![TJKM logo]

TECHNICAL MEMORANDUM

Date: June 1, 2023

To: Rafael Rius   City of Palo Alto

From: Steven Matthew Dauterman, PTOE, RSP$_1$ TJKM

            Rutvij Patel   TJKM

Subject: **Lincoln Ave. & Middlefield Rd. - Intersection Safety Assessment**

This memorandum summarizes the findings of an intersection safety assessment that was conducted for the intersection of Lincoln Avenue and Middlefield Road within the City of Palo Alto, California. This memorandum assesses five years of recorded crash data, assesses traffic operations, and provides general recommendations to improve safety.

This assessment was conducted as part of an on-call agreement between TJKM Transportation Consultants and the City. Sources of data include the office files and field reconnaissance efforts of TJKM, the University of California – Berkley's Traffic Incident Management System (TIMS) database, and the City of Palo Alto.

EXISTING CONDITIONS

A description of the existing road system is provided below:

Middlefield Road spans several miles northwest-southeast from San Antonio Road in east Palo Alto to Veterans Boulevard in Redwood City. The roadway is designated as a "Residential Arterial" street per the City's 2030 Comprehensive Plan. In the study vicinity, the roadway comprises of a two-lane cross section with on-street parking and has a posted speed limit of 25 miles per hour (mph) (note, there are multiple 20 mph school zones along the roadway). For the purposes of this memorandum, the roadway is assumed to run north-south.

Lincoln Avenue is a two-lane local road that spans approximately 1.39 miles from its terminus at a residential cul-de-sac (to the north) to Alma Street (to the south). The roadway primarily fronts residential homes and has a posted speed limit of 25 mph within the study vicinity (note, there is a 20 mph school zone near Addison Elementary School). The roadway runs primarily north-south between its north terminus and Channing Avenue; afterwards, the roadway begins to run northeast-southwest. Major intersections occur at University Avenue, Channing Avenue, Middlefield Road, and Alma Street. On-street parking is permitted along the roadway. There are multiple speed humps along the roadway. For the purposes of this memorandum, the roadway is assumed to run east-west.

The primary study intersection is Lincoln Avenue and Middlefield Road. In the immediate vicinity, the intersection is surrounded on three sides by residential homes and by the Addison Elementary School to the east.

The intersection currently operates with two-way stop control (TWSC) on Lincoln Avenue. The intersection allows for unrestricted turning movements. The intersection has two marked (yellow) crosswalks, both crossing Lincoln. On-street parking is generally permitted near the intersection with some minor exceptions:

- Along Middlefield Road (northbound direction of travel):
    o Just prior to the intersection, denoted by a white striping and on-road posts – approximately one car length.
    o Just after the intersection, denoted by red curb markings – approximately one car length.
- Along Middlefield Road (southbound direction of travel):
    o Just prior to the intersection, denoted by a white striping and on-road posts – approximately one car length.
- Along Lincoln Avenue (westbound direction of travel):
    o Just after the intersection, denoted by red curb markings – approximately one car length (due to presence of a fire hydrant).

Immediate nearby intersections that may be impacted with any proposed change to the subject intersection include:

- Middlefield Road at Addison Avenue (signalized),
- Middlefield Road at Kingsley Avenue (TWSC), and
- Middlefield Road at Melville Avenue (signalized).

SIGNAL WARRANT

A signal warrant assessment was conducted for the subject intersection by the City of Palo Alto's Office of Transportation in June 2022 (the assessment is provided in **Appendix A**).

Signal warrant analyses are based on the Federal Highway Administration's (FHWA) 2009 edition of the Manual on Uniform Traffic Control Devices (MUTCD). Guidelines for nine separate signal warrants are discussed specifically in Chapter 4C, *Traffic Control Signal Needs Studies*, by which only one warrant needs to be satisfied to support the installation of a traffic control signal and additional warrants met would further support the appropriateness of installation. That said, satisfaction of one or more warrants shall not itself require installation of a traffic signal; a traffic signal should be both warranted and justified. The State of California has adopted and has modified the federal guidelines to meet the needs of the State; the guidelines are contained in the *California Manual of Traffic Control Devices* (CA-MUTCD).

The City's signal warrant assessment included seven of the nine CA-MUTCD warrants (note, the remaining two warrants were considered as not applicable – the intersection is not at the junction of two principal arterial roadways nor is there a nearby at-grade railroad crossing):

- Warrant 1 – Eight-Hour Vehicular Volume;
- Warrant 2 – Four-Hour Vehicular Volume;
- Warrant 3 – Peak-Hour Vehicular Volume;
- Warrant 4 – Pedestrian Volume;
- Warrant 5 – School Crossing Volume;
- Warrant 6 – Coordinated Signal System; and
- Warrant 7 – Crash Experience.

TJKM reviewed the City's signal warrant assessment and concurs with the City's findings:

- Based on 2022 counts, there is insufficient vehicular volume on a typical commuter weekday along the major and minor streets to satisfy either Warrants 1, 2, or 3;
- There is insufficient pedestrian activity to satisfy either Warrant 4 or 5;
- The provision of a signal would not improve corridor progression nor meets the spacing requirement to satisfy Warrant 6; and
- All three criteria to satisfy Warrant 7 are not met.

SAFETY ASSESSMENT

Historical Crash Trends

In order to assess intersection safety, historical crash data was obtain from the University of California – Berkley's Traffic Incident Management System (TIMS) for a five-year period between January 2017 and December 2021. During the five-year period, a total of 15 injury crashes were recorded at the intersection of Lincoln Avenue and Middlefield Road. The crashes that occurred are summarized by severity and crash type per year in **Table 1**. The raw crash data is provided in **Appendix B**.

As illustrated in **Table 1**, 73% of recorded crashes were categorized as having a "Complaint of Pain" severity, the remaining crashes were reported as having an "Other Visible Injury" severity. No crash during the five-year analysis period resulted in severe injuries or a fatality.

Two reported crashes (or 13%) involved cyclists. Twelve reported crashes (or 80%) were designated as being broadside collisions (sometimes referred to as a "T-bone" crash). The majority of these crashes were attributed with northbound traffic on Middlefield Road colliding with both eastbound and westbound traffic on Lincoln Avenue. Fourteen reported crashes (93%) had a primary crash factor associated with "Automobile Right-of-Way;" it is unknown what the primary crash factor was for the remaining one crash. Time of day was not a major factor in crash contribution nor were weather and road surface conditions (87% of reported crashes occurred during clear weather; 93% of reported crashes occurred on dry surface conditions).

Of note, based on the reported crash data during the five-year analysis period, the following other conclusions could be made:

- Unsafe vehicular speed was not identified as a contributing factor.
- Substance abuse was not identified as a contributing factor.
- Pedestrian interactions were not identified as a contributing factor.

Table 1: Historical Crash Data Summary (January 2017 to December 2021)

Intersection Crash Analysis	2017	2018	2019	2020	2021	Total	Frequency
Crash Severity							
Fatal	0	0	0	0	0	*0*	*0.00%*
Severe Injury	0	0	0	0	0	*0*	*0.00%*
Other Visible Injury	0	0	0	0	4	*4*	*26.67%*
Complaint of Pain	0	7	1	2	1	*11*	*73.33%*
Involvement							
Pedestrian	0	0	0	0	0	*0*	*0.00%*
Bicycle	0	0	0	1	1	*2*	*13.33%*
Motorcycle	0	0	0	0	0	*0*	*0.00%*
Truck	0	0	0	0	0	*0*	*0.00%*
Crash Type							
Head-On	0	0	0	0	1	*1*	*6.67%*
Sideswipe	0	1	0	0	0	*1*	*6.67%*
Rear End	0	0	0	0	0	*0*	*0.00%*
Broadside	0	6	1	2	3	*12*	*80.00%*
Unknown / Not Stated	0	0	0	0	1	*1*	*6.67%*
Primary Crash Factor							
Alcohol / Drugs (Driver or Cyclist)	0	0	0	0	0	*0*	*0.00%*
Impeding Traffic	0	0	0	0	0	*0*	*0.00%*
Unsafe Speed	0	0	0	0	0	*0*	*0.00%*
Improper Turning	0	0	0	0	0	*0*	*0.00%*
Automobile Right-of-Way	0	7	1	2	4	*14*	*93.33%*
Pedestrian Right-of-Way	0	0	0	0	0	*0*	*0.00%*
Pedestrian Violation	0	0	0	0	0	*0*	*0.00%*
Traffic Signal and Signs	0	0	0	0	0	*0*	*0.00%*
Hazardous Parking	0	0	0	0	0	*0*	*0.00%*
Unknown / Not Stated	0	0	0	0	1	*1*	*6.67%*
Time of Day							
AM Peak Period (6-10 AM)	0	3	0	0	0	*3*	*20.00%*
Daytime Off Peak (10 AM - 3 PM)	0	1	0	1	3	*5*	*33.33%*
PM Peak Period (3 - 7 PM)	0	3	0	1	2	*6*	*40.00%*
Nighttime Off Peak (7 PM - 6 AM)	0	0	1	0	0	*1*	*6.67%*
Weather							
Clear	0	6	1	2	4	*13*	*86.67%*
Cloudy	0	1	0	0	0	*1*	*6.67%*
Unknown / Not Stated	0	0	0	0	1	*1*	*6.67%*
Road Surface							
Dry	0	7	1	2	4	*14*	*93.33%*
Unknown / Not Stated	0	0	0	0	1	*1*	*6.67%*
Total:	**0**	**7**	**1**	**2**	**5**	**15**	**100.00%**

Source: https://tims.berkeley.edu/

Measured Vehicular Speeds

In order to verify if vehicular speed may be a contributing factor to conditions at the subject intersection, City staff provided speed data that was collected adjacent to the subject intersection. The data was collected in January and February 2022. A summary of the speed data is provided in **Table 2**. The raw speed data is provided in **Appendix C**.

As illustrated in the table below, the measured 50th (mean) and 85th percentile speeds on Lincoln Avenue near the subject intersection were 21.3 and 25.6 mph, respectively. This would indicate that vehicles were typically traveling under or at the speed limit (25 mph). The measured 50th (mean) and 85th percentile speeds on Middlefield Road near the subject intersection were 29.3 and 33.8 mph, respectively. This would indicate that vehicles were typically traveling above the speed limit (25 mph).

Table 2: Measured Vehicular Speeds

Roadway	Proximity	Direction of Travel	Observations (veh.)	Mean Speed (mph)	85th Percentile Speed (mph)	Pace Speed (mph)
Lincoln Ave	East of Middlefield Rd	Eastbound	831	21.3	25.8	17 to 26
		Westbound	1,019	20.8	24.7	16 to 25
		Average*	-	21.0	25.2	16 to 25
	West of Middlefield Rd	Eastbound	2,368	21.8	26.1	17 to 26
		Westbound	2,930	21.0	25.4	17 to 26
		Average*	-	21.4	25.7	17 to 26
Average*				**21.3**	**25.6**	**17 to 26**
Middlefield Rd	North of Lincoln Ave	Northbound	8,095	28.2	32.5	23 to 32
		Southbound	9,530	29.1	33.7	24 to 33
		Average*	-	28.7	33.1	24 to 33
	South of Lincoln Ave	Northbound	8,486	29.7	34.0	25 to 34
		Southbound	9,698	30.2	34.7	25 to 34
		Average*	-	30.0	34.4	25 to 34
Average*				**29.3**	**33.8**	**24 to 33**

Notes:

* Based on Weighted Average.

ROADWAY OPERATIONS

In order to assess current operations at the subject intersection and at nearby intersections, intersection capacity analyses were conducted during the weekday morning (a.m.) and afternoon (p.m.) commuter peak hours under existing conditions. The analyses were conducted using *Synchro,* version 11, with results based on the methodology presented in the Transportation Research Board's (TRB) Highway Capacity Manual (HCM), 6th edition publication. Of note, for intersections where the HCM 6 methodology was not applicable to due to application limitations, the HCM 2000 edition methodology was utilized in lieu of HCM 6.

The following were analyzed as study intersections:

1. Middlefield Road with Addison Avenue,
2. Middlefield Road with Lincoln Avenue (primary),
3. Middlefield Road with Kingsley Avenue, and
4. Middlefield Road with Melville Avenue.

Turning movement counts for the abovementioned intersections were collected on Thursday, November 10, 2022 during the commuter peak periods. The raw turning movement counts are provided in **Appendix D**. Data on existing signal timings were provided by City staff and used in the analysis models. Of note, the City is currently in the process of installing lead pedestrian interval (LPI) operations at the signalized study intersections. The analysis herein assumes a 4.0 second LPI interval, consistent with discussions with City staff.

The results of the capacity analyses are presented in **Table 3**. For the purposes of this assessment, an LOS D was considered acceptable and/or desirable for traffic operations. This is consistent with the City's standard as a measure of significances for new development project impacts at non-CMP intersections. Any intersection that operates above LOS D is shown in red.

The detailed analysis worksheets are provided in **Appendix D**.

Table 3: Existing Conditions – Intersection Capacity Analysis

No.	Intersection	Control Type	Methodology	Peak Hour	Delay (Sec/Veh)	LOS
1	Middlefield Road with Addison Avenue	Signal	HCM 2000	AM	9.3	A
				PM	9.1	A
2	Middlefield Road with Lincoln Avenue	TWSC	HCM 6	AM	19.6	C
				PM	21.6	C
3	Middlefield Road with Kingsley Avenue	TWSC	HMC 6	AM	13.3	B
				PM	13.2	B
4	Middlefield Road with Melville Avenue	Signal	HCM 2000	AM	14.9	B
				PM	15.3	B

As illustrated in the table above, all study intersections operate within jurisdictional standards during both commuter peak hours.

POTENTIAL INTERSECTION IMPROVEMENTS

Based on discussions with City staff, three potential intersection improvements were identified:

1. Conversion of the intersection to all-way stop control,
2. Removal of vegetation (if deemed appropriate as per City codes) and further elimination of on-street parking along Middlefield Road, or
3. Installation of forced turn islands on Lincoln Avenue (i.e., removal of the through and left turning movements).

Of note, the potential installation of a neighborhood traffic circle or traffic signal were considered as part of this evaluation. However, based on preliminary assessments, these two improvements were determined to be infeasible / insufficient. A traffic circle could not likely be installed due to the existing geometric constrains. Additionally, one would not be recommended given the functional classification of Middlefield Road. Based on the existing traffic volumes and accident history, a traffic signal is not warranted according to the warrant threshold set forth in the 2014 California Manual on Uniform Traffic Control Devices (CA MUTCD, Revision 6, March 2020).

All-Way Stop Conversion

All-way stop control (AWSC) applications were developed by the Federal Highway Administration (FHWA) and are described in Section 2B.07 of the CA MUTCD. The CA MUTCD describes four criteria to evaluate the need for an all-way stop application. Additionally, the CA MUTCD discusses four optional criteria that may be considered on a case-by-case basis. Only one criteria needs to be satisfied in order to justify the implementation of an all-way stop; additional satisfied criteria further justify a conversion.

As discussed in Table 14-5 of the American Association of State Highway and Transportation Officials' (AASHTO) Highway Safety Manual (HSM), 2010 publication, the conversion of a minor-road stop control intersection to AWSC would expect a 75% reduction in right angled collisions (i.e., broadside collisions) and a 70% reduction in crash severity in an urban setting and when MUTCD warrants are met.

Recently, City of Palo Alto staff assessed the four primary criteria to evaluate the need for an AWSC application. Based on the assessment, all four primary criteria were not met. Based on the traffic volumes and safety history provided herein, TJKM agrees with the conclusions of the City's assessment. That said, the CA MUTCD does provide four optional criteria that may be considered on a case-by-case basis. Optional Criteria C states the following: "*Locations where a road user, after stopping, cannot see conflicting traffic and is not able to negotiate the intersection unless conflicting cross traffic is also required to stop.*"

Based on the reported crash history, a majority of the crashes pertained to northbound traffic on Middlefield Road interacting with through traffic on Lincoln Avenue. Given the presence of existing vegetation along Middlefield Road (notably, near the northwest and southeast legs of the intersection)

and on-street parking along Middlefield Road (all four frontages), side-street corner sight distance may contribute to the conditions at the intersection. The conversion of the intersection to AWSC may alleviate some of these concerns, however it is not generally recommended for the following reasons:

- The primary criteria for an all-way stop application per the CA MUTCD are not met.
- The conversion would conflict with the intent of Middlefield Road being an arterial roadway.
- The conversion may incentivize cut-through traffic on Lincoln Avenue between University Avenue and Alma Street by treating both roadways with equal priority.
- The conversion would decrease mainline throughput capacity and increase travels times and vehicle emissions. Furthermore, the conversion may subsequently disrupt emergency medical response (EMS) times.

Improvements to Sight Distance

As noted in the previous section, a majority of the crashes pertained to northbound traffic on Middlefield Road interacting with through traffic on Lincoln Avenue. Given the presence of existing vegetation along Middlefield Road (notably, near the northwest and southeast legs of the intersection) and on-street parking (all four frontages), side-street corner sight distance may contribute to the conditions at the intersection. The trimming of said vegetation and removal of nearby on-street parking (along Middlefield Road) may alleviate some of these concerns (see **Appendix G** for illustrative purposes).

In order to assess existing conditions, the side-street corner sight distances on Lincoln Avenue were evaluated by TJKM based on Middlefield's posted speed limit of 25 mph.

Using 25 mph for the assessment (based on the posted speed limit), the required sight distance left ("SDL"; looking left in order to turn right) is 240 feet as per Table 9-9 and the required sight distance right ("SDR"; looking left and right in order to turn left) is 280 feet as per Table 9-7 in AASHTO's <u>A Policy on Geometric Design of Highways and Street</u> (7th Ed., 2018), commonly referred to as the "Green Book." For both directions of approach on Lincoln Avenue, the required 240 feet sight triangles for SDL are potentially obstructed due to both trees and on-street parking. Similarly, the required 280 feet sight triangles for SDR are potentially obstructed due to both trees and on-street parking. Sight profiles are provided in **Appendix G**.

Of note, with respect to potential vegetation obstructions, the City indicated, as part of its Municipal Code (particularly in Section 8.04.050(c)), the following: "*Any tree limb, shrub, hedge, or plant reaching a height more than three feet above the curb grade adjacent thereto, except a tree trunk having no limbs lower than nine feet above curb grade, within the thirty-five foot triangle of public or private property, measured from the projected curb lines, at the intersections of any street improved for vehicular traffic where either traffic signals, stop signs, or yield signs are not installed, or at any intersections which are determined by the chief transportation official to contain a tree limb, shrub, hedge, or plant that obscures or impairs the view of a passing motorist, cyclist or pedestrian so as to create a safety hazard.*" As such, obstructions pertaining to tree trunks within the sight triangles may be compliant with the City's Code. As illustrated in **Appendix G**, four trees along Middlefield Road were identified to be potentially

located within the intersection sight triangles. These trees should be further investigated by the City to verify code compliance; branch removal or trimming should occur to meet code, if needed.

If further pursued, it is recommended that the City discuss this measure with adjacent residents prior to any implementation.

Restriction of Turning Movements on Lincoln Avenue

Lincoln Avenue is a two-lane local road that spans approximately 1.39 miles and primarily is intended to serve fronting residential homes. As noted previously, a majority of the crashes pertained to through traffic on Lincoln Avenue. By physically restricting left and through turning movements, critical conflicts points would be eliminated. Typically, a traditional intersection with full movements has 32 vehicular conflict points; by restricting movements on Lincoln (both approaches), the number of vehicular conflict points would be reduced to 10. The example of a forced turn island (sometimes referred to as a half porkchop) is illustrated in **Figure 1** (south leg). A comparison of conflict points is illustrated in **Figure 2**.

If further pursued, it is recommended that the City discuss this measure with adjacent residents prior to any implementation.

Of note, with the restriction of turning movements at the subject intersection from the Lincoln Avenue approaches, local residential traffic and regional traffic performing the left and through turning movements would be forced to find alternative routes. It is likely that side street traffic volumes along Addison Avenue, Kingsley Avenue, and Melville Avenue would increase to offset displaced traffic along Lincoln Avenue.

Figure 1: Example of a Forced Turn Island
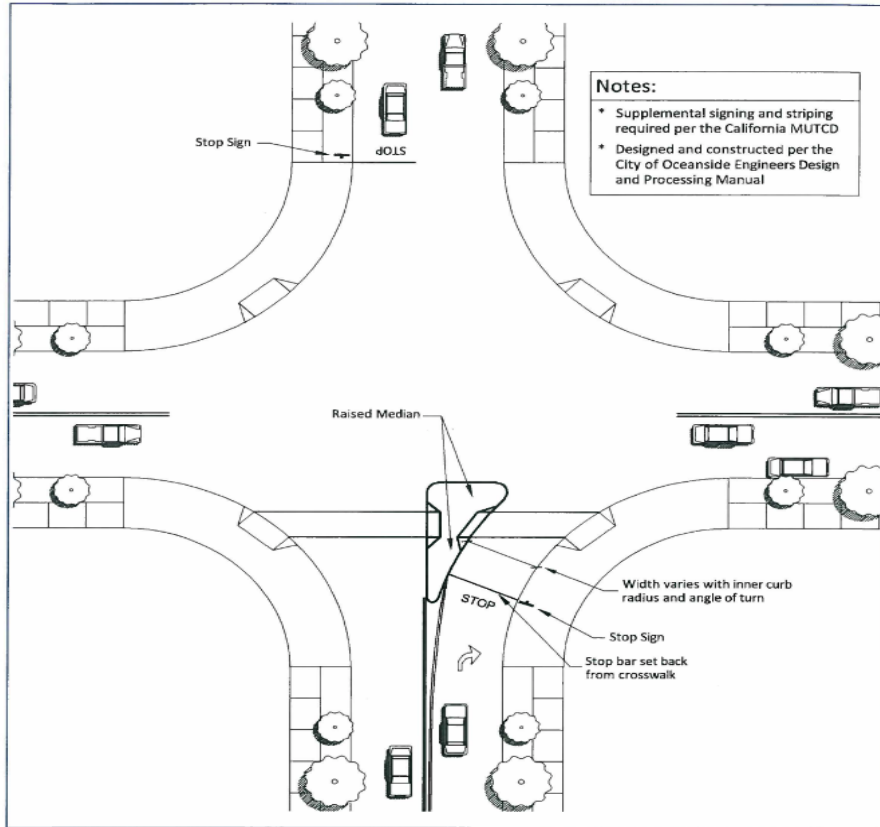
Source: City of Oceanside (CA) Neighborhood Traffic Calming Program

Figure 2: Conflict Point Comparison

8	●	Diverging	4
8	●	Merging	4
16	●	Crossing	2
Conventional Intersection	**32**	**Total**	**10**	**Intersection with Forced Islands Installed**

In order to assess impacts at the subject intersection with the potential conversion and at each of the adjacent intersections, additional intersection capacity analyses were performed during the a.m. and p.m. commuter peak hours. For the purposes of this assessment, an LOS D was considered acceptable and/or desirable for traffic operations and the analysis continues to assume a 4.0 second LPI interval. The detailed analysis worksheets are provided in **Appendix F**.

Table 4 reflects the change in traffic operations at the intersection of Middlefield Road at Lincoln Avenue. As illustrated, traffic operations at the subject intersection would improve during the peak hours. Vehicular delays are expected to be reduced by approximately 10.4 seconds per vehicle.

Table 4: Existing Conditions with Reroute – Intersection Capacity Analysis at Lincoln Avenue

No.	Intersection	Control Type	Methodology	Peak Hour	Existing		With Reroute		Change in Delay
					Delay	LOS	Delay	LOS	
2	Middlefield Rd. w/ Lincoln Ave.	TWSC	HCM 6	AM	19.6	C	10.0	B	-9.6
				PM	21.6	C	10.5	B	-11.1

Table 5 reflects the change in traffic operations at the intersection of Middlefield Road at Addison Avenue, assuming 100% of the rerouted Lincoln Avenue traffic would utilized this specific intersection. This would provide a conservative assessment as rerouted traffic would be distributed between multiple intersections. As illustrated, traffic operations at the subject intersection would continue to operate within jurisdictional standards during the peak periods. Vehicular delays are expected to be increased by approximately 2.9 seconds per vehicle.

Table 5: Existing Conditions with Reroute – Intersection Capacity Analysis at Addison Avenue

No.	Intersection	Control Type	Methodology	Peak Hour	Existing		With Reroute		Change in Delay
					Delay	LOS	Delay	LOS	
1	Middlefield Rd. w/ Addison Ave.	Signal	HCM 2000	AM	9.3	A	12.3	B	3.0
				PM	9.1	A	11.9	B	2.8

Table 6 reflects the change in traffic operations at the intersection of Middlefield Road at Kingsley Avenue, assuming 100% of the rerouted Lincoln Avenue traffic would utilized this specific intersection. This would provide a conservative assessment as rerouted traffic would be distributed between multiple intersections. As illustrated, traffic operations at the subject intersection would continue to operate within jurisdictional standards during the peak periods. Vehicular delays are expected to be increased by approximately 8.1 seconds per vehicle. This would indicated that overall vehicular delay between the two intersections would be reduced by 2.3 seconds (8.1 seconds + -10.4 seconds).

Table 6: Existing Conditions with Reroute – Intersection Capacity Analysis at Kingsley Avenue

No.	Intersection	Control Type	Methodology	Peak Hour	Existing		With Reroute		Change in Delay
					Delay	LOS	Delay	LOS	
3	Middlefield Rd. w/ Kingsley Ave.	TWSC	HMC 6	AM	13.3	B	19.9	C	6.6
				PM	13.2	B	22.8	C	9.6

Table 7 reflects the change in traffic operations at the intersection of Middlefield Road at Melville Avenue, assuming 100% of the rerouted Lincoln Avenue traffic would utilized this specific intersection. This would provide a conservative assessment as rerouted traffic would be distributed between multiple intersections. As illustrated, traffic operations at the subject intersection would continue to operate within jurisdictional standards during the peak periods. Vehicular delays are expected to be increased by approximately 2.9 seconds per vehicle.

Table 7: Existing Conditions with Reroute – Intersection Capacity Analysis at Melville Avenue

No.	Intersection	Control Type	Methodology	Peak Hour	Existing		With Reroute		Change in Delay
					Delay	LOS	Delay	LOS	
4	Middlefield Rd. w/ Melville Ave.	Signal	HCM 2000	AM	14.9	B	18.5	B	3.6
				PM	15.3	B	17.4	B	2.1

As illustrated in the tables above, the installation of forced turn islands would not substantially impact traffic operations at the study intersections during the commuter peak hours.

CONCLUSIONS

This memorandum summarizes the findings of an intersection safety assessment that was conducted for the intersection of Lincoln Avenue and Middlefield Road within the City of Palo Alto, California. The following findings have been made:

- Between January 2017 and December 2021, a total of 15 crashes were recorded at the study intersection. The majority of these crashes were classified as broadside collisions and were attributed with northbound traffic on Middlefield Road colliding with both eastbound and westbound traffic on Lincoln Avenue

- Operating speeds along Lincoln Avenue were at or below the posted speed limit of 25 mph.

- Operating speeds along Middlefield Road were higher than the speed limit of 25 mph. The 85th percentile speed was approximated at 33.8 mph; the pace speed was approximated to occur between 24 and 33 mph.

- Existing traffic operations during the weekday commuter peak hours do not indicate a capacity failure at these intersections. This would indicate that vehicles would not experience reasonable delays and find gaps in opposing traffic progression in order to perform left or right turning maneuvers.

- The provision of an all-way stop control application may help alleviate conflicts, but this is generally not recommended due to not satisfying primary State criteria and due to the potential adverse impacts to traffic operations and roadway character.

- Improvement to sight distance may help alleviate conflict. This could be done via the removal of existing vegetation (if applicable as determined by City code) along Middlefield Road (notably, near the northwest and southeast legs of the intersection) and on-street parking along Middlefield Road (all four frontages).

  - Note, obstructions pertaining to tree trunks within the sight triangles may be compliant with the City's Code.

  - If further pursued, it is recommended that the City discuss this measure with adjacent residents prior to any implementation.

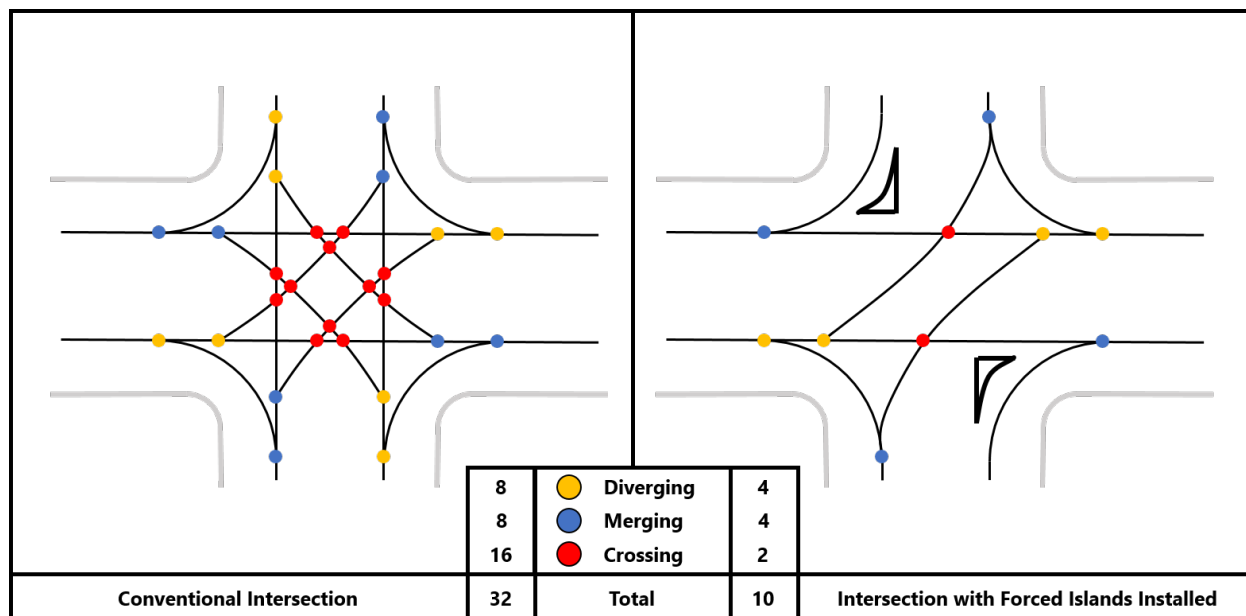- The restriction of left and through turning movements from Lincoln Avenue may help alleviate conflict. This could be done with the installation of two forced turn islands (half porkchops).

  - This would reduce vehicular conflict points at the intersection from 32 to 10 and would eliminate a majority of the movements that were associated with the reported collisions.

- o This would cause some drivers on the road network to use alternative paths (primarily via Addison Avenue, Kingsley Avenue, and Melville Avenue). Based on a capacity analysis of alternative conditions, the proposed would not substantially impact traffic operations at the study intersections during the commuter peak hours.

- o If further pursued, it is recommended that the City discuss this measure with adjacent residents prior to any implementation.

