# GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

## EDR RECOVERED GOVERNMENT ARCHIVES

***Exclusive Recovered Govt. Archives***

RGA LUST: Recovered Government Archive Leaking Underground Storage Tank
The EDR Recovered Government Archive Leaking Underground Storage Tank database provides a list of LUST incidents derived from historical databases and includes many records that no longer appear in current government lists. Compiled from Records formerly available from the State Water Resources Control Board in California.

Date of Government Version: N/A
Date Data Arrived at EDR: 07/01/2013
Date Made Active in Reports: 12/30/2013
Number of Days to Update: 182

Source: State Water Resources Control Board
Telephone: N/A
Last EDR Contact: 06/01/2012
Next Scheduled EDR Contact: N/A
Data Release Frequency: Varies

RGA LF: Recovered Government Archive Solid Waste Facilities List
The EDR Recovered Government Archive Landfill database provides a list of landfills derived from historical databases and includes many records that no longer appear in current government lists. Compiled from Records formerly available from the Department of Resources Recycling and Recovery in California.

Date of Government Version: N/A
Date Data Arrived at EDR: 07/01/2013
Date Made Active in Reports: 01/13/2014
Number of Days to Update: 196

Source: Department of Resources Recycling and Recovery
Telephone: N/A
Last EDR Contact: 06/01/2012
Next Scheduled EDR Contact: N/A
Data Release Frequency: Varies

## COUNTY RECORDS

ALAMEDA COUNTY:

Contaminated Sites
A listing of contaminated sites overseen by the Toxic Release Program (oil and groundwater contamination from chemical releases and spills) and the Leaking Underground Storage Tank Program (soil and ground water contamination from leaking petroleum USTs).

Date of Government Version: 01/21/2015
Date Data Arrived at EDR: 01/28/2015
Date Made Active in Reports: 02/26/2015
Number of Days to Update: 29

Source: Alameda County Environmental Health Services
Telephone: 510-567-6700
Last EDR Contact: 05/21/2015
Next Scheduled EDR Contact: 07/13/2015
Data Release Frequency: Semi-Annually

Underground Tanks
Underground storage tank sites located in Alameda county.

Date of Government Version: 01/21/2015
Date Data Arrived at EDR: 01/28/2015
Date Made Active in Reports: 02/26/2015
Number of Days to Update: 29

Source: Alameda County Environmental Health Services
Telephone: 510-567-6700
Last EDR Contact: 05/21/2015
Next Scheduled EDR Contact: 07/13/2015
Data Release Frequency: Semi-Annually

AMADOR COUNTY:

CUPA Facility List
Cupa Facility List

Date of Government Version: 03/09/2015
Date Data Arrived at EDR: 03/24/2015
Date Made Active in Reports: 03/31/2015
Number of Days to Update: 7

Source: Amador County Environmental Health
Telephone: 209-223-6439
Last EDR Contact: 06/05/2015
Next Scheduled EDR Contact: 09/21/2015
Data Release Frequency: Varies

BUTTE COUNTY:

# GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

CUPA Facility Listing
Cupa facility list.

Date of Government Version: 11/20/2014
Date Data Arrived at EDR: 11/24/2014
Date Made Active in Reports: 01/07/2015
Number of Days to Update: 44

Source: Public Health Department
Telephone: 530-538-7149
Last EDR Contact: 04/14/2015
Next Scheduled EDR Contact: 04/27/2015
Data Release Frequency: No Update Planned

CALVERAS COUNTY:

CUPA Facility Listing
Cupa Facility Listing

Date of Government Version: 04/17/2015
Date Data Arrived at EDR: 04/21/2015
Date Made Active in Reports: 05/07/2015
Number of Days to Update: 16

Source: Calveras County Environmental Health
Telephone: 209-754-6399
Last EDR Contact: 03/30/2015
Next Scheduled EDR Contact: 07/13/2015
Data Release Frequency: Quarterly

COLUSA COUNTY:

CUPA Facility List
Cupa facility list.

Date of Government Version: 06/11/2014
Date Data Arrived at EDR: 06/13/2014
Date Made Active in Reports: 07/07/2014
Number of Days to Update: 24

Source: Health & Human Services
Telephone: 530-458-0396
Last EDR Contact: 06/12/2015
Next Scheduled EDR Contact: 08/24/2015
Data Release Frequency: Varies

CONTRA COSTA COUNTY:

Site List
List includes sites from the underground tank, hazardous waste generator and business plan/2185 programs.

Date of Government Version: 05/26/2015
Date Data Arrived at EDR: 05/29/2015
Date Made Active in Reports: 06/11/2015
Number of Days to Update: 13

Source: Contra Costa Health Services Department
Telephone: 925-646-2286
Last EDR Contact: 05/04/2015
Next Scheduled EDR Contact: 08/17/2015
Data Release Frequency: Semi-Annually

DEL NORTE COUNTY:

CUPA Facility List
Cupa Facility list

Date of Government Version: 05/19/2015
Date Data Arrived at EDR: 05/22/2015
Date Made Active in Reports: 06/05/2015
Number of Days to Update: 14

Source: Del Norte County Environmental Health Division
Telephone: 707-465-0426
Last EDR Contact: 05/18/2015
Next Scheduled EDR Contact: 08/17/2015
Data Release Frequency: Varies

EL DORADO COUNTY:

CUPA Facility List
CUPA facility list.

Date of Government Version: 05/26/2015
Date Data Arrived at EDR: 05/29/2015
Date Made Active in Reports: 06/05/2015
Number of Days to Update: 7

Source: El Dorado County Environmental Management Department
Telephone: 530-621-6623
Last EDR Contact: 05/04/2015
Next Scheduled EDR Contact: 08/17/2015
Data Release Frequency: Varies

FRESNO COUNTY:

CUPA Resources List
Certified Unified Program Agency. CUPA's are responsible for implementing a unified hazardous materials and hazardous waste management regulatory program. The agency provides oversight of businesses that deal with hazardous materials, operate underground storage tanks or aboveground storage tanks.

Date of Government Version: 03/31/2015
Date Data Arrived at EDR: 04/15/2015
Date Made Active in Reports: 04/23/2015
Number of Days to Update: 8

Source: Dept. of Community Health
Telephone: 559-445-3271
Last EDR Contact: 04/06/2015
Next Scheduled EDR Contact: 07/20/2015
Data Release Frequency: Semi-Annually

HUMBOLDT COUNTY:

CUPA Facility List
CUPA facility list.

Date of Government Version: 03/11/2015
Date Data Arrived at EDR: 03/13/2015
Date Made Active in Reports: 03/24/2015
Number of Days to Update: 11

Source: Humboldt County Environmental Health
Telephone: N/A
Last EDR Contact: 05/26/2015
Next Scheduled EDR Contact: 09/07/2015
Data Release Frequency: Varies

IMPERIAL COUNTY:

CUPA Facility List
Cupa facility list.

Date of Government Version: 04/27/2015
Date Data Arrived at EDR: 04/28/2015
Date Made Active in Reports: 05/13/2015
Number of Days to Update: 15

Source: San Diego Border Field Office
Telephone: 760-339-2777
Last EDR Contact: 04/27/2015
Next Scheduled EDR Contact: 08/10/2015
Data Release Frequency: Varies

INYO COUNTY:

CUPA Facility List
Cupa facility list.

Date of Government Version: 09/10/2013
Date Data Arrived at EDR: 09/11/2013
Date Made Active in Reports: 10/14/2013
Number of Days to Update: 33

Source: Inyo County Environmental Health Services
Telephone: 760-878-0238
Last EDR Contact: 05/21/2015
Next Scheduled EDR Contact: 09/07/2015
Data Release Frequency: Varies

KERN COUNTY:

Underground Storage Tank Sites & Tank Listing
Kern County Sites and Tanks Listing.

Date of Government Version: 07/22/2014
Date Data Arrived at EDR: 11/12/2014
Date Made Active in Reports: 12/19/2014
Number of Days to Update: 37

Source: Kern County Environment Health Services Department
Telephone: 661-862-8700
Last EDR Contact: 06/12/2015
Next Scheduled EDR Contact: 08/24/2015
Data Release Frequency: Quarterly

KINGS COUNTY:

CUPA Facility List
A listing of sites included in the county's Certified Unified Program Agency database. California's Secretary for Environmental Protection established the unified hazardous materials and hazardous waste regulatory program as required by chapter 6.11 of the California Health and Safety Code. The Unified Program consolidates the administration, permits, inspections, and enforcement activities.

Date of Government Version: 05/26/2015
Date Data Arrived at EDR: 05/28/2015
Date Made Active in Reports: 06/15/2015
Number of Days to Update: 18

Source: Kings County Department of Public Health
Telephone: 559-584-1411
Last EDR Contact: 05/21/2015
Next Scheduled EDR Contact: 09/07/2015
Data Release Frequency: Varies

LAKE COUNTY:

CUPA Facility List
Cupa facility list

Date of Government Version: 05/05/2015
Date Data Arrived at EDR: 05/07/2015
Date Made Active in Reports: 05/20/2015
Number of Days to Update: 13

Source: Lake County Environmental Health
Telephone: 707-263-1164
Last EDR Contact: 04/16/2015
Next Scheduled EDR Contact: 08/03/2015
Data Release Frequency: Varies

LOS ANGELES COUNTY:

San Gabriel Valley Areas of Concern
San Gabriel Valley areas where VOC contamination is at or above the MCL as designated by region 9 EPA office.

Date of Government Version: 03/30/2009
Date Data Arrived at EDR: 03/31/2009
Date Made Active in Reports: 10/23/2009
Number of Days to Update: 206

Source: EPA Region 9
Telephone: 415-972-3178
Last EDR Contact: 03/23/2015
Next Scheduled EDR Contact: 07/06/2015
Data Release Frequency: No Update Planned

HMS: Street Number List
Industrial Waste and Underground Storage Tank Sites.

Date of Government Version: 11/24/2014
Date Data Arrived at EDR: 01/30/2015
Date Made Active in Reports: 03/04/2015
Number of Days to Update: 33

Source: Department of Public Works
Telephone: 626-458-3517
Last EDR Contact: 04/13/2015
Next Scheduled EDR Contact: 07/27/2015
Data Release Frequency: Semi-Annually

List of Solid Waste Facilities
Solid Waste Facilities in Los Angeles County.

Date of Government Version: 04/20/2015
Date Data Arrived at EDR: 04/20/2015
Date Made Active in Reports: 05/07/2015
Number of Days to Update: 17

Source: La County Department of Public Works
Telephone: 818-458-5185
Last EDR Contact: 04/20/2015
Next Scheduled EDR Contact: 08/03/2015
Data Release Frequency: Varies

City of Los Angeles Landfills
Landfills owned and maintained by the City of Los Angeles.

Date of Government Version: 03/05/2009
Date Data Arrived at EDR: 03/10/2009
Date Made Active in Reports: 04/08/2009
Number of Days to Update: 29

Source: Engineering & Construction Division
Telephone: 213-473-7869
Last EDR Contact: 04/15/2015
Next Scheduled EDR Contact: 08/03/2015
Data Release Frequency: Varies

Site Mitigation List
Industrial sites that have had some sort of spill or complaint.

Date of Government Version: 01/15/2015
Date Data Arrived at EDR: 01/29/2015
Date Made Active in Reports: 03/10/2015
Number of Days to Update: 40

Source: Community Health Services
Telephone: 323-890-7806
Last EDR Contact: 04/16/2015
Next Scheduled EDR Contact: 08/03/2015
Data Release Frequency: Annually

City of El Segundo Underground Storage Tank
Underground storage tank sites located in El Segundo city.

Date of Government Version: 03/30/2015
Date Data Arrived at EDR: 04/02/2015
Date Made Active in Reports: 04/13/2015
Number of Days to Update: 11

Source: City of El Segundo Fire Department
Telephone: 310-524-2236
Last EDR Contact: 03/06/2015
Next Scheduled EDR Contact: 08/03/2015
Data Release Frequency: Semi-Annually

City of Long Beach Underground Storage Tank
Underground storage tank sites located in the city of Long Beach.

Date of Government Version: 03/03/2015
Date Data Arrived at EDR: 05/26/2015
Date Made Active in Reports: 06/11/2015
Number of Days to Update: 16

Source: City of Long Beach Fire Department
Telephone: 562-570-2563
Last EDR Contact: 04/27/2015
Next Scheduled EDR Contact: 08/10/2015
Data Release Frequency: Annually

City of Torrance Underground Storage Tank
Underground storage tank sites located in the city of Torrance.

Date of Government Version: 04/14/2015
Date Data Arrived at EDR: 04/23/2015
Date Made Active in Reports: 05/11/2015
Number of Days to Update: 18

Source: City of Torrance Fire Department
Telephone: 310-618-2973
Last EDR Contact: 04/13/2015
Next Scheduled EDR Contact: 07/27/2015
Data Release Frequency: Semi-Annually

MADERA COUNTY:

CUPA Facility List
A listing of sites included in the county's Certified Unified Program Agency database. California's Secretary for Environmental Protection established the unified hazardous materials and hazardous waste regulatory program as required by chapter 6.11 of the California Health and Safety Code. The Unified Program consolidates the administration, permits, inspections, and enforcement activities.

Date of Government Version: 05/28/2015
Date Data Arrived at EDR: 05/29/2015
Date Made Active in Reports: 06/15/2015
Number of Days to Update: 17

Source: Madera County Environmental Health
Telephone: 559-675-7823
Last EDR Contact: 05/22/2015
Next Scheduled EDR Contact: 09/07/2015
Data Release Frequency: Varies

MARIN COUNTY:

Underground Storage Tank Sites
Currently permitted USTs in Marin County.

Date of Government Version: 10/08/2014
Date Data Arrived at EDR: 10/22/2014
Date Made Active in Reports: 12/15/2014
Number of Days to Update: 54

Source: Public Works Department Waste Management
Telephone: 415-499-6647
Last EDR Contact: 05/05/2015
Next Scheduled EDR Contact: 07/20/2015
Data Release Frequency: Semi-Annually

MERCED COUNTY:

CUPA Facility List
CUPA facility list.

Date of Government Version: 05/22/2015
Date Data Arrived at EDR: 05/26/2015
Date Made Active in Reports: 06/05/2015
Number of Days to Update: 10

Source: Merced County Environmental Health
Telephone: 209-381-1094
Last EDR Contact: 05/22/2015
Next Scheduled EDR Contact: 09/07/2015
Data Release Frequency: Varies

MONO COUNTY:

CUPA Facility List
CUPA Facility List

Date of Government Version: 02/27/2015
Date Data Arrived at EDR: 03/06/2015
Date Made Active in Reports: 03/10/2015
Number of Days to Update: 4

Source: Mono County Health Department
Telephone: 760-932-5580
Last EDR Contact: 06/01/2015
Next Scheduled EDR Contact: 09/14/2015
Data Release Frequency: Varies

MONTEREY COUNTY:

CUPA Facility Listing
CUPA Program listing from the Environmental Health Division.

Date of Government Version: 03/19/2015
Date Data Arrived at EDR: 03/20/2015
Date Made Active in Reports: 03/31/2015
Number of Days to Update: 11

Source: Monterey County Health Department
Telephone: 831-796-1297
Last EDR Contact: 05/26/2015
Next Scheduled EDR Contact: 09/07/2015
Data Release Frequency: Varies

NAPA COUNTY:

Sites With Reported Contamination
A listing of leaking underground storage tank sites located in Napa county.

Date of Government Version: 12/05/2011
Date Data Arrived at EDR: 12/06/2011
Date Made Active in Reports: 02/07/2012
Number of Days to Update: 63

Source: Napa County Department of Environmental Management
Telephone: 707-253-4269
Last EDR Contact: 06/01/2015
Next Scheduled EDR Contact: 09/14/2015
Data Release Frequency: No Update Planned

Closed and Operating Underground Storage Tank Sites
Underground storage tank sites located in Napa county.

Date of Government Version: 01/15/2008
Date Data Arrived at EDR: 01/16/2008
Date Made Active in Reports: 02/08/2008
Number of Days to Update: 23

Source: Napa County Department of Environmental Management
Telephone: 707-253-4269
Last EDR Contact: 06/01/2015
Next Scheduled EDR Contact: 09/14/2015
Data Release Frequency: No Update Planned

NEVADA COUNTY:

CUPA Facility List
CUPA facility list.

Date of Government Version: 02/12/2015
Date Data Arrived at EDR: 02/13/2015
Date Made Active in Reports: 03/03/2015
Number of Days to Update: 18

Source: Community Development Agency
Telephone: 530-265-1467
Last EDR Contact: 05/04/2015
Next Scheduled EDR Contact: 08/17/2015
Data Release Frequency: Varies

ORANGE COUNTY:

List of Industrial Site Cleanups
Petroleum and non-petroleum spills.

Date of Government Version: 05/01/2015
Date Data Arrived at EDR: 05/12/2015
Date Made Active in Reports: 06/05/2015
Number of Days to Update: 24

Source: Health Care Agency
Telephone: 714-834-3446
Last EDR Contact: 05/06/2015
Next Scheduled EDR Contact: 08/24/2015
Data Release Frequency: Annually

List of Underground Storage Tank Cleanups
Orange County Underground Storage Tank Cleanups (LUST).

Date of Government Version: 05/01/2015
Date Data Arrived at EDR: 05/12/2015
Date Made Active in Reports: 06/08/2015
Number of Days to Update: 27

Source: Health Care Agency
Telephone: 714-834-3446
Last EDR Contact: 05/06/2015
Next Scheduled EDR Contact: 08/24/2015
Data Release Frequency: Quarterly

List of Underground Storage Tank Facilities
Orange County Underground Storage Tank Facilities (UST).

Date of Government Version: 05/01/2015
Date Data Arrived at EDR: 05/12/2015
Date Made Active in Reports: 06/11/2015
Number of Days to Update: 30

Source: Health Care Agency
Telephone: 714-834-3446
Last EDR Contact: 05/12/2015
Next Scheduled EDR Contact: 08/24/2015
Data Release Frequency: Quarterly

PLACER COUNTY:

# GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Master List of Facilities
List includes aboveground tanks, underground tanks and cleanup sites.

Date of Government Version: 03/10/2015
Date Data Arrived at EDR: 03/12/2015
Date Made Active in Reports: 03/18/2015
Number of Days to Update: 6

Source: Placer County Health and Human Services
Telephone: 530-745-2363
Last EDR Contact: 06/21/2015
Next Scheduled EDR Contact: 09/21/2015
Data Release Frequency: Semi-Annually

RIVERSIDE COUNTY:

Listing of Underground Tank Cleanup Sites
Riverside County Underground Storage Tank Cleanup Sites (LUST).

Date of Government Version: 04/28/2015
Date Data Arrived at EDR: 04/30/2015
Date Made Active in Reports: 05/13/2015
Number of Days to Update: 13

Source: Department of Environmental Health
Telephone: 951-358-5055
Last EDR Contact: 03/23/2015
Next Scheduled EDR Contact: 07/06/2015
Data Release Frequency: Quarterly

Underground Storage Tank Tank List
Underground storage tank sites located in Riverside county.

Date of Government Version: 04/28/2015
Date Data Arrived at EDR: 04/30/2015
Date Made Active in Reports: 05/13/2015
Number of Days to Update: 13

Source: Department of Environmental Health
Telephone: 951-358-5055
Last EDR Contact: 03/23/2015
Next Scheduled EDR Contact: 07/06/2015
Data Release Frequency: Quarterly

SACRAMENTO COUNTY:

Toxic Site Clean-Up List
List of sites where unauthorized releases of potentially hazardous materials have occurred.

Date of Government Version: 02/02/2015
Date Data Arrived at EDR: 04/08/2015
Date Made Active in Reports: 04/16/2015
Number of Days to Update: 8

Source: Sacramento County Environmental Management
Telephone: 916-875-8406
Last EDR Contact: 04/08/2015
Next Scheduled EDR Contact: 07/20/2015
Data Release Frequency: Quarterly

Master Hazardous Materials Facility List
Any business that has hazardous materials on site - hazardous material storage sites, underground storage tanks, waste generators.

Date of Government Version: 02/02/2015
Date Data Arrived at EDR: 04/08/2015
Date Made Active in Reports: 04/16/2015
Number of Days to Update: 8

Source: Sacramento County Environmental Management
Telephone: 916-875-8406
Last EDR Contact: 04/08/2015
Next Scheduled EDR Contact: 07/20/2015
Data Release Frequency: Quarterly

SAN BERNARDINO COUNTY:

Hazardous Material Permits
This listing includes underground storage tanks, medical waste handlers/generators, hazardous materials handlers, hazardous waste generators, and waste oil generators/handlers.

Date of Government Version: 03/02/2015
Date Data Arrived at EDR: 03/03/2015
Date Made Active in Reports: 03/10/2015
Number of Days to Update: 7

Source: San Bernardino County Fire Department Hazardous Materials Division
Telephone: 909-387-3041
Last EDR Contact: 05/12/2015
Next Scheduled EDR Contact: 08/24/2015
Data Release Frequency: Quarterly

SAN DIEGO COUNTY:

Hazardous Materials Management Division Database

The database includes: HE58 - This report contains the business name, site address, business phone number, establishment 'H' permit number, type of permit, and the business status. HE17 - In addition to providing the same information provided in the HE58 listing, HE17 provides inspection dates, violations received by the establishment, hazardous waste generated, the quantity, method of storage, treatment/disposal of waste and the hauler, and information on underground storage tanks. Unauthorized Release List - Includes a summary of environmental contamination cases in San Diego County (underground tank cases, non-tank cases, groundwater contamination, and soil contamination are included.)

Date of Government Version: 09/23/2013
Date Data Arrived at EDR: 09/24/2013
Date Made Active in Reports: 10/17/2013
Number of Days to Update: 23

Source: Hazardous Materials Management Division
Telephone: 619-338-2268
Last EDR Contact: 06/05/2015
Next Scheduled EDR Contact: 09/21/2015
Data Release Frequency: Quarterly

Solid Waste Facilities

San Diego County Solid Waste Facilities.

Date of Government Version: 10/31/2014
Date Data Arrived at EDR: 11/21/2014
Date Made Active in Reports: 12/29/2014
Number of Days to Update: 38

Source: Department of Health Services
Telephone: 619-338-2209
Last EDR Contact: 04/27/2015
Next Scheduled EDR Contact: 08/10/2015
Data Release Frequency: Varies

Environmental Case Listing

The listing contains all underground tank release cases and projects pertaining to properties contaminated with hazardous substances that are actively under review by the Site Assessment and Mitigation Program.

Date of Government Version: 03/23/2010
Date Data Arrived at EDR: 06/15/2010
Date Made Active in Reports: 07/09/2010
Number of Days to Update: 24

Source: San Diego County Department of Environmental Health
Telephone: 619-338-2371
Last EDR Contact: 06/03/2015
Next Scheduled EDR Contact: 09/21/2015
Data Release Frequency: No Update Planned

SAN FRANCISCO COUNTY:

Local Oversite Facilities

A listing of leaking underground storage tank sites located in San Francisco county.

Date of Government Version: 09/19/2008
Date Data Arrived at EDR: 09/19/2008
Date Made Active in Reports: 09/29/2008
Number of Days to Update: 10

Source: Department Of Public Health San Francisco County
Telephone: 415-252-3920
Last EDR Contact: 05/06/2015
Next Scheduled EDR Contact: 08/24/2015
Data Release Frequency: Quarterly

Underground Storage Tank Information

Underground storage tank sites located in San Francisco county.

Date of Government Version: 11/29/2010
Date Data Arrived at EDR: 03/10/2011
Date Made Active in Reports: 03/15/2011
Number of Days to Update: 5

Source: Department of Public Health
Telephone: 415-252-3920
Last EDR Contact: 05/06/2015
Next Scheduled EDR Contact: 08/24/2015
Data Release Frequency: Quarterly

SAN JOAQUIN COUNTY:

San Joaquin Co. UST
A listing of underground storage tank locations in San Joaquin county.

Date of Government Version: 03/24/2015
Date Data Arrived at EDR: 03/25/2015
Date Made Active in Reports: 03/31/2015
Number of Days to Update: 6

Source: Environmental Health Department
Telephone: N/A
Last EDR Contact: 03/23/2015
Next Scheduled EDR Contact: 07/06/2015
Data Release Frequency: Semi-Annually

SAN LUIS OBISPO COUNTY:

CUPA Facility List
Cupa Facility List.

Date of Government Version: 05/22/2015
Date Data Arrived at EDR: 05/26/2015
Date Made Active in Reports: 06/10/2015
Number of Days to Update: 15

Source: San Luis Obispo County Public Health Department
Telephone: 805-781-5596
Last EDR Contact: 05/20/2015
Next Scheduled EDR Contact: 09/07/2015
Data Release Frequency: Varies

SAN MATEO COUNTY:

Business Inventory
List includes Hazardous Materials Business Plan, hazardous waste generators, and underground storage tanks.

Date of Government Version: 04/13/2015
Date Data Arrived at EDR: 04/15/2015
Date Made Active in Reports: 04/23/2015
Number of Days to Update: 8

Source: San Mateo County Environmental Health Services Division
Telephone: 650-363-1921
Last EDR Contact: 06/15/2015
Next Scheduled EDR Contact: 09/28/2015
Data Release Frequency: Annually

Fuel Leak List
A listing of leaking underground storage tank sites located in San Mateo county.

Date of Government Version: 03/16/2015
Date Data Arrived at EDR: 03/17/2015
Date Made Active in Reports: 03/24/2015
Number of Days to Update: 7

Source: San Mateo County Environmental Health Services Division
Telephone: 650-363-1921
Last EDR Contact: 06/10/2015
Next Scheduled EDR Contact: 06/29/2015
Data Release Frequency: Semi-Annually

SANTA BARBARA COUNTY:

CUPA Facility Listing
CUPA Program Listing from the Environmental Health Services division.

Date of Government Version: 09/08/2011
Date Data Arrived at EDR: 09/09/2011
Date Made Active in Reports: 10/07/2011
Number of Days to Update: 28

Source: Santa Barbara County Public Health Department
Telephone: 805-686-8167
Last EDR Contact: 05/22/2015
Next Scheduled EDR Contact: 09/07/2015
Data Release Frequency: Varies

SANTA CLARA COUNTY:

Cupa Facility List
Cupa facility list

Date of Government Version: 02/23/2015
Date Data Arrived at EDR: 02/25/2015
Date Made Active in Reports: 03/03/2015
Number of Days to Update: 6

Source: Department of Environmental Health
Telephone: 408-918-1973
Last EDR Contact: 06/05/2015
Next Scheduled EDR Contact: 09/07/2015
Data Release Frequency: Varies

HIST LUST - Fuel Leak Site Activity Report
A listing of open and closed leaking underground storage tanks. This listing is no longer updated by the county. Leaking underground storage tanks are now handled by the Department of Environmental Health.

Date of Government Version: 03/29/2005
Date Data Arrived at EDR: 03/30/2005
Date Made Active in Reports: 04/21/2005
Number of Days to Update: 22

Source: Santa Clara Valley Water District
Telephone: 408-265-2600
Last EDR Contact: 03/23/2009
Next Scheduled EDR Contact: 06/22/2009
Data Release Frequency: No Update Planned

LOP Listing
A listing of leaking underground storage tanks located in Santa Clara county.

Date of Government Version: 03/03/2014
Date Data Arrived at EDR: 03/05/2014
Date Made Active in Reports: 03/18/2014
Number of Days to Update: 13

Source: Department of Environmental Health
Telephone: 408-918-3417
Last EDR Contact: 06/01/2015
Next Scheduled EDR Contact: 09/14/2015
Data Release Frequency: Annually

Hazardous Material Facilities
Hazardous material facilities, including underground storage tank sites.

Date of Government Version: 05/07/2015
Date Data Arrived at EDR: 05/12/2015
Date Made Active in Reports: 06/08/2015
Number of Days to Update: 27

Source: City of San Jose Fire Department
Telephone: 408-535-7694
Last EDR Contact: 05/07/2015
Next Scheduled EDR Contact: 08/24/2015
Data Release Frequency: Annually

SANTA CRUZ COUNTY:

CUPA Facility List
CUPA facility listing.

Date of Government Version: 05/22/2015
Date Data Arrived at EDR: 05/26/2015
Date Made Active in Reports: 06/08/2015
Number of Days to Update: 13

Source: Santa Cruz County Environmental Health
Telephone: 831-464-2761
Last EDR Contact: 05/22/2015
Next Scheduled EDR Contact: 09/07/2015
Data Release Frequency: Varies

SHASTA COUNTY:

CUPA Facility List
Cupa Facility List.

Date of Government Version: 03/11/2015
Date Data Arrived at EDR: 03/13/2015
Date Made Active in Reports: 03/24/2015
Number of Days to Update: 11

Source: Shasta County Department of Resource Management
Telephone: 530-225-5789
Last EDR Contact: 05/26/2015
Next Scheduled EDR Contact: 09/07/2015
Data Release Frequency: Varies

SOLANO COUNTY:

Leaking Underground Storage Tanks
A listing of leaking underground storage tank sites located in Solano county.

Date of Government Version: 03/13/2015
Date Data Arrived at EDR: 03/19/2015
Date Made Active in Reports: 03/24/2015
Number of Days to Update: 5

Source: Solano County Department of Environmental Management
Telephone: 707-784-6770
Last EDR Contact: 06/10/2015
Next Scheduled EDR Contact: 09/28/2015
Data Release Frequency: Quarterly

Underground Storage Tanks
Underground storage tank sites located in Solano county.

Date of Government Version: 03/13/2015
Date Data Arrived at EDR: 03/20/2015
Date Made Active in Reports: 03/31/2015
Number of Days to Update: 11

Source: Solano County Department of Environmental Management
Telephone: 707-784-6770
Last EDR Contact: 06/10/2015
Next Scheduled EDR Contact: 09/28/2015
Data Release Frequency: Quarterly

SONOMA COUNTY:

Cupa Facility List
Cupa Facility list

Date of Government Version: 03/31/2015
Date Data Arrived at EDR: 04/02/2015
Date Made Active in Reports: 04/10/2015
Number of Days to Update: 8

Source: County of Sonoma Fire & Emergency Services Department
Telephone: 707-565-1174
Last EDR Contact: 03/30/2015
Next Scheduled EDR Contact: 07/13/2015
Data Release Frequency: Varies

Leaking Underground Storage Tank Sites
A listing of leaking underground storage tank sites located in Sonoma county.

Date of Government Version: 04/01/2015
Date Data Arrived at EDR: 04/02/2015
Date Made Active in Reports: 04/13/2015
Number of Days to Update: 11

Source: Department of Health Services
Telephone: 707-565-6565
Last EDR Contact: 03/30/2015
Next Scheduled EDR Contact: 07/13/2015
Data Release Frequency: Quarterly

SUTTER COUNTY:

Underground Storage Tanks
Underground storage tank sites located in Sutter county.

Date of Government Version: 03/09/2015
Date Data Arrived at EDR: 03/10/2015
Date Made Active in Reports: 03/18/2015
Number of Days to Update: 8

Source: Sutter County Department of Agriculture
Telephone: 530-822-7500
Last EDR Contact: 06/05/2015
Next Scheduled EDR Contact: 09/21/2015
Data Release Frequency: Semi-Annually

TUOLUMNE COUNTY:

CUPA Facility List
Cupa facility list

Date of Government Version: 05/05/2015
Date Data Arrived at EDR: 05/07/2015
Date Made Active in Reports: 05/13/2015
Number of Days to Update: 6

Source: Divison of Environmental Health
Telephone: 209-533-5633
Last EDR Contact: 04/27/2015
Next Scheduled EDR Contact: 08/10/2015
Data Release Frequency: Varies

VENTURA COUNTY:

# GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Business Plan, Hazardous Waste Producers, and Operating Underground Tanks
The BWT list indicates by site address whether the Environmental Health Division has Business Plan (B), Waste Producer (W), and/or Underground Tank (T) information.

Date of Government Version: 04/27/2015
Date Data Arrived at EDR: 05/22/2015
Date Made Active in Reports: 06/05/2015
Number of Days to Update: 14

Source: Ventura County Environmental Health Division
Telephone: 805-654-2813
Last EDR Contact: 05/18/2015
Next Scheduled EDR Contact: 08/31/2015
Data Release Frequency: Quarterly

Inventory of Illegal Abandoned and Inactive Sites
Ventura County Inventory of Closed, Illegal Abandoned, and Inactive Sites.

Date of Government Version: 12/01/2011
Date Data Arrived at EDR: 12/01/2011
Date Made Active in Reports: 01/19/2012
Number of Days to Update: 49

Source: Environmental Health Division
Telephone: 805-654-2813
Last EDR Contact: 04/02/2015
Next Scheduled EDR Contact: 07/20/2015
Data Release Frequency: Annually

Listing of Underground Tank Cleanup Sites
Ventura County Underground Storage Tank Cleanup Sites (LUST).

Date of Government Version: 05/29/2008
Date Data Arrived at EDR: 06/24/2008
Date Made Active in Reports: 07/31/2008
Number of Days to Update: 37

Source: Environmental Health Division
Telephone: 805-654-2813
Last EDR Contact: 05/18/2015
Next Scheduled EDR Contact: 08/31/2015
Data Release Frequency: Quarterly

Medical Waste Program List
To protect public health and safety and the environment from potential exposure to disease causing agents, the Environmental Health Division Medical Waste Program regulates the generation, handling, storage, treatment and disposal of medical waste throughout the County.

Date of Government Version: 04/27/2015
Date Data Arrived at EDR: 04/29/2015
Date Made Active in Reports: 05/13/2015
Number of Days to Update: 14

Source: Ventura County Resource Management Agency
Telephone: 805-654-2813
Last EDR Contact: 04/27/2015
Next Scheduled EDR Contact: 08/10/2015
Data Release Frequency: Quarterly

Underground Tank Closed Sites List
Ventura County Operating Underground Storage Tank Sites (UST)/Underground Tank Closed Sites List.

Date of Government Version: 02/27/2015
Date Data Arrived at EDR: 03/18/2015
Date Made Active in Reports: 03/26/2015
Number of Days to Update: 8

Source: Environmental Health Division
Telephone: 805-654-2813
Last EDR Contact: 03/18/2015
Next Scheduled EDR Contact: 06/29/2015
Data Release Frequency: Quarterly

YOLO COUNTY:

Underground Storage Tank Comprehensive Facility Report
Underground storage tank sites located in Yolo county.

Date of Government Version: 03/26/2015
Date Data Arrived at EDR: 04/01/2015
Date Made Active in Reports: 04/13/2015
Number of Days to Update: 12

Source: Yolo County Department of Health
Telephone: 530-666-8646
Last EDR Contact: 03/23/2015
Next Scheduled EDR Contact: 07/06/2015
Data Release Frequency: Annually

YUBA COUNTY:

CUPA Facility List
CUPA facility listing for Yuba County.

Date of Government Version: 05/18/2015
Date Data Arrived at EDR: 05/19/2015
Date Made Active in Reports: 06/05/2015
Number of Days to Update: 17

Source: Yuba County Environmental Health Department
Telephone: 530-749-7523
Last EDR Contact: 05/18/2015
Next Scheduled EDR Contact: 08/17/2015
Data Release Frequency: Varies

**OTHER DATABASE(S)**

Depending on the geographic area covered by this report, the data provided in these specialty databases may or may not be complete. For example, the existence of wetlands information data in a specific report does not mean that all wetlands in the area covered by the report are included. Moreover, the absence of any reported wetlands information does not necessarily mean that wetlands do not exist in the area covered by the report.

CT MANIFEST: Hazardous Waste Manifest Data
Facility and manifest data. Manifest is a document that lists and tracks hazardous waste from the generator through transporters to a tsd facility.

Date of Government Version: 07/30/2013
Date Data Arrived at EDR: 08/19/2013
Date Made Active in Reports: 10/03/2013
Number of Days to Update: 45

Source: Department of Energy & Environmental Protection
Telephone: 860-424-3375
Last EDR Contact: 05/18/2015
Next Scheduled EDR Contact: 08/31/2015
Data Release Frequency: No Update Planned

NJ MANIFEST: Manifest Information
Hazardous waste manifest information.

Date of Government Version: 12/31/2012
Date Data Arrived at EDR: 04/29/2015
Date Made Active in Reports: 05/29/2015
Number of Days to Update: 30

Source: Department of Environmental Protection
Telephone: N/A
Last EDR Contact: 04/14/2015
Next Scheduled EDR Contact: 07/27/2015
Data Release Frequency: Annually

NY MANIFEST: Facility and Manifest Data
Manifest is a document that lists and tracks hazardous waste from the generator through transporters to a TSD facility.

Date of Government Version: 05/01/2015
Date Data Arrived at EDR: 05/06/2015
Date Made Active in Reports: 05/20/2015
Number of Days to Update: 14

Source: Department of Environmental Conservation
Telephone: 518-402-8651
Last EDR Contact: 05/06/2015
Next Scheduled EDR Contact: 08/17/2015
Data Release Frequency: Annually

PA MANIFEST: Manifest Information
Hazardous waste manifest information.

Date of Government Version: 12/31/2013
Date Data Arrived at EDR: 07/21/2014
Date Made Active in Reports: 08/25/2014
Number of Days to Update: 35

Source: Department of Environmental Protection
Telephone: 717-783-8990
Last EDR Contact: 04/16/2015
Next Scheduled EDR Contact: 08/03/2015
Data Release Frequency: Annually

RI MANIFEST: Manifest information
Hazardous waste manifest information

Date of Government Version: 12/31/2013
Date Data Arrived at EDR: 07/15/2014
Date Made Active in Reports: 08/13/2014
Number of Days to Update: 29

Source: Department of Environmental Management
Telephone: 401-222-2797
Last EDR Contact: 05/26/2015
Next Scheduled EDR Contact: 09/07/2015
Data Release Frequency: Annually

WI MANIFEST: Manifest Information
Hazardous waste manifest information.

Date of Government Version: 12/31/2014
Date Data Arrived at EDR: 03/19/2015
Date Made Active in Reports: 04/07/2015
Number of Days to Update: 19

Source: Department of Natural Resources
Telephone: N/A
Last EDR Contact: 06/11/2015
Next Scheduled EDR Contact: 09/28/2015
Data Release Frequency: Annually

Oil/Gas Pipelines: This data was obtained by EDR from the USGS in 1994. It is referred to by USGS as GeoData Digital Line Graphs from 1:100,000-Scale Maps. It was extracted from the transportation category including some oil, but primarily gas pipelines.

Sensitive Receptors: There are individuals deemed sensitive receptors due to their fragile immune systems and special sensitivity to environmental discharges. These sensitive receptors typically include the elderly, the sick, and children. While the location of all sensitive receptors cannot be determined, EDR indicates those buildings and facilities - schools, daycares, hospitals, medical centers, and nursing homes - where individuals who are sensitive receptors are likely to be located.

AHA Hospitals:
Source: American Hospital Association, Inc.
Telephone: 312-280-5991
The database includes a listing of hospitals based on the American Hospital Association's annual survey of hospitals.

Medical Centers: Provider of Services Listing
Source: Centers for Medicare & Medicaid Services
Telephone: 410-786-3000
A listing of hospitals with Medicare provider number, produced by Centers of Medicare & Medicaid Services, a federal agency within the U.S. Department of Health and Human Services.

Nursing Homes
Source: National Institutes of Health
Telephone: 301-594-6248
Information on Medicare and Medicaid certified nursing homes in the United States.

Public Schools
Source: National Center for Education Statistics
Telephone: 202-502-7300
The National Center for Education Statistics' primary database on elementary and secondary public education in the United States. It is a comprehensive, annual, national statistical database of all public elementary and secondary schools and school districts, which contains data that are comparable across all states.

Private Schools
Source: National Center for Education Statistics
Telephone: 202-502-7300
The National Center for Education Statistics' primary database on private school locations in the United States.

Daycare Centers: Licensed Facilities
Source: Department of Social Services
Telephone: 916-657-4041

Flood Zone Data: This data, available in select counties across the country, was obtained by EDR in 2003 & 2011 from the Federal Emergency Management Agency (FEMA). Data depicts 100-year and 500-year flood zones as defined by FEMA.

NWI: National Wetlands Inventory. This data, available in select counties across the country, was obtained by EDR in 2002, 2005 and 2010 from the U.S. Fish and Wildlife Service.

Scanned Digital USGS 7.5' Topographic Map (DRG)
Source: United States Geologic Survey
A digital raster graphic (DRG) is a scanned image of a U.S. Geological Survey topographic map. The map images are made by scanning published paper maps on high-resolution scanners. The raster image is georeferenced and fit to the Universal Transverse Mercator (UTM) projection.

# GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

**STREET AND ADDRESS INFORMATION**

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# APPENDIX D

## REGULATORY AGENCY DOCUMENTATION

# Orchard Supply Hardware #050 (CERSID: 10081324)

**Facility Information** **Accepted Feb 25, 2015**
Submitted on 2/25/2015 12:18:05 PM by *justin ford* of Orchard Supply Company, LLC (San Jose, CA)
Submittal was ***Accepted*** on 2/25/2015 12:46:42 PM by Rick Miller

- Business Activities
- Business Owner/Operator Identification

**Guidance Messages**

- **Warning:**
  1. Business Activities - The federal EPA ID Number for CERSID: 10081324 has changed from: 'CAL000191159' to 'CAL000389902'.

**Emergency Response and Training Plans** **Accepted Feb 25, 2015**
Submitted on 2/25/2015 12:18:05 PM by *justin ford* of Orchard Supply Company, LLC (San Jose, CA)
Submittal was ***Accepted*** on 2/25/2015 12:45:47 PM by Rick Miller

- Emergency Response/Contingency Plan
  - *Emergency Response/Contingency Plan* (Adobe PDF, 291KB)
- Employee Training Plan
  - *Employee Training Plan* (Adobe PDF, 29KB)

## Site Identification

**Orchard Supply Hardware #050**
777 Sunnyvale-Saratoga Road
Sunnyvale, CA 94086
County
Santa Clara

CERS ID
**10081324**
EPA ID Number
CAL000389902

## Submittal Status

Submitted on 2/25/2015 by *justin ford* of Orchard Supply Company, LLC (San Jose, CA)
Submittal was *Accepted*; Processed on 2/25/2015 by *Rick Miller* for Sunnyvale Department of Public Safety

## Hazardous Materials

| | |
|---|---|
| Does your facility have on site (for any purpose) at any one time, hazardous materials at or above 55 gallons for liquids, 500 pounds for solids, or 200 cubic feet for compressed gases (include liquids in ASTs and USTs); or is regulated under more restrictive inventory local reporting requirements (shown below if present); or the applicable Federal threshold quantity for an extremely hazardous substance specified in 40 CFR Part 355, Appendix A or B; or handle radiological materials in quantities for which an emergency plan is required pursuant to 10 CFR Parts 30, 40 or 70? | Yes |

## Underground Storage Tank(s) (UST)

| | |
|---|---|
| Does your facility own or operate underground storage tanks? | No |

## Hazardous Waste

| | |
|---|---|
| Is your facility a Hazardous Waste Generator? | Yes |
| Does your facility treat hazardous waste on-site? | No |
| Is your facility's treatment subject to financial assurance requirements (for Permit by Rule and Conditional Authorization)? | No |
| Does your facility consolidate hazardous waste generated at a remote site? | No |
| Does your facility need to report the closure/removal of a tank that was classified as hazardous waste and cleaned on-site? | No |
| Does your facility generate in any single calendar month 1,000 kilograms (kg) (2,200 pounds) or more of federal RCRA hazardous waste, or generate in any single calendar month, or accumulate at any time, 1 kg (2.2 pounds) of RCRA acute hazardous waste; or generate or accumulate at any time more than 100 kg (220 pounds) of spill cleanup materials contaminated with RCRA acute hazardous waste. | No |
| Is your facility a Household Hazardous Waste (HHW) Collection site? | No |

## Excluded and/or Exempted Materials

| | |
|---|---|
| Does your facility recycle more than 100 kg/month of excluded or exempted recyclable materials (per HSC 25143.2)? | No |
| Does your facility own or operate ASTs above these thresholds? Store greater than 1,320 gallons of petroleum products (new or used) in aboveground tanks or containers. | No |
| Does your facility have Regulated Substances stored onsite in quantities greater than the threshold quantities established by the California Accidental Release prevention Program (CalARP)? | No |

## Additional Information

No additional comments provided.

## Facility/Site

**Orchard Supply Hardware #050**
777 Sunnyvale-Saratoga Road
Sunnyvale, CA 94086

CERS ID
**10081324**

## Submittal Status

Submitted on 2/25/2015 by *justin ford* of Orchard Supply Company, LLC (San Jose, CA)
Submittal was *Accepted*; Processed on 2/25/2015 by *Rick Miller* for Sunnyvale Department of Public Safety

## Identification

Orchard Supply Company, LLC

| Operator Phone | Business Phone | Business Fax |
|---|---|---|
| (408) 732-7734 | (408) 732-7734 | |

| Beginning Date | Ending Date | |
|---|---|---|
| Dun & Bradstreet | SIC Code | Primary NAICS |
| 783266950 | 5251 | 44413 |

## Facility/Site Mailing Address

6450 Via Del Oro
San Jose, CA 95119

## Primary Emergency Contact

Jose Vera
Title
Store Manager

| Business Phone | 24-Hour Phone | Pager Number |
|---|---|---|
| (408) 250-9844 | (408) 250-9844 | NA |

## Owner

Orchard Supply Company, LLC
(408) 281-3500
6450 Via Del Oro
San Jose, CA 95119

## Secondary Emergency Contact

Darryl Hirohama
Title
Assistant Manager

| Business Phone | 24-Hour Phone | Pager Number |
|---|---|---|
| (408) 264-1348 | (408) 505-4723 | NA |

## Billing Contact

Gary Uecker
(408) 365-2670 gary.uecker@osh.com
6450 Via Del Oro
San Jose, CA 95119

## Environmental Contact

Justin Ford
(408) 365-2786 justin.ford@osh.com
6450 Via Del Oro
San Jose, CA 95119

| Name of Signer | Signer Title | Document Preparer |
|---|---|---|
| Justin Ford | Environmental Compliance Manager | Elizabeth Sanhueza |

Additional Information

## Locally-collected Fields

Some or all of the following fields may be required by your local regulator(s).

### Property Owner

Mardit Properties Limited Partnership
Phone
(408) 971-8000
Mailing Address
P O Box 2098
Saratoga, CA 95070

Assessor Parcel Number (APN)

Number of Employees
47
Facility ID
43-007-003523

CALIFORNIA ENVIRONMENTAL REPORTING SYSTEM (CERS)

# CONSOLIDATED EMERGENCY RESPONSE / CONTINGENCY PLAN

*Prior to completing this Plan, please refer to the INSTRUCTIONS FOR COMPLETING A CONSOLIDATED CONTINGENCY PLAN*

## A. FACILITY IDENTIFICATION AND OPERATIONS OVERVIEW

FACILITY ID # — — 1.

CERS ID A1. 10081324

DATE OF PLAN PREPARATION/REVISION A2. 3/12/2013

BUSINESS NAME *(Same as Facility Name or DBA - Doing Business As)* 3.
Orchard Supply Hardware Store #50

BUSINESS SITE ADDRESS 103.
777 Sunnyvale-Saratoga Rd

BUSINESS SITE CITY 104. Sunnyvale

CA

ZIP CODE 105. 94086

TYPE OF BUSINESS (e.g., Painting Contractor) A3. Hardware store

INCIDENTAL OPERATIONS (e.g., Fleet Maintenance) A4.

THIS PLAN COVERS CHEMICAL SPILLS, FIRES, AND EARTHQUAKES INVOLVING: (Check all that apply) A5.

☒ 1. HAZARDOUS MATERIALS; ☒ 2. HAZARDOUS WASTES

## B. INTERNAL RESPONSE

INTERNAL FACILITY EMERGENCY RESPONSE WILL OCCUR VIA: (Check all that apply) B1.

☒ 1. CALLING PUBLIC EMERGENCY RESPONDERS (i.e., 9-1-1)
☒ 2. CALLING HAZARDOUS WASTE CONTRACTOR
☒ 3. ACTIVATING IN-HOUSE EMERGENCY RESPONSE TEAM

## C. EMERGENCY COMMUNICATIONS, PHONE NUMBERS AND NOTIFICATIONS

Whenever there is an imminent or actual emergency situation such as an explosion, fire, or release, the Emergency Coordinator (or his/her designee when the Emergency Coordinator is on call) shall:

1. Activate internal facility alarms or communications systems, where applicable, to notify all facility personnel.
2. Notify appropriate local authorities (i.e., call 9-1-1).
3. Notify the California Emergency Management Agency at (800) 852-7550.

Before facility operations are resumed in areas of the facility affected by the incident, the emergency coordinator shall notify the California Department of Toxic Substances Control (DTSC), the local Unified Program Agency (UPA), and the local fire department's hazardous materials program that the facility is in compliance with requirements to:

1. Provide for proper storage and disposal of recovered waste, contaminated soil or surface water, or any other material that results from an explosion, fire, or release at the facility; and
2. Ensure that no material that is incompatible with the released material is transferred, stored, or disposed of in areas of the facility affected by the incident until cleanup procedures are completed.

INTERNAL FACILITY EMERGENCY COMMUNICATIONS OR ALARM NOTIFICATION WILL OCCUR VIA: (Check all that apply) C1.

☒ 1. VERBAL WARNINGS; ☒ 2. PUBLIC ADDRESS OR INTERCOM SYSTEM; ☒ 3. TELEPHONE;
☐ 4. PAGERS; ☒ 5. ALARM SYSTEM; ☒ 6. PORTABLE RADIO

NOTIFICATIONS TO NEIGHBORING FACILITIES THAT MAY BE AFFECTED BY AN OFF-SITE RELEASE WILL OCCUR BY: (Check all that apply) C2.

