

Site Information

Intersection	Yale/International
Jurisdiction	CABQ
East/West Street	International Ave
North/South Street	Yale Blvd
Peak Hour Factor	0.93
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	0	0		1	0	1	0	0	2	0	0	0	2	0
Configuration						L		R			T	TR		LT	T	
Volume (veh/h)						13		39			364	28		18	364	
Percent Heavy Vehicles (%)						8		0						0		
Proportion Time Blocked																
Percent Grade (%)						0										
Right Turn Channelized						No										
Median Type | Storage		Left + Thru								1						

Critical and Follow-up Headways

Base Critical Headway (sec)						7.5		6.9						4.1		
Critical Headway (sec)						6.96		6.90						4.10		
Base Follow-Up Headway (sec)						3.5		3.3						2.2		
Follow-Up Headway (sec)						3.58		3.30						2.20		

Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)						14		42						19		
Capacity, c (veh/h)						483		797						1149		
v/c Ratio						0.03		0.05						0.02		
95% Queue Length, Q_{95} (veh)						0.1		0.2						0.1		
Control Delay (s/veh)						12.7		9.8						8.2		
Level of Service (LOS)						B		A						A		
Approach Delay (s/veh)						10.5								0.5		
Approach LOS						B										

HCS7 Two-Way Stop-Control Report

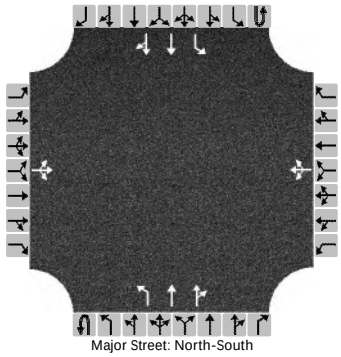
General Information

Analyst	Stephen Montaño
Agency/Co.	Lee Engineering
Date Performed	1/10/2022
Analysis Year	2022
Time Analyzed	Existing AM (7:15 AM)
Intersection Orientation	North-South
Project Description	MAS Charter School NIA

Site Information

Intersection	Yale/Centre
Jurisdiction	CABQ
East/West Street	Driveway/Centre Ave
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	2	0	0	1	2	0
Configuration			LTR				LTR			L	T	TR		L	T	TR
Volume (veh/h)		2	0	3		37	0	14	2	8	297	47	0	19	282	6
Percent Heavy Vehicles (%)		0	0	0		0	0	7	0	0			0	0		
Proportion Time Blocked																
Percent Grade (%)	0				0											
Right Turn Channelized																
Median Type | Storage	Left + Thru								1							

Critical and Follow-up Headways

Base Critical Headway (sec)		7.5	6.5	6.9		7.5	6.5	6.9	6.4	4.1				4.1		
Critical Headway (sec)		7.50	6.50	6.90		7.50	6.50	7.04	6.40	4.10				4.10		
Base Follow-Up Headway (sec)		3.5	4.0	3.3		3.5	4.0	3.3	2.5	2.2				2.2		
Follow-Up Headway (sec)		3.50	4.00	3.30		3.50	4.00	3.37	2.50	2.20				2.20		

Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)			6				59			12				22		
Capacity, c (veh/h)			647				524			1142				1159		
v/c Ratio			0.01				0.11			0.01				0.02		
95% Queue Length, Q_{95} (veh)			0.0				0.4			0.0				0.1		
Control Delay (s/veh)			10.6				12.7			8.2				8.2		
Level of Service (LOS)			B				B			A				A		
Approach Delay (s/veh)	10.6				12.7				0.2				0.5			
Approach LOS	B				B											

HCS7 Two-Way Stop-Control Report

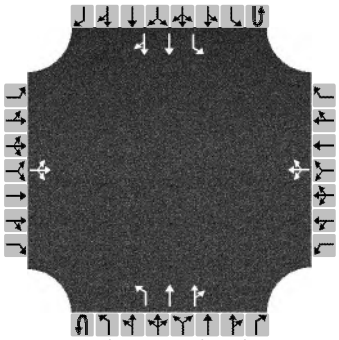
General Information

Analyst	Stephen Montaño
Agency/Co.	Lee Engineering
Date Performed	1/10/2022
Analysis Year	2022
Time Analyzed	Existing PM (4:00 PM)
Intersection Orientation	North-South
Project Description	MAS Charter School NIA

Site Information

Intersection	Yale/Centre
Jurisdiction	CABQ
East/West Street	Driveway/Centre Ave
North/South Street	Yale Blvd
Peak Hour Factor	0.90
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	2	0	0	1	2	0
Configuration			LTR				LTR			L	T	TR		L	T	TR
Volume (veh/h)		3	0	7		48	0	38	1	11	352	51	3	23	354	2
Percent Heavy Vehicles (%)		0	0	0		0	0	7	0	0			0	0		
Proportion Time Blocked																
Percent Grade (%)	0				0											
Right Turn Channelized																
Median Type | Storage	Left + Thru								1							

Critical and Follow-up Headways

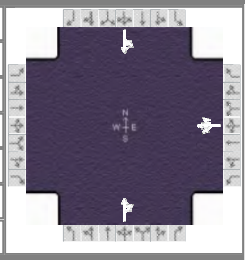
Base Critical Headway (sec)		7.5	6.5	6.9		7.5	6.5	6.9	6.4	4.1			6.4	4.1		
Critical Headway (sec)		7.50	6.50	6.90		7.50	6.50	7.04	6.40	4.10			6.40	4.10		
Base Follow-Up Headway (sec)		3.5	4.0	3.3		3.5	4.0	3.3	2.5	2.2			2.5	2.2		
Follow-Up Headway (sec)		3.50	4.00	3.30		3.50	4.00	3.37	2.50	2.20			2.50	2.20		

Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)			11				96			13				29		
Capacity, c (veh/h)			629				524			1126				1050		
v/c Ratio			0.02				0.18			0.01				0.03		
95% Queue Length, Q_{95} (veh)			0.1				0.7			0.0				0.1		
Control Delay (s/veh)			10.8				13.4			8.2				8.5		
Level of Service (LOS)			B				B			A				A		
Approach Delay (s/veh)	10.8				13.4				0.2				0.6			
Approach LOS	B				B											

HCS7 Signalized Intersection Results Summary

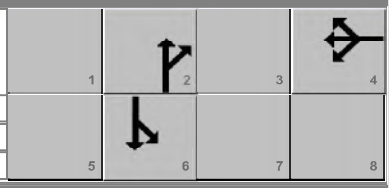
General Information				Intersection Information	
Agency				Duration, h	1.000
Analyst		Analysis Date	1/13/2022	Area Type	Other
Jurisdiction		Time Period		PHF	1.00
Urban Street	Yale Blvd	Analysis Year	2022	Analysis Period	1> 7:30
Intersection	Kathryn Ave	File Name	Kathryn_YaleDietAM.xus		
Project Description	Yale Diet AM (7:30 AM)				



Demand Information	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand (*v*), veh/h				37	0	40		300	77	97	250	

Signal Information			
Cycle, s	120.0	Reference Phase	2
Offset, s	0	Reference Point	End
Uncoordinated	No	Simult. Gap E/W	On
Force Mode	Fixed	Simult. Gap N/S	On

Green	102.9	7.1	0.0	0.0	0.0	0.0	
Yellow	4.0	3.5	0.0	0.0	0.0	0.0	
Red	1.0	1.5	0.0	0.0	0.0	0.0	



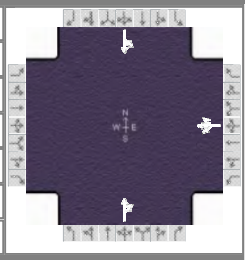
Timer Results	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Assigned Phase				4		2		6
Case Number				12.0		8.0		8.0
Phase Duration, s				12.1		107.9		107.9
Change Period, ($Y+R_c$), s				5.0		5.0		5.0
Max Allow Headway (*MAH*), s				3.2		0.0		0.0
Queue Clearance Time (g_s), s				6.5				
Green Extension Time (g_e), s				0.1		0.0		0.0
Phase Call Probability				0.89				
Max Out Probability				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		2	12	1	6	
Adjusted Flow Rate (*v*), veh/h					66			360			347	
Adjusted Saturation Flow Rate (*s*), veh/h/ln					1710			1752			1515	
Queue Service Time (g_s), s					4.5			4.4			0.0	
Cycle Queue Clearance Time (g_c), s					4.5			4.4			4.0	
Green Ratio (*g/C*)					0.06			0.86			0.86	
Capacity (*c*), veh/h					101			1502			1338	
Volume-to-Capacity Ratio (*X*)					0.651			0.240			0.259	
Back of Queue (*Q*), ft/ln (95 th percentile)					89.9			36.3			35.6	
Back of Queue (*Q*), veh/ln (95 th percentile)					3.6			1.5			1.4	
Queue Storage Ratio (*RQ*) (95 th percentile)					0.37			0.35			0.10	
Uniform Delay (d_1), s/veh					55.2			1.5			1.5	
Incremental Delay (d_2), s/veh					2.6			0.4			0.5	
Initial Queue Delay (d_3), s/veh					0.0			0.0			0.0	
Control Delay (*d*), s/veh					57.9			1.9			2.0	
Level of Service (LOS)					E			A			A	
Approach Delay, s/veh / LOS	0.0			57.9		E	1.9		A	2.0		A
Intersection Delay, s/veh / LOS	6.7						A					

Multimodal Results	EB		WB		NB		SB	
Pedestrian LOS Score / LOS	1.81	B	1.73	B	1.30	A	1.29	A
Bicycle LOS Score / LOS			0.60	A	3.36	C	3.34	C

HCS7 Signalized Intersection Results Summary

General Information				Intersection Information	
Agency				Duration, h	1.000
Analyst		Analysis Date	1/13/2022	Area Type	Other
Jurisdiction		Time Period		PHF	1.00
Urban Street	Yale Blvd	Analysis Year	2022	Analysis Period	1> 4:00
Intersection	Kathryn Ave	File Name	Kathryn_YaleDietPM.xus		
Project Description	Yale Diet PM (4:00 PM)				



Demand Information	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand (*v*), veh/h				44	0	46		537	65	65	268	

Signal Information			
Cycle, s	120.0	Reference Phase	2
Offset, s	0	Reference Point	End
Uncoordinated	No	Simult. Gap E/W	On
Force Mode	Fixed	Simult. Gap N/S	On

								1	2	3	4	
Green	0.0	0.0	0.0	0.0	0.0	0.0						
Yellow	0.0	0.0	0.0	0.0	0.0	0.0						
Red	0.0	0.0	0.0	0.0	0.0	0.0	5	6	7	8		

Timer Results	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Assigned Phase				4		2		6
Case Number				12.0		8.0		8.0
Phase Duration, s				12.4		107.6		107.6
Change Period, ($Y+R_c$), s				5.0		5.0		5.0
Max Allow Headway (*MAH*), s				0.0		0.0		0.0
Queue Clearance Time (g_s), s				0.0		0.0		0.0
Green Extension Time (g_e), s				0.0		0.0		0.0
Phase Call Probability				0.00		0.00		0.00
Max Out Probability				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		2	12	1	6	
Adjusted Flow Rate (*v*), veh/h					0			0			0	
Adjusted Saturation Flow Rate (*s*), veh/h/ln					0			0			0	
Queue Service Time (g_s), s					0.0			0.0			0.0	
Cycle Queue Clearance Time (g_c), s					0.0			0.0			0.0	
Green Ratio (*g/C*)					0.06			0.86			0.86	
Capacity (*c*), veh/h					97			1599			1368	
Volume-to-Capacity Ratio (*X*)					0.793			0.364			0.243	
Back of Queue (*Q*), ft/ln (95 th percentile)					108.7			69.6			34.3	
Back of Queue (*Q*), veh/ln (95 th percentile)					4.3			2.8			1.4	
Queue Storage Ratio (*RQ*) (95 th percentile)					0.45			0.66			0.10	
Uniform Delay (d_1), s/veh					55.6			1.8			1.5	
Incremental Delay (d_2), s/veh					5.6			0.6			0.4	
Initial Queue Delay (d_3), s/veh					0.0			0.0			0.0	
Control Delay (*d*), s/veh					61.2			2.5			2.0	
Level of Service (LOS)					E			A			A	
Approach Delay, s/veh / LOS	0.0			61.2		E	2.5		A	2.0		A
Intersection Delay, s/veh / LOS	6.9						A					

Multimodal Results	EB		WB		NB		SB	
Pedestrian LOS Score / LOS	1.81	B	1.73	B	1.31	A	1.29	A
Bicycle LOS Score / LOS			0.61	A	3.73	D	3.32	C

HCS7 Two-Way Stop-Control Report

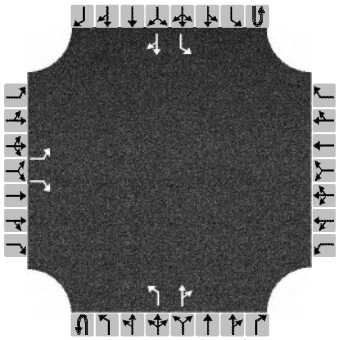
General Information

Analyst	Stephen Montaño
Agency/Co.	Lee Engineering
Date Performed	1/10/2022
Analysis Year	2022
Time Analyzed	Build Out AM (7:30 AM)
Intersection Orientation	North-South
Project Description	MAS Charter School NIA