Appendix A – 2022 Signal Warrant Assessment

City of Palo Alto Office of Transportation Traffic Signal Warrant Summary Worksheet based on MUTCD

100%

The Worksheet(s) attached are provided as an attachment to the Engineering Investigation Study for:

Intersection: **Middlefield and Lincoln**
County: Santa Clara
City: City of PALO ALTO

Major Street: Middlefield Road
Critical Approach Speed: 25 mph
Lanes: 1 lane

Minor Street: Lincoln Avenue
Critical Approach Speed: 25 mph
Lanes: 1 lane

% Right Turns Included
From North (SB) 0%
From East (WB) 0%
From South (NB) 0%
From West (EB) 0%

In built-up area of isolated community of < 10,000 population? No
Total number of approaches at intersection? 4 or more
If it is a "T" intersection, inflate minor threshold to 150%? No
Manually set volume level? No

Analysis based on **EXISTING** **volume data.**

Date	Day of the Week	Time (HH:MM)			
		From	AM / PM	To	AM / PM

Warrant Evaluation Summary	Warrant Met:
Warrant 1: Eight - Hour Vehicular Volume	**No**
Condition A: Minimum Vehicular Volume	No
Condition B: Interruption of Continuous Traffic	No
Condition C: Combination: 80% of A and B	No
Warrant 2: Four-Hour Volume	**No**
Warrant 3: Peak Hour Volume	**No**
Warrant 4: Pedestrian Volume	**No**
Criterion A: Four-Hour	No
Criterion B: Peak-Hour	No
Warrant 5: School Crossing	**No**
Warrant 6: Coordinated Signal System	**No**
Warrant 7: Crash Experience	**No**
Warrant 8: Roadway Network	**No**
Warrant 9: Intersection Near a Grade Crossing	**No**

Warrant Analysis Conducted By:
Name: Chirag Panchal
Agency: City of Palo Alto
Date: 6/30/2022

Warrant 1: Eight - Hour Vehicular Volume   100%

Warrant Evaluated? Yes   **Warrant Satisfied?** No   **Manually Set To:** No

Condition A :		
Min. Veh. Volume		
Volume Level	100%	80%
Major Rd. Req	500	400
Minor Rd. Req	150	120
Number of Hours	1	3

Satisfied? No

Condition B:		
Interruption of Continuous Traffic		
Volume Level	100%	80%
Major Rd. Req	750	600
Minor Rd. Req	75	60
Number of Hours	0	0

Satisfied? No

Condition C:	
Combination of A & B at 80%	

Satisfied? No

6:00 AM		Enter Start Time (Military Time) (HH:MM)		
Time Period	From	To	Major Road: Both App. (VPH)	Minor Road: High App. (VPH)	Total
1	6:00	7:00	71	12	83
2	7:00	8:00	386	39	425
3	8:00	9:00	484	74	558
4	9:00	10:00	369	67	436
5	10:00	11:00	350	91	441
6	11:00	12:00	403	86	489
7	12:00	13:00	389	112	501
8	13:00	14:00	413	106	519
9	14:00	15:00	465	125	590
10	15:00	16:00	529	163	692
11	16:00	17:00	575	144	719
12	17:00	18:00	543	112	655
13	18:00	19:00	405	96	501
14	19:00	20:00	230	68	298
15	20:00	21:00	189	48	237
16	21:00	22:00	103	23	126

Warrant 2: Four-Hour Volume   100%

Warrant Evaluated? Yes
Warrant Satisfied? No
Manually Set To:

Hour Start	16:00	15:00	17:00	14:00
Major Road Vol.	575	529	543	465
Minor Road Vol.	144	163	112	125

Figure 4C-1 Warrant 2, Four-Hour Vehicular Volume
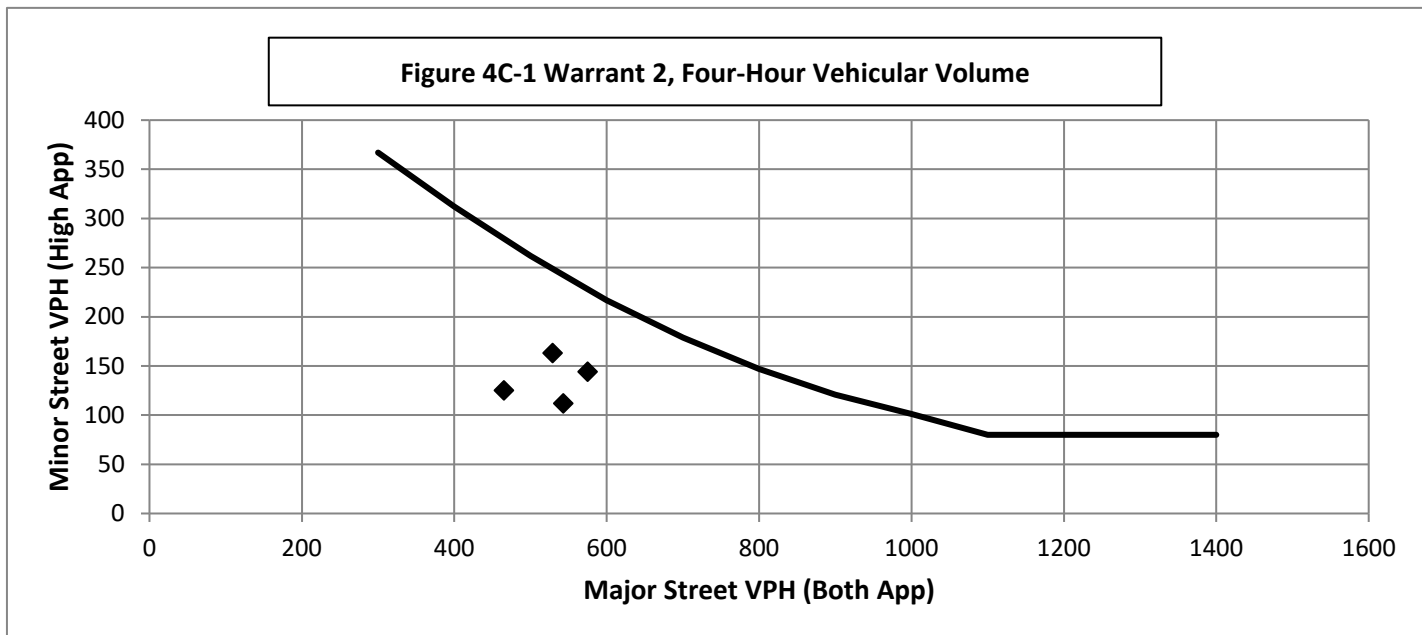
Warrant 3: Peak Hour Volume   100%

Warrant Evaluated? Yes   **Warrant Satisfied?** No   **Manually Set To:**

Condition justifying use of warrant:

Criteria		Met?
Delay on Minor Approach	4	No
Volume on Minor Approach	100	No
Total Entering Volume (veh/h)	800	

Manually Set Peak Hour? No

Peak Hour	Major Road Vol. (Both App.)	Minor Road Vol. (High App.)
16:00	575	144

Figure 4C-3 Warrant 3, Peak Hour
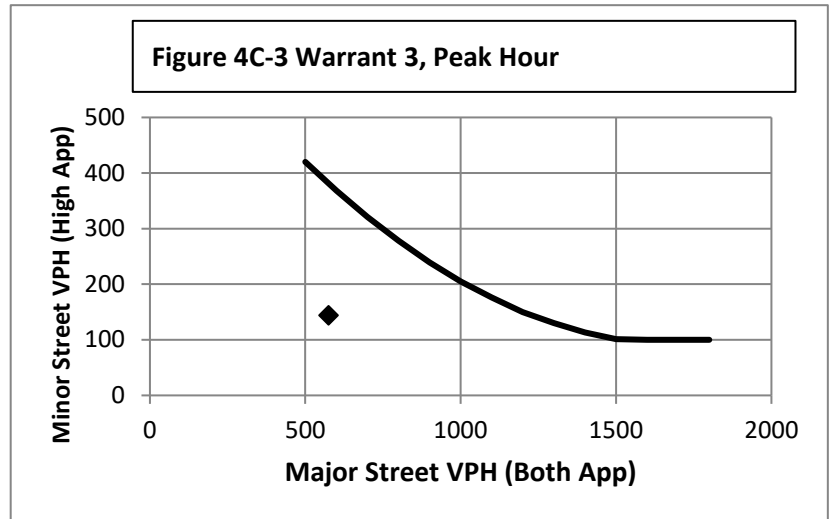
Warrant 4: Pedestrian Volume   100%

Warrant Evaluated? No   **Warrant Satisfied?** N/A   **Manually Set To:** No

Criterion A: Four Hour

Hour (Start)	Pedestrian Volume	Major Road Vol.
7:00	11	386
8:00	16	484
16:00	19	575
17:00	28	543

Manually Set Major Rd Vol? No
Avg. walk speed less than 3.5 ft/s? No

Criterion A Satisfied? No

Figure 4C-5 Warrant 4, Pedestrian Four-Hour Volume
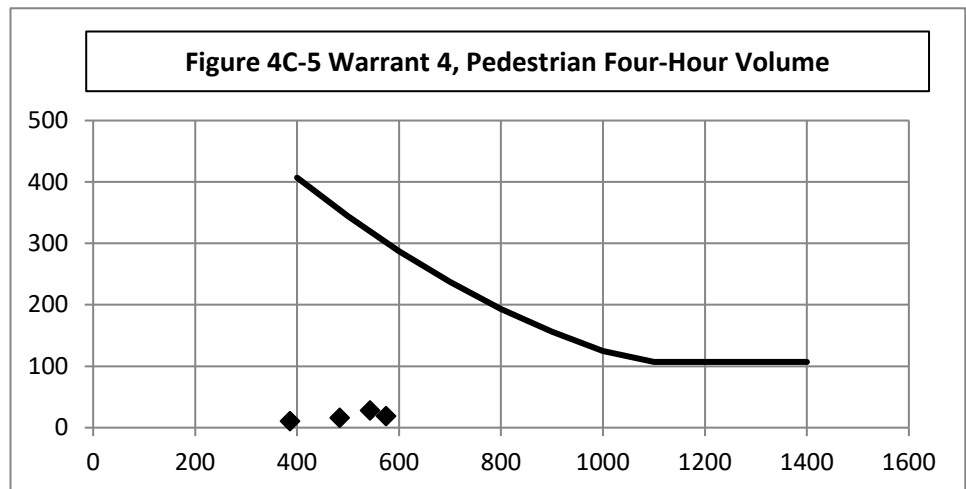
Criterion B: Peak Hour

Peak Hour	Pedestrian Vol.	Major Road Vol.
16:00	19	575

Criterion B Satisfied? No

Figure 4C-7 Warrant 4, Pedestrian Peak Hour
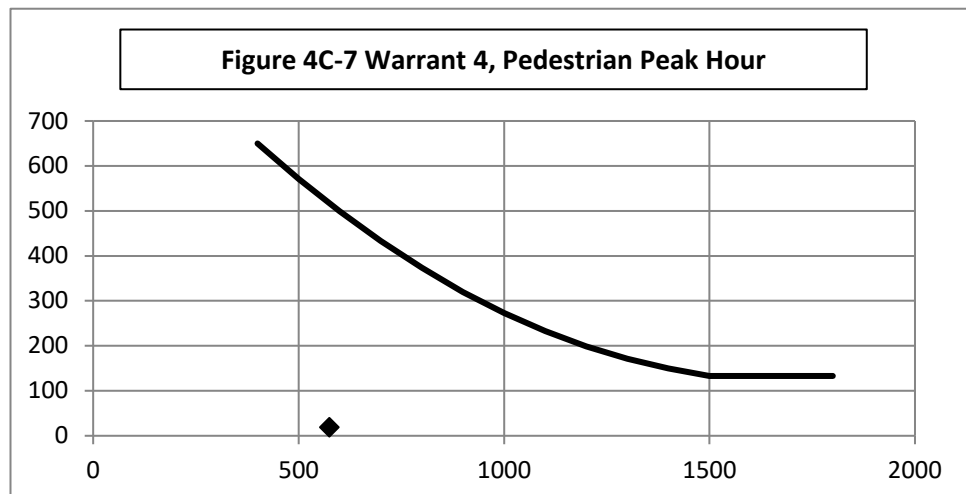
Warrant 5: School Crossing   100%

Warrant Evaluated? Yes   **Warrant Satisfied?** No   **Manually Set To:**

Criteria		Fulfilled?
1	There are a MINIMUM of 20 school children during the highest crossing hour.	No
2	There are fewer adequate gaps in the major road traffic stream during the period when the school children are using the crossing than the number of minutes in the same period.	Yes
3	The nearest traffic signal along the major road is located more than 300 ft away. Or, the nearest traffic signal is within 300 ft but the proposed traffic signal will not restrict the progressive movement of traffic.	Yes

Warrant 6: Coordinated Signal System   100%

Warrant Evaluated? Yes   **Warrant Satisfied?** N/A   **Manually Set To:** No

Criteria		Fulfilled?
1	Signal spacing > 1000 ft	No
2	On a one-way road or a road that has traffic predominantly in one direction, the adjacent signals are so far apart that they do not provide the necessary degree of vehicle platooning.	No
3	On a two-way road, adjacent signals do not provide the necessary degree of platooning and the proposed and the adjacent signals will collectively provide a progressive operation.	No

Warrant 7: Crash Experience   100%

Warrant Evaluated? Yes   **Warrant Satisfied?** No   **Manually Set To:**

Criteria			Met?	Fulfilled?
1	Adequate trial of other remedial measures has failed to reduce crash frequency. Measures Tried:			No
2	Five or more reported crashes, of types susceptible to correction by signal, have occurred within a 12 month period.	# of crashes per 12 months / 8		Yes
3	Warrant 1, Condition A (80%)		No	Yes
	Warrant 1, Condition B (80%)		No	
	Warrant 4, Criterion A (80%)		No	
	Warrant 4, Criterion B (80%)		Yes	

Warrant 8: Roadway Network   100%

Warrant Evaluated?   **Warrant Satisfied?** N/A   **Manually Set To:** No

Criteria			Met?	Fulfilled?
1	Total entering volume of at least 1,000 veh/h during typical weekday peak hour		719	No	No
	Five-year projected volumes that satisfy one or more of Warrants 1, 2, or 3.			No	
2	Total entering vol. of at least 1,000 veh/h for each of any 5 hrs of non-normal business day (Sat. or Sun.)				
		Hour			
		Volume			

Characteristics of Major Routes - Select yes if all intersecting routes have characteristic	Fulfilled?
1 Part of the road or highway system that serves as the principal roadway network for through traffic flow	Yes
2 Rural or suburban highway outside of, entering, or traversing a city	No
3 Appears as a major route on an official plan	No

Warrant 9: Intersection Near a Grade Crossing   100%

Warrant Evaluated? No   **Warrant Satisfied?** N/A   **Manually Set To:** No

Adjustment Factors					Manually Set Peak Hour?		No
Rail Traffic per Day	% High Occupancy Buses on Minor Road	% Tractor-Trailer Trucks on Minor Road	D	Peak Hour	Major Road Vol.	Minor Road Vol.	Adjusted Minor Vol.
1	0	0% to 2.5%	660	16:00	575	144	48.24

Figure 4C-9 Warrant9, Intersection Near a grade Crossing (One Approach Lane at the Track Crossing)
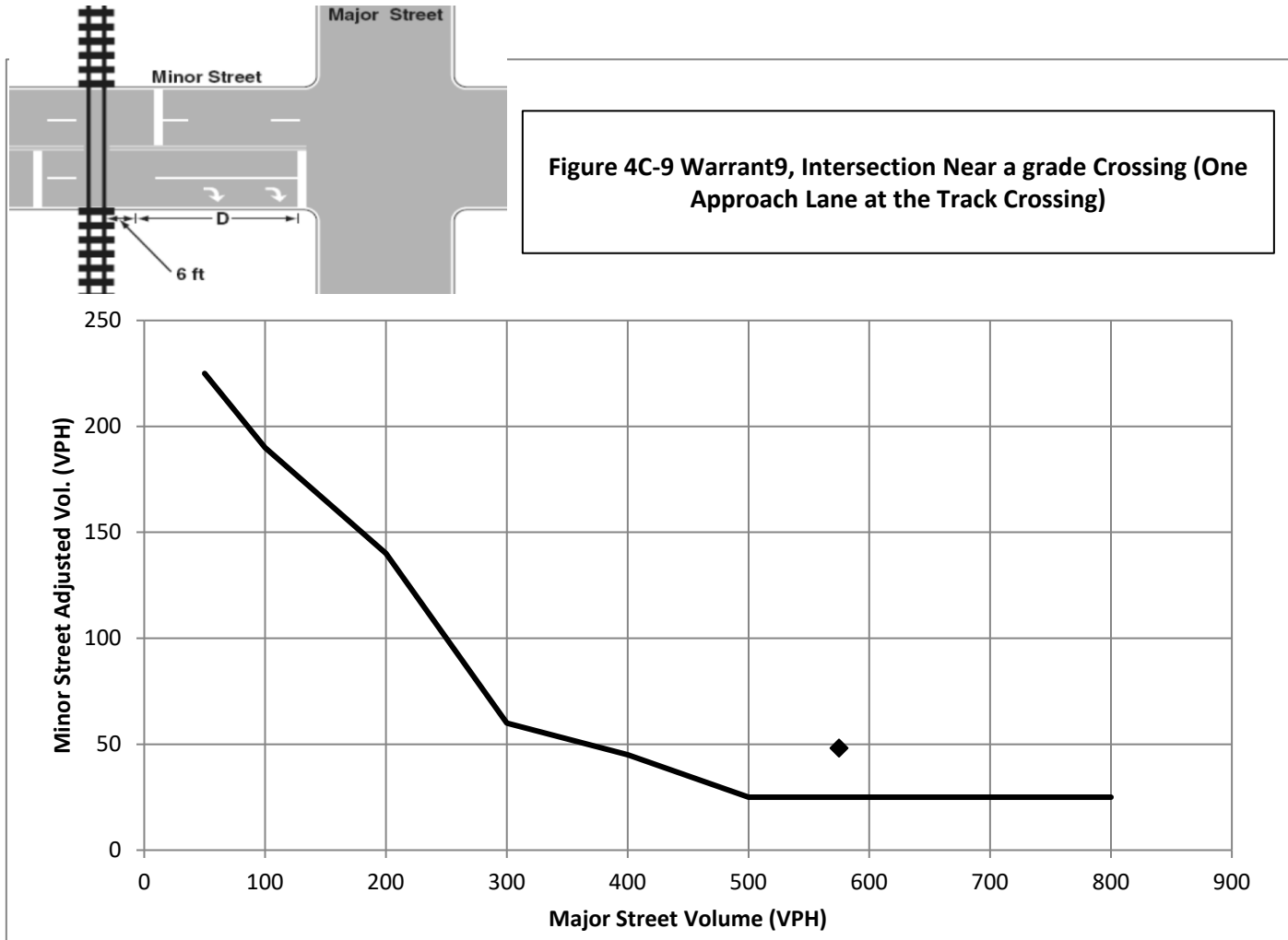
Conclusions/Comments:

Updated: 12/6/2017

Appendix B – 2017 – 2021 Crash Data

CASE_ID	COLLISION_DATE	COLLISION	OFFICER_ID	PRIMARY_RD	SECONDARY_RD	INTERSECTION	WEATHER_1	COLLISION_SEVERITY	NUMBER_KILLED	NUMBER_INJURED	PRIMARY_COLL_FACTOR	TYPE_OF_COLLISION	MVIW
8541743	1/18/2018	1635	3985	MIDDLEFIELD RD	LINCOLN AV	Y	B	4	0	2	A	D	C
9119934	7/9/2020	1715	7189	MIDDLEFIELD RD	LIN COLN AV	Y	A	4	0	1	A	D	G
8535728	1/6/2018	1813	7190	MIDDLEFIELD RD	LINCOLN AV	Y	A	4	0	3	A	D	C
9239381	3/31/2021	1045	8142	MIDDLEFIELD RD	LINCOLN AV	Y	A	3	0	1	A	D	C
9360903	11/13/2021	1823	8536	MIDDLEFIELD RD	LINCOLN AV	Y	A	3	0	2	A	A	C
8714156	10/10/2018	905	6986	MIDDLEFIELD RD	LINCOLN AV	Y	A	4	0	1	A	D	C
8646684	6/11/2018	1450	4456	MIDDLEFIELD RD	LINCOLN AV	Y	A	4	0	2	A	D	C
9062111	2/28/2020	1117	8536	MIDDLEFIELD RD	LINCOLN AV	Y	A	4	0	1	A	D	C
8914470	7/26/2019	2330	4456	LINCOLN AV	MIDDLEFIELD RD	Y	A	4	0	1	A	D	C
8608522	4/19/2018	1650	6911	MIDDLEFIELD RD	LINCOLN AV	Y	A	4	0	1	A	B	D
9364341	11/20/2021	1234	8749	MIDDLEFIELD RD	LINCOLN AV	Y	A	3	0	3	A	D	C
9359251	10/29/2021	1004	8063	MIDDLEFIELD RD	LINCOLN AV	Y	-	3	0	1	D	-	-
8559755	2/9/2018	750	1514	MIDDLEFIELD RD	LINCOLN AV	Y	A	4	0	1	A	D	C
9354748	10/12/2021	1833	8002	MIDDLEFIELD RD	LINCOLN AV	Y	A	4	0	1	A	D	C
8682533	8/28/2018	720	6986	MIDDLEFIELD RD	LINCOLN AV	Y	A	4	0	4	A	D	C

PED_ACTION	ROAD_SURFACE	ROAD_CO	LIGHTING	CONTROL_DEVICE	BICYCLE_A	NOT_PRIV	ALCOHOL_	STWD_VEH	CHP_VEHT	COUNT_SE	COUNT_VI	COUNT_C	COUNT_PE	COUNT_PE	COUNT_BI	COUNT_BI	COUNT_M	COUNT_MC_INJURED
A	A	H	B	A		Y		A	1	0	0	2	0	0	0	0	0	0
A	A	H	A	A	Y	Y		A	1	0	0	1	0	0	0	1	0	0
A	A	H	C	D		Y		A	1	0	0	3	0	0	0	0	0	0
A	A	H	A	A		Y		A	1	0	1	0	0	0	0	0	0	0
A	A	H	C	A		Y	Y	A	1	0	2	0	0	0	0	0	0	0
A	A	H	A	A		Y		A	1	0	0	1	0	0	0	0	0	0
A	A	H	A	D		Y		A	1	0	0	2	0	0	0	0	0	0
A	A	H	A	A		Y		A	1	0	0	1	0	0	0	0	0	0
A	A	H	C	A		Y		A	1	0	0	1	0	0	0	0	0	0
A	A	H	A	A		Y		A	1	0	0	1	0	0	0	0	0	0
A	A	H	A	D		Y		A	1	0	3	0	0	0	0	0	0	0
A	-	-	-	-	Y	Y		-	-	0	1	0	0	0	0	1	0	0
A	A	H	A	A		Y		A	1	0	0	1	0	0	0	0	0	0
A	A	H	A	D		Y		A	7	0	0	1	0	0	0	0	0	0
A	A	H	A	A		Y		A	1	0	0	4	0	0	0	0	0	0

CRASH DIAGRAM

Primary Street:
Middlefield

Secondary Street:
Lincoln

Time Period:
2017-2021

Agency Name:

Mapping Summary:

Fatal Crash	0
Injury Crash	12
Mapped	12
Not Drawn	3
Total	15

Legend:
- → Straight
- ↱ Left Turn
- ↘ Right Turn
- ↰ U-Turn
- ⇀ Overturned
- ↘ Ran Off Road
- �muteStopped
- ⊠▸ Parked
- 🚶 Pedestrian
- 🚲 Bicycle
- ⊠ Object
- ● Fatal Crash
- ○ Injury Crash

Date Created: 06/01/2023
Created by TIMS (https://tims.berkeley.edu) © UC Regents, 2014-2023

Appendix C – 2022 Speed Data

Traffic Data Service -- San Jose, CA
Speed Report

CustomList-7671 -- English (ENU)

Datasets:
Site: **[2] LINCOLN AVE E OF MIDDLEFIELD RD**
Data type: Axle sensors - Paired (Class/Speed/Count)

Profile:
Included classes: 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13
Speed range: 0 - 100 mph.
Direction: East (bound), P = <u>East</u>, Lane = 0-16
Name: Default Profile
Scheme: Vehicle classification (Scheme F)
Units: Non metric (ft, mi, ft/s, mph, lb, ton)

Column Legend:
 0 [Time]   24-hour time (0000 - 2359)
 1 [Total]   Number in time step
 2 [Vbin]   Speed bin totals
 3 [vPace]   Speed at start of pace
 4 [Pace%]   Percent in pace
 5 [Mean]   Average speed
 6 [Vpp]   Percentile speed

* Tuesday, February 1, 2022

Time	Total	Vbin 0-5	Vbin 5-10	Vbin 10-15	Vbin 15-20	Vbin 20-25	Vbin 25-30	Vbin 30-35	Vbin 35-40	Vbin 40-45	Vbin 45-50	Vbin 50-55	Vbin 55-60	Vbin 60-65	Vbin 65-70	Vbin 70-75	Vbin 75-100	vPace 10	Pace% 10	Mean	Vpp 85
0900	3	0	0	0	0	3	0	0	0	0	0	0	0	0	0	0	0	15.0	100.0	23.9	–
1000	34	0	1	7	5	15	6	0	0	0	0	0	0	0	0	0	0	16.2	73.53	19.9	25.8
1100	36	0	1	0	5	20	9	1	0	0	0	0	0	0	0	0	0	17.0	88.89	22.6	26.2
1200	58	0	0	0	11	35	7	4	1	0	0	0	0	0	0	0	0	15.0	79.31	22.8	27.7
1300	40	0	1	5	6	16	11	1	0	0	0	0	0	0	0	0	0	17.8	72.50	21.8	27.3
1400	72	0	0	8	24	31	9	0	0	0	0	0	0	0	0	0	0	14.4	79.17	20.4	24.1
1500	66	0	1	9	16	29	10	1	0	0	0	0	0	0	0	0	0	16.6	74.24	20.9	25.6
1600	72	0	2	6	19	32	12	1	0	0	0	0	0	0	0	0	0	15.8	76.39	20.7	25.6
1700	67	0	0	9	17	34	5	2	0	0	0	0	0	0	0	0	0	14.2	77.61	20.5	24.0
1800	38	0	0	5	13	13	6	1	0	0	0	0	0	0	0	0	0	15.8	76.32	20.6	25.5
1900	25	0	1	3	3	11	7	0	0	0	0	0	0	0	0	0	0	18.3	76.00	21.4	27.5
2000	33	0	0	1	9	17	5	1	0	0	0	0	0	0	0	0	0	17.4	90.91	22.1	26.8
2100	36	0	0	0	7	17	12	0	0	0	0	0	0	0	0	0	0	18.2	94.44	23.2	26.3
2200	10	0	0	0	2	5	2	1	0	0	0	0	0	0	0	0	0	14.2	70.00	23.2	–
2300	8	0	0	0	1	4	2	1	0	0	0	0	0	0	0	0	0	20.9	87.50	24.3	–
07-19	486	0	6	49	116	228	75	11	1	0	0	0	0	0	0	0	0	16.2	74.69	21.1	25.6
06-22	580	0	7	53	135	273	99	12	1	0	0	0	0	0	0	0	0	17.8	75.86	21.3	25.6
06-00	598	0	7	53	138	282	103	14	1	0	0	0	0	0	0	0	0	17.2	75.42	21.4	25.7
00-00	598	0	7	53	138	282	103	14	1	0	0	0	0	0	0	0	0	17.2	75.42	21.4	25.7

Peak step 14:00 (72) **AM Peak step** 11:00 (36) **PM Peak step** 14:00 (72)

* Wednesday, February 2, 2022

Time <--	Total	Vbin 0 5	Vbin 5 10	Vbin 10 15	Vbin 15 20	Vbin 20 25	Vbin 25 30	Vbin 30 35	Vbin 35 40	Vbin 40 45	Vbin 45 50	Vbin 50 55	Vbin 55 60	Vbin 60 65	Vbin 65 70	Vbin 70 75	Vbin 75 100	vPace 10	Pace% 10	Mean	Vpp 85
0000	2	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	12.9	100.0	21.2	–
0100	2	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	15.0	100.0	21.5	–
0200	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	–	–	–	–
0300	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	–	–	–	–
0400	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	–	–	–	–
0500	6	0	0	1	2	1	1	1	0	0	0	0	0	0	0	0	0	15.7	66.67	21.8	–
0600	13	0	0	0	4	4	5	0	0	0	0	0	0	0	0	0	0	17.2	100.0	22.6	27.1
0700	41	0	0	1	17	17	6	0	0	0	0	0	0	0	0	0	0	15.2	85.37	20.9	25.0
0800	68	0	0	2	29	27	9	1	0	0	0	0	0	0	0	0	0	15.2	83.82	20.9	24.9
0900	38	0	0	2	12	17	6	1	0	0	0	0	0	0	0	0	0	16.0	84.21	21.7	25.5
1000	39	0	1	5	9	14	10	0	0	0	0	0	0	0	0	0	0	17.2	71.79	20.8	26.5
1100	24	1	0	1	4	7	11	0	0	0	0	0	0	0	0	0	0	17.4	83.33	22.5	27.2
1200	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	–	–	–	–
1300	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	–	–	–	–
1400	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	–	–	–	–
1500	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	–	–	–	–
1600	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	–	–	–	–
1700	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	–	–	–	–
1800	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	–	–	–	–
1900	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	–	–	–	–
2000	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	–	–	–	–
2100	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	–	–	–	–
2200	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	–	–	–	–
2300	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	–	–	–	–
07-19	210	1	1	11	71	82	42	2	0	0	0	0	0	0	0	0	0	16.4	76.19	21.2	26.0
06-22	223	1	1	11	75	86	47	2	0	0	0	0	0	0	0	0	0	17.4	77.13	21.3	26.1
06-00	223	1	1	11	75	86	47	2	0	0	0	0	0	0	0	0	0	17.4	77.13	21.3	26.1
00-00	233	1	1	12	79	89	48	3	0	0	0	0	0	0	0	0	0	17.4	77.25	21.3	26.0

Peak step 8:00 (68) **AM Peak step** 8:00 (68)

* Thursday, February 3, 2022

Time <--	Total	Vbin 0 5	Vbin 5 10	Vbin 10 15	Vbin 15 20	Vbin 20 25	Vbin 25 30	Vbin 30 35	Vbin 35 40	Vbin 40 45	Vbin 45 50	Vbin 50 55	Vbin 55 60	Vbin 60 65	Vbin 65 70	Vbin 70 75	Vbin 75 100	vPace 10	Pace% 10	Mean	Vpp 85
0000	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	–	–	–	–
0100	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	–	–	–	–
0200	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	–	–	–	–
0300	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	–	–	–	–
0400	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	–	–	–	–
0500	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	–	–	–	–
0600	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	–	–	–	–
0700	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	–	–	–	–
0800	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	–	–	–	–
0900	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	–	–	–	–
1000	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	–	–	–	–
1100	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	–	–	–	–
1200	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	–	–	–	–
1300	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	–	–	–	–
1400	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	–	–	–	–
1500	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	–	–	–	–
1600	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	–	–	–	–
1700	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	–	–	–	–
1800	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	–	–	–	–
1900	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	–	–	–	–
2000	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	–	–	–	–
2100	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	–	–	–	–
2200	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	–	–	–	–
2300	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	–	–	–	–
07-19	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	–	–	–	–
06-22	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	–	–	–	–
06-00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	–	–	–	–
00-00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	–	–	–	–

* Grand Total

Time <--	Total	Vbin 0 5	Vbin 5 10	Vbin 10 15	Vbin 15 20	Vbin 20 25	Vbin 25 30	Vbin 30 35	Vbin 35 40	Vbin 40 45	Vbin 45 50	Vbin 50 55	Vbin 55 60	Vbin 60 65	Vbin 65 70	Vbin 70 75	Vbin 75 100	vPace 10	Pace% 10	Mean	Vpp 85
--	831	1	8	65	217	371	151	17	1	0	0	0	0	0	0	0	0	17.4	75.81	21.3	25.8

Traffic Data Service -- San Jose, CA
Speed Report

CustomList-7670 -- English (ENU)

Datasets:
Site: **[2] LINCOLN AVE E OF MIDDLEFIELD RD**
Data type: Axle sensors - Paired (Class/Speed/Count)

Profile:
Included classes: 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13
Speed range: 0 - 100 mph.
Direction: West (bound), P = <u>East</u>, Lane = 0-16
Name: Default Profile
Scheme: Vehicle classification (Scheme F)
Units: Non metric (ft, mi, ft/s, mph, lb, ton)

Column Legend:
0 [Time]   24-hour time (0000 - 2359)
1 [Total]   Number in time step
2 [Vbin]   Speed bin totals
3 [vPace]   Speed at start of pace
4 [Pace%]   Percent in pace
5 [Mean]   Average speed
6 [Vpp]   Percentile speed

* Tuesday, February 1, 2022

Time	Total	Vbin 0-5	Vbin 5-10	Vbin 10-15	Vbin 15-20	Vbin 20-25	Vbin 25-30	Vbin 30-35	Vbin 35-40	Vbin 40-45	Vbin 45-50	Vbin 50-55	Vbin 55-60	Vbin 60-65	Vbin 65-70	Vbin 70-75	Vbin 75-100	vPace 10	Pace% 10	Mean	Vpp 85
0900	15	1	0	0	3	9	2	0	0	0	0	0	0	0	0	0	0	15.5	93.33	20.6	24.7
1000	54	0	1	5	17	23	5	2	1	0	0	0	0	0	0	0	0	16.8	81.48	21.0	24.9
1100	49	0	0	3	8	29	9	0	0	0	0	0	0	0	0	0	0	17.8	85.71	21.9	25.3
1200	57	0	0	3	11	32	10	1	0	0	0	0	0	0	0	0	0	18.3	87.72	22.1	26.3
1300	47	0	1	4	21	15	5	1	0	0	0	0	0	0	0	0	0	16.2	82.98	20.2	24.9
1400	64	0	0	7	20	30	7	0	0	0	0	0	0	0	0	0	0	15.2	81.25	20.1	24.0
1500	77	0	1	4	35	27	10	0	0	0	0	0	0	0	0	0	0	16.2	84.42	20.2	24.1
1600	63	0	0	2	23	33	5	0	0	0	0	0	0	0	0	0	0	15.9	90.48	20.6	24.0
1700	52	0	0	5	18	19	9	1	0	0	0	0	0	0	0	0	0	15.3	73.08	20.9	26.3
1800	47	0	0	1	13	27	6	0	0	0	0	0	0	0	0	0	0	16.1	89.36	21.4	24.7
1900	28	0	0	1	11	12	4	0	0	0	0	0	0	0	0	0	0	16.0	92.86	21.0	25.0
2000	22	0	0	0	9	12	1	0	0	0	0	0	0	0	0	0	0	14.5	95.45	19.8	23.6
2100	7	0	0	0	0	3	4	0	0	0	0	0	0	0	0	0	0	18.5	100.0	25.0	-
2200	9	0	0	1	4	2	1	0	0	1	0	0	0	0	0	0	0	12.1	77.78	21.7	-
2300	3	0	0	0	1	1	1	0	0	0	0	0	0	0	0	0	0	15.7	100.0	23.2	-
07-19	525	1	3	34	169	244	68	5	1	0	0	0	0	0	0	0	0	16.4	81.33	20.9	24.8
06-22	582	1	3	35	189	271	77	5	1	0	0	0	0	0	0	0	0	16.4	82.30	20.9	24.9
06-00	594	1	3	36	194	274	79	5	1	1	0	0	0	0	0	0	0	16.4	81.82	20.9	24.9
00-00	594	1	3	36	194	274	79	5	1	1	0	0	0	0	0	0	0	16.4	81.82	20.9	24.9

Peak step 15:00 (77) **AM Peak step** 10:00 (54) **PM Peak step** 15:00 (77)

