

# **Vicinity Map**



# PLANNED UNIT DEVELOPMENT PERMIT 2022-001 1700 North Main Street

**Exhibit A** 

I:\ComDev\Planning Share Space\Planned Unit Developments\PUD 2022-001 (1700 N Main St)\PUD 2022-001 Vicinity Map.docx







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Exhibit





#### EXHIBIT "A" LEGAL DESCRIPTION LEASE AREA

All that certain real property situate in the City of Salinas, County of Monterey, State of California being a portion of Parcel 10 as shown on the Parcel Map filed for Record May 30<sup>th</sup>, 1979 in Book 13 of Parcel Maps at Page 71, Monterey County Records and being more particularly described as follows:

**BEGINNING** at the Southwest corner of said Parcel 10 coincident with the northerly line of Parcel 21 as shown on said Map, thence North 08°57'00" West, along the Westerly line of said Parcel 10, a distance of 176.00 feet to a common corner of said Parcel 10 and Parcel 18 as shown on said map; thence North 81°03'00" East, 290.28 feet to a point on the Easterly line of said Parcel 10 coincident with the Westerly line Parcel 9 as shown on said map; thence South 08°52'35" East along said line, 40.81 feet to the Southwest corner of said Parcel 9 coincident with a corner of said Parcel 10; thence North 81°07'25" East, along the Southerly line of said Parcel 9 coincident with a Parcel 10 line, 155.00 feet to the Southeast corner of said Parcel 9 coincident with a Parcel 10 line, 155.00 feet to the Southeast corner of said Parcel 10 being a point coincident with the Westerly line of said Parcel 21, thence South 08°52'35" East along the Easterly line of said Parcel 10 coincident with said the Westerly line of said Parcel 21, a distance of 115.02 feet to the beginning of a Tangent curve to the right having a radius of 20.00 feet; thence along said curve through a central angle of 89°55'35", an arc length of 31.39 feet to the Southerly line of said Parcel 10 being coincident with the Northerly line of said Parcel 21; thence South 81°03'00" West, along said line 425.08 feet to the **POINT OF BEGINNING.** 

Containing 1.651 Acres, More or Less.

#### END OF DESCRIPTION

All the above-described Lease Area is shown on EXHIBIT "B", attached hereto and by this reference made a part hereof.

This real property description was prepared by me or under my direction in conformance with the Professional Land Surveyors' Act.

Brett J. Chappell, PLS/7547

4-26-2023



Address: 147 N First Avenue, Oakdale, CA 95361 • Phone: 209 845 9694 Page 1 of 1

Exhibit

















the Manager 100,200 1000



DEVELOPMENT ENGINEERING (PW) • 65 West Alisal Street • Salinas, California

#### Phone: (831) 758-7251 • www.cityofsalinas.org

City of Salinas

# **ENGINEER'S REPORT**

PURPOSE: PUD2022-001DATE: 12/15/2023LOCATION: 1700 Main StPLANNER: Thomas WilesOWNER/APPLICANT: Gregg McMillon (Kimley -Horn) c/o Raising Canes

**DEVELOPMENT PROPOSAL:** Development will include the demolition of existing pavement and the construction of a new 3,316 square feet Raising Cane's restaurant with drive thru service, parking, and corresponding landscape areas.

**RECOMMENDATION:** Approved with Conditions

**SWDS THRESHOLD:** PR-1 through PR-4 **NPDES CATEGORY:** High Priority

**DEVELOPMENT REVIEW:** Development Review Submittal prepared by Kimley-Horn Engineering dated May 11, 2023, and responses dated April 27, 2023.

### COMMENTS TO BE ADDRESSED PRIOR TO BUILDING PERMIT ISSUANCE

- 1. Stormwater Control Plan Provide calculations pertaining to SWDS Requirement 4 and show how Peak Management is satisfied.
- 2. Stormwater Control Plan DMA-5 is identified as a self-retaining area (SRA). For the Central Coast region, this includes the rain falling directly on the SRA, but can also include the contributing runoff from a drainage management area for either the 85th or 95th percentile 24-hour storm event (based on the site-specific requirements).
- 3. Grading and Drainage Provide grades, top of curb and flowline elevations at proposed curb and gutter along limits of construction nearest N Main St. Curb and gutter is shown to tie in to existing sidewalk, please revise.
- 4. Boundary Map Applicant shall provide a map that shows the record boundary and parcel information. Reference shall be made to any record owner(s), title information and easements.
- 5. SWDS/NPDES Compliance Prior to issuance of a building/grading permit, applicant shall provide a SWPPP for review. Provide complete information including QSP information, required signatures and construction schedule. Provide completed erosion and sediment control checklist.
- 6. NPDES Compliance Northridge Mall redevelopment has an active SWPPP. Provide a SWPPP amendment to incorporate this phase of construction.
- 7. SWDS/NPDES Compliance A Stormwater Quality (SWQ) Permit shall be required prior to any land disturbance.
- 8. SWDS Compliance Final stormwater control plan shall be submitted containing all exhibits per Appendix B of the City of Salians Stormwater Design Standards.

https://www.cityofsalinas.org/sites/default/files/departments\_files/public\_works\_files/stormwate\_development\_standards\_august\_2021.pdf

9. Site Plan – Trash Enclosure shall conform to City of Salinas Standard Plan 57A and 57B. Covered trash enclosure shall provide a drain connected to the proposed grease waste line.

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- 10. Offsite Improvements Identify any sidewalk damage that may cause someone to trip and fall on the sidewalk along your frontage. In accordance with City Resolution No. 4926 and State Code 5610, maintenance of the sidewalk is the responsibility of the property owner.
- 11. Offsite Improvements Any construction, reconstruction, or closure of the right of way shall require an encroachment permit.
- 12. Addressing Applicant shall provide a complete address change/assignment application and exhibits for processing.
- 13. Development Impact Fees Development impact fees are estimated at \$356,319.79. Trip generation of 691 trips per Focused Traffic Analysis Memo prepared by Kimley-Horn dated May 8, 2023. Fees are assessed and due prior issuance of a building permit.

Notice: The Conditions of Approval for this Site Plan Review include certain fees and development requirements. Pursuant to Government Code Section 66020 (d)(1), this hereby constitutes written notice stating the amount of said fees and describing the development requirements. The applicant is hereby notified that the 90-day appeal period in which he/she/they may protest these fees and development requirements, pursuant to Government Code Section 66020 (a), begins on the date the office land use permit is approved. If applicant files a written protest within this 90-day period complying with all requirements of Section 66020, he/she/they will be legally barred from challenging such fees and/or requirements at a later date.

**CITY OF SALINAS** 

Fernando Rizo Gonzalez, QSP/QSD, Interim Senior Development Engineer for Adriana Robles, PE, CFM, City Engineer

PMENT FEES	T.									
COMMERCIAL BUILDINGS (2022-2023)										
(Including Hotels/Motels/Schools)										
Address: 1700 Main St Permit										
		Bldg. Area:	3.316	sf						
			2304 00 00	00-56 5110						
r 60' frontage) \$389.	¢		Not assessed i	f provided by						
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first 20 F.U. = \$1,995:	\$	1,995.00	Please comple	te attached						
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43,560 sf/acre:		0.000								
@ \$8,211/acre:	\$	-	×							
Rate) @ \$6,548/acre:	\$	-								
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ding Square Footage:	1.4	3,316								
Divided by 1,000 :	-	3.316	0.000	0.000						
Trip Rate (TFO):	16	604		0						
Trips:		691	0	0						
Iotal Irips:	č	207 120 00	Per Focused Tra	affic Analysis d by Kimley-						
ip (3022/ trip in FGA).	ې د	297,130.00	Horn dated Ma	ý 8, 2023.						
	Ş	297,130.00	8809.81.81	57-57.8640						
Fee assessed by the Transportation Agency for Monterey County										
			1							
FIRE IMPACT FEE \$590/ksf (Commercial) =										
POLICE IMPACT FEE \$785/ksf (Commercial) =										
	\$	4,559.50								
	\$			356,319.79						
	PIVIENT FEES BUILDINGS (2022-2 otels/Motels/Schools) r 60' frontage) \$389: first 20 F.U. = \$1,995: s over 20 x \$21.10 ea: 4,000/100 x \$4.95 ea: 43,560 sf/acre: @ \$8,211/acre: Rate) @ \$6,548/acre: Divided by 1,000 : Trip Rate (TFO): Trips: Total Trips: ip (\$622/trip in FGA): for Monterey County 0/ksf (Commercial) = 5/ksf (Commercial) =	<b>PIMENT FEES</b> BUILDINGS (2022-2023)         otels/Motels/Schools)         r 60' frontage) \$389:         first 20 F.U. = \$1,995:         \$         over 20 x \$21.10 ea:         \$         43,560 sf/acre:         @ \$8,211/acre:         @ \$8,211/acre:         \$         Adata (TFO):         Trip Rate (TFO):         Trips:         Total Trips:         ip (\$622/trip in FGA):         \$         for Monterey County         \$         0/ksf (Commercial) =         \$ <t< td=""><td>PPMENT FEES         BUILDINGS (2022-2023)         otels/Motels/Schools)         Permit #:         Bldg. Area:         r 60' frontage) \$389:       \$         r 60' frontage) \$389:       \$         s 0/20 F.U. = \$1,995:       \$         s 0.000       @         @ \$8,211/acre:       \$         s 0.000       \$         @ \$8,211/acre:       \$         Rate) @ \$6,548/acre:       \$         Building Square Footage:       3,316         Divided by 1,000 :       3.316         Trip Rate (TFO):       \$         for Monterey County       \$       297</td><td>PMENT FEES         BUILDINGS (2022-2023)         otels/Motels/Schools)         Permit #:       PUD2022-0         Bldg. Area:       3,316         Control (1)       Bldg. Area:       3,316         Control (1)       Sanitary Sevee       301,00,00         r 60' frontage) \$389:       \$       -       Applicant         Control (2)       \$       1,995,00       Please completee         Sover 20 x \$21.10 ea:       \$       -       Sanitary Sevee         A,000/100 x \$4.95 ea:       \$       -       Table.         A,000/100 x \$4.95 ea:       \$       -       Z301,00,00         43,560 sf/acre:       \$       -       Z306,00,00         @ \$8,211/acre:       \$       -       Z306,00,00         Ing Square Footage:       3,316       0,000       -         Trip Rate (TFO):       -       -</td></t<>	PPMENT FEES         BUILDINGS (2022-2023)         otels/Motels/Schools)         Permit #:         Bldg. Area:         r 60' frontage) \$389:       \$         r 60' frontage) \$389:       \$         s 0/20 F.U. = \$1,995:       \$         s 0.000       @         @ \$8,211/acre:       \$         s 0.000       \$         @ \$8,211/acre:       \$         Rate) @ \$6,548/acre:       \$         Building Square Footage:       3,316         Divided by 1,000 :       3.316         Trip Rate (TFO):       \$         for Monterey County       \$       297	PMENT FEES         BUILDINGS (2022-2023)         otels/Motels/Schools)         Permit #:       PUD2022-0         Bldg. Area:       3,316         Control (1)       Bldg. Area:       3,316         Control (1)       Sanitary Sevee       301,00,00         r 60' frontage) \$389:       \$       -       Applicant         Control (2)       \$       1,995,00       Please completee         Sover 20 x \$21.10 ea:       \$       -       Sanitary Sevee         A,000/100 x \$4.95 ea:       \$       -       Table.         A,000/100 x \$4.95 ea:       \$       -       Z301,00,00         43,560 sf/acre:       \$       -       Z306,00,00         @ \$8,211/acre:       \$       -       Z306,00,00         Ing Square Footage:       3,316       0,000       -         Trip Rate (TFO):       -       -						

Effective: July 1, 2022

Valid through: June 30, 2023

# Memorandum

To:	Andrew Easterling, Traffic & Transportation Engineering, City of Salinas, CA.
From:	Ali Mustafa, PTP, RSP <sub>1</sub> , Shahrzad Rahgozar, Kimley-Horn and Associates, Inc.
Re:	<i>Focused Traffic Analysis Memo</i> Raising Cane's (0929) – Northridge Shopping Center – N. Main Street & Madrid Street, Salinas, CA
Date:	May 8, 2023

This memorandum presents a focused traffic analysis involving traffic operations, circulation, queuing, and VMT screening for the proposed Raising Cane's restaurant in the north-west quadrant of N. Main Street and Madrid Street within the Northridge Mall in Salinas, California (see **Figure 1**). The purpose of this focused traffic analysis is to address City's concern related to vehicle queues and future operations of the Northridge Mall with the proposed project. The following are discussions on the existing site observations, proposed site layout, level of service (LOS) analysis, queuing analysis, site access and circulation, drive-thru queuing analysis, VMT analysis, and our conclusions.

#### **Existing Conditions**

The proposed project will be in the north-west quadrant of N. Main Street and Madrid Street, within the Northridge Mall. Under existing conditions, the site is currently a surface parking lot bounded by N. Main Street on the east, internal access road on the west, Madrid Street to the south and access/drive aisles on the north. Field observations of the project vicinity during the typical weekday Mid-Day, PM peak period, and on a Saturday afternoon showed typical traffic operations at the study intersections (N. Main St./ Madrid St. / Harden Pkwy. and Northridge Driveway / Madrid St.) without any significant traffic congestion and queuing. Minor queuing with vehicle queues exceeding the existing storage was observed at the intersection of N. Main St. / Madrid St. / Harden Pkwy for the southbound left (SBL) and northbound left (NBL) during the weekday PM peak period and Saturday afternoon.

### **Existing Data Collection**

In coordination with the City, intersection turning movement counts were collected at the two adjacent intersections during the weekday mid-day peak period (11:00 AM to 2:00 PM), PM peak period (4:00 PM to 7:00 PM), and on a Saturday mid-day peak period (11:00 AM to 2:00 PM). The intersection count locations are summarized below:

- N. Main St. / Madrid St. / Harden Pkwy (Signal)
- Northridge Driveway / Madrid St. (Unsignalized)

Signal timing information for the signalized intersections were obtained from the City. The existing traffic count data is included in **Attachment A**. The study intersections and existing traffic counts are shown in **Figure 2** and **Figure 3**.

### **Background Conditions**

Fast-Food restaurant pads involving In-N-Out (INO), Chick-fil-A (CFA), and Starbucks store (SBUX) are also proposed within the Northridge Mall. Based on the information provided by the City staff (*Source: Keith Higgins traffic memo for 'Northridge Shopping Center Fast Food Restaurant Pads Circulation Plan' dated November 8, 2022*), these Fast-Food restaurants are located on the north end of the Northridge Mall. CFA is proposed on the northwest corner of N. Main St./San Juan Road intersection and its primary access is

proposed via a single driveway 200 feet north of the San Juan driveway. The INO driveway is located about 100 feet north of the CFA driveway and about 90 feet south of the Northridge Mall Main Driveway. The SBUX is proposed north of the INO, immediately north of the Northridge Main Driveway and its driveway is located approximately 240 feet north of the Northridge Main Driveway.

All proposed Fast-Food restaurant pads are located on the north end of the Northridge Mall and is not expected to cause any circulation and queueing issues for the proposed Raising Cane's site which is in the south end of the Northridge Mall.

## Project Description and Proposed Site Layout

The proposed project site is in the north-west quadrant of N. Main Street and Madrid Street, within the Northridge Mall in Salinas, California. The project site is currently a surface parking lot bounded by N. Main Street on the east, internal access road on the west, Madrid Street to the south and access/drive aisles on the north. Raising Cane's proposes to redevelop the site into a 2,899-square foot Raising Cane's drive-thru restaurant building with associated on-site parking and drive-thru facilities.

Under existing conditions, access to Northridge Mall is provided via three-signalized driveways and twounsignalized driveways along N. Main Street and two-unsignalized driveways along Madrid Street. Access to the proposed Raising Cane site within the parking lot will be provided via access/drive aisle frontage.

The opening to the drive-thru lane is located at the northwest corner of the project site and turns 90 degrees in front of the building in a clockwise direction. The drive-thru consists of two lanes from the entrance into the drive-thru lanes to the pick-up window, each equipped with an order board, which allows Raising Cane's to take orders from two customers at the same time thereby reducing the overall processing time. During off-peak periods the two lanes can merge into a single lane prior to the pay and pick-up window. Consistent with other sites' operations, an employee will be stationed at the outer lane to take orders and payment during peak periods. Vehicles in the outer lane when ordering are then directed to remain queued in the outer lane when waiting for their order which is brought to their car by restaurant staff. Raising Cane's employee stationed outside will direct the customers in respectively lanes for queuing when waiting for their order. The end of drive-thru lanes leads to drive aisle frontage to the proposed parking area. A total of 40 parking spaces are proposed within the parking area.

The proposed site plan is shown in **Figure 4**. As shown in the site plan and conservatively assuming 25-feet per vehicle (inclusive of typical passenger vehicles and reasonable spacing), the total queuing capacity provided on-site is approximately:

Drive-Thru Lane (between lane entrance and pick-up window): 34 vehicles

Beyond the pick-up window, two to three additional vehicles can be accommodated during peak times. In summary, the project site provides drive-thru storage for 34 vehicles, which can be extended to 37 vehicles.

# **Trip Generation Estimates**

The Institute of Transportation Engineers (ITE) Trip Generation 11th Edition (2021) was used to develop weekday and Saturday trip estimates from the proposed project site. **Table 1** shows the preliminary trip estimates of the weekday daily, AM peak hour, PM peak hour and Saturday Peak Hour of Generation trips generated by the proposed project assuming a fast-food restaurant with drive-thru land use (with pass-by adjustments).

# Trip Distribution and Trip Assignment

The trip distribution and assignment assumptions for the proposed project were based on the project driveway location, existing traffic counts, community characteristics, and professional engineering

judgement. The proposed project trip distribution and trip assignment are shown in **Figure 5** and **Figure 6**. The site can be primarily accessed via existing driveways along N. Main St and Madrid St. For worst-case scenario, it was assumed that all the project traffic enters and exits using the driveway along Madrid St.