Site Information

Intersection	Yale/Anderson
Jurisdiction	CABQ
East/West Street	Anderson Ave/Community Ce
North/South Street	Yale Blvd
Peak Hour Factor	0.91
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		1	0	1		0	0	0	0	1	1	0	0	1	1	0
Configuration		L		R						L		TR		L		TR
Volume (veh/h)		25		121						8	367	5		8	276	21
Percent Heavy Vehicles (%)		0		0						0				13		
Proportion Time Blocked																
Percent Grade (%)	0															
Right Turn Channelized	No															
Median Type | Storage	Left + Thru								1							

Critical and Follow-up Headways

Base Critical Headway (sec)		7.1		6.2						4.1				4.1		
Critical Headway (sec)		7.10		6.20						4.10				4.23		
Base Follow-Up Headway (sec)		3.5		3.3						2.2				2.2		
Follow-Up Headway (sec)		3.50		3.30						2.20				2.32		

Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)		27		133						9				9		
Capacity, c (veh/h)		437		730						1245				1093		
v/c Ratio		0.06		0.18						0.01				0.01		
95% Queue Length, Q_{95} (veh)		0.2		0.7						0.0				0.0		
Control Delay (s/veh)		13.8		11.0						7.9				8.3		
Level of Service (LOS)		B		B						A				A		
Approach Delay (s/veh)	11.5								0.2				0.2			
Approach LOS	B															

HCS7 Two-Way Stop-Control Report

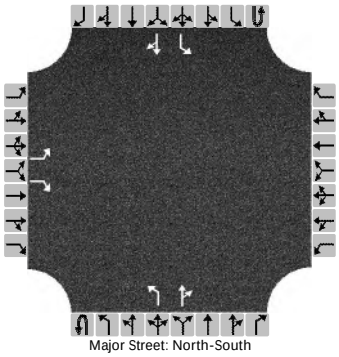
General Information

Analyst	Stephen Montaño
Agency/Co.	Lee Engineering
Date Performed	1/10/2022
Analysis Year	2022
Time Analyzed	Yale Diet PM (4:00 PM)
Intersection Orientation	North-South
Project Description	MAS Charter School NIA

Site Information

Intersection	Yale/Anderson
Jurisdiction	CABQ
East/West Street	Anderson Ave/Community Ce
North/South Street	Yale Blvd
Peak Hour Factor	0.91
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		1	0	1		0	0	0	0	1	1	0	0	1	1	0
Configuration		L		R						L		TR		L		TR
Volume (veh/h)		25		8						7	548	23		26	268	7
Percent Heavy Vehicles (%)		0		1						0				13		
Proportion Time Blocked																
Percent Grade (%)		0														
Right Turn Channelized		No														
Median Type | Storage		Left + Thru								1						

Critical and Follow-up Headways

Base Critical Headway (sec)		7.1		6.2						4.1				4.1		
Critical Headway (sec)		7.10		6.21						4.10				4.23		
Base Follow-Up Headway (sec)		3.5		3.3						2.2				2.2		
Follow-Up Headway (sec)		3.50		3.31						2.20				2.32		

Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)		27		9						8				29		
Capacity, c (veh/h)		335		744						1270				903		
v/c Ratio		0.08		0.01						0.01				0.03		
95% Queue Length, Q_{95} (veh)		0.3		0.0						0.0				0.1		
Control Delay (s/veh)		16.7		9.9						7.9				9.1		
Level of Service (LOS)		C		A						A				A		
Approach Delay (s/veh)		15.1								0.1				0.8		
Approach LOS		C														

HCS7 Two-Way Stop-Control Report

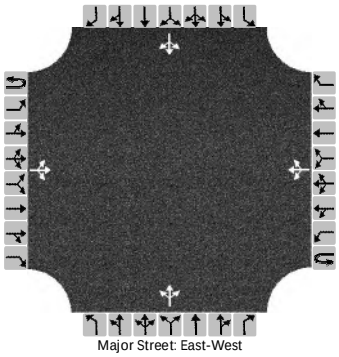
General Information

Analyst	Stephen Montaño
Agency/Co.	Lee Engineering
Date Performed	1/10/2022
Analysis Year	2022
Time Analyzed	Build-Out AM (7:15 AM)
Intersection Orientation	East-West
Project Description	MAS Charter School NIA

Site Information

Intersection	Kathryn/East Alley
Jurisdiction	CABQ
East/West Street	East Alley
North/South Street	East Alley
Peak Hour Factor	0.81
Analysis Time Period (hrs)	1.00

Lanes


Major Street: East-West

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)		8	40	167		33	69	4		0	0	0		6	0	6
Percent Heavy Vehicles (%)		13				0				0	0	0		0	0	17
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)		4.23				4.10				7.10	6.50	6.20		7.10	6.50	6.37
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)		2.32				2.20				3.50	4.00	3.30		3.50	4.00	3.45

Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)		10				41					0				15	
Capacity, c (veh/h)		1439				1321									728	
v/c Ratio		0.01				0.03									0.02	
95% Queue Length, Q_{95} (veh)		0.0				0.1									0.1	
Control Delay (s/veh)		7.5				7.8									10.0	
Level of Service (LOS)		A				A									B	
Approach Delay (s/veh)	0.3				2.6								10.0			
Approach LOS													B			

HCS7 Two-Way Stop-Control Report

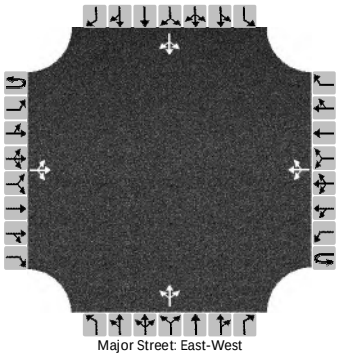
General Information

Analyst	Stephen Montaño
Agency/Co.	Lee Engineering
Date Performed	1/10/2022
Analysis Year	2022
Time Analyzed	Build Out PM (4:15 PM)
Intersection Orientation	East-West
Project Description	MAS Charter School NIA

Site Information

Intersection	Kathryn/East Alley
Jurisdiction	CABQ
East/West Street	East Alley
North/South Street	East Alley
Peak Hour Factor	0.81
Analysis Time Period (hrs)	1.00

Lanes


Major Street: East-West

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)		12	83	83		16	72	7		0	0	0		0	0	21
Percent Heavy Vehicles (%)		0				0				0	0	0		0	0	0
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)		4.10				4.10				7.10	6.50	6.20		7.10	6.50	6.20
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)		2.20				2.20				3.50	4.00	3.30		3.50	4.00	3.30

Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)		15				20					0				26	
Capacity, c (veh/h)		1508				1379									969	
v/c Ratio		0.01				0.01									0.03	
95% Queue Length, Q_{95} (veh)		0.0				0.0									0.1	
Control Delay (s/veh)		7.4				7.6									8.8	
Level of Service (LOS)		A				A									A	
Approach Delay (s/veh)	0.6				1.4								8.8			
Approach LOS													A			

HCS7 Two-Way Stop-Control Report

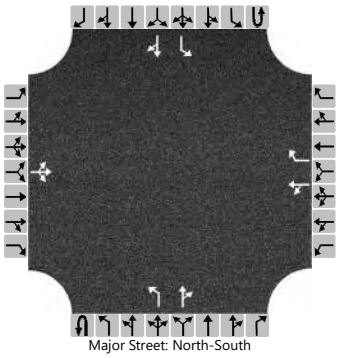
General Information

Analyst	Stephen Montaño
Agency/Co.	Lee Engineering
Date Performed	1/22/2022
Analysis Year	2022
Time Analyzed	Yale Diet AM (7:30 AM)
Intersection Orientation	North-South
Project Description	MAS Charter School NIA

Site Information

Intersection	Yale/Ross
Jurisdiction	CABQ
East/West Street	Ross Ave
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	1	0	1	1	0	0	1	1	0
Configuration			LTR			LT		R		L		TR		L		TR
Volume (veh/h)		6	3	16		81	7	141		39	270	32		24	284	35
Percent Heavy Vehicles (%)		0	33	3		1	0	2		0				0		
Proportion Time Blocked																
Percent Grade (%)	0				7											
Right Turn Channelized					No											
Median Type | Storage	Left Only								1							

Critical and Follow-up Headways

Base Critical Headway (sec)		7.1	6.5	6.2		7.1	6.5	6.2		4.1				4.1		
Critical Headway (sec)		7.10	6.83	6.23		8.51	7.90	6.92		4.10				4.10		
Base Follow-Up Headway (sec)		3.5	4.0	3.3		3.5	4.0	3.3		2.2				2.2		
Follow-Up Headway (sec)		3.50	4.30	3.33		3.51	4.00	3.32		2.20				2.20		

Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)			29			102		164		45				28		
Capacity, c (veh/h)			328			289		413		1199				1219		
v/c Ratio			0.09			0.35		0.40		0.04				0.02		
95% Queue Length, Q_{95} (veh)			0.3			1.6		1.9		0.1				0.1		
Control Delay (s/veh)			17.0			24.2		19.4		8.1				8.0		
Level of Service (LOS)			C			C		C		A				A		
Approach Delay (s/veh)	17.0				21.3				0.9				0.6			
Approach LOS	C				C											

HCS7 Two-Way Stop-Control Report

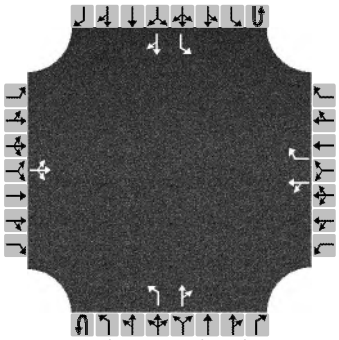
General Information

Analyst	Stephen Montaño
Agency/Co.	Lee Engineering
Date Performed	1/10/2022
Analysis Year	2022
Time Analyzed	Yale Diet PM (4:00 PM)
Intersection Orientation	North-South
Project Description	MAS Charter School NIA

Site Information

Intersection	Yale/Ross
Jurisdiction	CABQ
East/West Street	Ross Ave
North/South Street	Yale Blvd
Peak Hour Factor	0.94
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	1	0	1	1	0	0	1	1	0
Configuration			LTR			LT		R		L		TR		L		TR
Volume (veh/h)		2	1	1		17	0	17		6	429	21		28	401	5
Percent Heavy Vehicles (%)		0	0	0		4	0	3		0				4		
Proportion Time Blocked																
Percent Grade (%)	0				7											
Right Turn Channelized					No											
Median Type | Storage	Left + Thru								1							

Critical and Follow-up Headways

Base Critical Headway (sec)		7.1	6.5	6.2		7.1	6.5	6.2		4.1				4.1		
Critical Headway (sec)		7.10	6.50	6.20		8.54	7.90	6.93		4.10				4.14		
Base Follow-Up Headway (sec)		3.5	4.0	3.3		3.5	4.0	3.3		2.2				2.2		
Follow-Up Headway (sec)		3.50	4.00	3.30		3.54	4.00	3.33		2.20				2.24		

Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)			4			18		18		6				30		
Capacity, c (veh/h)			220			272		200		1114				1058		
v/c Ratio			0.02			0.07		0.09		0.01				0.03		
95% Queue Length, Q_{95} (veh)			0.1			0.2		0.3		0.0				0.1		
Control Delay (s/veh)			21.7			19.2		24.8		8.3				8.5		
Level of Service (LOS)			C			C		C		A				A		
Approach Delay (s/veh)	21.7				22.0				0.1				0.5			
Approach LOS	C				C											

HCS7 Two-Way Stop-Control Report

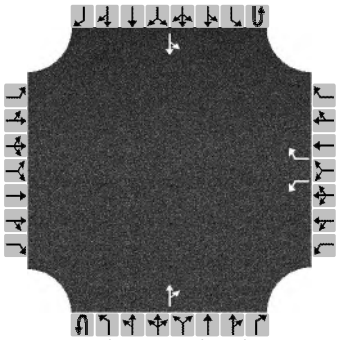
General Information

Analyst	Stephen Montaño
Agency/Co.	Lee Engineering
Date Performed	1/10/2022
Analysis Year	2022
Time Analyzed	Existing AM (7:15 AM)
Intersection Orientation	North-South
Project Description	MAS Charter School NIA

Site Information

Intersection	Yale/International
Jurisdiction	CABQ
East/West Street	International Ave
North/South Street	Yale Blvd
Peak Hour Factor	0.92
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	0	0		1	0	1	0	0	1	0	0	0	1	0
Configuration						L		R				TR		LT		
Volume (veh/h)						26		15			288	17		16	271	
Percent Heavy Vehicles (%)						4		0						0		
Proportion Time Blocked																
Percent Grade (%)						0										
Right Turn Channelized						No										
Median Type | Storage		Left + Thru								1						

Critical and Follow-up Headways

Base Critical Headway (sec)						7.1		6.2						4.1		
Critical Headway (sec)						6.44		6.20						4.10		
Base Follow-Up Headway (sec)						3.5		3.3						2.2		
Follow-Up Headway (sec)						3.53		3.30						2.20		

Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)						28		16						17		
Capacity, c (veh/h)						522		720						1239		
v/c Ratio						0.05		0.02						0.01		
95% Queue Length, Q_{95} (veh)						0.2		0.1						0.0		
Control Delay (s/veh)						12.3		10.1						7.9		
Level of Service (LOS)						B		B						A		
Approach Delay (s/veh)						11.5								0.6		
Approach LOS						B										

HCS7 Two-Way Stop-Control Report

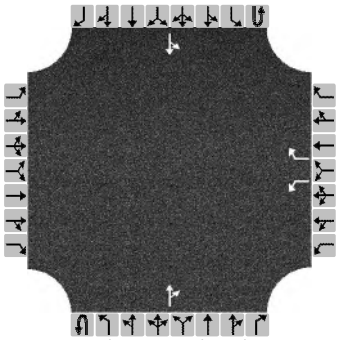
General Information

Analyst	Stephen Montaño
Agency/Co.	Lee Engineering
Date Performed	1/10/2022
Analysis Year	2022
Time Analyzed	Yale Diet PM (4:15 PM)
Intersection Orientation	North-South
Project Description	MAS Charter School NIA