* Wednesday, February 2, 2022

Time <--	Total	Vbin 0 5	Vbin 5 10	Vbin 10 15	Vbin 15 20	Vbin 20 25	Vbin 25 30	Vbin 30 35	Vbin 35 40	Vbin 40 45	Vbin 45 50	Vbin 50 55	Vbin 55 60	Vbin 60 65	Vbin 65 70	Vbin 70 75	Vbin 75 100	vPace 10	Pace% 10	Mean	Vpp 85
0000	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	12.4	100.0	22.3	–
0100	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	–	–	–	–
0200	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	–	–	–	–
0300	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	–	–	–	–
0400	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	–	–	–	–
0500	4	0	0	0	1	2	1	0	0	0	0	0	0	0	0	0	0	14.0	75.00	23.1	–
0600	31	0	0	1	12	12	5	1	0	0	0	0	0	0	0	0	0	16.4	83.87	21.5	25.8
0700	84	0	0	7	26	42	6	3	0	0	0	0	0	0	0	0	0	14.9	82.14	20.6	24.5
0800	156	1	0	10	58	69	17	1	0	0	0	0	0	0	0	0	0	16.6	84.62	20.6	24.4
0900	61	0	1	5	23	26	6	0	0	0	0	0	0	0	0	0	0	16.8	85.25	20.3	24.5
1000	63	0	0	6	19	30	7	1	0	0	0	0	0	0	0	0	0	16.1	85.71	20.7	24.7
1100	25	0	0	0	12	11	2	0	0	0	0	0	0	0	0	0	0	15.3	96.00	20.4	23.1
1200	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	–	–	–	–
1300	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	–	–	–	–
1400	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	–	–	–	–
1500	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	–	–	–	–
1600	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	–	–	–	–
1700	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	–	–	–	–
1800	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	–	–	–	–
1900	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	–	–	–	–
2000	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	–	–	–	–
2100	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	–	–	–	–
2200	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	–	–	–	–
2300	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	–	–	–	–
07-19	389	1	1	28	138	178	38	5	0	0	0	0	0	0	0	0	0	16.0	83.29	20.5	24.4
06-22	420	1	1	29	150	190	43	6	0	0	0	0	0	0	0	0	0	16.0	83.10	20.6	24.5
06-00	420	1	1	29	150	190	43	6	0	0	0	0	0	0	0	0	0	16.0	83.10	20.6	24.5
00-00	425	1	1	29	151	193	44	6	0	0	0	0	0	0	0	0	0	16.0	83.06	20.6	24.5

Peak step 8:00 (156) **AM Peak step** 8:00 (156)

* Thursday, February 3, 2022

Time <--	Total	Vbin 0 5	Vbin 5 10	Vbin 10 15	Vbin 15 20	Vbin 20 25	Vbin 25 30	Vbin 30 35	Vbin 35 40	Vbin 40 45	Vbin 45 50	Vbin 50 55	Vbin 55 60	Vbin 60 65	Vbin 65 70	Vbin 70 75	Vbin 75 100	vPace 10	Pace% 10	Mean	Vpp 85
0000	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	–	–	–	–
0100	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	–	–	–	–
0200	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	–	–	–	–
0300	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	–	–	–	–
0400	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	–	–	–	–
0500	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	–	–	–	–
0600	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	–	–	–	–
0700	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	–	–	–	–
0800	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	–	–	–	–
0900	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	–	–	–	–
1000	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	–	–	–	–
1100	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	–	–	–	–
1200	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	–	–	–	–
1300	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	–	–	–	–
1400	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	–	–	–	–
1500	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	–	–	–	–
1600	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	–	–	–	–
1700	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	–	–	–	–
1800	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	–	–	–	–
1900	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	–	–	–	–
2000	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	–	–	–	–
2100	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	–	–	–	–
2200	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	–	–	–	–
2300	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	–	–	–	–
07-19	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	–	–	–	–
06-22	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	–	–	–	–
06-00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	–	–	–	–
00-00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	–	–	–	–

* Grand Total

Time <--	Total	Vbin 0 5	Vbin 5 10	Vbin 10 15	Vbin 15 20	Vbin 20 25	Vbin 25 30	Vbin 30 35	Vbin 35 40	Vbin 40 45	Vbin 45 50	Vbin 50 55	Vbin 55 60	Vbin 60 65	Vbin 65 70	Vbin 70 75	Vbin 75 100	vPace 10	Pace% 10	Mean	Vpp 85
--	1019	2	4	65	345	467	123	11	1	1	0	0	0	0	0	0	0	16.4	82.34	20.8	24.7

Traffic Data Service -- San Jose, CA
Speed Report

CustomList-7675 -- English (ENU)

Datasets:
Site: **[4] LINCOLN AVE W OF MIDDLEFIELD RD**
Data type: Axle sensors - Paired (Class/Speed/Count)

Profile:
Included classes: 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13
Speed range: 0 - 100 mph.
Direction: East (bound), P = <u>East</u>, Lane = 0-16
Name: Default Profile
Scheme: Vehicle classification (Scheme F)
Units: Non metric (ft, mi, ft/s, mph, lb, ton)

Column Legend:
0 [Time]   24-hour time (0000 - 2359)
1 [Total]   Number in time step
2 [Vbin]   Speed bin totals
3 [vPace]   Speed at start of pace
4 [Pace%]   Percent in pace
5 [Mean]   Average speed
6 [Vpp]   Percentile speed

* Tuesday, January 25, 2022

Time <--	Total	Vbin 0 5	Vbin 5 10	Vbin 10 15	Vbin 15 20	Vbin 20 25	Vbin 25 30	Vbin 30 35	Vbin 35 40	Vbin 40 45	Vbin 45 50	Vbin 50 55	Vbin 55 60	Vbin 60 65	Vbin 65 70	Vbin 70 75	Vbin 75 100	vPace 10	Pace% 10	Mean	Vpp 85
0000	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	–	–	–	–
0100	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	–	–	–	–
0200	1	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	15.9	100.0	25.7	–
0300	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	–	–	–	–
0400	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	14.7	100.0	24.5	–
0500	2	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	18.0	100.0	26.1	–
0600	10	0	0	0	1	5	4	0	0	0	0	0	0	0	0	0	0	18.8	100.0	24.0	–
0700	35	0	0	2	10	11	12	0	0	0	0	0	0	0	0	0	0	18.5	88.57	22.4	26.8
0800	48	0	1	5	16	21	5	0	0	0	0	0	0	0	0	0	0	14.1	81.25	19.8	23.6
0900	38	0	0	1	9	19	8	1	0	0	0	0	0	0	0	0	0	17.1	89.47	22.4	26.2
1000	27	0	0	2	7	14	4	0	0	0	0	0	0	0	0	0	0	15.2	81.48	21.4	25.0
1100	44	0	0	2	7	18	16	1	0	0	0	0	0	0	0	0	0	17.1	77.27	23.1	27.0
1200	63	1	2	5	8	30	13	4	0	0	0	0	0	0	0	0	0	17.4	73.02	21.9	26.8
1300	47	0	0	3	12	26	6	0	0	0	0	0	0	0	0	0	0	16.2	87.23	21.5	24.9
1400	63	0	0	1	25	28	9	0	0	0	0	0	0	0	0	0	0	16.2	88.89	21.4	24.8
1500	79	0	0	4	16	42	17	0	0	0	0	0	0	0	0	0	0	17.7	81.01	21.9	26.3
1600	87	0	3	8	17	43	13	3	0	0	0	0	0	0	0	0	0	16.2	75.86	21.3	25.2
1700	75	0	0	3	19	37	15	1	0	0	0	0	0	0	0	0	0	18.2	84.00	21.8	26.3
1800	47	0	0	0	16	22	9	0	0	0	0	0	0	0	0	0	0	15.8	93.62	22.3	25.3
1900	39	0	1	0	2	22	12	2	0	0	0	0	0	0	0	0	0	19.2	89.74	24.1	28.0
2000	34	0	0	0	6	19	9	0	0	0	0	0	0	0	0	0	0	18.0	82.35	23.1	27.8
2100	18	0	0	1	3	11	2	1	0	0	0	0	0	0	0	0	0	18.9	88.89	22.5	26.0
2200	4	0	0	0	0	3	0	1	0	0	0	0	0	0	0	0	0	12.6	75.00	23.9	–
2300	4	0	0	1	1	2	0	0	0	0	0	0	0	0	0	0	0	13.4	75.00	18.5	–
07-19	653	1	6	36	162	311	127	10	0	0	0	0	0	0	0	0	0	17.3	79.94	21.7	25.7
06-22	754	1	7	37	174	368	154	13	0	0	0	0	0	0	0	0	0	17.3	79.44	22.0	26.1
06-00	762	1	7	38	175	373	154	14	0	0	0	0	0	0	0	0	0	17.3	79.40	21.9	26.1
00-00	766	1	7	38	175	375	156	14	0	0	0	0	0	0	0	0	0	17.3	79.37	22.0	26.1

Peak step 16:00 (87)   **AM Peak step** 8:00 (48)   **PM Peak step** 16:00 (87)

* Wednesday, January 26, 2022

Time <--	Total	Vbin 0 5	Vbin 5 10	Vbin 10 15	Vbin 15 20	Vbin 20 25	Vbin 25 30	Vbin 30 35	Vbin 35 40	Vbin 40 45	Vbin 45 50	Vbin 50 55	Vbin 55 60	Vbin 60 65	Vbin 65 70	Vbin 70 75	Vbin 75 100	vPace 10	Pace% 10	Mean	Vpp 85
0000	3	0	0	0	0	0	2	1	0	0	0	0	0	0	0	0	0	22.6	100.0	29.7	-
0100	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	15.0	100.0	24.8	-
0200	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-	-	-	-
0300	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-	-	-	-
0400	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-	-	-	-
0500	6	0	0	0	0	2	1	2	1	0	0	0	0	0	0	0	0	23.4	83.33	29.0	-
0600	12	0	0	0	2	7	3	0	0	0	0	0	0	0	0	0	0	15.8	83.33	22.6	28.3
0700	39	0	1	0	16	19	2	1	0	0	0	0	0	0	0	0	0	15.1	89.74	20.5	24.5
0800	74	1	4	2	30	32	5	0	0	0	0	0	0	0	0	0	0	15.3	85.14	19.7	23.8
0900	52	0	0	1	11	28	10	2	0	0	0	0	0	0	0	0	0	17.2	82.69	22.5	26.9
1000	37	0	0	0	6	20	8	3	0	0	0	0	0	0	0	0	0	17.9	83.78	23.7	28.3
1100	37	0	1	0	8	20	8	0	0	0	0	0	0	0	0	0	0	17.6	89.19	22.4	25.7
1200	55	0	2	3	11	28	10	1	0	0	0	0	0	0	0	0	0	17.0	81.82	21.4	25.5
1300	59	0	1	5	20	21	11	1	0	0	0	0	0	0	0	0	0	15.5	72.88	20.6	25.9
1400	61	0	0	3	10	35	10	3	0	0	0	0	0	0	0	0	0	17.0	77.05	22.4	26.7
1500	86	0	4	16	25	30	10	0	1	0	0	0	0	0	0	0	0	15.3	67.44	19.1	24.7
1600	81	0	1	7	16	39	17	1	0	0	0	0	0	0	0	0	0	18.8	81.48	21.7	26.4
1700	60	0	2	5	13	26	13	1	0	0	0	0	0	0	0	0	0	17.4	81.67	21.5	26.4
1800	49	0	0	0	7	29	13	0	0	0	0	0	0	0	0	0	0	17.2	89.80	22.9	26.6
1900	40	0	0	1	6	18	15	0	0	0	0	0	0	0	0	0	0	17.9	87.50	23.6	27.2
2000	26	0	0	1	5	10	8	2	0	0	0	0	0	0	0	0	0	18.9	84.62	23.7	28.4
2100	16	0	0	0	2	6	8	0	0	0	0	0	0	0	0	0	0	17.7	93.75	24.2	27.3
2200	12	0	0	1	0	4	6	1	0	0	0	0	0	0	0	0	0	20.5	91.67	25.0	29.6
2300	4	0	0	1	0	2	1	0	0	0	0	0	0	0	0	0	0	20.0	75.00	21.9	-
07-19	690	1	16	42	173	327	117	13	1	0	0	0	0	0	0	0	0	17.4	77.39	21.3	25.6
06-22	784	1	16	44	188	368	151	15	1	0	0	0	0	0	0	0	0	17.2	77.68	21.6	25.9
06-00	800	1	16	46	188	374	158	16	1	0	0	0	0	0	0	0	0	17.2	77.13	21.6	26.1
00-00	810	1	16	46	188	377	161	19	2	0	0	0	0	0	0	0	0	17.2	76.67	21.7	26.2

Peak step 15:00 (86) **AM Peak step** 8:00 (74) **PM Peak step** 15:00 (86)

* Thursday, January 27, 2022

Time <--	Total	Vbin 0 5	Vbin 5 10	Vbin 10 15	Vbin 15 20	Vbin 20 25	Vbin 25 30	Vbin 30 35	Vbin 35 40	Vbin 40 45	Vbin 45 50	Vbin 50 55	Vbin 55 60	Vbin 60 65	Vbin 65 70	Vbin 70 75	Vbin 75 100	vPace 10	Pace% 10	Mean	Vpp 85
0000	1	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	16.4	100.0	26.2	-
0100	3	0	0	0	0	1	1	0	1	0	0	0	0	0	0	0	0	16.6	66.67	27.8	-
0200	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-	-	-	-
0300	1	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	18.2	100.0	28.1	-
0400	1	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	17.8	100.0	27.7	-
0500	2	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	25.6	100.0	32.5	-
0600	14	0	0	1	3	6	4	0	0	0	0	0	0	0	0	0	0	18.5	92.86	22.8	27.7
0700	29	0	0	0	6	21	2	0	0	0	0	0	0	0	0	0	0	16.3	96.55	21.6	24.6
0800	55	1	1	3	15	27	8	0	0	0	0	0	0	0	0	0	0	16.1	83.64	20.1	24.9
0900	36	0	1	0	8	16	11	0	0	0	0	0	0	0	0	0	0	16.0	83.33	22.2	26.4
1000	39	0	0	2	4	20	12	1	0	0	0	0	0	0	0	0	0	16.6	87.18	22.9	25.8
1100	44	0	1	1	7	20	13	1	1	0	0	0	0	0	0	0	0	17.8	79.55	23.7	28.0
1200	47	0	0	3	17	17	8	2	0	0	0	0	0	0	0	0	0	14.8	76.60	21.3	26.5
1300	56	0	0	7	8	30	8	3	0	0	0	0	0	0	0	0	0	18.1	78.57	22.0	25.7
1400	67	0	1	11	26	24	5	0	0	0	0	0	0	0	0	0	0	15.5	77.61	18.6	22.6
1500	90	0	2	0	21	53	13	1	0	0	0	0	0	0	0	0	0	17.4	91.11	22.2	25.5
1600	83	0	1	8	30	34	8	2	0	0	0	0	0	0	0	0	0	15.5	78.31	20.2	24.5
1700	68	0	1	2	18	43	3	1	0	0	0	0	0	0	0	0	0	16.6	92.65	21.2	24.3
1800	58	0	0	4	11	23	20	0	0	0	0	0	0	0	0	0	0	17.8	79.31	22.4	26.8
1900	46	0	1	3	11	21	8	2	0	0	0	0	0	0	0	0	0	16.6	76.09	21.6	26.1
2000	22	0	0	0	2	7	13	0	0	0	0	0	0	0	0	0	0	19.2	100.0	24.6	27.7
2100	18	0	0	0	2	11	5	0	0	0	0	0	0	0	0	0	0	18.0	100.0	23.2	27.0
2200	6	0	0	0	0	1	3	1	1	0	0	0	0	0	0	0	0	21.6	83.33	28.2	-
2300	6	0	0	0	0	5	0	1	0	0	0	0	0	0	0	0	0	22.0	100.0	24.4	-
07-19	672	1	8	41	171	328	111	11	1	0	0	0	0	0	0	0	0	16.1	79.17	21.4	25.5
06-22	772	1	9	45	189	373	141	13	1	0	0	0	0	0	0	0	0	16.2	78.24	21.6	25.7
06-00	784	1	9	45	189	379	144	15	2	0	0	0	0	0	0	0	0	16.2	78.19	21.6	25.8
00-00	792	1	9	45	189	380	149	15	4	0	0	0	0	0	0	0	0	16.2	77.53	21.7	25.8

Peak step 15:00 (90) **AM Peak step** 8:00 (55) **PM Peak step** 15:00 (90)

* Grand Total

Time <--	Total	Vbin 0 5	Vbin 5 10	Vbin 10 15	Vbin 15 20	Vbin 20 25	Vbin 25 30	Vbin 30 35	Vbin 35 40	Vbin 40 45	Vbin 45 50	Vbin 50 55	Vbin 55 60	Vbin 60 65	Vbin 65 70	Vbin 70 75	Vbin 75 100	vPace 10	Pace% 10	Mean	Vpp 85
--	2368	3	32	129	552	1132	466	48	6	0	0	0	0	0	0	0	0	17.2	77.62	21.8	26.1

Traffic Data Service -- San Jose, CA
Speed Report

CustomList-7674 -- English (ENU)

Datasets:
Site: [4] LINCOLN AVE W OF MIDDLEFIELD RD
Data type: Axle sensors - Paired (Class/Speed/Count)

Profile:
Included classes: 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13
Speed range: 0 - 100 mph.
Direction: West (bound), P = East, Lane = 0-16
Name: Default Profile
Scheme: Vehicle classification (Scheme F)
Units: Non metric (ft, mi, ft/s, mph, lb, ton)

Column Legend:
 0 **[Time]** 24-hour time (0000 - 2359)
 1 **[Total]** Number in time step
 2 **[Vbin]** Speed bin totals
 3 **[vPace]** Speed at start of pace
 4 **[Pace%]** Percent in pace
 5 **[Mean]** Average speed
 6 **[Vpp]** Percentile speed

* Tuesday, January 25, 2022

Time <--	Total	Vbin 0 5	Vbin 5 10	Vbin 10 15	Vbin 15 20	Vbin 20 25	Vbin 25 30	Vbin 30 35	Vbin 35 40	Vbin 40 45	Vbin 45 50	Vbin 50 55	Vbin 55 60	Vbin 60 65	Vbin 65 70	Vbin 70 75	Vbin 75 100	vPace 10	Pace% 10	Mean	Vpp 85
0000	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	15.0	100.0	24.8	–
0100	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	–	–	–	–
0200	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	–	–	–	–
0300	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	–	–	–	–
0400	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	–	–	–	–
0500	10	0	0	0	1	3	5	1	0	0	0	0	0	0	0	0	0	17.4	90.00	24.1	–
0600	22	0	0	0	3	16	1	2	0	0	0	0	0	0	0	0	0	15.7	90.91	23.5	25.2
0700	87	0	0	2	28	46	10	1	0	0	0	0	0	0	0	0	0	16.2	93.10	21.3	24.6
0800	165	1	9	26	37	58	32	2	0	0	0	0	0	0	0	0	0	16.7	64.85	19.9	25.7
0900	30	0	0	2	3	17	7	1	0	0	0	0	0	0	0	0	0	19.1	83.33	23.1	26.1
1000	61	0	1	3	13	35	7	2	0	0	0	0	0	0	0	0	0	16.4	85.25	21.8	25.4
1100	50	0	0	2	7	26	15	0	0	0	0	0	0	0	0	0	0	18.1	92.00	23.1	26.7
1200	52	0	2	3	8	32	7	0	0	0	0	0	0	0	0	0	0	17.7	86.54	21.4	24.9
1300	60	0	1	2	16	34	7	0	0	0	0	0	0	0	0	0	0	17.0	90.00	21.4	24.7
1400	69	0	5	25	20	13	6	0	0	0	0	0	0	0	0	0	0	10.6	66.67	16.9	23.2
1500	67	1	0	8	19	32	7	0	0	0	0	0	0	0	0	0	0	16.1	82.09	20.1	24.4
1600	62	0	0	3	15	38	5	1	0	0	0	0	0	0	0	0	0	15.0	85.48	21.3	24.5
1700	54	0	1	9	18	23	3	0	0	0	0	0	0	0	0	0	0	14.8	81.48	19.4	23.3
1800	56	0	0	2	15	31	7	1	0	0	0	0	0	0	0	0	0	16.1	89.29	21.7	24.8
1900	22	0	0	0	4	15	3	0	0	0	0	0	0	0	0	0	0	16.2	90.91	22.0	25.1
2000	17	0	0	0	5	9	3	0	0	0	0	0	0	0	0	0	0	16.2	94.12	22.0	26.1
2100	11	0	0	0	0	5	6	0	0	0	0	0	0	0	0	0	0	19.6	100.0	25.0	28.3
2200	6	0	0	0	3	3	0	0	0	0	0	0	0	0	0	0	0	13.0	100.0	18.8	–
2300	4	0	0	0	1	1	2	0	0	0	0	0	0	0	0	0	0	16.8	100.0	23.0	–
07-19	813	2	19	87	199	385	113	8	0	0	0	0	0	0	0	0	0	16.4	76.26	20.7	24.9
06-22	885	2	19	87	211	430	126	10	0	0	0	0	0	0	0	0	0	16.4	77.18	20.9	25.1
06-00	895	2	19	87	215	434	128	10	0	0	0	0	0	0	0	0	0	16.4	77.09	20.8	25.1
00-00	906	2	19	87	216	438	133	11	0	0	0	0	0	0	0	0	0	16.4	77.04	20.9	25.2

Peak step 8:00 (165) **AM Peak step** 8:00 (165) **PM Peak step** 14:00 (69)

* Wednesday, January 26, 2022

Time <--	Total	Vbin 0 5	Vbin 5 10	Vbin 10 15	Vbin 15 20	Vbin 20 25	Vbin 25 30	Vbin 30 35	Vbin 35 40	Vbin 40 45	Vbin 45 50	Vbin 50 55	Vbin 55 60	Vbin 60 65	Vbin 65 70	Vbin 70 75	Vbin 75 100	vPace 10	Pace% 10	Mean	Vpp 85
0000	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	–	–	–	–
0100	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	–	–	–	–
0200	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	–	–	–	–
0300	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	–	–	–	–
0400	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	–	–	–	–
0500	6	0	0	2	0	2	2	0	0	0	0	0	0	0	0	0	0	11.7	66.67	20.3	–
0600	20	0	2	1	3	10	4	0	0	0	0	0	0	0	0	0	0	17.3	75.00	20.8	27.0
0700	68	0	1	3	16	35	11	2	0	0	0	0	0	0	0	0	0	16.4	83.82	21.6	25.6
0800	176	0	7	30	54	52	29	4	0	0	0	0	0	0	0	0	0	16.7	64.20	19.6	25.7
0900	53	0	0	2	11	29	11	0	0	0	0	0	0	0	0	0	0	17.0	83.02	22.4	26.3
1000	45	0	0	2	9	21	12	1	0	0	0	0	0	0	0	0	0	18.5	88.89	22.6	26.9
1100	62	0	2	1	9	38	9	3	0	0	0	0	0	0	0	0	0	15.4	79.03	22.2	26.4
1200	60	0	1	3	11	29	14	2	0	0	0	0	0	0	0	0	0	17.7	81.67	22.4	26.9
1300	79	1	7	13	29	26	3	0	0	0	0	0	0	0	0	0	0	13.9	70.89	17.6	22.6
1400	67	0	3	5	21	25	10	3	0	0	0	0	0	0	0	0	0	14.9	68.66	20.5	26.2
1500	69	0	2	0	18	32	17	0	0	0	0	0	0	0	0	0	0	17.9	89.86	22.0	26.3
1600	62	0	1	2	13	34	9	3	0	0	0	0	0	0	0	0	0	17.8	83.87	22.0	25.8
1700	67	1	1	5	24	26	10	0	0	0	0	0	0	0	0	0	0	15.7	77.61	20.1	25.2
1800	47	0	1	1	8	27	8	2	0	0	0	0	0	0	0	0	0	18.2	87.23	22.7	26.4
1900	33	0	0	0	6	19	5	3	0	0	0	0	0	0	0	0	0	16.7	84.85	23.1	27.4
2000	17	0	0	1	6	7	3	0	0	0	0	0	0	0	0	0	0	18.3	94.12	21.7	25.6
2100	16	0	0	2	2	10	2	0	0	0	0	0	0	0	0	0	0	16.3	87.50	21.1	24.7
2200	10	0	0	0	3	4	2	1	0	0	0	0	0	0	0	0	0	16.1	90.00	23.6	–
2300	9	0	0	0	2	6	1	0	0	0	0	0	0	0	0	0	0	15.0	88.89	22.1	–
07-19	855	2	26	67	223	374	143	20	0	0	0	0	0	0	0	0	0	16.8	74.15	20.9	25.8
06-22	941	2	28	71	240	420	157	23	0	0	0	0	0	0	0	0	0	16.8	74.71	21.0	25.8
06-00	960	2	28	71	245	430	160	24	0	0	0	0	0	0	0	0	0	16.8	75.00	21.1	25.8
00-00	966	2	28	73	245	432	162	24	0	0	0	0	0	0	0	0	0	16.8	74.95	21.1	25.8

Peak step 8:00 (176) **AM Peak step** 8:00 (176) **PM Peak step** 13:00 (79)

* Thursday, January 27, 2022

Time <--	Total	Vbin 0 5	Vbin 5 10	Vbin 10 15	Vbin 15 20	Vbin 20 25	Vbin 25 30	Vbin 30 35	Vbin 35 40	Vbin 40 45	Vbin 45 50	Vbin 50 55	Vbin 55 60	Vbin 60 65	Vbin 65 70	Vbin 70 75	Vbin 75 100	vPace 10	Pace% 10	Mean	Vpp 85
0000	2	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	16.8	100.0	25.9	–
0100	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	14.8	100.0	24.6	–
0200	2	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	13.3	100.0	21.7	–
0300	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	–	–	–	–
0400	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	13.9	100.0	23.7	–
0500	7	0	0	0	1	3	2	0	1	0	0	0	0	0	0	0	0	18.2	71.43	25.6	–
0600	20	0	0	2	1	14	3	0	0	0	0	0	0	0	0	0	0	18.5	85.00	22.0	26.2
0700	87	0	2	10	20	43	11	1	0	0	0	0	0	0	0	0	0	17.1	75.86	20.6	24.9
0800	150	3	14	23	27	59	21	3	0	0	0	0	0	0	0	0	0	17.7	63.33	19.2	25.2
0900	44	0	0	3	4	26	10	1	0	0	0	0	0	0	0	0	0	17.7	81.82	22.6	26.5
1000	49	1	0	3	8	26	10	1	0	0	0	0	0	0	0	0	0	17.2	79.59	21.8	26.6
1100	67	0	0	1	12	36	16	2	0	0	0	0	0	0	0	0	0	18.8	86.57	22.8	26.7
1200	61	0	1	5	14	27	14	0	0	0	0	0	0	0	0	0	0	17.7	78.69	21.6	26.8
1300	67	0	2	3	13	37	12	0	0	0	0	0	0	0	0	0	0	17.0	82.09	21.3	25.4
1400	62	0	5	11	21	22	3	0	0	0	0	0	0	0	0	0	0	16.3	72.58	18.0	22.5
1500	84	0	1	7	28	35	12	1	0	0	0	0	0	0	0	0	0	16.9	82.14	20.8	25.3
1600	157	0	0	6	39	88	23	1	0	0	0	0	0	0	0	0	0	16.8	89.17	21.8	25.1
1700	61	0	0	5	24	26	5	1	0	0	0	0	0	0	0	0	0	15.1	81.97	20.3	24.5
1800	48	0	0	3	10	25	9	1	0	0	0	0	0	0	0	0	0	16.2	85.42	21.8	25.3
1900	37	0	0	0	15	18	3	1	0	0	0	0	0	0	0	0	0	16.0	91.89	21.5	24.2
2000	13	0	0	0	5	4	1	3	0	0	0	0	0	0	0	0	0	13.9	69.23	22.7	30.1
2100	14	0	0	1	7	4	2	0	0	0	0	0	0	0	0	0	0	16.2	85.71	21.3	25.8
2200	5	0	0	0	3	1	1	0	0	0	0	0	0	0	0	0	0	14.4	80.00	22.0	–
2300	9	0	0	0	1	8	0	0	0	0	0	0	0	0	0	0	0	14.5	100.0	21.9	–
07-19	937	4	25	80	220	450	146	12	0	0	0	0	0	0	0	0	0	17.1	76.84	20.9	25.4
06-22	1021	4	25	83	248	490	155	16	0	0	0	0	0	0	0	0	0	17.1	77.08	21.0	25.4
06-00	1035	4	25	83	252	499	156	16	0	0	0	0	0	0	0	0	0	17.1	77.29	21.0	25.4
00-00	1048	4	25	83	253	506	160	16	1	0	0	0	0	0	0	0	0	17.1	77.19	21.0	25.4

Peak step 16:00 (157) **AM Peak step** 8:00 (150) **PM Peak step** 16:00 (157)

* Grand Total

Time <--	Total	Vbin 0 5	Vbin 5 10	Vbin 10 15	Vbin 15 20	Vbin 20 25	Vbin 25 30	Vbin 30 35	Vbin 35 40	Vbin 40 45	Vbin 45 50	Vbin 50 55	Vbin 55 60	Vbin 60 65	Vbin 65 70	Vbin 70 75	Vbin 75 100	vPace 10	Pace% 10	Mean	Vpp 85
--	2920	8	72	243	714	1376	455	51	1	0	0	0	0	0	0	0	0	17.0	76.23	21.0	25.4

Traffic Data Service -- San Jose, CA
Speed Report

CustomList-7668 -- English (ENU)

Datasets:
Site: **[1] MIDDLEFIELD RD N OF LINCOLN AVE**
Data type: Axle sensors - Paired (Class/Speed/Count)

Profile:
Included classes: 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13
Speed range: 0 - 100 mph.
Direction: North (bound), P = North, Lane = 0-16
Name: Default Profile
Scheme: Vehicle classification (Scheme F)
Units: Non metric (ft, mi, ft/s, mph, lb, ton)

Column Legend:
 0 [Time]   24-hour time (0000 - 2359)
 1 [Total]   Number in time step
 2 [Vbin]   Speed bin totals
 3 [vPace]   Speed at start of pace
 4 [Pace%]   Percent in pace
 5 [Mean]   Average speed
 6 [Vpp]   Percentile speed

* Tuesday, January 25, 2022

Time <--	Total	Vbin 0 5	Vbin 5 10	Vbin 10 15	Vbin 15 20	Vbin 20 25	Vbin 25 30	Vbin 30 35	Vbin 35 40	Vbin 40 45	Vbin 45 50	Vbin 50 55	Vbin 55 60	Vbin 60 65	Vbin 65 70	Vbin 70 75	Vbin 75 100	vPace 10	Pace% 10	Mean	Vpp 85
0000	9	0	0	0	0	3	4	2	0	0	0	0	0	0	0	0	0	23.7	88.89	27.7	–
0100	2	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	18.2	100.0	25.0	–
0200	2	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	21.8	100.0	29.4	–
0300	3	0	0	0	0	0	1	1	0	0	1	0	0	0	0	0	0	24.6	66.67	37.1	–
0400	6	0	0	0	0	1	1	1	2	1	0	0	0	0	0	0	0	27.8	66.67	32.7	–
0500	17	0	0	0	0	4	4	5	3	1	0	0	0	0	0	0	0	22.8	58.82	30.7	37.4
0600	56	0	0	0	0	3	21	23	5	4	0	0	0	0	0	0	0	25.7	82.14	31.3	35.4
0700	136	0	0	0	2	23	54	45	11	1	0	0	0	0	0	0	0	23.8	76.47	29.1	33.6
0800	207	0	0	1	14	58	99	29	6	0	0	0	0	0	0	0	0	21.0	81.16	26.3	30.2
0900	179	0	0	2	13	44	78	34	6	2	0	0	0	0	0	0	0	23.0	76.54	27.1	31.9
1000	154	0	0	0	1	21	73	46	12	1	0	0	0	0	0	0	0	22.9	79.87	28.9	32.8
1100	190	0	0	0	1	36	81	58	10	4	0	0	0	0	0	0	0	23.4	75.79	29.0	33.6
1200	189	0	0	2	3	28	79	62	15	0	0	0	0	0	0	0	0	23.5	77.25	28.9	33.4
1300	181	0	0	1	1	28	76	58	14	3	0	0	0	0	0	0	0	22.7	74.59	29.1	33.4
1400	202	0	0	2	14	49	98	33	5	1	0	0	0	0	0	0	0	21.8	77.72	26.6	30.8
1500	247	0	0	1	10	38	118	67	11	2	0	0	0	0	0	0	0	22.8	80.97	28.2	32.1
1600	234	0	0	1	6	53	106	63	4	1	0	0	0	0	0	0	0	22.5	80.77	27.7	31.7
1700	244	0	0	0	7	55	120	57	5	0	0	0	0	0	0	0	0	23.2	80.74	27.4	31.3
1800	159	0	0	0	0	24	89	38	7	1	0	0	0	0	0	0	0	23.3	88.05	28.6	31.7
1900	111	0	0	0	0	12	54	35	7	3	0	0	0	0	0	0	0	23.0	84.68	29.5	32.8
2000	82	0	0	0	0	9	33	31	6	3	0	0	0	0	0	0	0	25.1	78.05	30.0	34.1
2100	57	0	0	0	1	4	21	23	5	2	1	0	0	0	0	0	0	26.1	80.70	31.0	35.0
2200	33	0	0	0	0	4	7	18	4	0	0	0	0	0	0	0	0	26.8	87.88	31.0	34.8
2300	11	0	0	0	1	0	0	6	3	1	0	0	0	0	0	0	0	30.4	90.91	33.3	39.7
07-19	2322	0	0	10	72	457	1071	590	106	16	0	0	0	0	0	0	0	22.9	77.91	28.0	32.1
06-22	2628	0	0	10	73	485	1200	702	129	28	1	0	0	0	0	0	0	22.9	77.59	28.2	32.4
06-00	2672	0	0	10	74	489	1207	726	136	29	1	0	0	0	0	0	0	22.9	77.32	28.3	32.5
00-00	2711	0	0	10	74	498	1219	736	141	31	2	0	0	0	0	0	0	23.0	77.02	28.3	32.5

Peak step 15:00 (247) **AM Peak step** 8:00 (207) **PM Peak step** 15:00 (247)