☒ 1. VERBAL WARNINGS; ☐ 2. PUBLIC ADDRESS OR INTERCOM SYSTEM; ☒ 3. TELEPHONE;
☐ 4. PAGERS; ☐ 5. ALARM SYSTEM; ☐ 6. PORTABLE RADIO

EMERGENCY RESPONSE PHONE NUMBERS:

| | |
|---|---|
| AMBULANCE, FIRE, POLICE AND CHP | 9-1-1 |
| CALIFORNIA EMERGENCY MANAGEMENT AGENCY (CAL/EMA) | (800) 852-7550 |
| NATIONAL RESPONSE CENTER (NRC) | (800) 424-8802 |
| POISON CONTROL CENTER | (800) 222-1222 |
| LOCAL UNIFIED PROGRAM AGENCY (UPA/CUPA) | (408) 730-7238 C3. |
| OTHER (Specify): C4. | C5. |

NEAREST MEDICAL FACILITY / HOSPITAL NAME: C6. 650-934-7000 (650) 940-7000 C7.

AGENCY NOTIFICATION PHONE NUMBERS:

| | |
|---|---|
| CALIFORNIA DEPT. OF TOXIC SUBSTANCES CONTROL (DTSC) | (916) 255-3545 |
| REGIONAL WATER QUALITY CONTROL BOARD | (510) 622-2300 C8. |
| U.S. ENVIRONMENTAL PROTECTION AGENCY (US EPA) | (800) 300-2193 |
| CALIFORNIA DEPT OF FISH AND GAME (DFG) | (916) 358-2900 |
| U.S. COAST GUARD | (202) 267-2180 |
| CAL/OSHA | (916) 263-2800 |
| STATE FIRE MARSHAL | (916) 445-8200 |
| OTHER (Specify): C9. | C10. |
| OTHER (Specify): C11. | C12. |

## D. EMERGENCY CONTAINMENT AND CLEANUP PROCEDURES

SPILL PREVENTION, CONTAINMENT, AND CLEANUP PROCEDURES: (Check all boxes that apply to indicate your procedures for containing spills, releases, fires or explosions; and. preventing and mitigating associated harm to persons, property, and the environment.)

D1.

- ☒ 1. MONITOR FOR LEAKS, RUPTURES, PRESSURE BUILD-UP, ETC.;
- ☒ 2. PROVIDE STRUCTURAL PHYSICAL BARRIERS (e.g., Portable spill containment walls);
- ☒ 3. PROVIDE ABSORBENT PHYSICAL BARRIERS (e.g., Pads, pigs, pillows);
- ☒ 4. COVER OR BLOCK FLOOR AND/ OR STORM DRAINS;
- ☐ 5. BUILT-IN BERM IN WORK / STORAGE AREA;
- ☒ 6. AUTOMATIC FIRE SUPPRESSION SYSTEM;
- ☒ 7. ELIMINATE SOURCES OF IGNITION FOR FLAMMABLE HAZARDS (e.g. Flammable liquids, Propane);
- ☒ 8. STOP PROCESSES AND/OR OPERATIONS;
- ☐ 9. AUTOMATIC / ELECTRONIC EQUIPMENT SHUT-OFF SYSTEM;
- ☒ 10. SHUT-OFF WATER, GAS, ELECTRICAL UTILITIES AS APPROPRIATE;
- ☒ 11. CALL 9-1-1 FOR PUBLIC EMERGENCY RESPONDER ASSISTANCE / MEDICAL AID;
- ☒ 12. NOTIFY AND EVACUATE PERSONS IN ALL THREATENED AREAS;
- ☒ 13. ACCOUNT FOR EVACUATED PERSONS IMMEDIATELY AFTER EVACUATION CALL;
- ☒ 14. PROVIDE PROTECTIVE EQUIPMENT FOR ON-SITE RESPONSE TEAM;
- ☒ 15. REMOVE OR ISOLATE CONTAINERS / AREA AS APPROPRIATE;
- ☒ 16. HIRE LICENSED HAZARDOUS WASTE CONTRACTOR;
- ☒ 17. USE ABSORBENT MATERIAL FOR SPILLS WITH SUBSEQUENT PROPER LABELING, STORAGE, AND HAZARDOUS WASTE DISPOSAL AS APPROPRIATE;
- ☐ 18. SUCTION USING SHOP VACUUM WITH SUBSEQUENT PROPER LABELING, STORAGE, AND HAZARDOUS WASTE DISPOSAL AS APPROPRIATE;
- ☐ 19. WASH / DECONTAMINATE EQUIPMENT W/ CONTAINMENT and DISPOSAL OF EFFLUENT / RINSATE AS HAZARDOUS WASTE;
- ☒ 20. PROVIDE SAFE TEMPORARY STORAGE OF EMERGENCY-GENERATED WASTES;
- ☒ 21. OTHER (Specify): Hazardous waste clean-up is completed by outside contractor

D2.

## E. FACILITY EVACUATION

THE FOLLOWING ALARM SIGNAL(S) WILL BE USED TO BEGIN EVACUATION OF THE FACILITY (CHECK ALL THAT APPLY): E1.

- ☐ 1. BELLS;
- ☒ 2. HORNS/SIRENS;
- ☒ 3. VERBAL (I.E., SHOUTING);
- ☒ 4. OTHER (Specify): Radios

E2.

THE FOLLOWING LOCATION(S) IS/ARE EVACUEE EMERGENCY ASSEMBLY AREA(S) (i.e., Front parking lot, specific street corner, etc.) E3.

Front parking lot

Note: The Emergency Coordinator must account for all on site employees and/or site visitors after evacuation.

☒ EVACUATION ROUTE MAP(S) POSTED AS REQUIRED E4.

Note: The map(s) must show primary and alternate evacuation routes, emergency exits, and primary and alternate staging areas, and must be prominently posted throughout the facility in locations where it will be visible to employees and visitors.

## F. ARRANGEMENTS FOR EMERGENCY SERVICES

**Explanation of Requirement:** Advance arrangements with local fire and police departments, hospitals, and/or emergency services contractors should be made as appropriate for your facility. You may determine that such arrangements are not necessary.

ADVANCE ARRANGEMENTS FOR LOCAL EMERGENCY SERVICES (Check one of the following) F1.

- ☐ 1. HAVE BEEN DETERMINED NOT NECESSARY; *or*
- ☒ 2. THE FOLLOWING ARRANGEMENTS HAVE BEEN MADE (Specify):

F2.

1. Contract with PAMF medical foundation for all employee injuries (650-934-7000)
2. Contract with PSC emergency contractor for all haz mat and waste spills

# G. EMERGENCY EQUIPMENT

**Check all boxes that apply to list emergency response equipment available at the facility and identify the location(s) where the equipment is kept and the equipment's capability, if applicable.** [e.g., ☒ CHEMICAL PROTECTIVE GLOVES | Spill response kit | One time use, Oil & solvent resistant only.]

| TYPE | EQUIPMENT AVAILABLE | LOCATION | CAPABILITY *(If applicable)* |
|---|---|---|---|
| Safety and First Aid | 1. ☒ CHEMICAL PROTECTIVE SUITS, APRONS, OR VESTS | G2. Aisle 19 | G3. |
| | 2. ☒ CHEMICAL PROTECTIVE GLOVES | G4. Aisle 19 | G5. |
| | 3. ☒ CHEMICAL PROTECTIVE BOOTS | G6. Aisle 19 | G7. |
| | 4. ☒ SAFETY GLASSES / GOGGLES / SHIELDS | G8. Tool Corral | G9. |
| | 5. ☒ HARD HATS | G10. Aisle 19 | G11. |
| | 6. ☒ CARTRIDGE RESPIRATORS | G12. Aisle 19 | G13. |
| | 7. ☐ SELF-CONTAINED BREATHING APPARATUS (SCBA) | G14. | G15. |
| | 8. ☒ FIRST AID KITS / STATIONS | G16. Aisle 19 | G17. |
| | 9. ☒ PLUMBED EYEWASH FOUNTAIN / SHOWER | G18. Pick up station | G19. |
| | 10. ☐ PORTABLE EYEWASH KITS | G20. | G21. |
| | 11. ☒ OTHER | G22. Pick up area | G23. Eye wash station refillable |
| | 12. ☐ OTHER | G24. | G25. |
| Fire Fighting | 13. ☒ PORTABLE FIRE EXTINGUISHERS | G26. Aisle 19 | G27. |
| | 14. ☐ FIXED FIRE SYSTEMS / SPRINKLERS / FIRE HOSES | G28. | G29. |
| | 15. ☐ FIRE ALARM BOXES OR STATIONS | G30. | G31. |
| | 16. ☐ OTHER | G32. | G33. |
| Spill Control and Clean-Up | 17. ☒ ALL-IN-ONE SPILL KIT | G34. Pick up station | G35. |
| | 18. ☒ ABSORBENT MATERIAL | G36. Pick up station | G37. |
| | 19. ☒ CONTAINER FOR USED ABSORBENT | G38. Pick up station | G39. |
| | 20. ☒ BERMING / DIKING EQUIPMENT | G40. Pick up station | G41. |
| | 21. ☒ BROOM | G42. Aisle 19 | G43. |
| | 22. ☒ SHOVEL | G44. Aisle 19 | G45. |
| | 23. ☒ SHOP VAC | G46. Aisle 19 | G47. |
| | 24. ☐ EXHAUST HOOD | G48. | G49. |
| | 25. ☐ EMERGENCY SUMP / HOLDING TANK | G50. | G51. |
| | 26. ☐ CHEMICAL NEUTRALIZERS | G52. | G53. |
| | 27. ☐ GAS CYLINDER LEAK REPAIR KIT | G54. | G55. |
| | 28. ☐ SPILL OVERPACK DRUMS | G56. | G57. |
| | 29. ☐ OTHER | G58. | G59. |
| Communications and Alarm Systems | 30. ☒ TELEPHONES (Includes cellular) | G60. Front cashier stations and help desk | G61. |
| | 31. ☒ INTERCOM / PA SYSTEM | G62. Front cashier stations and help desk | G63. |
| | 32. ☒ PORTABLE RADIOS | G64. All team members | G65. |
| | 33. ☐ AUTOMATIC ALARM CHEMICAL MONITORING EQUIPMENT | G66. | G67. |
| Other | 34. ☒ OTHER | G68. Duck tape Aisle 10 | G69. |
| | 35. ☐ OTHER | G70. | G71. |

## H. EARTHQUAKE VULNERABILITY

Identify areas of the facility that are vulnerable to hazardous materials releases / spills due to earthquake-related motion. These areas require immediate isolation and inspection.

| VULNERABLE AREAS: (Check all that apply) | H1. | LOCATIONS (e.g., shop, outdoor shed, forensic lab) | |
|---|---|---|---|
| ☒ 1. HAZARDOUS MATERIALS / WASTE STORAGE AREA | | Pick up station waste storage area. | H2. |
| ☐ 2. PROCESS LINES / PIPING | | | H3. |
| ☐ 3. LABORATORY | | | H4 |
| ☐ 4. WASTE TREATMENT AREA | | | H5. |

Identify mechanical systems vulnerable to releases / spills due to earthquake-related motion. These systems require immediate isolation and inspection.

| VULNERABLE SYSTEMS: (Check all that apply) | H6. | LOCATIONS | |
|---|---|---|---|
| ☒ 1. SHELVES, CABINETS AND RACKS | | Throughout store | H7 |
| ☐ 2. TANKS (EMERGENCY SHUTOFF) | | | H8 |
| ☒ 3. PORTABLE GAS CYLINDERS | | Propane tanks pick up station | H9 |
| ☒ 4. EMERGENCY SHUTOFF AND/OR UTILITY VALVES | | Electrical room | H10. |
| ☒ 5. SPRINKLER SYSTEMS | | Throughout store | H11. |
| ☒ 6. STATIONARY PRESSURIZED CONTAINERS (e.g., Propane dispensing tank) | | Propane at pick up | H12. |

## I. EMPLOYEE TRAINING

**Explanation of Requirement:** Employee training is required for all employees handling hazardous materials and hazardous wastes in day-to-day or clean-up operations including volunteers and/or contractors. Training must be:

- Provided within 6 months for new hires;
- Amended as necessary prior to change in process or work assignment;
- Given upon modification to the Emergency Response / Contingency Plan, and updated/refreshed annually for all employees.

Required content includes all of the following:

- Material Safety Data Sheets;
- Hazard communication related to health and safety;
- Methods for safe handling of hazardous substances;
- Fire hazards of materials / processes;
- Conditions likely to worsen emergencies;
- Coordination of emergency response;
- Notification procedures;
- Applicable laws and regulations;
- Communication and alarm systems;
- Personal protective equipment;
- Use of emergency response equipment (e.g. Fire extinguishers, respirators, etc.);
- Decontamination procedures;
- Evacuation procedures;
- Control and containment procedures;
- UST monitoring system equipment and procedures (if applicable).

INDICATE HOW EMPLOYEE TRAINING PROGRAM IS ADMINISTERED (Check all that apply) I1.

☒ 1. FORMAL CLASSROOM; ☐ 2. VIDEOS; ☒ 3. SAFETY / TAILGATE MEETINGS;

☒ 4. STUDY GUIDES / MANUALS (Specify): Emergency action plan, monthly safety postings, etc. I2.

☒ 5. OTHER (Specify): On-line E learning system for environmental compliance replaces videos above. I3.

☐ 6. NOT APPLICABLE BECAUSE FACILITY HAS NO EMPLOYEES

**Large Quantity Generator (LQG) Training Records:** Large quantity hazardous waste generators (i.e., who generate more than 270 gallons/1,000 kilograms of hazardous waste per month) must retain written documentation of employee hazardous waste management training sessions which includes:

- A written outline/agenda of the type and amount of both introductory and continuing training that will be given to persons filling each job position having responsibility for the management of hazardous waste (e.g., labeling, manifesting, compliance with accumulation time limits, etc.).
- The name, job title, and date of training for each hazardous waste management training session given to an employee filling such a job position; and
- A written job description for each of the above job positions that describes job duties and the skills, education, or other qualifications required of personnel assigned to the position.
- Current employee training records must be retained until closure of the facility.
- Former employee training records must be retained at least three years after termination of employment.

## J. LIST OF ATTACHMENTS

(Check one of the following) J1

☒ 1. NO ATTACHMENTS ARE REQUIRED; *or*

☐ 2. THE FOLLOWING DOCUMENTS ARE ATTACHED: J2.

# EMPLOYEE TRAINING PLAN

## 1. FACILITY INFORMATION

| BUSINESS NAME (Same as FACILITY NAME or DBA – Doing Business As) | FACILITY ID | CERS ID# |
|---|---|---|
| Orchard Supply Hardware #050 | 43-007-003523 | 10081324 |

| ADDRESS | 777 Sunnyvale-Saratoga Road Sunnyvale, CA 94086 |
|---|---|

## 2. TRAINING FOR PERSONNEL

| | |
|---|---|
| ☐ | Not applicable because facility has no employees |

**Personnel are trained in the following procedures:**

| | |
|---|---|
| ☑ | Internal alarm/notification |
| ☑ | Evacuation/re-entry procedures & assembly point locations |
| ☑ | Emergency incident reporting |
| ☑ | External emergency response organization notification |
| ☑ | Location(s) and contents of Emergency Response/Contingency Plan |
| ☑ | Facility evacuation drills, that are conducted at least: (Specify: "Quarterly", etc.) |

## 3. TRAINING FOR CHEMICAL HANDLERS

**Chemical Handlers are additionally trained in the following:**

| | |
|---|---|
| ☑ | Safe methods for handling and storage of hazardous materials |
| ☑ | Location(s) and proper use of fire and spill control equipment |
| ☑ | Spill procedures/emergency procedures |
| ☑ | Proper use of personal protective equipment |
| ☑ | Specific hazard(s) of each chemical to which they may be exposed, including routes of exposure (i.e., inhalation, ingestion, absorption) |
| ☑ | Hazardous Waste Handlers/Managers are trained in all aspects of hazardous waste management specific to their job duties (e.g., container accumulation time requirements, labeling requirements, storage area inspection requirements, manifesting requirements, etc.) |

## 4. EMERGENCY RESPONSE TEAM

**Members are capable of and engaged in the following:**
*Complete this section only if you have an in-house emergency response team*

| | |
|---|---|
| ☐ | Personnel rescue procedures |
| ☑ | Shutdown of operations |
| ☑ | Liaison with responding agencies |
| ☑ | Use, maintenance, and replacement of emergency response equipment |
| ☑ | Refresher training, which is provided at least annually |
| ☑ | Emergency response drills, which are conducted at least: (Specify: "Quarterly", etc.) Code Adam-Quarterly |

| 5. RECORD KEEPING | |
|---|---|
| **The following records are maintained at the facility** (Check all that apply).<br>*Note: This list of records does not necessarily identify every type of record required to be maintained by the facility.* | |
| ☑ | Current employees training records (to be retained until closure of the facility) |
| ☑ | Former employees' training records (to be retained at least three years after termination of employment) |
| ☑ | Training Program(s) (i.e., written description of introductory and continuing training) |
| ☑ | Current copy of this Emergency Response/Contingency Plan |
| ☑ | Record of recordable/reportable hazardous material/waste releases |
| ☑ | Record of hazardous material/waste storage area inspections |
| ☐ | Record of hazardous waste tank daily inspections |
| ☑ | Description and documentation of facility emergency response drills |

# County of Santa Clara

Department of Environmental Health

1555 Berger Drive, Suite 300
San Jose, California 95112-2716
(408) 918-3400
www.EHinfo.org


February 11, 2010

Mr. Tony Zarinelli
Pacific DSLA #2
P.O. Box 3060
Newport Beach, California 92658-9023

Subject: Fuel Leak Site Case Closure Former Firestone Tire, 112 E. El Camino Real, Sunnyvale, CA; Case No. 14-796, SCVWDID No. 06S2W36K01f

Dear Mr. Zarinelli:

This letter confirms the completion of a site investigation and remedial action for the underground storage tank(s) formerly located at the above-described location. Thank you for your cooperation throughout this investigation. Your willingness and promptness in responding to our inquiries concerning the former underground storage tank(s) are greatly appreciated.

Based on information in the above-referenced file and with the provision that the information provided to this agency was accurate and representative of site conditions, this agency finds that the site investigation and corrective action carried out at your underground storage tank(s) site is in compliance with the requirements of subdivisions (a) and (b) of Section 25296.10 of the Health and Safety Code and with corrective action regulations adopted pursuant to Section 25299.3 of the Health and Safety Code and that no further action related to the petroleum release(s) at the site is required.

This notice is issued pursuant to subdivision (g) of Section 25296.10 of the Health and Safety Code.

Please contact our office if you have any questions regardingthis matter.

Sincerely,

Ben Gale, Director


Board of Supervisors: Donald F. Gage, George Shirakawa, Dave Cortese, Ken Yeager, Liz Kniss
County Executive: Jeffrey V. Smith

# County of Santa Clara

Department of Environmental Health

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Subject: Fuel Leak Site Case Closure Former Firestone Tire, 112 E. El Camino Real, Sunnyvale, CA; Case No. 14-796, SCVWDID No. 06S2W36K01f

Dear Mr. Zarinelli:

This letter transmits the enclosed underground storage tank (UST) case closure letter for the subject case in accordance with Chapter 6.75 (Section 25296.10 [g]). The State Water Resources Control Board adopted this letter on February 20, 1997. As of March 1, 1997, all Local Oversight Programs (LOP) in the State are required to use this case closure letter for UST leak sites. The Santa Clara Valley Water District began transferring the LOP and all cases to the County of Santa Clara Department of Environmental Health on July 1, 2004. The County of Santa Clara is responsible for the issuance of the attached closure letter. The case closure summary is also enclosed. These documents confirm the completion of the investigation and cleanup of the reported release at the subject site. The subject fuel leak case is closed.

Please note the following conditions still remain at the site: residual contamination remains in soil of 71 parts per million (ppm) Total Petroleum Hydrocarbons as Diesel (TPHd), 210 ppm Total Oil and Grease, and 0.062 Aroclor 1260.

Residual contamination in soil remains at the site that could pose an unacceptable risk under certain site development activities such as site grading, excavation, or the installation of water wells. The County and the appropriate planning and building department shall be notified prior to any changes in land use, grading activities, excavation, and installation of water wells. This notification shall include a statement that residual contamination exists on the property and list all mitigation actions, if any, necessary to ensure compliance with this site management requirement. The levels of residual contamination and any associated site risk are expected to reduce with time.


Board of Supervisors: Donald F. Gage, George Shirakawa, Dave Cortese, Ken Yeager, Liz Kniss
County Executive: Jeffrey V. Smith

If you have any questions regarding the enclosed case closure form, please call Ms. Lani Lee of the Local Oversight Program at (408) 918-1977. Thank you.

Sincerely,

Nicole Pullman

Nicole Pullman
Program Manager
Hazardous Materials Compliance Division
Local Oversight Program

Attachments:
1. Case Closure Letter
2. Case Closure Summary

cc/enc: Mr. David Charter, State Water Resources Control Board
Mr. Nathan King, Regional Water Quality Control Board
Ms. Lily Lee, Division of Clean Water Programs
Mr. Woody Lovejoy, TCG, 394 Cecilia Way, Tiburon, CA 94920

# County of Santa Clara

**Environmental Resource Agency**
**Department of Environmental Health**

**CASE CLOSURE SUMMARY**
**Leaking Underground Fuel Storage Tank Program**

Date: January 29, 2010

## I. AGENCY INFORMATION

| | |
|---|---|
| Agency Name: County of Santa Clara, Department of Environmental Health | Address: 1555 Berger Drive, #300 |
| City/State/Zip: San Jose, CA 95112 | Phone: (408) 918-3400 |
| Responsible Staff Person: Lani Lee | Title: Hazardous Materials Specialist II |

## II. CASE INFORMATION

| | | |
|---|---|---|
| Site Facility Name: Former Firestone Tire | | |
| Site Facility Address: 112 E. El Camino Real, Sunnyvale 94087 | | |
| RB LUSTIS Case No: -- | Local Case No: 06S2W36K01f | LOP Case No.: 14-796 |
| URF Filing Date: -- | SWEEPS No.: -- | APN: 211-17-001 |
| Responsible Parties | Address | Phone Number |
| Pacific DSLA #2<br>c/o Tony Zarinelli | P.O. Box 3060<br>Newport Beach, CA 92658-9023 | -- |

| Tank I.D. No. | Size in Gallons | Contents | Closed In Place/Removed? | Date |
|---|---|---|---|---|
| 1 | 100 | Hydraulic Fluid | Removed | 5/09 |
| Piping | | | | |

## III. RELEASE AND SITE CHARACTERIZATION INFORMATION

| | | |
|---|---|---|
| Cause and Type of Release: Unknown | | |
| Site characterization complete? Yes | Date Approved by Oversight Agency: 1/29/10 | |
| Monitoring wells installed? No | Number: 0 | Proper screened interval? NA |
| Highest GW Depth Below Ground Surface: > 60' | Lowest Depth: > 60' | Flow Direction: northerly* |
| Most Sensitive Current Use: Potential Drinking Water | | |

* Groundwater flow reported for fuel leak investigations in the area of the site is between northwesterly to northerly to northeasterly.

| | |
|---|---|
| Summary of Production Wells in Vicinity: There are no active water supply wells located within a ¼-mile radius of the site. An active environmental well was identified as being located onsite. Work was done to locate the well and it was not found. The SCVWD has changed the status of this well to abandoned. | |
| Are drinking water wells affected? No | Aquifer Name: Santa Clara Valley Basin |
| Is surface water affected? No | Nearest SW Name: Sunnyvale East Channel ~3,624 ft southeast |
| Off-site Beneficial Use Impacts (Addresses/Locations): none. | |
| Reports on file? Yes | Where are reports filed? County of Santa Clara, Dept. of Environmental Health |

| TREATMENT AND DISPOSAL OF AFFECTED MATERIAL | | | |
|---|---|---|---|
| Material | Amount (Include Units) | Action (Treatment or Disposal w/Destination) | Date |
| Tank | 1 – 100-gal. steel | Disposed; 21st Century EMI, Fernley, NV | 7/09 |
| Piping | Not Reported | Disposed; 21st Century EMI, Fernley, NV | 7/09 |
| Free Product | -- | -- | -- |
| Soil | 23 cubic yards | Disposed; Hay Road Landfill, Vacaville, CA | 11/09 |
| Groundwater | -- | -- | -- |
| Barrels | -- | -- | -- |

**MAXIMUM DOCUMENTED CONTAMINANT CONCENTRATIONS BEFORE AND AFTER CLEANUP**
(Please see Attachment 3 for additional information on contaminant locations and concentrations)

| | Soil (ppm) | | Water (ppb) | | | Soil (ppm) | | Water (ppb) | |
|---|---|---|---|---|---|---|---|---|---|
| Contaminant | Before | After | Before | After | Contaminant | Before | After | Before | After |
| TPH (Gas) | 4.3[1] | <0.24[3] | -- | -- | Xylene | 0.031[1] | <0.0098[3] | -- | -- |
| TPH (Diesel) | 15,000[1] | 71[4] | -- | -- | Ethylbenzene | 0.005[1] | <0.0049[3] | -- | -- |
| Benzene | ND[2] | ND[2] | -- | -- | Oil & Grease | 32,000[1] | 210[3] | -- | -- |
| Toluene | 0.006[1] | <0.0049[3] | -- | -- | Heavy Metals | NA | NA | -- | -- |
| Aroclor 1248<br>Aroclor 1260 | 2.8[1]<br>2.8[1] | <0.050[3]<br>0.062[3] | -- | -- | MTBE<br>Acetone | ND[2]<br>0.36[1] | ND[2]<br><0.048[3] | -- | -- |

Description of Interim Remediation Activities: soil removal

NA – Not Analzyed

Notes:

1. Soil sample D-1 collected 8 feet below the ground surface (ft bgs) in the underground storage tank (UST) excavation on 5/12/09.
2. All soil samples analyzed for these constituents were not reported to have concentrations present above the laboratory reporting limits.
3. Soil sample BD-1 collected at 10 ft bgs in the same excavation as sample D1 on 5/12/09. This confirmation soil sample was also reported to contain 10 ppm TPHd.
4. Soil sample HL7-4 collected at 16 ft bgs in the same excavation as HL7 on 9/29/09. This was the deepest excavation.

## IV. CLOSURE

| |
|---|
| Does completed corrective action protect existing beneficial uses per the Regional Board Basin Plan? Yes |
| Does completed corrective action protect potential beneficial uses per the Regional Board Basin Plan? Yes |
| Does corrective action protect public health for current land use? Environmental Health Department staff does not make specific determinations concerning public health risk. However, it does not appear that the release would present a risk to human health. |
| Site Management Requirements: Residual contamination in soil remains at the site that could pose an unacceptable risk under certain site development activities such as site grading, excavation, or the installation of water wells. Therefore, the impact of the disturbance of any residual contamination shall be assessed and appropriate action taken so that there is no significant impact to human health, safety, or the environment. This could necessitate additional sampling, health risk assessment, and mitigation measures. DEH and the appropriate planning and building department shall be notified prior to any changes in land use, grading activities, and excavation. This notification shall include a statement that residual contamination exists on the property and list all mitigation actions, if any, necessary to ensure compliance with this site management requirement. The levels of residual contamination and any |

| | | |
|---|---|---|
| associated site risk are expected to reduce with time. | | |
| Should corrective action be reviewed if land use changes? Yes, See Site Management Requirements | | |
| Number of Wells Commissioned: 0 | Number of Wells Decommissioned: 0 | Number of Wells Retained: 0 |
| List Enforcement Actions Taken: None. | | |
| List Enforcement Actions Rescinded: None. | | |

## V. ADDITIONAL COMMENTS, DATA, ETC.

Site History:

2009 – In May, 6 hydraulic lifts and an underground storage tank (UST) were removed from the site. The UST was reported to have contained hydraulic oil. Soil samples (HL1 through HL5 and HL7) were collected beneath the hydraulic lifts at depths of 6.5-9.5 feet below the ground surface. None of these samples were reported to contain Polychlorinated Biphenyls (PCBs) above the laboratory reporting limit.

Sample HL1 (7 ft bgs) was reported to contain 85 parts per million (ppm) Total Petroleum Hydrocarbons as Diesel (TPHd) and 210 ppm Hydrocarbon Oil Range Organics (HORO). TPH as Gasoline (TPHg), Fuel Oxygenates (FOs) and Volatile Organic Compounds (VOCs) were not reported to be present above the laboratory reporting limits. Additional excavation was conducted in June in this area and sample HL1-2 was collected from 9.5 ft bgs and was reported to contain 3,500 ppm TPHd and 4,700 ppm HORO. In August, additional soil was removed and sample HL1-3 was collected at 11.5 ft bgs and reported to contain 3.3 ppm TPHd and HORO was not present above the laboratory reporting limit.

Sample HL7 (6.5 ft bgs) was reported to contain 900 ppm TPHd and 2,700 ppm HORO. TPHg, FOs and VOCs were not reported to be present above the laboratory reporting limits. Additional excavation was conducted in June in this area and sample HL7-2 was collected from 11.5 ft bgs and was reported to contain 410 ppm TPHd and 750 ppm HORO. In August, additional soil was removed and sample HL703 was collected at 12 ft bgs and reported to contain 570 ppm TPHd and 1,500 ppm HORO.

2 soil samples (T1 and D1) were collected from beneath the UST. Sample T1 was collected from the bottom of the excavation at approximately 5 ft bgs and D1 was collected from stained soil within the excavation at 8 ft bgs. Additional soil was removed in the area of sample D1 from the excavation and sample BD1 was collected from 10 ft bgs. Sample D1 was reported to have the maximum concentrations of 4.3 ppm TPHg, 15,000 ppm TPHd, 32,000 ppm HORO, 0.360 ppm Acetone, 0.180 ppm 1,2,4-Trimethylbenzene, 2.8 ppm PCB 1248, 2.8 PCB-1260, and very low concentrations of other VOCs. Benzene and FOs were not reported to be present above the laboratory reporting limits.

Sample BD1 was reported to contain 84 ppm TPHd, 210 ppm HORO, and 0.062 ppm PCB-1260. All other Constituents of Concern (COCs) were not reported to be present above the laboratory reporting limits. Additional excavation was conducted in June and sample BD1-2 was collected from 12.5 ft bgs and reported to contain 10 ppm TPHd. HORO was not reported to be present above the laboratory reporting limit.

In September, a boring (SB2) was advanced to 60 ft bgs within the HL7 excavation. The boring was allowed to site for 3 hours and groundwater did not enter the boring. Soil samples were analyzed from 14 and 16 ft bgs. The 14 foot sample was reported to contain 22 ppm TPHd and 88 ppm HORO and the 16 foot sample was not reported to have either constituent present above the laboratory reporting limits.

Additional soil was removed from the HL7 excavation and sample HL7-4 was collected from 16 ft bgs and was reported to contain 71 ppm TPHd and 97 ppm HORO.

During review of this case, it was found that an environmental well was located onsite and was listed as being active. Work was completed to try to locate the well and it was never located. Based on the investigative work completed, the SCVWD has changed the status of this well from active to abandoned.

Considerations and/or Variances:
Approximately 23 cubic yards of soil were removed from the site. Excavations were extended to approximately 16 ft bgs to remove impacted soil. Residual contamination remains in soil of 71 ppm TPHd, 210 ppm HORO, and 0.062 ppm Aroclor 1260. Benzene and MtBE were not reported to be present in any of the soil samples above the laboratory reporting limits.

Groundwater was not encountered during investigations onsite. First encountered groundwater is estimated to be present at depths of greater than 60 ft bgs.

There are no active water supply wells located within ¼-mile of the site.

Conclusion:
The Department of Environmental Health believes that the residual soil contamination at the site does not pose a continuing, significant threat to groundwater resources, human health, or the environment. Regional Water Quality Control Board objectives have not been compromised. The investigation was performed in accordance with state and local guidelines. The Department of Environmental Health recommends that this site be closed.

## VI. LOCAL AGENCY REPRESENTATIVE DATA

| | |
|---|---|
| Prepared by: Lani Lee | Title: Hazardous Materials Specialist II |
| Signature: | Date: January 29, 2010 |
| Approved by: Nicole Pullman | Title: Program Manager |
| Signature: Nicole Pullman | Date: 1/29/10 |

This closure approval is based upon the available information and with the provision that the information provided to this agency was accurate and representative of site conditions.

Former Firestone Tire
112 E. El Camino Real, Sunnyvale
06S2W36K01f

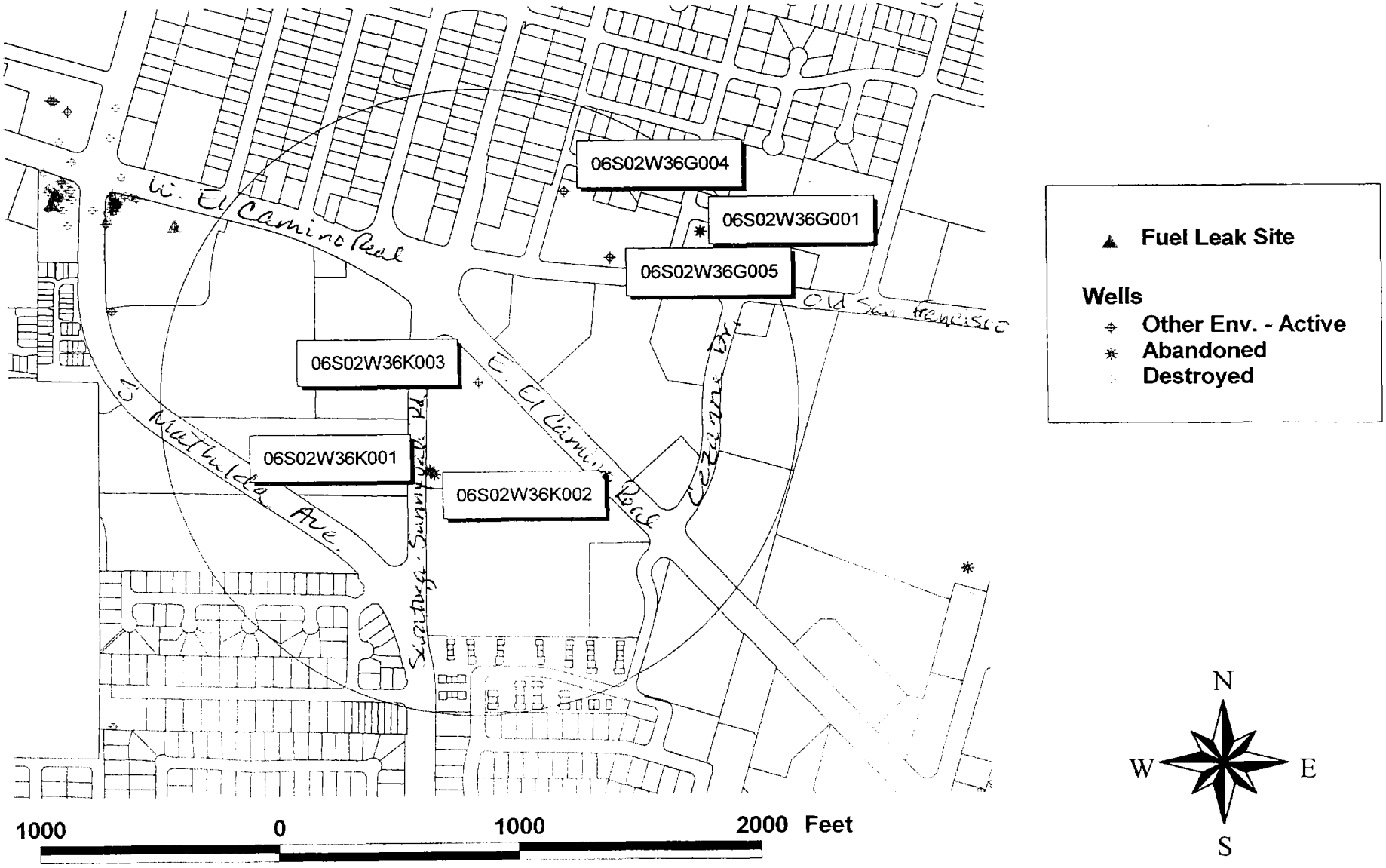
## VII. REGIONAL BOARD NOTIFICATION

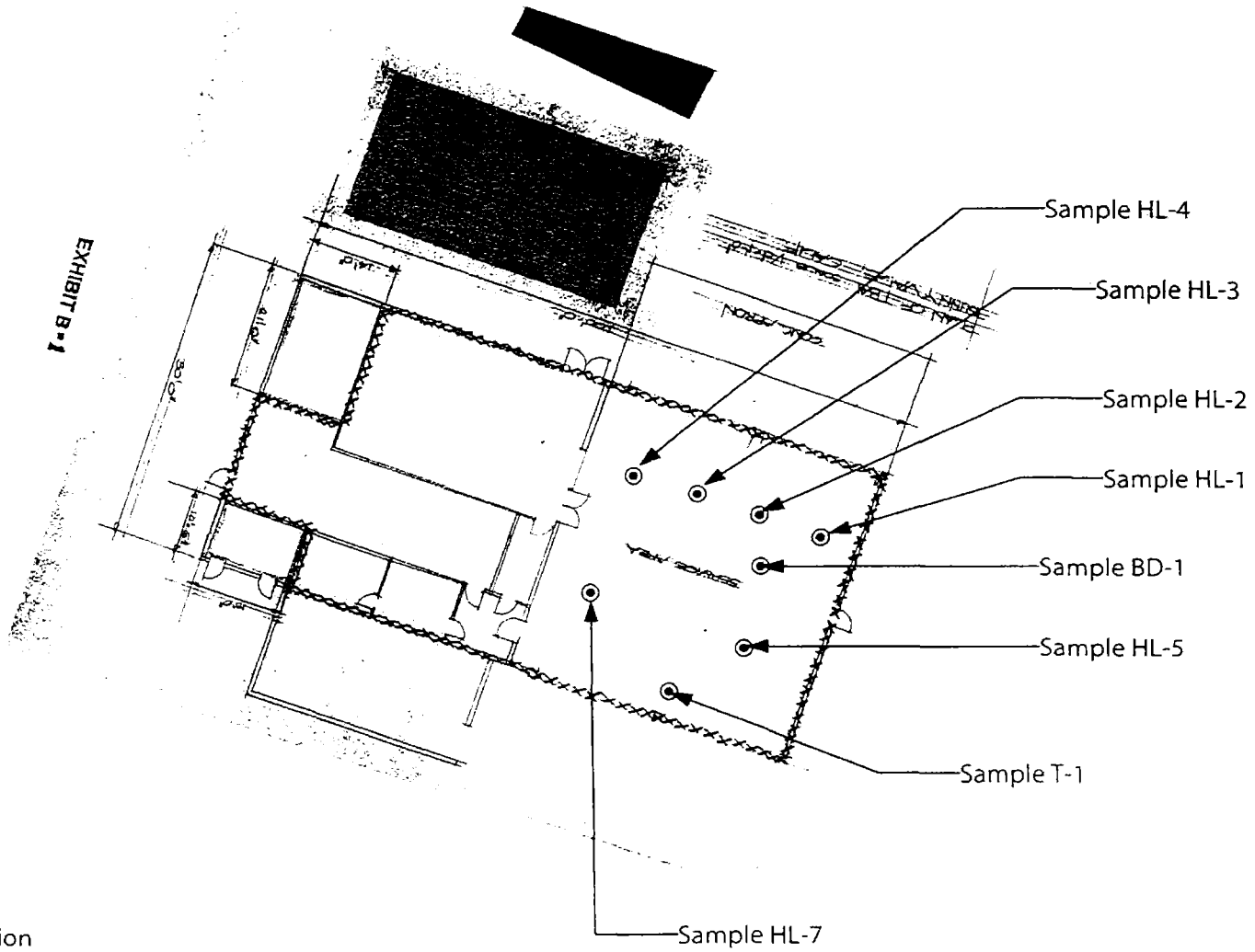
| | |
|---|---|
| Regional Board Staff Name: Nathan King | Title: Engineering Geologist |
| RB Response: Concur based solely upon information contained in this case closure summary. | Date Submitted to RB: |
| Signature: And Date: Nathan King | Nathan King cn=Nathan King, o=RWQCB, ou=Toxics Cleanup Division, email=nking@waterboards.ca.gov, c=US 2010.02.10 13:55:56 -08'00' |

Attachments:
1. Site Vicinity Map
2. Site Plan
3. Soil Analytical Data

This document and the related Case Closure Letter shall be retained by the lead agency as part of the official site file.

# Former Firestone Tire
# 112 E. El Camino Real, Sunnvyale
# 10/27/09






⦿ = Sample Location

THE CONSULTING GROUP
394 Cecilia Way, Tiburon, CA 94920
Tel: 415.381.2560 / Fax: 415.381.1741

| | |
|---|---|
| Job No | 092001 |
| Date | 16 September 2009 |
| Drawn by | RC |
| Rev | WL |
| Approv'd | WL |

**Sample Locations Sketch**
112 E. El Camino Real Sunnyvale, CA
For: Tony Zarinelli
Pacific Development Group
P.O. Box 3060
Newport Beach, CA 92658

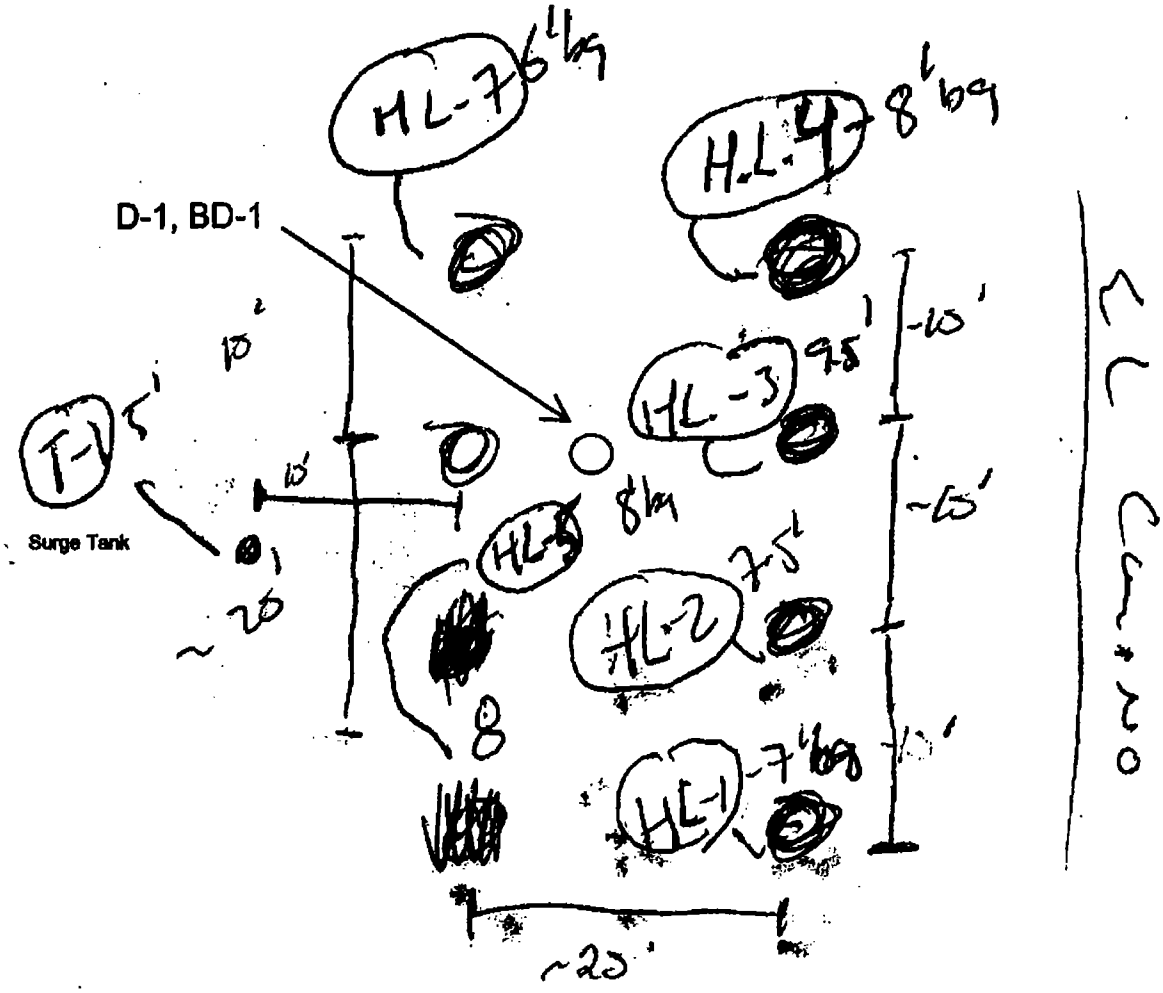
Project

N

Figure
**2**

Rick Miller Equipment 112 E. El Camino Sunnyvale

N



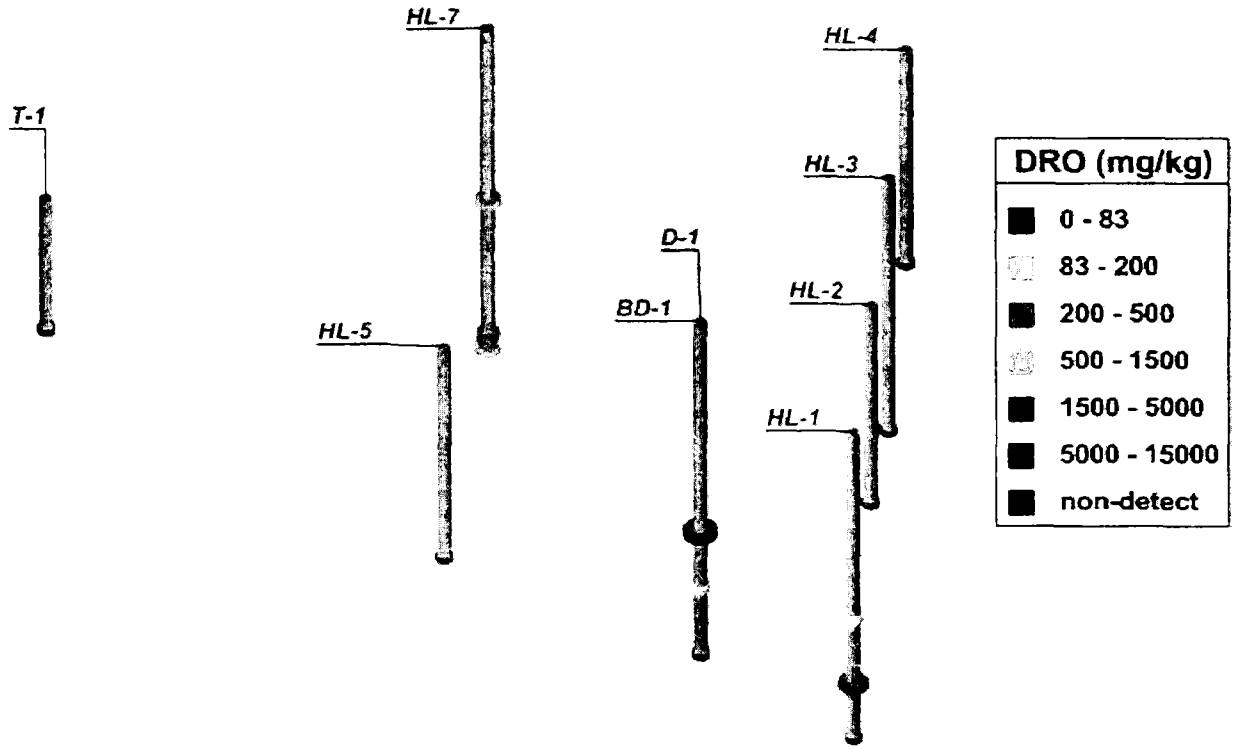

8 = double lift

O - Single Lift

⊛ - TANK Area

D-1 8' fbg

D-1 - Dirty Soil, BD-1 - Below Dirty Soil




THE CONSULTING GROUP
394 Cecilia Way, Tiburon, CA 94920
Tel: 415.381.2560 / Fax: 415.381.1741

| | |
|---|---|
| Job No | 092001 |
| Date | 13 August 2009 |
| Drawn by | RC |
| Rev | WL |
| Approvd | WL |

**Sample Locations with DRO Results**
112 E. El Camino Real Sunnyvale, CA
For: Tony Zarinelli
Pacific Development Group
P.O. Box 3060
Newport Beach, CA 92658

Project

Figure
3

## TABLE 1 - PETROLEUM PRODUCTS ANALYTICAL RESULTS

**Soil Sampling and Analysis - Hydraulic Lift Removal Program**
**112 East El Camino Real, Sunnyvale, California**
**TCG Project #092001**