Site Information

Intersection	Yale/International
Jurisdiction	CABQ
East/West Street	International Ave
North/South Street	Yale Blvd
Peak Hour Factor	0.93
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	0	0		1	0	1	0	0	1	0	0	0	1	0
Configuration						L		R				TR		LT		
Volume (veh/h)						13		39			364	28		18	364	
Percent Heavy Vehicles (%)						8		0						0		
Proportion Time Blocked																
Percent Grade (%)						0										
Right Turn Channelized						No										
Median Type | Storage		Left + Thru								1						

Critical and Follow-up Headways

Base Critical Headway (sec)						7.1		6.2						4.1		
Critical Headway (sec)						6.48		6.20						4.10		
Base Follow-Up Headway (sec)						3.5		3.3						2.2		
Follow-Up Headway (sec)						3.57		3.30						2.20		

Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)						14		42						19		
Capacity, c (veh/h)						441		646						1149		
v/c Ratio						0.03		0.06						0.02		
95% Queue Length, Q_{95} (veh)						0.1		0.2						0.1		
Control Delay (s/veh)						13.4		11.0						8.2		
Level of Service (LOS)						B		B						A		
Approach Delay (s/veh)						11.6								0.6		
Approach LOS						B										

HCS7 Two-Way Stop-Control Report

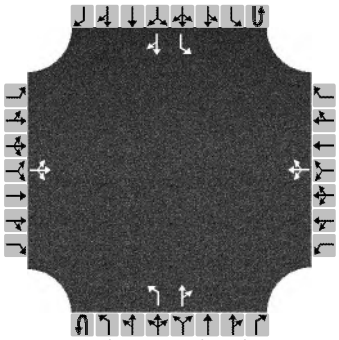
General Information

Analyst	Stephen Montaño
Agency/Co.	Lee Engineering
Date Performed	1/10/2022
Analysis Year	2022
Time Analyzed	Yale Diet AM (7:15 AM)
Intersection Orientation	North-South
Project Description	MAS Charter School NIA

Site Information

Intersection	Yale/Centre
Jurisdiction	CABQ
East/West Street	Driveway/Centre Ave
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	1	0	0	1	1	0
Configuration			LTR				LTR			L		TR		L		TR
Volume (veh/h)		2	0	3		37	0	14		8	297	47		19	282	6
Percent Heavy Vehicles (%)		0	0	0		0	0	7		0				0		
Proportion Time Blocked																
Percent Grade (%)	0				0											
Right Turn Channelized																
Median Type | Storage	Left + Thru								1							

Critical and Follow-up Headways

Base Critical Headway (sec)		7.1	6.5	6.2		7.1	6.5	6.2		4.1				4.1		
Critical Headway (sec)		7.10	6.50	6.20		7.10	6.50	6.27		4.10				4.10		
Base Follow-Up Headway (sec)		3.5	4.0	3.3		3.5	4.0	3.3		2.2				2.2		
Follow-Up Headway (sec)		3.50	4.00	3.30		3.50	4.00	3.36		2.20				2.20		

Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)			6				59			9				22		
Capacity, c (veh/h)			552				470			1231				1159		
v/c Ratio			0.01				0.13			0.01				0.02		
95% Queue Length, Q_{95} (veh)			0.0				0.4			0.0				0.1		
Control Delay (s/veh)			11.6				13.8			7.9				8.2		
Level of Service (LOS)			B				B			A				A		
Approach Delay (s/veh)	11.6				13.8				0.2				0.5			
Approach LOS	B				B											

HCS7 Two-Way Stop-Control Report

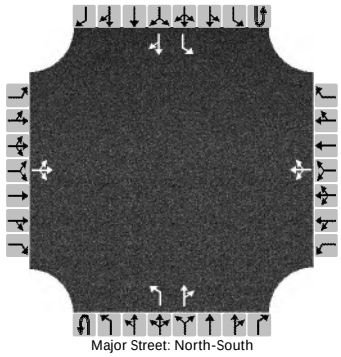
General Information

Analyst	Stephen Montaño
Agency/Co.	Lee Engineering
Date Performed	1/10/2022
Analysis Year	2022
Time Analyzed	Yale Diet PM (4:00 PM)
Intersection Orientation	North-South
Project Description	MAS Charter School NIA

Site Information

Intersection	Yale/Centre
Jurisdiction	CABQ
East/West Street	Driveway/Centre Ave
North/South Street	Yale Blvd
Peak Hour Factor	0.90
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	1	0	0	1	1	0
Configuration			LTR				LTR			L		TR		L		TR
Volume (veh/h)		3	0	7		48	0	38		11	352	51		23	354	2
Percent Heavy Vehicles (%)		0	0	0		0	0	7		0				0		
Proportion Time Blocked																
Percent Grade (%)		0				0										
Right Turn Channelized																
Median Type | Storage		Left + Thru								1						

Critical and Follow-up Headways

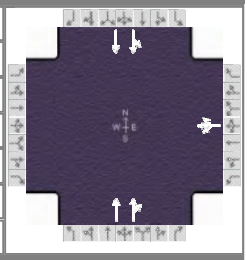
Base Critical Headway (sec)		7.1	6.5	6.2		7.1	6.5	6.2		4.1				4.1		
Critical Headway (sec)		7.10	6.50	6.20		7.10	6.50	6.27		4.10				4.10		
Base Follow-Up Headway (sec)		3.5	4.0	3.3		3.5	4.0	3.3		2.2				2.2		
Follow-Up Headway (sec)		3.50	4.00	3.30		3.50	4.00	3.36		2.20				2.20		

Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)			11				96			12				26		
Capacity, c (veh/h)			519				455			1168				1119		
v/c Ratio			0.02				0.21			0.01				0.02		
95% Queue Length, Q_{95} (veh)			0.1				0.8			0.0				0.1		
Control Delay (s/veh)			12.1				15.0			8.1				8.3		
Level of Service (LOS)			B				C			A				A		
Approach Delay (s/veh)		12.1				15.0				0.2				0.5		
Approach LOS		B				C										

HCS7 Signalized Intersection Results Summary

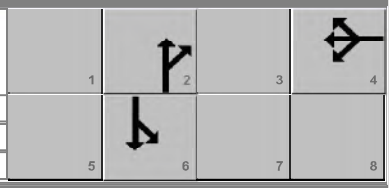
General Information				Intersection Information	
Agency				Duration, h	1.000
Analyst		Analysis Date	1/13/2022	Area Type	Other
Jurisdiction		Time Period		PHF	1.00
Urban Street	Yale Blvd	Analysis Year	2022	Analysis Period	1> 7:30
Intersection	Kathryn Ave	File Name	Kathryn_SouthLoopAM.xus		
Project Description	South Loop AM (7:30 AM)				



Demand Information	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand (*v*), veh/h				70	0	40		300	67	85	413	

Signal Information			
Cycle, s	120.0	Reference Phase	2
Offset, s	0	Reference Point	End
Uncoordinated	No	Simult. Gap E/W	On
Force Mode	Fixed	Simult. Gap N/S	On

Green	101.5	8.5	0.0	0.0	0.0	0.0	
Yellow	4.0	3.5	0.0	0.0	0.0	0.0	
Red	1.0	1.5	0.0	0.0	0.0	0.0	



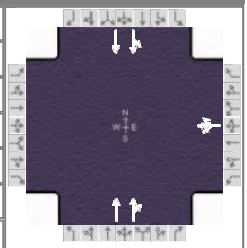
Timer Results	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Assigned Phase				4		2		6
Case Number				12.0		8.0		8.0
Phase Duration, s				13.5		106.5		106.5
Change Period, ($Y+R_c$), s				5.0		5.0		5.0
Max Allow Headway (*MAH*), s				3.1		0.0		0.0
Queue Clearance Time (g_s), s				8.7				
Green Extension Time (g_e), s				0.1		0.0		0.0
Phase Call Probability				0.96				
Max Out Probability				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		2	12	1	6	
Adjusted Flow Rate (*v*), veh/h					99			180	172	239	259	
Adjusted Saturation Flow Rate (*s*), veh/h/ln					1744			1806	1697	1441	1667	
Queue Service Time (g_s), s					6.7			3.9	2.1	0.1	6.1	
Cycle Queue Clearance Time (g_c), s					6.7			3.9	2.1	3.9	6.1	
Green Ratio (*g/C*)					0.07			0.85	0.85	0.85	0.85	
Capacity (*c*), veh/h					124			1527	1436	1259	1410	
Volume-to-Capacity Ratio (*X*)					0.800			0.118	0.120	0.190	0.184	
Back of Queue (*Q*), ft/ln (95 th percentile)					137.6			19.2	18.8	27.7	30.3	
Back of Queue (*Q*), veh/ln (95 th percentile)					5.5			0.8	0.8	1.1	1.2	
Queue Storage Ratio (*RQ*) (95 th percentile)					0.57			0.18	0.18	0.08	0.08	
Uniform Delay (d_1), s/veh					54.9			1.6	1.6	1.6	1.7	
Incremental Delay (d_2), s/veh					4.6			0.2	0.2	0.3	0.3	
Initial Queue Delay (d_3), s/veh					0.0			0.0	0.0	0.0	0.0	
Control Delay (*d*), s/veh					59.5			1.7	1.8	2.0	2.0	
Level of Service (LOS)					E			A	A	A	A	
Approach Delay, s/veh / LOS	0.0			59.5		E	1.8		A	2.0		A
Intersection Delay, s/veh / LOS	7.9						A					

Multimodal Results	EB		WB		NB		SB	
Pedestrian LOS Score / LOS	2.22	B	2.15	B	1.31	A	1.29	A
Bicycle LOS Score / LOS			0.65	A	3.06	C	3.18	C

HCS7 Signalized Intersection Results Summary

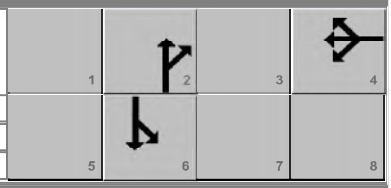
General Information				Intersection Information	
Agency				Duration, h	1.000
Analyst		Analysis Date	1/13/2022	Area Type	Other
Jurisdiction		Time Period		PHF	1.00
Urban Street	Yale Blvd	Analysis Year	2022	Analysis Period	1> 4:00
Intersection	Kathryn Ave	File Name	Kathryn_SouthLoopPM.xus		
Project Description	South Loop PM (4:00 PM)				



Demand Information	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand (*v*), veh/h				16	0	46		537	31	29	351	

Signal Information			
Cycle, s	120.0	Reference Phase	2
Offset, s	0	Reference Point	End
Uncoordinated	No	Simult. Gap E/W	On
Force Mode	Fixed	Simult. Gap N/S	On

Green	103.6	6.4	0.0	0.0	0.0	0.0	
Yellow	4.0	3.5	0.0	0.0	0.0	0.0	
Red	1.0	1.5	0.0	0.0	0.0	0.0	



Timer Results	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Assigned Phase				4		2		6
Case Number				12.0		8.0		8.0
Phase Duration, s				11.4		108.6		108.6
Change Period, ($Y+R_c$), s				5.0		5.0		5.0
Max Allow Headway (*MAH*), s				3.4		0.0		0.0
Queue Clearance Time (g_s), s				5.7				
Green Extension Time (g_e), s				0.1		0.0		0.0
Phase Call Probability				0.80				
Max Out Probability				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		2	12	1	6	
Adjusted Flow Rate (*v*), veh/h					49			284	277	191	189	
Adjusted Saturation Flow Rate (*s*), veh/h/ln					1552			1900	1852	1638	1715	
Queue Service Time (g_s), s					3.7			6.1	2.9	0.0	4.3	
Cycle Queue Clearance Time (g_c), s					3.7			6.1	2.9	1.8	4.3	
Green Ratio (*g/C*)					0.05			0.86	0.86	0.86	0.86	
Capacity (*c*), veh/h					83			1640	1598	1448	1480	
Volume-to-Capacity Ratio (*X*)					0.589			0.173	0.174	0.132	0.128	
Back of Queue (*Q*), ft/ln (95 th percentile)					66.8			22.8	22.8	15.3	15.1	
Back of Queue (*Q*), veh/ln (95 th percentile)					2.7			0.9	0.9	0.6	0.6	
Queue Storage Ratio (*RQ*) (95 th percentile)					0.28			0.22	0.22	0.04	0.04	
Uniform Delay (d_1), s/veh					55.5			1.3	1.3	1.3	1.3	
Incremental Delay (d_2), s/veh					2.5			0.2	0.2	0.2	0.2	
Initial Queue Delay (d_3), s/veh					0.0			0.0	0.0	0.0	0.0	
Control Delay (*d*), s/veh					58.0			1.6	1.6	1.4	1.4	
Level of Service (LOS)					E			A	A	A	A	
Approach Delay, s/veh / LOS	0.0			58.0		E	1.6		A	1.4		A
Intersection Delay, s/veh / LOS	4.3						A					

Multimodal Results	EB		WB		NB		SB	
Pedestrian LOS Score / LOS	2.21	B	2.15	B	1.30	A	1.29	A
Bicycle LOS Score / LOS			0.57	A	3.23	C	3.08	C