* Wednesday, January 26, 2022

Time <--	Total	Vbin 0 5	Vbin 5 10	Vbin 10 15	Vbin 15 20	Vbin 20 25	Vbin 25 30	Vbin 30 35	Vbin 35 40	Vbin 40 45	Vbin 45 50	Vbin 50 55	Vbin 55 60	Vbin 60 65	Vbin 65 70	Vbin 70 75	Vbin 75 100	vPace 10	Pace% 10	Mean	Vpp 85
0000	7	0	0	0	0	0	5	1	1	0	0	0	0	0	0	0	0	25.7	100.0	29.2	-
0100	3	0	0	0	0	0	1	2	0	0	0	0	0	0	0	0	0	22.8	100.0	31.2	-
0200	3	0	0	0	0	1	2	0	0	0	0	0	0	0	0	0	0	18.6	100.0	26.2	-
0300	2	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	21.7	100.0	27.8	-
0400	6	0	0	0	0	1	2	1	2	0	0	0	0	0	0	0	0	20.7	66.67	30.1	-
0500	14	0	0	0	0	5	3	3	2	1	0	0	0	0	0	0	0	20.5	64.29	29.8	38.4
0600	34	0	0	0	0	0	15	5	11	2	1	0	0	0	0	0	0	27.6	70.59	33.4	38.7
0700	140	0	0	1	2	8	49	54	19	4	3	0	0	0	0	0	0	25.7	76.43	31.2	35.9
0800	217	0	0	0	9	64	108	30	4	2	0	0	0	0	0	0	0	21.4	81.11	26.6	30.3
0900	181	0	0	2	6	30	86	48	7	2	0	0	0	0	0	0	0	24.9	74.03	28.1	32.8
1000	172	0	1	0	2	17	94	47	10	1	0	0	0	0	0	0	0	23.0	84.30	28.8	32.7
1100	172	0	0	0	2	20	94	44	11	1	0	0	0	0	0	0	0	23.2	83.72	28.8	32.8
1200	173	0	0	3	7	21	84	42	13	3	0	0	0	0	0	0	0	23.6	79.19	28.4	33.0
1300	189	0	1	0	8	55	95	26	4	0	0	0	0	0	0	0	0	22.3	83.07	26.5	30.2
1400	196	0	0	0	8	30	100	48	8	2	0	0	0	0	0	0	0	24.0	77.55	28.1	32.6
1500	226	0	0	1	5	45	115	51	8	1	0	0	0	0	0	0	0	22.4	81.42	27.6	31.4
1600	241	0	0	0	13	64	121	56	9	1	0	0	0	0	0	0	0	22.7	78.01	27.7	31.9
1700	260	0	0	2	11	72	131	41	3	0	0	0	0	0	0	0	0	22.6	82.31	26.6	30.1
1800	175	0	0	0	0	22	87	58	7	1	0	0	0	0	0	0	0	23.6	87.43	28.9	32.5
1900	91	0	1	0	1	9	39	30	10	1	0	0	0	0	0	0	0	24.3	76.92	29.7	34.7
2000	92	0	0	0	3	12	43	25	9	0	0	0	0	0	0	0	0	22.3	76.09	29.0	33.1
2100	42	0	0	0	3	6	20	10	1	2	0	0	0	0	0	0	0	22.5	73.81	28.7	32.6
2200	31	0	0	0	0	1	8	16	5	0	0	0	1	0	0	0	0	25.3	80.65	32.6	37.0
2300	11	0	0	0	0	1	5	4	0	1	0	0	0	0	0	0	0	23.3	90.91	30.5	34.5
07-19	2342	0	2	9	73	425	1164	545	103	18	3	0	0	0	0	0	0	23.3	78.01	28.0	32.2
06-22	2601	0	3	9	80	452	1281	615	134	23	4	0	0	0	0	0	0	23.4	77.39	28.1	32.4
06-00	2643	0	3	9	80	454	1294	635	139	24	4	0	1	0	0	0	0	23.4	77.22	28.2	32.5
00-00	2678	0	3	9	80	462	1307	643	144	25	4	0	1	0	0	0	0	23.4	77.15	28.2	32.5

Peak step 17:00 (260) **AM Peak step** 8:00 (217) **PM Peak step** 17:00 (260)

* Thursday, January 27, 2022

Time <--	Total	Vbin 0 5	Vbin 5 10	Vbin 10 15	Vbin 15 20	Vbin 20 25	Vbin 25 30	Vbin 30 35	Vbin 35 40	Vbin 40 45	Vbin 45 50	Vbin 50 55	Vbin 55 60	Vbin 60 65	Vbin 65 70	Vbin 70 75	Vbin 75 100	vPace 10	Pace% 10	Mean	Vpp 85
0000	8	0	0	0	0	0	3	2	1	2	0	0	0	0	0	0	0	20.7	62.50	33.3	-
0100	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-	-	-	-
0200	2	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	20.9	100.0	29.4	-
0300	2	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	20.4	100.0	29.8	-
0400	6	0	0	0	0	2	2	0	1	1	0	0	0	0	0	0	0	18.8	66.67	30.6	-
0500	15	0	0	0	0	4	3	4	3	1	0	0	0	0	0	0	0	25.4	60.00	30.3	35.4
0600	44	0	0	0	0	5	16	14	7	2	0	0	0	0	0	0	0	25.4	70.45	31.0	36.8
0700	131	0	0	0	3	19	63	38	6	2	0	0	0	0	0	0	0	23.8	78.63	28.8	33.4
0800	209	0	0	1	16	60	70	51	10	1	0	0	0	0	0	0	0	21.8	66.99	26.8	32.3
0900	164	0	0	0	3	19	79	45	15	2	1	0	0	0	0	0	0	25.2	76.83	29.4	34.3
1000	175	0	1	0	6	30	80	49	7	2	0	0	0	0	0	0	0	23.6	77.14	28.3	32.6
1100	182	0	0	0	4	27	90	48	10	2	1	0	0	0	0	0	0	23.4	80.77	28.5	32.3
1200	202	0	0	0	4	36	86	60	14	2	0	0	0	0	0	0	0	24.3	77.23	28.6	32.9
1300	185	0	0	1	8	30	87	44	15	0	0	0	0	0	0	0	0	22.8	79.46	28.1	32.5
1400	220	0	0	0	14	57	85	55	9	0	0	0	0	0	0	0	0	22.6	75.00	27.2	32.2
1500	233	0	0	1	9	52	123	41	6	1	0	0	0	0	0	0	0	22.3	83.26	27.1	30.6
1600	228	0	0	1	15	55	122	32	3	0	0	0	0	0	0	0	0	21.8	83.33	26.5	30.1
1700	234	0	0	1	8	48	123	50	2	2	0	0	0	0	0	0	0	21.4	82.48	27.4	30.9
1800	170	0	0	0	2	24	85	45	14	0	0	0	0	0	0	0	0	23.8	80.00	28.7	32.9
1900	112	0	0	0	1	11	57	30	12	1	0	0	0	0	0	0	0	22.6	80.36	29.4	33.4
2000	76	0	0	0	3	8	33	22	9	1	0	0	0	0	0	0	0	24.3	73.68	29.4	34.4
2100	51	0	0	0	2	2	22	15	8	1	1	0	0	0	0	0	0	25.3	76.47	30.6	35.8
2200	40	0	0	0	3	2	16	14	5	0	0	0	0	0	0	0	0	25.2	75.00	30.1	35.0
2300	17	0	0	0	2	1	2	9	3	0	0	0	0	0	0	0	0	27.8	76.47	31.2	36.0
07-19	2333	0	1	5	92	457	1093	558	111	14	2	0	0	0	0	0	0	23.0	76.60	27.8	32.2
06-22	2616	0	1	5	98	483	1221	639	147	19	3	0	0	0	0	0	0	23.0	76.11	28.1	32.4
06-00	2673	0	1	5	103	486	1239	662	155	19	3	0	0	0	0	0	0	23.0	75.68	28.1	32.4
00-00	2706	0	1	5	103	492	1249	670	160	23	3	0	0	0	0	0	0	23.0	75.50	28.1	32.5

Peak step 17:00 (234) **AM Peak step** 8:00 (209) **PM Peak step** 17:00 (234)

* Grand Total

Time <--	Total	Vbin 0 5	Vbin 5 10	Vbin 10 15	Vbin 15 20	Vbin 20 25	Vbin 25 30	Vbin 30 35	Vbin 35 40	Vbin 40 45	Vbin 45 50	Vbin 50 55	Vbin 55 60	Vbin 60 65	Vbin 65 70	Vbin 70 75	Vbin 75 100	vPace 10	Pace% 10	Mean	Vpp 85
--	8095	0	4	24	257	1452	3775	2049	445	79	9	0	1	0	0	0	0	23.3	76.39	28.2	32.5

Traffic Data Service -- San Jose, CA
Speed Report

CustomList-7669 -- English (ENU)

Datasets:
Site: **[1] MIDDLEFIELD RD N OF LINCOLN AVE**
Data type: Axle sensors - Paired (Class/Speed/Count)

Profile:
Included classes: 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13
Speed range: 0 - 100 mph.
Direction: South (bound), P = <u>North</u>, Lane = 0-16
Name: Default Profile
Scheme: Vehicle classification (Scheme F)
Units: Non metric (ft, mi, ft/s, mph, lb, ton)

Column Legend:
0 [Time]   24-hour time (0000 - 2359)
1 [Total]   Number in time step
2 [Vbin]   Speed bin totals
3 [vPace]   Speed at start of pace
4 [Pace%]   Percent in pace
5 [Mean]   Average speed
6 [Vpp]   Percentile speed

* Tuesday, January 25, 2022

Time <--	Total	Vbin 0 5	Vbin 5 10	Vbin 10 15	Vbin 15 20	Vbin 20 25	Vbin 25 30	Vbin 30 35	Vbin 35 40	Vbin 40 45	Vbin 45 50	Vbin 50 55	Vbin 55 60	Vbin 60 65	Vbin 65 70	Vbin 70 75	Vbin 75 100	vPace 10	Pace% 10	Mean	Vpp 85
0000	9	0	0	0	0	0	4	4	0	1	0	0	0	0	0	0	0	23.7	88.89	31.6	-
0100	4	0	0	0	0	0	1	2	1	0	0	0	0	0	0	0	0	27.4	100.0	32.7	-
0200	3	0	0	0	0	0	0	0	2	1	0	0	0	0	0	0	0	32.1	100.0	38.6	-
0300	4	0	0	0	1	0	1	1	1	0	0	0	0	0	0	0	0	27.1	75.00	28.6	-
0400	4	0	0	0	0	0	1	0	2	1	0	0	0	0	0	0	0	28.7	75.00	36.0	-
0500	12	0	0	0	0	0	3	2	4	1	2	0	0	0	0	0	0	26.3	50.00	36.5	46.2
0600	42	0	1	1	0	3	9	23	4	1	0	0	0	0	0	0	0	26.7	80.95	30.0	34.7
0700	128	0	1	1	1	18	57	38	9	2	1	0	0	0	0	0	0	24.2	75.78	29.2	33.5
0800	229	0	1	3	14	49	99	52	11	0	0	0	0	0	0	0	0	22.4	73.36	27.2	32.0
0900	175	0	0	0	2	27	74	57	15	0	0	0	0	0	0	0	0	23.8	78.86	29.2	33.4
1000	186	0	0	1	2	20	85	69	7	2	0	0	0	0	0	0	0	24.6	83.33	29.2	32.9
1100	201	0	0	0	0	19	104	61	13	4	0	0	0	0	0	0	0	25.2	83.08	29.8	34.1
1200	202	0	0	1	2	33	85	67	12	2	0	0	0	0	0	0	0	24.4	78.71	29.1	33.4
1300	200	0	1	1	3	18	84	61	26	6	0	0	0	0	0	0	0	23.9	74.50	29.9	35.3
1400	248	0	1	1	8	52	117	56	12	1	0	0	0	0	0	0	0	22.9	79.44	27.8	32.2
1500	330	1	2	6	13	57	140	82	23	6	0	0	0	0	0	0	0	23.0	72.73	28.0	32.9
1600	291	0	0	1	6	53	139	76	14	2	0	0	0	0	0	0	0	23.3	80.41	28.2	32.6
1700	292	0	0	1	5	32	143	91	18	2	0	0	0	0	0	0	0	24.0	81.51	29.0	33.1
1800	199	0	0	1	4	18	69	84	19	3	1	0	0	0	0	0	0	24.0	78.89	30.2	34.3
1900	116	0	0	0	2	9	39	45	17	3	1	0	0	0	0	0	0	25.8	75.86	30.9	35.4
2000	95	0	0	0	2	2	38	32	17	3	1	0	0	0	0	0	0	25.8	75.79	31.3	36.0
2100	58	0	0	0	0	3	19	19	15	1	0	1	0	0	0	0	0	27.1	67.24	32.0	37.0
2200	36	0	0	0	0	0	8	17	7	3	1	0	0	0	0	0	0	24.9	69.44	33.8	38.8
2300	19	0	0	0	0	0	3	8	7	1	0	0	0	0	0	0	0	29.9	78.95	34.4	39.0
07-19	2681	1	6	17	60	396	1196	794	179	30	2	0	0	0	0	0	0	23.9	76.69	28.8	33.2
06-22	2992	1	7	18	64	413	1301	913	232	38	4	1	0	0	0	0	0	23.9	75.67	29.0	33.7
06-00	3047	1	7	18	64	413	1312	938	246	42	5	1	0	0	0	0	0	23.9	75.19	29.1	33.8
00-00	3083	1	7	18	65	413	1322	947	256	46	7	1	0	0	0	0	0	23.9	74.93	29.2	33.8

Peak step 15:00 (330) **AM Peak step** 8:00 (229) **PM Peak step** 15:00 (330)

* Wednesday, January 26, 2022

Time <--	Total	Vbin 0 5	Vbin 5 10	Vbin 10 15	Vbin 15 20	Vbin 20 25	Vbin 25 30	Vbin 30 35	Vbin 35 40	Vbin 40 45	Vbin 45 50	Vbin 50 55	Vbin 55 60	Vbin 60 65	Vbin 65 70	Vbin 70 75	Vbin 75 100	vPace 10	Pace% 10	Mean	Vpp 85
0000	5	0	0	0	0	0	0	2	2	1	0	0	0	0	0	0	0	28.9	80.00	35.9	-
0100	6	0	0	0	0	1	0	3	2	0	0	0	0	0	0	0	0	29.8	83.33	33.5	-
0200	2	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	27.5	100.0	35.1	-
0300	4	0	0	0	0	1	0	2	1	0	0	0	0	0	0	0	0	25.7	75.00	31.5	-
0400	9	0	0	0	0	0	1	3	5	0	0	0	0	0	0	0	0	28.4	100.0	34.8	-
0500	16	0	0	2	0	1	4	4	5	0	0	0	0	0	0	0	0	25.8	68.75	29.1	36.6
0600	33	0	0	0	1	0	8	11	11	1	1	0	0	0	0	0	0	29.1	78.79	33.4	38.7
0700	136	0	0	2	5	16	49	44	16	4	0	0	0	0	0	0	0	23.4	68.38	29.6	34.9
0800	242	0	1	8	10	66	101	50	5	1	0	0	0	0	0	0	0	23.3	71.49	26.5	31.9
0900	182	0	0	1	3	21	87	56	10	2	2	0	0	0	0	0	0	23.6	80.77	29.1	32.9
1000	175	0	1	0	4	27	88	45	10	0	0	0	0	0	0	0	0	23.0	81.14	28.2	32.6
1100	226	0	1	1	1	26	96	85	12	4	0	0	0	0	0	0	0	24.7	82.30	29.4	33.7
1200	203	0	0	1	4	33	87	59	17	1	1	0	0	0	0	0	0	22.5	73.89	29.0	33.8
1300	216	0	1	4	10	45	107	36	11	2	0	0	0	0	0	0	0	21.6	75.93	27.2	31.5
1400	259	0	1	0	10	37	112	74	23	2	0	0	0	0	0	0	0	24.2	71.43	28.7	33.7
1500	295	0	0	0	3	30	138	102	21	1	0	0	0	0	0	0	0	24.3	83.05	29.4	33.4
1600	326	1	1	2	9	43	165	94	9	2	0	0	0	0	0	0	0	23.2	82.82	28.1	32.1
1700	274	0	0	1	4	30	123	97	16	3	0	0	0	0	0	0	0	24.2	80.29	29.4	33.2
1800	223	0	0	0	4	28	98	66	21	5	1	0	0	0	0	0	0	24.7	73.99	29.5	34.4
1900	132	0	0	0	0	9	47	51	21	4	0	0	0	0	0	0	0	26.2	77.27	31.2	35.8
2000	90	0	0	0	0	7	18	44	19	1	1	0	0	0	0	0	0	27.3	80.00	32.1	35.8
2100	59	0	0	1	1	8	17	17	12	3	0	0	0	0	0	0	0	25.8	66.10	30.8	37.1
2200	39	0	0	0	1	1	10	18	7	1	1	0	0	0	0	0	0	25.7	76.92	32.6	38.6
2300	23	0	0	0	0	1	4	8	6	4	0	0	0	0	0	0	0	30.8	73.91	33.7	40.1
07-19	2757	1	6	20	67	402	1251	808	171	27	4	0	0	0	0	0	0	23.3	75.88	28.6	33.1
06-22	3071	1	6	21	69	426	1341	931	234	36	6	0	0	0	0	0	0	24.2	74.67	28.9	33.6
06-00	3133	1	6	21	70	428	1355	957	247	41	7	0	0	0	0	0	0	24.2	74.37	29.0	33.7
00-00	3175	1	6	23	70	431	1360	972	263	42	7	0	0	0	0	0	0	24.2	73.92	29.1	33.8

Peak step 16:00 (326) **AM Peak step** 8:00 (242) **PM Peak step** 16:00 (326)

* Thursday, January 27, 2022

Time <--	Total	Vbin 0 5	Vbin 5 10	Vbin 10 15	Vbin 15 20	Vbin 20 25	Vbin 25 30	Vbin 30 35	Vbin 35 40	Vbin 40 45	Vbin 45 50	Vbin 50 55	Vbin 55 60	Vbin 60 65	Vbin 65 70	Vbin 70 75	Vbin 75 100	vPace 10	Pace% 10	Mean	Vpp 85
0000	6	0	0	0	0	0	0	2	3	1	0	0	0	0	0	0	0	31.0	100.0	36.3	-
0100	8	0	0	0	0	1	2	2	0	2	1	0	0	0	0	0	0	24.9	62.50	34.8	-
0200	4	0	0	0	0	0	0	3	1	0	0	0	0	0	0	0	0	27.3	100.0	34.1	-
0300	5	0	0	0	0	0	1	2	2	0	0	0	0	0	0	0	0	27.0	100.0	32.9	-
0400	5	0	0	0	0	0	0	2	2	1	0	0	0	0	0	0	0	29.6	80.00	36.3	-
0500	13	0	0	0	0	1	4	3	5	0	0	0	0	0	0	0	0	28.7	69.23	32.5	38.5
0600	43	0	1	0	0	1	8	23	9	1	0	0	0	0	0	0	0	27.2	79.07	32.5	37.2
0700	125	0	0	0	4	25	57	26	10	1	2	0	0	0	0	0	0	22.3	79.20	28.5	33.3
0800	213	0	1	4	15	43	93	49	5	3	0	0	0	0	0	0	0	22.0	74.65	26.9	31.8
0900	198	0	0	0	2	16	90	75	13	2	0	0	0	0	0	0	0	24.9	83.33	29.8	34.0
1000	178	0	0	1	1	14	89	56	15	2	0	0	0	0	0	0	0	23.2	84.27	29.6	33.1
1100	189	0	0	2	3	21	74	71	16	2	0	0	0	0	0	0	0	24.8	76.19	29.5	34.4
1200	208	0	0	0	2	21	98	72	13	2	0	0	0	0	0	0	0	25.1	81.73	29.5	33.1
1300	200	0	0	3	5	21	89	70	11	0	1	0	0	0	0	0	0	23.3	81.00	29.0	33.0
1400	253	0	1	3	10	49	111	72	7	0	0	0	0	0	0	0	0	23.8	77.87	27.5	31.9
1500	337	0	0	2	9	60	172	84	8	2	0	0	0	0	0	0	0	23.9	79.53	27.9	32.0
1600	450	0	0	2	11	80	224	116	15	2	0	0	0	0	0	0	0	22.0	82.44	27.9	31.6
1700	308	0	0	0	8	53	124	100	21	2	0	0	0	0	0	0	0	24.3	76.30	28.9	33.4
1800	172	0	1	0	2	20	82	53	12	1	0	0	1	0	0	0	0	23.8	82.56	29.1	33.1
1900	133	0	0	0	0	10	60	50	10	2	1	0	0	0	0	0	0	25.2	83.46	30.4	34.1
2000	94	0	0	1	0	5	27	40	17	4	0	0	0	0	0	0	0	27.0	75.53	31.4	36.2
2100	63	0	0	0	0	3	21	28	7	2	1	1	0	0	0	0	0	25.6	82.54	31.5	35.4
2200	45	0	0	0	0	0	12	20	10	3	0	0	0	0	0	0	0	26.3	77.78	32.9	38.4
2300	22	0	0	0	0	1	7	8	3	2	1	0	0	0	0	0	0	25.8	72.73	32.5	39.7
07-19	2831	0	3	17	72	423	1303	844	146	19	3	0	1	0	0	0	0	23.7	78.17	28.5	32.8
06-22	3164	0	4	18	72	442	1419	985	189	28	5	1	1	0	0	0	0	24.2	77.50	28.8	33.1
06-00	3231	0	4	18	72	443	1438	1013	202	33	6	1	1	0	0	0	0	24.2	77.25	28.9	33.2
00-00	3272	0	4	18	72	445	1445	1027	215	37	7	1	1	0	0	0	0	24.2	76.80	29.0	33.3

Peak step 16:00 (450) **AM Peak step** 8:00 (213) **PM Peak step** 16:00 (450)

* Grand Total

Time <--	Total	Vbin 0 5	Vbin 5 10	Vbin 10 15	Vbin 15 20	Vbin 20 25	Vbin 25 30	Vbin 30 35	Vbin 35 40	Vbin 40 45	Vbin 45 50	Vbin 50 55	Vbin 55 60	Vbin 60 65	Vbin 65 70	Vbin 70 75	Vbin 75 100	vPace 10	Pace% 10	Mean	Vpp 85
--	9530	2	17	59	207	1289	4127	2946	734	125	21	2	1	0	0	0	0	24.2	75.22	29.1	33.7

Traffic Data Service -- San Jose, CA
Speed Report

CustomList-7672 -- English (ENU)

Datasets:
Site: **[3] MIDDLEFIELD RD S OF LINCOLN AVE**
Data type: Axle sensors - Paired (Class/Speed/Count)

Profile:
Included classes: 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13
Speed range: 0 - 100 mph.
Direction: North (bound), P = North, Lane = 0-16
Name: Default Profile
Scheme: Vehicle classification (Scheme F)
Units: Non metric (ft, mi, ft/s, mph, lb, ton)

Column Legend:
 0 [Time]   24-hour time (0000 - 2359)
 1 [Total]   Number in time step
 2 [Vbin]   Speed bin totals
 3 [vPace]   Speed at start of pace
 4 [Pace%]   Percent in pace
 5 [Mean]   Average speed
 6 [Vpp]   Percentile speed

* Tuesday, January 25, 2022

Time <--	Total	Vbin 0 5	Vbin 5 10	Vbin 10 15	Vbin 15 20	Vbin 20 25	Vbin 25 30	Vbin 30 35	Vbin 35 40	Vbin 40 45	Vbin 45 50	Vbin 50 55	Vbin 55 60	Vbin 60 65	Vbin 65 70	Vbin 70 75	Vbin 75 100	vPace 10	Pace% 10	Mean	Vpp 85
0000	8	0	0	0	0	1	3	3	0	0	1	0	0	0	0	0	0	22.1	75.00	31.2	-
0100	2	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	17.7	100.0	24.7	-
0200	2	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	17.0	100.0	23.6	-
0300	3	0	0	0	0	0	1	1	0	0	1	0	0	0	0	0	0	22.4	66.67	36.6	-
0400	6	0	0	0	1	0	1	1	2	1	0	0	0	0	0	0	0	33.0	66.67	33.1	-
0500	17	0	0	0	1	3	3	4	5	1	0	0	0	0	0	0	0	30.8	58.82	31.1	39.3
0600	58	0	0	0	0	3	19	22	8	5	1	0	0	0	0	0	0	25.8	74.14	32.1	37.6
0700	146	0	0	0	0	12	62	47	21	4	0	0	0	0	0	0	0	24.8	74.66	30.5	35.7
0800	237	0	1	2	2	44	123	51	10	3	0	0	0	0	0	1	0	22.8	81.43	28.3	32.4
0900	180	0	0	2	3	27	80	53	12	2	1	0	0	0	0	0	0	22.6	77.22	28.8	32.9
1000	166	0	0	2	5	13	68	57	15	5	1	0	0	0	0	0	0	24.9	76.51	29.7	34.6
1100	198	0	0	0	2	20	68	82	22	3	1	0	0	0	0	0	0	26.2	77.78	30.5	34.7
1200	189	0	0	1	1	10	75	77	23	2	0	0	0	0	0	0	0	26.2	83.60	30.5	34.6
1300	190	0	0	0	1	13	66	86	20	4	0	0	0	0	0	0	0	24.6	81.58	30.7	34.4
1400	209	0	0	1	4	39	95	59	9	2	0	0	0	0	0	0	0	23.2	79.43	28.5	32.4
1500	259	0	0	1	0	32	99	104	19	2	2	0	0	0	0	0	0	23.5	79.54	29.7	33.6
1600	234	0	1	0	2	30	101	85	13	2	0	0	0	0	0	0	0	24.3	79.91	29.3	33.5
1700	262	0	0	1	2	32	141	74	11	0	0	1	0	0	0	0	0	23.3	87.02	28.6	32.0
1800	168	0	0	1	0	19	84	56	6	2	0	0	0	0	0	0	0	23.7	88.69	29.0	32.2
1900	121	0	0	0	0	7	64	37	9	3	1	0	0	0	0	0	0	23.9	83.47	30.1	33.6
2000	87	0	0	0	0	8	37	31	9	1	1	0	0	0	0	0	0	25.8	80.46	30.3	34.5
2100	54	0	0	0	0	2	16	22	11	1	1	0	1	0	0	0	0	27.3	83.33	32.4	36.1
2200	36	0	0	0	0	1	5	22	8	0	0	0	0	0	0	0	0	27.0	88.89	32.1	35.9
2300	12	0	0	0	0	1	0	6	3	2	0	0	0	0	0	0	0	31.1	83.33	34.6	41.0
07-19	2438	0	2	11	22	291	1062	831	181	31	5	1	0	0	0	1	0	24.2	78.84	29.4	33.4
06-22	2758	0	2	11	22	311	1198	943	218	41	9	1	1	0	0	1	0	24.2	78.64	29.6	33.7
06-00	2806	0	2	11	22	313	1203	971	229	43	9	1	1	0	0	1	0	24.2	78.47	29.7	33.8
00-00	2844	0	2	11	24	319	1213	980	236	45	11	1	1	0	0	1	0	24.2	78.13	29.7	33.8

Peak step 17:00 (262) **AM Peak step** 8:00 (237) **PM Peak step** 17:00 (262)

* Wednesday, January 26, 2022

Time <--	Total	Vbin 0 5	Vbin 5 10	Vbin 10 15	Vbin 15 20	Vbin 20 25	Vbin 25 30	Vbin 30 35	Vbin 35 40	Vbin 40 45	Vbin 45 50	Vbin 50 55	Vbin 55 60	Vbin 60 65	Vbin 65 70	Vbin 70 75	Vbin 75 100	vPace 10	Pace% 10	Mean	Vpp 85
0000	8	0	0	0	0	0	3	4	1	0	0	0	0	0	0	0	0	28.2	100.0	31.9	-
0100	3	0	0	0	0	0	1	1	1	0	0	0	0	0	0	0	0	25.9	100.0	32.8	-
0200	3	0	0	0	0	0	3	0	0	0	0	0	0	0	0	0	0	19.2	100.0	27.6	-
0300	2	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	22.8	100.0	29.9	-
0400	6	0	0	0	0	1	1	2	2	0	0	0	0	0	0	0	0	21.9	66.67	31.2	-
0500	14	0	0	1	0	4	2	4	2	1	0	0	0	0	0	0	0	22.1	64.29	29.6	38.7
0600	38	0	0	1	0	1	15	7	9	5	0	0	0	0	0	0	0	27.2	68.42	32.8	39.4
0700	150	0	0	0	0	7	41	70	19	10	3	0	0	0	0	0	0	26.5	74.67	32.3	36.8
0800	242	0	0	1	6	43	122	61	6	2	1	0	0	0	0	0	0	22.5	80.17	28.0	31.8
0900	187	0	0	0	1	14	72	70	26	4	0	0	0	0	0	0	0	26.3	77.01	30.7	35.2
1000	175	0	0	0	0	8	78	63	21	5	0	0	0	0	0	0	0	26.1	81.14	30.7	35.2
1100	177	0	0	0	4	21	66	62	17	7	0	0	0	0	0	0	0	25.4	73.45	30.1	34.8
1200	186	0	0	0	0	21	77	67	17	3	1	0	0	0	0	0	0	23.8	77.42	30.0	34.6
1300	197	0	0	0	0	26	105	52	13	0	1	0	0	0	0	0	0	23.7	83.76	28.9	33.2
1400	206	0	1	0	1	20	82	78	21	2	1	0	0	0	0	0	0	24.2	80.58	30.0	34.7
1500	234	0	0	0	1	24	122	70	13	4	0	0	0	0	0	0	0	24.3	85.04	29.2	32.7
1600	249	0	0	2	1	25	113	88	19	1	0	0	0	0	0	0	0	23.6	81.53	29.3	33.2
1700	269	0	0	0	3	32	137	89	5	3	0	0	0	0	0	0	0	23.8	84.01	28.8	32.5
1800	182	0	0	0	0	12	81	72	16	1	0	0	0	0	0	0	0	24.8	85.71	30.2	34.1
1900	98	0	0	0	1	3	35	40	16	2	1	0	0	0	0	0	0	26.7	78.57	31.2	36.0
2000	99	0	0	0	0	6	45	42	6	0	0	0	0	0	0	0	0	24.9	88.89	30.1	33.6
2100	44	0	0	0	2	5	17	15	4	1	0	0	0	0	0	0	0	24.7	75.00	29.3	34.5
2200	31	0	0	0	0	2	3	14	10	2	0	0	0	0	0	0	0	27.8	80.65	33.6	37.9
2300	11	0	0	0	0	0	3	6	2	0	0	0	0	0	0	0	0	25.1	81.82	31.7	36.5
07-19	2454	0	1	3	17	253	1096	842	193	42	7	0	0	0	0	0	0	24.8	78.93	29.7	33.9
06-22	2733	0	1	4	20	268	1208	946	228	50	8	0	0	0	0	0	0	24.8	78.81	29.8	34.1
06-00	2775	0	1	4	20	270	1214	966	240	52	8	0	0	0	0	0	0	24.8	78.49	29.9	34.2
00-00	2811	0	1	5	20	275	1225	978	246	53	8	0	0	0	0	0	0	24.8	78.34	29.9	34.2

Peak step 17:00 (269) **AM Peak step** 8:00 (242) **PM Peak step** 17:00 (269)

* Thursday, January 27, 2022

Time <--	Total	Vbin 0 5	Vbin 5 10	Vbin 10 15	Vbin 15 20	Vbin 20 25	Vbin 25 30	Vbin 30 35	Vbin 35 40	Vbin 40 45	Vbin 45 50	Vbin 50 55	Vbin 55 60	Vbin 60 65	Vbin 65 70	Vbin 70 75	Vbin 75 100	vPace 10	Pace% 10	Mean	Vpp 85
0000	8	0	0	0	0	0	3	2	0	3	0	0	0	0	0	0	0	20.9	62.50	34.5	-
0100	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	14.0	100.0	23.9	-
0200	3	0	0	0	0	0	2	1	0	0	0	0	0	0	0	0	0	21.3	100.0	29.4	-
0300	2	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	19.6	100.0	29.2	-
0400	7	0	0	0	0	2	1	2	1	1	0	0	0	0	0	0	0	21.7	57.14	32.0	-
0500	14	0	0	0	0	2	2	6	3	1	0	0	0	0	0	0	0	25.7	71.43	31.3	35.9
0600	46	0	0	0	1	1	15	12	12	4	1	0	0	0	0	0	0	27.1	67.39	32.9	38.4
0700	144	0	0	1	1	12	58	52	15	4	1	0	0	0	0	0	0	25.9	77.78	30.3	34.3
0800	226	0	0	1	3	37	93	73	17	2	0	0	0	0	0	0	0	23.3	75.22	28.7	33.3
0900	176	0	0	1	2	11	67	60	26	9	0	0	0	0	0	0	0	25.9	72.73	30.9	35.8
1000	175	0	2	5	1	10	73	64	17	3	0	0	0	0	0	0	0	25.7	79.43	29.6	34.1
1100	185	0	1	2	1	18	65	72	21	4	0	1	0	0	0	0	0	24.4	75.68	30.0	34.3
1200	207	0	0	1	1	18	97	67	21	1	1	0	0	0	0	0	0	24.8	80.19	29.9	34.3
1300	186	0	0	0	2	21	84	59	16	4	0	0	0	0	0	0	0	22.8	79.03	29.6	33.5
1400	228	0	0	6	3	21	113	67	18	0	0	0	0	0	0	0	0	24.2	82.02	28.7	33.1
1500	240	0	0	2	3	32	112	73	15	2	1	0	0	0	0	0	0	23.7	81.25	29.1	33.2
1600	251	0	0	0	9	32	130	75	5	0	0	0	0	0	0	0	0	23.4	86.06	28.1	31.6
1700	246	0	1	0	3	31	121	79	9	2	0	0	0	0	0	0	0	24.7	83.33	28.8	32.4
1800	180	0	0	1	5	18	88	51	17	0	0	0	0	0	0	0	0	24.3	78.89	28.9	33.6
1900	118	0	0	0	0	11	42	53	9	3	0	0	0	0	0	0	0	24.2	79.66	30.3	34.0
2000	78	0	0	0	0	11	31	22	13	1	0	0	0	0	0	0	0	23.9	73.08	30.2	36.0
2100	53	0	0	0	2	2	19	19	8	2	0	1	0	0	0	0	0	24.8	73.58	31.2	37.1
2200	39	0	0	0	0	1	11	16	9	2	0	0	0	0	0	0	0	26.6	84.62	32.2	36.5
2300	18	0	0	0	2	0	3	9	3	1	0	0	0	0	0	0	0	26.3	83.33	31.5	35.2
07-19	2444	0	4	20	34	261	1101	792	197	31	3	1	0	0	0	0	0	24.6	78.23	29.3	33.6
06-22	2739	0	4	20	37	286	1208	898	239	41	4	2	0	0	0	0	0	24.6	77.51	29.4	33.8
06-00	2796	0	4	20	39	287	1222	923	251	44	4	2	0	0	0	0	0	24.6	77.25	29.5	33.9
00-00	2831	0	4	20	39	292	1232	934	255	49	4	2	0	0	0	0	0	24.6	77.11	29.5	33.9