Dup

| Sample # | HL-1 | HL-2 | HL-3 | HL-4 | HL-5 | HL-7 | T-1 | D-1 | BD-1 | HL-1-2 | HL-7-2 | BD-1-2 | HL-1-3 | HL-7-3 | SB2@12'-14' | SB2@14'-16' | HL-7-4 | HL7-4 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Date | 05/12/09 | 05/12/09 | 05/12/09 | 05/12/09 | 05/12/09 | 05/12/09 | 05/12/09 | 05/12/09 | 05/12/09 | 07/09/09 | 07/09/09 | 07/09/09 | 08/05/09 | 08/05/09 | 09/08/09 | 09/08/09 | 9/29/2009 | 9/29/2009 |
| Matrix | Soil | Soil | Soil | Soil | Soil | Soil | Soil | Soil | Soil | Soil | Soil | Soil | Soil | Soil | Soil | Soil | Soil | Soil |
| Constituent | 7' | | | | | 6.5 | | 8' | 10' | 9.5' | 11.5 | 12.5' | 11.5' | 12' | | | 16' | 16' |
| | Modified EPA Method 8015 (mg/kg) | | | | | | | | | | | | | | | | | |
| DRO | ***85*** | 19 | 10 | 17 | 4.5 | ***990*** | 1.1 | ***15000*** | ***84*** | ***3500*** | ***210*** | 10 | 3.3 | ***570*** | 22 | ND(0.99) | 10 | 71 |
| HORO | 210 | ND(50) | ND(50) | 56 | ND(50) | ***2700*** | ND(50) | ***32000*** | 210 | ***4700*** | ***750*** | ND(49) | ND/949) | ***1500*** | 88 | ND(50) | ND(50) | 97 |
| | EPA Method 8260 (mg/kg) | | | | | | | | | | | | | | | | | |
| Benzene | ND(0.0043) | ND(0.0047) | ND(0.0048) | ND(0.0048) | ND(0.0044) | ND(0.0044) | ND(0.0048) | ND(0.016) | ND(0.0049) | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| GRO | ND(0.22) | ND(0.23) | ND(0.24) | ND(0.24) | ND(0.22) | ND(0.22) | ND(0.24) | 4.3 | ND(0.24) | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| TAME | ND(0.0043) | ND(0.0047) | ND(0.0048) | ND(0.0048) | ND(0.0044) | ND(0.0044) | ND(0.0048) | ND(0.016) | ND(0.0049) | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| ETBE | ND(0.0043) | ND(0.0047) | ND(0.0048) | ND(0.0048) | ND(0.0044) | ND(0.0044) | ND(0.0048) | ND(0.016) | ND(0.0049) | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| Toluene | ND(0.0043) | ND(0.0047) | ND(0.0048) | ND(0.0048) | ND(0.0044) | ND(0.0044) | ND(0.0048) | ND(0.016) | ND(0.0049) | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| Xylenes | ND(0.0087) | ND(0.0093) | ND(0.0096) | ND(0.0096) | ND(0.0089) | ND(0.0095) | ND(0.0097) | ND(0.031) | ND(0.0098) | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| MTBE | ND(0.0043) | ND(0.0047) | ND(0.0048) | ND(0.0048) | ND(0.0044) | ND(0.0044) | ND(0.0048) | ND(0.016) | ND(0.0049) | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| DIPE | ND(0.0043) | ND(0.0047) | ND(0.0048) | ND(0.0048) | ND(0.0044) | ND(0.0044) | ND(0.0048) | ND(0.016) | ND(0.0049) | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| TBA | ND(0.0087) | ND(0.0093) | ND(0.0096) | ND(0.0096) | ND(0.0089) | ND(0.0088) | ND(0.0097) | ND(0.031) | ND(0.0098) | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| Ethyl-Benzene | ND(0.0043) | ND(0.0047) | ND(0.0048) | ND(0.0048) | ND(0.0044) | ND(0.0047) | ND(0.0048) | ND(0.016) | ND(0.0049) | NA | NA | NA | NA | NA | NA | NA | NA | NA |

Notes:
HL-1 = Sample designation
HL-7-4 = TCG Confirmation sample
HL7-4 = Watterson Confirmation sample
**bold** = detection
***bold italics*** = detection > ESL

PPB

# TABLE 2 - VOC ANALYTICAL RESULTS (Low Level)-Soil

**Soil Sampling and Analysis - Hydraulic Lift Removal Program**
**112 East El Camino Real, Sunnyvale, California**
**TCG Project #092001**

| Sample # | HL-1 | HL-2 | HL-3 | HL-4 | HL-5 | HL-7 | T-1 | D-1 | BD-1 |
|---|---|---|---|---|---|---|---|---|---|
| Date | 05/12/09 | 05/12/09 | 05/12/09 | 05/12/09 | 05/12/09 | 05/12/09 | 05/12/09 | 05/12/09 | 05/12/09 |
| Matrix | Soil | Soil | Soil | Soil | Soil | Soil | Soil | Soil | Soil |
| **Constituent** | | | | | | | | | |
| | | | | EPA Method 8260B (ug/kg) | | | | | |
| MTBE | ND(5) | ND(4.9) | ND(4.9) | ND(4.9) | ND(5) | ND(5) | ND(4.9) | ND(4.8) | ND(4.8) |
| Acetone | ND(50) | ND(49) | ND(49) | ND(49) | ND(50) | ND(50) | ND(49) | ***360*** | ND(48) |
| Benzene | ND(5) | ND(4.9) | ND(4.9) | ND(4.9) | ND(5) | ND(5) | ND(4.9) | ND(4.8) | ND(4.8) |
| Bromodichloromethane | ND(5) | ND(4.9) | ND(4.9) | ND(4.9) | ND(5) | ND(5) | ND(4.9) | ND(4.8) | ND(4.8) |
| Bromobenzene | ND(5) | ND(4.9) | ND(4.9) | ND(4.9) | ND(5) | ND(5) | ND(4.9) | ND(4.8) | ND(4.8) |
| Bromochloromethane | ND(20) | ND(20) | ND(20) | ND(20) | ND(20) | ND(20) | ND(20) | ND(20) | ND(20) |
| Bromoform | ND(5) | ND(4.9) | ND(4.9) | ND(4.9) | ND(5) | ND(5) | ND(4.9) | ND(4.8) | ND(4.8) |
| Bromomethane | ND(10) | ND(9.8) | ND(9.9) | ND(9.9) | ND(9.9) | ND(9.9) | ND(9.8) | ND(9.6) | ND(9.7) |
| 2-Butanone (MEK) | ND(50) | ND(49) | ND(49) | ND(49) | ND(50) | ND(50) | ND(49) | **84** | ND(48) |
| n-Butylbenzene | ND(5) | ND(4.9) | ND(4.9) | ND(4.9) | ND(5) | ND(5) | ND(4.9) | **41** | ND(4.8) |
| sec-Butylbenzene | ND(5) | ND(4.9) | ND(4.9) | ND(4.9) | ND(5) | ND(5) | ND(4.9) | **20** | ND(4.8) |
| tert-Butylbenzene | ND(5) | ND(4.9) | ND(4.9) | ND(4.9) | ND(5) | ND(5) | ND(4.9) | ND(4.8) | ND(4.8) |
| Carbon Disulfide | ND(5) | ND(4.9) | ND(4.9) | ND(4.9) | ND(5) | ND(5) | ND(4.9) | ND(4.8) | ND(4.8) |
| Carbon Tetrachloride | ND(5) | ND(4.9) | ND(4.9) | ND(4.9) | ND(5) | ND(5) | ND(4.9) | ND(4.8) | ND(4.8) |
| Chlorobenzene | ND(5) | ND(4.9) | ND(4.9) | ND(4.9) | ND(5) | ND(5) | ND(4.9) | ND(4.8) | ND(4.8) |
| Chloroethane | ND(10) | ND(9.8) | ND(9.9) | ND(9.9) | ND(9.9) | ND(9.9) | ND(9.8) | ND(9.6) | ND(9.7) |
| Chloroform | ND(5) | ND(4.9) | ND(4.9) | ND(4.9) | ND(5) | ND(5) | ND(4.9) | ND(4.8) | ND(4.8) |
| Chloromethane | ND(10) | ND(9.8) | ND(9.9) | ND(9.9) | ND(9.9) | ND(9.9) | ND(9.8) | ND(9.6) | ND(9.7) |
| 2-Chlorotoluene | ND(5) | ND(4.9) | ND(4.9) | ND(4.9) | ND(5) | ND(5) | ND(4.9) | ND(4.8) | ND(4.8) |
| 4-Chlorotoluene | ND(5) | ND(4.9) | ND(4.9) | ND(4.9) | ND(5) | ND(5) | ND(4.9) | ND(4.8) | ND(4.8) |
| Dibromochloromethane | ND(5) | ND(4.9) | ND(4.9) | ND(4.9) | ND(5) | ND(5) | ND(4.9) | ND(4.8) | ND(4.8) |
| 1,2-Dichlorobenzene | ND(5) | ND(4.9) | ND(4.9) | ND(4.9) | ND(5) | ND(5) | ND(4.9) | ND(4.8) | ND(4.8) |
| 1,3-Dichlorobenzene | ND(5) | ND(4.9) | ND(4.9) | ND(4.9) | ND(5) | ND(5) | ND(4.9) | ND(4.8) | ND(4.8) |
| 1,4-Dichlorobenzene | ND(5) | ND(4.9) | ND(4.9) | ND(4.9) | ND(5) | ND(5) | ND(4.9) | ND(4.8) | ND(4.8) |
| 1,3-Dichloropropane | ND(5) | ND(4.9) | ND(4.9) | ND(4.9) | ND(5) | ND(5) | ND(4.9) | ND(4.8) | ND(4.8) |
| 1,1-Dichloropropene | ND(5) | ND(4.9) | ND(4.9) | ND(4.9) | ND(5) | ND(5) | ND(4.9) | ND(4.8) | ND(4.8) |
| 1,2-Dibromo-3-Chloropropane | ND(50) | ND(49) | ND(49) | ND(49) | ND(50) | ND(50) | ND(49) | ND(48) | ND(48) |
| 1,2-Dibromoethane (EDB) | ND(5) | ND(4.9) | ND(4.9) | ND(4.9) | ND(5) | ND(5) | ND(4.9) | ND(4.8) | ND(4.8) |
| Dibromoethane | ND(10) | ND(9.8) | ND(9.9) | ND(9.9) | ND(9.9) | ND(9.9) | ND(9.8) | ND(9.6) | ND(9.7) |
| Dichlorodifluoromethane | ND(10) | ND(9.8) | ND(9.9) | ND(9.9) | ND(9.9) | ND(9.9) | ND(9.8) | ND(9.6) | ND(9.7) |
| 1,1-Dichloroethane | ND(5) | ND(4.9) | ND(4.9) | ND(4.9) | ND(5) | ND(5) | ND(4.9) | ND(4.8) | ND(4.8) |

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| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| 1,2-Dichloroethane | ND(5) | ND(4.9) | ND(4.9) | ND(4.9) | ND(5) | ND(5) | ND(4.9) | ND(4.8) | ND(4.8) |
| 1,1-Dichloroethene | ND(5) | ND(4.9) | ND(4.9) | ND(4.9) | ND(5) | ND(5) | ND(4.9) | ND(4.8) | ND(4.8) |
| cis-1,2-Dichloroethene | ND(5) | ND(4.9) | ND(4.9) | ND(4.9) | ND(5) | ND(5) | ND(4.9) | ND(4.8) | ND(4.8) |
| trans-1,2-Dichloroethene | ND(5) | ND(4.9) | ND(4.9) | ND(4.9) | ND(5) | ND(5) | ND(4.9) | ND(4.8) | ND(4.8) |
| 1,2-Dichloropropane | ND(5) | ND(4.9) | ND(4.9) | ND(4.9) | ND(5) | ND(5) | ND(4.9) | ND(4.8) | ND(4.8) |
| cis-1,3-Dichloropropene | ND(5) | ND(4.9) | ND(4.9) | ND(4.9) | ND(5) | ND(5) | ND(4.9) | ND(4.8) | ND(4.8) |
| trans-1,3-Dichloropropene | ND(5) | ND(4.9) | ND(4.9) | ND(4.9) | ND(5) | ND(5) | ND(4.9) | ND(4.8) | ND(4.8) |
| Ethyl Benzene | ND(5) | ND(4.9) | ND(4.9) | ND(4.9) | ND(5) | ND(5) | ND(4.9) | **5** | ND(4.8) |
| Hexachlorobutadiene | ND(5) | ND(4.9) | ND(4.9) | ND(4.9) | ND(5) | ND(5) | ND(4.9) | ND(4.8) | ND(4.8) |
| 2-Hexanone (MBK) | ND(50) | ND(49) | ND(49) | ND(49) | ND(50) | ND(50) | ND(49) | ND(48) | ND(48) |
| Isopropylbenzene | ND(5) | ND(4.9) | ND(4.9) | ND(4.9) | ND(5) | ND(5) | ND(4.9) | **9.3** | ND(4.8) |
| 4-Isopropyltoluene | ND(5) | ND(4.9) | ND(4.9) | ND(4.9) | ND(5) | ND(5) | ND(4.9) | **26** | ND(4.8) |
| Methylene Chloride | ND(10) | ND(9.8) | ND(9.9) | ND(9.9) | ND(9.9) | ND(9.9) | ND(9.8) | ND(9.6) | ND(9.7) |
| 4-Methyl-2-Pentanone (MIBK) | ND(50) | ND(49) | ND(49) | ND(49) | ND(50) | ND(50) | ND(49) | ND(48) | ND(48) |
| Naphthalene | ND(10) | ND(9.8) | ND(9.8) | ND(9.8) | ND(9.9) | ND(9.9) | ND(9.8) | **56** | ND(9.7) |
| n-Propylbenzene | ND(5) | ND(4.9) | ND(4.9) | ND(4.9) | ND(5) | ND(5) | ND(4.9) | **24** | ND(4.8) |
| Styrene | ND(5) | ND(4.9) | ND(4.9) | ND(4.9) | ND(5) | ND(5) | ND(4.9) | ND(4.8) | ND(4.8) |
| 1,1,1,2-Tetrachloroethane | ND(5) | ND(4.9) | ND(4.9) | ND(4.9) | ND(5) | ND(5) | ND(4.9) | ND(4.8) | ND(4.8) |
| 1,1,2,2-Tetrachloroethane | ND(5) | ND(4.9) | ND(4.9) | ND(4.9) | ND(5) | ND(5) | ND(4.9) | ND(4.8) | ND(4.8) |
| Tetrachloroethene | ND(5) | ND(4.9) | ND(4.9) | ND(4.9) | ND(5) | ND(5) | ND(4.9) | ND(4.8) | ND(4.8) |
| Toluene | ND(5) | ND(4.9) | ND(4.9) | ND(4.9) | ND(5) | ND(5) | ND(4.9) | **6** | ND(4.8) |
| 1,2,3-Trichlorobenzene | ND(5) | ND(4.9) | ND(4.9) | ND(4.9) | ND(5) | ND(5) | ND(4.9) | **7.6** | ND(4.8) |
| 1,2,4-Trichlorobenzene | ND(5) | ND(4.9) | ND(4.9) | ND(4.9) | ND(5) | ND(5) | ND(4.9) | **16** | ND(4.8) |
| 1,1,1-Trichloroethane | ND(5) | ND(4.9) | ND(4.9) | ND(4.9) | ND(5) | ND(5) | ND(4.9) | ND(4.8) | ND(4.8) |
| 1,1,2-Trichloroethane | ND(5) | ND(4.9) | ND(4.9) | ND(4.9) | ND(5) | ND(5) | ND(4.9) | ND(4.8) | ND(4.8) |
| Trichloroethene | ND(5) | ND(4.9) | ND(4.9) | ND(4.9) | ND(5) | ND(5) | ND(4.9) | ND(4.8) | ND(4.8) |
| Trichlorofluoromethane | ND(5) | ND(4.9) | ND(4.9) | ND(4.9) | ND(5) | ND(5) | ND(4.9) | ND(4.8) | ND(4.8) |
| 1,2,3-Trichloropropane | ND(5) | ND(4.9) | ND(4.9) | ND(4.9) | ND(5) | ND(5) | ND(4.9) | ND(4.8) | ND(4.8) |
| 1,1,2-Trichloro 1,2,2-trifluoroethane | ND(5) | ND(4.9) | ND(4.9) | ND(4.9) | ND(5) | ND(5) | ND(4.9) | ND(4.8) | ND(4.8) |
| 1,2,4-Trimethylbenzene | ND(5) | ND(4.9) | ND(4.9) | ND(4.9) | ND(5) | ND(5) | ND(4.9) | **180** | ND(4.8) |
| 1,3,5-Trimethylbenzene | ND(5) | ND(4.9) | ND(4.9) | ND(4.9) | ND(5) | ND(5) | ND(4.9) | **61** | ND(4.8) |
| Vinyl Acetate | ND(50) | ND(49) | ND(49) | ND(49) | ND(50) | ND(50) | ND(49) | ND(48) | ND(48) |
| Vinyl Chloride | ND(5) | ND(4.9) | ND(4.9) | ND(4.9) | ND(5) | ND(5) | ND(4.9) | ND(4.8) | ND(4.8) |
| Total Xylenes | ND(10) | ND(9.8) | ND(9.9) | ND(9.9) | ND(9.9) | ND(9.9) | ND(9.8) | **31** | ND(9.7) |
| 2,2-Dichloropropane | ND(5) | ND(4.9) | ND(4.9) | ND(4.9) | ND(5) | ND(5) | ND(4.9) | ND(4.8) | ND(4.8) |

**Notes:**
HL-1 = sample designation
ND = not detected (method detection limit)
results in micrograms per liter (ug/l)
**bold = detection**

# TABLE 3 - PCB ANALYTICAL RESULTS

**Soil Sampling and Analysis - Hydraulic Lift Removal Program**
**112 East El Camino Real, Sunnyvale, California**
**TCG Project #092001**

| Sample # | HL-1 | HL-2 | HL-3 | HL-4 | HL-5 | HL-7 | T-1 | D-1 | BD-1 |
|---|---|---|---|---|---|---|---|---|---|
| Date | 05/12/09 | 05/12/09 | 05/12/09 | 05/12/09 | 05/12/09 | 05/12/09 | 05/12/09 | 05/12/09 | 05/12/09 |
| Matrix | Soil | Soil | Soil | Soil | Soil | Soil | Soil | Soil | Soil |
| | | | | | | | | | |
| Aroclor 1016 | ND(50) | ND(49) | ND(50) | ND(50) | ND(49) | ND(50) | ND(50) | ND(2500) | ND(50) |
| Aroclor 1221 | ND(50) | ND(49) | ND(50) | ND(50) | ND(49) | ND(50) | ND(50) | ND(2500) | ND(50) |
| Aroclor 1232 | ND(50) | ND(49) | ND(50) | ND(50) | ND(49) | ND(50) | ND(50) | ND(2500) | ND(50) |
| Aroclor 1242 | ND(50) | ND(49) | ND(50) | ND(50) | ND(49) | ND(50) | ND(50) | ND(2500) | ND(50) |
| Aroclor 1248 | ND(50) | ND(49) | ND(50) | ND(50) | ND(49) | ND(50) | ND(50) | ***2800*** | ND(50) |
| Aroclor 1254 | ND(50) | ND(49) | ND(50) | ND(50) | ND(49) | ND(50) | ND(50) | ND(2500) | ND(50) |
| Aroclor 1260 | **60** | ND(49) | ND(50) | ND(50) | ND(49) | ND(50) | ND(50) | ***2800*** | **62** |

**Notes:**
HL-1 sample desgignations
ND = not detected (method detection limit)
Results in milligrams per kilogram (ug/kg)
**bold = detection**
***bold italics = detection > ESL (220 ug/kg)***

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# APPENDIX E

## HISTORICAL DOCUMENTATION

**Commercial Property**
777 Sunnyvale Saratoga Road
Sunnyvale, CA 94087

Inquiry Number: 4326874.9
June 18, 2015

# The EDR Aerial Photo Decade Package

6 Armstrong Road, 4th Floor
Shelton, Connecticut 06484
Toll Free: 800.352.0050
www.edrnet.com

## Date EDR Searched Historical Sources:

Aerial Photography June 18, 2015

## Target Property:

777 Sunnyvale Saratoga Road
Sunnyvale, CA 94087

| *Year* | *Scale* | *Details* | *Source* |
|---|---|---|---|
| 1939 | Aerial Photograph. Scale: 1"=500' | Flight Year: 1939 | USGS |
| 1948 | Aerial Photograph. Scale: 1"=500' | Flight Year: 1948 | USGS |
| 1950 | Aerial Photograph. Scale: 1"=500' | Flight Year: 1950 | USGS |
| 1956 | Aerial Photograph. Scale: 1"=500' | Flight Year: 1956 | USGS |
| 1968 | Aerial Photograph. Scale: 1"=500' | Flight Year: 1968 | USGS |
| 1974 | Aerial Photograph. Scale: 1"=500' | Flight Year: 1974 | USGS |
| 1982 | Aerial Photograph. Scale: 1"=500' | Flight Year: 1982 | USGS |
| 1991 | Aerial Photograph. Scale: 1"=500' | /DOQQ - acquisition dates: 1991 | USGS/DOQQ |
| 1998 | Aerial Photograph. Scale: 1"=500' | Flight Year: 1998<br>Best Copy Available from original source | USGS |
| 2005 | Aerial Photograph. Scale: 1"=500' | Flight Year: 2005 | USDA/NAIP |
| 2006 | Aerial Photograph. Scale: 1"=500' | Flight Year: 2006 | USDA/NAIP |
| 2009 | Aerial Photograph. Scale: 1"=500' | Flight Year: 2009 | USDA/NAIP |
| 2010 | Aerial Photograph. Scale: 1"=500' | Flight Year: 2010 | USDA/NAIP |
| 2012 | Aerial Photograph. Scale: 1"=500' | Flight Year: 2012 | USDA/NAIP |

INQUIRY #: 4326874.9
YEAR: 1939
= 500'
N
EDR

INQUIRY #: 4326874.9
YEAR: 1982
= 500'
N
EDR

INQUIRY #: 4326874.9
YEAR: 1991
= 500'
N
EDR

INQUIRY #: 4326874.9
YEAR: 1998
= 500'
N
EDR

INQUIRY #: 4326874.9
YEAR: 2005
= 500'
N
EDR

INQUIRY #: 4326874.9
YEAR: 2006
= 500'
N
EDR

INQUIRY #: 4326874.9
YEAR: 2009
= 500'
N
EDR

INQUIRY #: 4326874.9
YEAR: 2010
= 500'
N
EDR

INQUIRY #: 4326874.9
YEAR: 2012
= 500'
N
EDR

**Commercial Property**
777 Sunnyvale Saratoga Road
Sunnyvale, CA 94087

Inquiry Number: 4326874.4
June 16, 2015

# EDR Historical Topographic Map Report

6 Armstrong Road, 4th Floor
Shelton, Connecticut 06484
Toll Free: 800.352.0050
www.edrnet.com

# EDR Historical Topographic Map Report

Environmental Data Resources, Inc.s (EDR) Historical Topographic Map Report is designed to assist professionals in evaluating potential liability on a target property resulting from past activities. EDRs Historical Topographic Map Report includes a search of a collection of public and private color historical topographic maps, dating back to the early 1900s.

***Thank you for your business.***
Please contact EDR at 1-800-352-0050
with any questions or comments.


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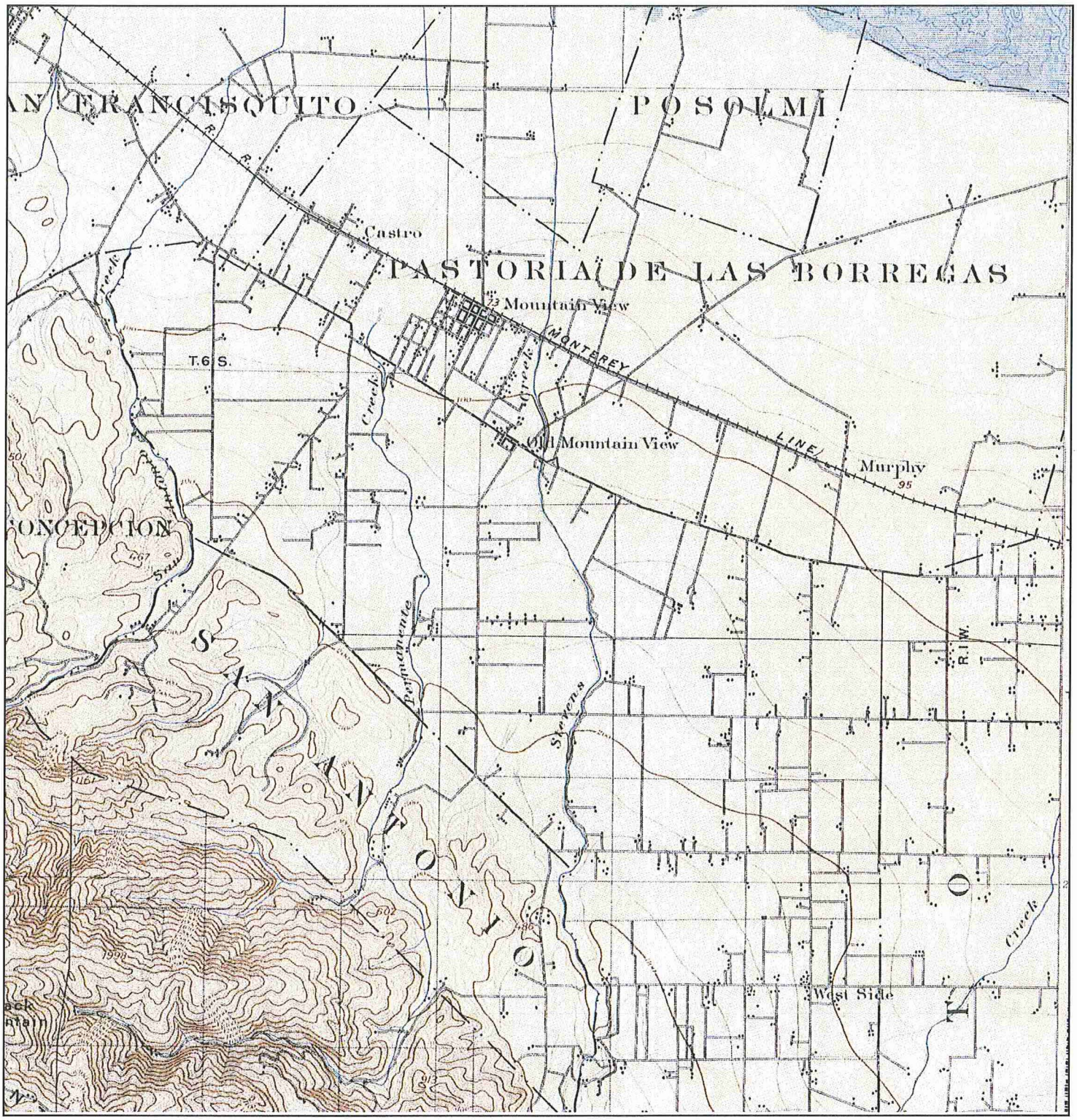
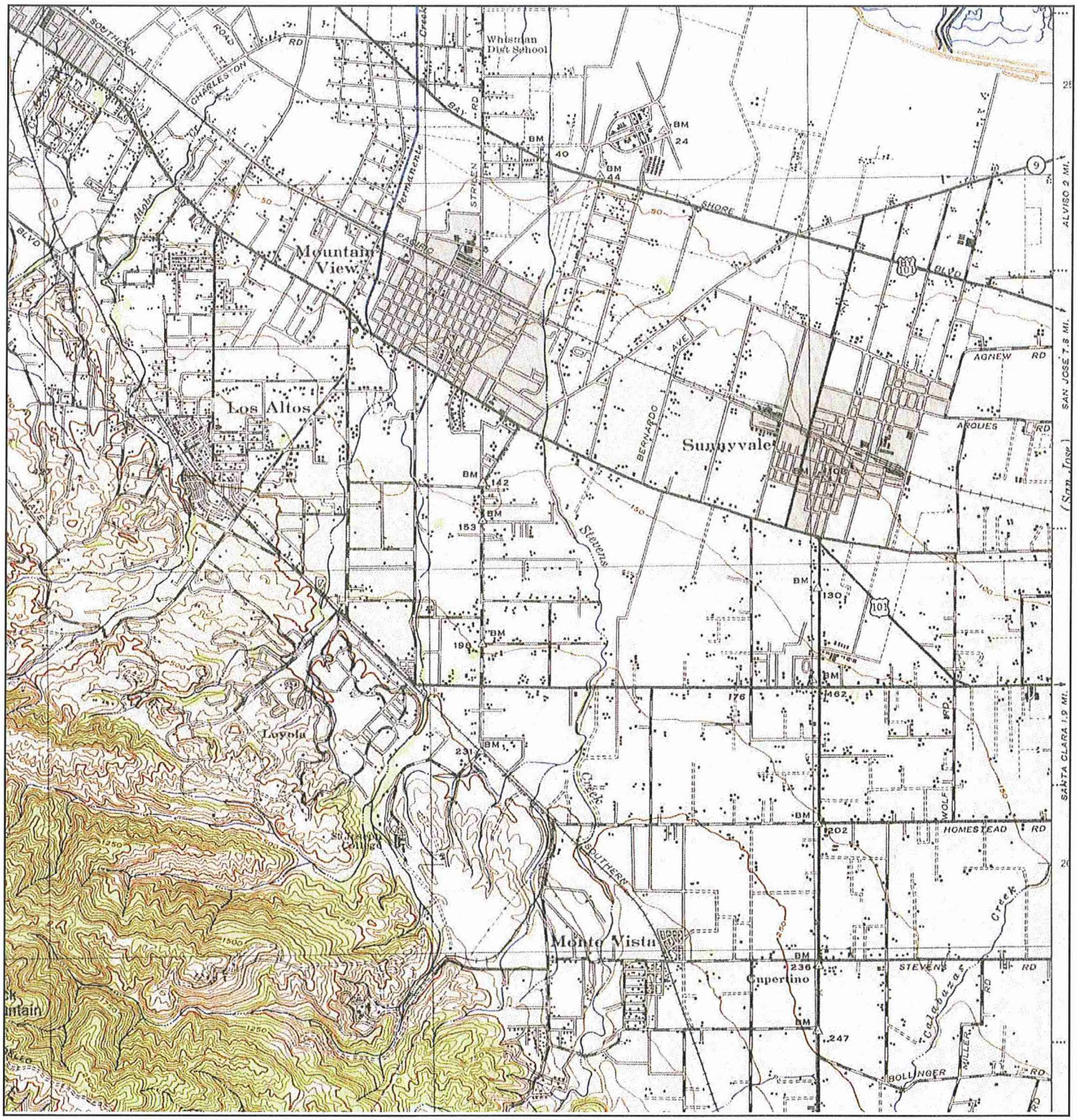
# Historical Topographic Map




| | | | |
|---|---|---|---|
| N | TARGET QUAD<br>NAME: PALO ALTO<br>MAP YEAR: 1899<br><br>SERIES: 15<br>SCALE: 1:62500 | SITE NAME: Commercial Property<br>ADDRESS: 777 Sunnyvale Saratoga Road<br>Sunnyvale, CA 94087<br>LAT/LONG: 37.3659 / -122.033 | CLIENT: MooreTwining Associates, Inc.<br>CONTACT: Philip Marquez<br>INQUIRY#: 4326874.4<br>RESEARCH DATE: 06/16/2015 |

# Historical Topographic Map




| | | | |
|---|---|---|---|
| N | TARGET QUAD<br>NAME: PALO ALTO<br>MAP YEAR: 1943<br><br>SERIES: 15<br>SCALE: 1:62500 | SITE NAME: Commercial Property<br>ADDRESS: 777 Sunnyvale Saratoga Road<br>Sunnyvale, CA 94087<br>LAT/LONG: 37.3659 / -122.033 | CLIENT: MooreTwining Associates, Inc.<br>CONTACT: Philip Marquez<br>INQUIRY#: 4326874.4<br>RESEARCH DATE: 06/16/2015 |

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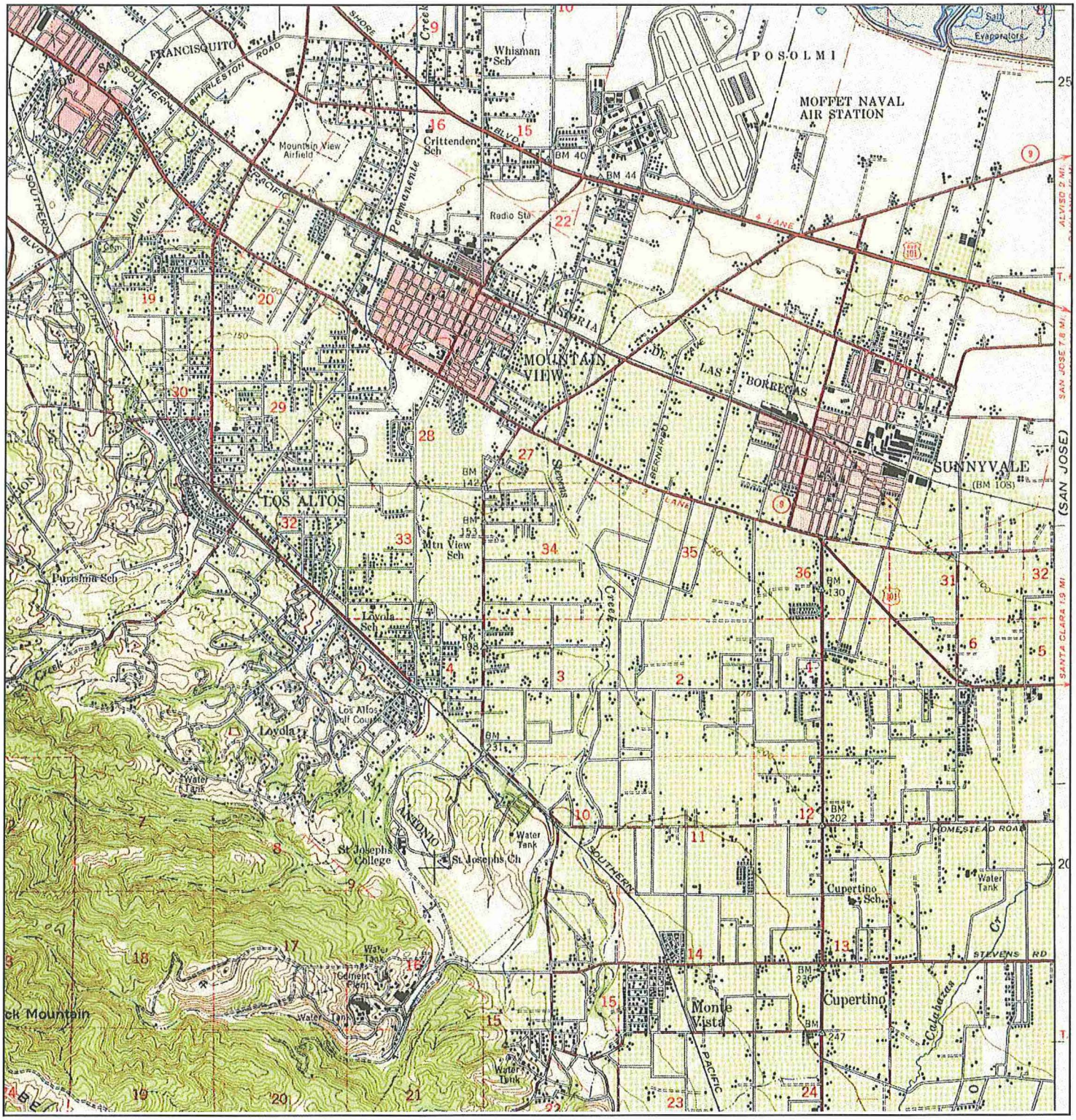


| | | | |
|---|---|---|---|
| N | TARGET QUAD<br>NAME: PALO ALTO<br>MAP YEAR: 1948<br><br>SERIES: 15<br>SCALE: 1:62500 | SITE NAME: Commercial Property<br>ADDRESS: 777 Sunnyvale Saratoga Road<br>Sunnyvale, CA 94087<br>LAT/LONG: 37.3659 / -122.033 | CLIENT: MooreTwining Associates, Inc.<br>CONTACT: Philip Marquez<br>INQUIRY#: 4326874.4<br>RESEARCH DATE: 06/16/2015 |

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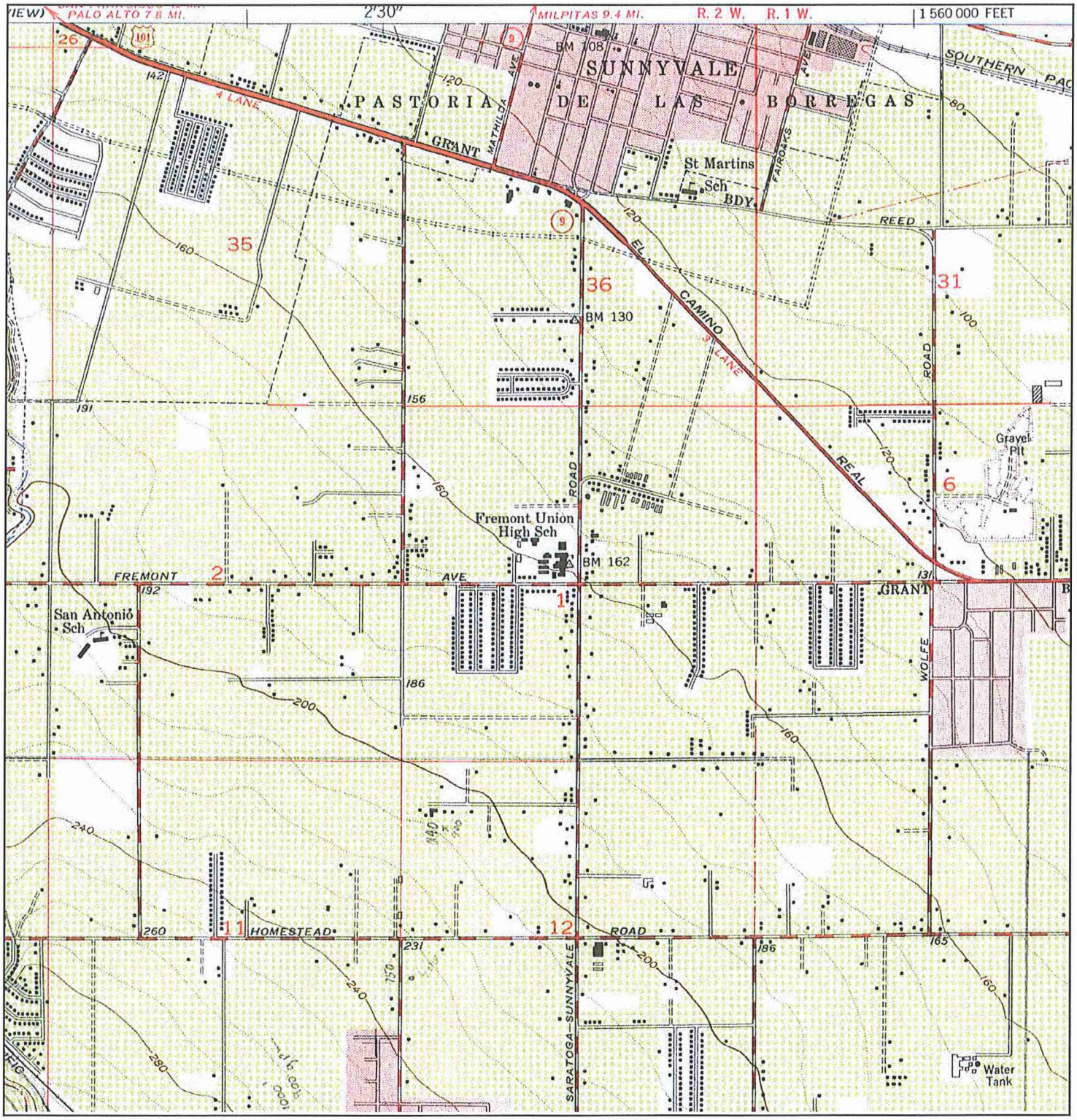


| | | | |
|---|---|---|---|
| N | TARGET QUAD<br>NAME: CUPERTINO<br>MAP YEAR: 1953<br><br>SERIES: 7.5<br>SCALE: 1:24000 | SITE NAME: Commercial Property<br>ADDRESS: 777 Sunnyvale Saratoga Road<br>Sunnyvale, CA 94087<br>LAT/LONG: 37.3659 / -122.033 | CLIENT: MooreTwining Associates, Inc.<br>CONTACT: Philip Marquez<br>INQUIRY#: 4326874.4<br>RESEARCH DATE: 06/16/2015 |

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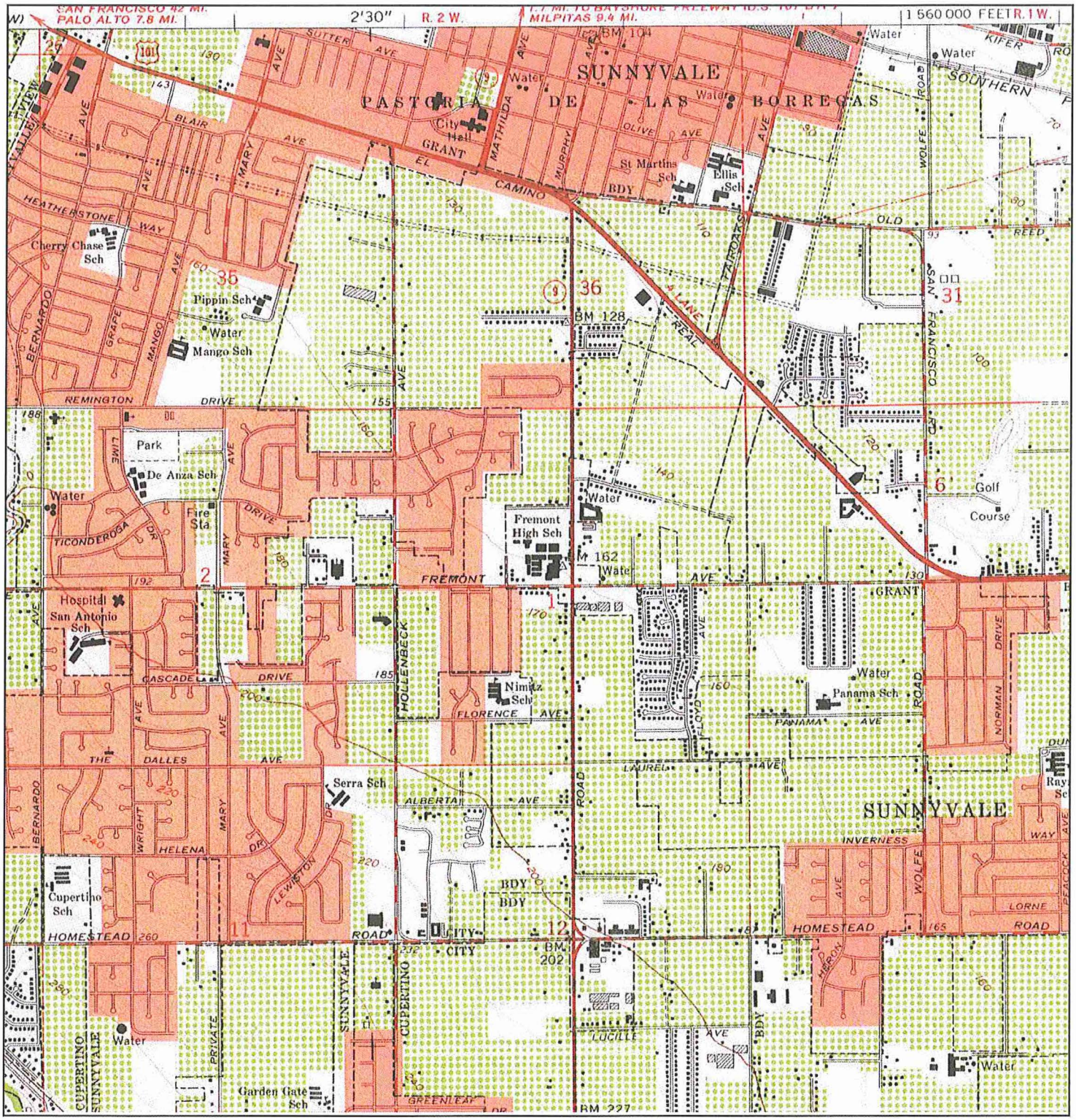


| | | | |
|---|---|---|---|
| N | TARGET QUAD<br>NAME: CUPERTINO<br>MAP YEAR: 1961<br><br>SERIES: 7.5<br>SCALE: 1:24000 | SITE NAME: Commercial Property<br>ADDRESS: 777 Sunnyvale Saratoga Road<br>Sunnyvale, CA 94087<br>LAT/LONG: 37.3659 / -122.033 | CLIENT: MooreTwining Associates, Inc.<br>CONTACT: Philip Marquez<br>INQUIRY#: 4326874.4<br>RESEARCH DATE: 06/16/2015 |

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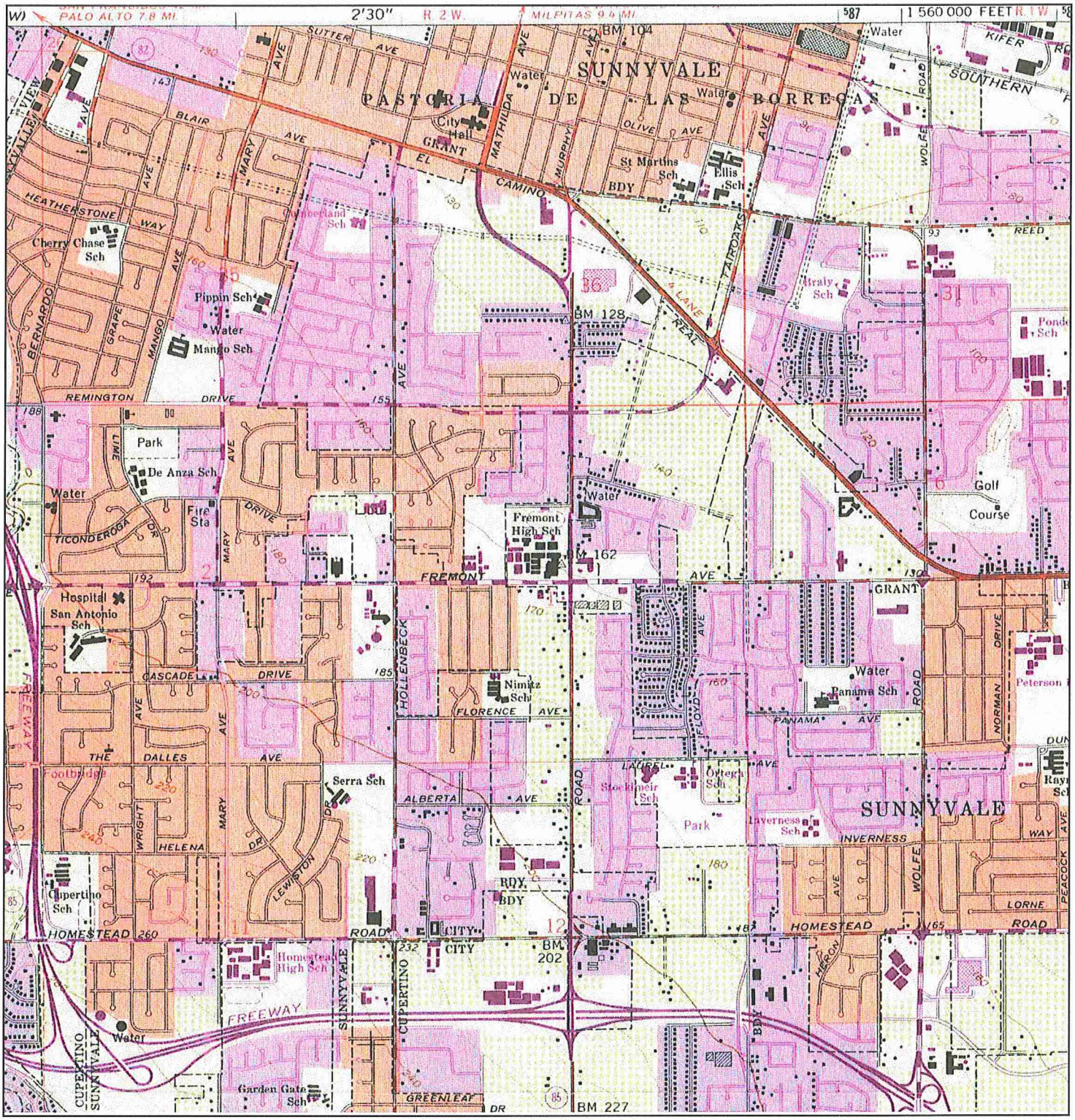


| | | | |
|---|---|---|---|
| N | TARGET QUAD<br>NAME: CUPERTINO<br>MAP YEAR: 1968<br>PHOTOREVISED FROM :1961<br>SERIES: 7.5<br>SCALE: 1:24000 | SITE NAME: Commercial Property<br>ADDRESS: 777 Sunnyvale Saratoga Road<br>Sunnyvale, CA 94087<br>LAT/LONG: 37.3659 / -122.033 | CLIENT: MooreTwining Associates, Inc.<br>CONTACT: Philip Marquez<br>INQUIRY#: 4326874.4<br>RESEARCH DATE: 06/16/2015 |