				WEEKDAY							SATURDAY					
LAND USE / DESCRIPTION	PROJECT SIZE		TOTAL	AM PI GE	EAK HO	DUI TOI	२ OF २	PM PEAK TRIPS			IPS	TOTAL	PEAK HOUR OF GENERATOR			
			DAILY TRIPS	TOTAL	IN	/	ουτ	TOTAL	IN	1	ουτ	DAILY TRIPS	TOTAL	IN	/	OUT
Trip Generation Rates (ITE)																
Fast-Food Restaurant With Drive Thru Windows [ITE 934]	Per	1,000 Sq Ft	467.48	50.57	52%	/	48%	33.03	52%	/	48%	616.12	55.25	51%	/	49%
1. Baseline Vehicle-Trips			T	1				T								
RC_0929 (Main & Madrid)	2.899	1,000 Sq Ft	1,355	147	76	/	71	96	50	/	46	1,786	160	82	/	78
Baseline	Project	Vehicle-Trips	1,355	147	76	/	71	96	50	/	46	1,786	160	82	/	78
Trip Adjustments								•								
Pass-by (AM-49%, PM-50%, Dai	ly-49%)		664	72	37	/	35	48	25	/	23	875	80	41	/	39
Net	t Project	Vehicle-Trips	691	75	39	1	36	48	25	7	23	911	80	41	1	39
<u>Notes:</u>																
Land Use assumed based on proposed site plan from Raising Cane (October 5, 2022)																
Daily, AM Peak Hour of Generat of Traffic Engineers Trip Genera	Daily, AM Peak Hour of Generator, PM Peak trips, and Saturday Peak Hour of Generator based on average land use rates from the Institute of Traffic Engineers Trip Generation 11th Edition															
Pass-by (AM-49% PM-50% Dai	ass-by (AM-49% PM-50% Daily-49%) percentages based on ITE Trip Generation Handbook 3rd Edition															

During typical weekday, the proposed project is estimated to generate a net total of 691 daily, 75 AM peak hour and 80 PM peak hour base trips without pass-by adjustments. On a Saturday, the proposed project is estimated to generate a net total of 911 daily and 80 peak hour base trips with pass-by adjustments.

# Intersection Level of Service

The 2010 HCM includes procedures for analyzing side-street stop-controlled (SSSC), all-way stopcontrolled (AWSC), and signalized intersections. For AWSC and signalized intersections, LOS is defined as a function of average control delay for the intersection as a whole. For SSSC intersections, LOS is defined as a function of average control delay for each minor street approach movement. **Table 2** relates the operational characteristics associated with each LOS category for signalized and unsignalized intersections.

Level of	Description	Average Control Delay (Sec/Veh)				
Service	Description	Signalized	Unsignalized			
A	Free flow with no delays. Users are virtually unaffected by others in the traffic stream	≤ 10	≤ 10			
В	Stable traffic. Traffic flows smoothly with few delays.	> 10 - 20	> 10 - 15			
С	Stable flow but the operation of individual users becomes affected by other vehicles. Modest delays.	> 20 - 35	> 15 - 25			

#### Table 2 - Controlled Intersection Level of Service Definitions

Level of	Description	Average Control Delay (Sec/Veh)				
Service	Description	Signalized	Unsignalized			
D	Approaching unstable flow. Operation of individual users becomes significantly affected by other vehicles. Delays may be more than one cycle during peak hours.	> 35 - 55	> 25 - 35			
E	Unstable flow with operating conditions at or near the capacity level. Long delays and vehicle queuing.	> 55 - 80	> 35 - 50			
F	Forced or breakdown flow that causes reduced capacity. Stop and go traffic conditions. Excessive long delays and vehicle queuing.	> 80	> 50			

Source: Transportation Research Board, Highway Capacity Manual (HCM) 2010.

Project impacts were determined by comparing conditions with the proposed project to those without the proposed project. Significant impacts for signalized intersections are created when traffic from the proposed project causes the LOS to fall below a specific threshold. For unsignalized intersections, deficient LOS suggests recommendations for improvements to the type of traffic control, such as signalization. A peak hour signal warrant is evaluated to determine if an intersection meets the volume requirements for a traffic signal.

### Significance Criteria

Consistent with the significance impact criteria documented in the 2002 City of Salinas General Plan<sup>1</sup>, the City states a goal to maintain an LOS D or better for all intersections. Therefore, the following conditions would result in a significant impact at a City intersection:

- 1. If the intersection operates at an acceptable LOS (i.e. LOS A, B, C, or D) without the project and degrades to an unacceptable LOS (i.e. LOS E or worse) with the project, then it is a significant impact.
- 2. If the intersection operates at an unacceptable LOS (i.e. LOS E or worse) without the project and the project increases the average control delay (or highest control delay for SSSC intersections) then it is a significant impact.

Mitigation for intersections with a significant impact must improve the LOS back to or better than without Project conditions.

### Intersection Level of Service (LOS) Analysis Results

A LOS analysis results for the study intersections using the traffic count data collected and with the proposed site plan are documented in **Table 3** below.

<sup>&</sup>lt;sup>1</sup> City of Salinas 2002 General Plan, September 2002, Policy C1.2.

#	Intersection	Control Type	Weekday MD Peak		Weekday	PM Peak	Saturday MD Peak			
			Delay	LOS	Delay	LOS	Delay	LOS		
Existing Conditions										
1	N. Main St. / Madrid St. / Harden Pkwy	Signal	34.3	С	38.3	D	40.2	D		
2	Northridge Driveway / Madrid St.	TWSC (SB Approach)	12.4	В	17.2	С	14.6	В		
Existi	ng Plus Project Conditior	IS								
1	N. Main St. / Madrid St. / Harden Pkwy	Signal	35.9	D	39.4	D	42.3	D		
2	Northridge Driveway / Madrid St.	TWSC (SB Approach)	14.6	В	21.0	С	20.7	С		

#### Table 3 - Intersection Level of Service Results

Notes:

1. Analysis performed using Highway Capacity Manual (HCM) 2010 methodologies.

2. Delay indicated in seconds/vehicle.

3. TWSC – Two-Way Stop Controlled. For TWSC intersection, the worst approach delay is reported.

4. The 2002 City of Salinas General Plan indicates the goal is to maintain a LOS D or better for all intersections. Intersections operating below the LOS D threshold are shown in **bold**.

As shown in **Table 3** above, the study intersections operate at acceptable LOS D or better under both Existing and Existing Plus Project conditions. LOS outputs are attached in **Appendix B**.

# Queue Length Results

Queue lengths at the study intersections were also analyzed to determine whether the available storage lengths for the left and right turn pockets are sufficient with the addition of proposed project traffic. The queue lengths for the study intersections are summarized in **Table 4** below:

			Availab	Weekday	MD Peak	Weekday	PM Peak	Saturday MD Peak		
#	Intersection	ΜνΜΤ	Storage (ft)	95 <sup>th</sup> Percentile Queue (ft)	Sufficient Storage?	95 <sup>th</sup> Percentile Queue (ft)	Sufficient Storage?	95 <sup>th</sup> Percentile Queue (ft)	Sufficient Storage?	
Exist	ing Conditions				-					
		NBL	245	174	YES	214	YES	247	NO	
		NBR	145	92	YES	100	YES	125	YES	
	N Main St /	SBL	265	237	YES	#387	NO	325	NO	
1	Madrid St. / Harden	SBR	145	0	YES	27	YES	30	YES	
	Pkwy	EBL	225	122	YES	115	YES	151	YES	
		EBR	130	55	YES	59	YES	67	YES	
		WBR	430	63	YES	64	YES	70	YES	
2		SBL	345	25	YES	25	YES	25	YES	

### Table 4 – Queue Length Results

			Availab	Weekday	MD Peak	Weekday	PM Peak	Saturday MD Peak		
#	Intersection	ΜνΜΤ	le Storage (ft)	95 <sup>th</sup> Percentile Queue (ft)	Sufficient Storage?	95 <sup>th</sup> Percentile Queue (ft)	Sufficient Storage?	95 <sup>th</sup> Percentile Queue (ft)	Sufficient Storage?	
	Northridge Driveway / Madrid St.	EBL	135	25	YES	25	YES	25	YES	
Exist	ing Plus Project Co	nditions								
		NBL	245	211	YES	233	YES	286	NO	
		NBR	145	91	YES	98	YES	123	YES	
	N Main St /	SBL	265	241	YES	#386	NO	322	NO	
1	Madrid St. / Harden	SBR	145	5	YES	44	YES	25	YES	
	PKWY	EBL	225	154	YES	135	YES	186	YES	
		EBR	130	58	YES	62	YES	72	YES	
		WBR	430	64	YES	64	YES	71	YES	
2	Northridge	SBL	345	50	YES	50	YES	75	YES	
2	St.	EBL	135	25	YES	25	YES	25	YES	

Notes:

MVMT – Movement; ft – feet; NBL-Northbound Left, NBR – Northbound Right; SBL – Southbound Left; SBR – Southbound Right; EBL – Eastbound Left; EBR – Eastbound Right; WBR – Westbound Right

# 95<sup>th</sup> percentile volume exceeds capacity; queue may be longer

95<sup>th</sup> percentile queues exceeding storage are shown in **Bold**.

As shown in **Table 4** above, under existing conditions, the NBL and SBL queues exceed the storage at the intersection of N. Main St. / Madrid St. / Harden Pkwy and continues to exceed with the addition of the project trips. The addition of project trips does not create any new queuing impacts at the study intersections. As noted above, for worst-case scenario, all project trips were assumed to use the Northridge Mall driveway along Madrid St. to access and exit the project site. However, it is likely that some customers will use the driveway along N. Main St. and others who are already in the mall use the drive aisles to access the project site and therefore the queue lengths will be in fact be less significant than shown in **Table 4** above. Queue length report are attached in **Appendix B**.

### Site Access and Circulation

#### **Vehicle**

As depicted in **Figure 4**, vehicles may access the site using existing driveways along N. Main St. and Madrid St. Once within the Northridge Mall site, vehicles may enter the proposed project site using drive aisles to access either the drive-thru lanes or to park. One-way circulation in the clockwise direction is proposed to access the on-site parking spaces. Designated parking spaces for handicap parking, mobile orders, clean air/vanpool/EV are provided.

### Pedestrian

As depicted in **Figure 4**, pedestrians may enter the site using the existing sidewalks along N. Main St. and Madrid St. A designated openings are provided for pedestrians to access the building from the sidewalks. Pedestrian crosswalks are provided along all approaches at the intersection of N. Main St./Madrid St./Harden Pkwy. for customers preferring to walk to the site. For customers opting to park and walk, accessible pathways are provided from the parking area to the building.

# **Bicycle**

Bicyclists may utilize the Class II bicycle lanes along N. Main St., Madrid St., and Harden Pkwy. to access the site. The Project will provide a short-term and long-term bicycle parking. There will be one bicycle rack located north of the drive-thru lanes, just west of the restaurant building for up to three short-term bicycle parking. In addition, there is two long-term bicycle lockers located on south side of the building.

## Drive-Thru Queuing Analysis

A drive-thru queuing analysis was conducted to determine if the anticipated drive-thru queue exceeds the available storage length and, therefore has the potential to adversely affect traffic operations of near-by access/drive aisles and land uses. The queuing analysis evaluated empirical data collected at three (3) existing Raising Cane's sites and calculations based on Institute of Transportation Engineers' (ITE) queuing methodology.

### Post-COVID-19 Empirical Queuing Data Collection and Observations

Drive-thru queuing observations and counts were collected at the following existing northern California Raising Cane's sites after the ongoing effects of COVID-19 pandemic are assumed to have stabilized:

- Vacaville: 160 Nut Tree Parkway (August 2022)
- Elk Grove: 9164 E Stockton Boulevard (August/September 2022)
- Manteca: 1311 E Yosemite Avenue (August 2022)

These sites were selected for queuing data collection because of their characteristics similar to the Proposed Project (e.g., located adjacent to development or within a larger commercial center, located in northern California, located proximate to a major highway). Each selected location features a dual order board configuration similar to the Proposed Project. This operational aspect is discussed in detail later in this memorandum.

This data was collected after the global economic disruption created by the COVID-19 pandemic is widely accepted as having stabilized. The drive-thru activity was observed from 11 AM to 10 PM on a typical weekday and Saturday to comprehensively capture maximum queueing at each site. The data was subsequently broken into traditional lunch and commute/dinner period observation windows as follows:

- 11:00 AM 2:00 PM (lunch)
- 4:00 PM 7:00 PM (commute peak hour/dinner)

The observed weekday lunch and dinner peak operations are summarized in **Table 5**. Saturday lunch and dinner peak operations are summarized in **Table 5**. Data collection summary tables are provided in **Appendix C**.

		ERUdy Lunci			Summary (p	031-0010-15	/	
	Wee	kday Lunch P	eak	Weel	Weekday Dinner Peak			
Site Location	Peak Period	Average Queue (vehicle)	Maximum Queue (vehicle)	Peak Period	Average Queue (vehicle)	Maximum Queue (vehicle)	Observed Queue (vehicle)	
Vacaville	12:30 PM- 12:45 PM	14	17	6:15 PM- 6:30PM	12	17	22	
Elk Grove	12:00 PM- 12:15 PM	10	14	4:30 PM- 4:45 PM	15	18	23	
Manteca	12:30 PM- 12:45 PM	12	16	6:15 PM- 6:30 PM	13	17	17	
All three sites Queues that e	have dual order exceed drive-thru	boards, similar queuing capa	to the propose city are bolded.	d project. Queuing capacity	at each locatio	n are:		

#### --+ COV/ID 10) day Lunch and Dinner Beak Oueuing Sur

Vacaville = 510 feet (21-23 vehicles)

Elk Grove = 750 feet (30-33 vehicles)

Manteca = 360 feet (19-21 vehicles)

#### Table 6 - Saturday Lunch and Dinner Peak Queuing Summary (post-COVID-19)

	Satu	rday Lunch I	Peak	Satu	Saturday Dinner Peak				
Site Location	Peak Period	Average Queue (vehicle)	Maximum Queue (vehicle)	Peak Period	Average Queue (vehicle)	Maximum Queue (vehicle)	Observed Queue (vehicle)		
Vacaville	1:15 PM- 1:30 PM	16	22	6:30 PM- 6:45 PM	18	20	22		
Elk Grove	1:15 PM- 1:30 PM	5	11	4:00 PM- 4:15 PM	17	18	19		
Manteca	1:45 PM- 2:00 PM	18	21	5:30 PM- 5:45 PM	13	22	25		
All three sites	have dual order	boards, simila	r to the propose	d project.					
Queues that e	exceed drive-thru	queuing capa	icity are bolded.	Queuing capacity	at each locati	on are:			
Vaca	Vacaville = 510 feet (21-23 vehicles)								
Elk G	rove = 750 feet (	30-33 vehicles	s)						
Man	teca = 360 feet (1	9-21 vehicles	)						

During the peak periods, average queue length ranged from 5- to 18-vehicles and the maximum queue ranged from 11- to 22-vehicles. The maximum observed queue from all data collected on both weekday and weekend periods was 25 vehicles. The observed levels of queuing are noted as being almost entirely accommodated by the Proposed Project's 34-37 vehicle queuing capacity. Should demand exceed capacity, the Proposed Project will implement the Traffic Management Plan outlined in Appendix D.

It is important to note that, outside of the defined drive-thru lanes, the Proposed Project site would be able to accommodate 2 additional vehicles on-site for additional drive-thru queuing capacity before spilling into the adjacent drive aisles. Nevertheless, while the COVID-19 pandemic has resulted in increased drive-thru queuing due to the restriction of indoor dining and modified customer preferences, it should be noted that these current conditions are certainly not typical and, in fact, have already begun to revert back to their pre-COVID-19 conditions. Under the more typical conditions, if there is a back-up of vehicles in the drivethru lane, a portion of the customers have been observed to elect to park and go into the building rather than join the standing drive-thru queue. Accordingly, as conditions normalize, it is recommended that Raising Cane's coordinate with City staff to monitor the peak operating conditions.

### Drive-thru Queue Length Calculation

To supplement the empirical data collected at the existing Raising Cane's restaurants in Laguna Hills, Orange, and Riverside (all of which have a single drive-thru lane), the anticipated drive-thru queuing was

also analyzed using queuing analysis formulas contained in the *Transportation Planning Handbook, 3<sup>rd</sup> Edition,* published by ITE.

As specified by the applicant, Raising Cane's typical, non-peak total drive-thru (order board to pick-up) service time is 150-seconds. However, during peak periods, the desired efficiency is measured at the pick-up window with an order/vehicle processing every 35- to 40-seconds. For worst-case scenario, trips generated during Saturday 'Peak Hour of Generator' were used for queuing analysis. Assuming 90-percent of the customers use the drive-thru and a more conservative (longer) peak processing time of 40 seconds, the ITE queuing analysis indicates that the average queue length is estimated to be 5 vehicles, and the probability that the queue would be exactly 34 vehicles would be 0.05-percent. The probability of exceeding 34 vehicles during peak drive-thru conditions is estimated to be 0.3-percent. The queuing calculation worksheet and formulas are provided as **Attachment E**.

It should be noted that the ITE queuing analysis assumes a single-lane drive-thru for a more conservative approach. The occurrence of the drive-thru queue extending beyond the opening of the drive-thru lane is expected to be an infrequent occurrence, and of short duration. The use of dual, side-by-side drive-thru lanes with dual order boards significantly improves the service rate and reduces the number of vehicles queuing in the drive-thru, as described in the following section.

#### Side-by-Side Drive-Thru (dual order boards) Operational Features

While regular customers who are familiar with Raising Cane's menu choices typically would complete the order part of the process is less that the average time, infrequent or new customers are more likely to dwell at the order board before making their choices, thereby slowing down the process for everyone behind them. As a result, the order board is the most significant bottleneck in the drive-thru process.

The side-by-side ordering configuration, as proposed by Raising Cane's including this proposed site in Salinas, would provide two lanes with a separate order board for each lane. This doubling of ordering capacity will increase the number of customers processed through the order board portion of the drive-thru and has been shown to "keep the line moving" even if one customer takes longer than average to order (allowing the restaurant to continue to take and complete orders from the other order lane). Furthermore, it is reasonable to expect that the next customer to arrive at the drive-thru entrance will naturally choose the empty lane or the shorter line, so that one customer who takes a longer time to order at one order board can be by-passed, thereby not holding up the entire drive-thru line.