Peak step 16:00 (251) **AM Peak step** 8:00 (226) **PM Peak step** 16:00 (251)

* Grand Total

Time <--	Total	Vbin 0 5	Vbin 5 10	Vbin 10 15	Vbin 15 20	Vbin 20 25	Vbin 25 30	Vbin 30 35	Vbin 35 40	Vbin 40 45	Vbin 45 50	Vbin 50 55	Vbin 55 60	Vbin 60 65	Vbin 65 70	Vbin 70 75	Vbin 75 100	vPace 10	Pace% 10	Mean	Vpp 85
--	8486	0	7	36	83	886	3670	2892	737	147	23	3	1	0	0	1	0	24.8	77.63	29.7	34.0

Traffic Data Service -- San Jose, CA
Speed Report

CustomList-7673 -- English (ENU)

Datasets:
Site: **[3] MIDDLEFIELD RD S OF LINCOLN AVE**
Data type: Axle sensors - Paired (Class/Speed/Count)

Profile:
Included classes: 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13
Speed range: 0 - 100 mph.
Direction: South (bound), P = North, Lane = 0-16
Name: Default Profile
Scheme: Vehicle classification (Scheme F)
Units: Non metric (ft, mi, ft/s, mph, lb, ton)

Column Legend:
0 [Time]   24-hour time (0000 - 2359)
1 [Total]   Number in time step
2 [Vbin]   Speed bin totals
3 [vPace]   Speed at start of pace
4 [Pace%]   Percent in pace
5 [Mean]   Average speed
6 [Vpp]   Percentile speed

* Tuesday, January 25, 2022

Time <--	Total	Vbin 0 5	Vbin 5 10	Vbin 10 15	Vbin 15 20	Vbin 20 25	Vbin 25 30	Vbin 30 35	Vbin 35 40	Vbin 40 45	Vbin 45 50	Vbin 50 55	Vbin 55 60	Vbin 60 65	Vbin 65 70	Vbin 70 75	Vbin 75 100	vPace 10	Pace% 10	Mean	Vpp 85
0000	8	0	0	0	0	0	2	5	0	1	0	0	0	0	0	0	0	24.9	87.50	31.7	-
0100	4	0	0	0	0	0	0	3	1	0	0	0	0	0	0	0	0	26.8	100.0	32.8	-
0200	3	0	0	0	0	0	0	0	2	1	0	0	0	0	0	0	0	34.9	100.0	40.5	-
0300	4	0	0	0	0	0	2	1	1	0	0	0	0	0	0	0	0	22.6	75.00	31.2	-
0400	5	0	0	0	0	0	1	1	2	1	0	0	0	0	0	0	0	27.3	80.00	35.2	-
0500	12	0	0	0	0	0	3	3	1	3	2	0	0	0	0	0	0	27.4	58.33	37.4	47.0
0600	41	0	0	0	0	4	10	21	5	1	0	0	0	0	0	0	0	26.6	82.93	31.2	35.1
0700	132	0	0	0	0	14	49	54	11	2	1	1	0	0	0	0	0	24.9	78.79	30.5	34.5
0800	231	0	0	4	6	39	91	69	19	3	0	0	0	0	0	0	0	23.5	74.46	28.4	33.0
0900	174	0	0	1	0	16	70	63	23	1	0	0	0	0	0	0	0	23.8	78.16	30.2	34.5
1000	200	0	0	0	2	16	71	94	14	3	0	0	0	0	0	0	0	24.4	83.50	30.3	33.4
1100	199	0	0	0	0	7	88	71	27	6	0	0	0	0	0	0	0	26.3	80.90	30.9	35.3
1200	199	0	1	1	2	16	78	81	16	2	1	1	0	0	0	0	0	25.4	80.90	30.0	34.3
1300	204	0	1	0	1	12	77	74	28	8	3	0	0	0	0	0	0	25.2	74.02	31.0	35.7
1400	246	0	0	0	3	23	96	101	20	3	0	0	0	0	0	0	0	24.6	80.89	29.9	34.5
1500	348	0	0	1	5	31	154	116	37	3	1	0	0	0	0	0	0	24.3	78.16	29.7	34.0
1600	307	0	2	1	3	33	147	98	21	2	0	0	0	0	0	0	0	24.2	82.41	29.1	33.0
1700	296	0	0	0	1	22	124	108	36	4	1	0	0	0	0	0	0	24.0	79.39	30.2	34.7
1800	193	0	0	0	2	13	74	73	26	3	1	1	0	0	0	0	0	25.6	77.72	30.7	35.1
1900	123	0	0	0	3	7	42	48	16	6	0	1	0	0	0	0	0	24.8	73.98	31.1	35.9
2000	100	0	0	0	3	5	34	33	19	3	2	1	0	0	0	0	0	26.2	72.00	31.6	36.6
2100	58	0	0	0	0	2	21	18	12	4	1	0	0	0	0	0	0	27.4	68.97	32.5	38.7
2200	37	0	0	0	0	0	8	16	8	4	1	0	0	0	0	0	0	29.1	70.27	33.8	39.4
2300	17	0	0	0	0	1	1	7	7	1	0	0	0	0	0	0	0	29.3	82.35	34.5	39.0
07-19	2729	0	4	8	25	242	1119	1002	278	40	8	3	0	0	0	0	0	24.6	77.87	30.0	34.3
06-22	3051	0	4	8	31	260	1226	1122	330	54	11	5	0	0	0	0	0	24.6	76.83	30.2	34.6
06-00	3105	0	4	8	31	261	1235	1145	345	59	12	5	0	0	0	0	0	24.6	76.46	30.2	34.7
00-00	3141	0	4	8	31	261	1243	1158	352	65	14	5	0	0	0	0	0	24.9	76.22	30.3	34.8

Peak step 15:00 (348) **AM Peak step** 8:00 (231) **PM Peak step** 15:00 (348)

* Wednesday, January 26, 2022

Time <--	Total	Vbin 0 5	Vbin 5 10	Vbin 10 15	Vbin 15 20	Vbin 20 25	Vbin 25 30	Vbin 30 35	Vbin 35 40	Vbin 40 45	Vbin 45 50	Vbin 50 55	Vbin 55 60	Vbin 60 65	Vbin 65 70	Vbin 70 75	Vbin 75 100	vPace 10	Pace% 10	Mean	Vpp 85
0000	7	0	0	0	0	1	0	2	3	1	0	0	0	0	0	0	0	29.3	71.43	35.5	–
0100	6	0	0	0	0	1	0	3	1	1	0	0	0	0	0	0	0	24.9	66.67	34.2	–
0200	2	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	29.0	100.0	37.2	–
0300	4	0	0	0	0	1	0	2	1	0	0	0	0	0	0	0	0	27.1	75.00	30.9	–
0400	10	0	0	0	0	0	1	3	4	2	0	0	0	0	0	0	0	31.8	80.00	36.0	–
0500	15	0	0	1	0	1	5	4	4	0	0	0	0	0	0	0	0	23.7	66.67	30.7	38.9
0600	37	0	0	0	1	0	13	10	9	4	0	0	0	0	0	0	0	26.3	72.97	32.8	39.0
0700	140	0	0	0	3	14	52	49	17	5	0	0	0	0	0	0	0	24.4	72.14	30.1	35.5
0800	233	0	0	0	4	33	109	73	13	0	0	1	0	0	0	0	0	23.7	79.40	28.9	32.9
0900	191	0	0	1	3	12	79	76	15	4	1	0	0	0	0	0	0	25.2	81.15	30.2	34.0
1000	187	0	0	1	1	17	65	81	19	3	0	0	0	0	0	0	0	25.7	78.61	30.2	34.2
1100	229	0	2	0	8	17	82	92	24	4	0	0	0	0	0	0	0	25.2	75.98	30.0	34.4
1200	207	0	1	0	1	16	73	87	26	1	2	0	0	0	0	0	0	24.0	78.74	30.6	34.9
1300	212	0	1	0	3	23	82	84	16	3	0	0	0	0	0	0	0	24.0	83.49	29.7	33.7
1400	275	0	1	2	3	21	109	97	40	2	0	0	0	0	0	0	0	26.3	77.45	30.2	35.2
1500	319	0	0	1	1	18	131	135	31	2	0	0	0	0	0	0	0	25.2	84.01	30.2	34.0
1600	334	0	0	0	5	33	164	108	23	1	0	0	0	0	0	0	0	24.5	83.23	29.3	33.1
1700	272	0	0	3	0	18	113	104	27	7	0	0	0	0	0	0	0	24.5	81.62	30.1	34.0
1800	213	0	0	0	1	17	86	75	28	6	0	0	0	0	0	0	0	25.1	75.59	30.6	35.2
1900	125	0	0	0	0	3	43	49	26	3	1	0	0	0	0	0	0	26.7	76.00	31.9	36.5
2000	93	0	0	0	1	5	27	34	24	1	1	0	0	0	0	0	0	26.2	77.42	31.8	36.0
2100	53	0	0	0	0	0	18	22	10	3	0	0	0	0	0	0	0	25.5	79.25	32.3	37.5
2200	40	0	0	0	0	2	8	21	5	3	0	1	0	0	0	0	0	25.5	77.50	33.0	35.7
2300	23	0	0	0	0	1	4	5	8	5	0	0	0	0	0	0	0	30.6	73.91	34.8	40.2
07-19	2812	0	5	8	33	239	1145	1061	279	38	3	1	0	0	0	0	0	24.5	78.73	30.0	34.1
06-22	3120	0	5	8	35	247	1246	1176	348	49	5	1	0	0	0	0	0	24.6	77.66	30.2	34.6
06-00	3183	0	5	8	35	250	1258	1202	361	57	5	2	0	0	0	0	0	25.3	77.16	30.2	34.7
00-00	3227	0	5	9	35	254	1264	1216	376	61	5	2	0	0	0	0	0	25.3	76.73	30.3	34.8

Peak step 16:00 (334) **AM Peak step** 8:00 (233) **PM Peak step** 16:00 (334)

* Thursday, January 27, 2022

Time <--	Total	Vbin 0 5	Vbin 5 10	Vbin 10 15	Vbin 15 20	Vbin 20 25	Vbin 25 30	Vbin 30 35	Vbin 35 40	Vbin 40 45	Vbin 45 50	Vbin 50 55	Vbin 55 60	Vbin 60 65	Vbin 65 70	Vbin 70 75	Vbin 75 100	vPace 10	Pace% 10	Mean	Vpp 85
0000	6	0	0	0	0	0	1	1	3	1	0	0	0	0	0	0	0	27.0	66.67	35.4	–
0100	8	0	0	0	0	0	2	2	1	2	1	0	0	0	0	0	0	26.5	62.50	36.5	–
0200	3	0	0	0	0	0	0	2	1	0	0	0	0	0	0	0	0	27.8	100.0	35.4	–
0300	6	0	0	0	1	0	1	2	2	0	0	0	0	0	0	0	0	25.9	66.67	30.6	–
0400	6	0	0	0	0	0	1	1	2	2	0	0	0	0	0	0	0	34.9	66.67	36.8	–
0500	11	0	0	0	0	0	2	2	5	2	0	0	0	0	0	0	0	28.6	81.82	35.2	40.3
0600	43	0	0	0	1	2	6	22	9	3	0	0	0	0	0	0	0	26.2	76.74	33.0	38.6
0700	129	0	0	0	2	15	57	38	9	6	1	1	0	0	0	0	0	25.4	75.19	29.9	34.7
0800	212	0	0	3	6	38	87	56	20	2	0	0	0	0	0	0	0	23.6	73.11	28.4	33.3
0900	202	0	0	1	0	20	71	84	24	1	1	0	0	0	0	0	0	26.4	78.71	30.4	34.5
1000	190	1	0	0	1	9	88	64	26	1	0	0	0	0	0	0	0	25.4	81.05	30.2	34.7
1100	201	0	1	1	5	17	72	77	23	5	0	0	0	0	0	0	0	25.4	75.62	30.1	34.7
1200	206	0	0	0	2	21	88	72	19	4	0	0	0	0	0	0	0	24.9	79.13	30.0	34.4
1300	200	0	0	0	4	14	71	87	21	3	0	0	0	0	0	0	0	24.8	79.50	30.4	34.6
1400	253	0	0	1	2	27	99	102	22	0	0	0	0	0	0	0	0	23.5	81.42	29.5	33.2
1500	343	0	0	0	5	18	146	139	30	4	1	0	0	0	0	0	0	25.1	83.09	30.2	34.0
1600	468	1	8	8	27	61	189	147	22	4	1	0	0	0	0	0	0	23.6	73.29	27.8	32.5
1700	320	0	0	1	2	21	143	124	25	3	1	0	0	0	0	0	0	25.1	83.44	30.0	33.8
1800	170	0	1	0	0	19	70	59	20	0	0	1	0	0	0	0	0	23.7	78.82	29.7	34.0
1900	124	0	0	0	3	12	37	53	16	2	1	0	0	0	0	0	0	24.5	75.81	30.6	35.2
2000	98	0	0	2	1	5	28	40	18	3	1	0	0	0	0	0	0	27.6	78.57	31.5	36.3
2100	64	0	0	0	0	2	20	29	6	5	1	1	0	0	0	0	0	26.5	79.69	32.3	37.5
2200	44	0	0	0	0	0	10	13	16	5	0	0	0	0	0	0	0	27.7	84.09	34.0	38.0
2300	23	0	0	0	0	1	6	10	3	2	1	0	0	0	0	0	0	27.3	78.26	32.6	38.9
07-19	2894	2	10	15	56	280	1181	1049	261	33	5	2	0	0	0	0	0	24.9	77.19	29.6	33.9
06-22	3223	2	10	17	61	301	1272	1193	310	46	8	3	0	0	0	0	0	24.9	76.61	29.8	34.2
06-00	3290	2	10	17	61	302	1288	1216	329	53	9	3	0	0	0	0	0	24.9	76.23	29.8	34.3
00-00	3330	2	10	17	62	302	1295	1226	343	60	10	3	0	0	0	0	0	24.9	75.83	29.9	34.4

Peak step 16:00 (468) **AM Peak step** 8:00 (212) **PM Peak step** 16:00 (468)

* Grand Total

Time <--	Total	Vbin 0 5	Vbin 5 10	Vbin 10 15	Vbin 15 20	Vbin 20 25	Vbin 25 30	Vbin 30 35	Vbin 35 40	Vbin 40 45	Vbin 45 50	Vbin 50 55	Vbin 55 60	Vbin 60 65	Vbin 65 70	Vbin 70 75	Vbin 75 100	vPace 10	Pace% 10	Mean	Vpp 85
--	9698	2	19	34	128	817	3802	3600	1071	186	29	10	0	0	0	0	0	24.9	76.23	30.2	34.7

Appendix D – 2022 Turning Movement Counts

Middlefield Rd
Lincoln Ave

idax

Date: 11/10/2022
Count Period: 7:00 AM to 9:00 AM
Peak Hour: 8:00 AM to 9:00 AM

N

Peak Hour

Middlefield Rd

270 258

26 237 7 0

Lincoln Ave

0   11
160
7   117   145
TEV: 763
PHF: 0.93
52   17   73
77
18   0

Lincoln Ave

0 17 240 14

Middlefield Rd

272 271
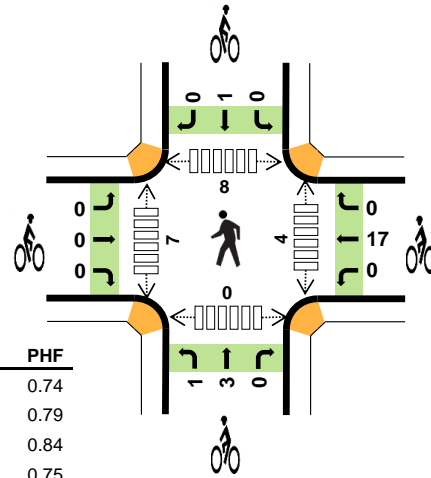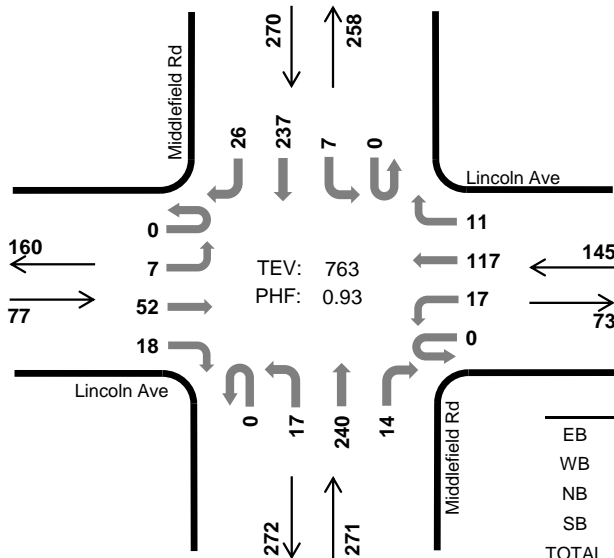
	HV %:	PHF
EB	0.0%	0.74
WB	1.4%	0.79
NB	3.0%	0.84
SB	1.9%	0.75
TOTAL	2.0%	0.93

Bicycle/pedestrian diagram:
0 1 0 — 8 — 0 0 17 — 7 — 4 0 0 0 — 0 — 1 3 0

Two-Hour Count Summaries

Interval Start	Lincoln Ave Eastbound				Lincoln Ave Westbound				Middlefield Rd Northbound				Middlefield Rd Southbound				15-min Total	Rolling One Hour
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
7:00 AM	0	2	9	0	0	1	4	0	0	2	25	2	0	0	19	2	66	0
7:15 AM	0	0	5	3	0	4	14	0	0	3	33	2	0	0	22	2	88	0
7:30 AM	0	0	4	1	0	1	16	0	0	2	44	1	0	2	27	1	99	0
7:45 AM	0	1	4	4	0	6	26	2	0	2	63	4	0	1	44	8	165	418
8:00 AM	0	2	15	9	0	7	24	5	0	7	47	3	0	1	47	10	177	529
8:15 AM	0	1	14	5	0	2	28	3	0	5	60	3	0	4	53	4	182	623
8:30 AM	0	4	5	2	0	4	39	3	0	5	72	4	0	0	58	3	199	723
8:45 AM	0	0	18	2	0	4	26	0	0	0	61	4	0	2	79	9	205	763
Count Total	0	10	74	26	0	29	177	13	0	26	405	23	0	10	349	39	1,181	0
Peak Hour — All	0	7	52	18	0	17	117	11	0	17	240	14	0	7	237	26	763	0
Peak Hour — HV	0	0	0	0	0	0	2	0	0	1	7	0	0	0	4	1	15	0
Peak Hour — HV%	-	0%	0%	0%	-	0%	2%	0%	-	6%	3%	0%	-	0%	2%	4%	2%	0

Note: Two-hour count summary volumes include heavy vehicles but exclude bicycles in overall count.

Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	East	West	North	South	Total
7:00 AM	3	0	1	1	5	0	0	1	0	1	1	0	0	0	1
7:15 AM	0	0	2	0	2	0	1	0	0	1	0	1	0	0	1
7:30 AM	0	0	1	1	2	0	0	0	0	0	0	0	0	1	1
7:45 AM	0	0	2	1	3	0	2	0	0	2	3	0	0	0	3
8:00 AM	0	1	2	2	5	0	0	1	1	2	2	4	1	0	7
8:15 AM	0	0	3	0	3	0	1	1	0	2	1	1	0	0	2
8:30 AM	0	1	2	1	4	0	6	1	0	7	0	2	6	0	8
8:45 AM	0	0	1	2	3	0	10	1	0	11	1	0	1	0	2
Count Total	3	2	14	8	27	0	20	5	1	26	8	8	8	1	25
Peak Hour	0	2	8	5	15	0	17	4	1	22	4	7	8	0	19

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Two-Hour Count Summaries - Heavy Vehicles

Interval Start	Lincoln Ave Eastbound				Lincoln Ave Westbound				Middlefield Rd Northbound				Middlefield Rd Southbound				15-min Total	Rolling One Hour
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
7:00 AM	0	0	3	0	0	0	0	0	0	0	1	0	0	0	1	0	5	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	2	0
7:30 AM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	0	2	0
7:45 AM	0	0	0	0	0	0	0	0	0	1	1	0	0	0	1	0	3	12
8:00 AM	0	0	0	0	0	0	1	0	0	0	2	0	0	0	2	0	5	12
8:15 AM	0	0	0	0	0	0	0	0	0	1	2	0	0	0	0	0	3	13
8:30 AM	0	0	0	0	0	0	1	0	0	0	2	0	0	0	1	0	4	15
8:45 AM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	1	3	15
Count Total	0	0	3	0	0	0	2	0	0	3	10	1	0	0	7	1	27	0
Peak Hour	0	0	0	0	0	0	2	0	0	1	7	0	0	0	4	1	15	0

Two-Hour Count Summaries - Bikes

Interval Start	Lincoln Ave Eastbound			Lincoln Ave Westbound			Middlefield Rd Northbound			Middlefield Rd Southbound			15-min Total	Rolling One Hour
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT		
7:00 AM	0	0	0	0	0	0	0	1	0	0	0	0	1	0
7:15 AM	0	0	0	0	1	0	0	0	0	0	0	0	1	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	2	0	0	0	0	0	0	0	2	4
8:00 AM	0	0	0	0	0	0	1	0	0	0	1	0	2	5
8:15 AM	0	0	0	0	1	0	0	1	0	0	0	0	2	6
8:30 AM	0	0	0	0	6	0	0	1	0	0	0	0	7	13
8:45 AM	0	0	0	0	10	0	0	1	0	0	0	0	11	22
Count Total	0	0	0	0	20	0	1	4	0	0	1	0	26	0
Peak Hour	0	0	0	0	17	0	1	3	0	0	1	0	22	0

Note: U-Turn volumes for bikes are included in Left-Turn, if any.

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Middlefield Rd
Lincoln Ave

Peak Hour

idax

Date: 11/10/2022
Count Period: 2:00 PM to 6:00 PM
Peak Hour: 5:00 PM to 6:00 PM

N

Middlefield Rd

360
326

19
336
5
0

Lincoln Ave

0
80
20
114
83
11

TEV: 875
PHF: 0.94

7
50
74
17
105
0

Lincoln Ave

0
11
299
17

364
327

Middlefield Rd

	HV %:	PHF
EB	0.0%	0.81
WB	0.0%	0.74
NB	0.9%	0.91
SB	1.1%	0.93
TOTAL	0.8%	0.94

Four-Hour Count Summaries

Interval Start		Lincoln Ave Eastbound				Lincoln Ave Westbound				Middlefield Rd Northbound				Middlefield Rd Southbound				15-min Total	Rolling One Hour
		UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
5:00 PM		0	5	27	3	0	4	10	4	0	6	82	2	0	0	85	1	229	0
5:15 PM		0	6	27	2	0	3	7	1	0	4	80	5	0	1	89	7	232	0
5:30 PM		0	3	13	2	0	7	12	1	0	1	70	9	0	3	79	3	203	0
5:45 PM		0	6	16	4	0	3	21	1	0	0	67	1	0	1	83	8	211	875
Peak Hour	All	0	20	83	11	0	17	50	7	0	11	299	17	0	5	336	19	875	0
	HV	0	0	0	0	0	0	0	0	0	0	3	0	0	0	4	0	7	0
	HV%	-	0%	0%	0%	-	0%	0%	0%	-	0%	1%	0%	-	0%	1%	0%	1%	0

Note: For all three-hour count summary, see next page.

Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	East	West	North	South	Total
5:00 PM	0	0	1	1	2	2	0	0	0	2	1	1	0	0	2
5:15 PM	0	0	0	1	1	0	0	0	0	0	3	2	0	0	5
5:30 PM	0	0	1	2	3	1	0	0	0	1	1	0	1	2	4
5:45 PM	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0
Peak Hour	0	0	3	4	7	3	0	0	0	3	5	3	1	2	11

Project Manager: (415) 310-6469

project.manager.ca@idaxdata.com

Four-Hour Count Summaries

Interval Start	Lincoln Ave Eastbound				Lincoln Ave Westbound				Middlefield Rd Northbound				Middlefield Rd Southbound				15-min Total	Rolling One Hour
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
2:00 PM	0	3	9	4	0	0	8	2	0	5	44	0	0	0	54	4	133	0
2:15 PM	0	5	12	3	0	2	12	1	0	5	46	3	0	2	53	10	154	0
2:30 PM	0	1	15	2	0	0	9	2	0	3	51	3	0	0	53	7	146	0
2:45 PM	0	2	20	5	0	4	17	1	0	5	62	2	0	3	77	7	205	638
3:00 PM	0	5	16	7	0	5	7	0	0	2	64	6	0	2	77	4	195	700
3:15 PM	0	0	23	7	0	1	9	1	0	4	41	5	0	2	67	4	164	710
3:30 PM	0	1	8	8	0	1	14	0	0	1	49	5	0	1	79	7	174	738
3:45 PM	0	1	26	4	0	2	11	1	0	3	61	3	0	3	95	6	216	749
4:00 PM	0	0	24	2	0	6	11	1	0	4	69	4	0	2	92	7	222	776
4:15 PM	0	0	13	2	0	2	15	0	0	3	50	3	0	2	88	5	183	795
4:30 PM	0	2	12	5	0	2	10	0	0	2	48	5	0	3	104	8	201	822
4:45 PM	0	2	20	4	0	3	11	1	0	1	63	6	0	1	67	7	186	792
5:00 PM	0	5	27	3	0	4	10	4	0	6	82	2	0	0	85	1	229	799
5:15 PM	0	6	27	2	0	3	7	1	0	4	80	5	0	1	89	7	232	848
5:30 PM	0	3	13	2	0	7	12	1	0	1	70	9	0	3	79	3	203	850
5:45 PM	0	6	16	4	0	3	21	1	0	0	67	1	0	1	83	8	211	875
Count Total	0	42	281	64	0	45	184	17	0	49	947	62	0	26	1,242	95	3,054	0
Peak Hour All	0	20	83	11	0	17	50	7	0	11	299	17	0	5	336	19	875	0
Peak Hour HV	0	0	0	0	0	0	0	0	0	0	3	0	0	0	4	0	7	0
Peak Hour HV%	-	0%	0%	0%	-	0%	0%	0%	-	0%	1%	0%	-	0%	1%	0%	1%	0

Note: Four-hour count summary volumes include heavy vehicles but exclude bicycles in overall count.

Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	East	West	North	South	Total
2:00 PM	0	0	1	2	3	0	0	0	1	1	0	0	0	0	0
2:15 PM	0	0	3	1	4	0	0	0	2	2	0	5	3	0	8
2:30 PM	0	0	0	2	2	2	1	1	0	4	0	3	2	3	8
2:45 PM	0	0	0	2	2	0	2	0	0	2	0	1	0	1	2
3:00 PM	0	0	2	1	3	0	0	0	0	0	2	0	0	3	5
3:15 PM	0	0	1	0	1	0	0	1	0	1	1	2	1	0	4
3:30 PM	0	1	0	1	2	0	4	0	0	4	1	2	1	0	4
3:45 PM	0	0	1	1	2	2	0	1	0	3	4	2	6	2	14
4:00 PM	0	0	1	3	4	1	0	0	0	1	0	0	0	1	1
4:15 PM	0	0	0	0	0	7	0	0	0	7	3	3	2	0	8
4:30 PM	1	0	0	1	2	4	3	1	1	9	2	3	0	2	7
4:45 PM	0	1	1	0	2	1	0	0	0	1	2	3	1	1	7
5:00 PM	0	0	1	1	2	2	0	0	0	2	1	1	0	0	2
5:15 PM	0	0	0	1	1	0	0	0	0	0	3	2	0	0	5
5:30 PM	0	0	1	2	3	1	0	0	0	1	1	0	1	2	4
5:45 PM	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0
Count Total	1	2	13	18	34	20	10	4	4	38	20	27	17	15	79
Peak Hour	0	0	3	4	7	3	0	0	0	3	5	3	1	2	11

Four-Hour Count Summaries - Heavy Vehicles

Interval Start	Lincoln Ave Eastbound				Lincoln Ave Westbound				Middlefield Rd Northbound				Middlefield Rd Southbound				15-min Total	Rolling One Hour
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
2:00 PM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	1	3	0
2:15 PM	0	0	0	0	0	0	0	0	0	1	1	1	0	0	1	0	4	0
2:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	2	0
2:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	2	11
3:00 PM	0	0	0	0	0	0	0	0	0	0	1	1	0	0	1	0	3	11
3:15 PM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1	8
3:30 PM	0	0	0	0	0	0	1	0	0	0	0	0	0	0	1	0	2	8
3:45 PM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	2	8
4:00 PM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	3	0	4	9
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	8
4:30 PM	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1	0	2	8
4:45 PM	0	0	0	0	0	1	0	0	0	0	1	0	0	0	0	0	2	8
5:00 PM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	2	6
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	7
5:30 PM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	2	0	3	8
5:45 PM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1	7
Count Total	0	0	1	0	0	1	1	0	0	1	10	2	0	0	16	2	34	0
Peak Hour	0	0	0	0	0	0	0	0	0	0	3	0	0	0	4	0	7	0

Four-Hour Count Summaries - Bikes

Interval Start	Lincoln Ave Eastbound			Lincoln Ave Westbound			Middlefield Rd Northbound			Middlefield Rd Southbound			15-min Total	Rolling One Hour
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT		
2:00 PM	0	0	0	0	0	0	0	0	0	0	1	0	1	0
2:15 PM	0	0	0	0	0	0	0	0	0	0	2	0	2	0
2:30 PM	0	2	0	0	1	0	0	1	0	0	0	0	4	0
2:45 PM	0	0	0	0	2	0	0	0	0	0	0	0	2	9
3:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	8
3:15 PM	0	0	0	0	0	0	0	1	0	0	0	0	1	7
3:30 PM	0	0	0	0	2	2	0	0	0	0	0	0	4	7
3:45 PM	0	2	0	0	0	0	0	1	0	0	0	0	3	8
4:00 PM	0	1	0	0	0	0	0	0	0	0	0	0	1	9
4:15 PM	0	7	0	0	0	0	0	0	0	0	0	0	7	15
4:30 PM	0	4	0	0	3	0	0	1	0	0	1	0	9	20
4:45 PM	0	1	0	0	0	0	0	0	0	0	0	0	1	18
5:00 PM	0	2	0	0	0	0	0	0	0	0	0	0	2	19
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	12
5:30 PM	0	1	0	0	0	0	0	0	0	0	0	0	1	4
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	3
Count Total	0	20	0	0	8	2	0	4	0	0	4	0	38	0
Peak Hour	0	3	0	0	0	0	0	0	0	0	0	0	3	0

Note: U-Turn volumes for bikes are included in Left-Turn, if any.