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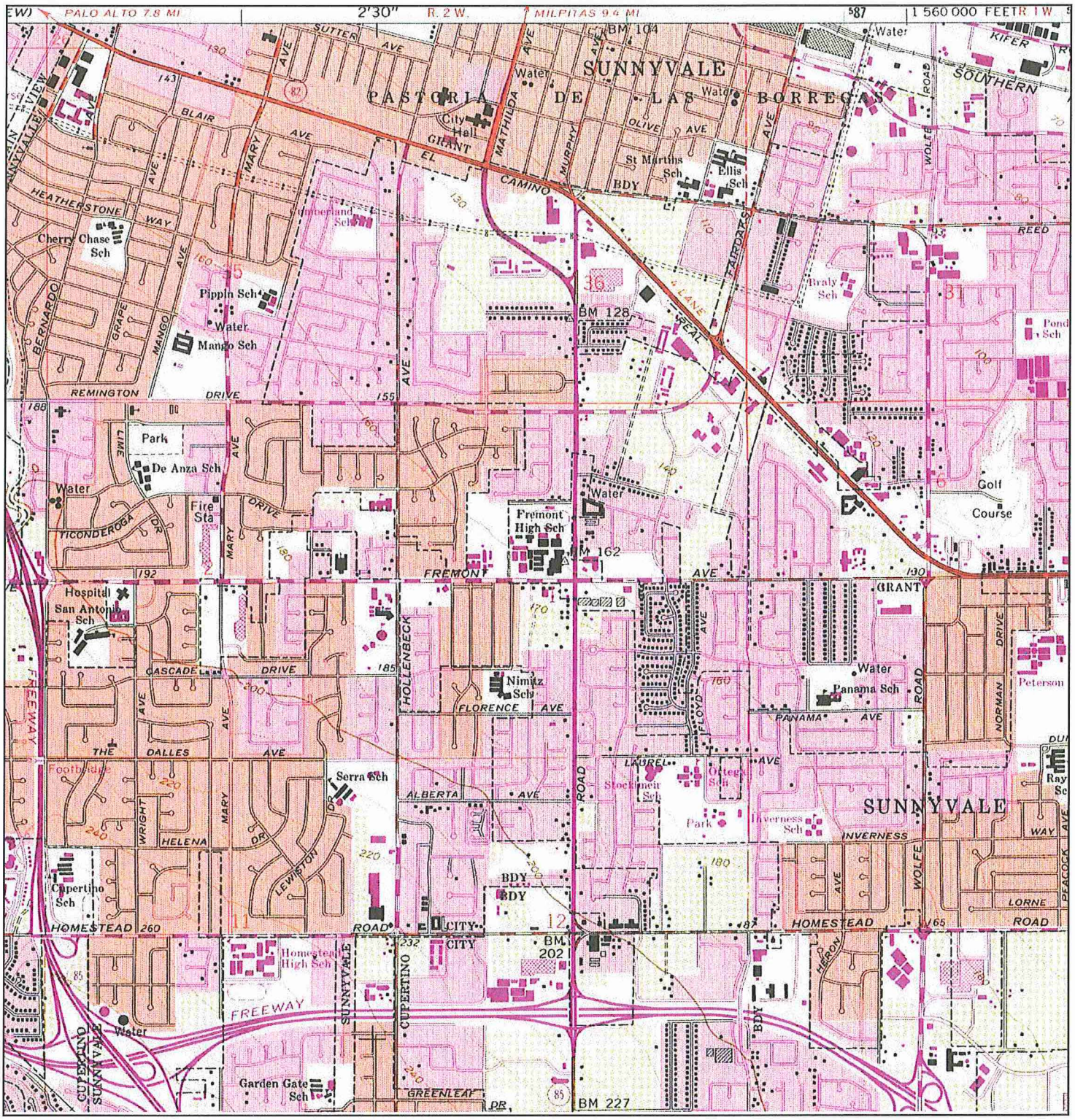
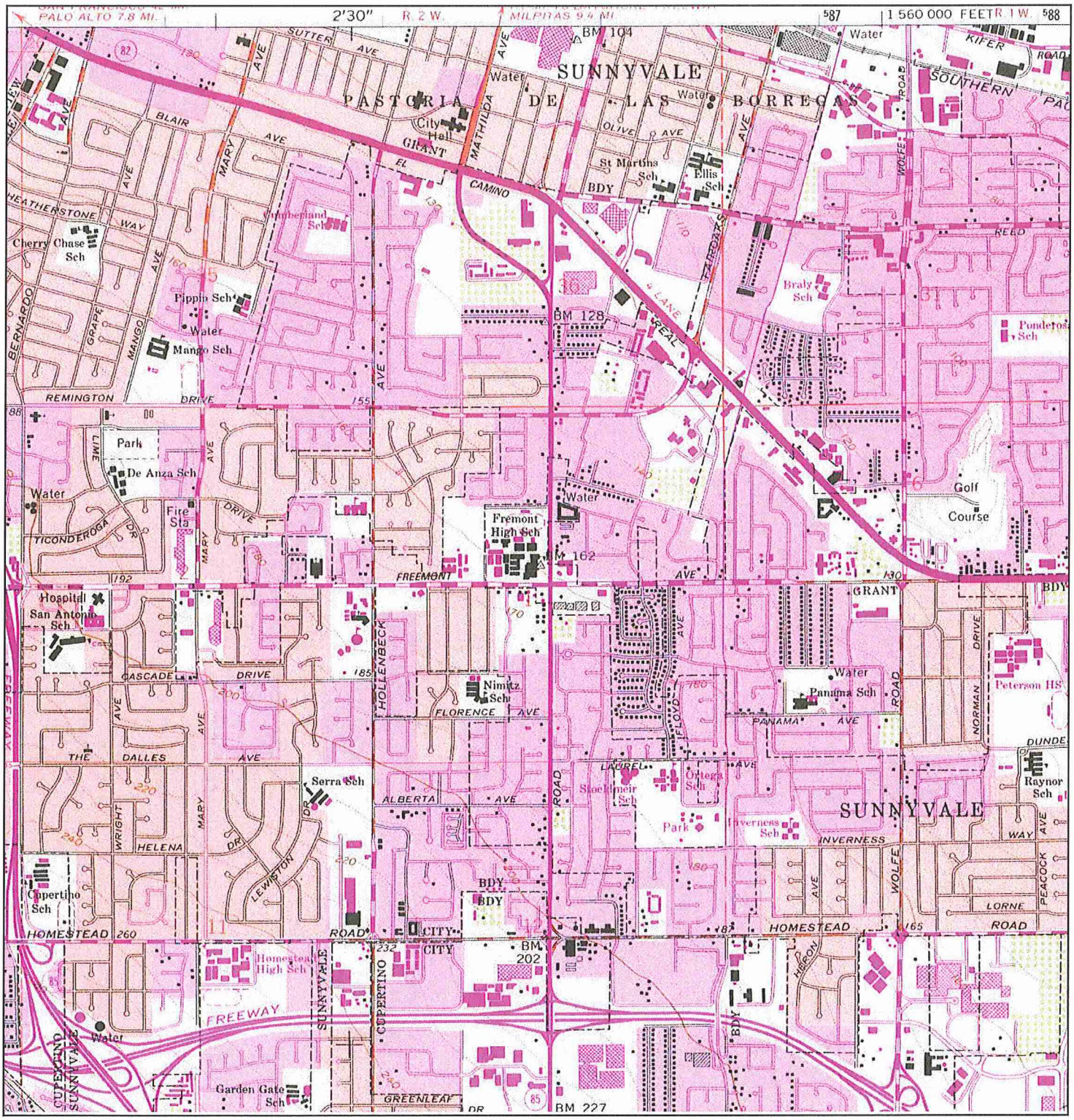



| | | | |
|---|---|---|---|
| N | TARGET QUAD<br>NAME: CUPERTINO<br>MAP YEAR: 1973<br>PHOTOREVISED FROM :1961<br>SERIES: 7.5<br>SCALE: 1:24000 | SITE NAME: Commercial Property<br>ADDRESS: 777 Sunnyvale Saratoga Road<br>Sunnyvale, CA 94087<br>LAT/LONG: 37.3659 / -122.033 | CLIENT: MooreTwining Associates, Inc.<br>CONTACT: Philip Marquez<br>INQUIRY#: 4326874.4<br>RESEARCH DATE: 06/16/2015 |

# Historical Topographic Map




| | | | |
|---|---|---|---|
| N | TARGET QUAD<br>NAME: CUPERTINO<br>MAP YEAR: 1980<br>PHOTOREVISED FROM :1961<br>SERIES: 7.5<br>SCALE: 1:24000 | SITE NAME: Commercial Property<br>ADDRESS: 777 Sunnyvale Saratoga Road<br>Sunnyvale, CA 94087<br>LAT/LONG: 37.3659 / -122.033 | CLIENT: MooreTwining Associates, Inc.<br>CONTACT: Philip Marquez<br>INQUIRY#: 4326874.4<br>RESEARCH DATE: 06/16/2015 |

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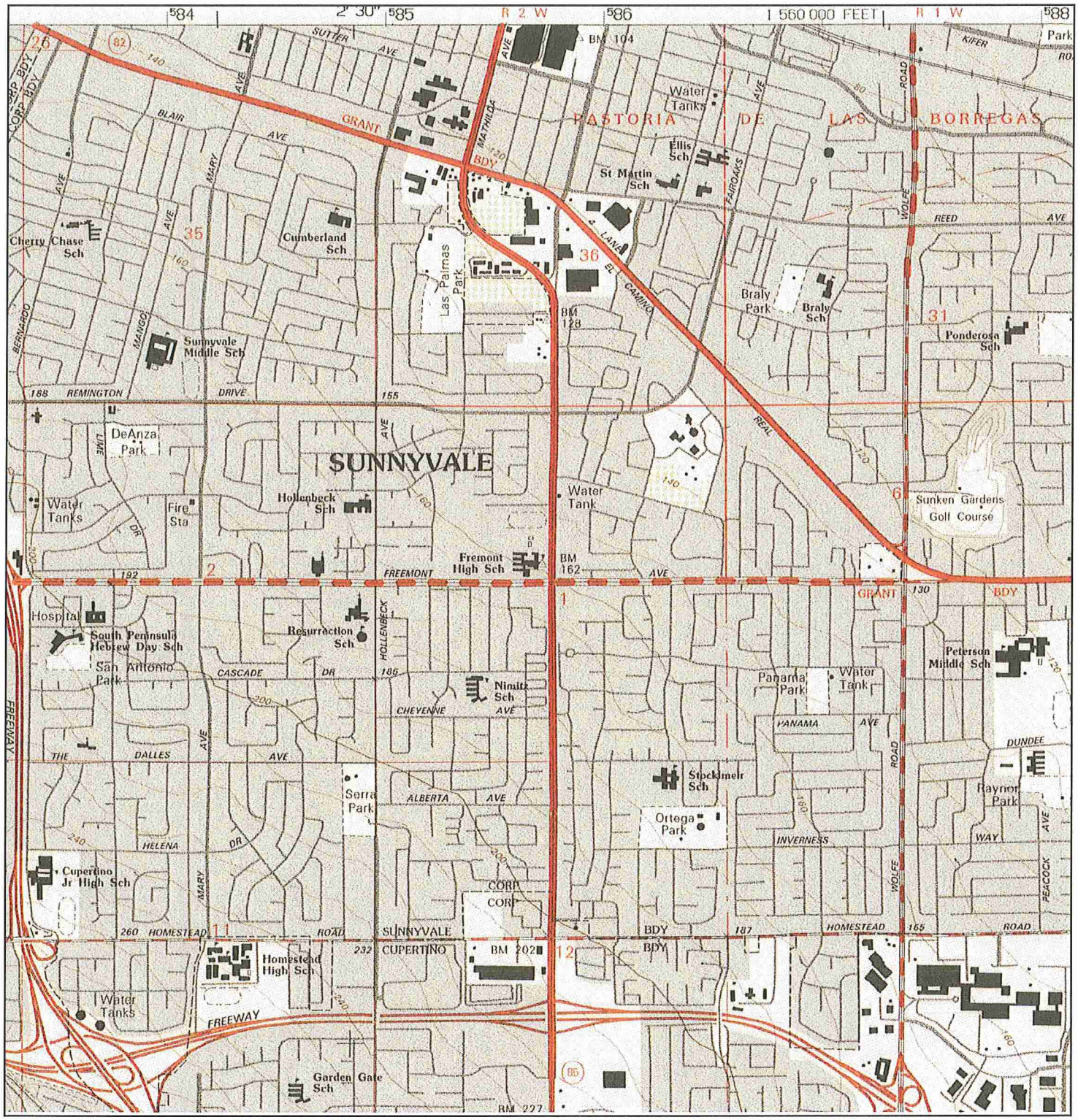


| | | | |
|---|---|---|---|
| N | TARGET QUAD<br>NAME: CUPERTINO<br>MAP YEAR: 1991<br><br>SERIES: 7.5<br>SCALE: 1:24000 | SITE NAME: Commercial Property<br>ADDRESS: 777 Sunnyvale Saratoga Road<br>Sunnyvale, CA 94087<br>LAT/LONG: 37.3659 / -122.033 | CLIENT: MooreTwining Associates, Inc.<br>CONTACT: Philip Marquez<br>INQUIRY#: 4326874.4<br>RESEARCH DATE: 06/16/2015 |

# APPENDIX F

# ENVIRONMENTAL QUESTIONNAIRE

## USER QUESTIONNAIRE

Please fill out to the best of your knowledge. If you are unaware of the answer, please simply state that you "Don't know."

1. Current Site Address: 777 Sunnyvale Saratoga RD, Sunnyvale.

2. Current Assessor's Parcel Number(s): 201-36-002

3. Current Owner: Mardit Properties Limited Partnership, POX 2098 Saratoga, CA 95070

4. Former Owner: Don't Know

5. Description of Current and/ Previous Activities at the Site: Orchard Supply Hardware since 1979

6. Description of Adjacent Properties: Residential (South) & Commercial (North). East (Saratoga RD) (East) & Retail (West)

7. Are you aware of any Agricultural Chemical formulation, distribution or applications at the Site? No

8. Are you aware of any Bulk Chemical or Fuel Storage at the Site? No

9. Are you aware of any existing or previously existing Underground or Aboveground Storage Tanks at the Site? No

10. Are you aware of any waste treatment, storage, disposal, processing or recycling at the Site? No

12. Are you aware of any release or spills of hazardous materials as a result of illegal dumping? No

13. Are you aware of any Electrical Transformers or other items that may contain Polychlorinatedbiphenyls (PCBs)? No

14. Are you aware of any Septic Systems, Domestic/Agricultural Wells or Sump systems at the Site? No

15. Are any Hazardous Materials, Petroleum Products or Other Materials Requiring Permitting stored or used at the Site? Don't Know

16. Have any Environmental Cleanup Liens been filed or recorded against the Site? Don't Know

17. Do you have knowledge of any Activity and/or Land Use Limitations that are in place at the Site? No

18. Do you have any specialized knowledge related to the Site or Activities at adjacent properties? No

19. Does the Purchase Price being paid for the Site reasonably reflect the Fair Market Value? Yes If you conclude that there is a difference, have you considered whether the lower price is because of contamination is known or believed to be present at the Site?

20. Are you aware of commonly known or reasonably ascertainable information about the Site that would help the environmental professional to identify conditions indicative of a release or threatened release? No

This Questionnaire was prepared by:

Name: Brad Potestio

Title: Construction Manager

Firm: Oppidan

Relationship to Site: Project Manager

Preparer represents that to the best of the preparer's knowledge the above statements and facts are true and correct and that to the best of the preparer's knowledge no material facts have been suppressed or misstated.

*Brad Potestio* June 22, 2015

Signature Date

# APPENDIX G

## TITLE DOCUMENTATION

# First American Title Insurance Company
## National Commercial Services
**801 Nicollet Mall, Suite 1900**
**Minneapolis, MN 55402-2504**

David Scott
Oppidan Investment Company
5125 County Road 101, Suite 100
Minnetonka, MN 55345-4158
Phone: (952)294-1255

| | |
|---|---|
| Customer Reference: | 777 Sunnyvale-Saratoga Road |
| Escrow Officer: | Karla J. Jordan |
| Phone: | (612)305-2030 |
| Email: | kajordan@firstam.com |
| Buyer: | TBD |
| Owner: | Of Record |
| Property: | 777 Sunnyvale-Saratoga Road, Sunnyvale, CA |

## PRELIMINARY REPORT

In response to the above referenced application for a policy of title insurance, this company hereby reports that it is prepared to issue, or cause to be issued, as of the date hereof, a Policy or Policies of Title Insurance describing the land and the estate or interest therein hereinafter set forth, insuring against loss which may be sustained by reason of any defect, lien or encumbrance not shown or referred to as an Exception below or not excluded from coverage pursuant to the printed Schedules, Conditions and Stipulations of said Policy forms.

The printed Exceptions and Exclusions from the coverage and Limitations on Covered Risks of said policy or policies are set forth in Exhibit A attached. *The policy to be issued may contain an arbitration clause. When the Amount of Insurance is less than that set forth in the arbitration clause, all arbitrable matters shall be arbitrated at the option of either the Company or the Insured as the exclusive remedy of the parties.* Limitations on Covered Risks applicable to the CLTA and ALTA Homeowner's Policies of Title Insurance which establish a Deductible Amount and a Maximum Dollar Limit of Liability for certain coverages are also set forth in Exhibit A. Copies of the policy forms should be read. They are available from the office which issued this report.

**Please read the exceptions shown or referred to below and the exceptions and exclusions set forth in Exhibit A of this report carefully. The exceptions and exclusions are meant to provide you with notice of matters which are not covered under the terms of the title insurance policy and should be carefully considered.**

**It is important to note that this preliminary report is not a written representation as to the condition of title and may not list all liens, defects, and encumbrances affecting title to the land.**

This report (and any supplements or amendments hereto) is issued solely for the purpose of facilitating the issuance of a policy of title insurance and no liability is assumed hereby. If it is desired that liability be assumed prior to the issuance of a policy of title insurance, a Binder or Commitment should be requested.

Dated as of May 22, 2015 at 7:30 A.M.

The form of Policy of title insurance contemplated by this report is:

ALTA Extended Owner Policy

A specific request should be made if another form or additional coverage is desired.

Title to said estate or interest at the date hereof is vested in:

Mardit Properties, a limited partnership

The estate or interest in the land hereinafter described or referred to covered by this Report is:

Fee

The Land referred to herein is described as follows:

(See attached Legal Description)

At the date hereof exceptions to coverage in addition to the printed Exceptions and Exclusions in said policy form would be as follows:

1. General and special taxes and assessments for the fiscal year 2015-2016, a lien not yet due or payable.

2. The lien of supplemental taxes, if any, assessed pursuant to Chapter 3.5 commencing with Section 75 of the California Revenue and Taxation Code.

3. A waiver of any claims for damages by reason of the location, construction, landscaping or maintenance of a contiguous freeway, highway, roadway or transit facility as contained in the document recorded January 26, 1956 as Book 3398, Page 602 of Official Records.

4. An easement for public highway and incidental purposes, recorded December 18, 1961 as Book 5403, Page 7 of Official Records.
   In Favor of: The County of Santa Clara
   Affects: as described therein

5. A waiver of any claims for damages by reason of the location, construction, landscaping or maintenance of a contiguous freeway, highway, roadway or transit facility as contained in the document recorded December 18, 1961 as Book 5403, Page 7 of Official Records.

6. An easement for street, public utilities and incidental purposes, recorded April 25, 1972 as Book 9804, Page 23 of Official Records.
   In Favor of: City of Sunnyvale, a municipal corporation
   Affects: as described therein

7. Terms and provisions of an unrecorded lease dated August 31, 1971, by and between Vincent DiTommaso and Rose DiTommaso as lessor and Orchard Supply Building Co., a California corporation as lessee, as disclosed by a Memorandum of Lease recorded January 24, 1979 as Book E248, Page 221, as Instrument No. 6268875 of Official Records.

   Defects, liens, encumbrances or other matters affecting the leasehold estate, whether or not shown by the public records are not shown herein.

8. Prior to the issuance of any policy of title insurance, the Company will require:

   An ALTA/ACSM survey of recent date which complies with the current minimum standard detail requirements for ALTA/ACSM land title surveys.

9. Any facts, rights, interests or claims which would be disclosed by a correct ALTA/ACSM survey.

10. Rights of parties in possession.

## INFORMATIONAL NOTES

1. Taxes for proration purposes only for the fiscal year 2014-2015.

| | |
|---|---|
| First Installment: | $23,312.12, PAID |
| Second Installment: | $23,312.12, PAID |
| Tax Rate Area: | 09-000 |
| APN: | 201-36-002 |

2. According to the latest available equalized assessment roll in the office of the county tax assessor, there is located on the land a(n) Commercial Structure known as 777 Sunnyvale Saratoga Road, Sunnyvale, CA.

3. According to the public records, there has been no conveyance of the land within a period of twenty-four months prior to the date of this report, except as follows:

   None

4. This preliminary report/commitment was prepared based upon an application for a policy of title insurance that identified land by street address or assessor's parcel number only. It is the responsibility of the applicant to determine whether the land referred to herein is in fact the land that is to be described in the policy or policies to be issued.

5. Should this report be used to facilitate your transaction, we must be provided with the following prior to the issuance of the policy:

   A. WITH RESPECT TO A CORPORATION:
      1. A certificate of good standing of recent date issued by the Secretary of State of the corporation's state of domicile.
      2. A certificate copy of a resolution of the Board of Directors authorizing the contemplated transaction and designating which corporate officers shall have the power to execute on behalf of the corporation.
      3. Requirements which the Company may impose following its review of the above material and other information which the Company may require.

   B. WITH RESPECT TO A CALIFORNIA LIMITED PARTNERSHIP:
      1. A certified copy of the certificate of limited partnership (form LP-1) and any amendments thereto (form LP-2) to be recorded in the public records;
      2. A full copy of the partnership agreement and any amendments;
      3. Satisfactory evidence of the consent of a majority in interest of the limited partners to the contemplated transaction;
      4. Requirements which the Company may impose following its review of the above material and other information which the Company may require.

   C. WITH RESPECT TO A FOREIGN LIMITED PARTNERSHIP:
      1. A certified copy of the application for registration, foreign limited partnership (form LP-5) and any amendments thereto (form LP-6) to be recorded in the public records;

2. A full copy of the partnership agreement and any amendment;
3. Satisfactory evidence of the consent of a majority in interest of the limited partners to the contemplated transaction;
4. Requirements which the Company may impose following its review of the above material and other information which the Company may require.

D. WITH RESPECT TO A GENERAL PARTNERSHIP:

1. A certified copy of a statement of partnership authority pursuant to Section 16303 of the California Corporation Code (form GP-I), executed by at least two partners, and a certified copy of any amendments to such statement (form GP-7), to be recorded in the public records;
2. A full copy of the partnership agreement and any amendments;
3. Requirements which the Company may impose following its review of the above material required herein and other information which the Company may require.

E. WITH RESPECT TO A LIMITED LIABILITY COMPANY:

1. A copy of its operating agreement and any amendments thereto;
2. If it is a California limited liability company, a certified copy of its articles of organization (LLC-1) and any certificate of correction (LLC-11), certificate of amendment (LLC-2), or restatement of articles of organization (LLC-10) to be recorded in the public records;
3. If it is a foreign limited liability company, a certified copy of its application for registration (LLC-5) to be recorded in the public records;
4. With respect to any deed, deed of trust, lease, subordination agreement or other document or instrument executed by such limited liability company and presented for recordation by the Company or upon which the Company is asked to rely, such document or instrument must be executed in accordance with one of the following, as appropriate:
   (i) If the limited liability company properly operates through officers appointed or elected pursuant to the terms of a written operating agreement, such documents must be executed by at least two duly elected or appointed officers, as follows: the chairman of the board, the president or any vice president, and any secretary, assistant secretary, the chief financial officer or any assistant treasurer;
   (ii) If the limited liability company properly operates through a manager or managers identified in the articles of organization and/or duly elected pursuant to the terms of a written operating agreement, such document must be executed by at least two such managers or by one manager if the limited liability company properly operates with the existence of only one manager.
5. Requirements which the Company may impose following its review of the above material and other information which the Company may require.

F. WITH RESPECT TO A TRUST:

1. A certification pursuant to Section 18100.5 of the California Probate Code in a form satisfactory to the Company.
2. Copies of those excerpts from the original trust documents and amendments thereto which designate the trustee and confer upon the trustee the power to act in the pending transaction.
3. Other requirements which the Company may impose following its review of the material require herein and other information which the Company may require.

G. WITH RESPECT TO INDIVIDUALS:

1. A statement of information.

The map attached, if any, may or may not be a survey of the land depicted hereon. First American Title Insurance Company expressly disclaims any liability for loss or damage which may result from reliance on this map except to the extent coverage for such loss or damage is expressly provided by the terms and provisions of the title insurance policy, if any, to which this map is attached.

## LEGAL DESCRIPTION

Real property in the City of Sunnyvale, County of Santa Clara, State of California, described as follows:

BEGINNING AT A STAKE MARKED J. K. STANDING AT THE COMMON CORNER FOR LANDS OF OWEN JONES AND PAT LYONS IN THE CENTER OF THE SARATOGA AND MOUNTAIN VIEW ROAD, BEING ALSO THE NORTHEAST CORNER OF LOT E AS SHOWN ON THE MAP ACCOMPANYING THE RECORD OF THE REFEREES IN THE SUIT OF W.O. PAUL ET AL. VS. PAT LYONS ET AL. CASE NUMBER 6793, SUPERIOR COURT OF SANTA CLARA COUNTY, AND FROM WHICH STAKE A WITNESS POST MARKED W.P.J.K. STANDING IN THE WESTERLY LINE OF SAID ROAD BEARS NORTH 89 DEG. 26' WEST 38 LINKS; THENCE ALONG THE NORTH LINE OF SAID LOT E AND FENCE LINE BETWEEN LANDS OF SAID JONES AND LYONS, NORTH 89 DEG. 26' WEST 20.08 CHAINS TO A STAKE MARKED K.J. STANDING AT THE NORTHWEST CORNER OF SAID LOT E AND AT THE COMMON CORNER FOR LANDS OF SAID JONES AND LYONS IN THE EASTERLY LINE OF A. BLOCK'S LAND AND THENCE ALONG THE WESTERLY LINE OF SAID LOT E AND LINE BETWEEN LANDS OF SAID BLOCK AND JONES SOUTH 0 DEG. 07' WEST 4.98 CHAINS TO A STAKE MARKED J.M.; THENCE PARALLEL TO THE NORTH LINE OF THE ABOVE MENTIONED LOT E SOUTH 89 DEG. 26' EAST 20.09 CHAINS TO THE CENTER OF THE SARATOGA AND MOUNTAIN VIEW ROAD AND EAST LINE OF SAID LOT E AND THENCE ALONG THE CENTER OF SAID ROAD AND EAST LINE OF SAID LOT E NORTH 4.98 CHAINS TO THE PLACE OF BEGINNING.

BEING A PART OF LOT "E" IN THE SOUTHWEST 1/4 OF SECTION 36, TOWNSHIP 6 SOUTH, RANGE 2 WEST AS SHOWN ON THE MAP ACCOMPANYING THE REPORT OF THE REFEREES IN THE SUIT OF W.P. PAUL ET AL., VS. PAT LYONS, ET AL, CASE NUMBER 6793, SUPERIOR COURT OF SANTA CLARA COUNTY, CALIFORNIA, COURSES TRUE VAR. 16 1/2 DEG. EAST.

EXCEPTING FROM THE ABOVE DESCRIBED PARCEL OF LAND THAT PORTION DESCRIBED IN THE DEED FROM VINCENZO DI TOMMASO, ET UX TO THE STATE OF CALIFORNIA, DATED DECEMBER 18, 1955 AND RECORDED JANUARY 26, 1956 IN BOOK 3398 OF OFFICIAL RECORDS PAGE 602 AS FOLLOWS:

COMMENCING AT THE SOUTHEASTERLY CORNER OF THAT CERTAIN PARCEL OF LAND DESCRIBED IN THE DEED TO VINCENZO DI TOMMASO, ET UX, RECORDED FEBRUARY 7, 1934 IN BOOK 679, AT PAGE 12, OFFICIAL RECORDS OF SANTA CLARA COUNTY; THENCE ALONG THE SOUTHERLY LINE OF SAID PARCEL NORTH 89 DEG. 40' 25" WEST, 25.00 FEET TO THE WESTERLY LINE OF SARATOGA-SUNNYVALE ROAD; THENCE ALONG SAID WESTERLY LINE NORTH 00 DEG. 07' 25" WEST, 146.31 FEET; THENCE NORTH 02 DEG. 28' 29" WEST, 181.71 FEET TO THE PROPERTY LINE COMMON TO THE LANDS, NOW OR FORMERLY, OF SAID VINCENZO DI TOMMASO ET UX, AND OF MARTHA COCKRELL; THENCE ALONG SAID COMMON PROPERTY LINE SOUTH 89 DEG. 48' 25" EAST, 32.45 FEET TO THE CENTER LINE OF SARATOGA-SUNNYVALE ROAD; THENCE ALONG SAID CENTER LINE SOUTH 00 DEG. 07' 25" EAST, 327.88 FEET TO THE POINT OF COMMENCEMENT.

ALSO EXCEPTING FROM THE FIRST HEREIN DESCRIBED PARCEL OF LAND SO MUCH THEREOF DESCRIBED AS FOLLOWS:

BEGINNING AT A POINT IN THE NORTHERLY LINE OF THE LANDS OF PAVLINA AS SAID LANDS ARE DESCRIBED IN THE DEED FILED FOR RECORD IN BOOK 2914 OFFICIAL RECORDS, AT PAGE 499 IN THE OFFICE OF THE RECORDER OF SAID COUNTY, SAID POINT OF BEGINNING

BEING DISTANT NORTH 89 DEG. 24' 45" WEST ALONG SAID NORTHERLY LINE 490.88 FEET FROM THE ORIGINAL CENTERLINE OF SARATOGA-SUNNYVALE ROAD, 50 FEET WIDE; THENCE NORTH 56 DEG. 06' 35" WEST 596.76 FEET TO A POINT IN THE NORTHERLY LINE OF SAID LANDS OF DITOMMASO, LAST SAID POINT BEING DISTANT NORTH 89 DEG. 26' 00" WEST ALONG SAID NORTHERLY LINE 987.70 FEET FROM THE ORIGINAL CENTERLINE OF SARATOGA-SUNNYVALE ROAD, THENCE NORTH 89 DEG. 26' 00" WEST ALONG LAST SAID NORTHERLY LINE 197.88 FEET TO THE POINT OF INTERSECTION THEREOF WITH A CURVE, CONCAVE TO THE NORTHEAST; THENCE SOUTHEASTERLY FROM A TANGENT BEARING SOUTH 46 DEG. 13' 09" EAST ALONG THE ARC OF SAID CURVE, HAVING A RADIUS OF 760.00 FEET THROUGH A CENTRAL ANGLE OF 9 DEG. 53' 26" A DISTANCE OF 131.19 FEET TO THE POINT OF TANGENCY WITH A LINE HAVING A BEARING OF SOUTH 56 DEG. 06' 35" EAST THENCE SOUTH 56 DEG. 06' 35" EAST, ALONG LAST SAID LINE 448.90 FEET TO THE POINT OF INTERSECTION THEREOF WITH SAID NORTHERLY LINE OF THE LANDS OF PAVLINA; THENCE SOUTH 89 DEG. 24' 45" EAST, ALONG LAST SAID NORTHERLY LINE 218.56 FEET TO THE POINT OF BEGINNING.

ALSO EXCEPTING THEREFROM THE LANDS CONVEYED TO THE CITY OF SUNNYVALE BY DEED RECORDED MAY 16, 1975 IN BOOK B413, PAGE 39, AS INSTRUMENT NO. 5008298, OFFICIAL RECORDS OF SANTA CLARA COUNTY.

ALSO EXCEPTING THEREFROM THE LANDS CONVEYED TO THE CITY OF SUNNYVALE BY DEED RECORDED DECEMBER 22, 1976 IN BOOK C491, PAGE 377, AS INSTRUMENT NO. 5504979, OFFICIAL RECORDS OF SANTA CLARA COUNTY.

APN: 201-36-002

ARB: 200-30-47

***NOTICE I***

Section 12413.1 of the California Insurance Code, effective January 1, 1990, requires that any title insurance company, underwritten title company, or controlled escrow company handling funds in an escrow or sub-escrow capacity, wait a specified number of days after depositing funds, before recording any documents in connection with the transaction or disbursing funds. This statute allows for funds deposited by wire transfer to be disbursed the same day as deposit. In the case of cashier's checks or certified checks, funds may be disbursed the next day after deposit. In order to avoid unnecessary delays of three to seven days, or more, please use wire transfer, cashier's checks, or certified checks whenever possible.

If you have any questions about the effect of this new law, please contact your local First American Office for more details.

***NOTICE II***

As of January 1, 1991, if the transaction which is the subject of this report will be a sale, you as a party to the transaction, may have certain tax reporting and withholding obligations pursuant to the state law referred to below:

In accordance with Sections 18662 and 18668 of the Revenue and Taxation Code, a buyer may be required to withhold an amount equal to three and one-third percent of the sales price in the case of the disposition of California real property interest by either:

1. A seller who is an individual with a last known street address outside of California or when the disbursement instructions authorize the proceeds be sent to a financial intermediary of the seller, OR
2. A corporate seller which has no permanent place of business in California.

The buyer may become subject to penalty for failure to withhold an amount equal to the greater of 10 percent of the amount required to be withheld or five hundred dollars ($500).

However, notwithstanding any other provision included in the California statutes referenced above, no buyer will be required to withhold any amount or be subject to penalty for failure to withhold if:

1. The sales price of the California real property conveyed does not exceed one hundred thousand dollars ($100,000), OR
2. The seller executes a written certificate, under the penalty of perjury, certifying that the seller is a resident of California, or if a corporation, has a permanent place of business in California, OR
3. The seller, who is an individual, executes a written certificate, under the penalty of perjury, that the California real property being conveyed is the seller's principal residence (as defined in Section 1034 of the Internal Revenue Code).

The seller is subject to penalty for knowingly filing a fraudulent certificate for the purpose of avoiding the withholding requirement.

The California statutes referenced above include provisions which authorize the Franchise Tax Board to grant reduced withholding and waivers from withholding on a case-by-case basis.

The parties to this transaction should seek an attorney's, accountant's, or other tax specialist's opinion concerning the effect of this law on this transaction and should not act on any statements made or omitted by the escrow or closing officer.

The Seller May Request a Waiver by Contacting:
Franchise Tax Board
Withhold at Source Unit
P.O. Box 651
Sacramento, CA 95812-0651
(916) 845-4900

# Privacy Policy

**We Are Committed to Safeguarding Customer Information**
In order to better serve your needs now and in the future, we may ask you to provide us with certain information. We understand that you may be concerned about what we will do with such information - particularly any personal or financial information. We agree that you have a right to know how we will utilize the personal information you provide to us. Therefore, together with our parent company, The First American Corporation, we have adopted this Privacy Policy to govern the use and handling of your personal information.

**Applicability**
This Privacy Policy governs our use of the information which you provide to us. It does not govern the manner in which we may use information we have obtained from any other source, such as information obtained from a public record or from another person or entity. First American has also adopted broader guidelines that govern our use of personal information regardless of its source. First American calls these guidelines its *Fair Information Values*, a copy of which can be found on our website at www.firstam.com.

**Types of Information**
Depending upon which of our services you are utilizing, the types of nonpublic personal information that we may collect include:

- Information we receive from you on applications, forms and in other communications to us, whether in writing, in person, by telephone or any other means;
- Information about your transactions with us, our affiliated companies, or others; and
- Information we receive from a consumer reporting agency.

**Use of Information**
We request information from you for our own legitimate business purposes and not for the benefit of any nonaffiliated party. Therefore, we will not release your information to nonaffiliated parties except: (1) as necessary for us to provide the product or service you have requested of us; or (2) as permitted by law. We may, however, store such information indefinitely, including the period after which any customer relationship has ceased. Such information may be used for any internal purpose, such as quality control efforts or customer analysis. We may also provide all of the types of nonpublic personal information listed above to one or more of our affiliated companies. Such affiliated companies include financial service providers, such as title insurers, property and casualty insurers, and trust and investment advisory companies, or companies involved in real estate services, such as appraisal companies, home warranty companies, and escrow companies. Furthermore, we may also provide all the information we collect, as described above, to companies that perform marketing services on our behalf, on behalf of our affiliated companies, or to other financial institutions with whom we or our affiliated companies have joint marketing agreements.

**Former Customers**
Even if you are no longer our customer, our Privacy Policy will continue to apply to you.

**Confidentiality and Security**
We will use our best efforts to ensure that no unauthorized parties have access to any of your information. We restrict access to nonpublic personal information about you to those individuals and entities who need to know that information to provide products or services to you. We will use our best efforts to train and oversee our employees and agents to ensure that your information will be handled responsibly and in accordance with this Privacy Policy and First American's *Fair Information Values*. We currently maintain physical, electronic, and procedural safeguards that comply with federal regulations to guard your nonpublic personal information.

## CLTA/ALTA HOMEOWNER'S POLICY OF TITLE INSURANCE (02-03-10)
## EXCLUSIONS

In addition to the Exceptions in Schedule B, You are not insured against loss, costs, attorneys' fees, and expenses resulting from:

1. Governmental police power, and the existence or violation of those portions of any law or government regulation concerning:

   (a) building; (d) improvements on the Land;
   (b) zoning; (e) land division; and
   (c) land use; (f) environmental protection.

   This Exclusion does not limit the coverage described in Covered Risk 8.a., 14, 15, 16, 18, 19, 20, 23 or 27.
2. The failure of Your existing structures, or any part of them, to be constructed in accordance with applicable building codes. This Exclusion does not limit the coverage described in Covered Risk 14 or 15.
3. The right to take the Land by condemning it. This Exclusion does not limit the coverage described in Covered Risk 17.
4. Risks:
   (a) that are created, allowed, or agreed to by You, whether or not they are recorded in the Public Records;
   (b) that are Known to You at the Policy Date, but not to Us, unless they are recorded in the Public Records at the Policy Date;
   (c) that result in no loss to You; or
   (d) that first occur after the Policy Date - this does not limit the coverage described in Covered Risk 7, 8.e., 25, 26, 27 or 28.
5. Failure to pay value for Your Title.
6. Lack of a right:
   (a) to any land outside the area specifically described and referred to in paragraph 3 of Schedule A; and
   (b) in streets, alleys, or waterways that touch the Land.
   This Exclusion does not limit the coverage described in Covered Risk 11 or 21.
7. The transfer of the Title to You is invalid as a preferential transfer or as a fraudulent transfer or conveyance under federal bankruptcy, state insolvency, or similar creditors' rights laws.

## LIMITATIONS ON COVERED RISKS

Your insurance for the following Covered Risks is limited on the Owner's Coverage Statement as follows: For Covered Risk 16, 18, 19, and 21 Your Deductible Amount and Our Maximum Dollar Limit of Liability shown in Schedule A.

| Your Deductible Amount | Our Maximum Dollar Limit of Liability |
|---|---|
| Covered Risk 16: 1% of Policy Amount or $2,500.00 (whichever is less) | $10,000.00 |
| Covered Risk 18: 1% of Policy Amount or $5,000.00 (whichever is less) | $25,000.00 |
| Covered Risk 19: 1% of Policy Amount or $5,000.00 (whichever is less) | $25,000.00 |
| Covered Risk 21: 1% of Policy Amount or $2,500.00 (whichever is less) | $5,000.00 |

## ALTA RESIDENTIAL TITLE INSURANCE POLICY (6-1-87)
## EXCLUSIONS

In addition to the Exceptions in Schedule B, you are not insured against loss, costs, attorneys' fees, and expenses resulting from:

1. Governmental police power, and the existence or violation of any law or government regulation. This includes building and zoning ordinances and also laws and regulations concerning:

   (a) and use
   (b) improvements on the land
   (c) and division
   (d) environmental protection

   This exclusion does not apply to violations or the enforcement of these matters which appear in the public records at Policy Date.
   This exclusion does not limit the zoning coverage described in Items 12 and 13 of Covered Title Risks.
2. The right to take the land by condemning it, unless:
   (a) a notice of exercising the right appears in the public records on the Policy Date

(b) the taking happened prior to the Policy Date and is binding on you if you bought the land without knowing of the taking

3. Title Risks:
   (a) that are created, allowed, or agreed to by you
   (b) that are known to you, but not to us, on the Policy Date -- unless they appeared in the public records
   (c) that result in no loss to you
   (d) that first affect your title after the Policy Date -- this does not limit the labor and material lien coverage in Item 8 of Covered Title Risks
4. Failure to pay value for your title.
5. Lack of a right:
   (a) to any land outside the area specifically described and referred to in Item 3 of Schedule A OR
   (b) in streets, alleys, or waterways that touch your land
   This exclusion does not limit the access coverage in Item 5 of Covered Title Risks.

**2006 ALTA LOAN POLICY (06-17-06)**
**EXCLUSIONS FROM COVERAGE**

The following matters are expressly excluded from the coverage of this policy, and the Company will not pay loss or damage, costs, attorneys' fees, or expenses that arise by reason of:

1. a. Any law, ordinance, permit, or governmental regulation (including those relating to building and zoning) restricting, regulating, prohibiting, or relating to
   i. the occupancy, use, or enjoyment of the Land;
   ii. the character, dimensions, or location of any improvement erected on the Land;
   iii. the subdivision of land; or
   iv. environmental protection;

   or the effect of any violation of these laws, ordinances, or governmental regulations. This Exclusion 1(a) does not modify or limit the coverage provided under Covered Risk 5.
   b. Any governmental police power. This Exclusion 1(b) does not modify or limit the coverage provided under Covered Risk 6.
2. Rights of eminent domain. This Exclusion does not modify or limit the coverage provided under Covered Risk 7 or 8.
3. Defects, liens, encumbrances, adverse claims, or other matters
   a. created, suffered, assumed, or agreed to by the Insured Claimant;
   b. not Known to the Company, not recorded in the Public Records at Date of Policy, but Known to the Insured Claimant and not disclosed in writing to the Company by the Insured Claimant prior to the date the Insured Claimant became an Insured under this policy;
   c. resulting in no loss or damage to the Insured Claimant;
   d. attaching or created subsequent to Date of Policy (however, this does not modify or limit the coverage provided under Covered Risk 11, 13, or 14); or
   e. resulting in loss or damage that would not have been sustained if the Insured Claimant had paid value for the Insured Mortgage.
4. Unenforceability of the lien of the Insured Mortgage because of the inability or failure of an Insured to comply with applicable doing-business laws of the state where the Land is situated.
5. Invalidity or unenforceability in whole or in part of the lien of the Insured Mortgage that arises out of the transaction evidenced by the Insured Mortgage and is based upon usury or any consumer credit protection or truth-in-lending law.
6. Any claim, by reason of the operation of federal bankruptcy, state insolvency, or similar creditors' rights laws, that the transaction creating the lien of the Insured Mortgage, is
   a. a fraudulent conveyance or fraudulent transfer, or
   b. a preferential transfer for any reason not stated in Covered Risk 13(b) of this policy.
7. Any lien on the Title for real estate taxes or assessments imposed by governmental authority and created or attaching between Date of Policy and the date of recording of the Insured Mortgage in the Public Records. This Exclusion does not modify or limit the coverage provided under Covered Risk 11(b).

The above policy form may be issued to afford either Standard Coverage or Extended Coverage. In addition to the above Exclusions from Coverage, the Exceptions from Coverage in a Standard Coverage policy will also include the following Exceptions from Coverage:

**EXCEPTIONS FROM COVERAGE**

This policy does not insure against loss or damage (and the Company will not pay costs, attorneys' fees or expenses) that arise by reason of:

1. (a) Taxes or assessments that are not shown as existing liens by the records of any taxing authority that levies taxes or assessments on real property or by the Public Records; (b) proceedings by a public agency that may result in taxes or assessments, or notices of such proceedings, whether or not shown by the records of such agency or by the Public Records.
2. Any facts, rights, interests, or claims that are not shown by the Public Records but that could be ascertained by an inspection of the Land or that may be asserted by persons in possession of the Land.
3. Easements, liens or encumbrances, or claims thereof, not shown by the Public Records.
4. Any encroachment, encumbrance, violation, variation, or adverse circumstance affecting the Title that would be disclosed by an accurate and complete land survey of the Land and not shown by the Public Records.
5. (a) Unpatented mining claims; (b) reservations or exceptions in patents or in Acts authorizing the issuance thereof; (c) water rights, claims or title to water, whether or not the matters excepted under (a), (b), or (c) are shown by the Public Records.
6. Any lien or right to a lien for services, labor or material not shown by the public records.

**2006 ALTA OWNER'S POLICY (06-17-06)**

**EXCLUSIONS FROM COVERAGE**

The following matters are expressly excluded from the coverage of this policy, and the Company will not pay loss or damage, costs, attorneys' fees, or expenses that arise by reason of:

1. a. Any law, ordinance, permit, or governmental regulation (including those relating to building and zoning) restricting, regulating, prohibiting, or relating to

   i. the occupancy, use, or enjoyment of the Land;
   ii. the character, dimensions, or location of any improvement erected on the Land;
   iii. the subdivision of land; or
   iv. environmental protection;

   or the effect of any violation of these laws, ordinances, or governmental regulations. This Exclusion 1(a) does not modify or limit the coverage provided under Covered Risk 5.

   b.Any governmental police power. This Exclusion 1(b) does not modify or limit the coverage provided under Covered Risk 6.
2. Rights of eminent domain. This Exclusion does not modify or limit the coverage provided under Covered Risk 7 or 8.
3. Defects, liens, encumbrances, adverse claims, or other matters
   a. created, suffered, assumed, or agreed to by the Insured Claimant;
   b. not Known to the Company, not recorded in the Public Records at Date of Policy, but known to the Insured Claimant and not disclosed in writing to the Company by the Insured Claimant prior to the date the Insured Claimant became an Insured under this policy;
   c. resulting in no loss or damage to the Insured Claimant;
   d. attaching or created subsequent to Date of Policy (however, this does not modify or limit the coverage provided under Covered Risk 11, 13, or 14); or
   e. resulting in loss or damage that would not have been sustained if the Insured Claimant had paid value for the Insured Mortgage.
4. Unenforceability of the lien of the Insured Mortgage because of the inability or failure of an Insured to comply with applicable doing-business laws of the state where the Land is situated.
5. Invalidity or unenforceability in whole or in part of the lien of the Insured Mortgage that arises out of the transaction evidenced by the Insured Mortgage and is based upon usury or any consumer credit protection or truth-in-lending law.
6. Any claim, by reason of the operation of federal bankruptcy, state insolvency, or similar creditors' rights laws, that the transaction creating the lien of the Insured Mortgage, is
   a. a fraudulent conveyance or fraudulent transfer, or
   b. a preferential transfer for any reason not stated in Covered Risk 13(b) of this policy.
7. Any lien on the Title for real estate taxes or assessments imposed by governmental authority and created or attaching between Date of Policy and the date of recording of the Insured Mortgage in the Public Records. This Exclusion does not modify or limit the coverage provided under Covered Risk 11(b).

The above policy form may be issued to afford either Standard Coverage or Extended Coverage. In addition to the above Exclusions from Coverage, the Exceptions from Coverage in a Standard Coverage policy will also include the following Exceptions from Coverage:

**EXCEPTIONS FROM COVERAGE**

This policy does not insure against loss or damage (and the Company will not pay costs, attorneys' fees or expenses) that arise by reason of:

1. (a) Taxes or assessments that are not shown as existing liens by the records of any taxing authority that levies taxes or assessments on real property or by the Public Records; (b) proceedings by a public agency that may result in taxes or assessments, or notices of such proceedings, whether or not shown by the records of such agency or by the Public Records.
2. Any facts, rights, interests, or claims that are not shown by the Public Records but that could be ascertained by an inspection of the Land or that may be asserted by persons in possession of the Land.
3. Easements, liens or encumbrances, or claims thereof, not shown by the Public Records.
4. Any encroachment, encumbrance, violation, variation, or adverse circumstance affecting the Title that would be disclosed by an accurate and complete land survey of the Land and not shown by the Public Records.
5. (a) Unpatented mining claims; (b) reservations or exceptions in patents or in Acts authorizing the issuance thereof; (c) water rights, claims or title to water, whether or not the matters excepted under (a), (b), or (c) are shown by the Public Records.
6. Any lien or right to a lien for services, labor or material not shown by the public records.

**ALTA EXPANDED COVERAGE RESIDENTIAL LOAN POLICY (07-26-10)**

**EXCLUSIONS FROM COVERAGE**

The following matters are expressly excluded from the coverage of this policy, and the Company will not pay loss or damage, costs, attorneys' fees, or expenses that arise by reason of:

1. a. Any law, ordinance, permit, or governmental regulation (including those relating to building and zoning) restricting, regulating, prohibiting, or relating to

   i. the occupancy, use, or enjoyment of the Land;
   ii. the character, dimensions, or location of any improvement erected on the Land;
   iii. the subdivision of land; or
   iv. environmental protection;

   or the effect of any violation of these laws, ordinances, or governmental regulations. This Exclusion 1(a) does not modify or limit the coverage provided under Covered Risk 5, 6, 13(c), 13(d), 14 or 16.

   b. Any governmental police power. This Exclusion 1(b) does not modify or limit the coverage provided under Covered Risk 5, 6, 13(c), 13(d), 14 or 16.
2. Rights of eminent domain. This Exclusion does not modify or limit the coverage provided under Covered Risk 7 or 8.
3. Defects, liens, encumbrances, adverse claims, or other matters

   a. created, suffered, assumed, or agreed to by the Insured Claimant;
   b. not Known to the Company, not recorded in the Public Records at Date of Policy, but Known to the Insured Claimant and not disclosed in writing to the Company by the Insured Claimant prior to the date the Insured Claimant became an Insured under this policy;
   c. resulting in no loss or damage to the Insured Claimant;
   d. attaching or created subsequent to Date of Policy (however, this does not modify or limit the coverage provided under Covered Risk 11, 16, 17, 18, 19, 20, 21, 22, 23, 24, 27 or 28); or
   e. resulting in loss or damage that would not have been sustained if the Insured Claimant had paid value for the Insured Mortgage.
4. Unenforceability of the lien of the Insured Mortgage because of the inability or failure of an Insured to comply with applicable doing-business laws of the state where the Land is situated.
5. Invalidity or unenforceability in whole or in part of the lien of the Insured Mortgage that arises out of the transaction evidenced by the Insured Mortgage and is based upon usury or any consumer credit protection or truth-in-lending law. This Exclusion does not modify or limit the coverage provided in Covered Risk 26.
6. Any claim of invalidity, unenforceability or lack of priority of the lien of the Insured Mortgage as to Advances or modifications made after the Insured has Knowledge that the vestee shown in Schedule A is no longer the owner of the estate or interest covered by this policy. This Exclusion does not modify or limit the coverage provided in Covered Risk 11.
7. Any lien on the Title for real estate taxes or assessments imposed by governmental authority and created or attaching subsequent to Date of Policy. This Exclusion does not modify or limit the coverage provided in Covered Risk 11(b) or 25.
8. The failure of the residential structure, or any portion of it, to have been constructed before, on or after Date of Policy in accordance with applicable building codes. This Exclusion does not modify or limit the coverage provided in Covered Risk 5 or 6.
9. Any claim, by reason of the operation of federal bankruptcy, state insolvency, or similar creditors' rights laws, that the transaction creating the lien of the Insured Mortgage, is
   a. a fraudulent conveyance or fraudulent transfer, or
   b. a preferential transfer for any reason not stated in Covered Risk 27(b) of this policy.

2. A full copy of the partnership agreement and any amendment;
3. Satisfactory evidence of the consent of a majority in interest of the limited partners to the contemplated transaction;
4. Requirements which the Company may impose following its review of the above material and other information which the Company may require.

D. WITH RESPECT TO A GENERAL PARTNERSHIP:

1. A certified copy of a statement of partnership authority pursuant to Section 16303 of the California Corporation Code (form GP-I), executed by at least two partners, and a certified copy of any amendments to such statement (form GP-7), to be recorded in the public records;
2. A full copy of the partnership agreement and any amendments;
3. Requirements which the Company may impose following its review of the above material required herein and other information which the Company may require.