With the added efficiency of having two order boards and the ability to by-pass customers taking longer than average to order at the other order board, the service rate increase, compared to a single drive-thru lane as more orders can be processed. Under these favorable conditions, the cooks receive the orders at a more efficient rate which allows them to continue cooking the food, rather than waiting for a slower customer to finish ordering. Because of added efficiency in the cooking area, the efficiency at the pick-up window also increases compared to a single drive-thru lane because the food is processed by the cooking area at a more efficient rate. The proposed dual pay and pick-up stations also improve the service rate under peak drive-thru conditions as they service more drive-thru vehicles than a single pick-up area of the drive-thru.

The Salinas site will include additional features that will improve efficiency. These kitchen features are designed to increase cooking efficiency and decrease time needed to prepare orders. As mentioned previously, during peak periods staff will be deployed to take orders and payment on mobile tablets. This enhancement will allow Raising Cane's to take more orders and payments since staff can walk along the queue line.

## VMT Screening

Senate Bill 743 (SB 743) was approved by California legislature in September 2013. SB 743 requires changes to California Environmental Quality Act (CEQA), specifically directing the Governor's Office of Planning and Research (OPR) to develop alternative metrics to the use of vehicular "Level of Service" (LOS) for evaluating transportation projects. OPR has prepared a technical advisory ("OPR Technical Advisory") for evaluating transportation impacts in CEQA and has recommended that Vehicle Miles Traveled (VMT) replace LOS as the primary measure of transportation impacts. The Natural Resources Agency has adopted updates to CEQA Guidelines to incorporate SB 743 that requires VMT for the purposes of determining a significant transportation impact under CEQA. The City of Salinas now relies on VMT as the measure for determining a project significant transportation impact under the CEQA process.

Based on the nature and size of the Project, majority of the trips to the project site are anticipated to be pass-by trips (i.e., trips already on road network). Additionally, the project falls under the local serving retail with less than 50,000 sq.ft. gross floor area resulting in less-than significant transportation impact under CEQA and is exempt from further VMT analysis.

### Conclusions

The proposed Raising Cane's drive-thru would provide drive-thru queuing capacity for 34 vehicles from the beginning of the drive-thru lanes to the pick-up window. This capacity is easily expanded to 37 total queued vehicles by accounting for vehicles beyond the pick-up window (see **Figure 4**). The study intersections analyzed also operate at acceptable LOS D or better with the addition of Project trips. Based on the drive-thru queuing data collection and analysis contained herein, the maximum number of queued vehicles is anticipated to be 25-vehicles. As such, the site is considered to have adequate drive-thru queuing capacity to accommodate the anticipated demand. Additionally, the proposed project falls under the local serving retail (< 50,000 sq. ft.) and will be screened out and exempt from further VMT screening.

### Attachments

- Figure 1 Project Location Map
  Figure 2 Existing Lane Geometry and Signal Control
  Figure 3 Existing Volumes Weekday MD, Weekday PM, & Saturday MD
  Figure 4 Project Site Plan
  Figure 5 Project Trip Distribution
  Figure 6 Project Trip Assignment
  Appendix A Existing Traffic Counts
  Appendix B LOS and Queue Outputs
  Appendix C Sample Sites' Drive-Thru Queue Data (post COVID)
  Appendix D Traffic Management Plan
- Appendix E Queuing Calculations


# **Kimley**»Horn

Figure 1

Project Location and Study Intersections



#### Figure 2

Existing Lane Geometry and Signal Control RAISING CANE'S

### May 2023



May 2023

RAISING CANE'S



# **Kimley**»Horn

Figure 4

Site Plan

**RAISING CANE'S** 



# **Kimley**»Horn

Figure 5

**Project Trip Distribution** 



Project Trip Assignment (Includes Pass-By Trips)

**RAISING CANE'S** 

May 2023

# Kimley **»Horn**

Appendix A Existing Traffic Counts



Three	-Hour	' Cour	nt Su	mmar	ies														
Inter	rval		Mad	rid St			Mad	rid St			N	I/A		Nor	thridge	e Drive	way	15-min	Rolling
Sta	art		East	bound	_	Γ	West	bound			North	nbound			South	bound		Total	One Hour
		UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	ļ	-
11:00	0 AM	0	2	41	0	0	0	53	16	0	0	0	0	0	5	0	3	120	0
11:15	5 AM	0	0	38	0	0	0	44	21	0	0	0	0	0	8	0	2	113	0
11:30	0 AM	0	6	49	0	0	0	42	12	0	0	0	0	0	8	0	2	119	0
11:4	5 AM	0	6	42	0	0	0	46	35	0	0	0	0	0	13	0	5	147	499
12:00	0 PM	0	0	68	0	0	0	31	29	0	0	0	0	0	11	0	4	143	522
12:1:	5 PM	0	4	75	0	0	0	30	27	0	0	0	0	0	14	0	2	152	561
12:3		0	3	42	0	0	0	44	1/	0	0	0	0	0	13	0	7	126	568
12:4:		0	5	70	0	0	0	40	24	0	0	0	0	0	15	0	1	161	582
1:00	) PIVI : DM	0	ა ა	40 52	0	0	0	40 26	28	0	0	0	0	0	15 20	0	4	135	5/4
1.10		0	5 Б	55	0	0	0	30 47	21	0	0	0	0	0	20 12	0	2	140	577
1.00		0	1	62	0	0	0	41 3/	16	0	0	0	0	0	13	0	2	131	5/7
Count	Total	0	41	636		0		487	274	0	0	0	0	0	148	0	42	1 628	0
Court	All	0	12	255	0	0	0	145	.97	0	0	0	0	0	53	0	20	582	0
Peak	HV	0	1	6	0	0	0	8	1	0	0	0	0	ő	6	0	0	22	0
Hour	HV%	-	8%	2%	-	-	-	6%	1%	-	-	-	-	-	11%	-	0%	4%	0
Note: Ti	hree-ho	our cour	nt sumr	mary vc	olumes	include	heavy	vehicles	s but ex	clude l	bicycle.	s in ove	rall cou	nt.					
	<u> </u>				<del></del>	<u> </u>													
Inter	val		Hea	vy Veh	licle To	otals	Tatal			Bicy	/cles	00	Tetel	<b>-</b>	Pe	destria	ans (Cro	ossing Le	<u>g)</u>
5ta		EB	VVE 2	5 N	B	SB	lotal	EB	WB		U IR	SB	l otal	Eas	t V	Vest	Nort	n Sout	h Iotal
11.00		0	ے 1	( (	) ^	1	з 2	0	0		0	1	1	0		1	0	0	1
11.1		1	1	(	) 0	1	4	0	0		n	0	0	0		0	1	0	1
11.30	5 AM	0	2	,	) 0	1	3	0	0		n	1	1	0		0	0	0	0
12.0		1	- 1		, n	1	3	0	0		n	0	0	0		0	0	0	0
12.0	5 PM	2	2		,	2	6	0	0		n	0	0	0		0	2	0	2
12:3	0 PM	2	1	i	, n	2	5	0	1		n	0	1	Ő		0	0	0	0
12:4	5 PM	2	5		0	1	8	0	0		0	0	0	0		1	1	0	2
1:00	) PM	0	1	(	ົດ	1	2	0	0		0	0	0	0		1	1	0	2
1:15	5 PM	1	2	(	٥ ٥	2	5	0	0		0	0	0	0		0	1	0	1
1:30	) PM	0	- 1	(	٥ ٥	1	2	0	0		0	0	0	0		0	0	0	, 0
1:45	5 PM	3	1	(	٥ ٥	2	6	0	0		0	0	0	0		1	0	1	2
Count	Total	10	20			16	10	0	1		0	2	1	0		4	6		

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Index		Mad	rid St			Madı	rid St			N	/A		Nor	thridge	e Drive	way	45	Dellar
Interval		East	bound			West	bound			North	bound			South	bound		15-min Total	Rolling
otart	UT LT TH RT UT LT TH						RT	UT	LT	TH	RT	UT	LT	TH	RT	Total		
11:00 AM	0	0	0	0	0	0	2	0	0	0	0	0	0	1	0	0	3	0
11:15 AM	0	0	0	0	0	0	1	0	0	0	0	0	0	1	0	0	2	0
11:30 AM	0	1	0	0	0	0	1	0	0	0	0	0	0	1	0	0	3	0
11:45 AM	0	0	0	0	0	0	2	0	0	0	0	0	0	1	0	0	3	11
12:00 PM	0	0	1	0	0	0	1	0	0	0	0	0	0	1	0	0	3	11
12:15 PM	0	0	2	0	0	0	2	0	0	0	0	0	0	2	0	0	6	15
12:30 PM	0	1	1	0	0	0	1	0	0	0	0	0	0	2	0	0	5	17
12:45 PM	0	0	2	0	0	0	4	1	0	0	0	0	0	1	0	0	8	22
1:00 PM	0	0	0	0	0	0	1	0	0	0	0	0	0	1	0	0	2	21
1:15 PM	0	0	1	0	0	0	2	0	0	0	0	0	0	2	0	0	5	20
1:30 PM	0	0	0	0	0	0	1	0	0	0	0	0	0	1	0	0	2	17
1:45 PM	0	0	3	0	0	0	1	0	0	0	0	0	0	2	0	0	6	15
Count Total	0	2	10	0	0	0	19	1	0	0	0	0	0	16	0	0	48	0
Peak Hour	0	1	6	0	0	0	8	1	0	0	0	0	0	6	0	0	22	0

## Three-Hour Count Summaries - Bikes

Interval	1	Madrid S	<i>i</i> t	!	Madrid S	й <b>t</b>		N/A		North	ridge Dri	veway	15 min	Polling
Start	E	Eastboun	.d	V	Nestbour	ıd	N	lorthbour	nd	S	outhbour	nd	Total	One Hour
old. I	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT	10	ono nou.
11:00 AM	0	0	0	0	0	0	0	0	0	1	0	0	1	0
11:15 AM	0	0	0	0	0	0	0	0	0	1	0	0	1	0
11:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:45 AM	0	0	0	0	0	0	0	0	0	1	0	0	1	3
12:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	2
12:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	1
12:30 PM	0	0	0	0	0	1	0	0	0	0	0	0	1	2
12:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	1
1:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	1
1:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	1
1:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Count Total	0	0	0	0	0	1	0	0	0	3	0	0	4	0
Peak Hour	0	0	0	0	0	1	0	0	0	0	0	0	1	0
Note: U-Turn v	olumes fo	r bikes ar	re include	d in Left-T	urn, if an	у.								



Three	-Hour	Cou	nt Su	mmar	ies														
Intor	wal .		Mad	rid St			Mad	rid St			N	I/A		Noi	rthridge	e Drive	way	15 min	Bolling
Sta	vai irt		East	bound			West	bound			North	bound			South	bound		Total	One Hour
		UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		•
4:00	PM	0	3	65	0	0	0	71	27	0	0	0	0	0	15	0	5	186	0
4:15	PM	0	5	69	0	0	0	59	19	0	0	0	0	0	12	0	4	168	0
4:30	PM	0	5	73	0	0	0	74	16	0	0	0	0	0	13	0	4	185	0
4:45	PM	0	6	63	0	0	0	70	29	0	0	0	0	0	17	0	9	194	733
5:00	PM	0	3	86	0	0	0	56	24	0	0	0	0	0	12	0	4	185	732
5:15	PM	0	4	61	0	1	0	81	24	0	0	0	0	0	23	0	2	196	760
5:30	PM	0	5	69	0	1	0	82	21	0	0	0	0	0	11	0	8	197	772
5:45	PM	0	7	97	0	0	0	76	28	0	0	0	0	0	16	0	5	229	807
6:00	PM	0	6	75	0	0	0	68	26	0	0	0	0	0	15	0	6	196	818
6:15	PM	0	2	71	0	0	0	64	18	0	0	0	0	0	13	0	8	176	798
6:30	PM	0	5	69	0	1	0	62	16	0	0	0	0	0	18	0	8	179	780
6:45	PM	0	4	81	0	0	0	66	14	0	0	0	0	0	18	0	5	188	739
Count	Total	0	55	879	0	3	0	829	262	0	0	0	0	0	183	0	68	2,279	0
Peak	All	0	22	302	0	2	0	307	99	0	0	0	0	0	65	0	21	818	0
Hour	HV	0	0	5	0	0	0	6	0	0	0	0	0	0	3	0	0	14	0
	HV%	-	0%	2%	-	0%	-	2%	0%	-	-	-	-	-	5%	-	0%	2%	U
Note: 11	nree-nc	our cour	nt sumr	nary vo	lumes	inciuae	heavy	venicies	s but ex	(ciude i	bicycies	s in ove	rall cou	nt.					
Inter	val		Hea	ivy Veh	nicle To	otals				Bicy	/cles				Pe	destria	ans (Cr	ossing Le	g)
Sta	rt	EB	WE	3 N	IB	SB	Total	EB	WB	i N	IB	SB	Total	Eas	st \	Nest	Nort	h Sout	h Total
4:00	PM	1	1	(	0	1	3	0	0		0	0	0	0		3	1	0	4
4:15	PM	1	1	(	0	2	4	0	0		0	0	0	0		0	0	0	0
4:30	PM	0	2	(	0	2	4	0	0		0	0	0	0		1	5	0	6
4:45	PM	0	1	(	0	1	2	0	0		0	0	0	3		0	2	0	5
5:00	PM	1	0	(	0	0	1	0	0		0	0	0	0		1	1	0	2
5:15	PM	0	2	(	0	0	2	0	0		0	0	0	0		0	0	0	0
5:30	PM	0	1	(	0	2	3	0	0		0	0	0	0		0	5	0	5
5:45	PM	3	2		0	1	6	0	0		0	0	0	0		0	2	0	2
6:00	PM	2	1	(	0	0	3	0	0		0	0	0	0		3	3	0	6
6:15	PM	1	2	(	0	2	5	0	0		0	0	0	0		0	0	0	0
6:30	PM	1	0	(	0	1	2	0	0		0	0	0	0		0	7	0	7
6:45	5 PM	0	0	(	0	0	0	0	0		0	0	0	0		0	1	0	1
Count	Total	10	13		Λ	12	35	0	0		0	0	0	3		8	27	0	38

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		Mad	rid St	ł		Madr	rid St			N.	/A		Nor	rthridge	Drive	way		
Interval		East	bound			West	bound			North	bound			South	bound		15-min Total	Rolling
Start	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	Total	One riou
4:00 PM	0	0	1	0	0	0	1	0	0	0	0	0	0	1	0	0	3	0
4:15 PM	0	0	1	0	0	0	1	0	0	0	0	0	0	2	0	0	4	0
4:30 PM	0	0	0	0	0	0	2	0	0	0	0	0	0	2	0	0	4	0
4:45 PM	0	0	0	0	0	0	1	0	0	0	0	0	0	1	0	0	2	13
5:00 PM	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	11
5:15 PM	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	2	9
5:30 PM	0	0	0	0	0	0	1	0	0	0	0	0	0	2	0	0	3	8
5:45 PM	0	0	3	0	0	0	2	0	0	0	0	0	0	1	0	0	6	12
6:00 PM	0	0	2	0	0	0	1	0	0	0	0	0	0	0	0	0	3	14
6:15 PM	0	0	1	0	0	0	2	0	0	0	0	0	0	2	0	0	5	17
6:30 PM	0	0	1	0	0	0	0	0	0	0	0	0	0	1	0	0	2	16
6:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	10
Count Total	0	0	10	0	0	0	13	0	0	0	0	0	0	12	0	0	35	0
Peak Hour	0	0	5	0	0	0	6	0	0	0	0	0	0	3	0	0	14	0

### Three-Hour Count Summaries - Bikes

Interval		Madrid S	it .	1	Madrid S	it .		N/A		North	ridge Dri	veway	15 min	Dolling
Start	E	Eastboun	d	V	Nestbour	ıd	N	lorthbour	ıd	S	outhbour	nd	Total	One Hour
oluit	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT	10	011011.02.
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Count Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Peak Hour	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Note: U-Turn v	olumes fo	r bikes ar	re include	d in Left-T	urn, if an	у.								