HCS7 Two-Way Stop-Control Report

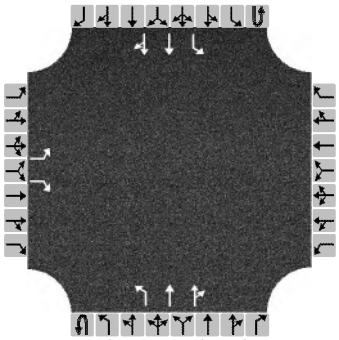
General Information

Analyst	Stephen Montaño
Agency/Co.	Lee Engineering
Date Performed	1/10/2022
Analysis Year	2022
Time Analyzed	South Loop AM (7:30 AM)
Intersection Orientation	North-South
Project Description	MAS Charter School NIA

Site Information

Intersection	Yale/Anderson
Jurisdiction	CABQ
East/West Street	Anderson Ave/Community Ce
North/South Street	Yale Blvd
Peak Hour Factor	0.91
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		1	0	1		0	0	0	0	1	2	0	0	1	2	0
Configuration		L		R						L	T	TR		L	T	TR
Volume (veh/h)		25		7					0	8	367	5	1	8	472	21
Percent Heavy Vehicles (%)		0		0					0	0			0	13		
Proportion Time Blocked																
Percent Grade (%)	0															
Right Turn Channelized	No															
Median Type | Storage	Left + Thru								1							

Critical and Follow-up Headways

Base Critical Headway (sec)		7.5		6.9						4.1			6.4	4.1		
Critical Headway (sec)		7.50		6.90						4.10			6.40	4.36		
Base Follow-Up Headway (sec)		3.5		3.3						2.2			2.5	2.2		
Follow-Up Headway (sec)		3.50		3.30						2.20			2.50	2.33		

Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)		27		8						9				10		
Capacity, c (veh/h)		391		733						1037				1033		
v/c Ratio		0.07		0.01						0.01				0.01		
95% Queue Length, Q_{95} (veh)		0.2		0.0						0.0				0.0		
Control Delay (s/veh)		14.9		10.0						8.5				8.5		
Level of Service (LOS)		B		A						A				A		
Approach Delay (s/veh)	13.8								0.2				0.2			
Approach LOS	B															

HCS7 Two-Way Stop-Control Report

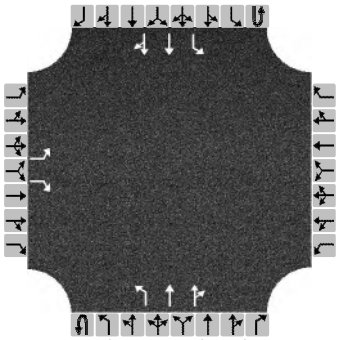
General Information

Analyst	Stephen Montaño
Agency/Co.	Lee Engineering
Date Performed	1/10/2022
Analysis Year	2022
Time Analyzed	South Loop PM (4:00 PM)
Intersection Orientation	North-South
Project Description	MAS Charter School NIA

Site Information

Intersection	Yale/Anderson
Jurisdiction	CABQ
East/West Street	Anderson Ave/Community Ce
North/South Street	Yale Blvd
Peak Hour Factor	0.91
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		1	0	1		0	0	0	0	1	2	0	0	1	2	0
Configuration		L		R						L	T	TR		L	T	TR
Volume (veh/h)		23		8					0	7	548	23	1	26	367	7
Percent Heavy Vehicles (%)		0		1					0	0			0	13		
Proportion Time Blocked																
Percent Grade (%)	0															
Right Turn Channelized	No															
Median Type | Storage	Left + Thru								1							

Critical and Follow-up Headways

Base Critical Headway (sec)		7.5		6.9						4.1			6.4	4.1		
Critical Headway (sec)		7.50		6.92						4.10			6.40	4.36		
Base Follow-Up Headway (sec)		3.5		3.3						2.2			2.5	2.2		
Follow-Up Headway (sec)		3.50		3.31						2.20			2.50	2.33		

Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)		25		9						8				30		
Capacity, c (veh/h)		390		804						1159				863		
v/c Ratio		0.06		0.01						0.01				0.03		
95% Queue Length, Q_{95} (veh)		0.2		0.0						0.0				0.1		
Control Delay (s/veh)		14.9		9.5						8.1				9.3		
Level of Service (LOS)		B		A						A				A		
Approach Delay (s/veh)	13.5								0.1				0.6			
Approach LOS	B															

HCS7 Two-Way Stop-Control Report

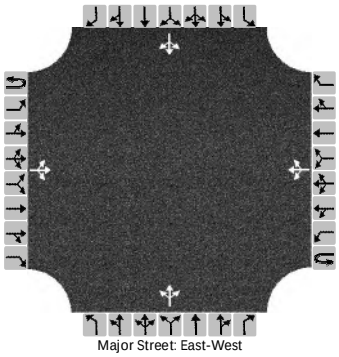
General Information

Analyst	Stephen Montaño
Agency/Co.	Lee Engineering
Date Performed	1/10/2022
Analysis Year	2022
Time Analyzed	South Loop AM (7:15 AM)
Intersection Orientation	East-West
Project Description	MAS Charter School NIA

Site Information

Intersection	Kathryn/East Alley
Jurisdiction	CABQ
East/West Street	East Alley
North/South Street	East Alley
Peak Hour Factor	0.81
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)		8	40	0		0	69	4		0	0	0		6	0	6
Percent Heavy Vehicles (%)		13				0				0	0	0		0	0	17
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)		4.23				4.10				7.10	6.50	6.20		7.10	6.50	6.37
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)		2.32				2.20				3.50	4.00	3.30		3.50	4.00	3.45

Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)		10				0					0				15	
Capacity, c (veh/h)		1439				1570									866	
v/c Ratio		0.01				0.00									0.02	
95% Queue Length, Q_{95} (veh)		0.0				0.0									0.1	
Control Delay (s/veh)		7.5				7.3									9.2	
Level of Service (LOS)		A				A									A	
Approach Delay (s/veh)	1.3				0.0								9.2			
Approach LOS													A			

HCS7 Two-Way Stop-Control Report

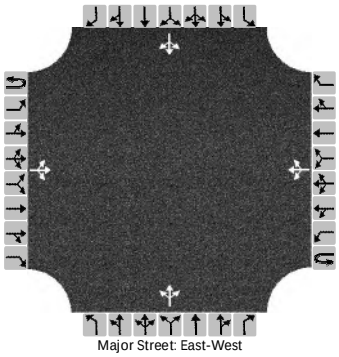
General Information

Analyst	Stephen Montaño
Agency/Co.	Lee Engineering
Date Performed	1/10/2022
Analysis Year	2022
Time Analyzed	South Loop PM (4:15 PM)
Intersection Orientation	East-West
Project Description	MAS Charter School NIA

Site Information

Intersection	Kathryn/East Alley
Jurisdiction	CABQ
East/West Street	East Alley
North/South Street	East Alley
Peak Hour Factor	0.81
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)		12	83	0		0	72	7		0	0	0		0	0	21
Percent Heavy Vehicles (%)		0				0				0	0	0		0	0	0
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)		4.10				4.10				7.10	6.50	6.20		7.10	6.50	6.20
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)		2.20				2.20				3.50	4.00	3.30		3.50	4.00	3.30

Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)		15				0					0				26	
Capacity, c (veh/h)		1508				1502									969	
v/c Ratio		0.01				0.00									0.03	
95% Queue Length, Q_{95} (veh)		0.0				0.0									0.1	
Control Delay (s/veh)		7.4				7.4									8.8	
Level of Service (LOS)		A				A									A	
Approach Delay (s/veh)	1.0				0.0								8.8			
Approach LOS													A			

HCS7 Two-Way Stop-Control Report

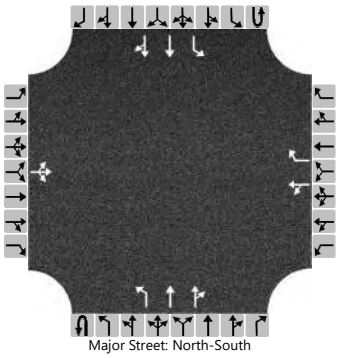
General Information

Analyst	Stephen Montaño
Agency/Co.	Lee Engineering
Date Performed	1/22/2022
Analysis Year	2022
Time Analyzed	South Loop AM (7:30 AM)
Intersection Orientation	North-South
Project Description	MAS Charter School NIA

Site Information

Intersection	Yale/Ross
Jurisdiction	CABQ
East/West Street	Ross Ave
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	1	0	1	2	0	0	1	2	0
Configuration			LTR			LT		R		L	T	TR		L	T	TR
Volume (veh/h)		6	3	16		21	2	36	0	6	270	32	0	24	392	2
Percent Heavy Vehicles (%)		0	33	3		1	0	2	0	0			0	0		
Proportion Time Blocked																
Percent Grade (%)	0				7											
Right Turn Channelized					No											
Median Type | Storage	Left + Thru								1							

Critical and Follow-up Headways

Base Critical Headway (sec)		7.5	6.5	6.9		7.5	6.5	6.9		4.1				4.1		
Critical Headway (sec)		7.50	7.16	6.96		8.92	7.90	7.64		4.10				4.10		
Base Follow-Up Headway (sec)		3.5	4.0	3.3		3.5	4.0	3.3		2.2				2.2		
Follow-Up Headway (sec)		3.50	4.33	3.33		3.51	4.00	3.32		2.20				2.20		

Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)			29			27		42		7				28		
Capacity, c (veh/h)			558			377		809		1113				1219		
v/c Ratio			0.05			0.07		0.05		0.01				0.02		
95% Queue Length, Q_{95} (veh)			0.2			0.2		0.2		0.0				0.1		
Control Delay (s/veh)			11.8			15.3		9.7		8.3				8.0		
Level of Service (LOS)			B			C		A		A				A		
Approach Delay (s/veh)	11.8				11.9				0.2				0.5			
Approach LOS	B				B											

HCS7 Two-Way Stop-Control Report

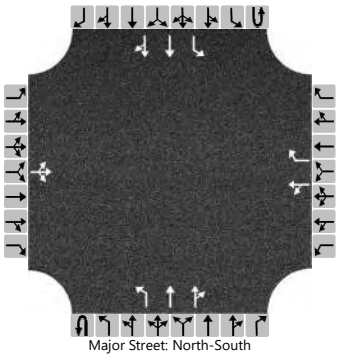
General Information

Analyst	Stephen Montaño
Agency/Co.	Lee Engineering
Date Performed	1/10/2022
Analysis Year	2022
Time Analyzed	South Loop PM (4:00 PM)
Intersection Orientation	North-South
Project Description	MAS Charter School NIA

Site Information

Intersection	Yale/Ross
Jurisdiction	CABQ
East/West Street	Ross Ave
North/South Street	Yale Blvd
Peak Hour Factor	0.94
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	1	0	1	2	0	0	1	2	0
Configuration			LTR			LT		R		L	T	TR		L	T	TR
Volume (veh/h)		2	1	1		24	0	24	0	6	429	21	0	11	436	5
Percent Heavy Vehicles (%)		0	0	0		4	0	3	0	0			0	4		
Proportion Time Blocked																
Percent Grade (%)	0				7											
Right Turn Channelized					No											
Median Type | Storage	Left + Thru								1							

Critical and Follow-up Headways

Base Critical Headway (sec)		7.5	6.5	6.9		7.5	6.5	6.9		4.1				4.1		
Critical Headway (sec)		7.50	6.50	6.90		8.98	7.90	7.67		4.10				4.18		
Base Follow-Up Headway (sec)		3.5	4.0	3.3		3.5	4.0	3.3		2.2				2.2		
Follow-Up Headway (sec)		3.50	4.00	3.30		3.54	4.00	3.33		2.20				2.24		

Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)			4			26		26		6				12		
Capacity, c (veh/h)			433			327		708		1079				1051		
v/c Ratio			0.01			0.08		0.04		0.01				0.01		
95% Queue Length, Q_{95} (veh)			0.0			0.3		0.1		0.0				0.0		
Control Delay (s/veh)			13.4			16.9		10.3		8.4				8.5		
Level of Service (LOS)			B			C		B		A				A		
Approach Delay (s/veh)	13.4				13.6				0.1				0.2			
Approach LOS	B				B											

HCS7 Two-Way Stop-Control Report

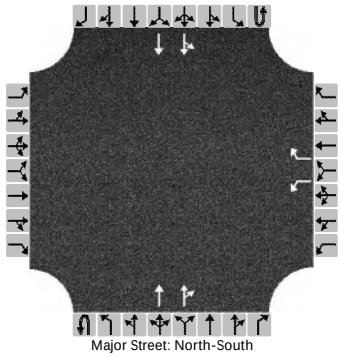
General Information

Analyst	Stephen Montaño
Agency/Co.	Lee Engineering
Date Performed	1/10/2022
Analysis Year	2022
Time Analyzed	South Loop AM (7:15 AM)
Intersection Orientation	North-South
Project Description	MAS Charter School NIA

Site Information

Intersection	Yale/International
Jurisdiction	CABQ
East/West Street	International Ave
North/South Street	Yale Blvd
Peak Hour Factor	0.92
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	0	0		1	0	1	0	0	2	0	0	0	2	0
Configuration						L		R			T	TR		LT	T	
Volume (veh/h)						226		130			288	17		16	467	
Percent Heavy Vehicles (%)						4		0						0		
Proportion Time Blocked																
Percent Grade (%)						0										
Right Turn Channelized						No										
Median Type | Storage		Left + Thru								1						

Critical and Follow-up Headways

Base Critical Headway (sec)						7.5		6.9						4.1		
Critical Headway (sec)						6.88		6.90						4.10		
Base Follow-Up Headway (sec)						3.5		3.3						2.2		
Follow-Up Headway (sec)						3.54		3.30						2.20		

Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)						246		141						17		
Capacity, c (veh/h)						512		852						1239		
v/c Ratio						0.48		0.17						0.01		
95% Queue Length, Q_{95} (veh)						2.7		0.6						0.0		
Control Delay (s/veh)						18.5		10.1						7.9		
Level of Service (LOS)						C		B						A		
Approach Delay (s/veh)						15.4								0.3		
Approach LOS						C										

HCS7 Two-Way Stop-Control Report

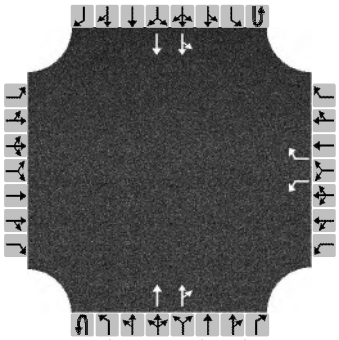
General Information

Analyst	Stephen Montaño
Agency/Co.	Lee Engineering
Date Performed	1/10/2022
Analysis Year	2022
Time Analyzed	South Loop PM (4:15 PM)
Intersection Orientation	North-South
Project Description	MAS Charter School NIA

Site Information

Intersection	Yale/International
Jurisdiction	CABQ
East/West Street	International Ave
North/South Street	Yale Blvd
Peak Hour Factor	0.93
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	0	0		1	0	1	0	0	2	0	0	0	2	0
Configuration						L		R			T	TR		LT	T	
Volume (veh/h)						61		116			364	28		18	562	
Percent Heavy Vehicles (%)						8		0						0		
Proportion Time Blocked																
Percent Grade (%)						0										
Right Turn Channelized						No										
Median Type | Storage		Left + Thru								1						

Critical and Follow-up Headways

Base Critical Headway (sec)						7.5		6.9						4.1		
Critical Headway (sec)						6.96		6.90						4.10		
Base Follow-Up Headway (sec)						3.5		3.3						2.2		
Follow-Up Headway (sec)						3.58		3.30						2.20		

Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)						66		125						19		
Capacity, c (veh/h)						441		797						1149		
v/c Ratio						0.15		0.16						0.02		
95% Queue Length, Q_{95} (veh)						0.5		0.6						0.1		
Control Delay (s/veh)						14.6		10.4						8.2		
Level of Service (LOS)						B		B						A		
Approach Delay (s/veh)						11.8								0.3		
Approach LOS						B										

HCS7 Two-Way Stop-Control Report

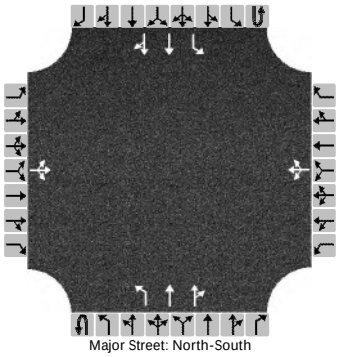
General Information

Analyst	Stephen Montaño
Agency/Co.	Lee Engineering
Date Performed	1/10/2022
Analysis Year	2022
Time Analyzed	South Loop AM (7:15 AM)
Intersection Orientation	North-South
Project Description	MAS Charter School NIA

Site Information

Intersection	Yale/Centre
Jurisdiction	CABQ
East/West Street	Driveway/Centre Ave
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	2	0	0	1	2	0
Configuration			LTR				LTR			L	T	TR		L	T	TR
Volume (veh/h)		2	0	3		37	0	14	2	8	297	128	0	452	282	6
Percent Heavy Vehicles (%)		0	0	0		0	0	7	0	0			0	0		
Proportion Time Blocked																
Percent Grade (%)	0				0											
Right Turn Channelized																
Median Type | Storage	Left + Thru								1							

Critical and Follow-up Headways

Base Critical Headway (sec)		7.5	6.5	6.9		7.5	6.5	6.9	6.4	4.1				4.1		
Critical Headway (sec)		7.50	6.50	6.90		7.50	6.50	7.04	6.40	4.10				4.10		
Base Follow-Up Headway (sec)		3.5	4.0	3.3		3.5	4.0	3.3	2.5	2.2				2.2		
Follow-Up Headway (sec)		3.50	4.00	3.30		3.50	4.00	3.37	2.50	2.20				2.20		

Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)			6				59			12				526		
Capacity, c (veh/h)							101			1142				1070		
v/c Ratio							0.59			0.01				0.49		
95% Queue Length, Q_{95} (veh)							3.6			0.0				2.9		
Control Delay (s/veh)							88.7			8.2				11.6		
Level of Service (LOS)							F			A				B		
Approach Delay (s/veh)					88.7				0.2				7.1			
Approach LOS					F											

HCS7 Two-Way Stop-Control Report

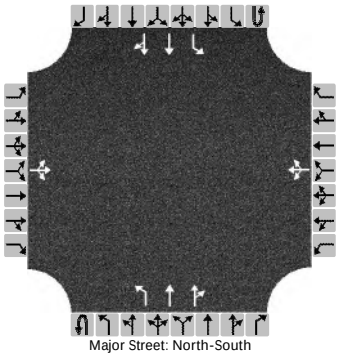
General Information

Analyst	Stephen Montaño
Agency/Co.	Lee Engineering
Date Performed	1/10/2022
Analysis Year	2022
Time Analyzed	South Loop PM (4:00 PM)
Intersection Orientation	North-South
Project Description	MAS Charter School NIA

Site Information

Intersection	Yale/Centre
Jurisdiction	CABQ
East/West Street	Driveway/Centre Ave
North/South Street	Yale Blvd
Peak Hour Factor	0.90
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	2	0	0	1	2	0
Configuration			LTR				LTR			L	T	TR		L	T	TR
Volume (veh/h)		3	0	7		48	0	38	1	11	352	107	3	221	354	2
Percent Heavy Vehicles (%)		0	0	0		0	0	7	0	0			0	0		
Proportion Time Blocked																
Percent Grade (%)	0				0											
Right Turn Channelized																
Median Type | Storage	Left + Thru								1							

Critical and Follow-up Headways

Base Critical Headway (sec)		7.5	6.5	6.9		7.5	6.5	6.9	6.4	4.1			6.4	4.1		
Critical Headway (sec)		7.50	6.50	6.90		7.50	6.50	7.04	6.40	4.10			6.40	4.10		
Base Follow-Up Headway (sec)		3.5	4.0	3.3		3.5	4.0	3.3	2.5	2.2			2.5	2.2		
Follow-Up Headway (sec)		3.50	4.00	3.30		3.50	4.00	3.37	2.50	2.20			2.50	2.20		

Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)			11				96			13				249		
Capacity, c (veh/h)			407				318			1126				1053		
v/c Ratio			0.03				0.30			0.01				0.24		
95% Queue Length, Q_{95} (veh)			0.1				1.3			0.0				0.9		
Control Delay (s/veh)			14.1				21.2			8.2				9.5		
Level of Service (LOS)			B				C			A				A		
Approach Delay (s/veh)	14.1				21.2				0.2				3.7			
Approach LOS	B				C											

HCS7 Two-Way Stop-Control Report

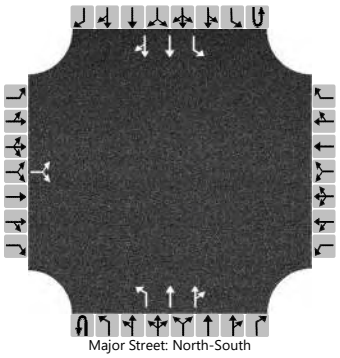
General Information

Analyst	Stephen Montaño
Agency/Co.	Lee Engineering
Date Performed	8/19/22
Analysis Year	2022
Time Analyzed	Anderson RL AM (7:30 AM)
Intersection Orientation	North-South
Project Description	MAS Charter School NIA

Site Information

Intersection	Yale/Anderson
Jurisdiction	CABQ
East/West Street	Anderson Ave/Community Ce
North/South Street	Yale Blvd
Peak Hour Factor	0.92
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	0	0	0	1	2	0	0	1	2	0
Configuration			LR							L	T	TR		L	T	TR
Volume (veh/h)		25		7					0	8	624	5	1	8	540	21
Percent Heavy Vehicles (%)		0		0					0	0			0	13		
Proportion Time Blocked																
Percent Grade (%)		0														
Right Turn Channelized																
Median Type | Storage		Left + Thru								1						

Critical and Follow-up Headways

Base Critical Headway (sec)		7.5		6.9						4.1			6.4	4.1		
Critical Headway (sec)		7.50		6.90						4.10			6.40	4.36		
Base Follow-Up Headway (sec)		3.5		3.3						2.2			2.5	2.2		
Follow-Up Headway (sec)		3.50		3.30						2.20			2.50	2.33		

Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)			35							9				10		
Capacity, c (veh/h)			369							979				787		
v/c Ratio			0.09							0.01				0.01		
95% Queue Length, Q_{95} (veh)			0.3							0.0				0.0		
Control Delay (s/veh)			15.8							8.7				9.6		
Level of Service (LOS)			C							A				A		
Approach Delay (s/veh)		15.8								0.1				0.2		
Approach LOS		C														

HCS7 Two-Way Stop-Control Report

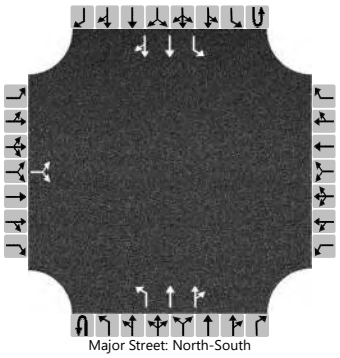
General Information

Analyst	Stephen Montaño
Agency/Co.	Lee Engineering
Date Performed	8/19/22
Analysis Year	2022
Time Analyzed	Anderson RL PM (4:00 PM)
Intersection Orientation	North-South
Project Description	MAS Charter School NIA

Site Information

Intersection	Yale/Anderson
Jurisdiction	CABQ
East/West Street	Anderson Ave/Community Ce
North/South Street	Yale Blvd
Peak Hour Factor	0.91
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	0	0	0	1	2	0	0	1	2	0
Configuration			LR							L	T	TR		L	T	TR
Volume (veh/h)		23		8					0	7	753	23	1	26	473	7
Percent Heavy Vehicles (%)		0		0					0	0			0	13		
Proportion Time Blocked																
Percent Grade (%)		0														
Right Turn Channelized																
Median Type | Storage		Left + Thru								1						

Critical and Follow-up Headways

Base Critical Headway (sec)		7.5		6.9						4.1			6.4	4.1		
Critical Headway (sec)		7.50		6.90						4.10			6.40	4.36		
Base Follow-Up Headway (sec)		3.5		3.3						2.2			2.5	2.2		
Follow-Up Headway (sec)		3.50		3.30						2.20			2.50	2.33		

Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)			34							8				30		
Capacity, c (veh/h)			365							1050				697		
v/c Ratio			0.09							0.01				0.04		
95% Queue Length, Q_{95} (veh)			0.3							0.0				0.1		
Control Delay (s/veh)			15.9							8.5				10.4		
Level of Service (LOS)			C							A				B		
Approach Delay (s/veh)		15.9								0.1				0.6		
Approach LOS		C														

HCS7 Two-Way Stop-Control Report

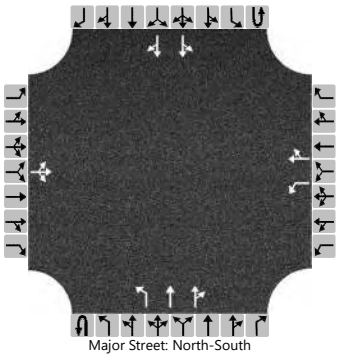
General Information

Analyst	Stephen Montaño
Agency/Co.	Lee Engineering
Date Performed	8/19/2022
Analysis Year	2022
Time Analyzed	Ross/Church AM (7:30 AM)
Intersection Orientation	North-South
Project Description	MAS Charter School NIA

Site Information

Intersection	Yale/Ross
Jurisdiction	CABQ
East/West Street	Ross Ave
North/South Street	Yale Blvd
Peak Hour Factor	0.94
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		1	1	0	0	1	2	0	0	0	2	0
Configuration			LTR			L		TR		L	T	TR		LT		TR
Volume (veh/h)		163	3	128		150	8	259	0	121	270	98		137	196	180
Percent Heavy Vehicles (%)		0	0	0		4	0	3	0	0				4		
Proportion Time Blocked																
Percent Grade (%)	0				7											
Right Turn Channelized																
Median Type | Storage	Left + Thru								1							

Critical and Follow-up Headways

Base Critical Headway (sec)		7.5	6.5	6.9		7.5	6.5	6.9		4.1				4.1		
Critical Headway (sec)		7.50	6.50	6.90		8.98	7.90	7.67		4.10				4.18		
Base Follow-Up Headway (sec)		3.5	4.0	3.3		3.5	4.0	3.3		2.2				2.2		
Follow-Up Headway (sec)		3.50	4.00	3.30		3.54	4.00	3.33		2.20				2.24		

Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)			313			160		284		129				146		
Capacity, c (veh/h)						154		259		1145				1133		
v/c Ratio						1.04		1.10		0.11				0.13		
95% Queue Length, Q_{95} (veh)						16.9		27.8		0.4				0.4		
Control Delay (s/veh)						271.8		293.1		8.5				8.6		
Level of Service (LOS)						F		F		A				A		
Approach Delay (s/veh)					285.4				2.1				2.4			
Approach LOS					F											

Pedestrian Level of Service				
Flow (ped/hr)	12	8	0	364
Two-Stage Crossing	No	No		Yes
Pedestrian Platooning	No	No		Yes
Conflicting Vehicular Flow (veh/h)				833
Average Delay (s)	1.5	2.2		10.6
Level of Service (LOS)	A	A		C