E. WITH RESPECT TO A LIMITED LIABILITY COMPANY:

1. A copy of its operating agreement and any amendments thereto;
2. If it is a California limited liability company, a certified copy of its articles of organization (LLC-1) and any certificate of correction (LLC-11), certificate of amendment (LLC-2), or restatement of articles of organization (LLC-10) to be recorded in the public records;
3. If it is a foreign limited liability company, a certified copy of its application for registration (LLC-5) to be recorded in the public records;
4. With respect to any deed, deed of trust, lease, subordination agreement or other document or instrument executed by such limited liability company and presented for recordation by the Company or upon which the Company is asked to rely, such document or instrument must be executed in accordance with one of the following, as appropriate:
   (i) If the limited liability company properly operates through officers appointed or elected pursuant to the terms of a written operating agreement, such documents must be executed by at least two duly elected or appointed officers, as follows: the chairman of the board, the president or any vice president, and any secretary, assistant secretary, the chief financial officer or any assistant treasurer;
   (ii) If the limited liability company properly operates through a manager or managers identified in the articles of organization and/or duly elected pursuant to the terms of a written operating agreement, such document must be executed by at least two such managers or by one manager if the limited liability company properly operates with the existence of only one manager.
5. Requirements which the Company may impose following its review of the above material and other information which the Company may require.

F. WITH RESPECT TO A TRUST:

1. A certification pursuant to Section 18100.5 of the California Probate Code in a form satisfactory to the Company.
2. Copies of those excerpts from the original trust documents and amendments thereto which designate the trustee and confer upon the trustee the power to act in the pending transaction.
3. Other requirements which the Company may impose following its review of the material require herein and other information which the Company may require.

G. WITH RESPECT TO INDIVIDUALS:

1. A statement of information.

The map attached, if any, may or may not be a survey of the land depicted hereon. First American Title Insurance Company expressly disclaims any liability for loss or damage which may result from reliance on this map except to the extent coverage for such loss or damage is expressly provided by the terms and provisions of the title insurance policy, if any, to which this map is attached.

## LEGAL DESCRIPTION

Real property in the City of Sunnyvale, County of Santa Clara, State of California, described as follows:

BEGINNING AT A STAKE MARKED J. K. STANDING AT THE COMMON CORNER FOR LANDS OF OWEN JONES AND PAT LYONS IN THE CENTER OF THE SARATOGA AND MOUNTAIN VIEW ROAD, BEING ALSO THE NORTHEAST CORNER OF LOT E AS SHOWN ON THE MAP ACCOMPANYING THE RECORD OF THE REFEREES IN THE SUIT OF W.O. PAUL ET AL. VS. PAT LYONS ET AL. CASE NUMBER 6793, SUPERIOR COURT OF SANTA CLARA COUNTY, AND FROM WHICH STAKE A WITNESS POST MARKED W.P.J.K. STANDING IN THE WESTERLY LINE OF SAID ROAD BEARS NORTH 89 DEG. 26' WEST 38 LINKS; THENCE ALONG THE NORTH LINE OF SAID LOT E AND FENCE LINE BETWEEN LANDS OF SAID JONES AND LYONS, NORTH 89 DEG. 26' WEST 20.08 CHAINS TO A STAKE MARKED K.J. STANDING AT THE NORTHWEST CORNER OF SAID LOT E AND AT THE COMMON CORNER FOR LANDS OF SAID JONES AND LYONS IN THE EASTERLY LINE OF A. BLOCK'S LAND AND THENCE ALONG THE WESTERLY LINE OF SAID LOT E AND LINE BETWEEN LANDS OF SAID BLOCK AND JONES SOUTH 0 DEG. 07' WEST 4.98 CHAINS TO A STAKE MARKED J.M.; THENCE PARALLEL TO THE NORTH LINE OF THE ABOVE MENTIONED LOT E SOUTH 89 DEG. 26' EAST 20.09 CHAINS TO THE CENTER OF THE SARATOGA AND MOUNTAIN VIEW ROAD AND EAST LINE OF SAID LOT E AND THENCE ALONG THE CENTER OF SAID ROAD AND EAST LINE OF SAID LOT E NORTH 4.98 CHAINS TO THE PLACE OF BEGINNING.

BEING A PART OF LOT "E" IN THE SOUTHWEST 1/4 OF SECTION 36, TOWNSHIP 6 SOUTH, RANGE 2 WEST AS SHOWN ON THE MAP ACCOMPANYING THE REPORT OF THE REFEREES IN THE SUIT OF W.P. PAUL ET AL., VS. PAT LYONS, ET AL, CASE NUMBER 6793, SUPERIOR COURT OF SANTA CLARA COUNTY, CALIFORNIA, COURSES TRUE VAR. 16 1/2 DEG. EAST.

EXCEPTING FROM THE ABOVE DESCRIBED PARCEL OF LAND THAT PORTION DESCRIBED IN THE DEED FROM VINCENZO DI TOMMASO, ET UX TO THE STATE OF CALIFORNIA, DATED DECEMBER 18, 1955 AND RECORDED JANUARY 26, 1956 IN BOOK 3398 OF OFFICIAL RECORDS PAGE 602 AS FOLLOWS:

COMMENCING AT THE SOUTHEASTERLY CORNER OF THAT CERTAIN PARCEL OF LAND DESCRIBED IN THE DEED TO VINCENZO DI TOMMASO, ET UX, RECORDED FEBRUARY 7, 1934 IN BOOK 679, AT PAGE 12, OFFICIAL RECORDS OF SANTA CLARA COUNTY; THENCE ALONG THE SOUTHERLY LINE OF SAID PARCEL NORTH 89 DEG. 40' 25" WEST, 25.00 FEET TO THE WESTERLY LINE OF SARATOGA-SUNNYVALE ROAD; THENCE ALONG SAID WESTERLY LINE NORTH 00 DEG. 07' 25" WEST, 146.31 FEET; THENCE NORTH 02 DEG. 28' 29" WEST, 181.71 FEET TO THE PROPERTY LINE COMMON TO THE LANDS, NOW OR FORMERLY, OF SAID VINCENZO DI TOMMASO ET UX, AND OF MARTHA COCKRELL; THENCE ALONG SAID COMMON PROPERTY LINE SOUTH 89 DEG. 48' 25" EAST, 32.45 FEET TO THE CENTER LINE OF SARATOGA-SUNNYVALE ROAD; THENCE ALONG SAID CENTER LINE SOUTH 00 DEG. 07' 25" EAST, 327.88 FEET TO THE POINT OF COMMENCEMENT.

ALSO EXCEPTING FROM THE FIRST HEREIN DESCRIBED PARCEL OF LAND SO MUCH THEREOF DESCRIBED AS FOLLOWS:

BEGINNING AT A POINT IN THE NORTHERLY LINE OF THE LANDS OF PAVLINA AS SAID LANDS ARE DESCRIBED IN THE DEED FILED FOR RECORD IN BOOK 2914 OFFICIAL RECORDS, AT PAGE 499 IN THE OFFICE OF THE RECORDER OF SAID COUNTY, SAID POINT OF BEGINNING

BEING DISTANT NORTH 89 DEG. 24' 45" WEST ALONG SAID NORTHERLY LINE 490.88 FEET FROM THE ORIGINAL CENTERLINE OF SARATOGA-SUNNYVALE ROAD, 50 FEET WIDE; THENCE NORTH 56 DEG. 06' 35" WEST 596.76 FEET TO A POINT IN THE NORTHERLY LINE OF SAID LANDS OF DITOMMASO, LAST SAID POINT BEING DISTANT NORTH 89 DEG. 26' 00" WEST ALONG SAID NORTHERLY LINE 987.70 FEET FROM THE ORIGINAL CENTERLINE OF SARATOGA-SUNNYVALE ROAD, THENCE NORTH 89 DEG. 26' 00" WEST ALONG LAST SAID NORTHERLY LINE 197.88 FEET TO THE POINT OF INTERSECTION THEREOF WITH A CURVE, CONCAVE TO THE NORTHEAST; THENCE SOUTHEASTERLY FROM A TANGENT BEARING SOUTH 46 DEG. 13' 09" EAST ALONG THE ARC OF SAID CURVE, HAVING A RADIUS OF 760.00 FEET THROUGH A CENTRAL ANGLE OF 9 DEG. 53' 26" A DISTANCE OF 131.19 FEET TO THE POINT OF TANGENCY WITH A LINE HAVING A BEARING OF SOUTH 56 DEG. 06' 35" EAST THENCE SOUTH 56 DEG. 06' 35" EAST, ALONG LAST SAID LINE 448.90 FEET TO THE POINT OF INTERSECTION THEREOF WITH SAID NORTHERLY LINE OF THE LANDS OF PAVLINA; THENCE SOUTH 89 DEG. 24' 45" EAST, ALONG LAST SAID NORTHERLY LINE 218.56 FEET TO THE POINT OF BEGINNING.

ALSO EXCEPTING THEREFROM THE LANDS CONVEYED TO THE CITY OF SUNNYVALE BY DEED RECORDED MAY 16, 1975 IN BOOK B413, PAGE 39, AS INSTRUMENT NO. 5008298, OFFICIAL RECORDS OF SANTA CLARA COUNTY.

ALSO EXCEPTING THEREFROM THE LANDS CONVEYED TO THE CITY OF SUNNYVALE BY DEED RECORDED DECEMBER 22, 1976 IN BOOK C491, PAGE 377, AS INSTRUMENT NO. 5504979, OFFICIAL RECORDS OF SANTA CLARA COUNTY.

APN: 201-36-002

ARB: 200-30-47

***NOTICE I***

Section 12413.1 of the California Insurance Code, effective January 1, 1990, requires that any title insurance company, underwritten title company, or controlled escrow company handling funds in an escrow or sub-escrow capacity, wait a specified number of days after depositing funds, before recording any documents in connection with the transaction or disbursing funds. This statute allows for funds deposited by wire transfer to be disbursed the same day as deposit. In the case of cashier's checks or certified checks, funds may be disbursed the next day after deposit. In order to avoid unnecessary delays of three to seven days, or more, please use wire transfer, cashier's checks, or certified checks whenever possible.

If you have any questions about the effect of this new law, please contact your local First American Office for more details.

***NOTICE II***

As of January 1, 1991, if the transaction which is the subject of this report will be a sale, you as a party to the transaction, may have certain tax reporting and withholding obligations pursuant to the state law referred to below:

In accordance with Sections 18662 and 18668 of the Revenue and Taxation Code, a buyer may be required to withhold an amount equal to three and one-third percent of the sales price in the case of the disposition of California real property interest by either:

1. A seller who is an individual with a last known street address outside of California or when the disbursement instructions authorize the proceeds be sent to a financial intermediary of the seller, OR
2. A corporate seller which has no permanent place of business in California.

The buyer may become subject to penalty for failure to withhold an amount equal to the greater of 10 percent of the amount required to be withheld or five hundred dollars ($500).

However, notwithstanding any other provision included in the California statutes referenced above, no buyer will be required to withhold any amount or be subject to penalty for failure to withhold if:

1. The sales price of the California real property conveyed does not exceed one hundred thousand dollars ($100,000), OR
2. The seller executes a written certificate, under the penalty of perjury, certifying that the seller is a resident of California, or if a corporation, has a permanent place of business in California, OR
3. The seller, who is an individual, executes a written certificate, under the penalty of perjury, that the California real property being conveyed is the seller's principal residence (as defined in Section 1034 of the Internal Revenue Code).

The seller is subject to penalty for knowingly filing a fraudulent certificate for the purpose of avoiding the withholding requirement.

The California statutes referenced above include provisions which authorize the Franchise Tax Board to grant reduced withholding and waivers from withholding on a case-by-case basis.

The parties to this transaction should seek an attorney's, accountant's, or other tax specialist's opinion concerning the effect of this law on this transaction and should not act on any statements made or omitted by the escrow or closing officer.

The Seller May Request a Waiver by Contacting:
Franchise Tax Board
Withhold at Source Unit
P.O. Box 651
Sacramento, CA 95812-0651
(916) 845-4900

# Privacy Policy

**We Are Committed to Safeguarding Customer Information**
In order to better serve your needs now and in the future, we may ask you to provide us with certain information. We understand that you may be concerned about what we will do with such information - particularly any personal or financial information. We agree that you have a right to know how we will utilize the personal information you provide to us. Therefore, together with our parent company, The First American Corporation, we have adopted this Privacy Policy to govern the use and handling of your personal information.

**Applicability**
This Privacy Policy governs our use of the information which you provide to us. It does not govern the manner in which we may use information we have obtained from any other source, such as information obtained from a public record or from another person or entity. First American has also adopted broader guidelines that govern our use of personal information regardless of its source. First American calls these guidelines its *Fair Information Values*, a copy of which can be found on our website at www.firstam.com.

**Types of Information**
Depending upon which of our services you are utilizing, the types of nonpublic personal information that we may collect include:

- Information we receive from you on applications, forms and in other communications to us, whether in writing, in person, by telephone or any other means;
- Information about your transactions with us, our affiliated companies, or others; and
- Information we receive from a consumer reporting agency.

**Use of Information**
We request information from you for our own legitimate business purposes and not for the benefit of any nonaffiliated party. Therefore, we will not release your information to nonaffiliated parties except: (1) as necessary for us to provide the product or service you have requested of us; or (2) as permitted by law. We may, however, store such information indefinitely, including the period after which any customer relationship has ceased. Such information may be used for any internal purpose, such as quality control efforts or customer analysis. We may also provide all of the types of nonpublic personal information listed above to one or more of our affiliated companies. Such affiliated companies include financial service providers, such as title insurers, property and casualty insurers, and trust and investment advisory companies, or companies involved in real estate services, such as appraisal companies, home warranty companies, and escrow companies. Furthermore, we may also provide all the information we collect, as described above, to companies that perform marketing services on our behalf, on behalf of our affiliated companies, or to other financial institutions with whom we or our affiliated companies have joint marketing agreements.

**Former Customers**
Even if you are no longer our customer, our Privacy Policy will continue to apply to you.

**Confidentiality and Security**
We will use our best efforts to ensure that no unauthorized parties have access to any of your information. We restrict access to nonpublic personal information about you to those individuals and entities who need to know that information to provide products or services to you. We will use our best efforts to train and oversee our employees and agents to ensure that your information will be handled responsibly and in accordance with this Privacy Policy and First American's *Fair Information Values*. We currently maintain physical, electronic, and procedural safeguards that comply with federal regulations to guard your nonpublic personal information.

## CLTA/ALTA HOMEOWNER'S POLICY OF TITLE INSURANCE (02-03-10)
## EXCLUSIONS

In addition to the Exceptions in Schedule B, You are not insured against loss, costs, attorneys' fees, and expenses resulting from:

1. Governmental police power, and the existence or violation of those portions of any law or government regulation concerning:

   (a) building; (d) improvements on the Land;
   (b) zoning; (e) land division; and
   (c) land use; (f) environmental protection.

   This Exclusion does not limit the coverage described in Covered Risk 8.a., 14, 15, 16, 18, 19, 20, 23 or 27.
2. The failure of Your existing structures, or any part of them, to be constructed in accordance with applicable building codes. This Exclusion does not limit the coverage described in Covered Risk 14 or 15.
3. The right to take the Land by condemning it. This Exclusion does not limit the coverage described in Covered Risk 17.
4. Risks:
   (a) that are created, allowed, or agreed to by You, whether or not they are recorded in the Public Records;
   (b) that are Known to You at the Policy Date, but not to Us, unless they are recorded in the Public Records at the Policy Date;
   (c) that result in no loss to You; or
   (d) that first occur after the Policy Date - this does not limit the coverage described in Covered Risk 7, 8.e., 25, 26, 27 or 28.
5. Failure to pay value for Your Title.
6. Lack of a right:
   (a) to any land outside the area specifically described and referred to in paragraph 3 of Schedule A; and
   (b) in streets, alleys, or waterways that touch the Land.
   This Exclusion does not limit the coverage described in Covered Risk 11 or 21.
7. The transfer of the Title to You is invalid as a preferential transfer or as a fraudulent transfer or conveyance under federal bankruptcy, state insolvency, or similar creditors' rights laws.

## LIMITATIONS ON COVERED RISKS

Your insurance for the following Covered Risks is limited on the Owner's Coverage Statement as follows: For Covered Risk 16, 18, 19, and 21 Your Deductible Amount and Our Maximum Dollar Limit of Liability shown in Schedule A.

| Your Deductible Amount | Our Maximum Dollar Limit of Liability |
|---|---|
| Covered Risk 16: 1% of Policy Amount or $2,500.00 (whichever is less) | $10,000.00 |
| Covered Risk 18: 1% of Policy Amount or $5,000.00 (whichever is less) | $25,000.00 |
| Covered Risk 19: 1% of Policy Amount or $5,000.00 (whichever is less) | $25,000.00 |
| Covered Risk 21: 1% of Policy Amount or $2,500.00 (whichever is less) | $5,000.00 |

## ALTA RESIDENTIAL TITLE INSURANCE POLICY (6-1-87)
## EXCLUSIONS

In addition to the Exceptions in Schedule B, you are not insured against loss, costs, attorneys' fees, and expenses resulting from:

1. Governmental police power, and the existence or violation of any law or government regulation. This includes building and zoning ordinances and also laws and regulations concerning:

   (a) and use
   (b) improvements on the land
   (c) and division
   (d) environmental protection

   This exclusion does not apply to violations or the enforcement of these matters which appear in the public records at Policy Date.
   This exclusion does not limit the zoning coverage described in Items 12 and 13 of Covered Title Risks.
2. The right to take the land by condemning it, unless:
   (a) a notice of exercising the right appears in the public records on the Policy Date

(b) the taking happened prior to the Policy Date and is binding on you if you bought the land without knowing of the taking

3. Title Risks:
   (a) that are created, allowed, or agreed to by you
   (b) that are known to you, but not to us, on the Policy Date -- unless they appeared in the public records
   (c) that result in no loss to you
   (d) that first affect your title after the Policy Date -- this does not limit the labor and material lien coverage in Item 8 of Covered Title Risks
4. Failure to pay value for your title.
5. Lack of a right:
   (a) to any land outside the area specifically described and referred to in Item 3 of Schedule A OR
   (b) in streets, alleys, or waterways that touch your land
   This exclusion does not limit the access coverage in Item 5 of Covered Title Risks.

**2006 ALTA LOAN POLICY (06-17-06)**
**EXCLUSIONS FROM COVERAGE**

The following matters are expressly excluded from the coverage of this policy, and the Company will not pay loss or damage, costs, attorneys' fees, or expenses that arise by reason of:

1. a. Any law, ordinance, permit, or governmental regulation (including those relating to building and zoning) restricting, regulating, prohibiting, or relating to
   i. the occupancy, use, or enjoyment of the Land;
   ii. the character, dimensions, or location of any improvement erected on the Land;
   iii. the subdivision of land; or
   iv. environmental protection;

   or the effect of any violation of these laws, ordinances, or governmental regulations. This Exclusion 1(a) does not modify or limit the coverage provided under Covered Risk 5.
   b. Any governmental police power. This Exclusion 1(b) does not modify or limit the coverage provided under Covered Risk 6.
2. Rights of eminent domain. This Exclusion does not modify or limit the coverage provided under Covered Risk 7 or 8.
3. Defects, liens, encumbrances, adverse claims, or other matters
   a. created, suffered, assumed, or agreed to by the Insured Claimant;
   b. not Known to the Company, not recorded in the Public Records at Date of Policy, but Known to the Insured Claimant and not disclosed in writing to the Company by the Insured Claimant prior to the date the Insured Claimant became an Insured under this policy;
   c. resulting in no loss or damage to the Insured Claimant;
   d. attaching or created subsequent to Date of Policy (however, this does not modify or limit the coverage provided under Covered Risk 11, 13, or 14); or
   e. resulting in loss or damage that would not have been sustained if the Insured Claimant had paid value for the Insured Mortgage.
4. Unenforceability of the lien of the Insured Mortgage because of the inability or failure of an Insured to comply with applicable doing-business laws of the state where the Land is situated.
5. Invalidity or unenforceability in whole or in part of the lien of the Insured Mortgage that arises out of the transaction evidenced by the Insured Mortgage and is based upon usury or any consumer credit protection or truth-in-lending law.
6. Any claim, by reason of the operation of federal bankruptcy, state insolvency, or similar creditors' rights laws, that the transaction creating the lien of the Insured Mortgage, is
   a. a fraudulent conveyance or fraudulent transfer, or
   b. a preferential transfer for any reason not stated in Covered Risk 13(b) of this policy.
7. Any lien on the Title for real estate taxes or assessments imposed by governmental authority and created or attaching between Date of Policy and the date of recording of the Insured Mortgage in the Public Records. This Exclusion does not modify or limit the coverage provided under Covered Risk 11(b).

The above policy form may be issued to afford either Standard Coverage or Extended Coverage. In addition to the above Exclusions from Coverage, the Exceptions from Coverage in a Standard Coverage policy will also include the following Exceptions from Coverage:

**EXCEPTIONS FROM COVERAGE**

This policy does not insure against loss or damage (and the Company will not pay costs, attorneys' fees or expenses) that arise by reason of:

1. (a) Taxes or assessments that are not shown as existing liens by the records of any taxing authority that levies taxes or assessments on real property or by the Public Records; (b) proceedings by a public agency that may result in taxes or assessments, or notices of such proceedings, whether or not shown by the records of such agency or by the Public Records.
2. Any facts, rights, interests, or claims that are not shown by the Public Records but that could be ascertained by an inspection of the Land or that may be asserted by persons in possession of the Land.
3. Easements, liens or encumbrances, or claims thereof, not shown by the Public Records.
4. Any encroachment, encumbrance, violation, variation, or adverse circumstance affecting the Title that would be disclosed by an accurate and complete land survey of the Land and not shown by the Public Records.
5. (a) Unpatented mining claims; (b) reservations or exceptions in patents or in Acts authorizing the issuance thereof; (c) water rights, claims or title to water, whether or not the matters excepted under (a), (b), or (c) are shown by the Public Records.
6. Any lien or right to a lien for services, labor or material not shown by the public records.

**2006 ALTA OWNER'S POLICY (06-17-06)**

**EXCLUSIONS FROM COVERAGE**

The following matters are expressly excluded from the coverage of this policy, and the Company will not pay loss or damage, costs, attorneys' fees, or expenses that arise by reason of:

1. a. Any law, ordinance, permit, or governmental regulation (including those relating to building and zoning) restricting, regulating, prohibiting, or relating to

   i. the occupancy, use, or enjoyment of the Land;
   ii. the character, dimensions, or location of any improvement erected on the Land;
   iii. the subdivision of land; or
   iv. environmental protection;

   or the effect of any violation of these laws, ordinances, or governmental regulations. This Exclusion 1(a) does not modify or limit the coverage provided under Covered Risk 5.

   b.Any governmental police power. This Exclusion 1(b) does not modify or limit the coverage provided under Covered Risk 6.
2. Rights of eminent domain. This Exclusion does not modify or limit the coverage provided under Covered Risk 7 or 8.
3. Defects, liens, encumbrances, adverse claims, or other matters
   a. created, suffered, assumed, or agreed to by the Insured Claimant;
   b. not Known to the Company, not recorded in the Public Records at Date of Policy, but known to the Insured Claimant and not disclosed in writing to the Company by the Insured Claimant prior to the date the Insured Claimant became an Insured under this policy;
   c. resulting in no loss or damage to the Insured Claimant;
   d. attaching or created subsequent to Date of Policy (however, this does not modify or limit the coverage provided under Covered Risk 11, 13, or 14); or
   e. resulting in loss or damage that would not have been sustained if the Insured Claimant had paid value for the Insured Mortgage.
4. Unenforceability of the lien of the Insured Mortgage because of the inability or failure of an Insured to comply with applicable doing-business laws of the state where the Land is situated.
5. Invalidity or unenforceability in whole or in part of the lien of the Insured Mortgage that arises out of the transaction evidenced by the Insured Mortgage and is based upon usury or any consumer credit protection or truth-in-lending law.
6. Any claim, by reason of the operation of federal bankruptcy, state insolvency, or similar creditors' rights laws, that the transaction creating the lien of the Insured Mortgage, is
   a. a fraudulent conveyance or fraudulent transfer, or
   b. a preferential transfer for any reason not stated in Covered Risk 13(b) of this policy.
7. Any lien on the Title for real estate taxes or assessments imposed by governmental authority and created or attaching between Date of Policy and the date of recording of the Insured Mortgage in the Public Records. This Exclusion does not modify or limit the coverage provided under Covered Risk 11(b).

The above policy form may be issued to afford either Standard Coverage or Extended Coverage. In addition to the above Exclusions from Coverage, the Exceptions from Coverage in a Standard Coverage policy will also include the following Exceptions from Coverage:

**EXCEPTIONS FROM COVERAGE**

This policy does not insure against loss or damage (and the Company will not pay costs, attorneys' fees or expenses) that arise by reason of:

1. (a) Taxes or assessments that are not shown as existing liens by the records of any taxing authority that levies taxes or assessments on real property or by the Public Records; (b) proceedings by a public agency that may result in taxes or assessments, or notices of such proceedings, whether or not shown by the records of such agency or by the Public Records.
2. Any facts, rights, interests, or claims that are not shown by the Public Records but that could be ascertained by an inspection of the Land or that may be asserted by persons in possession of the Land.
3. Easements, liens or encumbrances, or claims thereof, not shown by the Public Records.
4. Any encroachment, encumbrance, violation, variation, or adverse circumstance affecting the Title that would be disclosed by an accurate and complete land survey of the Land and not shown by the Public Records.
5. (a) Unpatented mining claims; (b) reservations or exceptions in patents or in Acts authorizing the issuance thereof; (c) water rights, claims or title to water, whether or not the matters excepted under (a), (b), or (c) are shown by the Public Records.
6. Any lien or right to a lien for services, labor or material not shown by the public records.

**ALTA EXPANDED COVERAGE RESIDENTIAL LOAN POLICY (07-26-10)**

**EXCLUSIONS FROM COVERAGE**

The following matters are expressly excluded from the coverage of this policy, and the Company will not pay loss or damage, costs, attorneys' fees, or expenses that arise by reason of:

1. a. Any law, ordinance, permit, or governmental regulation (including those relating to building and zoning) restricting, regulating, prohibiting, or relating to

   i. the occupancy, use, or enjoyment of the Land;
   ii. the character, dimensions, or location of any improvement erected on the Land;
   iii. the subdivision of land; or
   iv. environmental protection;

   or the effect of any violation of these laws, ordinances, or governmental regulations. This Exclusion 1(a) does not modify or limit the coverage provided under Covered Risk 5, 6, 13(c), 13(d), 14 or 16.

   b. Any governmental police power. This Exclusion 1(b) does not modify or limit the coverage provided under Covered Risk 5, 6, 13(c), 13(d), 14 or 16.
2. Rights of eminent domain. This Exclusion does not modify or limit the coverage provided under Covered Risk 7 or 8.
3. Defects, liens, encumbrances, adverse claims, or other matters

   a. created, suffered, assumed, or agreed to by the Insured Claimant;
   b. not Known to the Company, not recorded in the Public Records at Date of Policy, but Known to the Insured Claimant and not disclosed in writing to the Company by the Insured Claimant prior to the date the Insured Claimant became an Insured under this policy;
   c. resulting in no loss or damage to the Insured Claimant;
   d. attaching or created subsequent to Date of Policy (however, this does not modify or limit the coverage provided under Covered Risk 11, 16, 17, 18, 19, 20, 21, 22, 23, 24, 27 or 28); or
   e. resulting in loss or damage that would not have been sustained if the Insured Claimant had paid value for the Insured Mortgage.
4. Unenforceability of the lien of the Insured Mortgage because of the inability or failure of an Insured to comply with applicable doing-business laws of the state where the Land is situated.
5. Invalidity or unenforceability in whole or in part of the lien of the Insured Mortgage that arises out of the transaction evidenced by the Insured Mortgage and is based upon usury or any consumer credit protection or truth-in-lending law. This Exclusion does not modify or limit the coverage provided in Covered Risk 26.
6. Any claim of invalidity, unenforceability or lack of priority of the lien of the Insured Mortgage as to Advances or modifications made after the Insured has Knowledge that the vestee shown in Schedule A is no longer the owner of the estate or interest covered by this policy. This Exclusion does not modify or limit the coverage provided in Covered Risk 11.
7. Any lien on the Title for real estate taxes or assessments imposed by governmental authority and created or attaching subsequent to Date of Policy. This Exclusion does not modify or limit the coverage provided in Covered Risk 11(b) or 25.
8. The failure of the residential structure, or any portion of it, to have been constructed before, on or after Date of Policy in accordance with applicable building codes. This Exclusion does not modify or limit the coverage provided in Covered Risk 5 or 6.
9. Any claim, by reason of the operation of federal bankruptcy, state insolvency, or similar creditors' rights laws, that the transaction creating the lien of the Insured Mortgage, is
   a. a fraudulent conveyance or fraudulent transfer, or
   b. a preferential transfer for any reason not stated in Covered Risk 27(b) of this policy.

Appendix E

# Transportation Operations Analysis

July 2016

Kimley»Horn

# TRANSPORTATION OPERATIONS ANALYSIS

# Oppidan Grocery Store (777 Sunnyvale – Saratoga Road)

PREPARED FOR:

CITY OF SUNNYVALE

**JULY 2016 | FINAL**

Prepared By:

Kimley»Horn

**WARNING!**

The electronic data files ("Files") furnished by Kimley-Horn and Associates, Inc. to the intended receiver of the Files ("Receiving Party") are provided only for the convenience of Receiving Party and only for its sole use.

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# AUTO TRIP REDUCTION STATEMENT

**UPDATED: October 2014**

SANTA CLARA Valley Transportation Authority

| PROJECT INFORMATION | | Relevant TIA Section: | Proposed Site Use | |
|---|---|---|---|---|
| **Project Name:** Oppidan Grocery Store Project | | | | |
| **Location:** 777 Sunnyvale-Saratoga Road | | | | |
| **Description:** The proposed project will demolish 6,780 square feet of existing customer pick-up for an existing hardware store and construct 11,600 square feet of grocery store. | | | | |
| **Size (net new):** | *D.U. Residential* | 11,600 | *Sq. Ft. Comm.* | *Acres (Gr.)* |
| **Density:** | *D.U. / Acre* | | | *Floor Area Ratio (FAR)* |
| **Located within 2000 feet walking distance of an LRT, BRT, BART or Caltrain station or major bus stop?** Yes | | | | |

| PROJECT AUTO TRIP GENERATION | | Relevant TIA Section: | Trip Generation | |
|---|---|---|---|---|
| **Auto Trips Generated:** | 29 *AM Pk Hr* | 95 *PM Pk Hr* | 978 *Total Weekday* | |
| **Methodology (check one)** | ☒ **ITE** | ☐ **Other** *(Please describe below)* | | |
| Used ITE methodology to calculate trips generated by project and trip credits due to existing land use. | | | | |

| AUTO TRIP REDUCTION APPROACH | Relevant TIA Section: | | |
|---|---|---|---|
| ☐ **Standard** *Complete Table A below* | ☐ **Peer/Study-Based** *Complete Table B below* | ☐ **Target-Based** *Complete Table C below* | ☒ **None Taken** |

| TRIP REDUCTION REQUIREMENTS | Relevant TIA Section: | |
|---|---|---|
| **Is the project required to meet any trip reduction requirements or targets?** No | | **If so, specify percent:** |
| **Reference code or requirement:** | | |

## TRIP REDUCTION APPROACHES

| A. STANDARD APPROACH | | Relevant TIA Section: | | | |
|---|---|---|---|---|---|
| **Type of Reduction** *Specify reduction. See Table 2 in TIA Guidelines* | | **% Reduction from ITE Rates** | **Total Trips Reduced (AM/PM/Daily)** | **TOTAL REDUCTION CLAIMED** | |
| | | | | **%** | **Trips** |
| **Transit** | | | | | |
| **Mixed-Use** | | | | | |
| **Financial Incentives** | | | | | |
| **Shuttle** | | | | | |

| B. PEER/STUDY-BASED APPROACH | Relevant TIA Section: | |
|---|---|---|
| **Basis of Reduction** | **TOTAL REDUCTION CLAIMED** | |
| | **%** | **Trips** |
| | | |

*Last updated 11/4/2014*

| C. TARGET-BASED APPROACH | | | Relevant TIA Section: | | |
|---|---|---|---|---|---|
| Type of Reduction (check all that apply) | | | | TOTAL REDUCTION CLAIMED | |
| ❒ % Trip Reduction | ❒ % SOV mode share | ❒ Trip Cap | | % | Trips |
| | | | | | |
| Description | | | | | |
| Time period for reduction | Peak Hour | Peak Period | Full Day | | |
| | ❒ AM/PM | ❒ AM/PM | ❒ | | |

| OTHER TDM/REDUCTION MEASURES | | | |
|---|---|---|---|
| Bicycle/Pedestrian | No | Relevant TIA Section: | |
| Driveways along Mathilda Avenue and Sunnyvale-Saratoga Road will be replaced to comply with ADA standards. Bicycle parking will be upraded to meet the required number of Class 1 & 2 spaces. A total of 15 bicycle spaces will be provided. | | | |
| Parking Management | No | Relevant TIA Section: | |
| If the nine parking spaces provided for teh project is full, then staff will direct customers to park in the main parking lot. | | | |
| Transit | No | Relevant TIA Section: | |
| A pedestrain walkway (combination of sidewalk and striped paving) that lies in front of the buildings on the site and the main corner entrance of the building connects to the public sidewalk along Sunnyvale-Saratoga Road. | | | |
| Site Planning and Design | No | Relevant TIA Section: | |
| | | | |
| TDM Program | No | Relevant TIA Section: | |
| | | | |

| IMPLEMENTATION | Relevant TIA Section: |
|---|---|
| Have the project sponsor and Lead Agency agreed to any of the following measures? | |
| ❒Monitoring | |
| ❒Enforcement | |
| ❒Data Sharing | |

# EXECUTIVE SUMMARY

The proposed project will demolish 6,780 square feet of a customer pick-up building which is part of an existing Orchard Supply Hardware (OSH) store and construct an 11,600 square foot Oppidan Grocery Store (Project) located at 777 Sunnyvale-Saratoga Road in the City of Sunnyvale, California.

The project site is located south of El Camino Real, between S Mathilda Avenue and Sunnyvale-Saratoga Road. The site can be accessed by five existing driveways, two on S Mathilda Avenue and three on Sunnyvale-Saratoga Road. The two driveways on S Mathilda Avenue are unsignalized and restricted to right-in and right-out movements. The three driveways on Sunnyvale-Saratoga Road are also unsignalized, but are full access. However only the existing driveways which provide the most direct access to the project site was analyzed in this report.

This transportation operations analysis (TOA) study was prepared to determine potential impacts related to the project based on standards and methodologies set forth by the City of Sunnyvale (City) and the Santa Clara Valley Transportation Authority (VTA). Since the project is not expected to generate 100 or more net new peak hour trips, a comprehensive traffic impact analysis (TIA) was not required. This study includes the intersection level of service (LOS) and queuing analyses of the AM and PM peak hour traffic conditions for ten (10) intersections. However, a cumulative year analysis was not required per City of Sunnyvale TOA guidelines. This study addresses the transportation effects of the proposed project to assist the City with project planning and the identification of potential conditions of approval for the project.

## PROJECT TRIP ESTIMATES

The number of net new project trips anticipated to be added to the roadway system surrounding the project site was estimated based on data published in the Institute of Transportation Engineers' (ITE) *Trip Generation, 9th Edition*. This includes a trip credit for the existing restaurant in the PM peak hour only. The project will generate a net +29 trips in the AM peak hour and a net +95 trips in the PM peak hour.

## INTERSECTION LEVEL OF SERVICE

This study includes an LOS analysis of the AM and PM peak hour traffic conditions for ten (10) intersections analyzed in the *Traffix* software package.

### EXISTING CONDITIONS

It is expected that all study intersections will operate at acceptable levels of service under the Existing and Existing Plus Project conditions.

### EXISTING PLUS BACKGROUND CONDITIONS

It is expected that all study intersections will operate at acceptable levels of service under the Existing Plus Background and Existing Plus Background Plus Project conditions.

## FREEWAY LEVEL OF SERVICE

The VTA CMP guidelines dictate that a freeway segment be analyzed if the project adds the traffic equivalent of at least one percent of the freeway capacity. No freeway analysis was conducted since the

proposed Project would not add sufficient traffic to freeway segments to cause a significant impact. Therefore, no freeway analysis was required.

## VEHICLE QUEUING

Vehicle queuing for each study intersection was analyzed using the *Highway Capacity Manual, 2000* (HCM) methodology. The 95th percentile queue length was compared to the turn pocket storage length to determine if queues would exceed the storage length. Only left turn queues were evaluated for operational deficiencies.

The City of Sunnyvale does not have a standard for queuing impacts but considers queuing issues as operational considerations. The analysis showed that a queuing storage deficiency would occur at the following intersection due to the proposed project traffic:

- #4 – Sunnyvale Avenue / El Camino Real (northbound left turn)

The following improvements is recommended for the deficiency:

- #4 – Sunnyvale Avenue / El Camino Real: Increase green time for northbound left turn movement

## SITE ACCESS AND CIRCULATION

Site access was evaluated at the project's driveways as listed below:

- Intersection #7 – Southwest Project Driveway / S Mathilda Avenue
- Intersection #8 – East Project Driveway / Sunnyvale-Saratoga Road
- Intersection #9 – Southeast Project Driveway / Sunnyvale-Saratoga Road

All driveways are existing unsignalized intersections. Intersection #7 is restricted to right-in and right-out operations. Intersections #8 and #9 allow full access to the site. There are no proposed changes to these existing driveways with the proposed Project. The project driveways were determined to operate at an acceptable LOS with the addition of the proposed project.

A queuing analysis was conducted for each of the project driveways. The queuing analysis at the project driveways indicated that the 95$^{th}$ percentile queues would be no greater than one vehicle for all the Project scenarios. These queues do not exceed the throat depths for each driveway.

Vehicular circulation for the site was also reviewed. The project description states that this particular type of grocery store will have customers pre-order groceries and then arrive to pick them up. The loop on the northeast portion of the site will be used for customers to wait and have their groceries delivered to them. The loop will be circulating in one direction only, and in a clockwise manner. This should limit the number of vehicle conflict points on-site. A potential issue would be if the loop queue backs up onto Sunnyvale-Saratoga Road. However, given the proposed operations of having specific time slots for grocery pick-up, there is no anticipated queuing issues.

## PARKING REQUIREMENTS

The project proposes to have 11,600 square feet of grocery store, which equates to a minimum of 46 spaces and a maximum of 58 spaces. The proposed project provides a total of 47 parking spaces, which meets the City's parking requirements.

The project proposes 90 degree parking spaces for the carport and surface parking, with 9 feet wide and 18-foot long stalls. The proposed parking space design meets City's requirements.

### PEDESTRIAN ACCESS AND CIRCULATION

Pedestrians will most likely access the site by utilizing existing sidewalks on Sunnyvale-Saratoga Road and on Mathilda Avenue. Sidewalks along these two roadways adjacent to the project site will lead to the project's surface parking lot. On-site, within the pick-up area, there is a striped walking pathway just north of the northeast driveway for pedestrians to access the store's main entrance from Sunnyvale-Saratoga Road.

There is a sidewalk that will connect the existing sidewalk along the OSH store's frontage to the proposed project. This provides a pedestrian connection, separate from vehicular traffic, between the two stores.

### BICYCLE ACCESS AND CIRCULATION

On-site bicycle facilities and circulation is not shown on the project site plans provided. However the project will add 15 Class 1 & 2 bicycle parking spaces combined. Bicyclists can also access the City network of bicycle facilities via the bicycle lanes adjacent to the site on S Mathilda Avenue and Sunnyvale-Saratoga Road.

## TRANSIT, PEDESTRIAN, AND BICYCLE

The proposed project was evaluated to determine if it would likely conflict with adopted policies, plans, or programs supporting alternative transportation (e.g., bus turnouts, bicycle racks) or generate pedestrian, bicycle, or transit travel demand that would not be accommodated by existing transit, bicycle, or pedestrian facilities and plans.

### TRANSIT

For those taking transit, they can utilize the VTA bus routes that operate along El Camino Real, S Pastoria Avenue, S Sunnyvale Avenue, and South Fair Oaks Avenue adjacent to the project site. There are bus stops for VTA on either side of El Camino Real and South Fair Oaks Avenue that provide access to the local transit system. In addition the project would not conflict with existing or planned transit facilities.

Transit vehicle delay was also observed for each transit route. Transit vehicles for the transit routes in the study area are expected to use the shared right-of-way with other motorists. Since the proposed project is anticipated to increase the vehicle delay at study intersections, transit vehicle delay may increase. The increases in transit vehicle delay are all less than four seconds in the AM and PM peak hours. This increase in transit vehicle delay should not affect the overall schedule for the transit routes.

Since the project does not conflict with exiting or planned transit facilities and there are adequate facilities for pedestrian and bicycles to access transit stops, the project will have a **less than significant impact** on transit services.

### PEDESTRIAN

There are existing sidewalks along the project site's frontage on Sunnyvale-Saratoga Road and on Mathilda Avenue. It is anticipated that pedestrians would use these sidewalks along the project site's frontages to access the adjacent land uses and the transit stops nearby. At each of the signalized intersections near the

project site there are striped crosswalks for each direction, allowing pedestrians to more safely cross the adjacent roadways.

The project will have a **less than significant impact** on pedestrian service.

## BICYCLE

Bicyclists will have direct access to the project site using bicycle lanes on S Mathilda Avenue and Sunnyvale-Saratoga Road. These bicycle lanes provide access to the project site and other bicycle facilities throughout the City.

The proposed project does not appear to impact the safety of bicyclists or have any hazardous design features impeding the use of bicycles facilities. Since the proposed project does not conflict with any adopted policies or plans related to bicycle activity, the proposed project will have a **less than significant impact** on bicycle service.

# 1. INTRODUCTION

This report presents the results of the transportation operations analysis (TOA) for the proposed Oppidan Grocery Store project located in the City of Sunnyvale, California. The proposed project ("Project") will demolish 6,780 square feet of a customer pick-up building which is part of an existing Orchards Supply Hardware (OSH) store and construct 11,600 square feet of a grocery retail business.

**Figure 1** illustrates the location of the project site in relation to the adjacent roadway network in Sunnyvale. The site can be accessed by five existing driveways, two on S Mathilda Avenue and three on Sunnyvale-Saratoga Road. The two driveways on S Mathilda Avenue are unsignalized and restricted to right-in and right-out movements. The three driveways on Sunnyvale-Saratoga Road are also unsignalized, but are full access. However only the existing driveways which provide the most direct access to the project site were analyzed in this report.

This transportation operations analysis study was prepared to determine potential impacts related to the project based on standards and methodologies set forth by the City of Sunnyvale (City) and the Santa Clara Valley Transportation Authority (VTA). Since the project is not expected to generate 100 or more net new peak hour trips, a comprehensive traffic impact analysis (TIA) was not required. This study includes the intersection level of service (LOS) and queuing analyses of the AM and PM peak hour traffic conditions for ten (10) intersections. A cumulative year analysis was not required per City of Sunnyvale TOA guidelines. This study addresses the transportation effects of the proposed project to assist the City with project planning and the identification of potential conditions of approval for the project.

## STUDY AREA

The proposed project will generate new vehicular trips that will increase traffic volumes on the nearby street network. To assess changes in traffic conditions associated with the proposed project, the following intersections in **Table 1** were analyzed. The study intersections are illustrated in **Figure 1**.

**Table 1 - Study Intersections**

| # | Intersection |
|---|---|
| **1** | S Mary Avenue / El Camino Real |
| **2** | S Pastoria Avenue-Hollenbeck Avenue / El Camino Real |
| **3** | S Mathilda Avenue / El Camino Real |
| **4** | S Sunnyvale Avenue / El Camino Real |
| **5** | Cezanne Drive / El Camino Real |
| **6** | S Fair Oaks Avenue / El Camino Real |
| **7** | S Mathilda Avenue / Southwest Project Driveway |
| **8** | Sunnyvale-Saratoga Road / East Project Driveway |
| **9** | Sunnyvale-Saratoga Road / Southeast Project Driveway |
| **10** | S Mathilda Avenue - Sunnyvale-Saratoga Road / Talisman Drive – Sunnyvale-Saratoga Road |

## TRAFFIC CONDITIONS

This TOA was based on the following traffic conditions:

- Existing Conditions – Based on traffic counts collected from September 2013, May 2014, December 2014, June 2015, and December 2015. Existing roadway geometry and traffic control in 2015 were used for this scenario.
- Existing Plus Project Conditions – Based on existing traffic volumes added to traffic generated by the proposed project. Existing roadway geometry with proposed project roadway improvements and traffic controls are assumed for this scenario.
- Existing Plus Background Condition – Based on existing traffic volumes added to traffic from approved projects in the study area (provided by City staff and dated December 2015).
- Existing Plus Background Plus Project Conditions – Based on existing traffic volumes added to traffic from approved projects in the study area and traffic generated by the proposed project.

## STUDY METHODOLOGY

Analysis of significant environmental impacts at intersections and freeway segments is based on the concept of level of service (LOS). The LOS of an intersection is a qualitative measure used to describe operational conditions. LOS ranges from A (best), which represents minimal delay, to F (worst), which represents heavy delay and a facility that is operating at or near its functional capacity. Levels of service for this study were determined using methods defined in the *Highway Capacity Manual, 2000* (HCM) and appropriate traffic analysis software.

### INTERSECTION LEVEL OF SERVICE

The HCM includes procedures for analyzing side-street stop-controlled (SSSC), all-way stop-controlled (AWSC), and signalized intersections. The SSSC procedure defines LOS as a function of average control delay for each minor street approach movement and major street left-turns. Conversely, the AWSC and signalized intersection procedures define LOS as a function of average control delay for the intersection as a whole. VTA has specific delay threshold values for each LOS that is more detailed than that of the HCM. Pluses and minuses are added to the HCM ranges to further designate the LOS for signalized intersections. **Table 2** relates the operational characteristics associated with each LOS category for signalized intersections[1].

**Table 3** relates the operational characteristics associated with each LOS category for unsignalized intersections[2].

[1] VTA Congestion Management Program, Traffic Level of Service Analysis Guidelines, June 2003.

[2] Transportation Research Board, *Highway Capacity Manual 2000*, National Research Council, 2000

**Table 2 - Signalized Intersection Level of Service Definitions**

| Level of Service | Description | Signalized (Avg. control delay per vehicle sec/veh.) |
|---|---|---|
| A | Free flow with no delays. Users are virtually unaffected by others in the traffic stream | delay ≤ 10.0 |
| B+<br>B<br>B- | Stable traffic. Traffic flows smoothly with few delays. | 10.0 < delay ≤ 12.0<br>12.0 < delay ≤ 18.0<br>18.0 < delay ≤ 20.0 |
| C+<br>C<br>C- | Stable flow but the operation of individual users becomes affected by other vehicles. Modest delays. | 20.0 < delay ≤ 23.0<br>23.0 < delay ≤ 32.0<br>32.0 < delay ≤ 35.0 |
| D+<br>D<br>D- | Approaching unstable flow. Operation of individual users becomes significantly affected by other vehicles. Delays may be more than one cycle during peak hours. | 35.0 < delay ≤ 39.0<br>39.0 < delay ≤ 51.0<br>51.0 < delay ≤ 55.0 |
| E+<br>E<br>E- | Unstable flow with operating conditions at or near the capacity level. Long delays and vehicle queuing. | 55.0 < delay ≤ 60.0<br>60.0 < delay ≤ 75.0<br>75.0 < delay ≤ 80.0 |
| F | Forced or breakdown flow that causes reduced capacity. Stop and go traffic conditions. Excessive long delays and vehicle queuing. | delay > 80 |

**Table 3 - Unsignalized Intersection Level of Service Definitions**

| Level of Service | Description | Unsignalized (Avg. control delay per vehicle sec/veh.) |
|---|---|---|
| A | Free flow with no delays. Users are virtually unaffected by others in the traffic stream | ≤ 10 |
| B | Stable traffic. Traffic flows smoothly with few delays. | > 10 – 15 |
| C | Stable flow but the operation of individual users becomes affected by other vehicles. Modest delays. | > 15 – 25 |
| D | Approaching unstable flow. Operation of individual users becomes significantly affected by other vehicles. Delays may be more than one cycle during peak hours. | > 25 – 35 |
| E | Unstable flow with operating conditions at or near the capacity level. Long delays and vehicle queuing. | > 35 – 50 |
| F | Forced or breakdown flow that causes reduced capacity. Stop and go traffic conditions. Excessive long delays and vehicle queuing. | > 50 |

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

Consistent with the significance impact criteria documented in the *Transportation Impact Analysis Guidelines*[3], VTA accepts a minimum level of service of LOS E for a County intersection or Congestion Management Program (CMP) intersection. The City utilizes the same VTA LOS standards for all intersections on regionally significant roadways such as El Camino Real, Sunnyvale-Saratoga Road, and Mathilda Avenue. Therefore, the following conditions would result in a significant impact at a CMP intersection or regionally significant roadway intersection:

1. If the intersection operates at an acceptable LOS (i.e. LOS A, B, C, D, or E) without the project and degrades to an unacceptable LOS (i.e. LOS F) with the project, then it is a significant impact.
2. If the intersection operates at an unacceptable LOS (i.e. LOS F) without the project and the project increases the average control delay for the critical movements by four (4) or more seconds and increases the critical volume to capacity (v/c) by 0.01 or more, then it is a significant impact.
    a. If the addition of project traffic reduces the amount of average control delay for a critical movement (i.e. negative change in delay) and the project increases the v/c by 0.01 or more, then it is a significant impact.

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

The LOS standard for City of Sunnyvale intersections is LOS D except for City of Sunnyvale intersections that are designated as regionally significant, which allows for a minimum level of service of LOS E. 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 F) with the project, then it is a significant impact.
2. If the intersection operates at an unacceptable LOS (i.e. LOS E, or F) without the project and the project increases the critical-movement delay of four (4) or more seconds and increased the critical volume to capacity (v/c) by 0.01 or more, then it is a significant impact.