Inree	-nour	Coul	nt Sur	nmar	les							· •				• •			
Inter	val		Madr	rid St			Harde	n Pkwy			NM	ain St				ain St		15-min	Rolling
Sta	rt	UT	LT	ouna TH	RT	UT	LT	bouna TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	Total	One Hour
11:00	) AM	0	18	14	19	1	52	23	30	0	35	172	42	0	26	123	11	566	0
11:15	5 AM	0	12	16	18	1	61	24	34	1	27	187	40	0	49	129	14	613	0
11:30	) AM	0	14	12	26	0	54	12	35	1	32	199	40	1	32	123	12	593	0
11:45	5 AM	0	15	21	23	1	64	26	45	2	46	150	39	4	47	136	7	626	2,398
12:00	D PM	0	21	21	36	0	54	23	46	0	32	177	51	0	45	188	5	699	2,531
12:15	5 PM	0	23	26	41	0	70	19	47	1	31	205	46	0	40	164	8	721	2,639
12:30	D PM	0	19	13	20	0	74	19	30	1	25	179	61	1	56	175	17	690	2,736
12:45	5 PM	0	18	30	41	0	69	22	44	1	32	147	46	3	39	166	10	668	2,778
1:00	PM	0	12	16	27	0	61	20	34	1	34	187	31	0	54	178	13	668	2,747
1:15	PM	0	18	24	32	0	76	20	40	0	35	211	53	0	53	147	10	719	2,745
1:30	PM	0	20	21	26	0	68	21	41	2	31	151	46	2	49	176	16	670	2,725
1:45	PM	0	16	29	29	0	69	10	47	0	34	206	48	0	49	170	10	717	2,774
Count	Total	0	206	243	338	3	772	239	473	10	394	2,171	543	11	539	1,875	133	7,950	0
Peak	All	0	81	90	138	0	267	83	167	3	120	708	204	4	180	693	40	2,778	0
Hour	ΗV	0	3	4	5	0	3	2	4	0	5	9	2	0	3	4	2	46	0
	HV%	-	4%	4%	4%	-	1%	2%	2%	0%	4%	1%	1%	0%	2%	1%	5%	2%	0
Note: Th	nree-ho	our cou	nt sumr	nary vo	olumes	include	e heavy	vehicle	es but e	xclude	e bicycl	es in ov	erall co	ount.					
Inter	val		Hea	vy Veh	icle To	otals				Bicy	cles				Pe	edestria	ns (Cr	ossing Le	g)
Sta	rt	EB	WB	i N	IB	SB	Total	EB	WB	N	IВ	SB	Total	Eas	t	West	Nort	h Sou	th Total
11:00	) AM	1	3		7	4	15	2	0	(	0	0	2	2		5	2	0	9
11:15	5 AM	1	2		4	2	9	0	0		0	0	0	1		2	1	1	5
11:30	) AM	1	2		6	0	9	0	0		0	0	0	1		2	8	2	13
11:45	5 AM	1	1		4	2	8	1	0		0	0	1	0		0	3	1	4
12:00	D PM	2	1		4	3	10	0	0		0	0	0	5		1	3	0	9
12:15	5 PM	4	3		4	3	14	0	0		0	0	0	6		3	7	2	18
12:30	) PM	3	2	:	3	1	9	0	0		0	0	0	4		0	3	2	9
12:45	5 PM	3	3	ł	5	2	13	0	0		0	0	0	3		2	8	1	14
1:00	PM	1	2		1	1	5	0	0	(	0	0	0	1		5	3	4	13
1:15	PM	3	6		7	3	19	0	0		0	0	0	2		3	3	1	9
1:30	PM	1	1	:	3	1	6	0	0		0	0	0	1		2	1	6	10
1.00		_				E	15		0		<u>^</u>		4	1		0	2	E	0
1:45	PM	5	1		4	Э	15	0	0		0	1	1			0	2	5	0
1:45 Count	PM Total	5 26	1 27	5	4 52	5 27	132	3	0		0	1	4	27		0 25	44	25	0 121

Three-Hour	Cou	nt Sui	nmar	ies - I	Heavy	v Vehi	cles											
lu te muel		Mad	rid St			Harde	n Pkwy			N Ma	ain St			N Ma	in St		45 min	Delling
Start		East	bound			West	bound			North	bound			South	bound		15-min Total	One Hour
<b>O</b> lari	UT LT TH RT UT LT						TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	. o tai	0.10 1.10
11:00 AM	0	0	0	1	0	1	1	1	0	1	3	3	0	2	2	0	15	0
11:15 AM	0	0	1	0	0	0	1	1	0	0	4	0	0	0	2	0	9	0
11:30 AM	0	0	0	1	0	0	0	2	0	1	5	0	0	0	0	0	9	0
11:45 AM	0	0	1	0	0	0	1	0	0	1	2	1	0	1	1	0	8	41
12:00 PM	0	1	0	1	0	0	0	1	0	0	2	2	0	0	2	1	10	36
12:15 PM	0	0	2	2	0	1	1	1	0	1	3	0	0	2	1	0	14	41
12:30 PM	0	1	0	2	0	1	0	1	0	1	2	0	0	1	0	0	9	41
12:45 PM	0	1	2	0	0	1	1	1	0	3	2	0	0	0	1	1	13	46
1:00 PM	0	0	0	1	0	0	1	1	0	0	1	0	0	0	0	1	5	41
1:15 PM	0	1	2	0	0	3	1	2	0	1	6	0	0	1	2	0	19	46
1:30 PM	0	0	0	1	0	1	0	0	0	0	2	1	0	0	0	1	6	43
1:45 PM	0	3	2	0	0	1	0	0	0	1	3	0	0	2	3	0	15	45
Count Total	0	7	10	9	0	9	7	11	0	10	35	7	0	9	14	4	132	0
Peak Hour	0	3	4	5	0	3	2	4	0	5	9	2	0	3	4	2	46	0

# Three-Hour Count Summaries - Bikes

Interval	I	Madrid S	<i>i</i> t	Ha	arden Pk	wy	<u> </u>	N Main S	it	1	N Main S	t	15 min	Balling
Start	E	Eastboun	d	V	Vestbour	ıd	N	lorthbour	nd	S	outhbour	nd	Total	One Hour
oluit	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT	10	ono no a
11:00 AM	0	0	2	0	0	0	0	0	0	0	0	0	2	0
11:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:45 AM	0	0	1	0	0	0	0	0	0	0	0	0	1	3
12:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	1
12:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	1
12:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	1
12:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:45 PM	0	0	0	0	0	0	0	0	0	0	1	0	1	1
Count Total	0	0	3	0	0	0	0	0	0	0	1	0	4	0
Peak Hour	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Note: U-Turn v	olumes fo	or bikes a	re include	d in Left-7	Turn, if ar	ny.								



Inter	n vel		Madı	rid St			Harder	n Pkwy	1		N M	ain St			N Ma	ain St		4E main	Delling
Sta	vai		Eastb	ound			West	bound			North	bound			South	bound		Total	One Hour
0.0		UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	Total	one neu
4:00	PM	0	23	28	29	1	66	23	53	0	35	164	42	0	59	213	34	770	0
4:15	5 PM	0	23	19	33	0	71	28	26	1	36	204	59	1	58	186	14	759	0
4:30	PM	0	17	24	41	0	70	38	49	0	29	180	46	1	58	229	30	812	0
4:45	5 PM	0	20	39	30	0	66	33	44	0	40	209	62	1	77	178	21	820	3,161
5:00	PM	0	20	30	37	0	82	31	42	0	33	186	45	6	60	220	16	808	3,199
5:15	5 PM	0	23	39	25	1	75	32	35	2	52	166	44	1	71	197	23	786	3,226
5:30	PM	0	14	34	34	0	61	34	43	1	49	165	51	0	82	212	22	802	3,216
5:45	5 PM	0	37	31	41	0	58	35	39	4	42	193	33	0	50	182	22	767	3,163
6:00	PM	0	32	32	33	0	56	30	44	0	41	170	59	0	68	181	25	771	3,126
6:15	5 PM	0	15	28	36	0	80	31	48	1	32	179	46	2	63	176	18	755	3,095
6:30	PM	0	24	23	43	1	48	27	30	2	35	155	42	2	52	175	21	680	2,973
6:45	5 PM	0	18	40	41	0	66	23	51	0	30	49	33	3	61	162	22	599	2,805
Count	Total	0	266	367	423	3	799	365	504	11	454	2,020	562	17	759	2,311	268	9,129	0
Peak	All	0	80	132	133	1	293	134	170	2	154	741	197	9	266	824	90	3,226	0
I Can																			
Hour	ΗV	0	0	2	2	0	2	2	1	0	2	3	0	0	0	6	1	21	0
Hour	HV HV%	0 -	0 0%	2 2%	2 2%	0 0%	2 1%	2 1%	1 1%	0 0%	2 1%	3 0%	0 0%	0 0%	0 0%	6 1%	1 1%	21 1%	0 0
Hour Note: Th	HV HV% hree-ho	0 - our cou	0 0% nt sumi	2 2% mary vo	2 2% olumes	0 0% include	2 1% heavy	2 1% vehicle	1 1% es but e	0 0% exclude	2 1% bicycl	3 0% es in ov	0 0% erall co	0 0% ount.	0 0%	6 1%	1 1%	21 1%	0 0
Hour Note: Th Inter	HV HV% hree-hc	0 - our cou	0 0% nt sumi Hea	2 2% mary vo vy Veh	2 2% olumes hicle To	0 0% include	2 1% heavy	2 1% vehicle	1 1% es but e	0 0% exclude Bicy	2 1% bicycl	3 0% es in ov	0 0% erall cc	0 0% ount.	0 0% Pe	6 1% edestria	1 1% ns (Cr	21 1% ossing Le	0 0 g)
Hour Note: Th Inter Sta	HV HV% hree-hc val	0 - our cou EB	0 0% nt sumr Hea WB	2 2% mary vo vy Veh	2 2% Dlumes hicle To	0 0% include otals SB	2 1% heavy Total	2 1% vehicle EB	1 1% es but e WB	0 0% exclude Bicy	2 1% bicycl	3 0% es in ov SB	0 0% erall co Total	0 0% ount. Eas	0 0% Pe	6 1% edestria West	1 1% ns (Cr Nort	21 1% ossing Le h Sout	0 0 g) h Total
Hour Note: Th Inter Sta 4:00	HV HV% hree-hc val urt	0 - our cou EB 2	0 0% nt sum Hea WB	2 2% mary vo vy Veh	2 2% olumes hicle To IB 3	0 0% include sB 1	2 1% heavy Total 8	2 1% vehicle EB 0	1 1% es but e WB	0 0% exclude Bicy	2 1% bicycl vcles IB	3 0% es in ov SB 1	0 0% erall co Total 1	0 0% ount. Eas 1	0 0% Pe	6 1% edestria West 7	1 1% ns (Cr Nort	21 1% ossing Le h Sout 8	0 0 g) th Total 17
Hour Note: Tr Inter Sta 4:00 4:15	HV HV% hree-ho val irt PM 5 PM	0 - our cou EB 2 3	0 0% nt sumr Hea WB 2 1	2 2% mary vo vy Veh	2 2% Dumes hicle To IB 3 3	0 0% include otals SB 1 3	2 1% heavy Total 8 10	2 1% vehicle EB 0 0	1 1% es but e WB 0 0	0 0% exclude Bicy	2 1% bicycl vcles IB 0 0	3 0% es in ov SB 1 0	0 o% erall co Total 1 0	0 0% 0unt. Eas 1 0	0 0% Pe	6 1% edestria West 7 1	1 1% ns (Cr Nort 1 1	21 1% ossing Le h Sout 8 2	0 0 g) th Total 17 4
Hour Note: Th Inter Sta 4:00 4:15 4:30	HV HV% hree-ho rval art 9 PM 5 PM	0 - Dur cour EB 2 3 1	0 0% nt sumr Hea WB 2 1 3	2 2% mary vo vy Veh N	2 2% blumes iicle To IB 3 3 3	0 0% include SB 1 3 2	2 1% e heavy Total 8 10 7	2 1% vehicle EB 0 0 0	1 1% es but e WB 0 0 0	0 0% exclude Bicy N ( ( (	2 1% bicycl rcles IB 0 0 0	3 0% es in ov SB 1 0 0	0 0% erall cc Total 1 0 0	0 0% Dunt. Eas 1 0 0	0 0% Pe	6 1% edestria West 7 1 2	1 1% ns (Cro Norti 1 1 7	21 1% ossing Le h Sout 8 2 9	0 0 g) th Total 17 4 18
Hour Note: T/ Inter Sta 4:00 4:15 4:30 4:45	HV HV% hree-ho val irt PM PM PM PM	0 - Dur cour EB 2 3 1 1 2	0 0% Int summ Hea WB 2 1 1 3 0	2 2% mary vo vy Veh	2 2% blumes iicle To IB 3 3 3 1 2	0 0% include SB 1 3 2 2	2 1% e heavy Total 8 10 7 6	2 1% vehicle EB 0 0 0 0 0	1 1% es but e WB 0 0 0 0	0 0% exclude Bicy N ( ( ( (	2 1% bicycl vcles IB 0 0 0 0 0	3 0% es in ov SB 1 0 0 0	0 0% erall cc Total 1 0 0 0	0 0% ount. Eas 1 0 0 2	0 0% Pe	6 1% edestria West 7 1 2 5	1 1% ns (Cr Nort 1 1 7 4	21 1% ossing Le h Sout 8 2 9 9 3	0 0 g) h Total 17 4 18 18 14
Hour Note: Tr Inter Sta 4:00 4:15 4:30 4:45 5:00	HV HV% hree-ho val art PM PM PM PM	0 - - EB 2 3 1 2 1	0 0% nt sum Hea WB 2 1 3 0 1	2 2% mary vo vy Veh	2 2% blumes sicle To IB 3 3 3 1 2 2 1	0 0% include SB 1 3 2 2 1	2 1% e heavy Total 8 10 7 6 4	2 1% vehicle EB 0 0 0 0 0 0	1 1% es but e WB 0 0 0 0 1 0	0 0% exclude Bicy N ( ( ( ( ( ( ( ( ( ( ( ( ( ( ( ( ( (	2 1% bicycl rcles IB 0 0 0 0 0 0	3 0% es in ov SB 1 0 0 0 0 0	0 0% erall cc Total 1 0 0 1 0	0 0% 0unt. Eas 1 0 0 0 2 4	0 0% Pe	6 1% edestria West 7 1 2 5 5 5	1 1% ns (Cre Norti 1 1 1 7 4 4	21 1% ossing Le h Sout 8 2 9 3 3 3	0 0 m h Total 17 4 18 14 16
Hour Note: 77 Inter Sta 4:00 4:15 4:30 4:45 5:00 5:15	HV HV% hree-ho val mt PM PM PM PM PM PM	0 - - - - - - - - - - - - - - - - - - -	0 0% nt sum Hea WB 2 1 3 0 1 3 0	2 2% mary vo vy Veh N	2 2% blumes iicle Tc IB 3 3 3 1 2 2 1 1 1	0 0% include SB 1 3 2 2 1 2 1 2	2 1% 2 heavy Total 8 10 7 6 4 4 4	2 1% vehicle EB 0 0 0 0 0 0 0 0 0 0	1 1% es but e 0 0 0 0 1 0 0 0	0 0% exclude Bicy 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	2 1% bicycl 1B 0 0 0 0 0 0 0 0	3 0% es in ov SB 1 0 0 0 0 0 1	0 0% erall cc Total 1 0 0 1 0 1	0 0% 0unt. Eas: 1 0 0 0 2 4 0	0 0% Pe	6 1% edestria West 7 1 2 5 5 5 1	1 1% ns (Cro Nort 1 1 7 4 4 4 1	21 1% ossing Le h Sout 8 2 9 3 3 3 0	0 0 m h Total 17 4 18 14 16 2
Hour Note: 7/ Inter Sta 4:00 4:15 4:30 4:45 5:00 5:15 5:30	HV HV% hree-ho val mt PM PM PM PM PM PM PM	0 - our cou EB 2 3 1 2 1 0 2	0 0% nt sum Hea WB 2 1 1 3 0 1 1 1 1	2 2% mary vo vy Veh N	2 2% blumes iicle To IB 3 3 3 1 2 1 1 1 1 1	0 0% include SB 1 3 2 2 1 2 1 2 1 2	2 1% heavy Total 8 10 7 6 4 4 4 5	2 1% vehicle EB 0 0 0 0 0 0 0 0 0 0 0	1 1% es but e 0 0 0 0 1 0 0 0 0 0 0	0 0% exclude Bicy 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	2 1% bicycl IB 0 0 0 0 0 0 0 0 0	3 0% es in ov SB 1 0 0 0 0 1 0	0 0% erall cc Total 1 0 0 1 0 1 0	0 0% 0unt. Eas: 1 0 0 2 4 0 2	0 0% Pe	6 1% edestria West 7 1 2 5 5 5 1 3	1 1% <u>ns (Cro</u> Norti 1 1 7 4 4 4 1 6	21 1% ossing Le h Sout 9 3 3 3 0 1	0 0 m h Total 17 4 18 14 16 2 12
Hour Note: T/ Inter Sta 4:00 4:15 4:30 4:45 5:00 5:15 5:30 5:45	HV HV% hree-ho PM PM PM PM PM PM PM PM PM PM PM PM PM	0 - - - - - - - - - - - - - - - - - - -	0 0% Int summ Hea 2 1 3 0 1 1 1 1 1 1	2 2% mary vo vy Veh	2 2% blumes iicle To iB 3 3 1 2 1 1 1 1 1 2	0 0% include SB 1 3 2 2 1 2 1 2 1 2	2 1% e heavy Total 8 10 7 6 4 4 5 8	2 1% vehicle 6 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	1 1% es but e 0 0 0 0 1 0 0 0 0 0 0 0	0 0% exclude Bicy N ( ( ( ( ( ( ( ( ( ( ( ( ( ( ( ( ( (	2 1% bicycl 7 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	3 0% es in ov SB 1 0 0 0 0 1 0 0 0 0	0 0% erall cc Total 1 0 0 1 0 1 0 0 0	0 0% 0unt. Eas 1 0 0 2 4 0 2 1	0 0% Pe	6 1% destria West 7 1 2 5 5 5 1 3 3	1 1% Norti 1 1 7 4 4 1 6 1	21 1% ossing Le h Sout 9 3 3 3 0 1 4	0 0 m h Total 17 4 18 14 16 2 12 9
Hour Note: T/ Inter Sta 4:00 4:15 4:30 4:45 5:00 5:15 5:30 5:45 6:00	HV HV% hree-ho Val PM PM PM PM PM PM PM PM PM PM	0 - - - - - - - - - - - - - - - - - - -	0 0% nt sumn Hea WB 2 1 3 0 1 1 1 1 1 1 1	2 2% mary vo vy Veh	2 2% blumes iicle To iB 3 3 1 1 2 1 1 1 1 2 1	0 0% include SB 1 3 2 2 1 2 1 2 1 2 2 2	2 1% heavy Total 8 10 7 6 4 4 5 8 6	2 1% vehicle 6 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	1 1% es but e 0 0 0 0 1 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0% exclude Bicy N ( ( ( ( ( ( ( ( ( ( ( ( ( ( ( ( ( (	2 1% bicycl 1B 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	3 0% es in ov SB 1 0 0 0 0 1 0 0 0 0 0 0 0	0 0% erall cc Total 1 0 0 1 0 1 0 0 0 0 0	0 0% 0/////////////////////////////////	0 0% Pe	6 1% edestria West 7 1 2 5 5 1 3 3 3 1	1 1% Norti 1 1 1 7 4 4 1 6 1 2	21 1% ossing Le h Sout 9 3 3 3 0 1 4 3	0 0 m h Total 17 4 18 14 16 2 12 9 7
Hour Note: 7/ Inter Sta 4:00 4:15 4:30 4:45 5:00 5:15 5:30 5:45 6:00 6:15	HV HV% hree-ho Val F PM PM PM PM PM PM PM PM PM PM PM PM PM	0 - Dur cour EB 2 3 1 2 1 0 2 3 2 2 2	0 0% nt sumn Hea WB 2 1 3 0 1 1 1 1 1 1 1 1 1	2 2% mary vo vy Veh	2 2% blumes isicle To IB 3 3 3 1 2 1 1 1 1 2 1 3	0 0% include 5B 1 3 2 2 1 2 1 2 1 2 1 2 1 2 1	2 1% heavy Total 8 10 7 6 4 4 5 8 6 7	2 1% vehick EB 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	1 1% es but e 0 0 0 0 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0% exclude Bicy 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	2 1% bicycl 7 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	3 0% ess in ov SB 1 0 0 0 0 1 0 0 0 0 0 0 0 0 0 0	0 0% erall cc Total 1 0 1 0 1 0 0 0 0 0 0 0 0	0 0% 0/////////////////////////////////	0 0% Pe	6 1% edestria West 7 1 2 5 5 1 3 3 1 8	1 1% Norti 1 1 1 7 4 4 1 6 1 2 1	21 1% ossing Le h Sout 9 3 3 0 1 4 3 1	0 0 m h Total 17 4 18 14 16 2 12 9 7 10
Hour Note: 7/ Inter 5ta 4:00 4:15 4:30 4:45 5:00 5:15 5:30 5:45 6:00 6:15 6:30	HV HV% hree-hc PM PM PM PM PM PM PM PM PM PM PM PM PM	0 - Dur cour EB 2 3 1 2 1 0 2 3 2 2 2 2 2	0 0% nt sum Hea 2 1 3 0 1 1 1 1 1 1 1 1 1 1	2 2% mary vo Vy Ver	2 2% blumes sicle To IB 3 3 3 1 2 1 1 1 1 2 1 3 0	0 0% include 5B 1 3 2 2 1 2 1 2 1 2 1 2 1 2 1 2 2 1 2	2 1% be heavy Total 8 10 7 6 4 4 5 8 6 7 5	2 1% Vehicle 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	1 1% es but e 0 0 0 0 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0% 0xclude 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	2 1% bicycl rcles IB 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	3 0% ess in ov SB 1 0 0 0 0 1 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0% erall cc Total 1 0 1 0 1 0 0 0 0 0 0 0 0 0 0	0 0% Dunt. Eas 1 0 0 2 4 0 2 1 1 0 3	0 0% Pe	6 1% edestria West 7 1 2 5 5 1 3 3 1 8 2	1 1% Norti 1 1 7 4 4 1 6 1 2 1 7	21 1% ossing Le h Sout 8 2 9 3 3 0 1 4 3 1 4	0 0 8) h Total 17 4 18 14 16 2 12 9 7 10 16
Hour Note: 77 Inter Sta 4:00 4:15 4:30 4:45 5:00 5:15 5:30 5:45 6:00 6:15 6:30 6:45	HV HV% hree-hc PM PM PM PM PM PM PM PM PM PM PM PM PM	0 - - - - - - - - - - - - - - - - - - -	0 0% nt sum Hea 2 1 3 0 1 1 1 1 1 1 1 1 1 1 0	2 2% vy Vet N	2 2% blumes iicle To IB 3 3 1 2 1 1 1 1 2 1 3 0 1	0 0% include SB 1 3 2 2 1 2 1 2 1 2 1 2 2 1 2 2 1 2 2 2	2 1% be heavy Total 8 10 7 6 4 4 5 8 6 7 5 3	2 1% Vehicle 6 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	1 1% es but e 0 0 0 0 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0% exclude Bicy N 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	2 1% bicycl Cles 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	3 0% ess in ov SB 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0% erall cc Total 1 0 0 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0% Dunt. Eas 1 0 0 2 4 0 2 1 1 0 3 2	0 0% Pe	6 1% edestria West 7 1 2 5 5 1 3 3 1 8 2 0	1 1% ns (Crr Norti 1 1 1 7 4 4 1 6 1 2 1 7 0	21 1% ossing Le h Sout 8 2 9 3 3 3 0 1 4 3 1 4 0	0 0 8) h Total 17 4 18 14 16 2 12 9 7 10 16 2
Hour Note: 7/ Inter Sta 4:00 4:15 4:30 4:45 5:00 5:15 5:30 5:45 6:00 6:15 6:30 6:45 Count	HV HV% hree-hc PM PM PM PM PM PM PM PM PM PM PM PM PM	0 - - - - - - - - - - - - - - - - - - -	0 0% nt sumr Hea WB 2 1 3 0 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	2 2% mary vo vy Veh N	2 2% blumes iicle To IB 3 3 3 1 2 1 1 1 1 2 1 3 0 1 9	0 0% include SB 1 3 2 2 1 2 1 2 2 1 2 2 1 2 2 2 2 2	2 1% be heavy Total 8 10 7 6 4 4 5 8 6 7 5 3 7 3	2 1% Vehicle 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	1 1% es but e 0 0 0 0 0 1 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0% exclude Bicy N () () () () () () () () () () () () ()	2 1% bicycl bicycl 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	3 0% ess in ov SB 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0% Total 1 0 0 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0% Dunt. Eas: 1 0 0 2 4 0 2 1 1 0 3 2 16	0 0% Pe	6 1% edestria West 7 1 2 5 5 1 3 3 1 8 2 0 38	1 1% ns (Crr Norti 1 1 1 1 1 1 1 1 1 1 1 1 1	21 1% ossing Le h Sout 9 3 3 0 1 4 3 1 4 0 38	0 0 8) h Total 17 4 18 14 16 2 12 9 7 10 16 2 127