HCS7 Two-Way Stop-Control Report

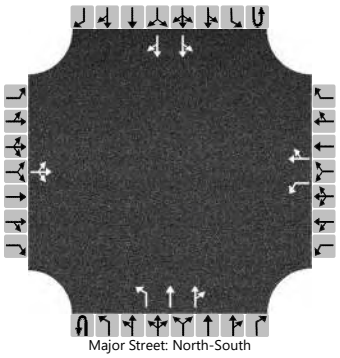
General Information

Analyst	Stephen Montaño
Agency/Co.	Lee Engineering
Date Performed	8/19/2022
Analysis Year	2022
Time Analyzed	Ross/Church AM (7:30 AM)
Intersection Orientation	North-South
Project Description	MAS Charter School NIA

Site Information

Intersection	Yale/Ross
Jurisdiction	CABQ
East/West Street	Ross Ave
North/South Street	Yale Blvd
Peak Hour Factor	0.94
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		1	1	0	0	1	2	0	0	0	2	0
Configuration			LTR			L		TR		L	T	TR		LT		TR
Volume (veh/h)		163	3	128		150	8	259	0	121	270	98		137	196	180
Percent Heavy Vehicles (%)		0	0	0		4	0	3	0	0				4		
Proportion Time Blocked																
Percent Grade (%)	0				7											
Right Turn Channelized																
Median Type | Storage	Left + Thru								1							

Critical and Follow-up Headways

Base Critical Headway (sec)		7.5	6.5	6.9		7.5	6.5	6.9		4.1				4.1		
Critical Headway (sec)		7.50	6.50	6.90		8.98	7.90	7.67		4.10				4.18		
Base Follow-Up Headway (sec)		3.5	4.0	3.3		3.5	4.0	3.3		2.2				2.2		
Follow-Up Headway (sec)		3.50	4.00	3.30		3.54	4.00	3.33		2.20				2.24		

Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)			313			160		284		129				146		
Capacity, c (veh/h)						154		259		1145				1133		
v/c Ratio						1.04		1.10		0.11				0.13		
95% Queue Length, Q_{95} (veh)						16.9		27.8		0.4				0.4		
Control Delay (s/veh)						271.8		293.1		8.5				8.6		
Level of Service (LOS)						F		F		A				A		
Approach Delay (s/veh)					285.4				2.1				2.4			
Approach LOS					F											

Pedestrian Level of Service				
Flow (ped/hr)	12	8	0	364
Two-Stage Crossing	No	No		Yes
Pedestrian Platooning	No	No		Yes
Conflicting Vehicular Flow (veh/h)				833
Average Delay (s)	1.5	2.2		10.6
Level of Service (LOS)	A	A		C

HCS7 Two-Way Stop-Control Report

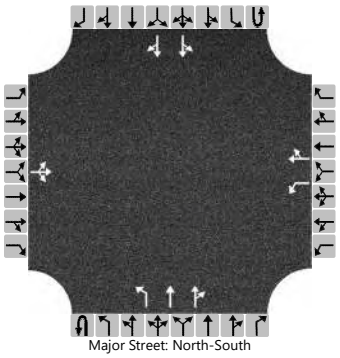
General Information

Analyst	Stephen Montaño
Agency/Co.	Lee Engineering
Date Performed	8/19/2022
Analysis Year	2022
Time Analyzed	Ross/Church PM (4:00 PM)
Intersection Orientation	North-South
Project Description	MAS Charter School NIA

Site Information

Intersection	Yale/Ross
Jurisdiction	CABQ
East/West Street	Ross Ave
North/South Street	Yale Blvd
Peak Hour Factor	0.94
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		1	1	0	0	1	2	0	0	0	2	0
Configuration			LTR			L		TR		L	T	TR		LT		TR
Volume (veh/h)		129	5	91		101	1	170	0	86	429	67		107	337	131
Percent Heavy Vehicles (%)		0	0	0		4	0	3	0	0				4		
Proportion Time Blocked																
Percent Grade (%)	0				7											
Right Turn Channelized																
Median Type | Storage	Left + Thru								1							

Critical and Follow-up Headways

Base Critical Headway (sec)		7.5	6.5	6.9		7.5	6.5	6.9		4.1				4.1		
Critical Headway (sec)		7.50	6.50	6.90		8.98	7.90	7.67		4.10				4.18		
Base Follow-Up Headway (sec)		3.5	4.0	3.3		3.5	4.0	3.3		2.2				2.2		
Follow-Up Headway (sec)		3.50	4.00	3.30		3.54	4.00	3.33		2.20				2.24		

Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)			239			107		182		91				114		
Capacity, c (veh/h)						159		238		1053				1007		
v/c Ratio						0.68		0.76		0.09				0.11		
95% Queue Length, Q_{95} (veh)						5.2		7.6		0.3				0.4		
Control Delay (s/veh)						71.8		64.5		8.7				9.0		
Level of Service (LOS)						F		F		A				A		
Approach Delay (s/veh)					67.2				1.3				1.9			
Approach LOS					F											

Pedestrian Level of Service				
Flow (ped/hr)	12	8	0	364
Two-Stage Crossing	No	No		Yes
Pedestrian Platooning	No	No		Yes
Conflicting Vehicular Flow (veh/h)				1068
Average Delay (s)	1.1	1.3		10.5
Level of Service (LOS)	A	A		C

HCS7 Two-Way Stop-Control Report

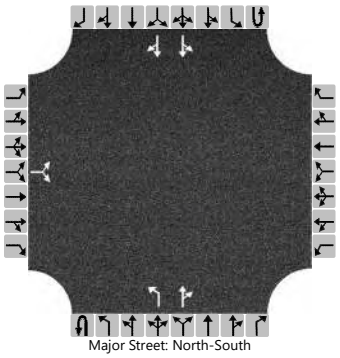
General Information

Analyst	Stephen Montaño
Agency/Co.	Lee Engineering
Date Performed	8/19/22
Analysis Year	2022
Time Analyzed	West/CC Loop AM (7:30 AM)
Intersection Orientation	North-South
Project Description	MAS Charter School NIA

Site Information

Intersection	Yale/Anderson
Jurisdiction	CABQ
East/West Street	Anderson Ave/CC Driveway
North/South Street	Yale Blvd
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		10	11	12		7	8	9	1U	1	2	3	4U	4	5	6
Number of Lanes		0	1	0		0	0	0	0	1	1	0	0	0	2	0
Configuration			LR							L		TR		LT		TR
Volume (veh/h)		25		7					0	8	467	5		8	652	21
Percent Heavy Vehicles (%)		0		0					0	0				13		
Proportion Time Blocked																
Percent Grade (%)		0														
Right Turn Channelized																
Median Type | Storage		Left + Thru								1						

Critical and Follow-up Headways

Base Critical Headway (sec)		7.5		6.9						4.1				4.1		
Critical Headway (sec)		7.50		6.90						4.10				4.36		
Base Follow-Up Headway (sec)		3.5		3.3						2.2				2.2		
Follow-Up Headway (sec)		3.50		3.30						2.20				2.33		

Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)			35							9				9		
Capacity, c (veh/h)			293							882				975		
v/c Ratio			0.12							0.01				0.01		
95% Queue Length, Q_{95} (veh)			0.4							0.0				0.0		
Control Delay (s/veh)			18.9							9.1				8.7		
Level of Service (LOS)			C							A				A		
Approach Delay (s/veh)		18.9								0.2				0.2		
Approach LOS		C														

HCS7 Two-Way Stop-Control Report

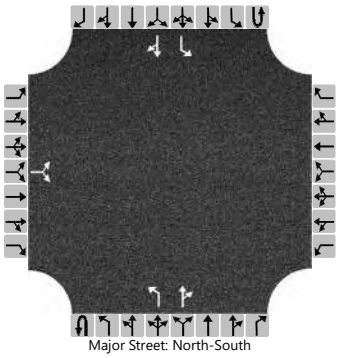
General Information

Analyst	Stephen Montaño
Agency/Co.	Lee Engineering
Date Performed	8/19/22
Analysis Year	2022
Time Analyzed	West/CC LoopPM (4:00 PM)
Intersection Orientation	North-South
Project Description	MAS Charter School NIA

Site Information

Intersection	Yale/Anderson
Jurisdiction	CABQ
East/West Street	Anderson Ave/CC Driveway
North/South Street	Yale Blvd
Peak Hour Factor	0.91
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		10	11	12		7	8	9	1U	1	2	3	4U	4	5	6
Number of Lanes		0	1	0		0	0	0	0	1	1	0	0	1	1	0
Configuration			LR							L		TR		L		TR
Volume (veh/h)		23		8						7	628	23		26	553	7
Percent Heavy Vehicles (%)		0		0						0				13		
Proportion Time Blocked																
Percent Grade (%)		0														
Right Turn Channelized																
Median Type | Storage		Left + Thru								1						

Critical and Follow-up Headways

Base Critical Headway (sec)		7.1		6.2						4.1				4.1		
Critical Headway (sec)		7.10		6.20						4.10				4.23		
Base Follow-Up Headway (sec)		3.5		3.3						2.2				2.2		
Follow-Up Headway (sec)		3.50		3.30						2.20				2.32		

Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)			34							8				29		
Capacity, c (veh/h)			279							974				837		
v/c Ratio			0.12							0.01				0.03		
95% Queue Length, Q_{95} (veh)			0.4							0.0				0.1		
Control Delay (s/veh)			19.7							8.7				9.5		
Level of Service (LOS)			C							A				A		
Approach Delay (s/veh)		19.7								0.1				0.4		
Approach LOS		C														

HCS7 Two-Way Stop-Control Report

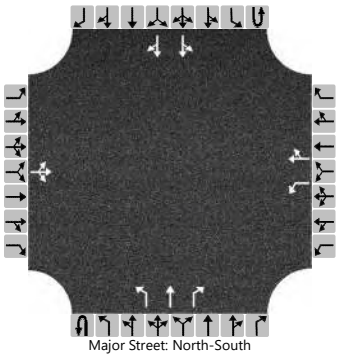
General Information

Analyst	Stephen Montaño
Agency/Co.	Lee Engineering
Date Performed	8/19/2022
Analysis Year	2022
Time Analyzed	West/North AM (7:30 AM)
Intersection Orientation	North-South
Project Description	MAS Charter School NIA

Site Information

Intersection	Yale/Ross
Jurisdiction	CABQ
East/West Street	Ross Ave
North/South Street	Yale Blvd
Peak Hour Factor	0.94
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		1	1	0	0	1	1	1	0	0	2	0
Configuration			LTR			L		TR		L	T	R		LT		TR
Volume (veh/h)		6	3	28		150	8	259	0	9	336	32		24	453	2
Percent Heavy Vehicles (%)		0	0	0		4	0	3	0	0				4		
Proportion Time Blocked																
Percent Grade (%)	0				7											
Right Turn Channelized									No							
Median Type | Storage	Left + Thru								1							

Critical and Follow-up Headways

Base Critical Headway (sec)		7.5	6.5	6.9		7.5	6.5	6.2		4.1				4.1		
Critical Headway (sec)		7.50	6.50	6.90		8.98	7.90	6.97		4.10				4.18		
Base Follow-Up Headway (sec)		3.5	4.0	3.3		3.5	4.0	3.3		2.2				2.2		
Follow-Up Headway (sec)		3.50	4.00	3.30		3.54	4.00	3.33		2.20				2.24		

Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)			39			160		284		10				26		
Capacity, c (veh/h)						356		246		1066				1133		
v/c Ratio						0.45		1.15		0.01				0.02		
95% Queue Length, Q_{95} (veh)						2.4		32.2		0.0				0.1		
Control Delay (s/veh)						23.2		380.7		8.4				8.3		
Level of Service (LOS)						C		F		A				A		
Approach Delay (s/veh)					252.1				0.2				0.5			
Approach LOS					F											

Pedestrian Level of Service				
Flow (ped/hr)	12	8	0	364
Two-Stage Crossing	No	No		Yes
Pedestrian Platooning	No	No		Yes
Conflicting Vehicular Flow (veh/h)				867
Average Delay (s)	0.2	2.2		8.6
Level of Service (LOS)	A	A		B

HCS7 Two-Way Stop-Control Report

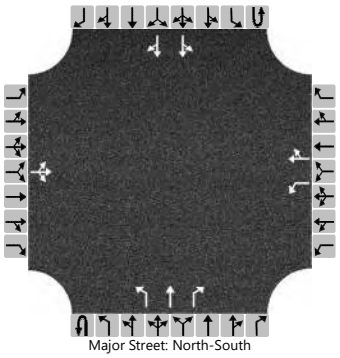
General Information

Analyst	Stephen Montaño
Agency/Co.	Lee Engineering
Date Performed	8/19/2022
Analysis Year	2022
Time Analyzed	West/North PM (4:00 PM)
Intersection Orientation	North-South
Project Description	MAS Charter School NIA

Site Information

Intersection	Yale/Ross
Jurisdiction	CABQ
East/West Street	Ross Ave
North/South Street	Yale Blvd
Peak Hour Factor	0.94
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		1	1	0	0	1	1	1	0	0	2	0
Configuration			LTR			L		TR		L	T	R		LT		TR
Volume (veh/h)		3	5	11		101	1	171	0	6	475	21		28	542	5
Percent Heavy Vehicles (%)		0	0	0		4	0	3	0	0				4		
Proportion Time Blocked																
Percent Grade (%)	0				7											
Right Turn Channelized									No							
Median Type | Storage	Left + Thru								1							