Middlefield Rd
Melville Ave

idax

Date: 11/10/2022
Count Period: 7:00 AM to 9:00 AM
Peak Hour: 8:00 AM to 9:00 AM

Peak Hour

N

Middlefield Rd

283 267

13 259 11 0

Melville Ave

0

96
1   TEV: 734
25   PHF: 0.91
15

Melville Ave

0 6 241 28

307 275

Middlefield Rd

25
77
33
0

135
64
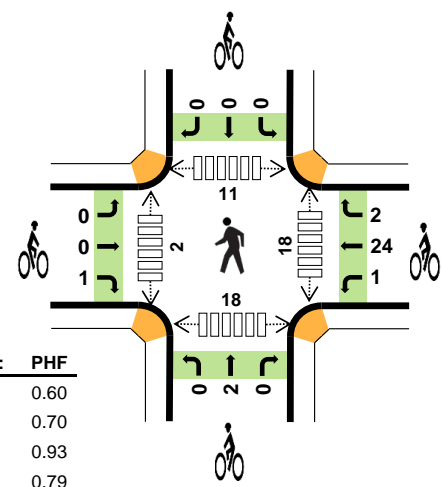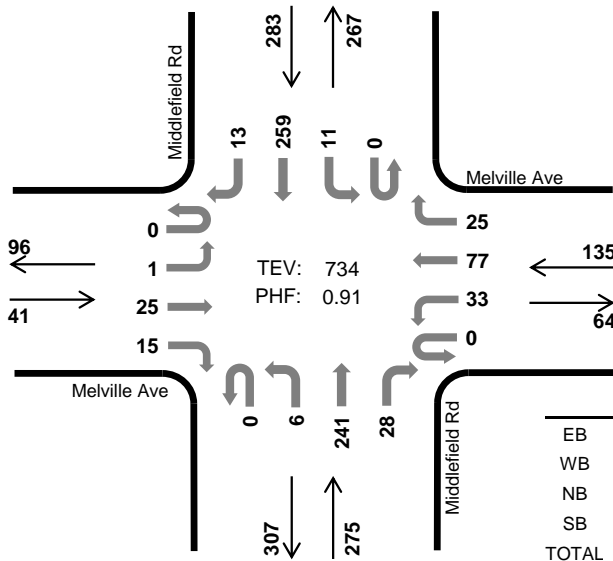
	HV %:	PHF
EB	4.9%	0.60
WB	0.7%	0.70
NB	2.9%	0.93
SB	1.8%	0.79
TOTAL	2.2%	0.91

0 0 0
11
0   2
0 2 18 24
1   18   1
0 2 0

Two-Hour Count Summaries

Interval Start	Melville Ave Eastbound				Melville Ave Westbound				Middlefield Rd Northbound				Middlefield Rd Southbound				15-min Total	Rolling One Hour
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
7:00 AM	0	1	2	1	0	5	2	0	0	0	28	2	0	1	15	2	59	0
7:15 AM	0	0	5	1	0	0	3	1	0	0	36	0	0	3	25	0	74	0
7:30 AM	0	2	0	4	0	3	3	3	0	0	42	1	0	1	23	4	86	0
7:45 AM	0	1	3	4	0	4	5	4	0	2	61	4	0	2	53	1	144	363
8:00 AM	0	0	0	6	0	9	9	2	0	1	58	7	0	0	55	2	149	453
8:15 AM	0	0	12	5	0	6	24	7	0	2	57	9	0	2	64	3	191	570
8:30 AM	0	0	8	3	0	12	28	8	0	0	69	5	0	6	57	5	201	685
8:45 AM	0	1	5	1	0	6	16	8	0	3	57	7	0	3	83	3	193	734
Count Total	0	5	35	25	0	45	90	33	0	8	408	35	0	18	375	20	1,097	0
Peak Hour All	0	1	25	15	0	33	77	25	0	6	241	28	0	11	259	13	734	0
Peak Hour HV	0	0	1	1	0	0	0	1	0	0	8	0	0	0	5	0	16	0
Peak Hour HV%	-	0%	4%	7%	-	0%	0%	4%	-	0%	3%	0%	-	0%	2%	0%	2%	0

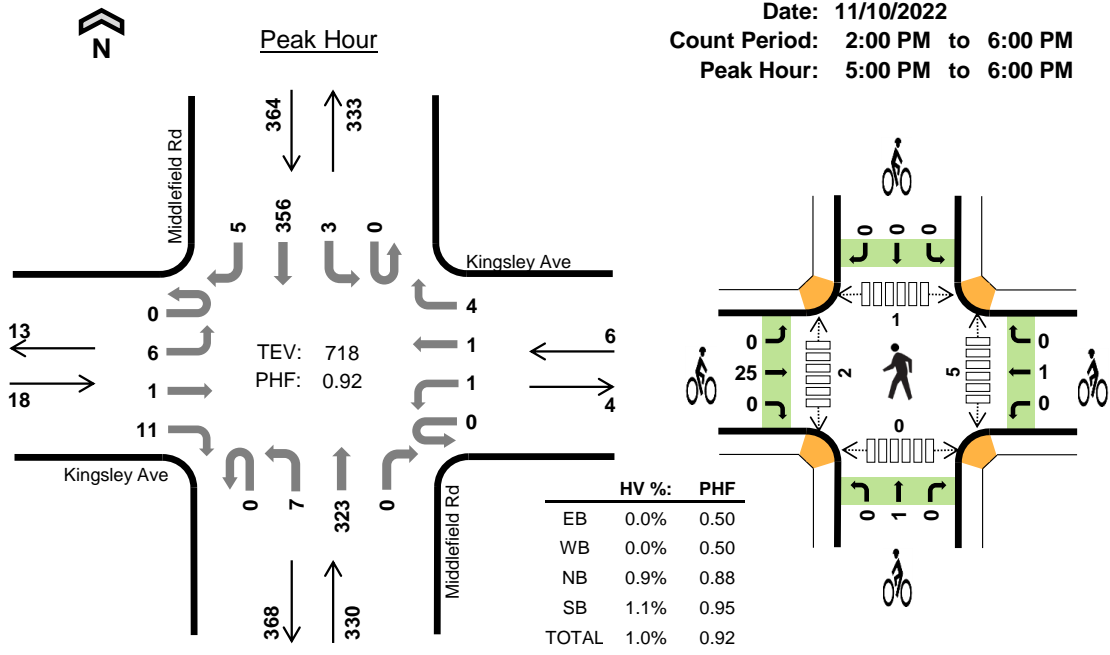*Note: Two-hour count summary volumes include heavy vehicles but exclude bicycles in overall count.*

Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	East	West	North	South	Total
7:00 AM	0	0	1	1	2	0	1	1	0	2	0	1	0	3	4
7:15 AM	0	0	2	0	2	0	0	0	0	0	0	0	3	0	3
7:30 AM	0	0	1	1	2	0	0	0	0	0	0	0	0	4	4
7:45 AM	0	0	1	0	1	0	2	0	0	2	1	1	1	4	7
8:00 AM	0	0	2	1	3	0	1	0	0	1	6	0	2	9	17
8:15 AM	1	0	3	1	5	0	8	1	0	9	8	2	4	3	17
8:30 AM	1	1	2	1	5	1	10	1	0	12	1	0	2	2	5
8:45 AM	0	0	1	2	3	0	8	0	0	8	3	0	3	4	10
Count Total	2	1	13	7	23	1	30	3	0	34	19	4	15	29	67
Peak Hour	2	1	8	5	16	1	27	2	0	30	18	2	11	18	49

Two-Hour Count Summaries - Heavy Vehicles

Interval Start	Melville Ave Eastbound				Melville Ave Westbound				Middlefield Rd Northbound				Middlefield Rd Southbound				15-min Total	Rolling One Hour
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
7:00 AM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	2	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	2	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	2	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1	7
8:00 AM	0	0	0	0	0	0	0	0	0	0	2	0	0	0	1	0	3	8
8:15 AM	0	0	1	0	0	0	0	0	0	0	3	0	0	0	1	0	5	11
8:30 AM	0	0	0	1	0	0	0	1	0	0	2	0	0	0	1	0	5	14
8:45 AM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	2	0	3	16
Count Total	0	0	1	1	0	0	0	1	0	0	13	0	0	0	7	0	23	0
Peak Hour	0	0	1	1	0	0	0	1	0	0	8	0	0	0	5	0	16	0

Two-Hour Count Summaries - Bikes

Interval Start	Melville Ave Eastbound			Melville Ave Westbound			Middlefield Rd Northbound			Middlefield Rd Southbound			15-min Total	Rolling One Hour
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT		
7:00 AM	0	0	0	0	1	0	0	1	0	0	0	0	2	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	2	0	0	0	0	0	0	0	2	4
8:00 AM	0	0	0	0	1	0	0	0	0	0	0	0	1	3
8:15 AM	0	0	0	1	7	0	0	1	0	0	0	0	9	12
8:30 AM	0	0	1	0	9	1	0	1	0	0	0	0	12	24
8:45 AM	0	0	0	0	7	1	0	0	0	0	0	0	8	30
Count Total	0	0	1	1	27	2	0	3	0	0	0	0	34	0
Peak Hour	0	0	1	1	24	2	0	2	0	0	0	0	30	0

Note: U-Turn volumes for bikes are included in Left-Turn, if any.

Middlefield Rd
Melville Ave

Date: 11/10/2022
Count Period: 2:00 PM to 6:00 PM
Peak Hour: 3:45 PM to 4:45 PM

Peak Hour

N

Middlefield Rd

419 → 253

394 16 0

9

0

Melville Ave

51 ← 13

7 39 ← 79

TEV: 818
PHF: 0.94

40 27 → 86

54

7 0

Melville Ave

0 3 233 30

Middlefield Rd

428 ↓ 266 ↑

	HV %:	PHF
EB	0.0%	0.79
WB	1.3%	0.76
NB	1.5%	0.89
SB	1.7%	0.90
TOTAL	1.5%	0.94

Bicycle/pedestrian diagram:
0 1 0
11
0 | 13 3 14 2 | 0
0 19 0
0 1 0

Four-Hour Count Summaries

Interval Start	Melville Ave Eastbound				Melville Ave Westbound				Middlefield Rd Northbound				Middlefield Rd Southbound				15-min Total	Rolling One Hour
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
3:45 PM	0	2	11	1	0	7	10	4	0	0	59	6	0	4	97	3	204	0
4:00 PM	0	1	7	0	0	5	4	2	0	1	70	4	0	4	93	3	194	0
4:15 PM	0	1	12	2	0	9	15	2	0	1	53	9	0	2	96	1	203	0
4:30 PM	0	3	10	4	0	6	10	5	0	1	51	11	0	6	108	2	217	818
Peak Hour — All	0	7	40	7	0	27	39	13	0	3	233	30	0	16	394	9	818	0
Peak Hour — HV	0	0	0	0	0	1	0	0	0	0	3	1	0	1	5	1	12	0
Peak Hour — HV%	-	0%	0%	0%	-	4%	0%	0%	-	0%	1%	3%	-	6%	1%	11%	1%	0

Note: For all three-hour count summary, see next page.

Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	East	West	North	South	Total
3:45 PM	0	0	1	2	3	1	0	0	0	1	1	0	1	5	7
4:00 PM	0	0	1	4	5	3	2	0	0	5	2	0	4	0	6
4:15 PM	0	0	1	0	1	5	0	0	0	5	6	2	6	10	24
4:30 PM	0	1	1	1	3	4	0	1	1	6	5	1	0	4	10
Peak Hour	0	1	4	7	12	13	2	1	1	17	14	3	11	19	47

Four-Hour Count Summaries

Interval Start	Melville Ave Eastbound				Melville Ave Westbound				Middlefield Rd Northbound				Middlefield Rd Southbound				15-min Total	Rolling One Hour
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
2:00 PM	0	3	10	5	0	5	4	5	0	1	44	7	0	3	59	2	148	0
2:15 PM	0	2	4	5	0	6	8	2	0	2	47	2	0	3	47	3	131	0
2:30 PM	0	0	4	3	0	4	4	3	0	1	51	5	0	0	56	3	134	0
2:45 PM	0	1	20	5	0	8	5	4	0	1	65	7	0	4	82	2	204	617
3:00 PM	0	2	10	6	0	14	12	4	0	2	63	13	0	1	90	3	220	689
3:15 PM	0	2	13	4	0	7	7	5	0	1	45	5	0	2	75	0	166	724
3:30 PM	0	1	11	2	0	6	8	1	0	2	56	10	0	4	84	1	186	776
3:45 PM	0	2	11	1	0	7	10	4	0	0	59	6	0	4	97	3	204	776
4:00 PM	0	1	7	0	0	5	4	2	0	1	70	4	0	4	93	3	194	750
4:15 PM	0	1	12	2	0	9	15	2	0	1	53	9	0	2	96	1	203	787
4:30 PM	0	3	10	4	0	6	10	5	0	1	51	11	0	6	108	2	217	818
4:45 PM	0	3	12	1	0	8	5	5	0	2	63	7	0	5	69	1	181	795
5:00 PM	0	3	3	1	0	5	7	4	0	0	82	12	0	4	89	2	212	813
5:15 PM	0	4	10	3	0	8	4	3	0	1	77	6	0	2	86	2	206	816
5:30 PM	0	0	7	1	0	8	6	5	0	0	73	9	1	1	91	2	204	803
5:45 PM	0	0	5	3	0	5	5	3	0	1	67	5	0	3	83	2	182	804
Count Total	0	28	149	46	0	111	114	57	0	17	966	118	1	48	1,305	32	2,992	0
Peak Hour — All	0	7	40	7	0	27	39	13	0	3	233	30	0	16	394	9	818	0
Peak Hour — HV	0	0	0	0	0	1	0	0	0	0	3	1	0	1	5	1	12	0
Peak Hour — HV%	-	0%	0%	0%	-	4%	0%	0%	-	0%	1%	3%	-	6%	1%	11%	1%	0

Note: Four-hour count summary volumes include heavy vehicles but exclude bicycles in overall count.

Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	East	West	North	South	Total
2:00 PM	0	0	1	1	2	0	1	0	1	2	0	3	0	3	6
2:15 PM	0	0	3	1	4	0	0	0	2	2	1	0	0	0	1
2:30 PM	0	1	0	1	2	1	0	1	0	2	1	2	3	5	11
2:45 PM	0	0	0	1	1	0	0	0	0	0	0	0	3	4	7
3:00 PM	1	0	2	1	4	0	0	1	0	1	4	1	0	3	8
3:15 PM	0	0	1	0	1	1	1	1	0	3	4	2	1	5	12
3:30 PM	0	1	1	1	3	0	1	0	0	1	2	4	3	8	17
3:45 PM	0	0	1	2	3	1	0	0	0	1	1	0	1	5	7
4:00 PM	0	0	1	4	5	3	2	0	0	5	2	0	4	0	6
4:15 PM	0	0	1	0	1	5	0	0	0	5	6	2	6	10	24
4:30 PM	0	1	1	1	3	4	0	1	1	6	5	1	0	4	10
4:45 PM	1	0	2	1	4	1	0	0	0	1	4	2	4	7	17
5:00 PM	0	1	2	1	4	0	0	0	0	0	2	0	0	0	2
5:15 PM	0	0	0	1	1	4	0	0	0	4	2	1	0	5	8
5:30 PM	0	0	1	2	3	3	2	0	1	6	3	0	2	0	5
5:45 PM	0	0	1	0	1	2	0	0	0	2	2	0	1	0	3
Count Total	2	4	18	18	42	25	7	4	5	41	39	18	28	59	144
Peak Hour	0	1	4	7	12	13	2	1	1	17	14	3	11	19	47

Four-Hour Count Summaries - Heavy Vehicles

Interval Start	Melville Ave Eastbound				Melville Ave Westbound				Middlefield Rd Northbound				Middlefield Rd Southbound				15-min Total	Rolling One Hour
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
2:00 PM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	2	0
2:15 PM	0	0	0	0	0	0	0	0	0	0	2	1	0	0	1	0	4	0
2:30 PM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	1	0	2	0
2:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	9
3:00 PM	0	0	1	0	0	0	0	0	0	0	2	0	0	0	1	0	4	11
3:15 PM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1	8
3:30 PM	0	0	0	0	0	0	1	0	0	0	0	1	0	1	0	0	3	9
3:45 PM	0	0	0	0	0	0	0	0	0	0	1	0	0	1	1	0	3	11
4:00 PM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	3	1	5	12
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	12
4:30 PM	0	0	0	0	0	1	0	0	0	0	1	0	0	0	1	0	3	12
4:45 PM	0	0	1	0	0	0	0	0	0	0	1	1	0	0	1	0	4	13
5:00 PM	0	0	0	0	0	0	1	0	0	0	1	1	0	0	1	0	4	12
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	12
5:30 PM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	2	0	3	12
5:45 PM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1	9
Count Total	0	0	2	0	0	2	2	0	0	0	13	5	0	2	15	1	42	0
Peak Hour	0	0	0	0	0	1	0	0	0	0	3	1	0	1	5	1	12	0

Four-Hour Count Summaries - Bikes

Interval Start	Melville Ave Eastbound			Melville Ave Westbound			Middlefield Rd Northbound			Middlefield Rd Southbound			15-min Total	Rolling One Hour
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT		
2:00 PM	0	0	0	0	1	0	0	0	0	0	1	0	2	0
2:15 PM	0	0	0	0	0	0	0	0	0	0	2	0	2	0
2:30 PM	0	1	0	0	0	0	0	1	0	0	0	0	2	0
2:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	6
3:00 PM	0	0	0	0	0	0	0	0	1	0	0	0	1	5
3:15 PM	0	1	0	0	1	0	0	1	0	0	0	0	3	6
3:30 PM	0	0	0	0	1	0	0	0	0	0	0	0	1	5
3:45 PM	0	1	0	0	0	0	0	0	0	0	0	0	1	6
4:00 PM	0	3	0	0	2	0	0	0	0	0	0	0	5	10
4:15 PM	0	5	0	0	0	0	0	0	0	0	0	0	5	12
4:30 PM	0	4	0	0	0	0	0	1	0	0	1	0	6	17
4:45 PM	0	1	0	0	0	0	0	0	0	0	0	0	1	17
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	12
5:15 PM	0	4	0	0	0	0	0	0	0	0	0	0	4	11
5:30 PM	0	3	0	1	1	0	0	0	0	0	0	1	6	11
5:45 PM	0	2	0	0	0	0	0	0	0	0	0	0	2	12
Count Total	0	25	0	1	6	0	0	3	1	0	4	1	41	0
Peak Hour	0	13	0	0	2	0	0	1	0	0	1	0	17	0

Note: U-Turn volumes for bikes are included in Left-Turn, if any.

Middlefield Rd
Kingsley Ave

Peak Hour

idax

Date: 11/10/2022
Count Period: 7:00 AM to 9:00 AM
Peak Hour: 8:00 AM to 9:00 AM

Middlefield Rd

270 ↓   271 ↑

6   259 ↓   4   1

Kingsley Ave

0   3

12 ←   3

TEV: 561
PHF: 0.9

12 →   3   4   5 ←   **12**

9 →   **12**

6   0

Kingsley Ave

0   1   264 ↑   2

Middlefield Rd

269 ↓   267 ↑
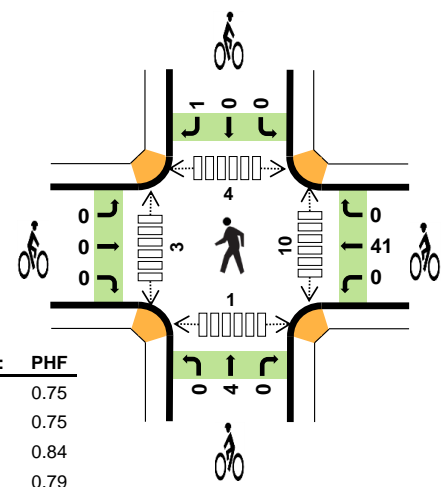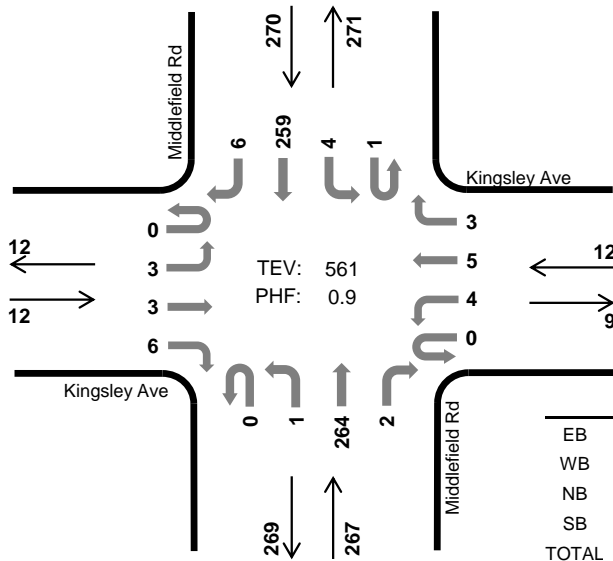
	HV %:	PHF
EB	0.0%	0.75
WB	0.0%	0.75
NB	3.7%	0.84
SB	1.5%	0.79
TOTAL	2.5%	0.90

Bicycle/pedestrian diagram:
1 0 0 / 4 / 0 3 10 41 / 1 / 0 4 0

Two-Hour Count Summaries

Interval Start	Kingsley Ave Eastbound				Kingsley Ave Westbound				Middlefield Rd Northbound				Middlefield Rd Southbound				15-min Total	Rolling One Hour
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
7:00 AM	0	0	1	0	0	0	0	0	0	0	27	0	0	0	27	0	55	0
7:15 AM	0	0	0	0	0	0	0	1	0	0	36	1	0	0	29	2	69	0
7:30 AM	0	0	1	0	0	0	1	0	0	0	48	0	0	0	28	1	79	0
7:45 AM	0	0	1	0	0	1	2	1	0	0	65	0	0	0	54	1	125	328
8:00 AM	0	0	2	2	0	1	1	1	0	0	59	0	0	0	58	3	127	400
8:15 AM	0	0	1	1	0	1	0	1	0	0	64	0	0	1	59	3	131	462
8:30 AM	0	1	0	2	0	1	2	1	0	1	76	2	0	1	60	0	147	530
8:45 AM	0	2	0	1	0	1	2	0	0	0	65	0	1	2	82	0	156	561
Count Total	0	3	6	6	0	5	8	5	0	1	440	3	1	4	397	10	889	0
Peak Hour — All	0	3	3	6	0	4	5	3	0	1	264	2	1	4	259	6	561	0
Peak Hour — HV	0	0	0	0	0	0	0	0	0	0	10	0	0	0	4	0	14	0
Peak Hour — HV%	-	0%	0%	0%	-	0%	0%	0%	-	0%	4%	0%	0%	0%	2%	0%	2%	0

Note: Two-hour count summary volumes include heavy vehicles but exclude bicycles in overall count.

Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	East	West	North	South	Total
7:00 AM	0	0	0	1	1	1	0	0	0	1	1	0	0	0	1
7:15 AM	0	0	2	0	2	0	0	1	0	1	0	0	0	0	0
7:30 AM	0	0	1	1	2	0	0	0	0	0	1	0	1	0	2
7:45 AM	0	0	1	1	2	0	0	0	0	0	0	0	0	0	0
8:00 AM	0	0	3	1	4	0	1	1	1	3	5	0	2	0	7
8:15 AM	0	0	3	0	3	0	0	1	0	1	2	3	1	0	6
8:30 AM	0	0	2	1	3	0	10	1	0	11	1	0	1	1	3
8:45 AM	0	0	2	2	4	0	30	1	0	31	2	0	0	0	2
Count Total	0	0	14	7	21	1	41	5	1	48	12	3	5	1	21
Peak Hour	0	0	10	4	14	0	41	4	1	46	10	3	4	1	18

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Two-Hour Count Summaries - Heavy Vehicles

Interval Start	Kingsley Ave Eastbound				Kingsley Ave Westbound				Middlefield Rd Northbound				Middlefield Rd Southbound				15-min Total	Rolling One Hour
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	2	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	2	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	2	7
8:00 AM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**3**	**0**	**0**	**0**	**1**	**0**	**4**	10
8:15 AM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**3**	**0**	**0**	**0**	**0**	**0**	**3**	11
8:30 AM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**2**	**0**	**0**	**0**	**1**	**0**	**3**	12
8:45 AM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**2**	**0**	**0**	**0**	**2**	**0**	**4**	14
Count Total	0	0	0	0	0	0	0	0	0	0	14	0	0	0	7	0	21	0
Peak Hour	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**10**	**0**	**0**	**0**	**4**	**0**	**14**	**0**

Two-Hour Count Summaries - Bikes

Interval Start	Kingsley Ave Eastbound			Kingsley Ave Westbound			Middlefield Rd Northbound			Middlefield Rd Southbound			15-min Total	Rolling One Hour
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT		
7:00 AM	0	1	0	0	0	0	0	0	0	0	0	0	1	0
7:15 AM	0	0	0	0	0	0	0	1	0	0	0	0	1	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	2
8:00 AM	**0**	**0**	**0**	**0**	**1**	**0**	**0**	**1**	**0**	**0**	**0**	**1**	**3**	4
8:15 AM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1**	**0**	**0**	**0**	**0**	**1**	4
8:30 AM	**0**	**0**	**0**	**0**	**10**	**0**	**0**	**1**	**0**	**0**	**0**	**0**	**11**	15
8:45 AM	**0**	**0**	**0**	**0**	**30**	**0**	**0**	**1**	**0**	**0**	**0**	**0**	**31**	46
Count Total	0	1	0	0	41	0	0	5	0	0	0	1	48	0
Peak Hour	**0**	**0**	**0**	**0**	**41**	**0**	**0**	**4**	**0**	**0**	**0**	**1**	**46**	**0**

Note: U-Turn volumes for bikes are included in Left-Turn, if any.

Project Manager: (415) 310-6469

project.manager.ca@idaxdata.com

Middlefield Rd
Kingsley Ave

Date: 11/10/2022
Count Period: 2:00 PM to 6:00 PM
Peak Hour: 5:00 PM to 6:00 PM

Peak Hour

N

Middlefield Rd

364 333
5 356 3 0

Kingsley Ave

13
6
18 1

0

TEV: 718
PHF: 0.92

4
1
1
4

6

11
0 7 323 0

Kingsley Ave

Middlefield Rd

368 330

	HV %:	PHF
EB	0.0%	0.50
WB	0.0%	0.50
NB	0.9%	0.88
SB	1.1%	0.95
TOTAL	1.0%	0.92

0 0 0
0
25
0
1
2
5
0
1
0
0 1 0

Four-Hour Count Summaries

Interval Start		Kingsley Ave				Kingsley Ave				Middlefield Rd				Middlefield Rd				15-min Total	Rolling One Hour
		Eastbound				Westbound				Northbound				Southbound					
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
5:00 PM	0	3	0	6	0	0	1	0	0	2	92	0	0	2	89	1	196	0
5:15 PM	0	2	0	2	0	0	0	0	0	2	85	0	0	1	93	2	187	0
5:30 PM	0	1	0	2	0	0	0	2	0	1	77	0	0	0	87	1	171	0
5:45 PM	0	0	1	1	0	1	0	2	0	2	69	0	0	0	87	1	164	718
Peak Hour — All	0	6	1	11	0	1	1	4	0	7	323	0	0	3	356	5	718	0
Peak Hour — HV	0	0	0	0	0	0	0	0	0	0	3	0	0	0	4	0	7	0
Peak Hour — HV%	-	0%	0%	0%	-	0%	0%	0%	-	0%	1%	-	-	0%	1%	0%	1%	0

Note: For all three-hour count summary, see next page.

Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	East	West	North	South	Total
5:00 PM	0	0	1	1	2	8	0	0	0	8	1	0	0	0	1
5:15 PM	0	0	0	1	1	2	1	0	0	3	3	0	1	0	4
5:30 PM	0	0	1	2	3	8	0	0	0	8	0	2	0	0	2
5:45 PM	0	0	1	0	1	7	0	1	0	8	1	0	0	0	1
Peak Hour	0	0	3	4	7	25	1	1	0	27	5	2	1	0	8

Four-Hour Count Summaries

Interval Start	Kingsley Ave Eastbound				Kingsley Ave Westbound				Middlefield Rd Northbound				Middlefield Rd Southbound				15-min Total	Rolling One Hour
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
2:00 PM	0	0	1	3	0	0	0	2	0	0	44	0	0	2	56	0	108	0
2:15 PM	0	1	1	1	0	0	1	1	0	1	50	0	0	1	52	1	110	0
2:30 PM	0	2	1	0	0	1	0	1	0	0	56	0	0	0	61	1	123	0
2:45 PM	0	0	0	4	0	0	1	0	0	1	63	0	0	0	86	2	157	498
3:00 PM	0	0	0	2	0	1	0	0	0	1	72	0	0	1	86	1	164	554
3:15 PM	0	1	3	3	0	1	2	0	1	0	44	1	0	0	73	1	130	574
3:30 PM	0	0	3	2	0	1	0	1	0	3	56	1	0	2	84	0	153	604
3:45 PM	0	0	1	0	0	2	1	1	0	1	65	1	0	1	101	1	175	622
4:00 PM	0	2	2	2	0	1	1	2	0	0	73	0	0	0	99	1	183	641
4:15 PM	0	1	2	1	0	1	0	1	0	1	52	0	0	0	94	1	154	665
4:30 PM	0	0	2	3	0	0	1	0	0	0	58	0	0	0	110	0	174	686
4:45 PM	0	1	0	2	0	0	0	1	0	0	65	0	0	1	73	0	143	654
5:00 PM	0	3	0	6	0	0	1	0	0	2	92	0	0	2	89	1	196	667
5:15 PM	0	2	0	2	0	0	0	0	0	2	85	0	0	1	93	2	187	700
5:30 PM	0	1	0	2	0	0	0	2	0	1	77	0	0	0	87	1	171	697
5:45 PM	0	0	1	1	0	1	0	2	0	2	69	0	0	0	87	1	164	718
Count Total	0	14	17	34	0	9	8	14	1	15	1,021	3	0	11	1,331	14	2,492	0
Peak Hour All	0	6	1	11	0	1	1	4	0	7	323	0	0	3	356	5	718	0
Peak Hour HV	0	0	0	0	0	0	0	0	0	0	3	0	0	0	4	0	7	0
Peak Hour HV%	-	0%	0%	0%	-	0%	0%	0%	-	0%	1%	-	-	0%	1%	0%	1%	0

Note: Four-hour count summary volumes include heavy vehicles but exclude bicycles in overall count.

Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	East	West	North	South	Total
2:00 PM	0	0	1	1	2	0	0	0	1	1	0	0	0	0	0
2:15 PM	0	1	2	1	4	1	0	0	2	3	0	3	2	0	5
2:30 PM	0	0	0	1	1	2	0	1	0	3	0	2	1	0	3
2:45 PM	0	0	0	2	2	2	0	0	0	2	4	1	1	0	6
3:00 PM	0	0	2	1	3	0	0	0	0	0	3	0	2	0	5
3:15 PM	0	0	1	0	1	0	1	1	0	2	1	1	1	1	4
3:30 PM	0	0	0	1	1	0	1	0	0	1	2	2	0	0	4
3:45 PM	0	1	1	1	3	0	0	1	0	1	4	3	2	1	10
4:00 PM	0	1	1	3	5	3	0	0	1	4	2	0	0	0	2
4:15 PM	0	0	0	0	0	34	0	0	0	34	2	3	1	1	7
4:30 PM	0	0	0	1	1	2	3	1	1	7	4	2	0	0	6
4:45 PM	0	0	1	1	2	1	1	0	0	2	3	2	0	1	6
5:00 PM	0	0	1	1	2	8	0	0	0	8	1	0	0	0	1
5:15 PM	0	0	0	1	1	2	1	0	0	3	3	0	1	0	4
5:30 PM	0	0	1	2	3	8	0	0	0	8	0	2	0	0	2
5:45 PM	0	0	1	0	1	7	0	1	0	8	1	0	0	0	1
Count Total	0	3	12	17	32	70	7	5	5	87	30	21	11	4	66
Peak Hour	0	0	3	4	7	25	1	1	0	27	5	2	1	0	8

Four-Hour Count Summaries - Heavy Vehicles

Interval Start	Kingsley Ave Eastbound				Kingsley Ave Westbound				Middlefield Rd Northbound				Middlefield Rd Southbound				15-min Total	Rolling One Hour
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
2:00 PM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	2	0
2:15 PM	0	0	0	0	0	0	0	1	0	0	2	0	0	0	1	0	4	0
2:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0
2:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	2	9
3:00 PM	0	0	0	0	0	0	0	0	0	0	2	0	0	0	1	0	3	10
3:15 PM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1	7
3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	7
3:45 PM	0	0	0	0	0	1	0	0	0	0	1	0	0	0	1	0	3	8
4:00 PM	0	0	0	0	0	1	0	0	0	0	1	0	0	0	3	0	5	10
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	9
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	9
4:45 PM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	2	8
5:00 PM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1**	**0**	**0**	**0**	**1**	**0**	**2**	5
5:15 PM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1**	**0**	**1**	6
5:30 PM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1**	**0**	**0**	**0**	**2**	**0**	**3**	8
5:45 PM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1**	**0**	**0**	**0**	**0**	**0**	**1**	7
Count Total	0	0	0	0	0	2	0	1	0	0	12	0	0	0	17	0	32	0
Peak Hour	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**3**	**0**	**0**	**0**	**4**	**0**	**7**	**0**

Four-Hour Count Summaries - Bikes

Interval Start	Kingsley Ave Eastbound			Kingsley Ave Westbound			Middlefield Rd Northbound			Middlefield Rd Southbound			15-min Total	Rolling One Hour
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT		
2:00 PM	0	0	0	0	0	0	0	0	0	0	1	0	1	0
2:15 PM	0	0	1	0	0	0	0	0	0	0	2	0	3	0
2:30 PM	0	2	0	0	0	0	0	1	0	0	0	0	3	0
2:45 PM	0	2	0	0	0	0	0	0	0	0	0	0	2	9
3:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	8
3:15 PM	0	0	0	0	1	0	0	1	0	0	0	0	2	7
3:30 PM	0	0	0	0	1	0	0	0	0	0	0	0	1	5
3:45 PM	0	0	0	0	0	0	0	1	0	0	0	0	1	4
4:00 PM	0	3	0	0	0	0	0	0	0	0	1	0	4	8
4:15 PM	0	33	1	0	0	0	0	0	0	0	0	0	34	40
4:30 PM	0	2	0	0	3	0	0	1	0	0	1	0	7	46
4:45 PM	0	1	0	0	1	0	0	0	0	0	0	0	2	47
5:00 PM	**0**	**8**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**8**	51
5:15 PM	**0**	**2**	**0**	**0**	**1**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**3**	20
5:30 PM	**0**	**8**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**8**	21
5:45 PM	**0**	**7**	**0**	**0**	**0**	**0**	**0**	**1**	**0**	**0**	**0**	**0**	**8**	27
Count Total	0	68	2	0	7	0	0	5	0	0	5	0	87	0
Peak Hour	**0**	**25**	**0**	**0**	**1**	**0**	**0**	**1**	**0**	**0**	**0**	**0**	**27**	**0**

Note: U-Turn volumes for bikes are included in Left-Turn, if any.