The City of Sunnyvale does not have an officially adopted significance criterion for unsignalized intersections. Based on previously approved traffic studies, significant impacts are defined to occur when:

1. The addition of project traffic causes the average intersection delay for all-way stop controlled intersections or the worst movement/approach for side-street stop-controlled intersections to degrade to LOS E or LOS F for regionally significant roadways, respectively.
2. The intersection satisfies any traffic signal warrant from the MUTCD.

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

[3] *Transportation Impact Analysis Guidelines*, Santa Clara Valley Transportation Authority Guidelines, October 2014.

## SIGNAL WARRANTS

Traffic signals may be justified when traffic operations fall below acceptable thresholds and when one or more signal warrants are satisfied. Traffic volumes at the unsignalized study intersections were compared against the peak hour warrant in the 2014 California Manual on Uniform Traffic Control Devices (CA MUTCD)[4]. *Traffic Signal Warrant #3 – Peak Hour Volume Warrant* is satisfied when traffic volumes on the major and minor approaches exceed volume thresholds for one hour of the day. The Peak Hour Warrant is generally the first warrant to be satisfied. Other warrants such as those for minimum vehicle volumes, interruption of continuous traffic, and traffic progression were not evaluated because they generally require higher traffic volumes to be satisfied.

## QUEUING

The effects of vehicle queuing were also analyzed and the 95th percentile queue is reported for all study intersections. The 95th percentile queue length represents a condition where 95 percent of the time during the peak hour, traffic volumes will be less than or equal to the queue length determined by the analysis. This is referred to as the "95th percentile queue."

Queues that exceed the turn pocket length can create potentially hazardous conditions by blocking or disrupting through traffic in adjacent travel lanes. However, these potentially hazardous queues are generally associated with left turn movements. Locations where the right turn pocket storage is exceeded are not typically considered potentially hazardous because the right turn movement progresses at the same time as the through movement and the additional vehicles that spill out of the turn pocket are less likely to hinder nor disrupt the adjacent through traffic.

The City of Sunnyvale does not have standards for queuing and considers queuing deficiencies as operational issues. Thus, for purposes of this analysis, operational deficiencies were considered to occur under conditions where project traffic causes the queue in a left turn pocket to extend beyond the turn pocket by 25 feet or more (i.e., the length of one vehicle) into adjacent traffic lanes that operate separately from the left turn lane. Where the vehicle queue already exceeds that turn pocket length under pre-project conditions, a queuing deficiency would occur if project traffic lengthens the queue by 25 feet or more.

## FREEWAY SEGMENTS

Impacts on nearby freeway segments were evaluated in accordance with VTA CMP guidelines. The guidelines dictate that a freeway segment be analyzed if the proposed project adds traffic equivalent to at least one percent of the freeway capacity. The analysis shows that the proposed Project would not add sufficient traffic to freeway segments to cause a potential significant impact; therefore, no further freeway analysis is required. The analysis to determine whether the study freeway segments met the VTA thresholds is shown in the **Appendix**.

## TRANSIT IMPACTS

Impacts on the transit system were evaluated in accordance with VTA guidelines. Transit analysis evaluated existing VTA bus routes that currently run within the study area, particularly through any study intersections. The impacts of the project to the transit system, such as possible increase in demand or vehicle delay was

[4] *California Manual on Uniform Traffic Control Devices,* (FHWA's MUTCD 2009 Edition, as amended for use in California), November 7, 2014

analyzed. It should be noted, that the VTA TIA guidelines, does not have significance criteria for transit impacts, therefore the transit analysis is stated for informational purposes.

## REPORT ORGANIZATION

The remainder of the report is divided into the following chapters:

- Chapter 2: Existing Conditions – describes existing conditions on the roadway network, transit system, pedestrian facilities, and bicycle facilities.
- Chapter 3: Existing Plus Project Conditions – describes the proposed project, trip generation, and estimated impact on the transportation system under Existing Plus Project Conditions.
- Chapter 4: Existing Plus Background Traffic Conditions – describes the traffic conditions under Existing Plus Background Conditions with and without the proposed project.
- Chapter 5: Vehicle Queuing and Site Access and Circulation – describes vehicle queuing analysis at the study intersections and site access and circulation for the proposed project.
- Chapter 6: Potential Effects on Transit, Bicycle and Pedestrian – describes potential effects the proposed project will have on the transit system, pedestrian facilities, and bicycle facilities.
- Chapter 7: Summary of Impacts and Recommended Mitigation – summarizes the evaluated project impacts and proposed mitigations.
- Chapter 8: Summary of Queuing Deficiencies and Recommended Improvements – summarizes the proposed project queuing deficiencies and presents recommendations for improvements.

# 2. EXISTING CONDITIONS

This chapter describes the existing conditions of the roadway network, transit service, pedestrian facilities, and bicycle facilities within the vicinity of the project site. The chapter also presents existing turning movement volumes and intersection levels of service.

## EXISTING ROADWAY NETWORK

This section provides a description of the principal roadways included in this study.

### STATE ROUTE 82 (EL CAMINO REAL)

State Route 82 or El Camino Real is a six-lane east-west arterial roadway with a raised median within the study area. El Camino Real has bicycle lanes between Sunnyvale Avenue and Fair Oaks Avenue. El Camino Real connects several counties in the Bay Area and provides access to residential, commercial, and office land uses. Within the study area, the posted speed limit on El Camino Real is 40 miles per hour.

### CEZANNE DRIVE

Cezanne Drive is a two-lane north-south local roadway serving residential, commercial, and office land uses. There is a two-way left-turn lane (TWLTL) and a bicycle lane on Cezanne Drive between El Camino Real and Old San Francisco Road. Cezanne Drive connects Brahms Way on the south side to Old San Francisco Road on the north side. The speed limit on Cezanne Drive is 25 miles per hour.

### FAIR OAKS AVENUE

Fair Oaks Avenue is a four lane north-south arterial roadway within the study area serving residential, commercial, and office land uses. Fair Oaks Avenue has bicycle lanes between El Camino Real and Old San Francisco Road and street parking north of Old San Francisco Road. Fair Oaks Avenue connects SR-237 on the north end to El Camino Real on the south end. South of El Camino Real, Fair Oaks Avenue becomes Remington Drive. The speed limit on Fair Oaks Avenue is 35 miles per hour within the study area.

### MARY AVENUE

Mary Avenue is a four-lane north-south arterial roadway. Mary Avenue connects to Central Expressway to the north and serves residential and commercial land uses. The posted speed on Mary Avenue is 35 mph in the study area.

### MATHILDA AVENUE

Mathilda Avenue is a six-lane north-south arterial roadway with a divided median within the study area. Mathilda Avenue connects Caribbean Drive on the north side and transitions into Sunnyvale-Saratoga Road on the south side. Mathilda Avenue provides access to US-101 and SR-237. Mathilda Avenue provides access to office, residential, and commercial land uses. North of El Camino Real, the posted speed limit on Mathilda Avenue is 35 miles per hour. South of El Camino Real, the posted speed limit is 40 miles per hour.

### PASTORIA AVENUE-HOLLENBECK AVENUE

Pastoria Avenue is a four-lane roadway between Olive Avenue and El Camino Real. South of El Camino Real, Pastoria Avenue becomes Hollenbeck Avenue, which is a four-lane roadway with a two-way left turn

lane (TWLTL). The speed limit on Pastoria Avenue is 25 mph and Hollenbeck Avenue is 30 mph in the study area.

### SUNNYVALE AVENUE/SUNNYVALE-SARATOGA ROAD

Sunnyvale Avenue is a two to four lane north-south arterial roadway within the study area. North of El Camino Real, Sunnyvale Avenue has one lane in each direction with a TWLTL and bicycle lanes. Sunnyvale Avenue connects El Camino Real on the south side to Maude Avenue on the north side. South of El Camino Real, Sunnyvale Avenue becomes Sunnyvale-Saratoga Road and opens up to two lanes in each direction. Sunnyvale Avenue provides access to residential and commercial land uses. The speed limit on Sunnyvale Avenue is 30 miles per hour north of El Camino Real and is 35 miles per hour south of El Camino Real.

## EXISTING TRANSIT FACILITIES

Santa Clara Valley Transportation Authority (VTA) and Caltrain provide transit services within Sunnyvale and other cities in Santa Clara County. The existing transit services within the study area are shown in **Figure 2** and described in this section.

### VTA BUS SERVICES

VTA has multiple bus routes near the project site and throughout Santa Clara County. Many routes (such as Routes 32, 53, 54, 304, etc.) operate within the study area, but do not operate near the proposed site, and therefore only routes that service the nearby area of the proposed project are described in this section.

**Route 22** is a local bus service that operates between the Palo Alto Transit Center and the Eastridge Transit Center. In the vicinity of the proposed project, Route 22 operates on El Camino Real. On weekdays, Route 22 operates 24 hours a day on approximately 10-minute to 50-minute headways. On Saturdays and Sundays, Route 22 operates 24 hours a day on approximately 10-minute to 60-minute headways. Near the proposed project site, there is a bus stop for Route 22 near the intersection of El Camino Real and Sunnyvale Avenue.

**Route 54** is a local bus service that operates between De Anza College and the Sunnyvale Lockheed Martin Transit Center. In the vicinity of the proposed project, Route 54 operates on Pastoria Avenue/ Hollenbeck Avenue. On weekdays, Route 54 operates between 6:01 AM and 9:28 PM on approximately 30-minute to 70-minute headways. On Saturdays, Route 54 operates between 7:58 AM and 7:52 PM on approximately 40-minute to 60-minute headways. On Sundays, Route 54 operates between 8:56 AM and 7:24 PM on approximately 40-minute to 60-minute headways. Near the proposed project site, there are bus stops for Route 54 near the intersections of Mathilda Avenue and Olive Avenue.

**Route 55** is a local bus service that operates between De Anza College and the Old Ironsides/Great America stop. In the vicinity of the proposed project, Route 55 operates on Fair Oaks Avenue south of Old San Francisco Road and then travels on Old San Francisco Road, west of Fair Oaks Avenue. On weekdays, Route 55 operates between 5:35 AM and 11:12 PM on approximately 30-minute to 60-minute headways. On Saturdays, Route 55 operates between 7:40 AM and 9:11 PM on approximately 30-minute to 60-minute headways. On Sundays, Route 55 operates between 7:53 AM and 8:35 PM on approximately 30-minute to 60-minute headways. Near the proposed project site, there are bus stops for Route 55 near the intersections of Sunnyvale Avenue and Old San Francisco Road.

**Route 522** is a bus rapid transit (BRT) line that operates between the Palo Alto Transit Center and the Eastridge Transit Center. In the vicinity of the proposed project, Route 522 operates on El Camino Real.

On weekdays, Route 522 operates between 4:37 AM and 11:26 PM on approximately 15-minute to 30-minute headways. On Saturdays, Route 522 operates between 7:50 AM and 11:11 PM on approximately 15-minute to 30-minute headways. On Sundays, Route 522 operates between 8:33 AM and 7:34 PM on approximately 15-minute to 30-minute headways. Near the proposed project site, there is a bus stop for Route 522 near the intersection of El Camino Real and Pastoria Avenue/Hollenbeck Avenue.

### CALTRAIN

Caltrain provides commuter-heavy rail services between San Francisco County and Santa Clara Country. The nearest Caltrain station to the project site is the Sunnyvale Station located approximately one mile north, off of Evelyn Avenue to the east of Mathilda Avenue. During the weekday AM peak period (7-9AM), the Sunnyvale Station is served by seven northbound limited-stop trains, two northbound Baby Bullet trains, and two southbound limited-stop trains. During the weekday PM peak period (4-6 PM), the station is served by two northbound limited-stop trains, one southbound local train, four southbound limited-stop trains, and one Baby Bullet train. At the Sunnyvale Station, there is a connection to VTA bus route 55, which has a bus stop near the proposed project site at the intersection of Sunnyvale Avenue and Old San Francisco Road.

## EXISTING PEDESTRIAN FACILITIES

Sidewalks and crosswalks are present on both sides of the street along the major roadways in the study area to allow pedestrians access to nearby transit stops, residential uses, and commercial uses.

## EXISTING BICYCLE FACILITIES

**Figure 3** shows existing bicycle facilities within the study area.

There are no Class I bicycle paths within the vicinity of the project.

Class II bicycle lanes are located in the City of Sunnyvale within the vicinity of the project. The following is a list of the Class II bicycle lanes near the study area:

- Cezanne Drive between Old San Francisco Road and El Camino Real
- El Camino Real between Sunnyvale Avenue and Fair Oaks Avenue
- Fair Oaks Avenue/Remington Drive between Bernardo Avenue and Old San Francisco Road (future bicycle lanes planned between Old San Francisco Road and Evelyn Avenue)
- Hollenbeck between El Camino Real and Danforth Drive
- Manet Drive between Remington Drive and Crescent Avenue
- Mathilda Avenue between El Camino Real and Sunnyvale Saratoga Road
- Michelangelo Drive between Remington Drive and Sunnyvale Community Center Park Driveway
- Old San Francisco Road / Reed Avenue between Sunnyvale Avenue and Lawrence Expressway
- Sunnyvale Avenue between Evelyn Avenue and El Camino Real
- Sunnyvale-Saratoga Road between El Camino Real and Homestead Road
- Mary Avenue between Homestead Road and Fremont Avenue (Future bicycle lanes planned between Fremont Avenue and Iowa Avenue)

Class III bicycle routes are located in the City of Sunnyvale within the vicinity of the project. The following is a list of the Class III bicycle routes near the study area:

- Mary Avenue between Fremont Avenue and Maude Avenue

## EXISTING IMPROVEMENT FUNDING AND ESTABLISHED MITIGATION PROGRAMS

The City of Sunnyvale has a General Plan that sets forth goals, policies, and actions for developing the transportation network in Sunnyvale. Resulting from the goals, policies, and actions from the General Plan are transportation improvement projects that will help mitigate the increased vehicular demand on the network. These roadway projects will be funded from multiple revenue sources, such as the Transportation Impact Fee Ordinance and the City's Transportation Strategic Program.

### TRANSPORTATION IMPACT FEE ORDINANCE

The City of Sunnyvale has a transportation impact fee fund in its Municipal Code. Chapter 3.50 details the transportation impact fee and its use of funds. The use of funds is only to complete traffic improvement projects as specified in the Transportation Strategic Program.

The fees are calculated for non-residential uses on a per square foot basis for all new gross floor area. Fees for existing buildings that change in land use are based on the incremental difference between the peak hour trips generated by the prior land use compared to the proposed new use.

The fees are due before any building permits are issued or before any conversion of use to an existing building can be completed.

### CITY'S CAPITAL IMPROVEMENT PROGRAM

The City of Sunnyvale has a Capital Improvement Plan (CIP) to ensure the maintenance and infrastructure replacement of the City's transportation network. The City updates the budget every two years for the 20-year future. The CIP has taken into account Long Range plans such as the Valley Transportation Plan 2040, the Transportation Strategic Program, the Downtown Specific Plan (2003), the Bicycle CIP, the 2007 Pedestrian Safety and Opportunities Study, the Tasman/Fair Oaks Bicycle and the Pedestrian Circulation Plan.

The total traffic and transportation amount budgeted for the 2015-2016 fiscal year is $11,516,170[5]. Budgeted transportation projects include the City's share of development related street improvements, traffic signal controllers, and hardware/wiring improvements.

## EXISTING LANE CONFIGURATION AND TRAFFIC CONTROL

Existing intersection lane configuration and traffic controls are illustrated in **Figure 4**. **Table 4** lists the existing traffic control for each study intersection.

[5] *Recommended Budget and Resource Allocation Plan – City of Sunnyvale, California - Fiscal Year 2015/2016,* City of Sunnyvale.

**Table 4 - Study Intersections and Traffic Control**

| # | Intersection | Traffic Control |
|---|---|---|
| **1** | S Mary Avenue / El Camino Real | Signal |
| **2** | S Pastoria Avenue-Hollenbeck Avenue / El Camino Real | Signal |
| **3** | S Mathilda Avenue / El Camino Real | Signal |
| **4** | S Sunnyvale Avenue / El Camino Real | Signal |
| **5** | Cezanne Drive / El Camino Real | Signal |
| **6** | S Fair Oaks Avenue / El Camino Real | Signal |
| **7** | S Mathilda Avenue / Southwest Project Driveway | SSSC |
| **8** | Sunnyvale-Saratoga Road / East Project Driveway | SSSC |
| **9** | Sunnyvale-Saratoga Road / Southeast Project Driveway | SSSC |
| **10** | S Mathilda Avenue - Sunnyvale-Saratoga Road / Talisman Drive – Sunnyvale-Saratoga Road | Signal |
| **Note: SSSC – Side-Street Stop Control** | | |

## EXISTING PEAK-HOUR TURNING MOVEMENT VOLUMES

Weekday intersection turning movement volumes for study intersections were collected from September 2013, May 2014, December 2014, June 2015, and December 2015. Volumes were collected during the AM (7:00-9:00 AM) peak period and PM (4:00-6:00 PM) peak period on a weekday when local schools were in session. Since count volumes were collected during different months, volumes between intersections along El Camino Real, Mathilda Avenue, and Sunnyvale-Saratoga Avenue were checked to determine if there were any large discrepancies. Generally, it was found that the difference in volume between adjacent study intersections could be justified based on the surrounding land uses and driveway entrances between study intersections. The only adjustments made were to the volumes between the northeast and southeast project driveway on Sunnyvale-Saratoga Road because there were no mid-block driveways or cross-streets between these two intersections. The volumes were balanced between the two intersections by increasing the lower volume to match the higher volume. The hand calculations are provided in the **Appendix**. Intersection volume data sheets for all traffic counts are provided in the **Appendix**. Peak hour turning movement volumes are shown in **Figure 5**.

## EXISTING INTERSECTION LEVEL OF SERVICE

Traffic operations were evaluated at the study intersections under existing traffic conditions. Results of the analysis are presented in **Table 5**. **Table 5** lists the LOS criteria, jurisdiction, intersection control, LOS, delay, and v/c ratio for each intersection. All study intersections function within acceptable LOS standards under this analysis scenario.

In addition, none of the unsignalized intersections met the peak hour signal warrant for the Existing condition in the AM and PM peak hours. Analysis sheets are provided in the **Appendix**.

**Table 5 - Existing Intersection Level of Service Summary**

| # | Intersection | LOS Criteria | Jurisdiction | Control | Existing | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | AM Peak | | | PM Peak | | |
| | | | | | LOS | Delay (sec)[1] | v/c Ratio | LOS | Delay (sec)[1] | v/c Ratio |
| 1 | S Mary Avenue / El Camino Real[2] | E | City / Caltrans | Signal | D+ | 36.0 | 0.649 | D | 39.5 | 0.758 |
| 2 | S Pastoria Avenue / El Camino Real[2] | E | City / Caltrans | Signal | C | 30.2 | 0.512 | C | 30.3 | 0.577 |
| 3 | S Mathilda Avenue / El Camino Real[2,3,4] | E | City / Caltrans | Signal | D+ | 38.8 | 0.773 | D | 47.1 | 0.774 |
| 4 | S Sunnyvale Avenue / El Camino Real[2] | E | City / Caltrans | Signal | C | 31.0 | 0.407 | C | 31.4 | 0.593 |
| 5 | Cezanne Drive / El Camino Real[2] | E | City / Caltrans | Signal | B- | 18.9 | 0.36 | B- | 19.7 | 0.459 |
| 6 | S Fair Oaks Avenue / El Camino Real[2,3] | E | City / Caltrans | Signal | D | 39.1 | 0.531 | D | 39.1 | 0.755 |
| 7 | S Mathilda Avenue / Southwest Project Driveway[4] | D | City | SSSC | B | 14.4 | 0.042 | A | 9.6 | 0.030 |
| 8 | Sunnyvale-Saratoga Road / East Project Driveway[5] | E | City | SSSC | B | 11.3 | 0.017 | B | 14.6 | 0.060 |
| 9 | Sunnyvale-Saratoga Road / Southeast Project Driveway[5] | E | City | SSSC | A | 9.5 | 0.013 | B | 10.9 | 0.035 |
| 10 | S Mathilda Avenue - Sunnyvale-Saratoga Road / Talisman Drive - Sunnyvale-Saratoga Road[4,5] | E | City | Signal | B- | 18.4 | 0.514 | C | 25.1 | 0.515 |

1 The average control delay is reported for signalized intersections. The delay for the worst movement is reported for SSSC intersections.
2 El Camino Real is a regionally significant roadway with LOS E threshold.
3 S Mathilda Avenue / El Camino Real (#2), S Fair Oaks / El Camino Real (#5) are CMP intersections with LOS E threshold.
4 Mathilda Avenue is a regionally significant roadway with LOS E threshold between Carribean Drive and El Camino Real.
5 Sunnyvale-Saratoga Road is a regionally significant roadway with LOS E threshold between El Camino Real and I-280.

# 3. EXISTING PLUS PROJECT CONDITIONS

This chapter presents a description of the proposed site use, trip generation, trip distribution, and trip assignment, as well as impacts of the proposed project on the transportation system.

## PROPOSED SITE USE

The current site consists of 55,104 square foot Orchard Supply Hardware (OSH) that includes a garden center and customer pick-up area. The proposed project will demolish the 6,780 square foot OSH customer pick-up area and construct an 11,600 square foot grocery store. The Project trips will use three of the five existing OSH driveways, which provide the most direct access to the site. These driveways include one driveway on S Mathilda Avenue and two driveways on Sunnyvale-Saratoga Road. The driveway on S Mathilda Avenue is the southwest driveway, which is unsignalized and restricted to right-in and right-out movements. The two driveways on Sunnyvale-Saratoga Road are the east and southeast driveways, which are also unsignalized, but are full access.

The site plan for the proposed site is shown in **Figure 6.**

## TRIP GENERATION

Trip generation for projects is typically calculated based on information contained in the Institute of Transportation Engineers' (ITE) publication, *Trip Generation, 9th Edition*.[6] The manual is a standard reference used by jurisdictions throughout the country for the estimation of trip generation potential of proposed projects.

A trip is defined in the *Trip Generation Manual* as a single or one-directional vehicle movement with either the origin or destination at the project site. In other words, a trip can be either "to" or "from" the site. In addition, a single customer visit to a site is counted as two trips (i.e., one to and one from the site).

For purposes of determining the worst-case impacts of traffic on the surrounding street network, the trips generated by a proposed project are estimated between the hours of 7:00 AM and 9:00 AM and between 4:00 PM and 6:00 PM on a typical weekday.

The proposed project would demolish the existing OSH customer pick-up area which is a part of the Home Improvement Superstore (ITE Land Use 862) and would construct a new building consisting of Supermarket (ITE Land Use 850). A trip credit was taken for the existing OSH customer pick-up area.

### TRIP GENERATION

**Table 6** presents the trip generation for the proposed project. The project will generate approximately +29 net new trips in the AM peak period and +95 net new trips in the PM peak period. Trip generation calculation sheets are provided in the **Appendix**.

[6] *Trip Generation, 9th Edition*, Institute of Transportation Engineers, 2012.

**Table 6 - Project Trip Generation**

| TIME PERIOD | | LAND USE | Trips | | |
|---|---|---|---|---|---|
| | | | In | Out | Total |
| Daily | Existing | Home Improvement Superstore (55.104 KSF) | (847) | (847) | (1,694) |
| | Project | Home Improvement Superstore (48.324 KSF) | 743 | 743 | 1,486 |
| | | Supermarket (11.6 KSF) | 593 | 593 | 1,186 |
| | | **Net New Trips** | **489** | **489** | **978** |
| AM Peak | Existing | Home Improvement Superstore (55.104 KSF) | (47) | (35) | (82) |
| | Project | Home Improvement Superstore (48.324 KSF) | 41 | 31 | 72 |
| | | Supermarket (11.6 KSF) | 24 | 15 | 39 |
| | | **Net New Trips** | **18** | **11** | **29** |
| PM Peak | Existing | Home Improvement Superstore (55.104 KSF) | (63) | (65) | (128) |
| | Project | Home Improvement Superstore (48.324 KSF) | 55 | 58 | 113 |
| | | Supermarket (11.6 KSF) | 56 | 54 | 110 |
| | | **Net New Trips** | **48** | **47** | **95** |

## PROJECT TRIP DISTRIBUTION AND ASSIGNMENT

Project trip distribution was developed based on existing traffic count information and general orientation of population centers to the site. The distribution was reviewed by the City and approved for use in this TOA. **Figure 7** presents the traffic distribution assumed for this analysis.

Based on the assumed trip distribution and assignment, the net new vehicles trips generated by the project were assigned to the street network as shown in **Figure 8.**

## EXISTING PLUS PROJECT INTERSECTION LEVEL OF SERVICE

Traffic operations were evaluated at the study intersections under existing conditions plus traffic generated by the project, as seen on **Figure 9**. Results of the analysis are presented in **Table 7**. All study intersections function within acceptable LOS standards under this analysis scenario. Thus, the project has a less than significant impact at all study intersections and no mitigation measures are required.

It should be noted that for some intersections, the reported delay improved with the addition of the project trips. The reason for this occurrence is because the trips were primarily added to the through lane movements, which had a lower movement delay than the average intersection delay, and thereby decreases the overall average delay.

In addition, none of the unsignalized intersections met the peak hour signal warrant for the Existing Plus Project condition in the AM and PM peak hours. Analysis sheets are provided in the **Appendix**.

**Table 7 - Existing Plus Project Intersection Level of Service Summary**

| | Intersection | LOS Criteria | Jurisdiction | Control | Existing | | | | | | Existing Plus Project | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | AM Peak | | | PM Peak | | | AM Peak | | | | | PM Peak | | | | |
| | | | | | LOS | Delay (sec)[1] | v/c Ratio | LOS | Delay (sec)[1] | v/c Ratio | LOS | Delay (sec)[1] | v/c Ratio | v/c Var. | Crit. Delay Var. | LOS | Delay (sec)[1] | v/c Ratio | v/c Var. | Crit. Delay Var. |
| 1 | S Mary Avenue / El Camino Real[2] | E | City / Caltrans | Signal | D+ | 36.0 | 0.649 | D | 39.5 | 0.758 | D+ | 36.0 | 0.651 | 0.002 | 0.1 | D | 39.7 | 0.764 | 0.006 | 0.3 |
| 2 | S Pastoria Avenue / El Camino Real[2] | E | City / Caltrans | Signal | C | 30.2 | 0.512 | C | 30.3 | 0.577 | C | 30.2 | 0.513 | 0.001 | 0.0 | C | 30.2 | 0.582 | 0.005 | -0.1 |
| 3 | S Mathilda Avenue / El Camino Real[2,3,4] | E | City / Caltrans | Signal | D+ | 38.8 | 0.773 | D | 47.1 | 0.774 | D+ | 38.8 | 0.774 | 0.001 | 0.0 | D | 47.3 | 0.779 | 0.005 | 0.3 |
| 4 | S Sunnyvale Avenue / El Camino Real[2] | E | City / Caltrans | Signal | C | 31.0 | 0.407 | C | 31.4 | 0.593 | C | 31.2 | 0.411 | 0.004 | 0.3 | C- | 32.3 | 0.616 | 0.023 | 1.3 |
| 5 | Cezanne Drive / El Camino Real[2] | E | City / Caltrans | Signal | B- | 18.9 | 0.360 | B- | 19.7 | 0.459 | B- | 18.9 | 0.360 | 0.000 | 0.0 | B- | 19.6 | 0.460 | 0.001 | 0.0 |
| 6 | S Fair Oaks Avenue / El Camino Real[2,3] | E | City / Caltrans | Signal | D | 39.1 | 0.531 | D | 39.1 | 0.755 | D | 39.1 | 0.531 | 0.000 | 0.0 | D | 39.2 | 0.756 | 0.001 | 0.0 |
| 7 | S Mathilda Avenue / Southwest Project Driveway[4] | D | City | SSSC | B | 14.4 | 0.042 | A | 9.6 | 0.030 | B | 14.4 | 0.045 | 0.003 | 0.0 | A | 9.6 | 0.032 | 0.002 | 0.0 |
| 8 | Sunnyvale-Saratoga Road / East Project Driveway[5] | E | City | SSSC | B | 11.3 | 0.017 | B | 14.6 | 0.060 | B | 11.7 | 0.030 | 0.013 | 0.2 | C | 16.3 | 0.139 | 0.079 | 0.5 |
| 9 | Sunnyvale-Saratoga Road / Southeast Project Driveway[5] | E | City | SSSC | A | 9.5 | 0.013 | B | 10.9 | 0.035 | A | 9.8 | 0.014 | 0.001 | 0.1 | B | 12.2 | 0.042 | 0.007 | 0.3 |
| 10 | S Mathilda Avenue - Sunnyvale-Saratoga Road / Talisman Drive - Sunnvyale-Saratoga Road[4,5] | E | City | Signal | B- | 18.4 | 0.514 | C | 25.1 | 0.515 | B- | 18.5 | 0.517 | 0.003 | 0.1 | C | 25.3 | 0.518 | 0.003 | 0.2 |

1 The average control delay is reported for signalized intersections. The delay for the worst movement is reported for SSSC intersections.
2 El Camino Real is a regionally significant roadway with LOS E threshold.
3 S Mathilda Avenue / El Camino Real (#2), S Fair Oaks / El Camino Real (#5) are CMP intersections with LOS E threshold.
4 Mathilda Avenue is a regionally significant roadway with LOS E threshold between Carribean Drive and El Camino Real.
5 Sunnyvale-Saratoga Road is a regionally significant roadway with LOS E threshold between El Camino Real and I-280.

# 4. EXISTING PLUS BACKGROUND TRAFFIC CONDITIONS

This chapter discusses the traffic conditions under the Existing Plus Background and Existing Plus Background Plus Proposed Project Conditions.

## EXISTING PLUS BACKGROUND TRANSPORTATION IMPROVEMENTS

As documented in the City's Capital Improvement Program (CIP)[7] there are programmed network improvements in the City of Sunnyvale that have an identified funding source. However, none of these improvements are located within the study area. Under Existing Plus Background conditions, it is anticipated that there will be no changes in lane geometry within the study area, therefore Existing lane geometry was assumed in Existing Plus Background conditions. The Existing lane geometry in **Figure 4** illustrates the intersection geometry and traffic control assumed in the Existing Plus Background analysis.

## EXISTING PLUS BACKGROUND TRAFFIC VOLUMES

At the time of the analysis, the most recent version of the Development Update spreadsheet (dated December 2015) was received from the City and used to determine which approved projects would be included in this scenario. This source lists development projects in the vicinity of the project site that are undergoing any stage of planning, approval, or development. **Figure 10** shows the locations of the approved projects and **Figure 11** shows the volumes added from the approved projects.

To achieve Existing Plus Background traffic conditions, traffic volumes from approved but not yet constructed projects were incorporated according to the information provided by the City.

## EXISTING PLUS BACKGROUND INTERSECTION LEVEL OF SERVICE

Existing Plus Background volumes were evaluated at the study intersections and are presented in **Figure 12**. Results of the analysis are presented in **Table 8**. All study intersections function within acceptable LOS standards under this analysis scenario.

In addition, none of the unsignalized intersections met the peak hour signal warrant for the Existing Plus Background condition in the AM and PM peak hours. Analysis sheets are provided in the **Appendix**.

[7] *Adopted Budget and Resource Allocation Plan – Fiscal Year 2014/2015,* City of Sunnyvale.

**Table 8 – Existing Plus Background Intersection Level of Service Summary**

| | Intersection | LOS Criteria | Jurisdiction | Control | Existing Plus Background | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | AM Peak | | | PM Peak | | |
| | | | | | LOS | Delay (sec)[1] | v/c Ratio | LOS | Delay (sec)[1] | v/c Ratio |
| 1 | S Mary Avenue / El Camino Real[2] | E | City / Caltrans | Signal | D+ | 37.3 | 0.707 | D | 40.4 | 0.785 |
| 2 | S Pastoria Avenue / El Camino Real[2] | E | City / Caltrans | Signal | C | 30.0 | 0.550 | C | 29.8 | 0.595 |
| 3 | S Mathilda Avenue / El Camino Real[2,3,4] | E | City / Caltrans | Signal | D | 40.3 | 0.812 | D | 47.8 | 0.787 |
| 4 | S Sunnyvale Avenue / El Camino Real[2] | E | City / Caltrans | Signal | C | 31.0 | 0.427 | C | 31.5 | 0.606 |
| 5 | Cezanne Drive / El Camino Real[2] | E | City / Caltrans | Signal | B- | 18.3 | 0.372 | B- | 19.4 | 0.468 |
| 6 | S Fair Oaks Avenue / El Camino Real[2,3] | E | City / Caltrans | Signal | D | 40.4 | 0.573 | D | 39.6 | 0.764 |
| 7 | S Mathilda Avenue / Southwest Project Driveway[4] | D | City | SSSC | B | 14.5 | 0.043 | A | 9.6 | 0.030 |
| 8 | Sunnyvale-Saratoga Road / East Project Driveway[5] | E | City | SSSC | B | 11.5 | 0.018 | B | 14.8 | 0.061 |
| 9 | Sunnyvale-Saratoga Road / Southeast Project Driveway[5] | E | City | SSSC | A | 9.5 | 0.013 | B | 10.9 | 0.036 |
| 10 | S Mathilda Avenue - Sunnyvale-Saratoga Road / Talisman Drive - Sunnyvale-Saratoga Road[4,5] | E | City | Signal | B- | 18.8 | 0.524 | C | 25.3 | 0.525 |

1 The average control delay is reported for signalized intersections. The delay for the worst movement is reported for SSSC intersections.
2 El Camino Real is a regionally significant roadway with LOS E threshold.
3 S Mathilda Avenue / El Camino Real (#2), S Fair Oaks / El Camino Real (#5) are CMP intersections with LOS E threshold.
4 Mathilda Avenue is a regionally significant roadway with LOS E threshold between Carribean Drive and El Camino Real.
5 Sunnyvale-Saratoga Road is a regionally significant roadway with LOS E threshold between El Camino Real and I-280.

## EXISTING PLUS BACKGROUND PLUS PROPOSED PROJECT INTERSECTION LEVEL OF SERVICE

Existing Plus Background Plus Project traffic conditions were evaluated at the study intersections and are shown in **Figure 13**. Results of the analysis are presented in **Table 9**. All study intersections function within acceptable LOS standards under this analysis scenario. Thus, the project has a less than significant impact at all study intersections and no mitigation measures are required.

It should be noted that for some intersections, the reported delay improved with the addition of the project trips. The reason for this occurrence is because the trips were primarily added to the through lane movements, which had a lower movement delay than the average intersection delay, and thereby decreases the overall average delay.

In addition, none of the unsignalized intersections met the peak hour signal warrant for the Existing Plus Background Plus Project condition in the AM and PM peak hours.

Analysis sheets are provided in the **Appendix**.

**Table 9 – Existing Plus Background Plus Proposed Project Intersection Level of Service Summary**

| | Intersection | LOS Criteria | Jurisdiction | Control | Existing Plus Background | | | | | | Existing Plus Background Plus Project | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | AM Peak | | | PM Peak | | | AM Peak | | | | | PM Peak | | | | |
| | | | | | LOS | Delay (sec)1 | v/c Ratio | LOS | Delay (sec)1 | v/c Ratio | LOS | Delay (sec)[1] | v/c Ratio | v/c Var. | Crit. Delay Var. | LOS | Delay (sec)[1] | v/c Ratio | v/c Var. | Crit. Delay Var. |
| 1 | S Mary Avenue / El Camino Real[2] | E | City / Caltrans | Signal | D+ | 37.3 | 0.707 | D | 40.4 | 0.785 | D+ | 37.3 | 0.709 | 0.002 | 0.0 | D | 40.6 | 0.790 | 0.005 | 0.3 |
| 2 | S Pastoria Avenue / El Camino Real[2] | E | City / Caltrans | Signal | C | 30.0 | 0.550 | C | 29.8 | 0.595 | C | 30.0 | 0.550 | 0.000 | 0.0 | C | 29.7 | 0.599 | 0.004 | -0.1 |
| 3 | S Mathilda Avenue / El Camino Real[2,3,4] | E | City / Caltrans | Signal | D | 40.3 | 0.812 | D | 47.8 | 0.787 | D | 40.3 | 0.813 | 0.001 | 0.1 | D | 48.0 | 0.793 | 0.006 | 0.3 |
| 4 | S Sunnyvale Avenue / El Camino Real[2] | E | City / Caltrans | Signal | C | 31.0 | 0.427 | C | 31.5 | 0.606 | C | 31.3 | 0.431 | 0.004 | 0.3 | C- | 32.4 | 0.629 | 0.023 | 1.4 |
| 5 | Cezanne Drive / El Camino Real[2] | E | City / Caltrans | Signal | B- | 18.3 | 0.372 | B- | 19.4 | 0.468 | B- | 18.2 | 0.373 | 0.001 | 0.0 | B- | 19.4 | 0.470 | 0.002 | -0.1 |
| 6 | S Fair Oaks Avenue / El Camino Real[2,3] | E | City / Caltrans | Signal | D | 40.4 | 0.573 | D | 39.6 | 0.764 | D | 40.4 | 0.574 | 0.001 | -0.1 | D | 39.7 | 0.765 | 0.001 | 0.0 |
| 7 | S Mathilda Avenue / Southwest Project Driveway[4] | D | City | SSSC | B | 14.5 | 0.043 | A | 9.6 | 0.030 | B | 14.6 | 0.046 | 0.003 | 0.0 | A | 9.7 | 0.033 | 0.003 | 0.0 |
| 8 | Sunnyvale-Saratoga Road / East Project Driveway[5] | E | City | SSSC | B | 11.5 | 0.018 | B | 14.8 | 0.061 | B | 11.8 | 0.030 | 0.012 | 0.2 | C | 16.6 | 0.142 | 0.081 | 0.5 |
| 9 | Sunnyvale-Saratoga Road / Southeast Project Driveway[5] | E | City | SSSC | A | 9.5 | 0.013 | B | 10.9 | 0.036 | A | 9.9 | 0.015 | 0.002 | 0.0 | B | 12.3 | 0.043 | 0.007 | 0.3 |
| 10 | S Mathilda Avenue - Sunnyvale-Saratoga Road / Talisman Drive - Sunnyvale-Saratoga Road[4,5] | E | City | Signal | B- | 18.8 | 0.524 | C | 25.3 | 0.525 | B- | 18.9 | 0.527 | 0.003 | 0.1 | C | 25.5 | 0.529 | 0.004 | 0.2 |

1 The average control delay is reported for signalized intersections. The delay for the worst movement is reported for SSSC intersections.
2 El Camino Real is a regionally significant roadway with LOS E threshold.
3 S Mathilda Avenue / El Camino Real (#2), S Fair Oaks / El Camino Real (#5) are CMP intersections with LOS E threshold.
4 Mathilda Avenue is a regionally significant roadway with LOS E threshold between Carribean Drive and El Camino Real.
5 Sunnyvale-Saratoga Road is a regionally significant roadway with LOS E threshold between El Camino Real and I-280.

# 5. VEHICLE QUEUING AND SITE ACCESS AND CIRCULATION

This chapter presents the results from the vehicle queuing analysis completed for each of the study intersections and discussion of site access and circulation for the proposed project site.

## VEHICLE QUEUING

As congestion increases, it is common for traffic at intersections to form lines of stopped (or queued) vehicles. Queue lengths were determined for each turn lane and measure the distance that vehicles will back up in each direction approaching an intersection. *Traffix* software calculates the 95th percentile queues based on *HCM 2000* methodology. The 95th percentile queue is used to account for fluctuations in traffic and represents a condition where 95 percent of the time during the peak period, traffic volumes will be less than or equal to the queue determined by the analysis. It is used as a benchmark for determining deficiencies as a standard transportation engineering practice. A typical vehicle length of 25 feet was used in the queuing analysis. As stated in the Operating Conditions and Criteria, an operational deficiency was assumed to occur if the queue increases by one or more vehicles and the vehicle queue exceeds the turn pocket length. A summary of the queuing results is included in the **Appendix**.

The analysis showed that several existing turn bay storage lengths are exceeded from future traffic volumes. In all cases the exceeded queue lengths are not associated with the project, but are a result of no-project deficiencies. For example, the southbound left turn queue at the intersection of Mary Avenue / El Camino Real is 342 feet during the PM peak in the Existing Conditions and the queue length is 347 feet during the PM peak in the Existing Plus Project Conditions. Although the turn pocket length is 200 feet long and the queue spills out of the turn pocket, the result is a deficiency not associated with the project and is not a new deficiency since the project did not increase the queue by at least one vehicle length (i.e. 25 feet). At locations affected by the project traffic, the increase in vehicle queuing is typically less than one vehicle for a left turn lane except at the following intersection:

- **Intersection #4 – S Sunnyvale Avenue / El Camino Real**
    - Existing Plus Project, PM peak: Northbound left turn queue length of 325 feet exceeds the 160-foot turn pocket length in the Existing Plus Project Condition. The Project increases queuing approximately one (1) vehicle or 33 feet of the total queue.
    - Existing Plus Background Plus Project, PM Peak: Northbound left turn queue length of 329 feet exceeds the 160-foot turn pocket length in the Existing Plus Background Plus Project Condition. The Project increases queuing approximately one (1) vehicle or 34 feet of the total queue.

## SITE ACCESS AND CIRCULATION

Site access was evaluated at each of the project's driveways, as listed below:

- Intersection #7 – Southwest Project Driveway / S Mathilda Avenue
- Intersection #8 – East Project Driveway / Sunnyvale-Saratoga Road
- Intersection #9 – Southeast Project Driveway / Sunnyvale-Saratoga Road

All driveways are existing unsignalized intersections. Intersection #7 is restricted to right-in and right-out operations. Intersections #8 and #9 allow full access to the site. There are no proposed changes to these existing driveways with the proposed Projects. The project driveways were determined to operate at an acceptable LOS with the addition of the proposed project.

A queuing analysis was conducted for each of the project driveways. The queuing analysis at the project driveways indicated that the 95th percentile queues would be no greater than one vehicle for all the Project scenarios. These queues do not exceed the turn storage lengths for each driveway.

Vehicular circulation for the site was also reviewed. The project description states that this particular type of grocery store will have customers pre-order groceries and then arrive to pick them up. The loop on the northeast portion of the site will be used for customers to wait and have their groceries delivered to them. The loop will be circulating in one direction only, and in a clockwise manner. This should limit the number of vehicle conflict points on-site.

## PARKING REQUIREMENTS

The project proposes to provide the following parking:

- Carport – 9 stalls
- Surface parking – 38 stalls

The proposed parking totals to 47 stalls. The carport stalls will be short-term parking stalls for customers to pick-up their pre-ordered groceries. The surface parking lot will be for employee and overflow parking.

The City of Sunnyvale Municipal Code requires that retail provide a minimum of 4 spaces and a maximum of 5 spaces per 1,000 square feet of retail uses. The project proposes to have 11,600 square feet of grocery store, which equates to a minimum of 46 spaces and a maximum of 58 spaces. The proposed project provides a total of 47 parking spaces, which meets the City's parking requirements.

In addition, the parking for the project's overall parcel (i.e. the OSH and the proposed project) was reviewed. Parking for the parcel is proposed to be reconfigured from current conditions. Per the City's Municipal Code, a maximum of 267 spaces were required for the overall parcel when only occupied by the OSH use. The parcel was legal non-conforming with 304 spaces previously provided. The project reduces the overall parking by approximately 37 parking spaces, but still meets the parking requirements with 252 parking spaces provided. A minimum of 234 parking spaces and a maximum of 292 parking spaces are allowed for the combined OSH and new retail building.

The City requires in its Municipal Code to provide a minimum of 8.5 feet wide by 18 feet long parking stalls for a standard space. The project proposes 90 degree parking spaces for the carport and surface parking, with 9 feet wide and 18-foot long stalls. The proposed parking lot design meets City's requirements.

## PEDESTRIAN ACCESS AND CIRCULATION

Pedestrians will most likely access the site by utilizing existing sidewalks on Sunnyvale-Saratoga Road and on Mathilda Avenue. Sidewalks along these two roadways adjacent to the project site will lead to the project's surface parking lot. On-site, within the pick-up area, there is a striped walking pathway just north of the northeast driveway for pedestrians to access the store's main entrance from Sunnyvale-Saratoga Road.

There is sidewalk that will connect the existing sidewalk along the OSH store's frontage to the proposed project. This provides a pedestrian connection, separate from vehicular traffic, between the two stores.

## BICYCLE ACCESS AND CIRCULATION

On-site bicycle facilities and circulation is not shown on the project site plans provided. However the project will add 15 Class 1 & 2 bicycle spaces combined. Bicyclists can also access the City network of bicycle facilities via the bicycle lanes adjacent to the site on S Mathilda Avenue and Sunnyvale-Saratoga Road.

# 6. POTENTIAL EFFECTS ON TRANSIT, BICYCLE, AND PEDESTRIAN MOBILITY

The proposed project was evaluated to determine if it would likely conflict with adopted policies, plans, or programs supporting alternative transportation (e.g., bus turnouts, bicycle racks) or generate pedestrian, bicycle, or transit travel demand that would not be accommodated by existing transit, bicycle, or pedestrian facilities and plans.

The patrons and employees of the proposed project will have the option of driving, taking transit, walking or bicycling to and from the proposed project.

## TRANSIT

For those taking transit, they can utilize the VTA bus routes that operate along El Camino Real, S Pastoria Avenue, S Sunnyvale Avenue, and South Fair Oaks Avenue within the vicinity to the project site. There are bus stops for VTA on either side of El Camino Real and S Sunnyvale Avenue that provide access to the local transit system. In addition the project would not conflict with existing or planned transit facilities.

Transit vehicle delay was also considered for each transit route. Transit vehicles for the transit routes in the study area are expected to use the shared right-of-way with other motorists. Since the proposed project is anticipated to increase the vehicle delay at study intersections, transit vehicle delay may increase.

The increase in transit vehicle delay was calculated from the intersection level of service outputs from *Traffix* software. For each transit route, the study intersections and specific movements along the route were identified. The vehicle delay for each movement for each study intersection along the route was summed to determine the transit vehicle delay in the study area.

For routes 22 and 522, the eastbound and westbound through movements at intersections along El Camino Real were identified as along the bus routes. The maximum increase in vehicle delay is 0.6 seconds in the westbound through movement for all intersections combined in the AM peak. In the PM peak, the maximum increase is 3.1 seconds for the eastbound through movements. This increase of 0.6 seconds in the AM peak and 3.1 seconds in the PM peak is considered minor.

For route 54, the northbound and southbound through movements at the intersection of S Pastoria Avenue/El Camino Real were identified as along the bus route. The maximum increase in vehicle delay is 0.1 seconds in the southbound through movement in the AM peak. In the PM peak, the maximum increase is 0.3 seconds for the both the northbound through and southbound through movements. This increase of 0.1 seconds in the AM peak and 0.3 seconds in the PM peak is considered minor.

For route 55, the northbound and southbound through movements at the intersection of S Fair Oaks Avenue/El Camino Real was identified as along the bus route. The maximum increase in vehicle delay is 0.1 seconds in the southbound through movement in the AM peak. In the PM peak, the maximum increase is 0.2 seconds for the southbound through movement. This increase of 0.1 seconds in the AM peak and 0.2 seconds in the PM peak is considered minor.

The increases in transit vehicle delay are all less than four seconds in the AM and PM peak hours. This increase in transit vehicle delay should not significantly affect the overall schedule for the transit routes.

Since the project does not conflict with existing or planned transit facilities and there are adequate facilities for pedestrian and bicycles to access transit stops, the project will have a **less than significant impact** on transit services.

## PEDESTRIAN

There are existing sidewalks along the project site's frontage on Sunnyvale-Saratoga Road and on Mathilda Avenue. It is anticipated that pedestrians would use these sidewalks along the project site's frontages to access the adjacent land uses and the transit stops nearby. At each of the signalized intersections near the project site there are striped crosswalks for each direction, allowing pedestrians to more safely cross the adjacent roadways.

The project will have a **less than significant impact** on pedestrian service.

## BICYCLE

Bicyclists will have direct access to the project site using bicycle lanes on S Mathilda Avenue and Sunnyvale-Saratoga Road. These bicycle lanes provide access to the project site and other bicycle facilities throughout the City.

The proposed project does not impact the safety of bicyclists or have any hazardous design features impeding the use of bicycles facilities. Since the proposed project does not conflict with any adopted policies or plans related to bicycle activity, the proposed project will have a **less than significant impact** on bicycle service.

# 7. SUMMARY OF IMPACTS AND RECOMMENDED MITIGATIONS

Based on the results of the traffic analysis and evaluation of the proposed site plan, there are no significant impacts as a result of the proposed project.

# 8. SUMMARY OF QUEUING DEFICIENCIES AND RECOMMENDED IMPROVEMENTS

Based on the results of the queuing analysis, the follow deficiencies are noted in **Table 10**.

**Table 10 - Queuing Deficiencies Summary**

| # | Intersection | Scenarios |
|---|---|---|
| 4 | Sunnyvale Avenue / El Camino Real | Existing Plus Project PM Peak<br>Existing Plus Background Plus Project PM Peak |

## RECOMMENDED IMPROVEMENTS

The following queuing deficiencies are listed by study intersection:

### DEFICIENCY QUEUING-1 – SUNNYVALE AVENUE / EL CAMINO REAL (INTERSECTION #4)

The intersection of Sunnyvale Avenue / El Camino Real will have a queuing deficiency in the following scenarios due to the proposed project:

- Existing Plus Project – PM Peak
- Existing Plus Background Plus Project – PM Peak

#### Existing Plus Project

In the Existing Plus Project scenario, the queue for the northbound left turn movement is 325 feet in the PM peak, which exceeds the 160-foot turn pocket. Without the project, the northbound left turn queue is 292 feet in the Existing Plus Background scenario in the PM peak. The proposed project adds 33 feet, or approximately one (1) vehicle, to the total queue. Since the queue exceeds the left turn pocket and the proposed project increased the queue length by at least one vehicle length, this is a queuing deficiency.