Critical and Follow-up Headways

Base Critical Headway (sec)		7.5	6.5	6.9		7.5	6.5	6.2		4.1				4.1		
Critical Headway (sec)		7.50	6.50	6.90		8.98	7.90	6.97		4.10				4.18		
Base Follow-Up Headway (sec)		3.5	4.0	3.3		3.5	4.0	3.3		2.2				2.2		
Follow-Up Headway (sec)		3.50	4.00	3.30		3.54	4.00	3.33		2.20				2.24		

Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)			20			107		183		6				30		
Capacity, c (veh/h)						283		196		981				1007		
v/c Ratio						0.38		0.93		0.01				0.03		
95% Queue Length, Q_{95} (veh)						1.8		13.7		0.0				0.1		
Control Delay (s/veh)						25.5		150.3		8.7				8.7		
Level of Service (LOS)						D		F		A				A		
Approach Delay (s/veh)					104.1				0.1				0.6			
Approach LOS					F											

Pedestrian Level of Service				
Flow (ped/hr)	12	8	0	364
Two-Stage Crossing	No	No		Yes
Pedestrian Platooning	No	No		Yes
Conflicting Vehicular Flow (veh/h)				1117
Average Delay (s)	0.1	1.3		7.5
Level of Service (LOS)	A	A		B

HCS7 Two-Way Stop-Control Report

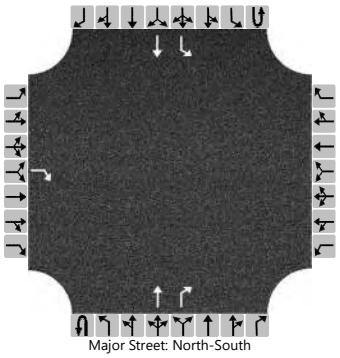
General Information

Analyst	Stephen Montaño
Agency/Co.	Lee Engineering
Date Performed	8/19/2022
Analysis Year	2022
Time Analyzed	West/CC Loop AM (7:30 AM)
Intersection Orientation	North-South
Project Description	MAS Charter School NIA

Site Information

Intersection	Yale/CC Loop
Jurisdiction	CABQ
East/West Street	West Lot/CC Loop
North/South Street	Yale Blvd
Peak Hour Factor	0.92
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	0	1		0	0	0	0	0	1	1	0	1	1	0
Configuration				R							T	R		L	T	
Volume (veh/h)				257							535	66		112	260	
Percent Heavy Vehicles (%)				0										4		
Proportion Time Blocked																
Percent Grade (%)	0															
Right Turn Channelized	No								No							
Median Type | Storage	Left Only								1							

Critical and Follow-up Headways

Base Critical Headway (sec)				6.2										4.1		
Critical Headway (sec)				6.20										4.14		
Base Follow-Up Headway (sec)				3.3										2.2		
Follow-Up Headway (sec)				3.30										2.24		

Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)				279										122		
Capacity, c (veh/h)				741										911		
v/c Ratio				0.38										0.13		
95% Queue Length, Q_{95} (veh)				1.8										0.5		
Control Delay (s/veh)				12.8										9.6		
Level of Service (LOS)				B										A		
Approach Delay (s/veh)	12.8												2.9			
Approach LOS	B															

HCS7 Two-Way Stop-Control Report

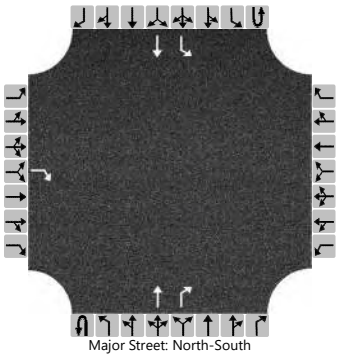
General Information

Analyst	Stephen Montaño
Agency/Co.	Lee Engineering
Date Performed	8/19/2022
Analysis Year	2022
Time Analyzed	West/CC Loop PM (4:00 PM)
Intersection Orientation	North-South
Project Description	MAS Charter School NIA

Site Information

Intersection	Yale/CC Loop
Jurisdiction	CABQ
East/West Street	West Lot/CC Loop
North/South Street	Yale Blvd
Peak Hour Factor	0.92
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	0	1		0	0	0	0	0	1	1	0	1	1	0
Configuration				R							T	R		L	T	
Volume (veh/h)				205							603	46		80	301	
Percent Heavy Vehicles (%)				0										4		
Proportion Time Blocked																
Percent Grade (%)	0															
Right Turn Channelized	No								No							
Median Type | Storage	Left + Thru								1							

Critical and Follow-up Headways

Base Critical Headway (sec)				6.2										4.1		
Critical Headway (sec)				6.20										4.14		
Base Follow-Up Headway (sec)				3.3										2.2		
Follow-Up Headway (sec)				3.30										2.24		

Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)				223										87		
Capacity, c (veh/h)				700										871		
v/c Ratio				0.32										0.10		
95% Queue Length, Q_{95} (veh)				1.4										0.3		
Control Delay (s/veh)				12.5										9.6		
Level of Service (LOS)				B										A		
Approach Delay (s/veh)	12.5												2.0			
Approach LOS	B															

HCS7 Two-Way Stop-Control Report

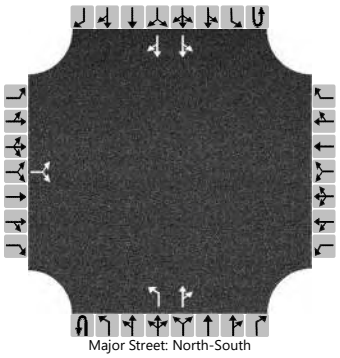
General Information

Analyst	Stephen Montaño
Agency/Co.	Lee Engineering
Date Performed	9/26/22
Analysis Year	2022
Time Analyzed	West/Ross AM (7:30 AM)
Intersection Orientation	North-South
Project Description	MAS Charter School NIA

Site Information

Intersection	Yale/Anderson
Jurisdiction	CABQ
East/West Street	Anderson Ave/CC Driveway
North/South Street	Yale Blvd
Peak Hour Factor	0.92
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	0	0	0	1	1	0	0	0	2	0
Configuration			LR							L		TR		LT		TR
Volume (veh/h)		25		7					0	8	467	5		8	652	21
Percent Heavy Vehicles (%)		0		0					0	0				13		
Proportion Time Blocked																
Percent Grade (%)		0														
Right Turn Channelized																
Median Type | Storage		Left + Thru								1						

Critical and Follow-up Headways

Base Critical Headway (sec)		7.5		6.9						4.1				4.1		
Critical Headway (sec)		7.50		6.90						4.10				4.36		
Base Follow-Up Headway (sec)		3.5		3.3						2.2				2.2		
Follow-Up Headway (sec)		3.50		3.30						2.20				2.33		

Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)			35							9				9		
Capacity, c (veh/h)			293							882				975		
v/c Ratio			0.12							0.01				0.01		
95% Queue Length, Q_{95} (veh)			0.4							0.0				0.0		
Control Delay (s/veh)			18.9							9.1				8.7		
Level of Service (LOS)			C							A				A		
Approach Delay (s/veh)		18.9								0.2				0.2		
Approach LOS		C														

HCS7 Two-Way Stop-Control Report

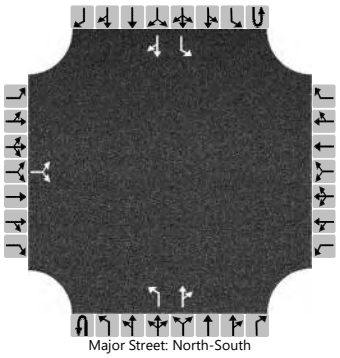
General Information

Analyst	Stephen Montaño
Agency/Co.	Lee Engineering
Date Performed	9/26/22
Analysis Year	2022
Time Analyzed	West/Ross PM (4:00 PM)
Intersection Orientation	North-South
Project Description	MAS Charter School NIA

Site Information

Intersection	Yale/Anderson
Jurisdiction	CABQ
East/West Street	Anderson Ave/CC Driveway
North/South Street	Yale Blvd
Peak Hour Factor	0.91
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	0	0	0	1	1	0	0	1	1	0
Configuration			LR							L		TR		L		TR
Volume (veh/h)		23		8						7	628	23		26	553	7
Percent Heavy Vehicles (%)		0		0						0				13		
Proportion Time Blocked																
Percent Grade (%)	0															
Right Turn Channelized																
Median Type | Storage	Left + Thru								1							

Critical and Follow-up Headways

Base Critical Headway (sec)		7.1		6.2						4.1				4.1		
Critical Headway (sec)		7.10		6.20						4.10				4.23		
Base Follow-Up Headway (sec)		3.5		3.3						2.2				2.2		
Follow-Up Headway (sec)		3.50		3.30						2.20				2.32		

Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)			34							8				29		
Capacity, c (veh/h)			279							974				837		
v/c Ratio			0.12							0.01				0.03		
95% Queue Length, Q_{95} (veh)			0.4							0.0				0.1		
Control Delay (s/veh)			19.7							8.7				9.5		
Level of Service (LOS)			C							A				A		
Approach Delay (s/veh)	19.7								0.1				0.4			
Approach LOS	C															

HCS7 Two-Way Stop-Control Report

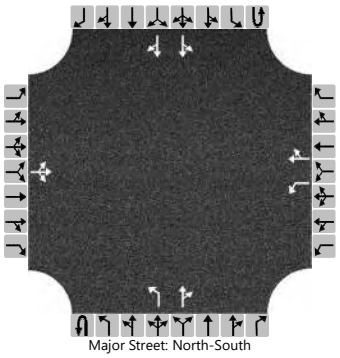
General Information

Analyst	Stephen Montaño
Agency/Co.	Lee Engineering
Date Performed	8/19/2022
Analysis Year	2022
Time Analyzed	West/Ross PM (4:00 PM)
Intersection Orientation	North-South
Project Description	MAS Charter School NIA

Site Information

Intersection	Yale/Ross
Jurisdiction	CABQ
East/West Street	Ross Ave
North/South Street	Yale Blvd
Peak Hour Factor	0.94
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		1	1	0	0	1	1	0	0	0	2	0
Configuration			LTR			L		TR		L		TR		LT		TR
Volume (veh/h)		3	5	11		101	1	171	0	6	475	21		108	542	5
Percent Heavy Vehicles (%)		0	0	0		4	0	3	0	0				4		
Proportion Time Blocked																
Percent Grade (%)	0				7											
Right Turn Channelized																
Median Type | Storage	Left + Thru								1							

Critical and Follow-up Headways

Base Critical Headway (sec)		7.5	6.5	6.9		7.5	6.5	6.2		4.1				4.1		
Critical Headway (sec)		7.50	6.50	6.90		8.98	7.90	6.97		4.10				4.18		
Base Follow-Up Headway (sec)		3.5	4.0	3.3		3.5	4.0	3.3		2.2				2.2		
Follow-Up Headway (sec)		3.50	4.00	3.30		3.54	4.00	3.33		2.20				2.24		

Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)			20			107		183		6				115		
Capacity, c (veh/h)						210		192		981				1007		
v/c Ratio						0.51		0.95		0.01				0.11		
95% Queue Length, Q_{95} (veh)						3.0		14.5		0.0				0.4		
Control Delay (s/veh)						39.9		165.5		8.7				9.0		
Level of Service (LOS)						E		F		A				A		
Approach Delay (s/veh)					119.0				0.1				2.0			
Approach LOS					F											

Pedestrian Level of Service				
Flow (ped/hr)	12	8	0	364
Two-Stage Crossing	No	No		Yes
Pedestrian Platooning	No	No		Yes
Conflicting Vehicular Flow (veh/h)				1202
Average Delay (s)	0.1	1.3		7.1
Level of Service (LOS)	A	A		B

HCS7 Two-Way Stop-Control Report

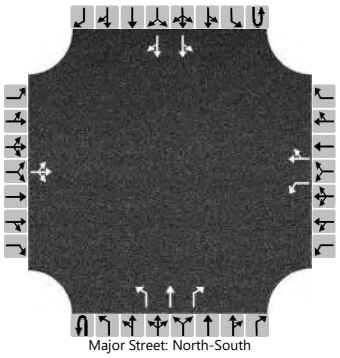
General Information

Analyst	Stephen Montaño
Agency/Co.	Lee Engineering
Date Performed	9/26/2022
Analysis Year	2022
Time Analyzed	West/Ross AM (7:30 AM)
Intersection Orientation	North-South
Project Description	MAS Charter School NIA

Site Information

Intersection	Yale/Ross
Jurisdiction	CABQ
East/West Street	Ross Ave
North/South Street	Yale Blvd
Peak Hour Factor	0.94
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		1	1	0	0	1	1	1	0	0	2	0
Configuration			LTR			L		TR		L	T	R		LT		TR
Volume (veh/h)		6	3	28		150	8	259	0	9	270	98		136	453	2
Percent Heavy Vehicles (%)		0	0	0		4	0	3	0	0				4		
Proportion Time Blocked																
Percent Grade (%)	0				7											
Right Turn Channelized									No							
Median Type | Storage	Left + Thru								1							

Critical and Follow-up Headways

Base Critical Headway (sec)		7.5	6.5	6.9		7.5	6.5	6.2		4.1				4.1		
Critical Headway (sec)		7.50	6.50	6.90		8.98	7.90	6.97		4.10				4.18		
Base Follow-Up Headway (sec)		3.5	4.0	3.3		3.5	4.0	3.3		2.2				2.2		
Follow-Up Headway (sec)		3.50	4.00	3.30		3.54	4.00	3.33		2.20				2.24		

Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)			39			160		284		10				145		
Capacity, c (veh/h)						242		269		1066				1133		
v/c Ratio						0.66		1.05		0.01				0.13		
95% Queue Length, Q_{95} (veh)						5.2		24.6		0.0				0.4		
Control Delay (s/veh)						47.7		234.1		8.4				8.6		
Level of Service (LOS)						E		F		A				A		
Approach Delay (s/veh)					167.0				0.2				2.4			
Approach LOS					F											

Pedestrian Level of Service				
Flow (ped/hr)	12	8	0	364
Two-Stage Crossing	No	No		Yes
Pedestrian Platooning	No	No		Yes
Conflicting Vehicular Flow (veh/h)				916
Average Delay (s)	0.2	2.2		8.2
Level of Service (LOS)	A	A		B

HCS7 Two-Way Stop-Control Report

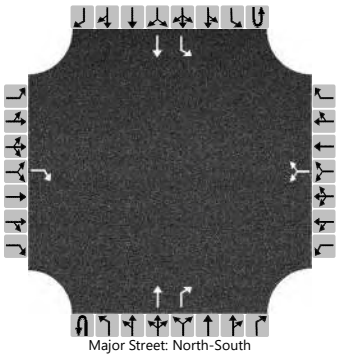
General Information

Analyst	Stephen Montaño
Agency/Co.	Lee Engineering
Date Performed	9/26/2022
Analysis Year	2022
Time Analyzed	West/Ross AM (7:30 AM)
Intersection Orientation	North-South
Project Description	MAS Charter School NIA

Site Information

Intersection	Yale/West Loop Exit
Jurisdiction	CABQ
East/West Street	West Loop Exit
North/South Street	Yale Blvd
Peak Hour Factor	0.92
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	0	1		0	1	0	0	0	1	1	0	1	1	0
Configuration				R			LR				T	R		L	T	
Volume (veh/h)				257		0		0			535	0		0	372	
Percent Heavy Vehicles (%)				0		0		0						4		
Proportion Time Blocked																
Percent Grade (%)	0				0											
Right Turn Channelized	No								No							
Median Type | Storage	Left + Thru								1							

Critical and Follow-up Headways

Base Critical Headway (sec)				6.2		7.1		6.2						4.1		
Critical Headway (sec)				6.20		7.10		6.20						4.14		
Base Follow-Up Headway (sec)				3.3		3.5		3.3						2.2		
Follow-Up Headway (sec)				3.30		3.50		3.30						2.24		

Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)				279			0							0		
Capacity, c (veh/h)				633										969		
v/c Ratio				0.44										0.00		
95% Queue Length, Q_{95} (veh)				2.3										0.0		
Control Delay (s/veh)				15.2										8.7		
Level of Service (LOS)				C										A		
Approach Delay (s/veh)	15.2												0.0			
Approach LOS	C															

Pedestrian Level of Service				
Flow (ped/hr)	12	8	0	0
Two-Stage Crossing	No	No		
Pedestrian Platooning	No	No		
Conflicting Vehicular Flow (veh/h)				
Average Delay (s)	1.2			
Level of Service (LOS)	A			

HCS7 Two-Way Stop-Control Report

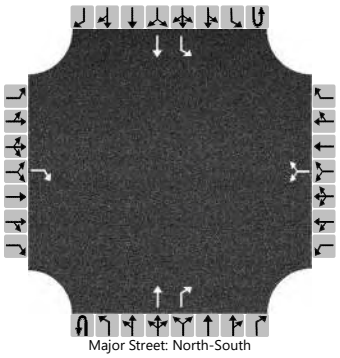
General Information

Analyst	Stephen Montaño
Agency/Co.	Lee Engineering
Date Performed	9/26/2022
Analysis Year	2022
Time Analyzed	West/Ross PM (4:00 PM)
Intersection Orientation	North-South
Project Description	MAS Charter School NIA

Site Information

Intersection	Yale/Ross
Jurisdiction	CABQ
East/West Street	West Lot/CC Loop
North/South Street	Yale Blvd
Peak Hour Factor	0.92
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	0	1		0	1	0	0	0	1	1	0	1	1	0
Configuration				R			LR				T	R		L	T	
Volume (veh/h)				205		0		0			603	0		0	381	
Percent Heavy Vehicles (%)				0		4		3						4		
Proportion Time Blocked																
Percent Grade (%)	0				0											
Right Turn Channelized	No								No							
Median Type | Storage	Left + Thru								1							

Critical and Follow-up Headways

Base Critical Headway (sec)				6.2		7.1		6.2						4.1		
Critical Headway (sec)				6.20		7.14		6.23						4.14		
Base Follow-Up Headway (sec)				3.3		3.5		3.3						2.2		
Follow-Up Headway (sec)				3.30		3.54		3.33						2.24		

Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)				223			0							0		
Capacity, c (veh/h)				625										909		
v/c Ratio				0.36										0.00		
95% Queue Length, Q_{95} (veh)				1.6										0.0		
Control Delay (s/veh)				13.9										9.0		
Level of Service (LOS)				B										A		
Approach Delay (s/veh)	13.9												0.0			
Approach LOS	B															

Appendix E:

AASHTO Green Book 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

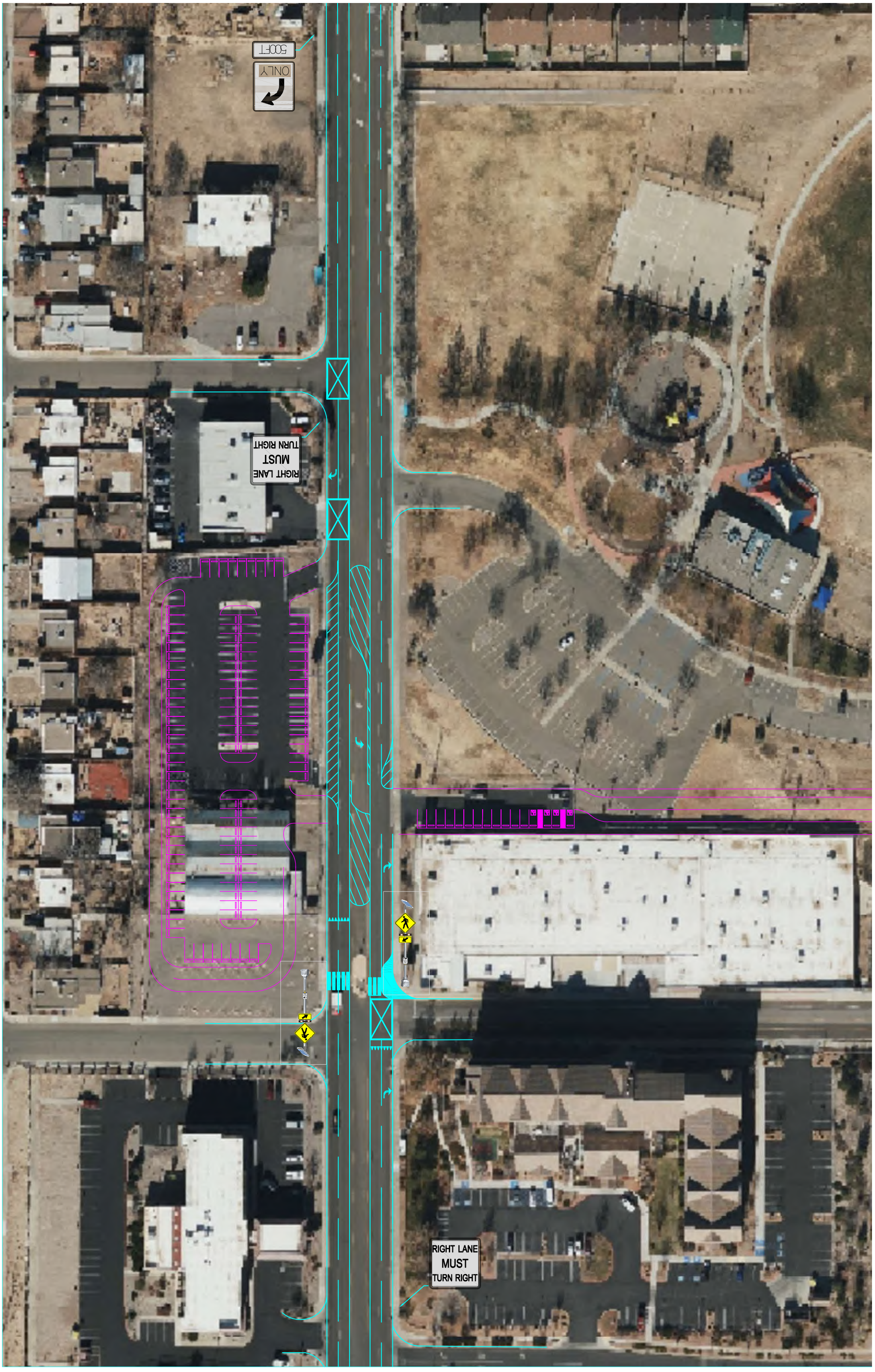
Metric			
Design Speed (km/h)	Stopping Sight Distance (m)	Intersection Sight Distance for Passenger Cars	
		Calculated (m)	Design (m)
20	20	36.1	40
30	35	54.2	55
40	50	72.3	75
50	65	90.4	95
60	85	108.4	110
70	105	126.5	130
80	130	144.6	145
90	160	162.6	165
100	185	180.7	185
110	220	198.8	200
120	250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

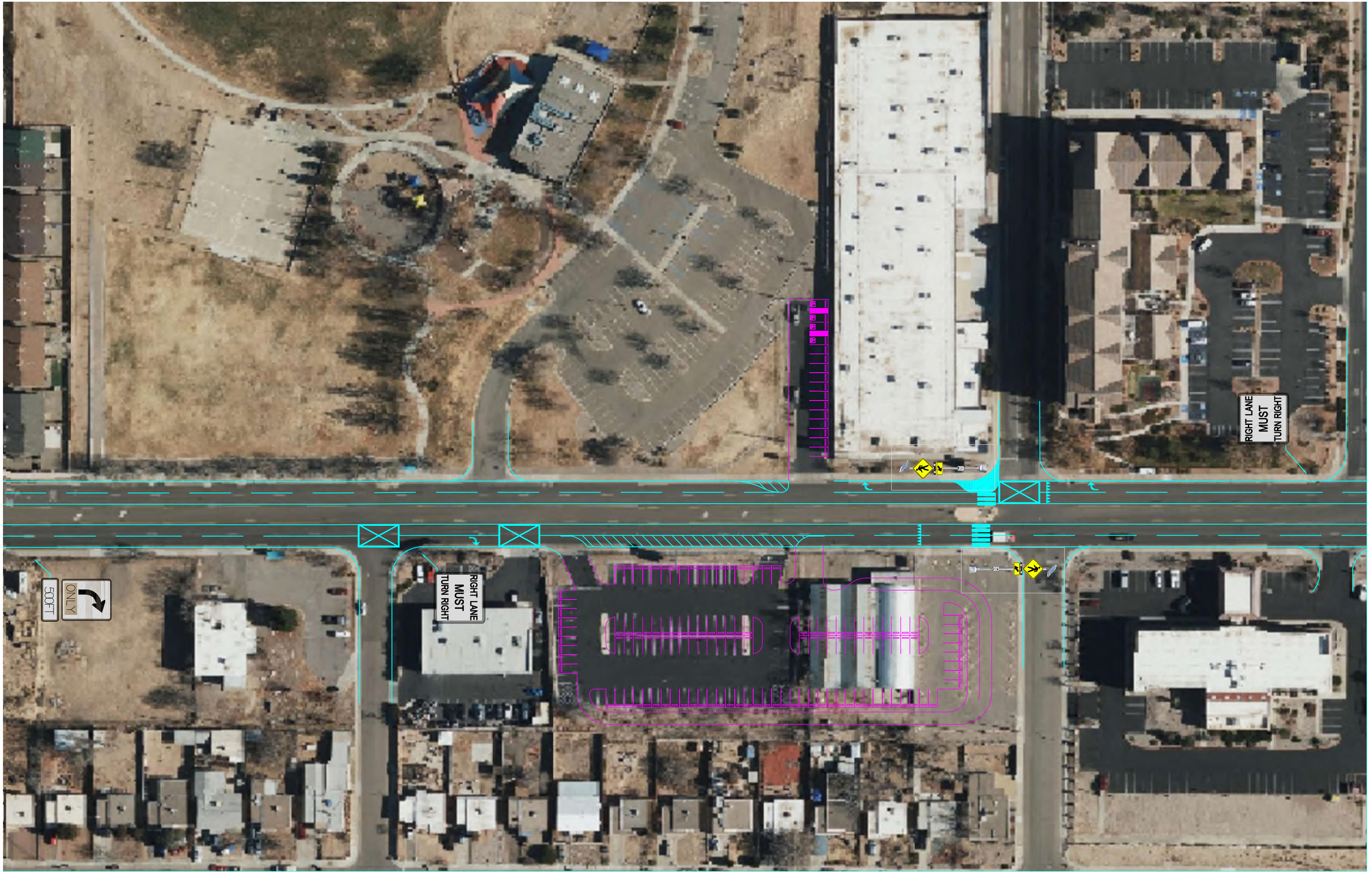
Appendix F:

Yale Boulevard Conceptual Drawings for West Loop Alternatives

Yale Boulevard under West and Community Center Loops Alternative


500FT
ONLY
RIGHT LANE
MUST
TURN RIGHT
RIGHT LANE
MUST
TURN RIGHT

Yale Boulevard under West and Ross Loops Alternative


RIGHT LANE
MUST
TURN RIGHT
RIGHT LANE
MUST
TURN RIGHT
500FT
ONLY