Middlefield Rd
Addison Ave

Peak Hour

idax

Date: 11/10/2022
Count Period: 7:00 AM to 9:00 AM
Peak Hour: 8:00 AM to 9:00 AM

N

Middlefield Rd

260 256

23 233 4 0

Addison Ave

1   7

72   37   56

14   TEV: 616   12   24

52   PHF: 0.92

18   0

19

Addison Ave

0 11 235 2

Middlefield Rd

264 248
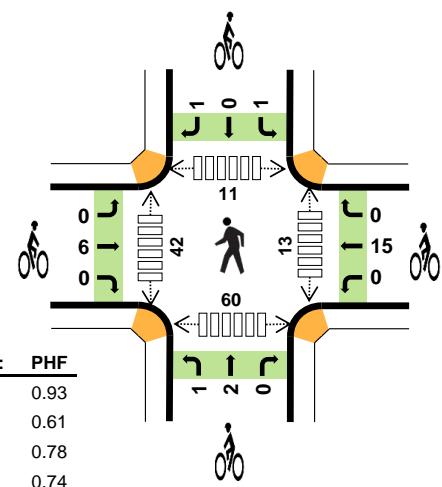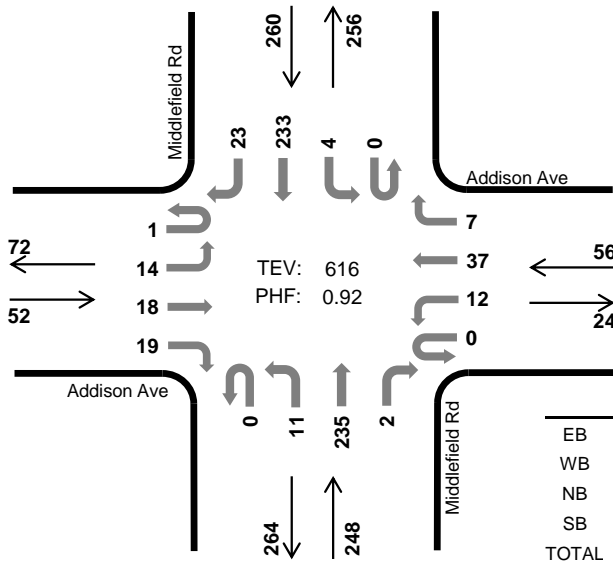
	HV %:	PHF
EB	1.9%	0.93
WB	1.8%	0.61
NB	2.4%	0.78
SB	1.5%	0.74
TOTAL	1.9%	0.92

Bicycle/pedestrian diagram:
1 0 1
11
0
6 → 42 13 15
0 0
60
1 2 0

Two-Hour Count Summaries

Interval Start	Addison Ave Eastbound				Addison Ave Westbound				Middlefield Rd Northbound				Middlefield Rd Southbound				15-min Total	Rolling One Hour
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
7:00 AM	0	1	0	0	0	1	0	0	0	3	23	0	0	2	20	0	50	0
7:15 AM	0	0	0	0	0	0	1	0	0	3	31	0	0	0	23	2	60	0
7:30 AM	0	1	1	1	0	1	2	2	0	2	41	0	0	1	28	2	82	0
7:45 AM	0	2	5	1	0	6	4	6	0	6	58	3	0	0	49	3	143	335
8:00 AM	1	3	2	6	0	5	17	1	0	1	47	0	0	2	48	11	144	429
8:15 AM	0	3	5	6	0	2	9	3	0	3	61	0	0	0	47	8	147	516
8:30 AM	0	5	5	4	0	4	5	0	0	6	72	1	0	0	54	2	158	592
8:45 AM	0	3	6	3	0	1	6	3	0	1	55	1	0	2	84	2	167	616
Count Total	1	18	24	21	0	20	44	15	0	25	388	5	0	7	353	30	951	0
Peak Hour — All	1	14	18	19	0	12	37	7	0	11	235	2	0	4	233	23	616	0
Peak Hour — HV	0	0	0	1	0	0	1	0	0	0	6	0	0	0	4	0	12	0
Peak Hour — HV%	0%	0%	0%	5%	-	0%	3%	0%	-	0%	3%	0%	-	0%	2%	0%	2%	0

Note: Two-hour count summary volumes include heavy vehicles but exclude bicycles in overall count.

Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	East	West	North	South	Total
7:00 AM	0	0	1	1	2	0	0	1	0	1	1	0	0	0	1
7:15 AM	0	0	1	0	1	1	0	0	0	1	0	1	0	1	2
7:30 AM	1	0	0	1	2	3	0	0	0	3	0	0	0	1	1
7:45 AM	0	0	1	1	2	2	1	0	0	3	3	4	3	8	18
8:00 AM	0	1	2	2	5	4	10	0	2	16	8	32	5	33	78
8:15 AM	0	0	1	0	1	1	0	1	0	2	3	8	2	25	38
8:30 AM	0	0	2	1	3	0	1	1	0	2	0	1	1	2	4
8:45 AM	1	0	1	1	3	1	4	1	0	6	2	1	3	0	6
Count Total	2	1	9	7	19	12	16	4	2	34	17	47	14	70	148
Peak Hour	1	1	6	4	12	6	15	3	2	26	13	42	11	60	126

Two-Hour Count Summaries - Heavy Vehicles

Interval Start	Addison Ave Eastbound				Addison Ave Westbound				Middlefield Rd Northbound				Middlefield Rd Southbound				15-min Total	Rolling One Hour
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
7:00 AM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	2	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1	0
7:30 AM	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1	0	2	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	2	7
8:00 AM	0	0	0	0	0	0	1	0	0	0	2	0	0	0	2	0	5	10
8:15 AM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1	10
8:30 AM	0	0	0	0	0	0	0	0	0	0	2	0	0	0	1	0	3	11
8:45 AM	0	0	0	1	0	0	0	0	0	0	1	0	0	0	1	0	3	12
Count Total	0	0	1	1	0	0	1	0	0	0	9	0	0	0	7	0	19	0
Peak Hour	0	0	0	1	0	0	1	0	0	0	6	0	0	0	4	0	12	0

Two-Hour Count Summaries - Bikes

Interval Start	Addison Ave Eastbound			Addison Ave Westbound			Middlefield Rd Northbound			Middlefield Rd Southbound			15-min Total	Rolling One Hour
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT		
7:00 AM	0	0	0	0	0	0	0	1	0	0	0	0	1	0
7:15 AM	0	1	0	0	0	0	0	0	0	0	0	0	1	0
7:30 AM	0	3	0	0	0	0	0	0	0	0	0	0	3	0
7:45 AM	0	1	1	0	1	0	0	0	0	0	0	0	3	8
8:00 AM	0	4	0	0	10	0	0	0	0	1	0	1	16	23
8:15 AM	0	1	0	0	0	0	0	1	0	0	0	0	2	24
8:30 AM	0	0	0	0	1	0	0	1	0	0	0	0	2	23
8:45 AM	0	1	0	0	4	0	1	0	0	0	0	0	6	26
Count Total	0	11	1	0	16	0	1	3	0	1	0	1	34	0
Peak Hour	0	6	0	0	15	0	1	2	0	1	0	1	26	0

Note: U-Turn volumes for bikes are included in Left-Turn, if any.

Middlefield Rd
Addison Ave

idax

Date: 11/10/2022
Count Period: 2:00 PM to 6:00 PM
Peak Hour: 5:00 PM to 6:00 PM

Peak Hour

N

Middlefield Rd

362 313
17 341 4 0

Addison Ave

0 5
43 14 25
11 TEV: 752 6
23 PHF: 0.91 37
46
12 0

Addison Ave

0 12 297 10

Middlefield Rd

359 319

	HV %:	PHF
EB	0.0%	0.77
WB	0.0%	0.63
NB	0.9%	0.90
SB	1.4%	0.91
TOTAL	1.1%	0.91

Four-Hour Count Summaries

Interval Start		Addison Ave Eastbound				Addison Ave Westbound				Middlefield Rd Northbound				Middlefield Rd Southbound				15-min Total	Rolling One Hour
		UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
5:00 PM		0	2	3	2	0	0	3	1	0	4	83	2	0	0	80	3	183	0
5:15 PM		0	2	6	5	0	1	4	1	0	4	80	4	0	1	94	4	206	0
5:30 PM		0	2	9	4	0	4	4	2	0	3	65	2	0	2	79	3	179	0
5:45 PM		0	5	5	1	0	1	3	1	0	1	69	2	0	1	88	7	184	752
Peak Hour	All	0	11	23	12	0	6	14	5	0	12	297	10	0	4	341	17	752	0
	HV	0	0	0	0	0	0	0	0	0	0	3	0	0	0	4	1	8	0
	HV%	-	0%	0%	0%	-	0%	0%	0%	-	0%	1%	0%	-	0%	1%	6%	1%	0

Note: For all three-hour count summary, see next page.

Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	East	West	North	South	Total
5:00 PM	0	0	1	1	2	5	1	0	0	6	1	2	5	2	10
5:15 PM	0	0	0	1	1	1	2	0	0	3	2	4	3	3	12
5:30 PM	0	0	1	2	3	0	2	1	0	3	0	0	2	3	5
5:45 PM	0	0	1	1	2	0	0	1	0	1	0	0	0	1	1
Peak Hour	0	0	3	5	8	6	5	2	0	13	3	6	10	9	28

Four-Hour Count Summaries

Interval Start	Addison Ave Eastbound				Addison Ave Westbound				Middlefield Rd Northbound				Middlefield Rd Southbound				15-min Total	Rolling One Hour
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
2:00 PM	0	2	0	1	0	1	10	0	0	4	45	1	0	0	57	9	130	0
2:15 PM	0	2	1	2	0	2	6	1	0	4	46	4	0	3	62	5	138	0
2:30 PM	0	1	5	4	0	3	2	0	0	5	46	0	0	0	58	7	131	0
2:45 PM	0	5	7	4	0	5	2	1	0	1	59	2	0	2	73	8	169	568
3:00 PM	0	3	4	5	0	2	6	3	0	2	65	1	0	0	72	8	171	609
3:15 PM	0	4	3	2	0	3	5	2	0	2	42	0	0	1	70	5	139	610
3:30 PM	0	1	6	2	0	0	4	2	0	2	44	2	0	1	87	4	155	634
3:45 PM	1	3	5	2	0	2	6	3	0	5	58	1	0	0	98	6	190	655
4:00 PM	0	1	8	2	0	4	4	1	0	3	61	3	0	2	93	2	184	668
4:15 PM	0	3	5	3	0	3	6	1	0	5	45	1	0	2	88	3	165	694
4:30 PM	0	1	5	7	0	1	7	1	0	3	46	1	0	3	110	3	188	727
4:45 PM	0	2	4	1	0	4	7	0	0	6	59	1	0	0	66	3	153	690
5:00 PM	**0**	**2**	**3**	**2**	**0**	**0**	**3**	**1**	**0**	**4**	**83**	**2**	**0**	**0**	**80**	**3**	**183**	689
5:15 PM	**0**	**2**	**6**	**5**	**0**	**1**	**4**	**1**	**0**	**4**	**80**	**4**	**0**	**1**	**94**	**4**	**206**	730
5:30 PM	**0**	**2**	**9**	**4**	**0**	**4**	**4**	**2**	**0**	**3**	**65**	**2**	**0**	**2**	**79**	**3**	**179**	721
5:45 PM	**0**	**5**	**5**	**1**	**0**	**1**	**3**	**1**	**0**	**1**	**69**	**2**	**0**	**1**	**88**	**7**	**184**	**752**
Count Total	1	39	76	47	0	36	79	20	0	54	913	27	0	18	1,275	80	2,665	0
Peak Hour — All	0	11	23	12	0	6	14	5	0	12	297	10	0	4	341	17	752	0
Peak Hour — HV	0	0	0	0	0	0	0	0	0	0	3	0	0	0	4	1	8	0
Peak Hour — HV%	-	0%	0%	0%	-	0%	0%	0%	-	0%	1%	0%	-	0%	1%	6%	1%	0

Note: Four-hour count summary volumes include heavy vehicles but exclude bicycles in overall count.

Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	East	West	North	South	Total
2:00 PM	0	0	1	2	*3*	1	0	0	0	*1*	0	1	0	2	*3*
2:15 PM	0	0	1	1	*2*	5	1	0	3	*9*	2	18	4	11	*35*
2:30 PM	0	0	0	2	*2*	2	0	0	0	*2*	1	1	2	1	*5*
2:45 PM	1	1	0	1	*3*	3	0	1	0	*4*	0	7	0	16	*23*
3:00 PM	1	0	1	1	*3*	0	0	0	0	*0*	3	1	3	3	*10*
3:15 PM	1	0	1	0	*2*	0	0	0	0	*0*	1	1	3	2	*7*
3:30 PM	0	0	0	1	*1*	1	2	0	0	*3*	0	3	2	4	*9*
3:45 PM	0	0	1	2	*3*	3	2	0	0	*5*	0	3	1	0	*4*
4:00 PM	0	1	1	2	*4*	1	2	0	0	*3*	2	4	4	2	*12*
4:15 PM	0	0	0	0	*0*	2	1	0	0	*3*	1	1	2	1	*5*
4:30 PM	1	0	0	1	*2*	2	2	1	1	*6*	2	8	2	4	*16*
4:45 PM	0	1	1	0	*2*	3	3	0	0	*6*	0	2	1	2	*5*
5:00 PM	**0**	**0**	**1**	**1**	***2***	**5**	**1**	**0**	**0**	***6***	**1**	**2**	**5**	**2**	*10*
5:15 PM	**0**	**0**	**0**	**1**	***1***	**1**	**2**	**0**	**0**	***3***	**2**	**4**	**3**	**3**	*12*
5:30 PM	**0**	**0**	**1**	**2**	***3***	**0**	**2**	**1**	**0**	***3***	**0**	**0**	**2**	**3**	*5*
5:45 PM	**0**	**0**	**1**	**1**	***2***	**0**	**0**	**1**	**0**	***1***	**0**	**0**	**0**	**1**	*1*
Count Total	4	3	10	18	*35*	29	18	4	4	*55*	15	56	34	57	*162*
Peak Hour	**0**	**0**	**3**	**5**	***8***	**6**	**5**	**2**	**0**	***13***	**3**	**6**	**10**	**9**	***28***

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Four-Hour Count Summaries - Heavy Vehicles

Interval Start	Addison Ave Eastbound				Addison Ave Westbound				Middlefield Rd Northbound				Middlefield Rd Southbound				15-min Total	Rolling One Hour
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
2:00 PM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	2	0	3	0
2:15 PM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	2	0
2:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	2	0
2:45 PM	0	0	0	1	0	0	1	0	0	0	0	0	0	0	1	0	3	10
3:00 PM	0	1	0	0	0	0	0	0	0	0	1	0	0	0	1	0	3	10
3:15 PM	0	0	1	0	0	0	0	0	0	0	1	0	0	0	0	0	2	10
3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	9
3:45 PM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	1	3	9
4:00 PM	0	0	0	0	0	1	0	0	0	0	1	0	0	0	2	0	4	10
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	8
4:30 PM	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1	0	2	9
4:45 PM	0	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	2	8
5:00 PM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	2	6
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	7
5:30 PM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	2	0	3	8
5:45 PM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	2	8
Count Total	0	1	2	1	0	1	2	0	0	0	10	0	0	0	16	2	35	0
Peak Hour	0	0	0	0	0	0	0	0	0	0	3	0	0	0	4	1	8	0

Four-Hour Count Summaries - Bikes

Interval Start	Addison Ave Eastbound			Addison Ave Westbound			Middlefield Rd Northbound			Middlefield Rd Southbound			15-min Total	Rolling One Hour
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT		
2:00 PM	0	1	0	0	0	0	0	0	0	0	0	0	1	0
2:15 PM	0	5	0	0	1	0	0	0	0	0	2	1	9	0
2:30 PM	0	2	0	0	0	0	0	0	0	0	0	0	2	0
2:45 PM	0	3	0	0	0	0	0	1	0	0	0	0	4	16
3:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	15
3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	6
3:30 PM	0	1	0	0	2	0	0	0	0	0	0	0	3	7
3:45 PM	0	3	0	0	2	0	0	0	0	0	0	0	5	8
4:00 PM	0	1	0	0	2	0	0	0	0	0	0	0	3	11
4:15 PM	0	2	0	0	1	0	0	0	0	0	0	0	3	14
4:30 PM	0	2	0	0	2	0	0	1	0	0	1	0	6	17
4:45 PM	0	3	0	0	3	0	0	0	0	0	0	0	6	18
5:00 PM	0	5	0	0	1	0	0	0	0	0	0	0	6	21
5:15 PM	0	1	0	0	1	1	0	0	0	0	0	0	3	21
5:30 PM	0	0	0	0	2	0	1	0	0	0	0	0	3	18
5:45 PM	0	0	0	0	0	0	0	1	0	0	0	0	1	13
Count Total	0	29	0	0	17	1	1	3	0	0	3	1	55	0
Peak Hour	0	6	0	0	4	1	1	1	0	0	0	0	13	0

Note: U-Turn volumes for bikes are included in Left-Turn, if any.

Appendix E – Existing Conditions – Intersection Capacity Worksheets

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		✛			✛			✛			✛	
Traffic Volume (vph)	15	18	19	12	37	7	11	235	2	0	233	23
Future Volume (vph)	15	18	19	12	37	7	11	235	2	0	233	23
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0			4.0			4.0			4.0	
Lane Util. Factor		1.00			1.00			1.00			1.00	
Frpb, ped/bikes		0.97			0.99			1.00			0.99	
Flpb, ped/bikes		1.00			0.99			1.00			1.00	
Frt		0.95			0.98			1.00			0.99	
Flt Protected		0.99			0.99			1.00			1.00	
Satd. Flow (prot)		1515			1597			1669			1648	
Flt Permitted		0.89			0.91			0.98			1.00	
Satd. Flow (perm)		1362			1476			1643			1648	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	16	20	21	13	40	8	12	255	2	0	253	25
RTOR Reduction (vph)	0	18	0	0	7	0	0	1	0	0	5	0
Lane Group Flow (vph)	0	39	0	0	54	0	0	268	0	0	273	0
Confl. Peds. (#/hr)	11		60	60		11	42		13	13		42
Confl. Bikes (#/hr)			6			15			3			2
Parking (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Turn Type	Perm	NA		Perm	NA		Perm	NA			NA	
Protected Phases		4			4			2			2	
Permitted Phases	4			4			2			2		
Actuated Green, G (s)		5.4			5.4			14.2			14.2	
Effective Green, g (s)		5.4			5.4			14.2			14.2	
Actuated g/C Ratio		0.15			0.15			0.39			0.39	
Clearance Time (s)		4.0			4.0			4.0			4.0	
Vehicle Extension (s)		3.0			3.0			3.0			3.0	
Lane Grp Cap (vph)		204			221			648			650	
v/s Ratio Prot											c0.17	
v/s Ratio Perm		0.03			c0.04			0.16				
v/c Ratio		0.19			0.25			0.41			0.42	
Uniform Delay, d1		13.4			13.5			7.9			7.9	
Progression Factor		1.00			1.00			1.00			1.00	
Incremental Delay, d2		0.5			0.6			0.4			0.4	
Delay (s)		13.9			14.1			8.3			8.3	
Level of Service		B			B			A			A	
Approach Delay (s)		13.9			14.1			8.3			8.3	
Approach LOS		B			B			A			A	

Intersection Summary				
HCM 2000 Control Delay	9.3	HCM 2000 Level of Service	A	
HCM 2000 Volume to Capacity ratio	0.30			
Actuated Cycle Length (s)	36.0	Sum of lost time (s)	12.0	
Intersection Capacity Utilization	43.1%	ICU Level of Service	A	
Analysis Period (min)	15			
c Critical Lane Group				

Intersection

Int Delay, s/veh	5.5

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↭			↭			↭			↭	
Traffic Vol, veh/h	7	52	18	17	117	11	17	240	14	7	237	26
Future Vol, veh/h	7	52	18	17	117	11	17	240	14	7	237	26
Conflicting Peds, #/hr	8	0	0	0	0	8	7	0	4	4	0	7
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	93	93	93	93	93	93	93	93	93	93	93	93
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	8	56	19	18	126	12	18	258	15	8	255	28

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	671	605	276	629	612	278	290	0	0	277	0	0
Stage 1	292	292	-	306	306	-	-	-	-	-	-	-
Stage 2	379	313	-	323	306	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	370	412	763	395	408	761	1272	-	-	1286	-	-
Stage 1	716	671	-	704	662	-	-	-	-	-	-	-
Stage 2	643	657	-	689	662	-	-	-	-	-	-	-
Platoon blocked, %								-			-	
Mov Cap-1 Maneuver	266	398	758	336	394	752	1264	-	-	1281	-	-
Mov Cap-2 Maneuver	266	398	-	336	394	-	-	-	-	-	-	-
Stage 1	699	662	-	689	648	-	-	-	-	-	-	-
Stage 2	498	643	-	610	653	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	15.5	19.6	0.5	0.2
HCM LOS	C	C		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1264	-	-	426	400	1281	-	-
HCM Lane V/C Ratio	0.014	-	-	0.194	0.39	0.006	-	-
HCM Control Delay (s)	7.9	0	-	15.5	19.6	7.8	0	-
HCM Lane LOS	A	A	-	C	C	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0.7	1.8	0	-	-

Intersection											
Int Delay, s/veh	0.6										

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		⬦			⬦			⬦			⬦	
Traffic Vol, veh/h	3	3	6	4	5	3	1	264	2	5	259	6
Future Vol, veh/h	3	3	6	4	5	3	1	264	2	5	259	6
Conflicting Peds, #/hr	4	0	1	1	0	4	3	0	10	10	0	3
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	90	90	90	90	90	90	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	3	3	7	4	6	3	1	293	2	6	288	7

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	612	614	296	616	616	308	298	0	0	305	0	0
Stage 1	307	307	-	306	306	-	-	-	-	-	-	-
Stage 2	305	307	-	310	310	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	405	407	743	403	406	732	1263	-	-	1256	-	-
Stage 1	703	661	-	704	662	-	-	-	-	-	-	-
Stage 2	705	661	-	700	659	-	-	-	-	-	-	-
Platoon blocked, %								-		-	-	-
Mov Cap-1 Maneuver	394	399	740	391	398	722	1259	-	-	1244	-	-
Mov Cap-2 Maneuver	394	399	-	391	398	-	-	-	-	-	-	-
Stage 1	700	655	-	696	655	-	-	-	-	-	-	-
Stage 2	692	654	-	685	653	-	-	-	-	-	-	-

Approach	EB		WB		NB		SB	
HCM Control Delay, s	12.2		13.3		0		0.1	
HCM LOS	B		B					

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1259	-	-	516	445	1244	-	-
HCM Lane V/C Ratio	0.001	-	-	0.026	0.03	0.004	-	-
HCM Control Delay (s)	7.9	0	-	12.2	13.3	7.9	0	-
HCM Lane LOS	A	A	-	B	B	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0.1	0.1	0	-	-

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		⊕			⊕			⊕			⊕	
Traffic Volume (vph)	1	25	15	33	77	25	6	241	28	11	259	13
Future Volume (vph)	1	25	15	33	77	25	6	241	28	11	259	13
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0			4.0			5.0			5.0	
Lane Util. Factor		1.00			1.00			1.00			1.00	
Frpb, ped/bikes		0.98			0.98			1.00			1.00	
Flpb, ped/bikes		1.00			1.00			1.00			1.00	
Frt		0.95			0.98			0.99			0.99	
Flt Protected		1.00			0.99			1.00			1.00	
Satd. Flow (prot)		1567			1582			1644			1661	
Flt Permitted		0.99			0.91			0.99			0.98	
Satd. Flow (perm)		1557			1462			1629			1632	
Peak-hour factor, PHF	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Adj. Flow (vph)	1	27	16	36	85	27	7	265	31	12	285	14
RTOR Reduction (vph)	0	13	0	0	11	0	0	6	0	0	3	0
Lane Group Flow (vph)	0	31	0	0	137	0	0	297	0	0	308	0
Confl. Peds. (#/hr)	11		18	18		11	2		18	18		2
Confl. Bikes (#/hr)		1			27			2				
Parking (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			4			2			2	
Permitted Phases	4			4			2			2		
Actuated Green, G (s)		8.3			8.3			14.8			14.8	
Effective Green, g (s)		8.3			8.3			14.8			14.8	
Actuated g/C Ratio		0.18			0.18			0.32			0.32	
Clearance Time (s)		4.0			4.0			5.0			5.0	
Vehicle Extension (s)		0.2			0.2			2.0			2.0	
Lane Grp Cap (vph)		280			263			522			523	
v/s Ratio Prot												
v/s Ratio Perm		0.02			c0.09			0.18			c0.19	
v/c Ratio		0.11			0.52			0.57			0.59	
Uniform Delay, d1		15.8			17.1			13.0			13.1	
Progression Factor		1.00			1.00			1.00			1.00	
Incremental Delay, d2		0.1			0.9			0.9			1.1	
Delay (s)		15.9			18.0			13.9			14.2	
Level of Service		B			B			B			B	
Approach Delay (s)		15.9			18.0			13.9			14.2	
Approach LOS		B			B			B			B	

Intersection Summary				
HCM 2000 Control Delay	14.9	HCM 2000 Level of Service	B	
HCM 2000 Volume to Capacity ratio	0.39			
Actuated Cycle Length (s)	46.1	Sum of lost time (s)	13.0	
Intersection Capacity Utilization	42.2%	ICU Level of Service	A	
Analysis Period (min)	15			
c Critical Lane Group				

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		⊕			⊕			⊕			⊕	
Traffic Volume (vph)	11	23	12	6	14	5	12	297	10	4	341	17
Future Volume (vph)	11	23	12	6	14	5	12	297	10	4	341	17
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0			4.0			4.0			4.0	
Lane Util. Factor		1.00			1.00			1.00			1.00	
Frpb, ped/bikes		0.99			0.99			1.00			1.00	
Flpb, ped/bikes		1.00			1.00			1.00			1.00	
Frt		0.96			0.97			1.00			0.99	
Flt Protected		0.99			0.99			1.00			1.00	
Satd. Flow (prot)		1576			1597			1665			1663	
Flt Permitted		0.91			0.90			0.98			1.00	
Satd. Flow (perm)		1452			1461			1639			1658	
Peak-hour factor, PHF	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Adj. Flow (vph)	12	25	13	7	15	5	13	326	11	4	375	19
RTOR Reduction (vph)	0	11	0	0	4	0	0	2	0	0	2	0
Lane Group Flow (vph)	0	39	0	0	23	0	0	348	0	0	396	0
Confl. Peds. (#/hr)	9		10	10		9	6		3	3		6
Confl. Bikes (#/hr)		6			5			2				
Parking (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			4			2			2	
Permitted Phases	4			4			2			2		
Actuated Green, G (s)		5.2			5.2			17.6			17.6	
Effective Green, g (s)		5.2			5.2			17.6			17.6	
Actuated g/C Ratio		0.13			0.13			0.45			0.45	
Clearance Time (s)		4.0			4.0			4.0			4.0	
Vehicle Extension (s)		3.0			3.0			3.0			3.0	
Lane Grp Cap (vph)		191			192			732			740	
v/s Ratio Prot												
v/s Ratio Perm		c0.03			0.02			0.21			c0.24	
v/c Ratio		0.20			0.12			0.48			0.53	
Uniform Delay, d1		15.3			15.1			7.7			7.9	
Progression Factor		1.00			1.00			1.00			1.00	
Incremental Delay, d2		0.5			0.3			0.5			0.7	
Delay (s)		15.8			15.4			8.1			8.7	
Level of Service		B			B			A			A	
Approach Delay (s)		15.8			15.4			8.1			8.7	
Approach LOS		B			B			A			A	

Intersection Summary				
HCM 2000 Control Delay	9.1	HCM 2000 Level of Service	A	
HCM 2000 Volume to Capacity ratio	0.38			
Actuated Cycle Length (s)	39.4	Sum of lost time (s)	12.0	
Intersection Capacity Utilization	41.4%	ICU Level of Service	A	
Analysis Period (min)	15			
c Critical Lane Group				

Intersection											
Int Delay, s/veh	4.7										

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		⟠			⟠			⟠			⟠	
Traffic Vol, veh/h	20	83	11	17	50	7	11	299	17	5	336	19
Future Vol, veh/h	20	83	11	17	50	7	11	299	17	5	336	19
Conflicting Peds, #/hr	1	0	2	2	0	1	3	0	5	5	0	3
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	94	94	94	94	94	94	94	94	94	94	94	94
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	21	88	12	18	53	7	12	318	18	5	357	20

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	762	745	372	785	746	333	380	0	0	341	0	0
Stage 1	380	380	-	356	356	-	-	-	-	-	-	-
Stage 2	382	365	-	429	390	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	322	342	674	310	342	709	1178	-	-	1218	-	-
Stage 1	642	614	-	661	629	-	-	-	-	-	-	-
Stage 2	640	623	-	604	608	-	-	-	-	-	-	-
Platoon blocked, %								-		-	-	-
Mov Cap-1 Maneuver	275	333	671	237	333	705	1175	-	-	1212	-	-
Mov Cap-2 Maneuver	275	333	-	237	333	-	-	-	-	-	-	-
Stage 1	632	609	-	649	618	-	-	-	-	-	-	-
Stage 2	571	612	-	504	603	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	21.6	19.9	0.3	0.1
HCM LOS	C	C		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1175	-	-	337	319	1212	-	-
HCM Lane V/C Ratio	0.01	-	-	0.36	0.247	0.004	-	-
HCM Control Delay (s)	8.1	0	-	21.6	19.9	8	0	-
HCM Lane LOS	A	A	-	C	C	A	A	-
HCM 95th %tile Q(veh)	0	-	-	1.6	1	0	-	-

Intersection

Int Delay, s/veh	0.6

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		⊕			⊕			⊕			⊕	
Traffic Vol, veh/h	6	1	11	1	1	4	7	323	0	3	356	5
Future Vol, veh/h	6	1	11	1	1	4	7	323	0	3	356	5
Conflicting Peds, #/hr	1	0	0	0	0	1	2	0	5	5	0	2
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	7	1	12	1	1	4	8	351	0	3	387	5

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	769	770	392	774	772	357	394	0	0	356	0	0
Stage 1	398	398	-	372	372	-	-	-	-	-	-	-
Stage 2	371	372	-	402	400	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	318	331	657	316	330	687	1165	-	-	1203	-	-
Stage 1	628	603	-	648	619	-	-	-	-	-	-	-
Stage 2	649	619	-	625	602	-	-	-	-	-	-	-
Platoon blocked, %								-			-	
Mov Cap-1 Maneuver	311	325	656	305	324	683	1163	-	-	1197	-	-
Mov Cap-2 Maneuver	311	325	-	305	324	-	-	-	-	-	-	-
Stage 1	621	600	-	639	610	-	-	-	-	-	-	-
Stage 2	637	610	-	611	599	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	13.2	12.4	0.2	0.1
HCM LOS	B	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1163	-	-	460	491	1197	-	-
HCM Lane V/C Ratio	0.007	-	-	0.043	0.013	0.003	-	-
HCM Control Delay (s)	8.1	0	-	13.2	12.4	8	0	-
HCM Lane LOS	A	A	-	B	B	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0.1	0	0	-	-

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		⊕			⊕			⊕			⊕	
Traffic Volume (vph)	7	40	7	27	39	13	3	233	30	16	394	9
Future Volume (vph)	7	40	7	27	39	13	3	233	30	16	394	9
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0			4.0			5.0			5.0	
Lane Util. Factor		1.00			1.00			1.00			1.00	
Frpb, ped/bikes		0.99			0.99			1.00			1.00	
Flpb, ped/bikes		1.00			1.00			1.00			1.00	
Frt		0.98			0.98			0.98			1.00	
Flt Protected		0.99			0.98			1.00			1.00	
Satd. Flow (prot)		1621			1590			1643			1667	
Flt Permitted		0.96			0.88			1.00			0.98	
Satd. Flow (perm)		1566			1420			1636			1641	
Peak-hour factor, PHF	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Adj. Flow (vph)	7	43	7	29	41	14	3	248	32	17	419	10
RTOR Reduction (vph)	0	6	0	0	10	0	0	6	0	0	1	0
Lane Group Flow (vph)	0	51	0	0	74	0	0	277	0	0	445	0
Confl. Peds. (#/hr)	19		11	11		19	3		14	14		3
Confl. Bikes (#/hr)		13			2			1				1
Parking (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			4			2			2	
Permitted Phases	4			4			2			2		
Actuated Green, G (s)		8.0			8.0			19.4			19.4	
Effective Green, g (s)		8.0			8.0			19.4			19.4	
Actuated g/C Ratio		0.16			0.16			0.38			0.38	
Clearance Time (s)		4.0			4.0			5.0			5.0	
Vehicle Extension (s)		0.2			0.2			2.0			2.0	
Lane Grp Cap (vph)		247			224			626			627	
v/s Ratio Prot												
v/s Ratio Perm		0.03			c0.05			0.17			c0.27	
v/c Ratio		0.21			0.33			0.44			0.71	
Uniform Delay, d1		18.6			19.0			11.6			13.3	
Progression Factor		1.00			1.00			1.00			1.00	
Incremental Delay, d2		0.2			0.3			0.2			3.0	
Delay (s)		18.7			19.3			11.8			16.3	
Level of Service		B			B			B			B	
Approach Delay (s)		18.7			19.3			11.8			16.3	
Approach LOS		B			B			B			B	

Intersection Summary				
HCM 2000 Control Delay	15.3	HCM 2000 Level of Service	B	
HCM 2000 Volume to Capacity ratio	0.43			
Actuated Cycle Length (s)	50.7	Sum of lost time (s)	13.0	
Intersection Capacity Utilization	51.0%	ICU Level of Service	A	
Analysis Period (min)	15			
c Critical Lane Group				

Appendix F – Existing Conditions with Reroutes – Intersection Capacity Worksheets