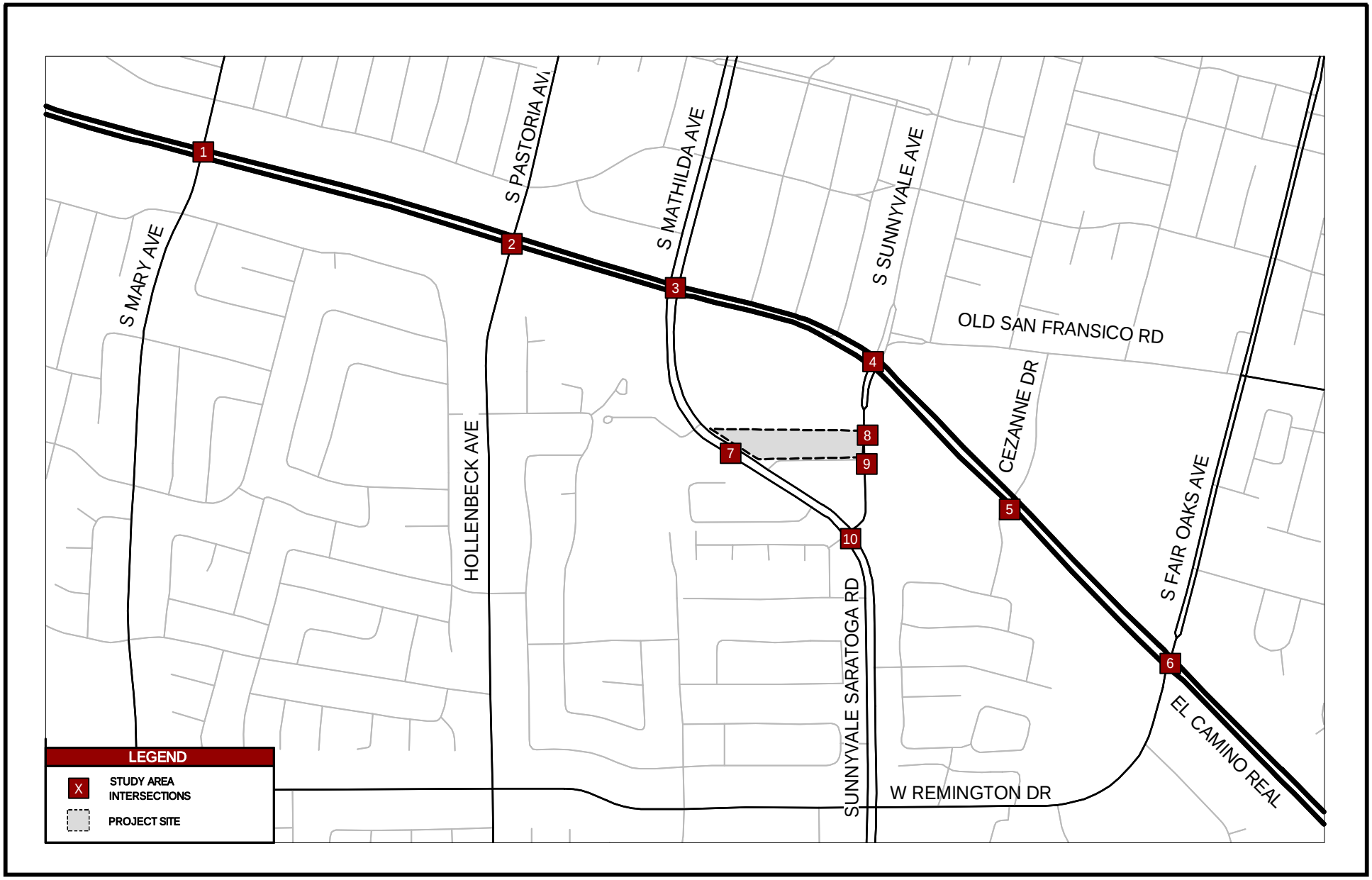
To improve the deficiency, the project could increase the green time for the northbound left turn movement. This modification would decrease the vehicle queue for the northbound left turn movement to 291 feet, which is equal to the 292-foot queue without the project. The improvement reduces the queue to less than the without project queue. However, the queue would still extend outside of the storage pocket, even with the proposed improvements.

#### Existing Plus Background Plus Project

In the Existing Plus Background Plus Project scenario, the queue for the northbound left turn movement is 329 feet in the PM peak, which exceeds the 160-foot turn pocket. Without the project, the northbound left turn queue is 295 feet in the Existing Plus Background scenario in the PM peak. The proposed project adds 34 feet, or approximately one (1) vehicle, to the total queue. Since the queue exceeds the left turn pocket and the proposed project increased the queue length by at least one vehicle length, this is a queuing deficiency.

To improve the deficiency, the project could increase the green time for the northbound left turn movement. This modification would decrease the vehicle queue for the northbound left turn movement to 292 feet,

which is less than the 295-foot queue without the project. The improvement reduces the queue to less than the without project queue. However, the queue would still extend outside of the storage pocket, even with the proposed improvements.




Kimley»Horn

N

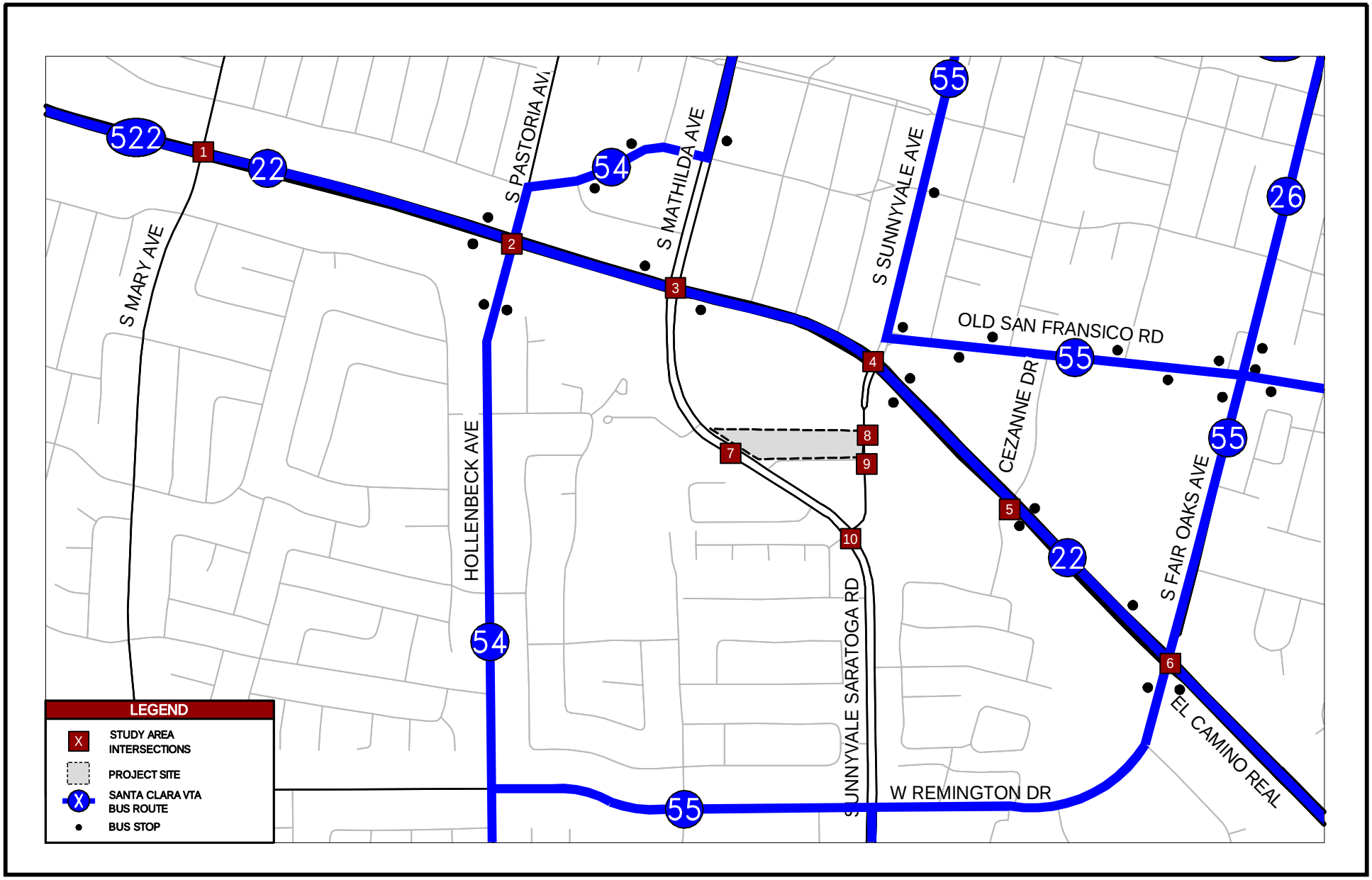
NOT TO SCALE

FIGURE 1

PROJECT LOCATION AND STUDY INTERSECTIONS

097318104 JAN 2016

OPPIDAN GROCERY STORE TRANSPORTATION OPERATIONS ANALYSIS

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NOT TO SCALE

FIGURE 2

EXISTING TRANSIT FACILITES

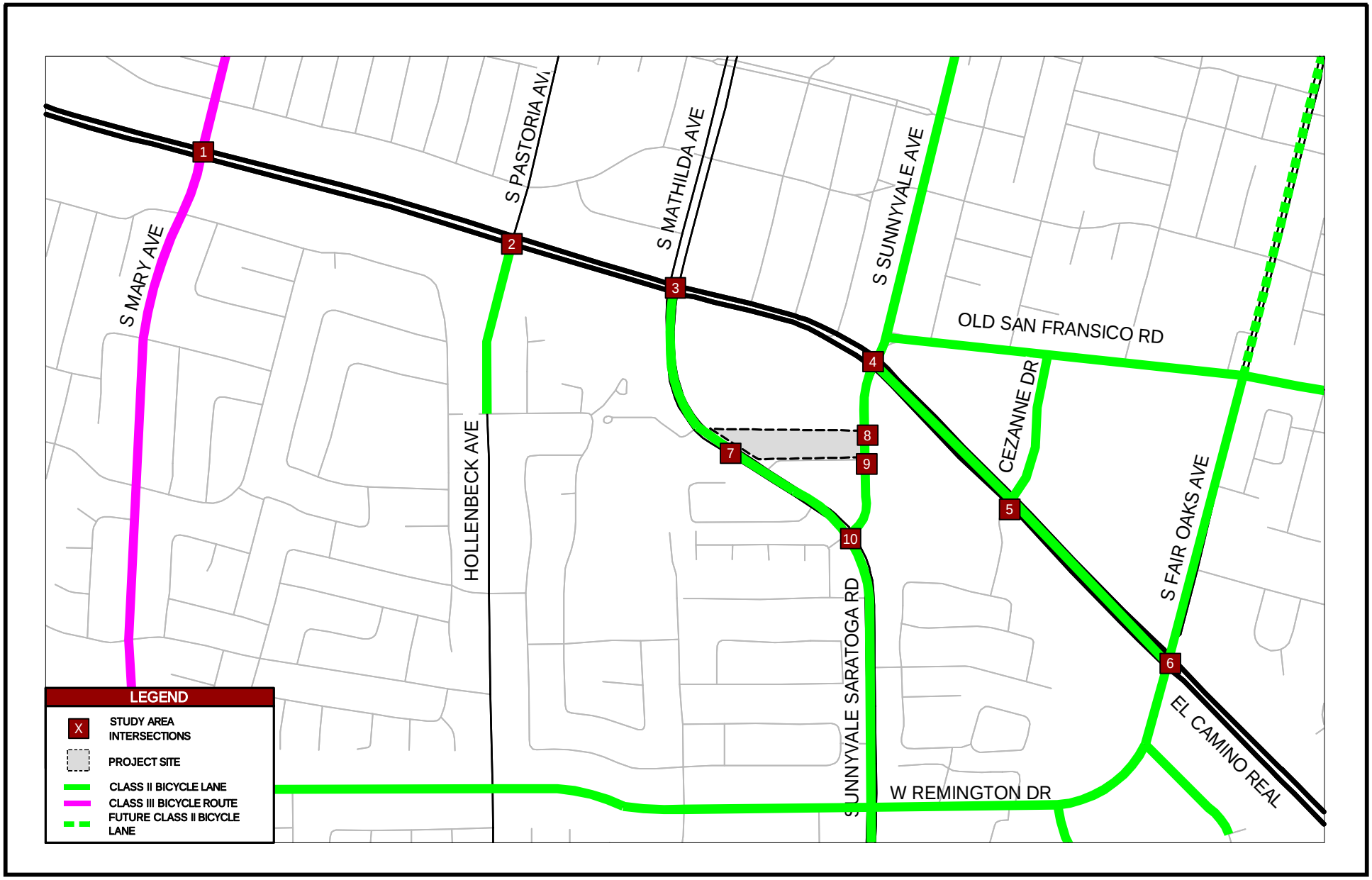


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FIGURE 3

EXISTING BICYCLE FACILITIES

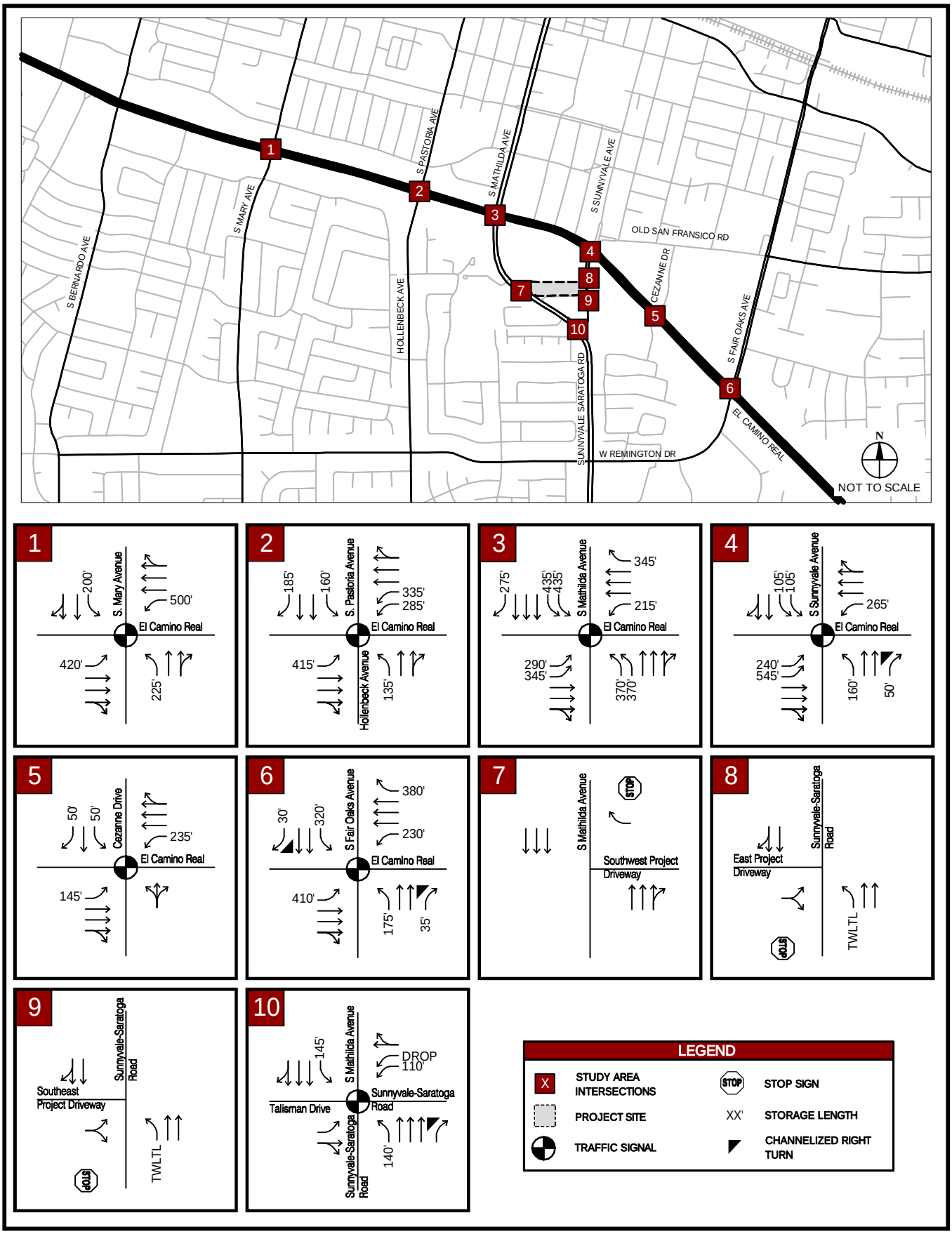


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FIGURE 4

EXISTING CONDITION
LANE GEOMETRY AND TRAFFIC CONTROL

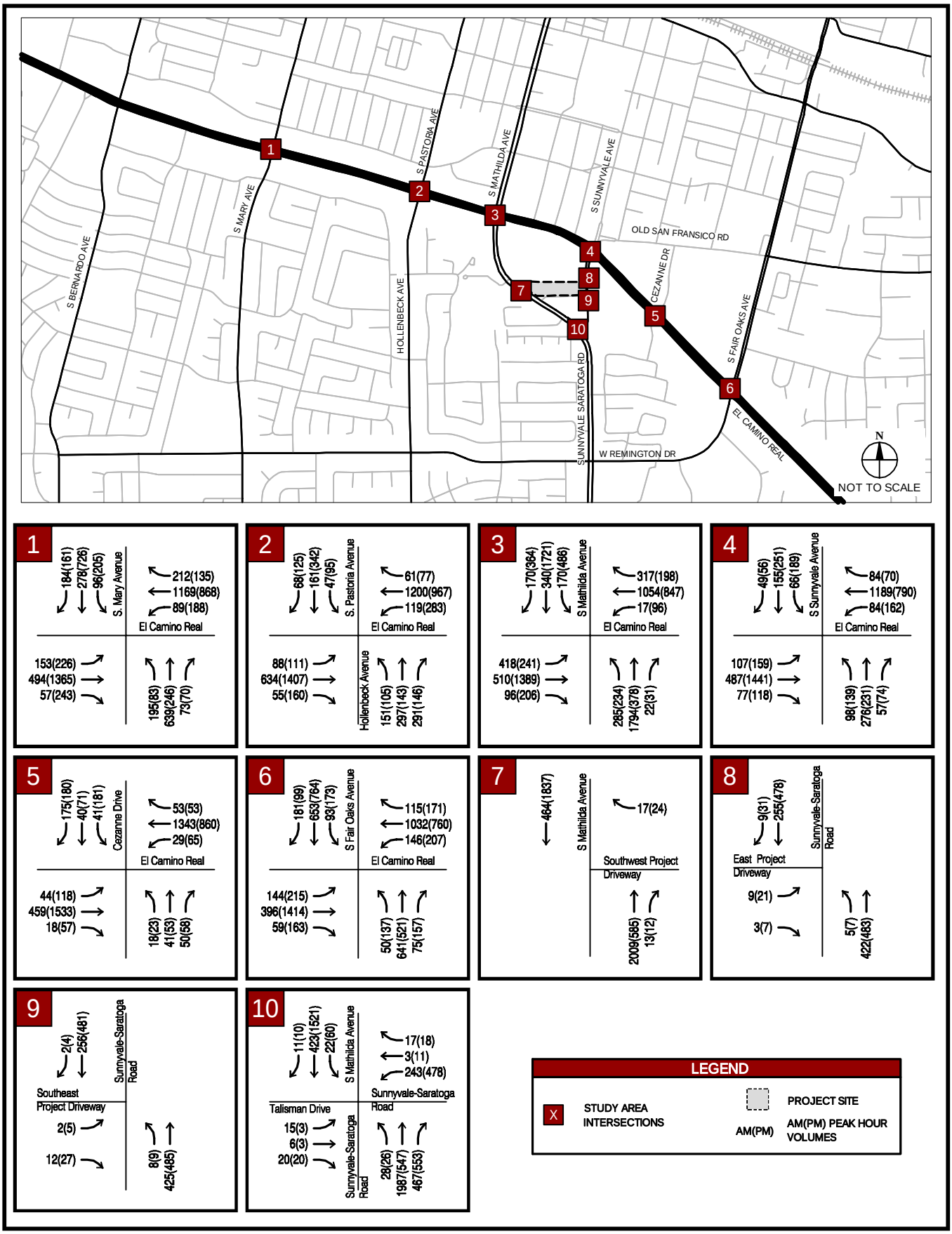


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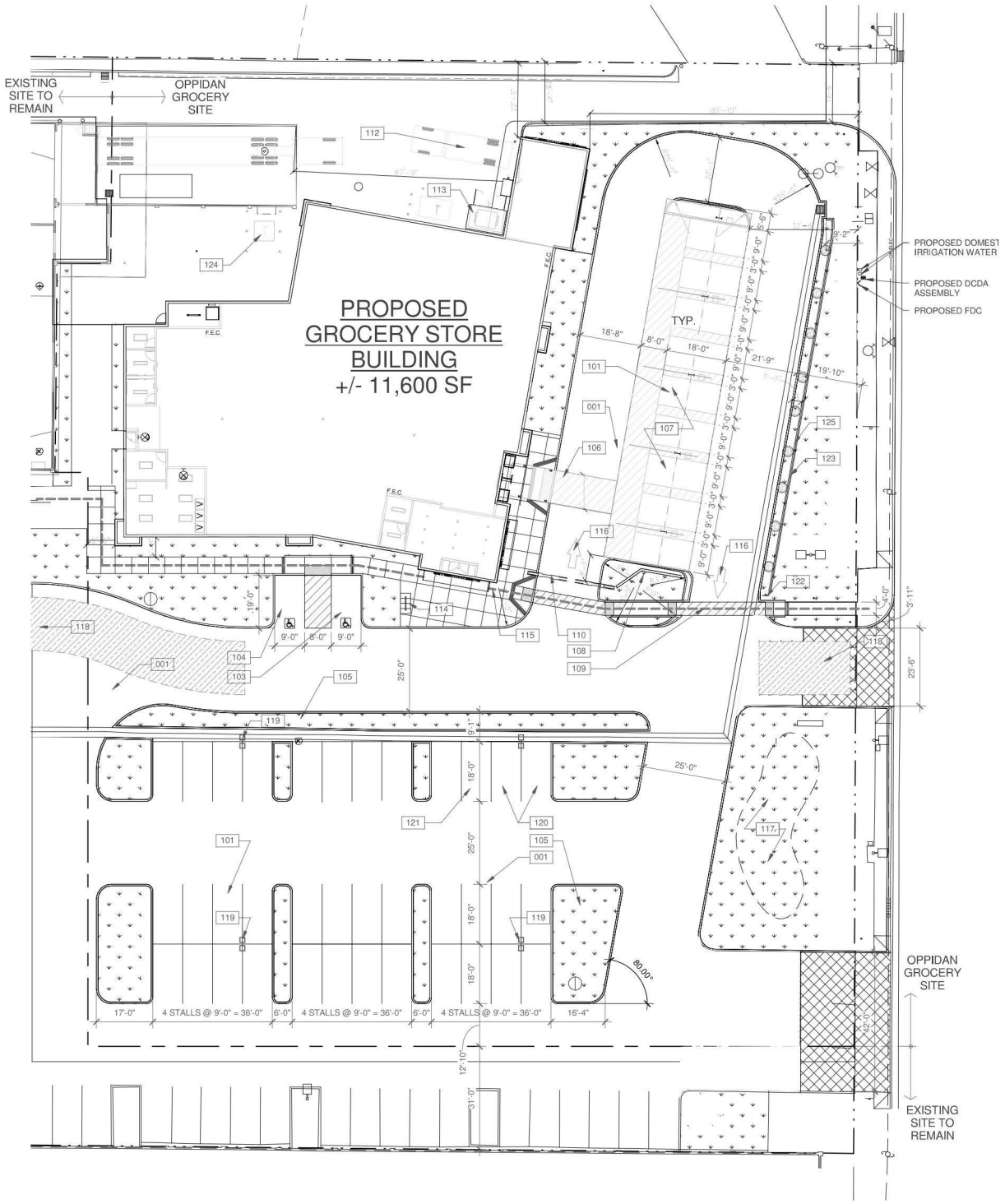
FIGURE 5

EXISTING CONDITION
PEAK HOUR TURNING MOVEMENT VOLUMES




PROPOSED SITE PLAN 2

SCALE: 1" = 20'-0"

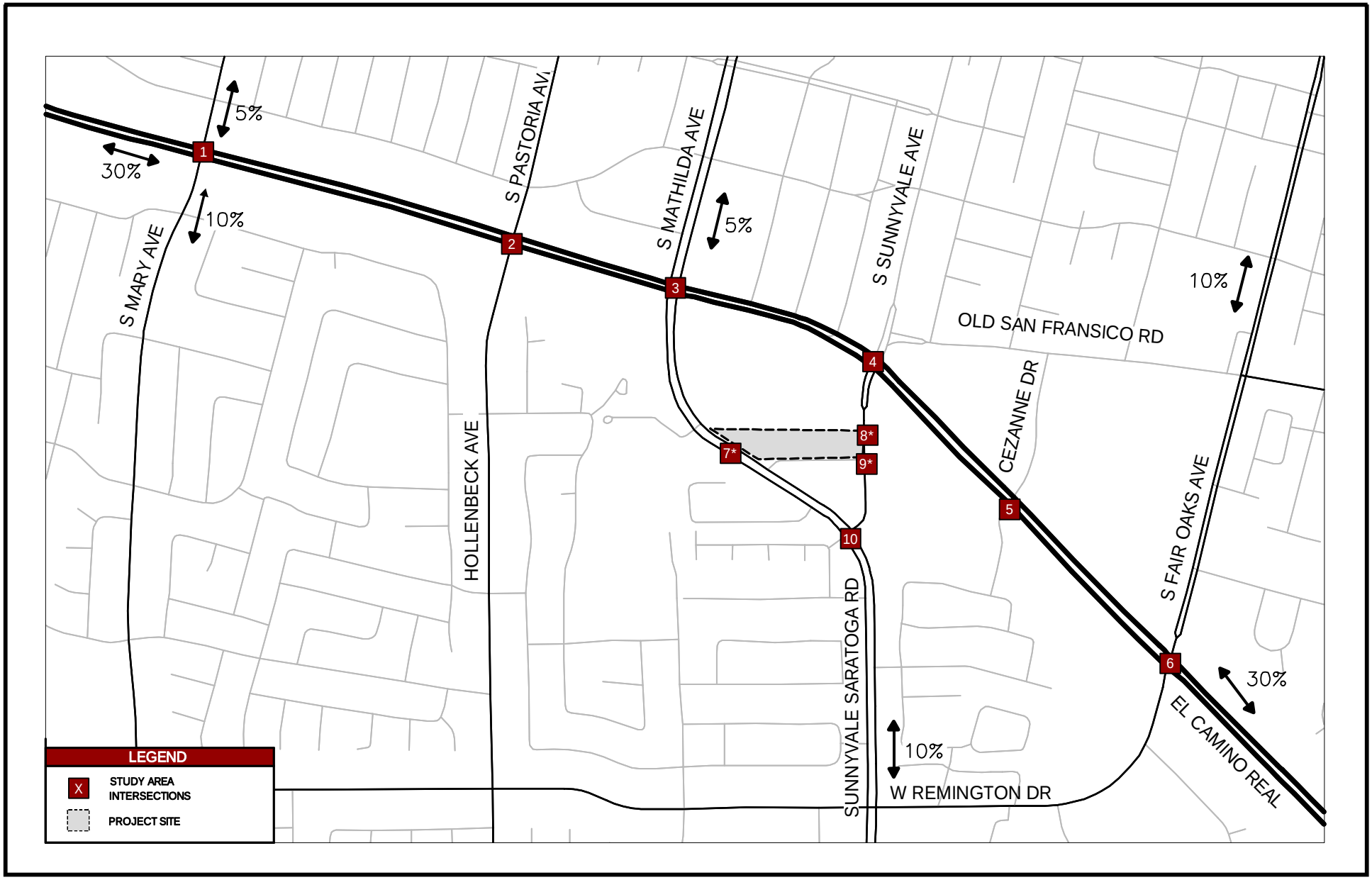
Source: Ware Malcomb

Kimley»Horn

NOT TO SCALE

FIGURE 6

SITE PLAN

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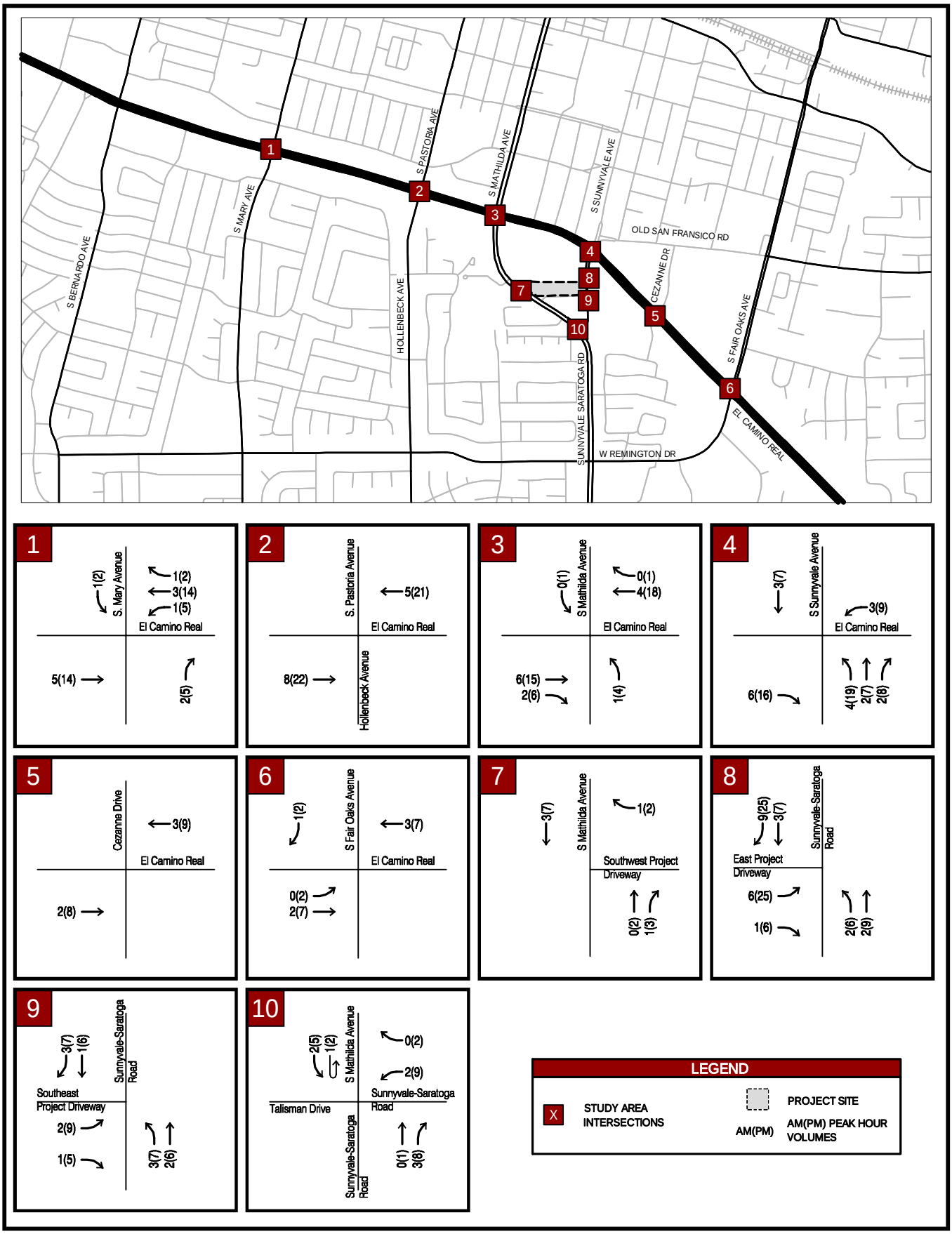
NOT TO SCALE

FIGURE 7

PROJECT TRIP DISTRIBUTION

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NOT TO SCALE

FIGURE 8

PROJECT GENERATED
PEAK HOUR TURNING MOVEMENT VOLUMES

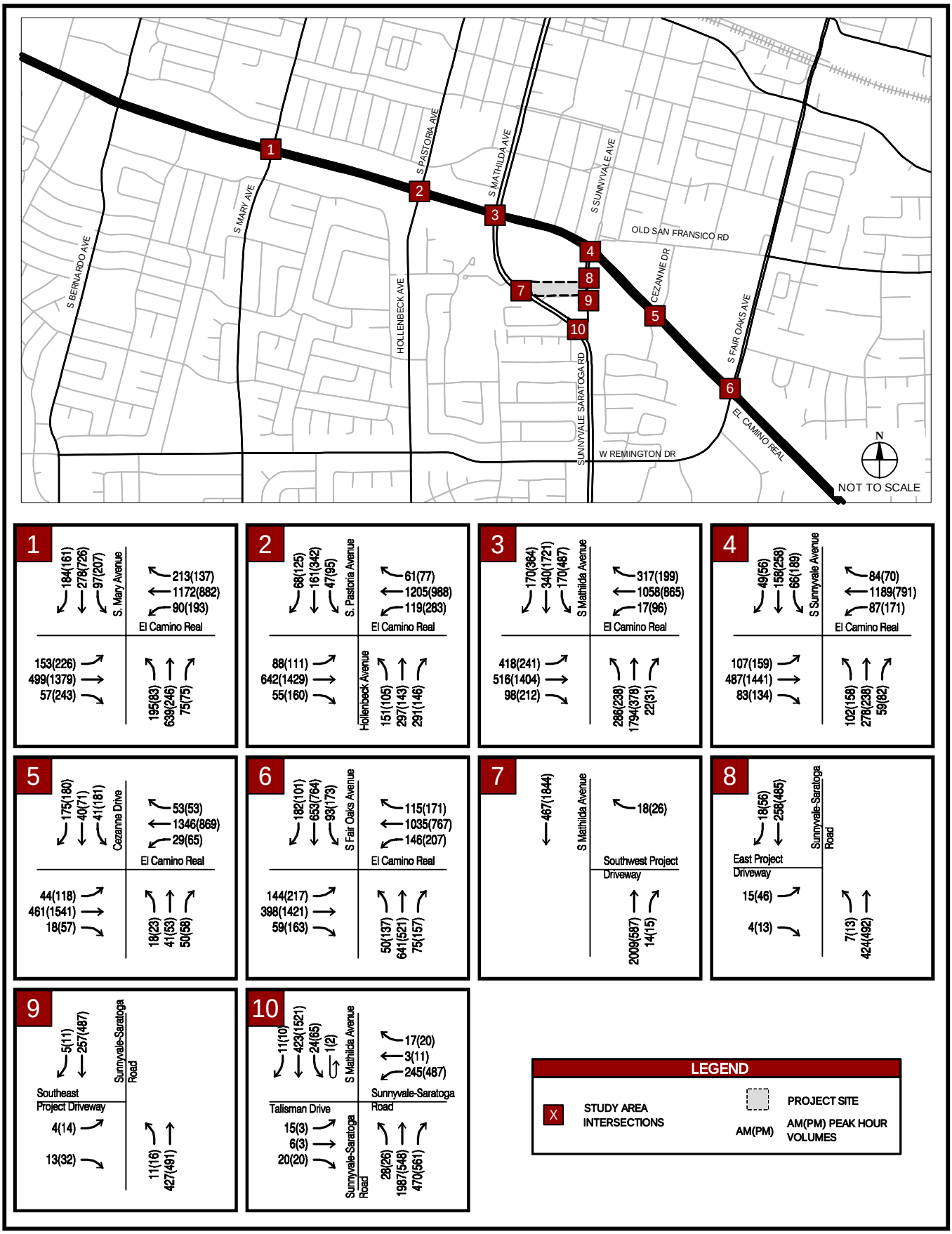


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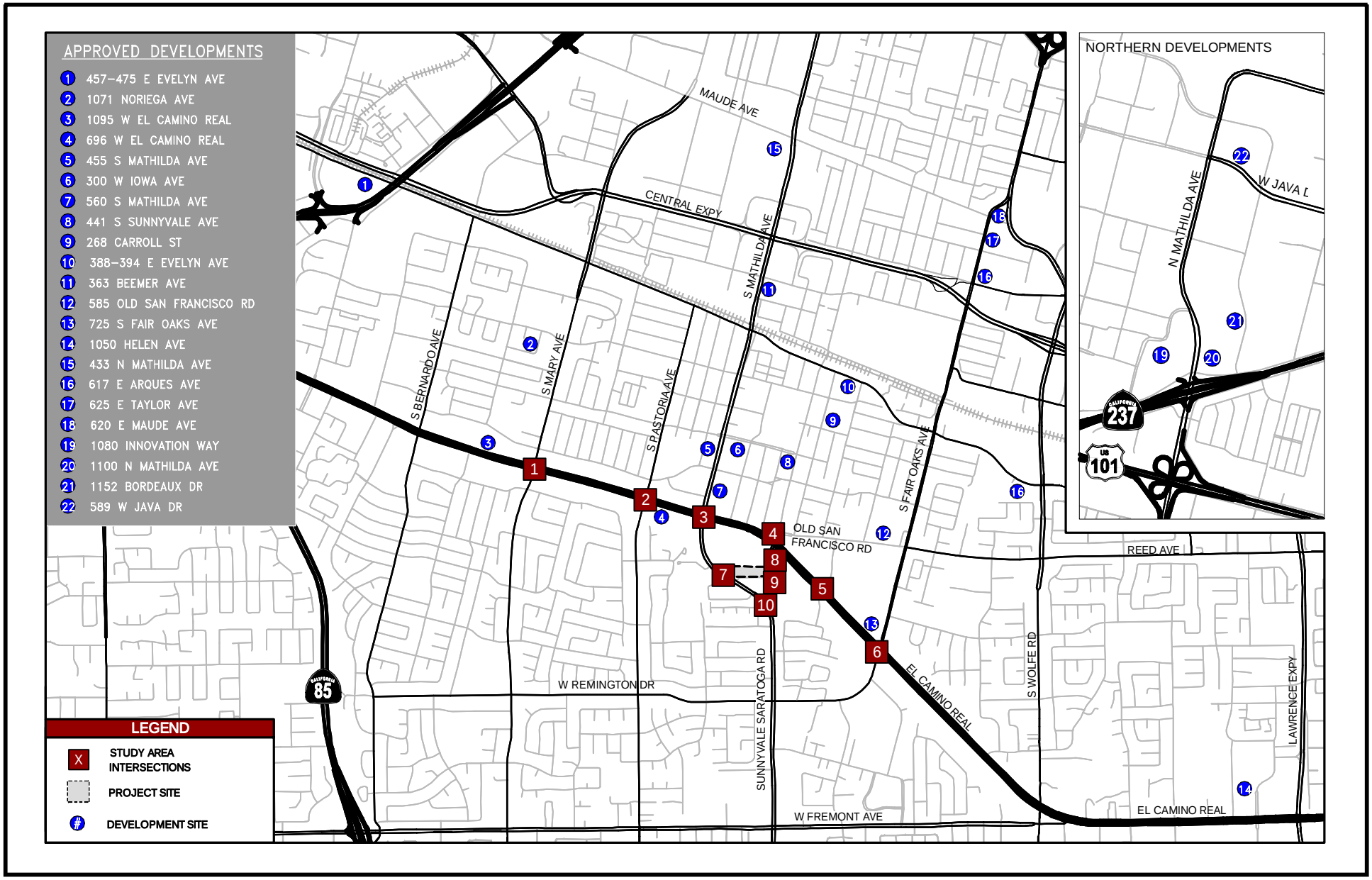
FIGURE 9

EXISTING PLUS PROJECT CONDITION
PEAK HOUR TURNING MOVEMENT VOLUMES

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N

NOT TO SCALE

FIGURE 10

APPROVED PROJECT LOCATIONS

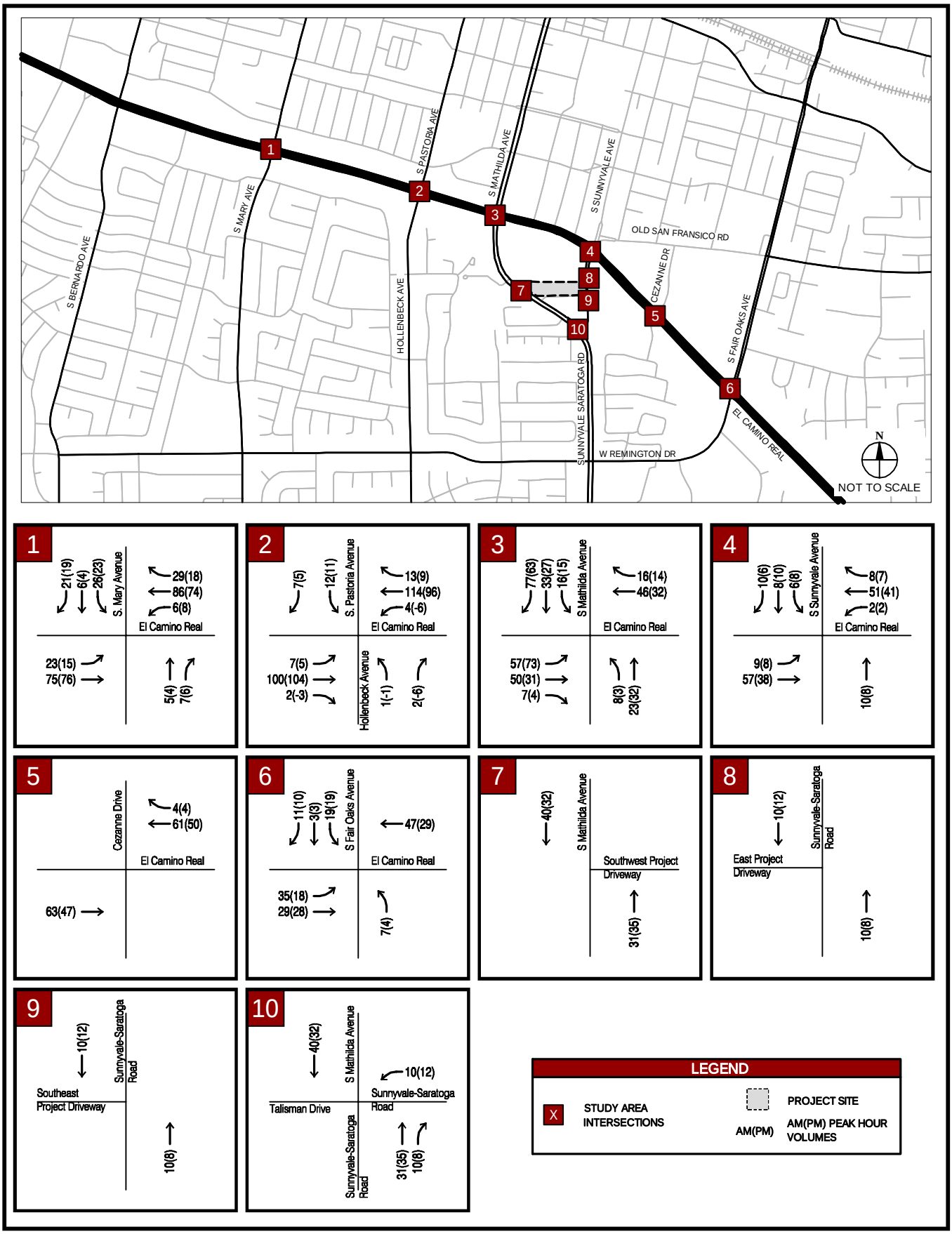


FIGURE 11

APPROVED PROJECT GENERATED PEAK HOUR TURNING MOVEMENT VOLUMES

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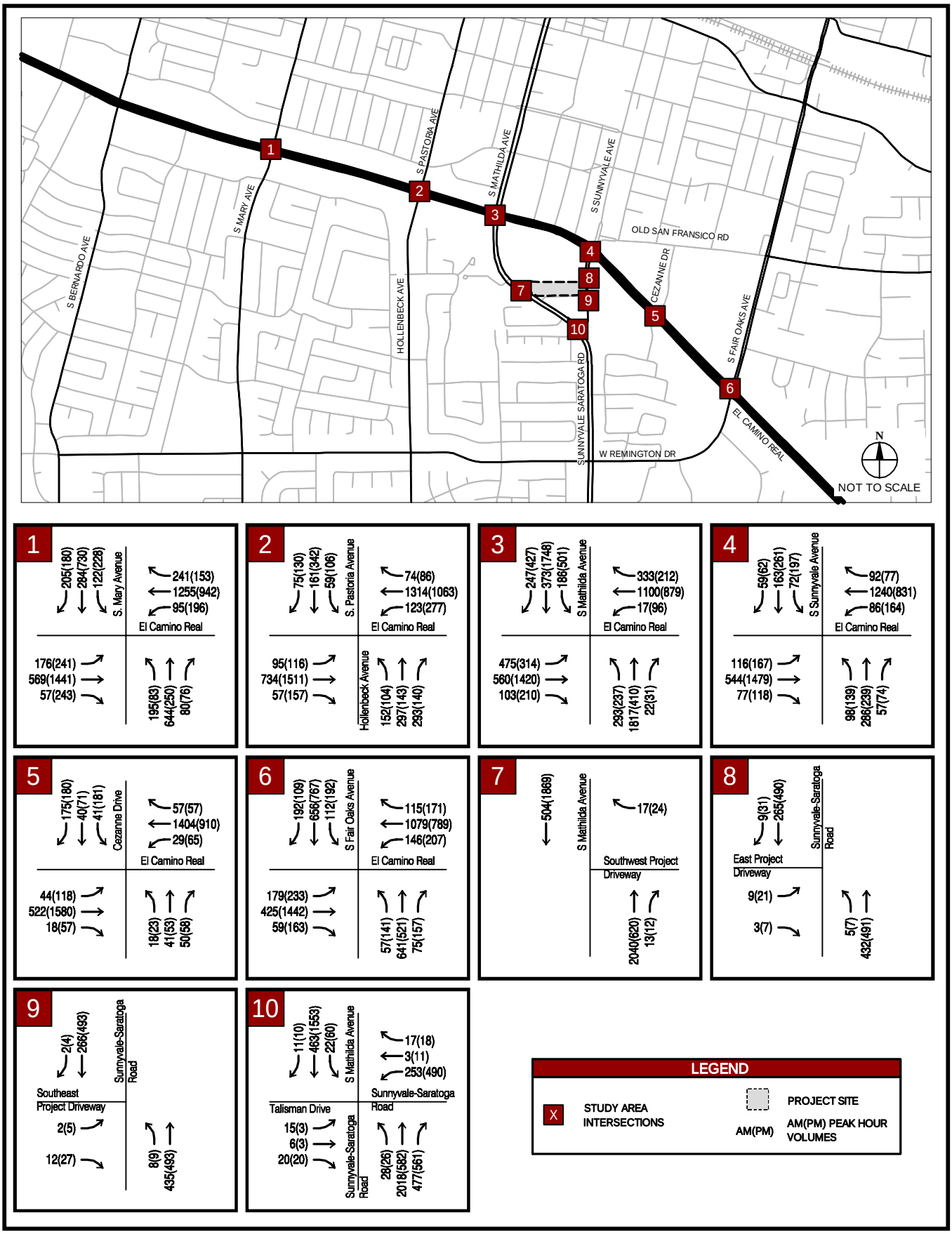