Three-Hour	· Coui	nt Sui	nmar	ies - I	Heavy	/ Vehi	cles											
la te mar l		Madı	rid St			Harde	n Pkwy			N Ma	ain St			N Ma	in St		45	Dellar
Start		Eastb	ound			West	bound			North	bound			South	bound		15-min Total	One Hour
- Tai T	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		0.101.104
4:00 PM	0	0	0	2	0	1	1	0	0	0	3	0	0	0	1	0	8	0
4:15 PM	0	2	1	0	0	1	0	0	0	1	2	0	0	0	3	0	10	0
4:30 PM	0	0	0	1	0	1	1	1	0	0	1	0	0	0	1	1	7	0
4:45 PM	0	0	2	0	0	0	0	0	0	1	1	0	0	0	2	0	6	31
5:00 PM	0	0	0	1	0	1	0	0	0	0	1	0	0	0	1	0	4	27
5:15 PM	0	0	0	0	0	0	1	0	0	1	0	0	0	0	2	0	4	21
5:30 PM	0	0	1	1	0	0	1	0	0	0	1	0	0	0	1	0	5	19
5:45 PM	0	2	1	0	0	0	1	0	0	1	1	0	0	1	1	0	8	21
6:00 PM	0	1	0	1	0	1	0	0	0	0	1	0	0	0	0	2	6	23
6:15 PM	0	0	2	0	0	0	1	0	0	1	2	0	0	0	1	0	7	26
6:30 PM	0	1	0	1	0	1	0	0	0	0	0	0	0	0	2	0	5	26
6:45 PM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	2	0	3	21
Count Total	0	6	7	7	0	6	6	1	0	5	14	0	0	1	17	3	73	0
Peak Hour	0	0	2	2	0	2	2	1	0	2	3	0	0	0	6	1	21	0

### Three-Hour Count Summaries - Bikes

Interval	1	Madrid S	it .	Ha	arden Pk	wy	1	N Main S	öt	1	N Main S	t	15 min	Balling
Start	E	Eastboun	d	V	Vestbour	nd	N	lorthbour	nd	S	outhbour	nd	Total	One Hour
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT		••
4:00 PM	0	0	0	0	0	0	0	0	0	0	1	0	1	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	1	0	0	0	0	0	0	0	1	2
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	1
5:15 PM	0	0	0	0	0	0	0	0	0	0	1	0	1	2
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	2
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	1
6:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	1
6:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Count Total	0	0	0	0	1	0	0	0	0	0	2	0	3	0
Peak Hour	0	0	0	0	1	0	0	0	0	0	1	0	2	0
Note: U-Turn v	olumes fo	or bikes a	re include	d in Left-	Гurn, if aı	ny.								



Three	-Hour	r Cour	nt Su	mmar	ries														
Inte	rval		Mad	rid St			Mad	rid St			N	I/A		Nor	rthridg	e Drive	way	15-min	Rolling
St	art		East	bound			West	bound			North	bound			South	bound		Total	One Hour
		UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
11:0	0 AM	0	3	57	0	0	0	53	20	0	0	0	0	0	8	0	3	144	0
11:1	5 AM	0	7	71	0	0	0	49	30	0	0	0	0	0	12	0	5	174	0
11:3	0 AM	0	4	61	0	1	0	54	40	0	0	0	0	0	22	0	8	190	0
11:4	5 AM	0	7	60	0	1	0	49	33	0	0	0	0	1	19	0	4	174	682
12:0	0 PM	0	3	77	0	0	0	63	32	0	0	0	0	0	17	0	7	199	737
12:1	5 PM	0	4	75	0	1	0	72	29	0	0	0	0	0	19	0	3	203	766
12:3	0 PM	0	0	78	0	0	0	62	24	0	0	0	0	0	23	0	3	190	766
12:4	5 PM	0	6	86	0	0	0	58	38	0	0	0	0	0	15	0	3	206	798
1:00	) PM	0	6	83	0	0	0	72	32	0	0	0	0	0	23	0	5	221	820
1:15	5 PM	0	1	80	0	0	0	58	22	0	0	0	0	0	25	0	6	192	809
1:30	) PM	0	0	93	0	1	0	53	39	0	0	0	0	0	22	0	8	216	835
1:45	5 PM	0	2	78	0	0	0	77	24	0	0	0	0	0	23	0	5	209	838
Count	Total	0	43	899	0	4	0	720	363	0	0	0	0	1	228	0	60	2,318	0
Peak	All	0	9	334	0	1	0	260	117	0	0	0	0	0	93	0	24	838	0
Hour	HV	0	0	1	0	0	0	2	0	0	0	0	0	0	2	0	0	5	0
	HV%	-	0%	0%	-	0%	-	1%	0%	-	-	-	-	-	2%	-	0%	1%	0
Note: T	hree-ho	ur cour	nt sumr	nary vo	lumes	include	heavy	vehicle	s but ex	«clude l	bicycles	s in ove	rall cou	ınt.					
Inter	rval		Hea	avy Ver	nicle To	otals				Bicy	/cles				Pe	destria	ans (Cr	ossing Le	g)
Sta	art	EB	WE	3 N	1B	SB	Total	EB	WB	J N	1B	SB	Total	Eas	st V	West	Nort	h Sou	th Total
11:0	0 AM	0	1	(	0	0	1	0	0		0	0	0	0		0	0	1	1
11:1	5 AM	0	1	(	0	1	2	0	0	(	0	0	0	0		0	0	1	1
11:3	0 AM	0	0	(	0	0	0	0	0	(	0	0	0	0		0	0	4	4
11:4	5 AM	1	0	(	0	0	1	0	0	(	0	0	0	0		0	0	3	3
12:0	0 PM	0	2	(	0	0	2	0	0	(	0	0	0	0		0	0	4	4
12:1	5 PM	0	1	(	0	2	3	0	0	(	0	0	0	0		0	0	3	3
12:3	0 PM	0	0	(	0	0	0	0	0	(	0	0	0	0		0	0	1	1
12:4	5 PM	0	0	(	0	0	0	0	0	(	0	0	0	0		2	0	3	5
1:00	) PM	0	1		0	0	1	0	0		0	0	0	0		1	0	4	5
1:15	5 PM	0	0	1	0	1	1	0	0	(	0	0	0	0		0	0	2	2
1:30	) PM	0	1	1	0	1	2	0	0	(	0	0	0	2		0	0	1	3
1:4	5 PM	1	0	1	0	0	1	0	0	(	0	0	0	0		0	1	2	3
Count	Total	2	7		0	5	14	0	0	,	0	0	0	2		3	1	29	35

Peak Hr

Г

		Mad	rid St			Mad	rid St			N	/A		Nor	rthridg	a Drive	way	45	Dellar
Interval		East	bound			West	bound			North	bound	-		South	bound		15-min Total	Rolling
Start	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	Total	One nou.
11:00 AM	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	1	0
11:15 AM	0	0	0	0	0	0	1	0	0	0	0	0	0	1	0	0	2	0
11:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:45 AM	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	4
12:00 PM	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	2	5
12:15 PM	0	0	0	0	0	0	1	0	0	0	0	0	0	2	0	0	3	6
12:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6
12:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5
1:00 PM	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	1	4
1:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	2
1:30 PM	0	0	0	0	0	0	1	0	0	0	0	0	0	1	0	0	2	4
1:45 PM	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	5
Count Total	0	0	2	0	0	0	7	0	0	0	0	0	0	5	0	0	14	0
Peak Hour	0	0	1	0	0	0	2	0	0	0	0	0	0	2	0	0	5	0

### Three-Hour Count Summaries - Bikes

Interval	1	Madrid S	<i>i</i> t	1	Madrid S	it		N/A		North	ridge Dri	veway	1E min	Polling
Start	E	Eastboun	.d	V	Vestbour	ıd	N	lorthbour	nd	S	outhbour	nd	Total	One Hour
<b>O</b> tal I	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	ТН	RT	10.2.	011011.01.
11:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Count Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Peak Hour	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Note: U-Turn v	olumes fo	r bikes ai	re includeo	d in Left-T	urn, if an	у.								



Three-Hour	Cou	nt Sur	mmar	ies														
Interval		Madı	rid St			Harde	n Pkwy	/		N M	ain St			N Ma	ain St		15 min	Dolling
Start		Eastb	bound			West	bound			North	bound			South	nbound		Total	One Hour
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
11:00 AM	0	10	22	28	0	74	30	44	1	39	183	34	1	43	133	12	654	0
11:15 AM	0	28	24	34	0	49	22	54	0	37	219	33	0	60	150	15	725	0
11:30 AM	0	23	30	30	0	62	32	46	2	46	184	54	0	68	162	17	756	0
11:45 AM	0	20	20	33	0	87	25	60	2	47	185	60	4	57	152	11	763	2,898
12:00 PM	0	30	36	36	0	63	27	40	1	47	266	59	3	50	185	27	870	3,114
12:15 PM	0	25	25	37	0	70	38	38	1	38	201	35	3	53	175	19	758	3,147
12:30 PM	0	27	43	38	0	62	37	44	1	38	221	55	1	47	226	13	853	3,244
12:45 PM	0	30	31	40	0	88	38	40	1	49	232	53	1	38	198	14	853	3,334
1:00 PM	0	32	31	46	0	80	24	42	0	48	232	43	1	57	191	23	850	3,314
1:15 PM	0	25	31	47	0	79	22	55	1	42	238	47	1	60	233	24	905	3,461
1:30 PM	0	23	50	40	0	82	27	53	1	41	194	54	3	63	204	17	852	3,460
1:45 PM	0	26	31	39	0	72	27	52	0	53	236	57	3	55	225	28	904	3,511
Count Total	0	299	374	448	0	868	349	568	11	525	2,591	584	21	651	2,234	220	9,743	0
All	0	106	143	172	0	313	100	202	2	184	900	201	8	235	853	92	3,511	0
Hour HV	0	0	2	1	0	1	1	2	0	0	6	1	0	1	5	1	21	0
HV%	-	0%	1%	1%	-	0%	1%	1%	0%	0%	1%	0%	0%	0%	1%	1%	1%	0
Note: Three-ho	our cou	nt sumı	nary vo	olumes	include	e heavy	vehicle	es but e	exclude	e bicycl	es in ov	erall co	ount.					
Interval		Hea	vy Veh	nicle To	otals				Bicy	cles				Pe	edestria	ns (Cr	ossing Le	g)
Start	EB	WB	6 N	IB	SB	Total	EB	WE	i N	lВ	SB	Total	Eas	t	West	Nort	h Sou	th Total
11:00 AM	0	2	:	2	1	5	0	0		0	0	0	2		2	1	3	8
11:15 AM	1	0		1	1	3	0	0		0	0	0	0		8	5	2	15
11:30 AM	0	1	4	4	0	5	0	0		0	0	0	3		4	1	3	11
11:45 AM	1	2		1	2	6	0	0		0	0	0	0		5	1	1	7
12:00 PM	0	1	:	2	1	4	0	0		0	0	0	0		3	0	0	3
12:15 PM	2	3	:	3	4	12	0	0		0	0	0	2		3	5	1	11
12:30 PM	0	0		1	2	3	0	0		0	0	0	2		0	8	1	11
12:45 PM	0	1	:	3	3	7	0	0		0	0	0	4		2	0	2	8
1:00 PM	0	1	2	2	1	4	0	0		0	0	0	1		2	1	1	5
1:15 PM	1	1		1	2	5	0	0		0	0	0	1		0	6	2	9
1:30 PM	0	0	;	3	2	5	0	0		0	0	0	2		2	0	0	4
1:45 PM	2	2		1	2	7	0	0		0	0	0	3		4	3	8	18
Count Total	7	14	2	24	21	66	0	0		0	0	0	20		35	31	24	110
Peak Hour	3	4		7	7	21	0	0		0	0	0	7		8	10	11	36

Interval		Madı	rid St			Harde	n Pkwy			N Ma	ain St			N Ma	ain St		45 min	Delling
Start		Eastb	ound			West	bound			North	bound			South	bound		Total	One Hour
otart	UT	LT	TH	RT	Total	oneneu												
11:00 AM	0	0	0	0	0	0	1	1	0	0	2	0	0	1	0	0	5	0
11:15 AM	0	0	1	0	0	0	0	0	0	0	1	0	0	0	1	0	3	0
11:30 AM	0	0	0	0	0	0	0	1	0	0	4	0	0	0	0	0	5	0
11:45 AM	0	1	0	0	0	1	0	1	0	0	0	1	0	0	2	0	6	19
12:00 PM	0	0	0	0	0	0	1	0	0	0	1	1	0	0	0	1	4	18
12:15 PM	0	0	2	0	0	1	1	1	0	0	3	0	0	1	3	0	12	27
12:30 PM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	2	0	3	25
12:45 PM	0	0	0	0	0	1	0	0	0	0	3	0	0	0	3	0	7	26
1:00 PM	0	0	0	0	0	0	1	0	0	0	1	1	0	0	1	0	4	26
1:15 PM	0	0	1	0	0	0	0	1	0	0	1	0	0	0	2	0	5	19
1:30 PM	0	0	0	0	0	0	0	0	0	0	3	0	0	1	0	1	5	21
1:45 PM	0	0	1	1	0	1	0	1	0	0	1	0	0	0	2	0	7	21
Count Total	0	1	5	1	0	4	4	6	0	0	21	3	0	3	16	2	66	0
Peak Hour	0	0	2	1	0	1	1	2	0	0	6	1	0	1	5	1	21	0

# Three-Hour Count Summaries - Bikes

Interval	I	Madrid S	t	Ha	arden Pk	wy		N Main S	it		N Main S	t	15 min	Polling
Start	E	astboun	d	V	Vestboun	d	Ν	lorthbour	nd	S	outhbour	nd	Total	One Hour
<b>U</b> lart	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT	····	••
11:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Count Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Peak Hour	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Note: U-Turn v	olumes fo	or bikes a	re include	d in Left-	Turn, if ai	ıy.								