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		⊕			⊕			⊕			⊕	
Traffic Volume (vph)	22	70	19	29	154	7	11	228	2	0	233	23
Future Volume (vph)	22	70	19	29	154	7	11	228	2	0	233	23
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0			4.0			4.0			4.0	
Lane Util. Factor		1.00			1.00			1.00			1.00	
Frpb, ped/bikes		0.98			1.00			1.00			0.99	
Flpb, ped/bikes		1.00			0.99			1.00			1.00	
Frt		0.98			0.99			1.00			0.99	
Flt Protected		0.99			0.99			1.00			1.00	
Satd. Flow (prot)		1592			1637			1668			1647	
Flt Permitted		0.92			0.94			0.98			1.00	
Satd. Flow (perm)		1480			1558			1641			1647	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	24	76	21	32	167	8	12	248	2	0	253	25
RTOR Reduction (vph)	0	9	0	0	2	0	0	1	0	0	6	0
Lane Group Flow (vph)	0	112	0	0	205	0	0	261	0	0	272	0
Confl. Peds. (#/hr)	11		60	60		11	42		13	13		42
Confl. Bikes (#/hr)			6			15			3			2
Parking (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Turn Type	Perm	NA		Perm	NA		Perm	NA			NA	
Protected Phases		4			4			2			2	
Permitted Phases	4			4			2			2		
Actuated Green, G (s)		12.6			12.6			14.4			14.4	
Effective Green, g (s)		12.6			12.6			14.4			14.4	
Actuated g/C Ratio		0.29			0.29			0.33			0.33	
Clearance Time (s)		4.0			4.0			4.0			4.0	
Vehicle Extension (s)		3.0			3.0			3.0			3.0	
Lane Grp Cap (vph)		433			456			549			551	
v/s Ratio Prot											c0.17	
v/s Ratio Perm		0.08			c0.13			0.16				
v/c Ratio		0.26			0.45			0.48			0.49	
Uniform Delay, d1		11.6			12.4			11.3			11.4	
Progression Factor		1.00			1.00			1.00			1.00	
Incremental Delay, d2		0.3			0.7			0.7			0.7	
Delay (s)		11.9			13.1			12.0			12.1	
Level of Service		B			B			B			B	
Approach Delay (s)		11.9			13.1			12.0			12.1	
Approach LOS		B			B			B			B	

Intersection Summary				
HCM 2000 Control Delay	12.3	HCM 2000 Level of Service	B	
HCM 2000 Volume to Capacity ratio	0.41			
Actuated Cycle Length (s)	43.0	Sum of lost time (s)	12.0	
Intersection Capacity Utilization	42.8%	ICU Level of Service	A	
Analysis Period (min)	15			
c Critical Lane Group				

Intersection

Int Delay, s/veh	0.8

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations			↱			↱		↔			↔	
Traffic Vol, veh/h	0	0	18	0	0	11	17	247	14	7	254	26
Future Vol, veh/h	0	0	18	0	0	11	17	247	14	7	254	26
Conflicting Peds, #/hr	8	0	0	0	0	8	7	0	4	4	0	7
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	Stop	-	-	Stop	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	93	93	93	93	93	93	93	93	93	93	93	93
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	0	19	0	0	12	18	266	15	8	273	28

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	-	-	294	-	-	286	308	0	0	285	0	0
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy	-	-	6.22	-	-	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-	-	-	-	-	-	-
Follow-up Hdwy	-	-	3.318	-	-	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	0	0	745	0	0	753	1253	-	-	1277	-	-
Stage 1	0	0	-	0	0	-	-	-	-	-	-	-
Stage 2	0	0	-	0	0	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	-	-	740	-	-	744	1245	-	-	1272	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-

Approach	EB		WB		NB		SB	
HCM Control Delay, s	10		9.9		0.5		0.2	
HCM LOS	B		A					

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1245	-	-	740	744	1272	-	-
HCM Lane V/C Ratio	0.015	-	-	0.026	0.016	0.006	-	-
HCM Control Delay (s)	7.9	0	-	10	9.9	7.8	0	-
HCM Lane LOS	A	A	-	B	A	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0.1	0	0	-	-

Intersection

Int Delay, s/veh	5.6

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		⟳			⟳			⟳			⟳	
Traffic Vol, veh/h	10	55	6	21	122	3	1	264	2	5	242	6
Future Vol, veh/h	10	55	6	21	122	3	1	264	2	5	242	6
Conflicting Peds, #/hr	4	0	1	1	0	4	3	0	10	10	0	3
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	90	90	90	90	90	90	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	11	61	7	23	136	3	1	293	2	6	269	7

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	658	595	277	626	597	308	279	0	0	305	0	0
Stage 1	288	288	-	306	306	-	-	-	-	-	-	-
Stage 2	370	307	-	320	291	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	378	417	762	397	416	732	1284	-	-	1256	-	-
Stage 1	720	674	-	704	662	-	-	-	-	-	-	-
Stage 2	650	661	-	692	672	-	-	-	-	-	-	-
Platoon blocked, %								-		-		-
Mov Cap-1 Maneuver	276	409	759	343	408	722	1280	-	-	1244	-	-
Mov Cap-2 Maneuver	276	409	-	343	408	-	-	-	-	-	-	-
Stage 1	717	668	-	696	655	-	-	-	-	-	-	-
Stage 2	511	654	-	619	666	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	16.3	19.9	0	0.2
HCM LOS	C	C		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1280	-	-	398	401	1244	-	-
HCM Lane V/C Ratio	0.001	-	-	0.198	0.405	0.004	-	-
HCM Control Delay (s)	7.8	0	-	16.3	19.9	7.9	0	-
HCM Lane LOS	A	A	-	C	C	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0.7	1.9	0	-	-

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		⟳			⟳			⟳			⟳	
Traffic Volume (vph)	8	77	15	50	194	25	6	241	28	11	242	13
Future Volume (vph)	8	77	15	50	194	25	6	241	28	11	242	13
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0			4.0			5.0			5.0	
Lane Util. Factor		1.00			1.00			1.00			1.00	
Frpb, ped/bikes		0.99			0.99			1.00			1.00	
Flpb, ped/bikes		1.00			1.00			1.00			1.00	
Frt		0.98			0.99			0.99			0.99	
Flt Protected		1.00			0.99			1.00			1.00	
Satd. Flow (prot)		1625			1623			1644			1659	
Flt Permitted		0.97			0.93			0.99			0.98	
Satd. Flow (perm)		1578			1516			1629			1629	
Peak-hour factor, PHF	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Adj. Flow (vph)	9	85	16	55	213	27	7	265	31	12	266	14
RTOR Reduction (vph)	0	7	0	0	4	0	0	6	0	0	3	0
Lane Group Flow (vph)	0	103	0	0	291	0	0	297	0	0	289	0
Confl. Peds. (#/hr)	11		18	18		11	2		18	18		2
Confl. Bikes (#/hr)			1			27			2			
Parking (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			4			2			2	
Permitted Phases	4			4			2			2		
Actuated Green, G (s)		14.3			14.3			15.5			15.5	
Effective Green, g (s)		14.3			14.3			15.5			15.5	
Actuated g/C Ratio		0.27			0.27			0.29			0.29	
Clearance Time (s)		4.0			4.0			5.0			5.0	
Vehicle Extension (s)		0.2			0.2			2.0			2.0	
Lane Grp Cap (vph)		429			412			480			480	
v/s Ratio Prot												
v/s Ratio Perm		0.07			c0.19			c0.18			0.18	
v/c Ratio		0.24			0.71			0.62			0.60	
Uniform Delay, d1		14.9			17.3			16.0			15.9	
Progression Factor		1.00			1.00			1.00			1.00	
Incremental Delay, d2		0.1			4.5			1.7			1.5	
Delay (s)		15.0			21.7			17.7			17.4	
Level of Service		B			C			B			B	
Approach Delay (s)		15.0			21.7			17.7			17.4	
Approach LOS		B			C			B			B	

Intersection Summary				
HCM 2000 Control Delay	18.5	HCM 2000 Level of Service	B	
HCM 2000 Volume to Capacity ratio	0.50			
Actuated Cycle Length (s)	52.6	Sum of lost time (s)	13.0	
Intersection Capacity Utilization	47.8%	ICU Level of Service	A	
Analysis Period (min)	15			
c Critical Lane Group				

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		⊕			⊕			⊕			⊕	
Traffic Volume (vph)	31	106	12	23	64	5	12	277	10	4	341	17
Future Volume (vph)	31	106	12	23	64	5	12	277	10	4	341	17
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0			4.0			4.0			4.0	
Lane Util. Factor		1.00			1.00			1.00			1.00	
Frpb, ped/bikes		1.00			1.00			1.00			1.00	
Flpb, ped/bikes		1.00			1.00			1.00			1.00	
Frt		0.99			0.99			1.00			0.99	
Flt Protected		0.99			0.99			1.00			1.00	
Satd. Flow (prot)		1633			1638			1664			1663	
Flt Permitted		0.92			0.92			0.98			1.00	
Satd. Flow (perm)		1514			1518			1637			1658	
Peak-hour factor, PHF	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Adj. Flow (vph)	34	116	13	25	70	5	13	304	11	4	375	19
RTOR Reduction (vph)	0	4	0	0	2	0	0	2	0	0	2	0
Lane Group Flow (vph)	0	159	0	0	98	0	0	326	0	0	396	0
Confl. Peds. (#/hr)	9		10	10		9	6		3	3		6
Confl. Bikes (#/hr)		6			5			2				
Parking (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			4			2			2	
Permitted Phases	4			4			2			2		
Actuated Green, G (s)		9.2			9.2			19.3			19.3	
Effective Green, g (s)		9.2			9.2			19.3			19.3	
Actuated g/C Ratio		0.20			0.20			0.43			0.43	
Clearance Time (s)		4.0			4.0			4.0			4.0	
Vehicle Extension (s)		3.0			3.0			3.0			3.0	
Lane Grp Cap (vph)		310			311			703			712	
v/s Ratio Prot												
v/s Ratio Perm		c0.11			0.06			0.20			c0.24	
v/c Ratio		0.51			0.31			0.46			0.56	
Uniform Delay, d1		15.9			15.2			9.1			9.6	
Progression Factor		1.00			1.00			1.00			1.00	
Incremental Delay, d2		1.4			0.6			0.5			0.9	
Delay (s)		17.3			15.7			9.6			10.5	
Level of Service		B			B			A			B	
Approach Delay (s)		17.3			15.7			9.6			10.5	
Approach LOS		B			B			A			B	

Intersection Summary				
HCM 2000 Control Delay	11.9	HCM 2000 Level of Service	B	
HCM 2000 Volume to Capacity ratio	0.47			
Actuated Cycle Length (s)	44.9	Sum of lost time (s)	12.0	
Intersection Capacity Utilization	41.1%	ICU Level of Service	A	
Analysis Period (min)	15			
c Critical Lane Group				

Intersection

Int Delay, s/veh	2.4

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations			↱			↱		⊕			⊕	
Traffic Vol, veh/h	20	83	11	17	50	7	11	299	17	5	336	19
Future Vol, veh/h	20	83	11	17	50	7	11	299	17	5	336	19
Conflicting Peds, #/hr	1	0	2	2	0	1	3	0	5	5	0	3
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	Stop	-	-	Stop	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	94	94	94	94	94	94	94	94	94	94	94	94
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	21	88	12	18	53	7	12	318	18	5	357	20

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	759	745	372	779	746	333	380	0	0	341	0	0
Stage 1	380	380	-	356	356	-	-	-	-	-	-	-
Stage 2	379	365	-	423	390	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	323	342	674	313	342	709	1178	-	-	1218	-	-
Stage 1	642	614	-	661	629	-	-	-	-	-	-	-
Stage 2	643	623	-	609	608	-	-	-	-	-	-	-
Platoon blocked, %								-		-		
Mov Cap-1 Maneuver	276	333	671	240	333	705	1175	-	-	1212	-	-
Mov Cap-2 Maneuver	276	333	-	240	333	-	-	-	-	-	-	-
Stage 1	632	609	-	649	618	-	-	-	-	-	-	-
Stage 2	573	612	-	508	603	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	10.5	10.2	0.3	0.1
HCM LOS	B	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1175	-	-	671	705	1212	-	-
HCM Lane V/C Ratio	0.01	-	-	0.017	0.011	0.004	-	-
HCM Control Delay (s)	8.1	0	-	10.5	10.2	8	0	-
HCM Lane LOS	A	A	-	B	B	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0.1	0	0	-	-

Intersection

Int Delay, s/veh	5

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		⟊			⟊			⟊			⟊	
Traffic Vol, veh/h	26	84	11	18	51	4	7	323	0	3	339	5
Future Vol, veh/h	26	84	11	18	51	4	7	323	0	3	339	5
Conflicting Peds, #/hr	1	0	0	0	0	1	2	0	5	5	0	2
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	28	91	12	20	55	4	8	351	0	3	368	5

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	777	751	373	800	753	357	375	0	0	356	0	0
Stage 1	379	379	-	372	372	-	-	-	-	-	-	-
Stage 2	398	372	-	428	381	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	314	340	673	303	339	687	1183	-	-	1203	-	-
Stage 1	643	615	-	648	619	-	-	-	-	-	-	-
Stage 2	628	619	-	605	613	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	269	334	672	232	333	683	1181	-	-	1197	-	-
Mov Cap-2 Maneuver	269	334	-	232	333	-	-	-	-	-	-	-
Stage 1	637	612	-	640	611	-	-	-	-	-	-	-
Stage 2	562	611	-	504	610	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	22.8	20.6	0.2	0.1
HCM LOS	C	C		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1181	-	-	332	309	1197	-	-
HCM Lane V/C Ratio	0.006	-	-	0.396	0.257	0.003	-	-
HCM Control Delay (s)	8.1	0	-	22.8	20.6	8	0	-
HCM Lane LOS	A	A	-	C	C	A	A	-
HCM 95th %tile Q(veh)	0	-	-	1.8	1	0	-	-

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		⊕			⊕			⊕			⊕	
Traffic Volume (vph)	27	123	7	44	89	13	3	233	30	16	377	9
Future Volume (vph)	27	123	7	44	89	13	3	233	30	16	377	9
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0			4.0			5.0			5.0	
Lane Util. Factor		1.00			1.00			1.00			1.00	
Frpb, ped/bikes		1.00			1.00			1.00			1.00	
Flpb, ped/bikes		1.00			1.00			1.00			1.00	
Frt		0.99			0.99			0.98			1.00	
Flt Protected		0.99			0.99			1.00			1.00	
Satd. Flow (prot)		1643			1619			1643			1666	
Flt Permitted		0.93			0.89			1.00			0.98	
Satd. Flow (perm)		1540			1470			1636			1639	
Peak-hour factor, PHF	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Adj. Flow (vph)	29	131	7	47	95	14	3	248	32	17	401	10
RTOR Reduction (vph)	0	2	0	0	5	0	0	6	0	0	1	0
Lane Group Flow (vph)	0	165	0	0	151	0	0	277	0	0	427	0
Confl. Peds. (#/hr)	19		11	11		19	3		14	14		3
Confl. Bikes (#/hr)		13			2			1			1	
Parking (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			4			2			2	
Permitted Phases	4			4			2			2		
Actuated Green, G (s)		12.0			12.0			19.3			19.3	
Effective Green, g (s)		12.0			12.0			19.3			19.3	
Actuated g/C Ratio		0.22			0.22			0.36			0.36	
Clearance Time (s)		4.0			4.0			5.0			5.0	
Vehicle Extension (s)		0.2			0.2			2.0			2.0	
Lane Grp Cap (vph)		342			326			584			585	
v/s Ratio Prot												
v/s Ratio Perm		c0.11			0.10			0.17			c0.26	
v/c Ratio		0.48			0.46			0.47			0.73	
Uniform Delay, d1		18.3			18.2			13.4			15.1	
Progression Factor		1.00			1.00			1.00			1.00	
Incremental Delay, d2		0.4			0.4			0.2			3.9	
Delay (s)		18.7			18.6			13.6			18.9	
Level of Service		B			B			B			B	
Approach Delay (s)		18.7			18.6			13.6			18.9	
Approach LOS		B			B			B			B	

Intersection Summary				
HCM 2000 Control Delay	17.4	HCM 2000 Level of Service	B	
HCM 2000 Volume to Capacity ratio	0.48			
Actuated Cycle Length (s)	54.0	Sum of lost time (s)	13.0	
Intersection Capacity Utilization	52.4%	ICU Level of Service	A	
Analysis Period (min)	15			
c Critical Lane Group				

Appendix G – Lincoln Avenue Sight Profiles

CITY OF
PALO ALTO

TJKM
4305 Hacienda Drive, Suite 550
Pleasanton, CA 94588
tjkm@tjkm.com

RESTRICT 135'
OF PARKING
~9 SPACES

RESTRICT 70'
OF PARKING
~5 SPACES

RESTRICT 135'
OF PARKING
~9 SPACES

MIDDLEFIELD RD

RESTRICT 110'
OF PARKING
~8 SPACES

LINCOLN AVE

N

SIGHT DISTANCE ANALYSIS - 25MPH
NTS

TABLE 2: DESIGN INTERSECTION SIGHT DISTANCE—CASE B1, LEFT TURN FROM STOP
(SOURCE: TABLE 9-7, A POLICY ON GEOMETRIC DESIGN OF HIGHWAYS AND
STREETS, 2018 7TH EDITION, AASHTO)

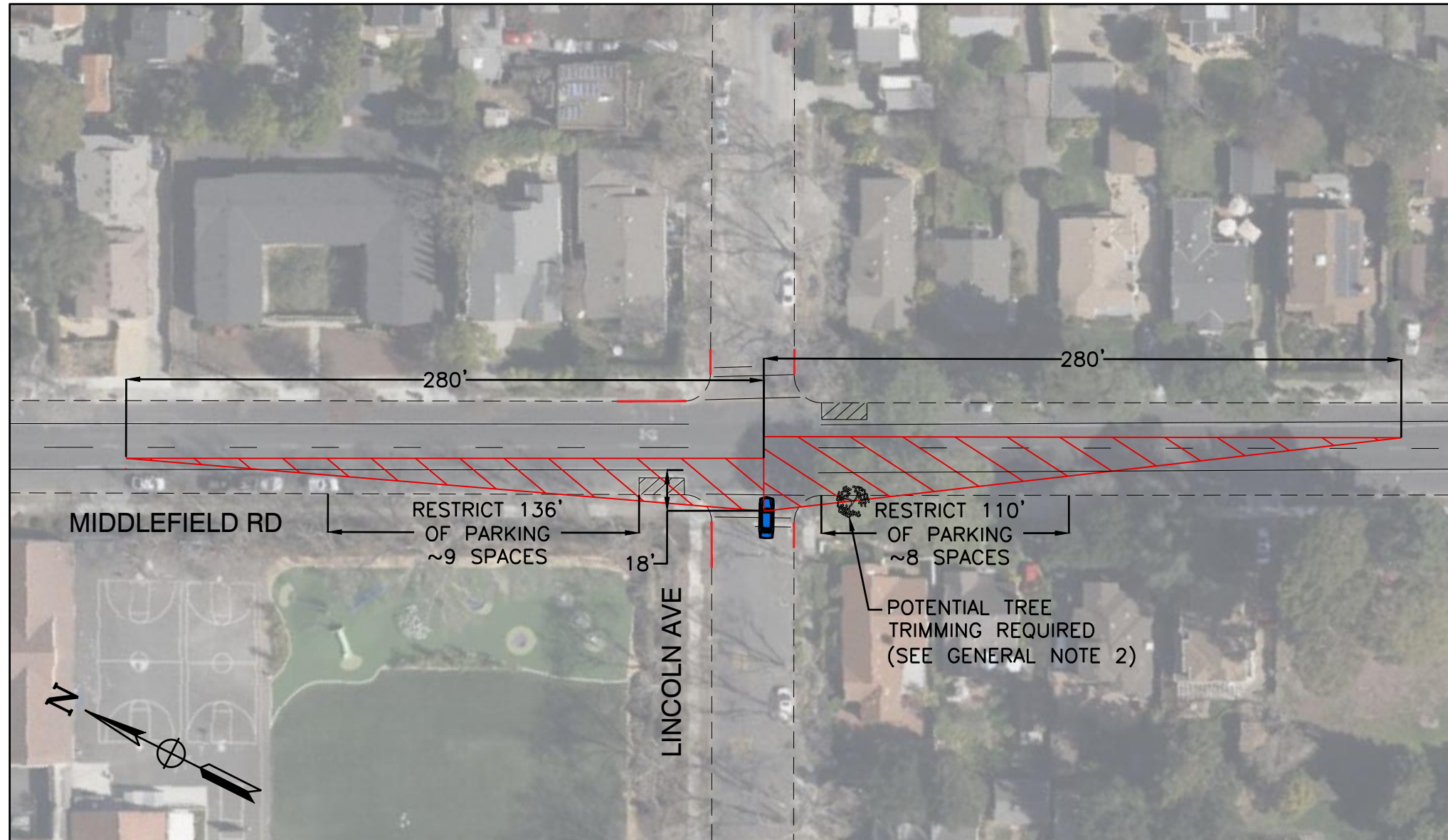| DESIGN SPEED (MPH)	STOPPING SIGHT DISTANCE (FT)	INTERSECTION SIGHT DISTANCE FOR PASSENGER CARS	
		CALCULATED (FT)	DESIGN (FT)
15	80	165.4	170
20	115	220.5	225
25	155	275.6	280
30	200	330.8	335
35	250	385.9	390
40	305	441	445

GENERAL NOTES:

1. A MAXIMUM HEIGHT OF 30 INCHES FOR LANDSCAPING AND RELATED
OBJECTS IS TO BE MAINTAINED IN THE CLEAR SIGHT TRIANGLE.

2. THE PRELIMINARY SIGHT TRIANGLES ILLUSTRATED WERE DETERMINED
ASSUMING A DRIVER POSITION DISTANCE OF 18 FEET FROM BEHIND
THE TRAVEL WAY AS PER THE CALIFORNIA HIGHWAY DESIGN MANUAL.
OTHER GUIDELINES (SUCH AS THE AASHTO GREENBOOK) REQUIRE
THAT SIGHT TRIANGLE BE DETERMINED FROM 14.5 FEET INSTEAD.
SIGHT TRIANGLES SHOULD BE FIELD VERIFIED AND
RECOMMENDATIONS SHOULD BE ADJUSTED ACCORDINGLY.

LEGEND

REQUIRED CLEAR SIGHT ZONE FOR 25 MPH
SPEED LIMIT

FIGURE 1

RIGHT TURN SIGHT DISTANCE ANALYSIS - SOUTHERN APPROACH

NTS

TABLE 1: DESIGN INTERSECTION SIGHT DISTANCE–CASE B2, RIGHT TURN FROM STOP
(SOURCE: TABLE 9–9, A POLICY ON GEOMETRIC DESIGN OF HIGHWAYS AND
STREETS, 2018 7TH EDITION, AASHTO)

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	385

GENERAL NOTES:

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LEGEND

REQUIRED CLEAR SIGHT ZONE FOR 25 MPH SPEED LIMIT

FIGURE 1(a)

280'

280'

RESTRICT 136'
OF PARKING
~9 SPACES

RESTRICT 110'
OF PARKING
~8 SPACES

MIDDLEFIELD RD

18'

LINCOLN AVE

POTENTIAL TREE
TRIMMING REQUIRED
(SEE GENERAL NOTE 2)

N

LEFT TURN SIGHT DISTANCE ANALYSIS - SOUTHERN APPROACH
NTS

TABLE 2: DESIGN INTERSECTION SIGHT DISTANCE–CASE B1, LEFT TURN FROM STOP
(SOURCE: TABLE 9–7, A POLICY ON GEOMETRIC DESIGN OF HIGHWAYS AND
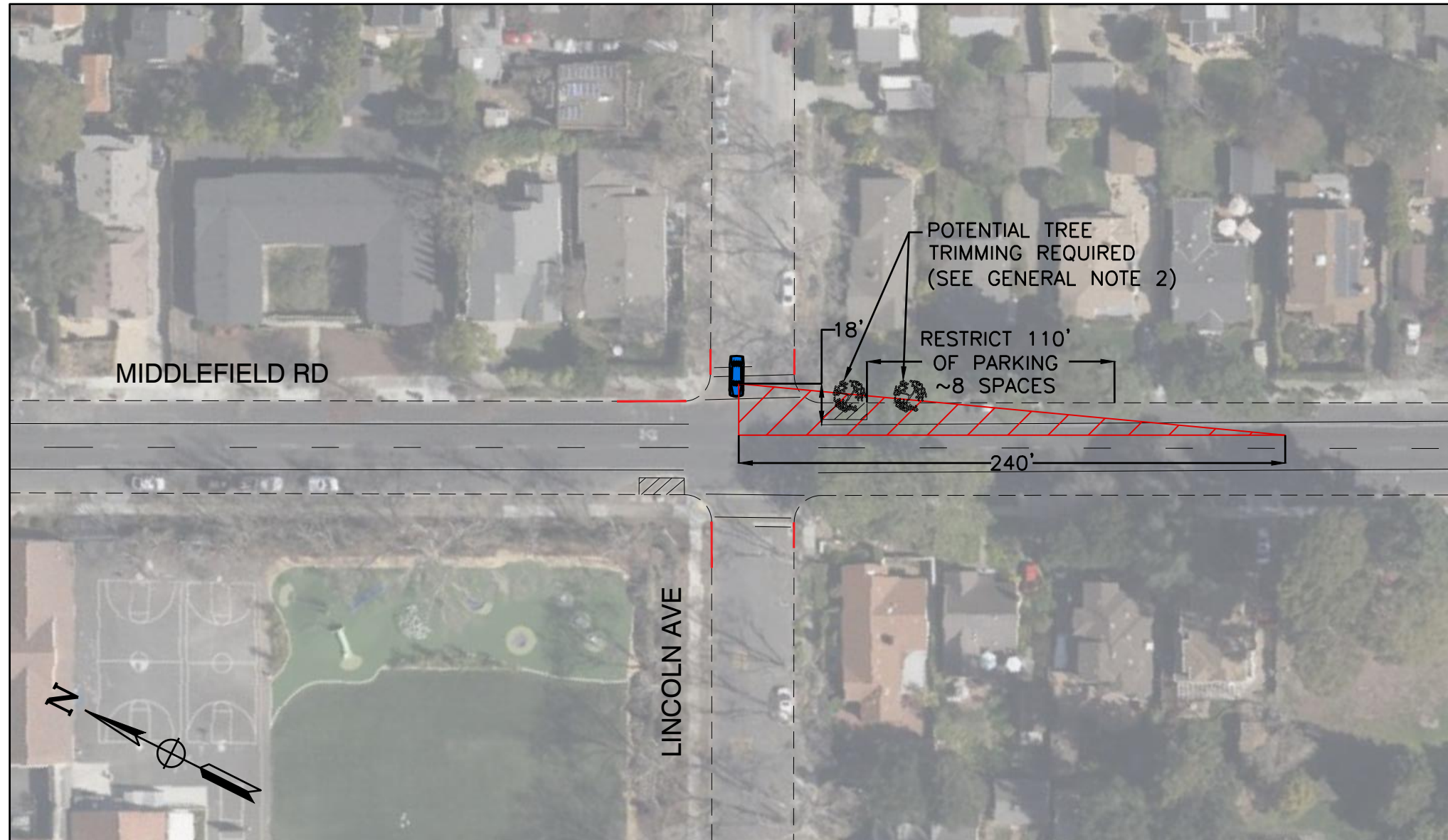STREETS, 2018 7TH EDITION, AASHTO)

DESIGN SPEED (MPH)	STOPPING SIGHT DISTANCE (FT)	INTERSECTION SIGHT DISTANCE FOR PASSENGER CARS	
		CALCULATED (FT)	DESIGN (FT)
15	80	165.4	170
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   THE TRAVEL WAY AS PER THE CALIFORNIA HIGHWAY DESIGN MANUAL.
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   THAT SIGHT TRIANGLE BE DETERMINED FROM 14.5 FEET INSTEAD.
   SIGHT TRIANGLES SHOULD BE FIELD VERIFIED AND
   RECOMMENDATIONS SHOULD BE ADJUSTED ACCORDINGLY.

3. REFER TO PALO ALTO MUNICIPAL CODE 8.04.050 FOR DETAILS ON
   TREES AND BUSHES WITHIN THE SIGHT TRIANGLE REQUIREMENTS.

LEGEND

REQUIRED CLEAR SIGHT ZONE FOR 25 MPH
SPEED LIMIT

FIGURE 2(a)

CITY OF PALO ALTO

TJKM 4305 Hacienda Drive, Suite 550 Pleasanton, CA 94588 tjkm@tjkm.com

POTENTIAL TREE TRIMMING REQUIRED (SEE GENERAL NOTE 2)

18'

RESTRICT 110' OF PARKING ~8 SPACES

MIDDLEFIELD RD

240'

LINCOLN AVE

N

RIGHT TURN SIGHT DISTANCE ANALYSIS - NORTHERN APPROACH
NTS

TABLE 1: DESIGN INTERSECTION SIGHT DISTANCE—CASE B2, RIGHT TURN FROM STOP
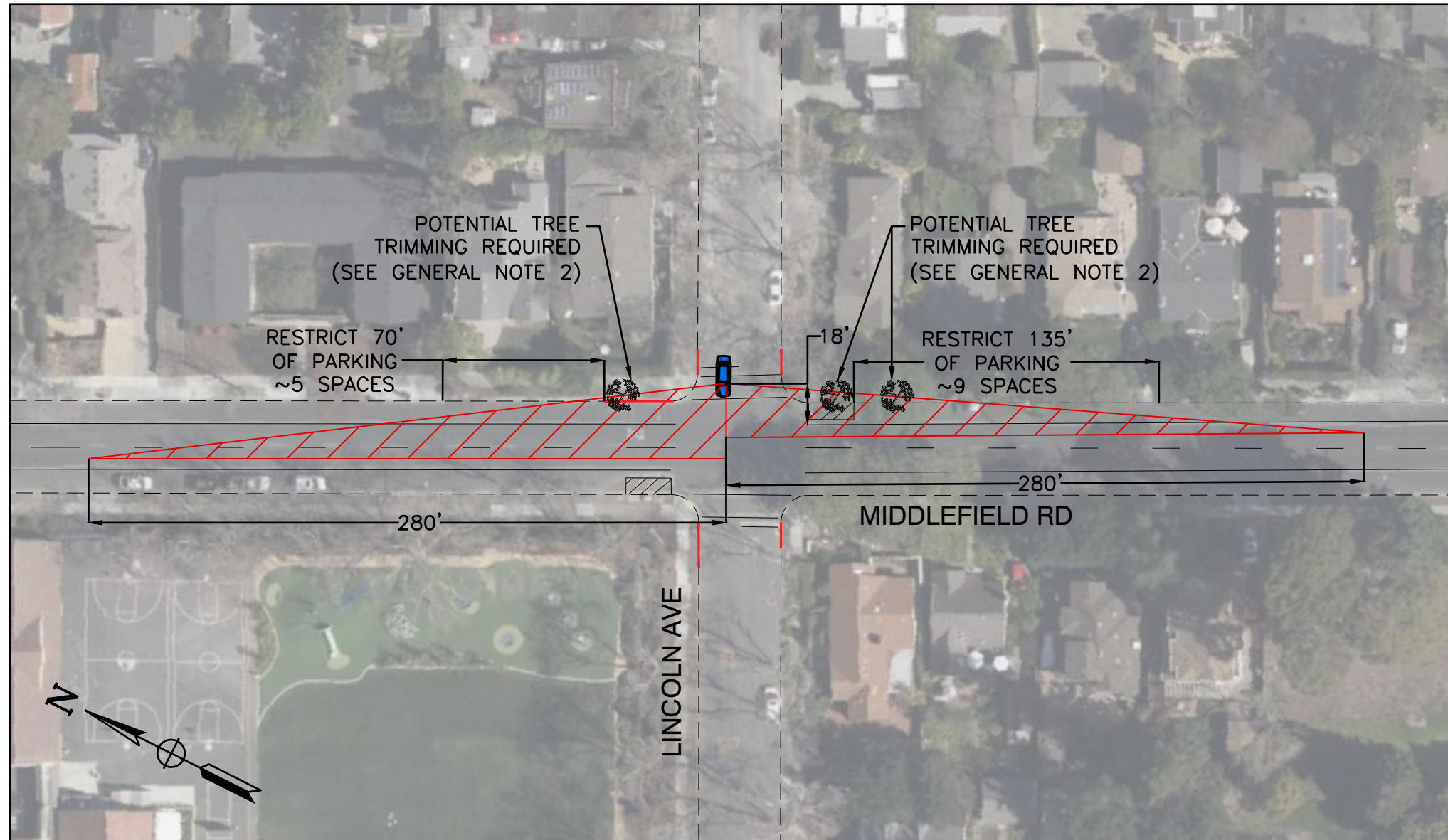(SOURCE: TABLE 9–9, A POLICY ON GEOMETRIC DESIGN OF HIGHWAYS AND STREETS, 2018 7TH EDITION, AASHTO)

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3. REFER TO PALO ALTO MUNICIPAL CODE 8.04.050 FOR DETAILS ON TREES AND BUSHES WITHIN THE SIGHT TRIANGLE REQUIREMENTS.

LEGEND

REQUIRED CLEAR SIGHT ZONE FOR 25 MPH SPEED LIMIT

FIGURE 3(a)

CITY OF
PALO ALTO

TJKM 4305 Hacienda Drive, Suite 550
Pleasanton, CA 94588
tjkm@tjkm.com

POTENTIAL TREE
TRIMMING REQUIRED
(SEE GENERAL NOTE 2)

POTENTIAL TREE
TRIMMING REQUIRED
(SEE GENERAL NOTE 2)

RESTRICT 70'
OF PARKING
~5 SPACES

18'

RESTRICT 135'
OF PARKING
~9 SPACES

280'

280'

MIDDLEFIELD RD

LINCOLN AVE

N

LEFT TURN SIGHT DISTANCE ANALYSIS - NORTHERN APPROACH
NTS

TABLE 2: DESIGN INTERSECTION SIGHT DISTANCE—CASE B1, LEFT TURN FROM STOP
(SOURCE: TABLE 9-7, A POLICY ON GEOMETRIC DESIGN OF HIGHWAYS AND
STREETS, 2018 7TH EDITION, AASHTO)

DESIGN SPEED (MPH)	STOPPING SIGHT DISTANCE (FT)	INTERSECTION SIGHT DISTANCE FOR PASSENGER CARS	
		CALCULATED (FT)	DESIGN (FT)
15	80	165.4	170
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LEGEND

REQUIRED CLEAR SIGHT ZONE FOR 25 MPH
SPEED LIMIT

FIGURE 4(a)