# Kimley **»Horn**

Appendix B LOS and Queue Outputs

#### Intersection

Int Delay, s/veh

Int Delay, s/veh	1.8							
Movement	EBL	EBT	WBT	WBR	SBL	SBR		
Lane Configurations	<u>الا</u>	•	et 👘		۳	1		
Traffic Vol, veh/h	12	255	145	97	53	20		
Future Vol, veh/h	12	255	145	97	53	20		
Conflicting Peds, #/hr	3	0	0	3	0	1		
Sign Control	Free	Free	Free	Free	Stop	Stop		
RT Channelized	-	None	-	None	-	None		
Storage Length	135	-	-	-	0	0		
Veh in Median Storage	, # -	0	0	-	0	-		
Grade, %	-	0	0	-	0	-		
Peak Hour Factor	84	84	95	95	83	83		
Heavy Vehicles, %	1	6	8	1	6	0		
Mvmt Flow	14	304	153	102	64	24		

Major/Minor	Major1	Ma	ajor2	I	Minor2		
Conflicting Flow All	258	0	-	0	539	208	
Stage 1	-	-	-	-	207	-	
Stage 2	-	-	-	-	332	-	
Critical Hdwy	4.11	-	-	-	6.46	6.2	
Critical Hdwy Stg 1	-	-	-	-	5.46	-	
Critical Hdwy Stg 2	-	-	-	-	5.46	-	
Follow-up Hdwy	2.209	-	-	-	3.554	3.3	
Pot Cap-1 Maneuver	1313	-	-	-	497	837	
Stage 1	-	-	-	-	818	-	
Stage 2	-	-	-	-	718	-	
Platoon blocked, %		-	-	-			
Mov Cap-1 Maneuver	1309	-	-	-	489	834	
Mov Cap-2 Maneuver	-	-	-	-	489	-	
Stage 1	-	-	-	-	807	-	
Stage 2	-	-	-	-	716	-	
Approach	EB		WB		SB		
HCM Control Delay, s	0.3		0		12.4		
HCM LOS					В		

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR SBLn1	SBLn2
Capacity (veh/h)	1309	-	-	- 489	834
HCM Lane V/C Ratio	0.011	-	-	- 0.131	0.029
HCM Control Delay (s)	7.8	-	-	- 13.5	9.4
HCM Lane LOS	А	-	-	- B	А
HCM 95th %tile Q(veh)	0	-	-	- 0.4	0.1

#### Existing Conditions - Tuesday (MD) 2: N Main St & Madrid St /Harden Pkwy

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	5	•	1	5	स	1	5	***	1	5	***	7
Traffic Volume (veh/h)	81	90	138	267	83	167	125	708	204	186	693	40
Future Volume (veh/h)	81	90	138	267	83	167	125	708	204	186	693	40
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adi(A pbT)	1.00		0.96	1.00		0.97	1.00		0.98	1.00		0.97
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1856	1841	1826	1856	1870	1841	1826	1767	1870	1856	1841	1870
Adj Flow Rate, veh/h	94	105	160	184	223	176	137	778	224	202	753	43
Peak Hour Factor	0.86	0.86	0.86	0.95	0.95	0.95	0.91	0.91	0.91	0.92	0.92	0.92
Percent Heavy Veh, %	3	4	5	3	2	4	5	9	2	3	4	2
Cap, veh/h	293	305	247	319	338	272	172	1248	402	243	1495	457
Arrive On Green	0.17	0.17	0.17	0.18	0.18	0.18	0.10	0.26	0.26	0.14	0.30	0.30
Sat Flow, veh/h	1767	1841	1489	1767	1870	1506	1739	4823	1552	1767	5025	1537
Grp Volume(v), veh/h	94	105	160	184	223	176	137	778	224	202	753	43
Grp Sat Flow(s),veh/h/ln	1767	1841	1489	1767	1870	1506	1739	1608	1552	1767	1675	1537
Q Serve(q s), s	4.4	4.8	9.5	9.0	10.5	10.3	7.3	13.5	11.9	10.6	11.7	1.9
Cycle Q Clear(q c), s	4.4	4.8	9.5	9.0	10.5	10.3	7.3	13.5	11.9	10.6	11.7	1.9
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	293	305	247	319	338	272	172	1248	402	243	1495	457
V/C Ratio(X)	0.32	0.34	0.65	0.58	0.66	0.65	0.80	0.62	0.56	0.83	0.50	0.09
Avail Cap(c a), veh/h	466	485	392	466	493	397	513	1779	573	522	1854	567
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	34.9	35.0	37.0	35.5	36.2	36.1	41.8	31.1	30.5	39.8	27.5	24.1
Incr Delay (d2), s/veh	0.6	0.7	2.9	1.6	2.2	2.6	8.2	0.5	1.2	7.2	0.3	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.9	2.2	3.6	4.0	4.9	3.9	3.5	5.2	4.5	5.0	4.7	0.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	35.5	35.7	39.8	37.2	38.4	38.6	50.0	31.6	31.7	47.1	27.8	24.2
LnGrp LOS	D	D	D	D	D	D	D	С	С	D	С	С
Approach Vol, veh/h		359			583			1139			998	
Approach Delay, s/veh		37.5			38.1			33.8			31.5	
Approach LOS		D			D			С			С	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	19.1	30.7		21.8	15.5	34.3		23.2				
Change Period (Y+Rc), s	6.1	6.1		6.1	6.1	6.1		6.1				
Max Green Setting (Gmax), s	28.0	35.0		25.0	28.0	35.0		25.0				
Max Q Clear Time (g c+l1), s	12.6	15.5		11.5	9.3	13.7		12.5				
Green Ext Time (p_c), s	0.5	6.3		1.2	0.3	5.5		2.1				
Intersection Summarv												
HCM 6th Ctrl Delay			34.3									
HCM 6th LOS			C									
Notes			-									

User approved pedestrian interval to be less than phase max green. User approved volume balancing among the lanes for turning movement.

2: N Main St & Madrid St /Harden Pkwy

#### Intersection Int Delay, s/veh 2.1

		MAD T		0.01	
EBL	EBT	WBI	WBR	SBL	SBR
- ሽ	<b>↑</b>	4		- ኘ	1
22	302	307	99	65	21
22	302	307	99	65	21
10	0	0	10	0	3
Free	Free	Free	Free	Stop	Stop
-	None	-	None	-	None
135	-	-	-	0	0
,# -	0	0	-	0	-
-	0	0	-	0	-
78	78	96	96	86	86
0	5	6	0	3	0
28	387	320	103	76	24
	EBL 22 22 10 Free 135 # - 78 0 28	<ul> <li>EBL EBT</li> <li>▲</li> <li>↓</li> <li>↓</li></ul>	EBL         EBT         WBT           ↑         ↑         ↓           22         302         307           22         302         307           22         302         307           10         0         0           Free         Free         Free           135         -         -           #         0         0           78         78         96           0         5         6           28         387         320	EBL         EBT         WBT         WBR           ↑         ↑         ↑         ↓           22         302         307         99           22         302         307         99           22         302         307         99           10         0         0         10           Free         Free         Free         Free           135         -         -           135         -         -           4         0         0         -           78         78         96         96           0         5         6         0           28         387         320         103	EBL         EBT         WBT         WBR         SBL           ↑         ↑         ↑         ↑         ↑           22         302         307         99         65           22         302         307         99         65           10         0         307         99         65           10         0         10         10         0           Free         Free         Free         Free         Stop           135         -         -         None         -           135         -         0         0         0         0           #         0         0         0         0         0         0           #         0         0         0         -         0         0         0           78         78         96         96         86         0         3         3         28         387         320         103         76

Major/Minor	Major1	М	ajor2	ľ	/linor2			
Conflicting Flow All	433	0	-	0	825	385		
Stage 1	-	-	-	-	382	-		
Stage 2	-	-	-	-	443	-		
Critical Hdwy	4.1	-	-	-	6.43	6.2		
Critical Hdwy Stg 1	-	-	-	-	5.43	-		
Critical Hdwy Stg 2	-	-	-	-	5.43	-		
Follow-up Hdwy	2.2	-	-	-	3.527	3.3		
Pot Cap-1 Maneuver	1137	-	-	-	341	667		
Stage 1	-	-	-	-	688	-		
Stage 2	-	-	-	-	645	-		
Platoon blocked, %		-	-	-				
Mov Cap-1 Maneuver	1126	-	-	-	326	659		
Mov Cap-2 Maneuver	· –	-	-	-	326	-		
Stage 1	-	-	-	-	664	-		
Stage 2	-	-	-	-	639	-		
Approach	EB		WB		SB			
HCM Control Delay, s	0.6		0		17.2			
HCM LOS					С			
Minor Long/Major Mu	mt	EDI	EDT				1	

Minor Lane/Major Mvmt	EBL	EBT	WBI	WBR SBLn1	SBLn2	
Capacity (veh/h)	1126	-	-	- 326	659	
HCM Lane V/C Ratio	0.025	-	-	- 0.232	0.037	
HCM Control Delay (s)	8.3	-	-	- 19.3	10.7	
HCM Lane LOS	А	-	-	- C	В	
HCM 95th %tile Q(veh)	0.1	-	-	- 0.9	0.1	

#### Existing Conditions - Tuesday (PM) 2: N Main St & Madrid St /Harden Pkwy

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	5	•	1	5	र्स	1	5	<b>^</b>	1	ሻ	<b>^</b>	1
Traffic Volume (veh/h)	80	132	133	295	134	170	157	741	197	280	824	90
Future Volume (veh/h)	80	132	133	295	134	170	157	741	197	280	824	90
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.97	1.00		0.96	1.00		0.98	1.00		0.96
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1870	1870	1870	1870	1885	1870	1856	1900	1900	1811	1885
Adj Flow Rate, veh/h	82	136	137	226	260	179	178	842	224	301	886	97
Peak Hour Factor	0.97	0.97	0.97	0.95	0.95	0.95	0.88	0.88	0.88	0.93	0.93	0.93
Percent Heavy Veh, %	0	2	2	2	2	1	2	3	0	0	6	1
Cap, veh/h	257	266	218	331	348	286	214	1253	392	339	1555	482
Arrive On Green	0.14	0.14	0.14	0.19	0.19	0.19	0.12	0.25	0.25	0.19	0.31	0.31
Sat Flow, veh/h	1810	1870	1532	1781	1870	1536	1781	5066	1585	1810	4944	1531
Grp Volume(v), veh/h	82	136	137	226	260	179	178	842	224	301	886	97
Grp Sat Flow(s),veh/h/ln	1810	1870	1532	1781	1870	1536	1781	1689	1585	1810	1648	1531
Q Serve(q s), s	4.2	6.9	8.7	12.2	13.5	11.1	10.1	15.5	12.8	16.7	15.4	4.8
Cycle Q Clear(q c), s	4.2	6.9	8.7	12.2	13.5	11.1	10.1	15.5	12.8	16.7	15.4	4.8
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	257	266	218	331	348	286	214	1253	392	339	1555	482
V/C Ratio(X)	0.32	0.51	0.63	0.68	0.75	0.63	0.83	0.67	0.57	0.89	0.57	0.20
Avail Cap(c a), veh/h	439	454	372	432	454	373	484	1721	538	492	1680	520
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	39.7	40.9	41.6	39.1	39.6	38.6	44.3	35.0	34.0	40.8	29.5	25.8
Incr Delay (d2), s/veh	0.7	1.5	3.0	2.9	4.8	2.3	8.0	0.6	1.3	13.0	0.4	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.9	3.3	3.4	5.5	6.6	4.3	4.9	6.3	5.0	8.6	6.1	1.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	40.4	42.4	44.6	42.0	44.5	40.9	52.3	35.6	35.3	53.8	29.9	26.0
LnGrp LOS	D	D	D	D	D	D	D	D	D	D	С	С
Approach Vol, veh/h		355			665			1244			1284	
Approach Delay, s/veh		42.8			42.7			38.0			35.2	
Approach LOS		D			D			D			D	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	25.4	31.6		20.7	18.5	38.5		25.3				
Change Period (Y+Rc), s	6.1	6.1		6.1	6.1	6.1		6.1				
Max Green Setting (Gmax), s	28.0	35.0		25.0	28.0	35.0		25.0				
Max Q Clear Time (g c+l1), s	18.7	17.5		10.7	12.1	17.4		15.5				
Green Ext Time (p_c), s	0.6	6.4		1.2	0.4	6.3		2.1				
Intersection Summary												
HCM 6th Ctrl Delay			38.3									
HCM 6th LOS			D									
Notes												

User approved pedestrian interval to be less than phase max green. User approved volume balancing among the lanes for turning movement.

2: N Main St & Madrid St /Harden Pkwy

Intersection						
Int Delay, s/veh	2.3					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations	۲.	•	el 👘		۳	1
Traffic Vol, veh/h	9	334	260	117	93	24
Future Vol, veh/h	9	334	260	117	93	24
Conflicting Peds, #/hr	1	0	0	1	2	1
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	135	-	-	-	0	0
Veh in Median Storage,	# -	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	91	91	94	94
Heavy Vehicles, %	0	1	2	0	2	0
Mvmt Flow	10	363	286	129	99	26

Major/Minor	Major1	Ν	/lajor2		Minor2							
Conflicting Flow All	416	0	-	0	737	353				 		
Stage 1	-	-	-	-	352	-						
Stage 2	-	-	-	-	385	-						
Critical Hdwy	4.1	-	-	-	6.42	6.2						
Critical Hdwy Stg 1	-	-	-	-	5.42	-						
Critical Hdwy Stg 2	-	-	-	-	5.42	-						
Follow-up Hdwy	2.2	-	-	-	3.518	3.3						
Pot Cap-1 Maneuver	1154	-	-	-	386	695						
Stage 1	-	-	-	-	712	-						
Stage 2	-	-	-	-	688	-						
Platoon blocked, %		-	-	-								
Mov Cap-1 Maneuver	1153	-	-	-	382	694						
Mov Cap-2 Maneuver	-	-	-	-	382	-						
Stage 1	-	-	-	-	705	-						
Stage 2	-	-	-	-	687	-						
Approach	EB		WB		SB				l			
HCM Control Delay	0.2		0		16.2							
HCM LOS	0.2		0		C.							
					0							
Minor Lane/Major Mvr	nt	EBL	EBT	WBT	WBR S	SBLn1 S	BLn2					
Canacity (veh/h)		1153	_	_	_	382	694					

Capacity (veh/h)	1153	-	-	- 382	694	
HCM Lane V/C Ratio	0.008	-	-	- 0.259	0.037	
HCM Control Delay (s)	8.1	-	-	- 17.7	10.4	
HCM Lane LOS	А	-	-	- C	В	
HCM 95th %tile Q(veh)	0	-	-	- 1	0.1	

#### Existing Conditions - Saturday (MD) 2: N Main St & Madrid St /Harden Pkwy

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	5	•	1	5	<del>ب</del> ا	1	5	***	1	5	***	1
Traffic Volume (veh/h)	106	143	172	313	100	202	187	900	201	247	853	92
Future Volume (veh/h)	106	143	172	313	100	202	187	900	201	247	853	92
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A pbT)	1.00		0.98	1.00		0.98	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adi Sat Flow, veh/h/ln	1900	1870	1885	1885	1885	1870	1900	1811	1885	1885	1826	1885
Adi Flow Rate, veh/h	114	154	185	217	262	213	201	968	216	266	917	99
Peak Hour Factor	0.93	0.93	0.93	0.95	0.95	0.95	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh. %	0	2	1	1	1	2	0	6	1	1	5	1
Cap. veh/h	287	297	248	324	341	281	238	1296	415	303	1492	472
Arrive On Green	0.16	0.16	0.16	0.18	0.18	0.18	0.13	0.26	0.26	0.17	0.30	0.30
Sat Flow, veh/h	1810	1870	1564	1795	1885	1556	1810	4944	1583	1795	4985	1576
Grp Volume(v) veh/h	114	154	185	217	262	213	201	968	216	266	917	99
Grp Sat Flow(s) veh/h/ln	1810	1870	1564	1795	1885	1556	1810	1648	1583	1795	1662	1576
Q Serve( $q$ , $s$ ), $s$	6.0	8.0	12.0	12.0	14.0	13.8	11.5	19.1	12.4	15.4	16.8	5.0
Cycle Q Clear(q, c) s	6.0	8.0	12.0	12.0	14.0	13.8	11.5	19.1	12.4	15.4	16.8	5.0
Prop In Lane	1 00	0.0	1 00	1 00	11.0	1 00	1 00		1.00	1 00	10.0	1 00
Lane Grp Cap(c) veh/h	287	297	248	324	341	281	238	1296	415	303	1492	472
V/C Ratio(X)	0.40	0.52	0.74	0.67	0 77	0.76	0.85	0.75	0.52	0.88	0.61	0.21
Avail Cap(c, a), veh/h	426	440	368	423	444	366	477	1629	522	473	1642	519
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	40.1	41.0	42.6	40.6	41.4	41.3	45.1	36.0	33.5	43.1	31.9	27.8
Incr Delay (d2), s/veh	0.9	1.4	4.5	2.6	6.0	6.5	8.0	1.5	1.0	11.1	0.6	0.2
Initial Q Delav(d3).s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%).veh/ln	2.7	3.8	4.9	5.5	7.0	5.8	5.7	7.8	4.8	7.7	6.7	1.9
Unsig. Movement Delay, s/veh												
LnGrp Delav(d).s/veh	41.0	42.4	47.1	43.2	47.4	47.8	53.1	37.4	34.5	54.2	32.5	28.0
LnGrp LOS	D	D	D	D	D	D	D	D	C	D	C	C
Approach Vol. veh/h		453			692			1385			1282	
Approach Delay s/yeh		43.9			46.2			39.3			36.7	
Approach LOS		10.0 D			D			00.0 D			D	
Timor Assigned Des	1	- 0		Λ	5	6		0			_	
Timer - Assigned Fils	04.0	2		4	00.4	0		0				
Physical Duration (G+Y+Rc), s	24.0	33.9		23.0	20.1	37.9		25.3				
Change Period (Y+Rc), s	0.1	0.1		0.1	0.1	0.1		0.1				
Max Green Setting (Gmax), s	28.0	35.0		25.0	28.0	35.0		25.0				
Max Q Clear Time (g_c+I1), s	17.4	21.1		14.0	13.5	18.8		16.0				
Green Ext Time (p_c), s	0.6	6.4		1.4	0.5	6.3		2.1				
Intersection Summary												
HCM 6th Ctrl Delay			40.2									
HCM 6th LOS			D									
Notes												

User approved pedestrian interval to be less than phase max green. User approved volume balancing among the lanes for turning movement.

2: N Main St & Madrid St /Harden Pkwy

Intersection						
Int Delay, s/veh	3.5					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations	۲.	•	et 👘		۳	1
Traffic Vol, veh/h	20	251	113	164	116	28
Future Vol, veh/h	20	251	113	164	116	28
Conflicting Peds, #/hr	3	0	0	3	0	1
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	135	-	-	-	0	0
Veh in Median Storage,	# -	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	84	84	95	95	83	83
Heavy Vehicles, %	1	6	8	1	6	0
Mvmt Flow	24	299	119	173	140	34

Major/Minor	Major1	Ν	lajor2		Minor2				
Conflicting Flow All	295	0	-	0	556	210			
Stage 1	-	-	-	-	209	-			
Stage 2	-	-	-	-	347	-			
Critical Hdwy	4.11	-	-	-	6.46	6.2			
Critical Hdwy Stg 1	-	-	-	-	5.46	-			
Critical Hdwy Stg 2	-	-	-	-	5.46	-			
Follow-up Hdwy	2.209	-	-	-	3.554	3.3			
Pot Cap-1 Maneuver	1272	-	-	-	485	835			
Stage 1	-	-	-	-	816	-			
Stage 2	-	-	-	-	707	-			
Platoon blocked, %		-	-	-					
Mov Cap-1 Maneuver	1268	-	-	-	473	832			
Mov Cap-2 Maneuver	-	-	-	-	473	-			
Stage 1	-	-	-	-	798	-			
Stage 2	-	-	-	-	705	-			
Approach	ED				CD				
Approach	ED		VVD		SB 110				
HCM Control Delay, s	0.6		0		14.6				
HCM LOS					В				
Minor Lane/Maior Myr	nt	FBI	FBT	WBT	WBR S	SBI n1 SBI n2			

Capacity (veh/h)	1268	-	-	- 473	832							
HCM Lane V/C Ratio	0.019	-	-	- 0.295	0.041							
HCM Control Delay (s)	7.9	-	-	- 15.8	9.5							
HCM Lane LOS	А	-	-	- C	А							
HCM 95th %tile Q(veh)	0.1	-	-	- 1.2	0.1							
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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	٦	•	1	۲	र्स	1	٦	<b>^</b>	1	۲.	<b>^</b>	1
Traffic Volume (veh/h)	106	102	165	263	97	164	154	697	201	184	683	65
Future Volume (veh/h)	106	102	165	263	97	164	154	697	201	184	683	65
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.97	1.00		0.96	1.00		0.98	1.00		0.97
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1856	1841	1826	1856	1870	1841	1826	1767	1870	1856	1841	1870
Adj Flow Rate, veh/h	123	119	192	190	224	173	169	766	221	200	742	71
Peak Hour Factor	0.86	0.86	0.86	0.95	0.95	0.95	0.91	0.91	0.91	0.92	0.92	0.92
Percent Heavy Veh, %	3	4	5	3	2	4	5	9	2	3	4	2
Cap, veh/h	319	333	270	317	335	270	206	1222	393	240	1361	415
Arrive On Green	0.18	0.18	0.18	0.18	0.18	0.18	0.12	0.25	0.25	0.14	0.27	0.27
Sat Flow, veh/h	1767	1841	1493	1767	1870	1505	1739	4823	1551	1767	5025	1532
Grp Volume(v), veh/h	123	119	192	190	224	173	169	766	221	200	742	71
Grp Sat Flow(s),veh/h/ln	1767	1841	1493	1767	1870	1505	1739	1608	1551	1767	1675	1532
Q Serve(g s), s	6.0	5.5	11.8	9.6	10.9	10.4	9.2	13.7	12.1	10.7	12.3	3.4
Cycle Q Clear(g c), s	6.0	5.5	11.8	9.6	10.9	10.4	9.2	13.7	12.1	10.7	12.3	3.4
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	319	333	270	317	335	270	206	1222	393	240	1361	415
V/C Ratio(X)	0.39	0.36	0.71	0.60	0.67	0.64	0.82	0.63	0.56	0.83	0.55	0.17
Avail Cap(c_a), veh/h	454	473	384	454	481	387	501	1735	558	509	1808	551
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	35.1	34.9	37.5	36.7	37.2	37.0	41.9	32.2	31.6	41.0	30.3	27.1
Incr Delay (d2), s/veh	0.8	0.6	3.5	1.8	2.3	2.5	7.9	0.5	1.3	7.4	0.3	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.6	2.5	4.5	4.3	5.1	4.0	4.4	5.3	4.6	5.1	4.9	1.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	35.8	35.5	40.9	38.5	39.5	39.5	49.8	32.8	32.9	48.4	30.7	27.3
LnGrp LOS	D	D	D	D	D	D	D	С	С	D	С	С
Approach Vol, veh/h		434			587			1156			1013	
Approach Delay, s/veh		38.0			39.2			35.3			33.9	
Approach LOS		D			D			D			С	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	19.3	30.7		23.7	17.6	32.4		23.5				
Change Period (Y+Rc), s	6.1	6.1		6.1	6.1	6.1		6.1				
Max Green Setting (Gmax), s	28.0	35.0		25.0	28.0	35.0		25.0				
Max Q Clear Time (g c+l1), s	12.7	15.7		13.8	11.2	14.3		12.9				
Green Ext Time (p_c), s	0.5	6.1		1.3	0.4	5.5		2.0				
Intersection Summarv												
HCM 6th Ctrl Delav			35.9									
HCM 6th LOS			D									
Notes												

User approved pedestrian interval to be less than phase max green. User approved volume balancing among the lanes for turning movement.

2: N Main St & Madrid St /Harden Pkwy

Intersection						
Int Delay, s/veh	3.5					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations	۲.	•	ef 👘		1	1
Traffic Vol, veh/h	28	299	285	143	107	25
Future Vol, veh/h	28	299	285	143	107	25
Conflicting Peds, #/hr	10	0	0	10	0	3
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	135	-	-	-	0	0
Veh in Median Storage	e, <b>#</b> -	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	78	78	96	96	86	86
Heavy Vehicles, %	0	5	6	0	3	0
Mymt Flow	36	383	297	149	124	29

Major/Minor	Major1	Ν	lajor2	ľ	Minor2			
Conflicting Flow All	456	0	-	0	837	385		
Stage 1	-	-	-	-	382	-		
Stage 2	-	-	-	-	455	-		
Critical Hdwy	4.1	-	-	-	6.43	6.2		
Critical Hdwy Stg 1	-	-	-	-	5.43	-		
Critical Hdwy Stg 2	-	-	-	-	5.43	-		
Follow-up Hdwy	2.2	-	-	-	3.527	3.3		
Pot Cap-1 Maneuver	1115	-	-	-	335	667		
Stage 1	-	-	-	-	688	-		
Stage 2	-	-	-	-	637	-		
Platoon blocked, %		-	-	-				
Mov Cap-1 Maneuver	1104	-	-	-	318	659		
Mov Cap-2 Maneuver	-	-	-	-	318	-		
Stage 1	-	-	-	-	658	-		
Stage 2	-	-	-	-	631	-		
Approach	EB		WB		SB			
HCM Control Delay, s	0.7		0		21			
HCM LOS					С			
		501		LA /D T			0	

Minor Lane/Major Mvmt	EBL	EBT	WBI	WBR SBLn1	SBLn2	
Capacity (veh/h)	1104	-	-	- 318	659	
HCM Lane V/C Ratio	0.033	-	-	- 0.391	0.044	
HCM Control Delay (s)	8.4	-	-	- 23.4	10.7	
HCM Lane LOS	А	-	-	- C	В	
HCM 95th %tile Q(veh)	0.1	-	-	- 1.8	0.1	

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	5	•	1	5	र्स	1	5	<b>^</b>	1	5	<b>^</b>	1
Traffic Volume (veh/h)	96	140	151	292	144	168	173	734	195	278	817	108
Future Volume (veh/h)	96	140	151	292	144	168	173	734	195	278	817	108
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.97	1.00		0.96	1.00		0.98	1.00		0.96
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1870	1870	1870	1870	1885	1870	1856	1900	1900	1811	1885
Adj Flow Rate, veh/h	99	144	156	230	260	177	197	834	222	299	878	116
Peak Hour Factor	0.97	0.97	0.97	0.95	0.95	0.95	0.88	0.88	0.88	0.93	0.93	0.93
Percent Heavy Veh, %	0	2	2	2	2	1	2	3	0	0	6	1
Cap, veh/h	274	283	232	329	346	284	234	1237	387	337	1479	458
Arrive On Green	0.15	0.15	0.15	0.18	0.18	0.18	0.13	0.24	0.24	0.19	0.30	0.30
Sat Flow, veh/h	1810	1870	1535	1781	1870	1536	1781	5066	1584	1810	4944	1530
Grp Volume(v), veh/h	99	144	156	230	260	177	197	834	222	299	878	116
Grp Sat Flow(s).veh/h/ln	1810	1870	1535	1781	1870	1536	1781	1689	1584	1810	1648	1530
Q Serve(q_s), s	5.1	7.4	10.0	12.6	13.8	11.1	11.3	15.6	12.9	16.8	15.8	6.0
Cycle Q Clear(g_c), s	5.1	7.4	10.0	12.6	13.8	11.1	11.3	15.6	12.9	16.8	15.8	6.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	274	283	232	329	346	284	234	1237	387	337	1479	458
V/C Ratio(X)	0.36	0.51	0.67	0.70	0.75	0.62	0.84	0.67	0.57	0.89	0.59	0.25
Avail Cap(c a), veh/h	433	447	367	426	447	367	477	1696	530	485	1655	512
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	39.8	40.8	41.9	39.9	40.3	39.3	44.4	35.8	34.7	41.5	31.2	27.8
Incr Delay (d2), s/veh	0.8	1.4	3.3	3.4	5.2	2.2	8.1	0.6	1.3	13.4	0.5	0.3
Initial Q Delav(d3).s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%).veh/ln	2.3	3.5	4.0	5.8	6.8	4.3	5.5	6.4	5.1	8.7	6.3	2.2
Unsig. Movement Delay, s/veh												
LnGrp Delav(d).s/veh	40.6	42.2	45.2	43.3	45.5	41.5	52.4	36.4	36.1	54.9	31.7	28.1
LnGrp LOS	D	D	D	D	D	D	D	D	D	D	С	С
Approach Vol. veh/h		399			667			1253			1293	
Approach Delay s/yeh		43.0			43 7			38.9			36.7	
Approach LOS		10.0 D			10.1 D			00.0 D			D	
Timer Assigned Des	1	0		٨	5	6		0				
Timer - Assigned Fils		2		4	10.0	0		0				
Physical Duration (G+Y+Rc), s	25.0	31.0		21.9	19.8	37.4		25.4				
Change Period (Y+Rc), s	0.1	0.1		0.1	0.1	0.1		0.1				
Max Green Setting (Gmax), s	28.0	35.0		25.0	28.0	35.0		25.0				
Max Q Clear Time (g_c+I1), s	18.8	17.6		12.0	13.3	17.8		15.8				
Green Ext Time (p_c), s	0.6	6.3		1.3	0.5	6.2		2.1				
Intersection Summary			20.4									
HUM 6th Utri Delay			39.4									
HUM 6th LUS			D									
Notes												

User approved pedestrian interval to be less than phase max green. User approved volume balancing among the lanes for turning movement.

2: N Main St & Madrid St /Harden Pkwy

Intersection						
Int Delay, s/veh	4.3					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations	ľ	•	ef 👘		ľ	1
Traffic Vol, veh/h	19	329	224	189	161	34
Future Vol, veh/h	19	329	224	189	161	34
Conflicting Peds, #/hr	1	0	0	1	2	1
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	135	-	-	-	0	0
Veh in Median Storage,	,# -	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	91	91	94	94
Heavy Vehicles, %	0	1	2	0	2	0
Mvmt Flow	21	358	246	208	171	36

Major/Minor	Major1	Ma	ajor2		Minor2		 
Conflicting Flow All	455	0	-	0	753	352	
Stage 1	-	-	-	-	351	-	
Stage 2	-	-	-	-	402	-	
Critical Hdwy	4.1	-	-	-	6.42	6.2	
Critical Hdwy Stg 1	-	-	-	-	5.42	-	
Critical Hdwy Stg 2	-	-	-	-	5.42	-	
Follow-up Hdwy	2.2	-	-	-	3.518	3.3	
Pot Cap-1 Maneuver	1116	-	-	-	377	696	
Stage 1	-	-	-	-	713	-	
Stage 2	-	-	-	-	676	-	
Platoon blocked, %		-	-	-			
Mov Cap-1 Maneuver	1115	-	-	-	369	695	
Mov Cap-2 Maneuver	-	-	-	-	369	-	
Stage 1	-	-	-	-	699	-	
Stage 2	-	-	-	-	675	-	
Approach	EB		WB		SB		
HCM Control Delay, s	0.5		0		20.7		
HCM LOS			-		С		

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR SBLn1	SBLn2	
Capacity (veh/h)	1115	-	-	- 369	695	
HCM Lane V/C Ratio	0.019	-	-	- 0.464	0.052	
HCM Control Delay (s)	8.3	-	-	- 22.9	10.5	
HCM Lane LOS	А	-	-	- C	В	
HCM 95th %tile Q(veh)	0.1	-	-	- 2.4	0.2	

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	ሻ	•	1	5	ર્સ	1	5	***	1	5	***	1
Traffic Volume (veh/h)	134	156	201	309	114	199	217	888	198	244	842	120
Future Volume (veh/h)	134	156	201	309	114	199	217	888	198	244	842	120
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adi(A pbT)	1.00	-	0.98	1.00	-	0.98	1.00	-	0.99	1.00	-	0.99
Parking Bus, Adi	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adi Sat Flow, veh/h/ln	1900	1870	1885	1885	1885	1870	1900	1811	1885	1885	1826	1885
Adi Flow Rate, veh/h	144	168	216	222	263	209	233	955	213	262	905	129
Peak Hour Factor	0.93	0.93	0.93	0.95	0.95	0.95	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh. %	0	2	1	1	1	2	0	6	1	1	5	1
Cap, veh/h	315	326	273	322	338	279	269	1268	406	298	1364	431
Arrive On Green	0.17	0 17	0.17	0.18	0.18	0.18	0.15	0.26	0.26	0 17	0.27	0.27
Sat Flow, veh/h	1810	1870	1567	1795	1885	1556	1810	4944	1583	1795	4985	1574
Grn Volume(v) veh/h	1//	168	216	222	263	200	233	055	213	262	005	120
Grp Sat Elow(s) yeh/h/lp	1810	1870	1567	1705	1885	1556	1810	16/8	1583	1705	1662	1574
	7.8	80	1/ /	12.6	14.5	13.0	13.7	1040	12.6	15.5	17.6	7 1
$Q$ Serve( $Q_{s}$ ), s	7.0	0.9	14.4	12.0	14.5	13.9	13.7	19.4	12.0	15.5	17.0	7.1
Drep In Long	1.0	0.9	14.4	1 00	14.5	1.00	1.00	19.4	12.0	10.0	17.0	1.0
Flop III Laile	215	206	1.00	200	220	270	1.00	1060	1.00	200	1264	1.00
	0.46	0.520	0.70	0.60	0.70	0.75	209	0.75	400	290	0.66	431
$V/C$ Rall $O(\Lambda)$	0.40	420	0.79	0.09	0.70	0.75	0.07	1500	0.5Z	0.00	1601	0.30
Avail Cap(c_a), ven/n	415	429	1 00	412	400	1.00	400	1000	00C	401	1001	1.00
HCIVI Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	24.0	1.00	1.00	21.2
Uniform Delay (d), s/ven	40.4	40.0	43.1	41.9	42.0	42.4	45.3	37.3	J4.0	44.4	35.1	31.3
Incr Delay (d2), s/ven	1.0	1.3	0.0	3.4	0.7	0.4	0.2	1.0	1.1	11.7	0.0	0.4
Initial Q Delay(03),s/ven	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%Ile BackOfQ(50%),ven/In	3.5	4.2	0.Z	5.9	1.3	5.8	0.7	7.9	4.9	7.8	7.1	2.1
Unsig. Movement Delay, s/ven		40.4	<b>F</b> 4 <b>7</b>	45.0	40.0	40.7	<b>F0 F</b>	20.0	25.0	FC 4	25.0	04 7
LnGrp Delay(d),s/ven	41.4	42.1	51.7	45.2	49.3	48.7	53.5	38.9	35.8	56.1	35.9	31.7
LnGrp LOS	D	D	D	D	<u>D</u>	D	D	<u>D</u>	D	<u> </u>	<u>D</u>	<u> </u>
Approach Vol, veh/h		528			694			1401			1296	
Approach Delay, s/veh		45.8			47.8			40.9			39.6	
Approach LOS		D			D			D			D	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	24.2	34.1		25.1	22.3	35.9		25.6				
Change Period (Y+Rc), s	6.1	6.1		6.1	6.1	6.1		6.1				
Max Green Setting (Gmax), s	28.0	35.0		25.0	28.0	35.0		25.0				
Max Q Clear Time (g_c+I1), s	17.5	21.4		16.4	15.7	19.6		16.5				
Green Ext Time (p_c), s	0.6	6.3		1.5	0.5	6.1		2.0				
Intersection Summary												
HCM 6th Ctrl Delay			42.3									
HCM 6th LOS			D									
Notes												

User approved pedestrian interval to be less than phase max green. User approved volume balancing among the lanes for turning movement.

2: N Main St & Madrid St /Harden Pkwy

# Existing Conditions - Tuesday (MD) 2: N Main St & Madrid St /Harden Pkwy

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Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	94	105	160	183	185	176	137	778	224	202	753	43
v/c Ratio	0.45	0.48	0.50	0.63	0.61	0.43	0.56	0.63	0.42	0.65	0.51	0.08
Control Delay	52.1	52.5	13.2	50.5	49.7	9.9	52.3	35.6	10.6	50.4	30.7	0.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	52.1	52.5	13.2	50.5	49.7	9.9	52.3	35.6	10.6	50.4	30.7	0.3
Queue Length 50th (ft)	55	61	0	110	111	0	80	153	17	117	138	0
Queue Length 95th (ft)	122	134	55	232	233	63	174	256	92	237	230	0
Internal Link Dist (ft)		859			750			3293			241	
Turn Bay Length (ft)	225		130	265			245		145	265		145
Base Capacity (vph)	473	493	525	449	463	533	520	1799	693	530	1931	664
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.20	0.21	0.30	0.41	0.40	0.33	0.26	0.43	0.32	0.38	0.39	0.06
Intersection Summary												

### Existing Conditions - Tuesday (PM) 2: N Main St & Madrid St /Harden Pkwy

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Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	82	136	137	224	228	179	178	842	224	301	886	97
v/c Ratio	0.36	0.58	0.44	0.73	0.72	0.42	0.66	0.66	0.42	0.79	0.58	0.18
Control Delay	53.1	59.3	12.8	60.4	59.2	9.7	59.2	41.2	12.9	59.9	35.5	4.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	53.1	59.3	12.8	60.4	59.2	9.7	59.2	41.2	12.9	59.9	35.5	4.1
Queue Length 50th (ft)	57	98	0	166	168	0	128	208	29	211	199	0
Queue Length 95th (ft)	115	177	59	#296	295	64	214	279	100	#387	296	27
Internal Link Dist (ft)		859			750			3293			241	
Turn Bay Length (ft)	225		130	265			245		145	265		145
Base Capacity (vph)	420	433	463	391	404	498	461	1641	632	470	1687	598
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.20	0.31	0.30	0.57	0.56	0.36	0.39	0.51	0.35	0.64	0.53	0.16

Intersection Summary

# 95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

# Existing Conditions - Saturday (MD) 2: N Main St & Madrid St /Harden Pkwy

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Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	114	154	185	214	220	213	201	968	216	266	917	99
v/c Ratio	0.46	0.60	0.50	0.72	0.72	0.48	0.69	0.73	0.41	0.77	0.61	0.18
Control Delay	54.8	59.5	11.7	61.4	61.2	9.9	60.2	43.0	16.1	61.7	37.8	4.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	54.8	59.5	11.7	61.4	61.2	9.9	60.2	43.0	16.1	61.7	37.8	4.6
Queue Length 50th (ft)	84	116	0	165	170	0	151	244	41	198	215	0
Queue Length 95th (ft)	151	197	67	285	291	70	247	347	125	325	323	30
Internal Link Dist (ft)		859			750			3293			241	
Turn Bay Length (ft)	225		130	265			245		145	265		145
Base Capacity (vph)	411	424	499	387	397	517	461	1563	598	456	1662	595
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.28	0.36	0.37	0.55	0.55	0.41	0.44	0.62	0.36	0.58	0.55	0.17
Intersection Summary												

### Existing+Project+PassBy - Tuesday (MD) 2: N Main St & Madrid St /Harden Pkwy

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Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	123	119	192	188	191	173	169	766	221	200	742	71
v/c Ratio	0.52	0.48	0.52	0.64	0.63	0.43	0.61	0.63	0.42	0.65	0.55	0.14
Control Delay	52.8	51.2	12.1	52.4	51.5	10.1	52.9	37.2	10.8	51.9	34.3	1.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	52.8	51.2	12.1	52.4	51.5	10.1	52.9	37.2	10.8	51.9	34.3	1.2
Queue Length 50th (ft)	72	70	0	113	115	0	99	154	16	117	143	0
Queue Length 95th (ft)	154	148	58	247	248	64	211	262	91	241	244	5
Internal Link Dist (ft)		433			750			3293			399	
Turn Bay Length (ft)	225		130	265			245		145	265		145
Base Capacity (vph)	464	484	542	441	456	524	510	1766	684	520	1869	646
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.27	0.25	0.35	0.43	0.42	0.33	0.33	0.43	0.32	0.38	0.40	0.11
Intersection Summary												

### Existing+Project+PassBy - Tuesday (PM) 2: N Main St & Madrid St /Harden Pkwy

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Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	99	144	156	227	232	177	197	834	222	299	878	116
v/c Ratio	0.42	0.59	0.46	0.73	0.72	0.41	0.68	0.67	0.42	0.80	0.61	0.22
Control Delay	54.0	59.2	12.3	60.7	59.6	9.7	59.4	41.9	12.8	60.8	37.6	6.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	54.0	59.2	12.3	60.7	59.6	9.7	59.4	41.9	12.8	60.8	37.6	6.9
Queue Length 50th (ft)	71	106	0	169	173	0	144	210	29	215	206	0
Queue Length 95th (ft)	135	185	62	#312	#306	64	233	278	98	#386	301	44
Internal Link Dist (ft)		433			750			3293			399	
Turn Bay Length (ft)	225		130	265			245		145	265		145
Base Capacity (vph)	418	431	476	389	403	495	459	1632	630	468	1643	585
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.24	0.33	0.33	0.58	0.58	0.36	0.43	0.51	0.35	0.64	0.53	0.20

#### Intersection Summary

# 95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

### Existing+Project+PassBy - Saturday (MD) 2: N Main St & Madrid St /Harden Pkwy

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Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	144	168	216	221	224	209	233	955	213	262	905	129
v/c Ratio	0.55	0.62	0.52	0.74	0.73	0.47	0.74	0.73	0.41	0.77	0.65	0.25
Control Delay	56.7	59.2	11.1	63.1	62.0	9.9	61.7	44.0	16.2	62.7	40.8	9.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	56.7	59.2	11.1	63.1	62.0	9.9	61.7	44.0	16.2	62.7	40.8	9.2
Queue Length 50th (ft)	108	128	0	173	175	0	178	249	41	199	227	5
Queue Length 95th (ft)	186	212	72	#298	298	71	286	345	123	322	323	58
Internal Link Dist (ft)		433			750			3293			399	
Turn Bay Length (ft)	225		130	265			245		145	265		145
Base Capacity (vph)	407	420	519	383	393	511	455	1544	593	451	1590	574
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.35	0.40	0.42	0.58	0.57	0.41	0.51	0.62	0.36	0.58	0.57	0.22

#### Intersection Summary

# 95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

# Kimley **»Horn**

Appendix C Sample Sites' Drive-Thru Queue Data (Post-COVID)

	SUMMARY OF DRIVE-THROUGH QUEUEING DATA COLLECTION										
RAISING CANE'S - TYPICAL WEEKDAY (POST COVID)											
AVERAGE, 851H PERCENTILE, AND PEAK QUEUES											
Number of Drive through Vehicles in the Queue											
			Nu	mber of Drive	-through Vehi	cles in the Qu	eue				
Time Period		Average Queu	e	85	5th %-ile' Que	ue		Peak Queue	1		
	Vacaville	Elk Grove	Manteca	Vacaville	Elk Grove	Manteca	Vacaville	Elk Grove	Manteca		
Lunch											
11:00-11:15 AM	5.7	2.8	1.4	7	4.0	3.0	10	6	3		
11:15-11:30 AM	4.3	1.9	3.5	7.0	4.0	6.0	7	5	7		
11:30-11:45 AM	6.9	2.7	1.9	9.0	4.0	2.9	10	5	4		
11:45-12:00 PM	7.9	2.6	4.3	9.0	3.9	8.0	10	5	11		
12:00-12:15 PM	9.1	10.1	11.8	10.0	13.0	12.9	10	14	14		
12:15-12:30 PM	9.8	6.3	5.9	11.0	10.0	9.0	13	13	10		
12:30-12:45 PM	14.5	4.4	12.1	15.0	6.0	15.9	17	8	16		
12:45-1:00 PM	8.2	5.3	10.9	10.0	6.0	12.0	12	8	13		
1:00-1:15 PM	6.5	5.2	5.3	9.9	7.9	8.0	11	8	8		
1:15-1:30 PM	7.2	5.0	5.1	9.0	6.0	7.0	11	7	8		
1:30-1:45 PM	6.9	7.2	4.2	9.9	8.0	8.0	11	9	9		
1:45-2:00 PM	4.5	11.0	3.1	5.9	12.0	3.9	7	13	6		
Highest Value	14.5	11.0	12.1	15.0	13.0	15.9	17	14	16		
Dinner											
4:00-4:15 PM	4.5	12.7	3.7	7.9	13.9	5.0	8	14	6		
4:15-4:30 PM	7.3	12.1	4.7	8.0	13.9	5.9	10	15	9		
4:30-4:45 PM	8.5	15.4	8.3	11.0	16.9	9.0	12	18	10		
4:45-5:00 PM	7.8	14.3	5.1	10.0	16.9	7.0	10	18	9		
5:00-5:15 PM	5.9	9.9	8.3	7.0	12.9	11.0	8	13	13		
5:15-5:30 PM	5.5	5.7	10.6	8.9	7.9	12.0	9	8	14		
5:30-5:45 PM	4.1	4.5	3.6	5.9	6.0	7.0	7	8	8		
5:45-1:00 PM	7.6	4.2	3.9	9.9	6.0	6.9	10	6	9		
6:00-6:15 PM	11.9	5.5	6.3	15.0	7.0	8.9	16	7	9		
6:15-6:30 PM	12.1	10.7	12.7	13.9	15.0	15.0	17	16	17		
6:30-6:45 PM	13.3	12.5	11.3	15.0	13.0	13.0	16	14	14		
6:45-7:00 PM	6.9	14.7	11.6	8.0	16.0	13.9	9	17	15		
Highest Value	13.3	15.4	12.7	15.0	16.9	15.0	17	18	17		
Notes: <sup>1</sup> 85th percentile =	lotes: <sup>1</sup> 85th percentile = The queue will be less than the queue shown 85% of the time.										

SUMMARY OF DRIVE-THROUGH QUEUEING DATA COLLECTION											
RAISING CANE'S - SATURDAY (POST COVID)											
AVERAGE, 85TH PERCENTILE, AND PEAK QUEUES											
	Number of Drive-through Vehicles in the Queue										
Time Period		Average Queu	е	85	5th %-ile <sup>1</sup> Que	ue		Peak Queue			
	Vacaville	Elk Grove	Manteca	Vacaville	Elk Grove	Manteca	Vacaville	Elk Grove	Manteca		
Lunch											
11:00-11:15 AM	3.1	2.1	4.3	0	4.8	6.0	4	5	7		
11:15-11:30 AM	4.9	3.3	3.0	7.0	4.0	4.0	8	4	5		
11:30-11:45 AM	7.1	6.9	3.1	9.0	8.0	5.0	10	9	8		
11:45-12:00 PM	10.0	1.9	4.9	11.0	2.9	6.0	12	4	7		
12:00-12:15 PM	7.0	1.9	5.8	9.9	2.9	7.9	11	4	9		
12:15-12:30 PM	3.4	2.1	7.7	4.9	3.0	9.0	6	4	10		
12:30-12:45 PM	4.0	1.4	11.7	6.0	2.0	13.9	7	3	16		
12:45-1:00 PM	9.1	3.1	11.1	11.9	5.0	13.0	15	5	14		
1:00-1:15 PM	12.3	3.5	13.3	14.9	4.9	17.0	16	5	19		
1:15-1:30 PM	15.5	5.0	13.9	20.6	7.0	17.0	22	11	18		
1:30-1:45 PM	15.5	5.3	17.7	17.0	7.9	19.0	19	9	20		
1:45-2:00 PM	11.4	7.4	17.7	13.9	9.0	19.9	15	10	21		
Highest Value	15.5	7.4	17.7	20.6	9.0	19.9	22	11	21		
Dinner											
4:00-4:15 PM	14.6	16.5	16.8	15.0	17.9	17.0	16	18	18		
4:15-4:30 PM	11.5	13.2	12.3	12.9	15.0	14.0	14	16	15		
4:30-4:45 PM	14.0	8.6	12.2	15.0	10.9	13.9	16	12	14		
4:45-5:00 PM	10.0	6.9	11.6	13.9	7.9	14.0	14	8	15		
5:00-5:15 PM	5.0	2.5	11.3	6.0	3.9	15.9	9	5	17		
5:15-5:30 PM	11.5	1.1	16.1	13.9	2.0	17.0	16	2	18		
5:30-5:45 PM	15.9	1.7	13.1	17.0	3.9	20.0	17	4	22		
5:45-1:00 PM	14.9	2.9	4.8	16.0	4.8	6.0	16	5	7		
6:00-6:15 PM	14.0	2.7	8.8	15.9	4.9	12.0	18	6	12		
6:15-6:30 PM	12.1	5.6	12.7	14.0	7.0	13.9	15	8	15		
6:30-6:45 PM	18.1	4.2	13.9	19.0	7.0	15.0	20	8	16		
6:45-7:00 PM	17.7	5.2	14.7	18.9	7.8	16.0	20	9	18		
Highest Value	18.1	16.5	16.8	19.0	17.9	20.0	20	18	22		
Notes: <sup>1</sup> 85th percentile =	Notes: <sup>1</sup> 85th percentile = The gueue will be less than the gueue shown 85% of the time.										

# Kimley **»Horn**

Appendix D Traffic Management Plan



**Kinley Horn** 555 CAPITOL MALL, SUIT 300 | SACRAMENTO, CA 95814 PHONE: (916) 858-5800 | www.kimley-horn.com TITLE: TRAFFIC MANAGEMENT PLAN

HIS DOCUMENT, TOGETHER WITH THE CONCEPTS AND DESIGNS PRESENTED HEREIN, AS AN INSTRUMENT OF SERVICE, IS INTENDED ONLY FOR THE SPECIFIC PURPOSE AND CLIENT FOR WHICH IT WAS PREPARED. REUSE OF AND IMPROPER RELIANCE ON TH

WM	BIG 5 SPORTING GOODS		
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			3. 4 4.
	C926 SALINAS, CA PROTOTYPE 6E-AV 2,899 GROSS S.F.		5.
CONCRETE WALK			6. 1 7. <sup>-</sup> 8. 1
 1308 PH			

SEMENT RC0929 - SALINAS, CA

HIS DOCUMENT WITHOUT WRITTEN AUTHORIZATION AND ADAPTATION BY KIMLEY-HORN AND ASSOCIATES, INC. SHALL BE WITHOUT LIABILITY TO KIMLEY-HORN AND ASSOCIATES, INC. 2020

# LEGEND

# **TRAFFIC DIRECTION**





	15 CARS
	13 CARS
TES	45 CARS

AL DRIVE-THRU LANE OPERATIONS WITHIN SHOPPING CENTER

QUEUING CAPACITY: 45 VEHICLES (BASED ON 20-FT VEHICLE SPACING)

TWO (2) ORDER BOARDS WILL OPERATE AT ALL TIMES.

CREWMEMBERS TAKING HAND-HELD TABLET ORDERS THAT HAVE BEEN DEPLOYED AS DESCRIBED IN PHASE 2 (SHEET 2) WILL CONTINUE TO BE IN OPERATION.

A CREWMEMBER WILL BE DEDICATED OUTSIDE BUT STATIONED AT THE PICK-UP WINDOW. THIS CREWMEMBER WILL HAND THE FOOD TO PATRONS IN THE SECOND DRIVE-THRU LANE.

A CREWMEMBER WILL BE STAGED AT THE DRIVE THROUGH ENTRANCE DIRECTING CUSTOMERS INTO EACH LINE TO DISTRIBUTE THE QUEUE TO OPTIMIZE QUEUE STORAGE AND DRIVE-THROUGH EFFICIENCY. CREWMEMBER WILL DIRECT THE QUEUED VEHICLES TO ALLOW FOR PARKED CARS TO PARK AND PULL OUT OF PARKING STALLS AS WELL AS LEAVE THE RAISING CANE'S RESTAURANT AREA.

MOBILE ORDERS WILL BE REQUIRED TO USE THE DESIGNATED MOBILE ORDER PICKUP STALLS LOCATED IN FRONT OF THE STORE.

TAILGATE ORDERS, OR LARGE PARTY-SIZED ORDERS, WILL NOT BE PERMITTED FOR DRIVE-THROUGH CUSTOMERS.

DURING PEAK-HOUR SHIFTS, RAISING CANE'S STAFF WILL BE DIRECTED TO USE THE PARKING STALLS AT THE NW CORNER OF THE SITE SO AS TO LIMIT POTENTIAL CONFLICT WITH DRIVE-THRU QUEUE AND PARKING PATRONS.



# MADRID & MAIN SALINAS, CA

JOB NUMBER:	197445011

DATE: 4/28/2023

SHEET:

1 OF 1

# Kimley **»Horn**

Appendix E Queuing Calculations

### APPENDIX E DRIVE-THROUGH QUEUING ANALYSIS

**Project:**Raising Cane - Northridge Mall**Location:**N. Main Street & Madrid Street, Salinas

#### **INPUT VALUES**

Variable	Description	Value
A =	average number of vehicle arrivals per hour <sup>1</sup>	74
S =	service rate, number of vehicles per hour	87
I =	traffic intensity, utilization factor = A/S	0.85
Q =	queue capacity (vehicles)	34

#### FORMULAS

Average Length of Queue	
Avg Q = $A^2 / S(S-A) = I^2 / 1-I$	4.64

Probability of Q Number of Vehicles in Queue  $P(Q) = (I)^{Q} (1-I)$ 

Probability of Queue Exceeding Q Vehicles

0.0520%

0.2852%

$$\sum_{Q=0}^{Q=a} P(Q) \ge 0.95$$

<sup>1</sup> For a worst-case analysis, 90% of the incoming 'Saturday Peak Hour of Generator' traffic is assumed to use the drive-thru and the remaining 10% park and eat.

Source: Institute of Transportation Engineers (ITE) Transportation Planning Handbook, 3rd Edition