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FIGURE 12

EXISTING PLUS BACKGROUND CONDITION
PEAK HOUR TURNING MOVEMENT VOLUMES

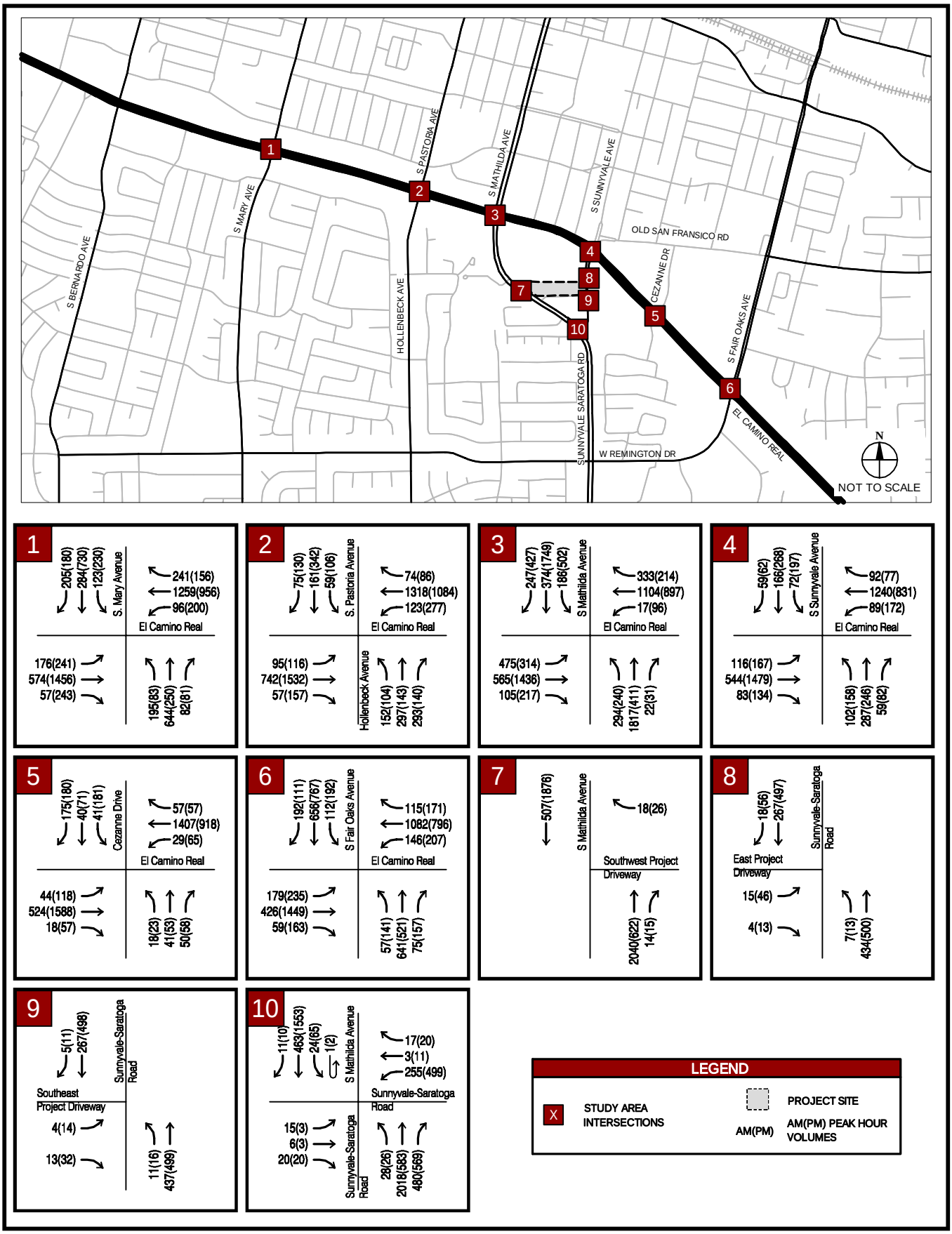


FIGURE 13

EXISTING PLUS BACKGROUND PLUS PROJECT CONDITION PEAK HOUR TURNING MOVEMENT VOLUMES

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# APPENDIX

FREEWAY SEGMENT THRESHOLD ANALYSIS

TURNING MOVEMENT COUNTS

VOLUME BALANCE WORKSHEET

EXISTING TRAFFIC CONDITIONS

TRIP GENERATION

EXISTING PLUS PROJECT TRAFFIC CONDITIONS

BACKGROUND TRAFFIC CONDITIONS

BACKGROUND PLUS PROJECT TRAFFIC CONDITIONS

QUEUING SUMMARY

SIGNAL WARRANTS

MITIGATIONS

# Freeway Segment Threshold Analysis

| Freeway | Segment | Direction | Peak Hour | Lane | Capacity | Project Trips | % Cap | < 1% |
|---|---|---|---|---|---|---|---|---|
| SR-85 | SR-237 to El Camino Real | NB | AM | 2 | 4400 | 1 | 0.000 | Yes |
| | | | PM | 2 | 4400 | 5 | 0.001 | Yes |
| | | SB | AM | 2 | 4400 | 2 | 0.000 | Yes |
| | | | PM | 2 | 4400 | 5 | 0.001 | Yes |
| | El Camino Real to Fremont Avenue | NB | AM | 2 | 4400 | 1 | 0.000 | Yes |
| | | | PM | 2 | 4400 | 2 | 0.000 | Yes |
| | | SB | AM | 2 | 4400 | 1 | 0.000 | Yes |
| | | | PM | 2 | 4400 | 2 | 0.000 | Yes |
| SR-237 | SR-85 to El Camino Real | EB | AM | 2 | 4400 | 0 | 0.000 | Yes |
| | | | PM | 2 | 4400 | 0 | 0.000 | Yes |
| | | WB | AM | 2 | 4400 | 0 | 0.000 | Yes |
| | | | PM | 2 | 4400 | 0 | 0.000 | Yes |

# Turning Movement Counts

| North/South | East/West | Count Date | AM | | | | | | | | | | | | | | PM | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | Time | Northbound | | | Southbound | | | Eastbound | | | Westbound | | | Time | Northbound | | | Southbound | | | Eastbound | | | Westbound | | |
| | | | | L | T | R | L | T | R | L | T | R | L | T | R | | L | T | R | L | T | R | L | T | R | L | T | R |
| Fair Oaks Avenue | El Camino Real | May 2014 | 8:00AM-9:00AM | 50 | 641 | 75 | 93 | 653 | 181 | 144 | 396 | 59 | 146 | 1032 | 115 | 5:00PM-6:00PM | 137 | 521 | 157 | 173 | 764 | 99 | 215 | 1414 | 163 | 207 | 760 | 171 |
| Mathilda Avenue | El Camino Real | June 2015 | 8:00AM-9:00AM | 285 | 1794 | 22 | 170 | 340 | 170 | 418 | 510 | 96 | 17 | 1054 | 317 | 5:00PM-6:00PM | 234 | 378 | 31 | 486 | 1721 | 364 | 241 | 1389 | 206 | 96 | 847 | 198 |
| Sunnyvale - Sunny Saratoga | El Camino Real | May 2014 | 8:00AM-9:00AM | 98 | 276 | 57 | 66 | 155 | 49 | 107 | 487 | 77 | 84 | 1189 | 84 | 4:45PM-5:45PM | 139 | 231 | 74 | 189 | 251 | 56 | 159 | 1441 | 118 | 162 | 790 | 70 |
| Mathilda / Sunny Sara | Talisman / Sunny Sara | December 2014 | 8:00AM-9:00AM | 28 | 1987 | 467 | 22 | 423 | 11 | 15 | 6 | 20 | 243 | 3 | 17 | 5:00PM-6:00PM | 26 | 547 | 553 | 60 | 1521 | 10 | 3 | 3 | 20 | 478 | 11 | 18 |

# Traffic Data Service

Campbell, CA
(408) 377-2988
*tdsbay@cs.com*

File Name : 4AM FINAL
Site Code : 00000004
Start Date : 9/19/2013
Page No : 1

Groups Printed- Vehicles

| | S PASTORIA AVE Southbound | | | | | EL CAMINO REAL Westbound | | | | | HOLLENBECK AVE Northbound | | | | | EL CAMINO REAL Eastbound | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Right | Thru | Left | Peds | App. Total | Right | Thru | Left | Peds | App. Total | Right | Thru | Left | Peds | App. Total | Right | Thru | Left | Peds | App. Total | Int. Total |
| 07:00 AM | 10 | 5 | 7 | 2 | 24 | 8 | 140 | 11 | 3 | 162 | 13 | 15 | 11 | 8 | 47 | 6 | 60 | 9 | 8 | 83 | 316 |
| 07:15 AM | 13 | 31 | 10 | 2 | 56 | 15 | 201 | 19 | 2 | 237 | 24 | 30 | 23 | 2 | 79 | 6 | 70 | 11 | 4 | 91 | 463 |
| 07:30 AM | 10 | 27 | 7 | 2 | 46 | 12 | 250 | 33 | 1 | 296 | 36 | 35 | 26 | 3 | 100 | 10 | 109 | 9 | 7 | 135 | 577 |
| 07:45 AM | 11 | 42 | 13 | 0 | 66 | 35 | 316 | 28 | 2 | 381 | 55 | 52 | 29 | 1 | 137 | 21 | 121 | 19 | 28 | 189 | 773 |
| Total | 44 | 105 | 37 | 6 | 192 | 70 | 907 | 91 | 8 | 1076 | 128 | 132 | 89 | 14 | 363 | 43 | 360 | 48 | 47 | 498 | 2129 |
| 08:00 AM | 19 | 94 | 11 | 0 | 124 | 20 | 284 | 52 | 0 | 356 | 68 | 55 | 41 | 2 | 166 | 11 | 128 | 21 | 41 | 201 | 847 |
| 08:15 AM | 16 | 24 | 13 | 3 | 56 | 12 | 288 | 25 | 3 | 328 | 89 | 96 | 46 | 6 | 237 | 9 | 165 | 22 | 27 | 223 | 844 |
| 08:30 AM | 21 | 18 | 14 | 3 | 56 | 14 | 314 | 14 | 0 | 342 | 69 | 77 | 24 | 2 | 172 | 15 | 170 | 25 | 8 | 218 | 788 |
| 08:45 AM | 12 | 25 | 9 | 3 | 49 | 15 | 314 | 28 | 1 | 358 | 65 | 69 | 40 | 2 | 176 | 20 | 171 | 20 | 6 | 217 | 800 |
| Total | 68 | 161 | 47 | 9 | 285 | 61 | 1200 | 119 | 4 | 1384 | 291 | 297 | 151 | 12 | 751 | 55 | 634 | 88 | 82 | 859 | 3279 |
| Grand Total | 112 | 266 | 84 | 15 | 477 | 131 | 2107 | 210 | 12 | 2460 | 419 | 429 | 240 | 26 | 1114 | 98 | 994 | 136 | 129 | 1357 | 5408 |
| Apprch % | 23.5 | 55.8 | 17.6 | 3.1 | | 5.3 | 85.7 | 8.5 | 0.5 | | 37.6 | 38.5 | 21.5 | 2.3 | | 7.2 | 73.2 | 10 | 9.5 | | |
| Total % | 2.1 | 4.9 | 1.6 | 0.3 | 8.8 | 2.4 | 39 | 3.9 | 0.2 | 45.5 | 7.7 | 7.9 | 4.4 | 0.5 | 20.6 | 1.8 | 18.4 | 2.5 | 2.4 | 25.1 | |

| | S PASTORIA AVE Southbound | | | | EL CAMINO REAL Westbound | | | | HOLLENBECK AVE Northbound | | | | EL CAMINO REAL Eastbound | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Right | Thru | Left | App. Total | Right | Thru | Left | App. Total | Right | Thru | Left | App. Total | Right | Thru | Left | App. Total | Int. Total |
| Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1 | | | | | | | | | | | | | | | | | |
| Peak Hour for Entire Intersection Begins at 08:00 AM | | | | | | | | | | | | | | | | | |
| 08:00 AM | 19 | **94** | 11 | **124** | **20** | 284 | **52** | 356 | 68 | 55 | 41 | 164 | 11 | 128 | 21 | 160 | 804 |
| 08:15 AM | 16 | 24 | 13 | 53 | 12 | 288 | 25 | 325 | **89** | **96** | **46** | **231** | 9 | 165 | 22 | 196 | **805** |
| 08:30 AM | **21** | 18 | **14** | 53 | 14 | **314** | 14 | 342 | 69 | **77** | 24 | 170 | 15 | 170 | **25** | 210 | 775 |
| 08:45 AM | 12 | 25 | 9 | 46 | 15 | 314 | 28 | **357** | 65 | 69 | 40 | 174 | **20** | **171** | 20 | **211** | 788 |
| Total Volume | 68 | 161 | 47 | 276 | 61 | 1200 | 119 | 1380 | 291 | 297 | 151 | 739 | 55 | 634 | 88 | 777 | 3172 |
| % App. Total | 24.6 | 58.3 | 17 | | 4.4 | 87 | 8.6 | | 39.4 | 40.2 | 20.4 | | 7.1 | 81.6 | 11.3 | | |
| PHF | .810 | .428 | .839 | .556 | .763 | .955 | .572 | .966 | .817 | .773 | .821 | .800 | .688 | .927 | .880 | .921 | .985 |

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File Name : 4AM FINAL
Site Code : 00000004
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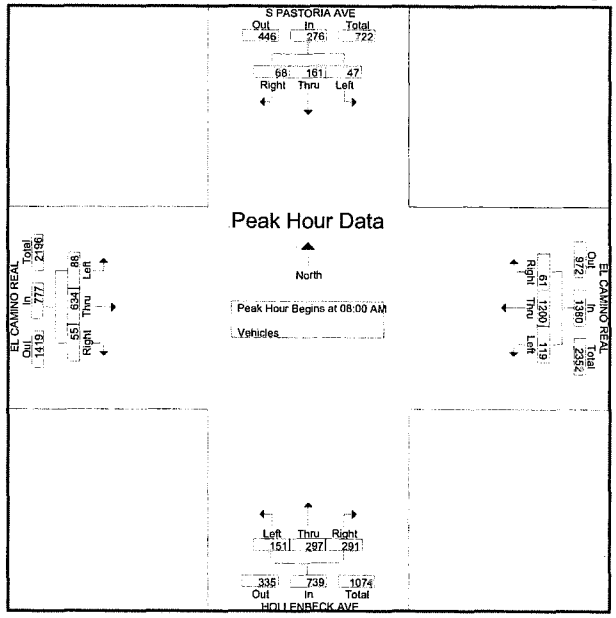
Page No : 2



# Traffic Data Service

Campbell, CA
**(408) 377-2988**
*tdsbay@cs.com*

File Name : 4PM FINAL
Site Code : 00000004
Start Date : 9/19/2013
Page No : 1

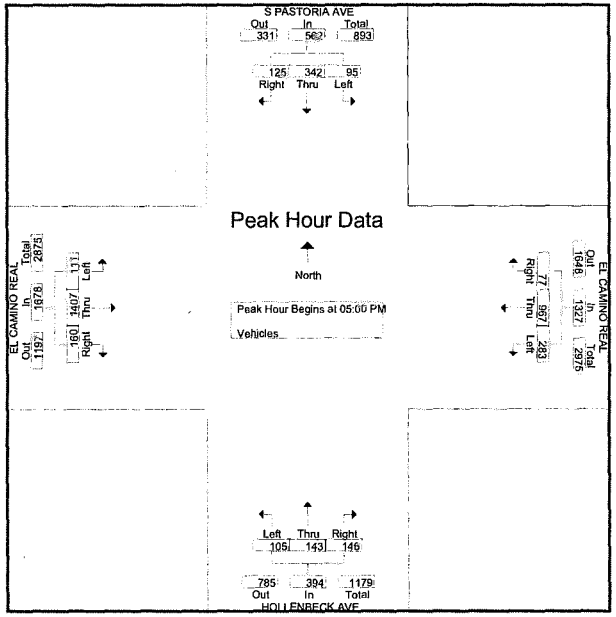
Groups Printed- Vehicles

| | S PASTORIA AVE Southbound | | | | | EL CAMINO REAL Westbound | | | | | HOLLENBECK AVE Northbound | | | | | EL CAMINO REAL Eastbound | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Right | Thru | Left | Peds | App. Total | Right | Thru | Left | Peds | App. Total | Right | Thru | Left | Peds | App. Total | Right | Thru | Left | Peds | App. Total | Int. Total |
| 04:00 PM | 18 | 26 | 9 | 4 | 57 | 14 | 236 | 60 | 6 | 316 | 25 | 27 | 29 | 4 | 85 | 42 | 305 | 34 | 6 | 387 | 845 |
| 04:15 PM | 34 | 45 | 21 | 2 | 102 | 18 | 202 | 52 | 6 | 278 | 28 | 28 | 24 | 2 | 82 | 38 | 320 | 23 | 15 | 396 | 858 |
| 04:30 PM | 21 | 49 | 20 | 1 | 91 | 16 | 263 | 63 | 2 | 344 | 33 | 31 | 23 | 6 | 93 | 33 | 339 | 17 | 17 | 406 | 934 |
| 04:45 PM | 28 | 49 | 14 | 6 | 97 | 22 | 234 | 55 | 4 | 315 | 35 | 30 | 23 | 0 | 88 | 42 | 385 | 34 | 14 | 475 | 975 |
| Total | 101 | 169 | 64 | 13 | 347 | 70 | 935 | 230 | 18 | 1253 | 121 | 116 | 99 | 12 | 348 | 155 | 1349 | 108 | 52 | 1664 | 3612 |
| 05:00 PM | 40 | 68 | 23 | 5 | 136 | 16 | 216 | 74 | 1 | 307 | 29 | 28 | 30 | 4 | 91 | 34 | 315 | 19 | 3 | 371 | 905 |
| 05:15 PM | 26 | 89 | 13 | 1 | 129 | 13 | 236 | 79 | 3 | 331 | 35 | 41 | 27 | 2 | 105 | 40 | 363 | 34 | 8 | 445 | 1010 |
| 05:30 PM | 33 | 85 | 31 | 2 | 151 | 22 | 264 | 71 | 1 | 358 | 39 | 30 | 22 | 8 | 99 | 36 | 388 | 24 | 9 | 457 | 1065 |
| 05:45 PM | 26 | 100 | 28 | 2 | 156 | 26 | 251 | 59 | 1 | 337 | 43 | 44 | 26 | 0 | 113 | 50 | 341 | 34 | 1 | 426 | 1032 |
| Total | 125 | 342 | 95 | 10 | 572 | 77 | 967 | 283 | 6 | 1333 | 146 | 143 | 105 | 14 | 408 | 160 | 1407 | 111 | 21 | 1699 | 4012 |
| Grand Total | 226 | 511 | 159 | 23 | 919 | 147 | 1902 | 513 | 24 | 2586 | 267 | 259 | 204 | 26 | 756 | 315 | 2756 | 219 | 73 | 3363 | 7624 |
| Apprch % | 24.6 | 55.6 | 17.3 | 2.5 | | 5.7 | 73.5 | 19.8 | 0.9 | | 35.3 | 34.3 | 27 | 3.4 | | 9.4 | 82 | 6.5 | 2.2 | | |
| Total % | 3 | 6.7 | 2.1 | 0.3 | 12.1 | 1.9 | 24.9 | 6.7 | 0.3 | 33.9 | 3.5 | 3.4 | 2.7 | 0.3 | 9.9 | 4.1 | 36.1 | 2.9 | 1 | 44.1 | |

| | S PASTORIA AVE Southbound | | | | EL CAMINO REAL Westbound | | | | HOLLENBECK AVE Northbound | | | | EL CAMINO REAL Eastbound | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Right | Thru | Left | App. Total | Right | Thru | Left | App. Total | Right | Thru | Left | App. Total | Right | Thru | Left | App. Total | Int. Total |
| Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1 | | | | | | | | | | | | | | | | | |
| Peak Hour for Entire Intersection Begins at 05:00 PM | | | | | | | | | | | | | | | | | |
| 05:00 PM | 40 | 68 | 23 | 131 | 16 | 216 | 74 | 306 | 29 | 28 | 30 | 87 | 34 | 315 | 19 | 368 | 892 |
| 05:15 PM | 26 | 89 | 13 | 128 | 13 | 236 | 79 | 328 | 35 | 41 | 27 | 103 | 40 | 363 | 34 | 437 | 996 |
| 05:30 PM | 33 | 85 | 31 | 149 | 22 | 264 | 71 | 357 | 39 | 30 | 22 | 91 | 36 | 388 | 24 | 448 | 1045 |
| 05:45 PM | 26 | 100 | 28 | 154 | 26 | 251 | 59 | 336 | 43 | 44 | 26 | 113 | 50 | 341 | 34 | 425 | 1028 |
| Total Volume | 125 | 342 | 95 | 562 | 77 | 967 | 283 | 1327 | 146 | 143 | 105 | 394 | 160 | 1407 | 111 | 1678 | 3961 |
| % App. Total | 22.2 | 60.9 | 16.9 | | 5.8 | 72.9 | 21.3 | | 37.1 | 36.3 | 26.6 | | 9.5 | 83.8 | 6.6 | | |
| PHF | .781 | .855 | .766 | .912 | .740 | .916 | .896 | .929 | .849 | .813 | .875 | .872 | .800 | .907 | .816 | .936 | .948 |

Traffic Data Service
Campbell, CA
(408) 377-2988
tdsbay@cs.com

File Name : 4PM FINAL
Site Code : 00000004
Start Date : 9/19/2013
Page No : 2



# ALL TRAFFIC DATA

City of Sunnyvale
All Vehicles & Uturns On Unshifted
Bikes & Peds On Bank 1
Nothing On Bank 2

**(916) 771-8700**
orders@atdtraffic.com

File Name : 15-7935-001 S Mary Avenue & W El Camino Real
Date : 12/2/2015

**Unshifted Count = All Vehicles & Uturns**

| | S Mary Avenue Southbound | | | | | W El Camino Real Westbound | | | | | S Mary Avenue Northbound | | | | | W El Camino Real Eastbound | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| START TIME | LEFT | THRU | RIGHT | UTURNS | APP.TOTAL | LEFT | THRU | RIGHT | UTURNS | APP.TOTAL | LEFT | THRU | RIGHT | UTURNS | APP.TOTAL | LEFT | THRU | RIGHT | UTURNS | APP.TOTAL | Total | Uturns Total |
| 7:00 | 17 | 32 | 27 | 0 | 76 | 8 | 150 | 20 | 2 | 180 | 22 | 39 | 5 | 0 | 66 | 16 | 63 | 2 | 2 | 83 | 405 | 4 |
| 7:15 | 12 | 75 | 23 | 0 | 110 | 13 | 178 | 26 | 2 | 219 | 23 | 40 | 10 | 0 | 73 | 12 | 82 | 13 | 4 | 111 | 513 | 6 |
| 7:30 | 21 | 115 | 33 | 0 | 169 | 7 | 230 | 32 | 3 | 272 | 33 | 98 | 8 | 0 | 139 | 19 | 81 | 16 | 5 | 121 | 701 | 8 |
| 7:45 | 20 | 60 | 43 | 0 | 123 | 18 | 314 | 52 | 5 | 389 | 43 | 164 | 17 | 0 | 224 | 28 | 110 | 11 | 4 | 153 | 889 | 9 |
| Total | 70 | 282 | 126 | 0 | 478 | 46 | 872 | 130 | 12 | 1060 | 121 | 341 | 40 | 0 | 502 | 75 | 336 | 42 | 15 | 468 | 2508 | 27 |
| 8:00 | 29 | 100 | 48 | 0 | 177 | 12 | 249 | 51 | 11 | 323 | 54 | 141 | 19 | 0 | 214 | 42 | 116 | 13 | 8 | 179 | 893 | 19 |
| 8:15 | 26 | 77 | 54 | 0 | 157 | 22 | 322 | 55 | 8 | 407 | 58 | 191 | 18 | 0 | 267 | 33 | 145 | 16 | 4 | 198 | 1029 | 12 |
| 8:30 | 21 | 41 | 39 | 0 | 101 | 10 | 284 | 54 | 3 | 351 | 40 | 143 | 19 | 0 | 202 | 32 | 123 | 17 | 2 | 174 | 828 | 5 |
| 8:45 | 23 | 55 | 37 | 0 | 115 | 10 | 220 | 43 | 4 | 277 | 43 | 230 | 15 | 0 | 288 | 26 | 127 | 15 | 4 | 172 | 852 | 8 |
| Total | 99 | 273 | 178 | 0 | 550 | 54 | 1075 | 203 | 26 | 1358 | 195 | 705 | 71 | 0 | 971 | 133 | 511 | 61 | 18 | 723 | 3602 | 44 |
| 16:00 | 33 | 81 | 23 | 0 | 137 | 18 | 215 | 31 | 10 | 274 | 20 | 62 | 19 | 0 | 101 | 38 | 297 | 37 | 9 | 381 | 893 | 19 |
| 16:15 | 40 | 114 | 46 | 0 | 200 | 18 | 208 | 38 | 15 | 279 | 26 | 41 | 18 | 0 | 85 | 40 | 313 | 49 | 7 | 409 | 973 | 22 |
| 16:30 | 40 | 122 | 44 | 0 | 206 | 31 | 218 | 26 | 10 | 285 | 28 | 54 | 21 | 0 | 103 | 42 | 358 | 56 | 7 | 463 | 1057 | 17 |
| 16:45 | 51 | 148 | 35 | 0 | 234 | 29 | 206 | 27 | 19 | 281 | 31 | 64 | 18 | 0 | 113 | 47 | 341 | 48 | 12 | 448 | 1076 | 31 |
| Total | 164 | 465 | 148 | 0 | 777 | 96 | 847 | 122 | 54 | 1119 | 105 | 221 | 76 | 0 | 402 | 167 | 1309 | 190 | 35 | 1701 | 3999 | 89 |
| 17:00 | 51 | 159 | 42 | 0 | 252 | 24 | 229 | 27 | 15 | 295 | 26 | 53 | 17 | 0 | 96 | 54 | 348 | 44 | 5 | 451 | 1094 | 20 |
| 17:15 | 52 | 212 | 41 | 0 | 305 | 43 | 226 | 41 | 12 | 322 | 16 | 74 | 19 | 0 | 109 | 42 | 302 | 50 | 5 | 399 | 1135 | 17 |
| 17:30 | 50 | 177 | 37 | 0 | 264 | 43 | 215 | 34 | 8 | 300 | 13 | 63 | 16 | 0 | 92 | 60 | 363 | 70 | 7 | 500 | 1156 | 15 |
| 17:45 | 51 | 178 | 41 | 1 | 271 | 31 | 198 | 33 | 12 | 274 | 28 | 56 | 18 | 0 | 102 | 47 | 352 | 79 | 6 | 484 | 1131 | 19 |
| Total | 204 | 726 | 161 | 1 | 1092 | 141 | 868 | 135 | 47 | 1191 | 83 | 246 | 70 | 0 | 399 | 203 | 1365 | 243 | 23 | 1834 | 4516 | 71 |
| Grand Total | 537 | 1746 | 613 | 1 | 2897 | 337 | 3662 | 590 | 139 | 4728 | 504 | 1513 | 257 | 0 | 2274 | 578 | 3521 | 536 | 91 | 4726 | 14625 | 231 |
| Apprch % | 18.5% | 60.3% | 21.2% | 0.0% | | 7.1% | 77.5% | 12.5% | 2.9% | | 22.2% | 66.5% | 11.3% | 0.0% | | 12.2% | 74.5% | 11.3% | 1.9% | | | |
| Total % | 3.7% | 11.9% | 4.2% | 0.0% | 19.8% | 2.3% | 25.0% | 4.0% | 1.0% | 32.3% | 3.4% | 10.3% | 1.8% | 0.0% | 15.5% | 4.0% | 24.1% | 3.7% | 0.6% | 32.3% | 100.0% | |

| **AM PEAK HOUR** | S Mary Avenue Southbound | | | | | W El Camino Real Westbound | | | | | S Mary Avenue Northbound | | | | | W El Camino Real Eastbound | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| START TIME | LEFT | THRU | RIGHT | UTURNS | APP.TOTAL | LEFT | THRU | RIGHT | UTURNS | APP.TOTAL | LEFT | THRU | RIGHT | UTURNS | APP.TOTAL | LEFT | THRU | RIGHT | UTURNS | APP.TOTAL | Total |
| Peak Hour Analysis From 07:45 to 08:45 | | | | | | | | | | | | | | | | | | | | | |
| Peak Hour For Entire Intersection Begins at 07:45 | | | | | | | | | | | | | | | | | | | | | |
| 7:45 | 20 | 60 | 43 | 0 | 123 | 18 | 314 | 52 | 5 | 389 | 43 | 164 | 17 | 0 | 224 | 28 | 110 | 11 | 4 | 153 | 889 |
| 8:00 | 29 | 100 | 48 | 0 | 177 | 12 | 249 | 51 | 11 | 323 | 54 | 141 | 19 | 0 | 214 | 42 | 116 | 13 | 8 | 179 | 893 |
| 8:15 | 26 | 77 | 54 | 0 | 157 | 22 | 322 | 55 | 8 | 407 | 58 | 191 | 18 | 0 | 267 | 33 | 145 | 16 | 4 | 198 | 1029 |
| 8:30 | 21 | 41 | 39 | 0 | 101 | 10 | 284 | 54 | 3 | 351 | 40 | 143 | 19 | 0 | 202 | 32 | 123 | 17 | 2 | 174 | 828 |
| Total Volume | 96 | 278 | 184 | 0 | 558 | 62 | 1169 | 212 | 27 | 1470 | 195 | 639 | 73 | 0 | 907 | 135 | 494 | 57 | 18 | 704 | 3639 |
| % App Total | 17.2% | 49.8% | 33.0% | 0.0% | | 4.2% | 79.5% | 14.4% | 1.8% | | 21.5% | 70.5% | 8.0% | 0.0% | | 19.2% | 70.2% | 8.1% | 2.6% | | |
| PHF | .828 | .695 | .852 | .000 | .788 | .705 | .908 | .964 | .614 | .903 | .841 | .836 | .961 | .000 | .849 | .804 | .852 | .838 | .563 | .889 | .884 |

| **PM PEAK HOUR** | S Mary Avenue Southbound | | | | | W El Camino Real Westbound | | | | | S Mary Avenue Northbound | | | | | W El Camino Real Eastbound | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| START TIME | LEFT | THRU | RIGHT | UTURNS | APP.TOTAL | LEFT | THRU | RIGHT | UTURNS | APP.TOTAL | LEFT | THRU | RIGHT | UTURNS | APP.TOTAL | LEFT | THRU | RIGHT | UTURNS | APP.TOTAL | Total |
| Peak Hour Analysis From 17:00 to 18:00 | | | | | | | | | | | | | | | | | | | | | |
| Peak Hour For Entire Intersection Begins at 17:00 | | | | | | | | | | | | | | | | | | | | | |
| 17:00 | 51 | 159 | 42 | 0 | 252 | 24 | 229 | 27 | 15 | 295 | 26 | 53 | 17 | 0 | 96 | 54 | 348 | 44 | 5 | 451 | 1094 |
| 17:15 | 52 | 212 | 41 | 0 | 305 | 43 | 226 | 41 | 12 | 322 | 16 | 74 | 19 | 0 | 109 | 42 | 302 | 50 | 5 | 399 | 1135 |
| 17:30 | 50 | 177 | 37 | 0 | 264 | 43 | 215 | 34 | 8 | 300 | 13 | 63 | 16 | 0 | 92 | 60 | 363 | 70 | 7 | 500 | 1156 |
| 17:45 | 51 | 178 | 41 | 1 | 271 | 31 | 198 | 33 | 12 | 274 | 28 | 56 | 18 | 0 | 102 | 47 | 352 | 79 | 6 | 484 | 1131 |
| Total Volume | 204 | 726 | 161 | 1 | 1092 | 141 | 868 | 135 | 47 | 1191 | 83 | 246 | 70 | 0 | 399 | 203 | 1365 | 243 | 23 | 1834 | 4516 |
| % App Total | 18.7% | 66.5% | 14.7% | 0.1% | | 11.8% | 72.9% | 11.3% | 3.9% | | 20.8% | 61.7% | 17.5% | 0.0% | | 11.1% | 74.4% | 13.2% | 1.3% | | |
| PHF | .981 | .856 | .958 | .250 | .895 | .820 | .948 | .823 | .783 | .925 | .741 | .831 | .921 | .000 | .915 | .846 | .940 | .769 | .821 | .917 | .977 |

# ALL TRAFFIC DATA

City of Sunnyvale
All Vehicles & Uturns On Unshifted
Bikes & Peds On Bank 1
Nothing On Bank 2

**(916) 771-8700**
orders@atdtraffic.com

File Name : 15-7935-007 S Mathilda Avenue & West Project Driveway
Date : 12/2/2015

**Unshifted Count = All Vehicles & Uturns**

| | S Mathilda Avenue Southbound | | | | | West Project Driveway Westbound | | | | | S Mathilda Avenue Northbound | | | | | West Project Driveway Eastbound | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| START TIME | LEFT | THRU | RIGHT | UTURNS | APP.TOTAL | LEFT | THRU | RIGHT | UTURNS | APP.TOTAL | LEFT | THRU | RIGHT | UTURNS | APP.TOTAL | LEFT | THRU | RIGHT | UTURNS | APP.TOTAL | Total | Uturns Total |
| 7:00 | 0 | 60 | 0 | 0 | 60 | 0 | 0 | 2 | 0 | 2 | 0 | 189 | 2 | 0 | 191 | 0 | 0 | 0 | 0 | 0 | 253 | 0 |
| 7:15 | 0 | 73 | 0 | 0 | 73 | 0 | 0 | 5 | 0 | 5 | 0 | 212 | 0 | 0 | 212 | 0 | 0 | 0 | 0 | 0 | 290 | 0 |
| 7:30 | 0 | 86 | 0 | 0 | 86 | 0 | 0 | 0 | 0 | 0 | 0 | 328 | 2 | 0 | 330 | 0 | 0 | 0 | 0 | 0 | 416 | 0 |
| 7:45 | 0 | 96 | 0 | 0 | 96 | 0 | 0 | 2 | 0 | 2 | 0 | 434 | 3 | 0 | 437 | 0 | 0 | 0 | 0 | 0 | 535 | 0 |
| Total | 0 | 315 | 0 | 0 | 315 | 0 | 0 | 9 | 0 | 9 | 0 | 1163 | 7 | 0 | 1170 | 0 | 0 | 0 | 0 | 0 | 1494 | 0 |
| 8:00 | 0 | 90 | 0 | 0 | 90 | 0 | 0 | 2 | 0 | 2 | 0 | 493 | 3 | 0 | 496 | 0 | 0 | 0 | 0 | 0 | 588 | 0 |
| 8:15 | 0 | 126 | 0 | 0 | 126 | 0 | 0 | 4 | 0 | 4 | 0 | 432 | 3 | 0 | 435 | 0 | 0 | 0 | 0 | 0 | 565 | 0 |
| 8:30 | 0 | 110 | 0 | 0 | 110 | 0 | 0 | 4 | 0 | 4 | 0 | 572 | 4 | 0 | 576 | 0 | 0 | 0 | 0 | 0 | 690 | 0 |
| 8:45 | 0 | 138 | 0 | 0 | 138 | 0 | 0 | 7 | 0 | 7 | 0 | 512 | 3 | 0 | 515 | 0 | 0 | 0 | 0 | 0 | 660 | 0 |
| Total | 0 | 464 | 0 | 0 | 464 | 0 | 0 | 17 | 0 | 17 | 0 | 2009 | 13 | 0 | 2022 | 0 | 0 | 0 | 0 | 0 | 2503 | 0 |
| 16:00 | 0 | 269 | 0 | 0 | 269 | 0 | 0 | 6 | 0 | 6 | 0 | 122 | 8 | 0 | 130 | 0 | 0 | 0 | 0 | 0 | 405 | 0 |
| 16:15 | 0 | 274 | 0 | 0 | 274 | 0 | 0 | 7 | 0 | 7 | 0 | 133 | 4 | 0 | 137 | 0 | 0 | 0 | 0 | 0 | 418 | 0 |
| 16:30 | 0 | 244 | 0 | 0 | 244 | 0 | 0 | 6 | 0 | 6 | 0 | 107 | 6 | 0 | 113 | 0 | 0 | 0 | 0 | 0 | 363 | 0 |
| 16:45 | 0 | 275 | 0 | 0 | 275 | 0 | 0 | 4 | 0 | 4 | 0 | 142 | 5 | 0 | 147 | 0 | 0 | 0 | 0 | 0 | 426 | 0 |
| Total | 0 | 1062 | 0 | 0 | 1062 | 0 | 0 | 23 | 0 | 23 | 0 | 504 | 23 | 0 | 527 | 0 | 0 | 0 | 0 | 0 | 1612 | 0 |
| 17:00 | 0 | 527 | 0 | 0 | 527 | 0 | 0 | 6 | 0 | 6 | 0 | 126 | 2 | 0 | 128 | 0 | 0 | 0 | 0 | 0 | 661 | 0 |
| 17:15 | 0 | 463 | 0 | 0 | 463 | 0 | 0 | 11 | 0 | 11 | 0 | 159 | 4 | 0 | 163 | 0 | 0 | 0 | 0 | 0 | 637 | 0 |
| 17:30 | 0 | 374 | 0 | 0 | 374 | 0 | 0 | 2 | 0 | 2 | 0 | 142 | 4 | 0 | 146 | 0 | 0 | 0 | 0 | 0 | 522 | 0 |
| 17:45 | 0 | 473 | 0 | 0 | 473 | 0 | 0 | 5 | 0 | 5 | 0 | 158 | 2 | 0 | 160 | 0 | 0 | 0 | 0 | 0 | 638 | 0 |
| Total | 0 | 1837 | 0 | 0 | 1837 | 0 | 0 | 24 | 0 | 24 | 0 | 585 | 12 | 0 | 597 | 0 | 0 | 0 | 0 | 0 | 2458 | 0 |
| Grand Total | 0 | 3678 | 0 | 0 | 3678 | 0 | 0 | 73 | 0 | 73 | 0 | 4261 | 55 | 0 | 4316 | 0 | 0 | 0 | 0 | 0 | 8067 | 0 |
| Apprch % | 0.0% | 100.0% | 0.0% | 0.0% | | 0.0% | 0.0% | 100.0% | 0.0% | | 0.0% | 98.7% | 1.3% | 0.0% | | 0.0% | 0.0% | 0.0% | 0.0% | | | |
| Total % | 0.0% | 45.6% | 0.0% | 0.0% | 45.6% | 0.0% | 0.0% | 0.9% | 0.0% | 0.9% | 0.0% | 52.8% | 0.7% | 0.0% | 53.5% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | 100.0% | |

| **AM PEAK HOUR** | S Mathilda Avenue Southbound | | | | | West Project Driveway Westbound | | | | | S Mathilda Avenue Northbound | | | | | West Project Driveway Eastbound | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| START TIME | LEFT | THRU | RIGHT | UTURNS | APP.TOTAL | LEFT | THRU | RIGHT | UTURNS | APP.TOTAL | LEFT | THRU | RIGHT | UTURNS | APP.TOTAL | LEFT | THRU | RIGHT | UTURNS | APP.TOTAL | Total |
| Peak Hour Analysis From 08:00 to 09:00 | | | | | | | | | | | | | | | | | | | | | |
| Peak Hour For Entire Intersection Begins at 08:00 | | | | | | | | | | | | | | | | | | | | | |
| 8:00 | 0 | 90 | 0 | 0 | 90 | 0 | 0 | 2 | 0 | 2 | 0 | 493 | 3 | 0 | 496 | 0 | 0 | 0 | 0 | 0 | 588 |
| 8:15 | 0 | 126 | 0 | 0 | 126 | 0 | 0 | 4 | 0 | 4 | 0 | 432 | 3 | 0 | 435 | 0 | 0 | 0 | 0 | 0 | 565 |
| 8:30 | 0 | 110 | 0 | 0 | 110 | 0 | 0 | 4 | 0 | 4 | 0 | 572 | 4 | 0 | 576 | 0 | 0 | 0 | 0 | 0 | 690 |
| 8:45 | 0 | 138 | 0 | 0 | 138 | 0 | 0 | 7 | 0 | 7 | 0 | 512 | 3 | 0 | 515 | 0 | 0 | 0 | 0 | 0 | 660 |
| Total Volume | 0 | 464 | 0 | 0 | 464 | 0 | 0 | 17 | 0 | 17 | 0 | 2009 | 13 | 0 | 2022 | 0 | 0 | 0 | 0 | 0 | 2503 |
| % App Total | 0.0% | 100.0% | 0.0% | 0.0% | | 0.0% | 0.0% | 100.0% | 0.0% | | 0.0% | 99.4% | 0.6% | 0.0% | | 0.0% | 0.0% | 0.0% | 0.0% | | |
| PHF | .000 | .841 | .000 | .000 | .841 | .000 | .000 | .607 | .000 | .607 | .000 | .878 | .813 | .000 | .878 | .000 | .000 | .000 | .000 | .000 | .907 |

| **PM PEAK HOUR** | S Mathilda Avenue Southbound | | | | | West Project Driveway Westbound | | | | | S Mathilda Avenue Northbound | | | | | West Project Driveway Eastbound | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| START TIME | LEFT | THRU | RIGHT | UTURNS | APP.TOTAL | LEFT | THRU | RIGHT | UTURNS | APP.TOTAL | LEFT | THRU | RIGHT | UTURNS | APP.TOTAL | LEFT | THRU | RIGHT | UTURNS | APP.TOTAL | Total |
| Peak Hour Analysis From 17:00 to 18:00 | | | | | | | | | | | | | | | | | | | | | |
| Peak Hour For Entire Intersection Begins at 17:00 | | | | | | | | | | | | | | | | | | | | | |
| 17:00 | 0 | 527 | 0 | 0 | 527 | 0 | 0 | 6 | 0 | 6 | 0 | 126 | 2 | 0 | 128 | 0 | 0 | 0 | 0 | 0 | 661 |
| 17:15 | 0 | 463 | 0 | 0 | 463 | 0 | 0 | 11 | 0 | 11 | 0 | 159 | 4 | 0 | 163 | 0 | 0 | 0 | 0 | 0 | 637 |
| 17:30 | 0 | 374 | 0 | 0 | 374 | 0 | 0 | 2 | 0 | 2 | 0 | 142 | 4 | 0 | 146 | 0 | 0 | 0 | 0 | 0 | 522 |
| 17:45 | 0 | 473 | 0 | 0 | 473 | 0 | 0 | 5 | 0 | 5 | 0 | 158 | 2 | 0 | 160 | 0 | 0 | 0 | 0 | 0 | 638 |
| Total Volume | 0 | 1837 | 0 | 0 | 1837 | 0 | 0 | 24 | 0 | 24 | 0 | 585 | 12 | 0 | 597 | 0 | 0 | 0 | 0 | 0 | 2458 |
| % App Total | 0.0% | 100.0% | 0.0% | 0.0% | | 0.0% | 0.0% | 100.0% | 0.0% | | 0.0% | 98.0% | 2.0% | 0.0% | | 0.0% | 0.0% | 0.0% | 0.0% | | |
| PHF | .000 | .871 | .000 | .000 | .871 | .000 | .000 | .545 | .000 | .545 | .000 | .920 | .750 | .000 | .916 | .000 | .000 | .000 | .000 | .000 | .930 |

# ALL TRAFFIC DATA

City of Sunnyvale
All Vehicles & Uturns On Unshifted
Bikes & Peds On Bank 1
Nothing On Bank 2

**(916) 771-8700**
orders@atdtraffic.com

File Name : 15-7935-008 Sunnyvale Saratoga Road & Northeast Project Drivewa
Date : 12/2/2015

**Unshifted Count = All Vehicles & Uturns**

| | Sunnyvale Saratoga Road Southbound | | | | | Northeast Project Driveway Westbound | | | | | Sunnyvale Saratoga Road Northbound | | | | | Northeast Project Driveway Eastbound | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| START TIME | LEFT | THRU | RIGHT | UTURNS | APP.TOTAL | LEFT | THRU | RIGHT | UTURNS | APP.TOTAL | LEFT | THRU | RIGHT | UTURNS | APP.TOTAL | LEFT | THRU | RIGHT | UTURNS | APP.TOTAL | Total | Uturns Total |
| 7:00 | 0 | 32 | 2 | 0 | 34 | 0 | 0 | 0 | 0 | 0 | 1 | 59 | 0 | 0 | 60 | 0 | 0 | 0 | 0 | 0 | 94 | 0 |
| 7:15 | 0 | 52 | 3 | 0 | 55 | 0 | 0 | 0 | 0 | 0 | 0 | 69 | 0 | 0 | 69 | 1 | 0 | 0 | 0 | 1 | 125 | 0 |
| 7:30 | 0 | 29 | 1 | 0 | 30 | 0 | 0 | 0 | 0 | 0 | 1 | 68 | 0 | 0 | 69 | 1 | 0 | 1 | 0 | 2 | 101 | 0 |
| 7:45 | 0 | 54 | 2 | 0 | 56 | 0 | 0 | 0 | 0 | 0 | 1 | 87 | 0 | 0 | 88 | 0 | 0 | 0 | 0 | 0 | 144 | 0 |
| Total | 0 | 167 | 8 | 0 | 175 | 0 | 0 | 0 | 0 | 0 | 3 | 283 | 0 | 0 | 286 | 2 | 0 | 1 | 0 | 3 | 464 | 0 |
| 8:00 | 0 | 58 | 2 | 0 | 60 | 0 | 0 | 0 | 0 | 0 | 1 | 108 | 0 | 0 | 109 | 3 | 0 | 1 | 0 | 4 | 173 | 0 |
| 8:15 | 0 | 65 | 1 | 0 | 66 | 0 | 0 | 0 | 0 | 0 | 3 | 97 | 0 | 0 | 100 | 3 | 0 | 1 | 0 | 4 | 170 | 0 |
| 8:30 | 0 | 60 | 6 | 0 | 66 | 0 | 0 | 0 | 0 | 0 | 0 | 111 | 0 | 0 | 111 | 0 | 0 | 1 | 0 | 1 | 178 | 0 |
| 8:45 | 0 | 72 | 0 | 0 | 72 | 0 | 0 | 0 | 0 | 0 | 1 | 105 | 0 | 0 | 106 | 3 | 0 | 0 | 0 | 3 | 181 | 0 |
| Total | 0 | 255 | 9 | 0 | 264 | 0 | 0 | 0 | 0 | 0 | 5 | 421 | 0 | 0 | 426 | 9 | 0 | 3 | 0 | 12 | 702 | 0 |
| 16:00 | 0 | 91 | 4 | 0 | 95 | 0 | 0 | 0 | 0 | 0 | 4 | 124 | 0 | 0 | 128 | 4 | 0 | 2 | 0 | 6 | 229 | 0 |
| 16:15 | 0 | 117 | 7 | 0 | 124 | 0 | 0 | 0 | 0 | 0 | 3 | 110 | 0 | 0 | 113 | 4 | 0 | 3 | 0 | 7 | 244 | 0 |
| 16:30 | 0 | 111 | 11 | 0 | 122 | 0 | 0 | 0 | 0 | 0 | 3 | 108 | 0 | 0 | 111 | 0 | 0 | 1 | 0 | 1 | 234 | 0 |
| 16:45 | 0 | 117 | 10 | 0 | 127 | 0 | 0 | 0 | 0 | 0 | 1 | 122 | 0 | 0 | 123 | 3 | 0 | 2 | 0 | 5 | 255 | 0 |
| Total | 0 | 436 | 32 | 0 | 468 | 0 | 0 | 0 | 0 | 0 | 11 | 464 | 0 | 0 | 475 | 11 | 0 | 8 | 0 | 19 | 962 | 0 |
| 17:00 | 0 | 119 | 11 | 0 | 130 | 0 | 0 | 0 | 0 | 0 | 3 | 107 | 0 | 0 | 110 | 9 | 0 | 3 | 0 | 12 | 252 | 0 |
| 17:15 | 0 | 122 | 5 | 0 | 127 | 0 | 0 | 0 | 0 | 0 | 0 | 147 | 0 | 0 | 147 | 4 | 0 | 1 | 0 | 5 | 279 | 0 |
| 17:30 | 0 | 120 | 5 | 0 | 125 | 0 | 0 | 0 | 0 | 0 | 3 | 107 | 0 | 0 | 110 | 5 | 0 | 1 | 0 | 6 | 241 | 0 |
| 17:45 | 0 | 125 | 4 | 0 | 129 | 0 | 0 | 0 | 0 | 0 | 4 | 116 | 0 | 0 | 120 | 5 | 0 | 1 | 0 | 6 | 255 | 0 |
| Total | 0 | 486 | 25 | 0 | 511 | 0 | 0 | 0 | 0 | 0 | 10 | 477 | 0 | 0 | 487 | 23 | 0 | 6 | 0 | 29 | 1027 | 0 |
| Grand Total | 0 | 1344 | 74 | 0 | 1418 | 0 | 0 | 0 | 0 | 0 | 29 | 1645 | 0 | 0 | 1674 | 45 | 0 | 18 | 0 | 63 | 3155 | 0 |
| Apprch % | 0.0% | 94.8% | 5.2% | 0.0% | | 0.0% | 0.0% | 0.0% | 0.0% | | 1.7% | 98.3% | 0.0% | 0.0% | | 71.4% | 0.0% | 28.6% | 0.0% | | | |
| Total % | 0.0% | 42.6% | 2.3% | 0.0% | 44.9% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | 0.9% | 52.1% | 0.0% | 0.0% | 53.1% | 1.4% | 0.0% | 0.6% | 0.0% | 2.0% | 100.0% | |

| **AM PEAK HOUR** | Sunnyvale Saratoga Road Southbound | | | | | Northeast Project Driveway Westbound | | | | | Sunnyvale Saratoga Road Northbound | | | | | Northeast Project Driveway Eastbound | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| START TIME | LEFT | THRU | RIGHT | UTURNS | APP.TOTAL | LEFT | THRU | RIGHT | UTURNS | APP.TOTAL | LEFT | THRU | RIGHT | UTURNS | APP.TOTAL | LEFT | THRU | RIGHT | UTURNS | APP.TOTAL | Total |
| Peak Hour Analysis From 08:00 to 09:00 | | | | | | | | | | | | | | | | | | | | | |
| Peak Hour For Entire Intersection Begins at 08:00 | | | | | | | | | | | | | | | | | | | | | |
| 8:00 | 0 | 58 | 2 | 0 | 60 | 0 | 0 | 0 | 0 | 0 | 1 | 108 | 0 | 0 | 109 | 3 | 0 | 1 | 0 | 4 | 173 |
| 8:15 | 0 | 65 | 1 | 0 | 66 | 0 | 0 | 0 | 0 | 0 | 3 | 97 | 0 | 0 | 100 | 3 | 0 | 1 | 0 | 4 | 170 |
| 8:30 | 0 | 60 | 6 | 0 | 66 | 0 | 0 | 0 | 0 | 0 | 0 | 111 | 0 | 0 | 111 | 0 | 0 | 1 | 0 | 1 | 178 |
| 8:45 | 0 | 72 | 0 | 0 | 72 | 0 | 0 | 0 | 0 | 0 | 1 | 105 | 0 | 0 | 106 | 3 | 0 | 0 | 0 | 3 | 181 |
| Total Volume | 0 | 255 | 9 | 0 | 264 | 0 | 0 | 0 | 0 | 0 | 5 | 421 | 0 | 0 | 426 | 9 | 0 | 3 | 0 | 12 | 702 |
| % App Total | 0.0% | 96.6% | 3.4% | 0.0% | | 0.0% | 0.0% | 0.0% | 0.0% | | 1.2% | 98.8% | 0.0% | 0.0% | | 75.0% | 0.0% | 25.0% | 0.0% | | |
| PHF | .000 | .885 | .375 | .000 | .917 | .000 | .000 | .000 | .000 | .000 | .417 | .948 | .000 | .000 | .959 | .750 | .000 | .750 | .000 | .750 | .970 |

| **PM PEAK HOUR** | Sunnyvale Saratoga Road Southbound | | | | | Northeast Project Driveway Westbound | | | | | Sunnyvale Saratoga Road Northbound | | | | | Northeast Project Driveway Eastbound | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| START TIME | LEFT | THRU | RIGHT | UTURNS | APP.TOTAL | LEFT | THRU | RIGHT | UTURNS | APP.TOTAL | LEFT | THRU | RIGHT | UTURNS | APP.TOTAL | LEFT | THRU | RIGHT | UTURNS | APP.TOTAL | Total |
| Peak Hour Analysis From 16:45 to 17:45 | | | | | | | | | | | | | | | | | | | | | |
| Peak Hour For Entire Intersection Begins at 16:45 | | | | | | | | | | | | | | | | | | | | | |
| 16:45 | 0 | 117 | 10 | 0 | 127 | 0 | 0 | 0 | 0 | 0 | 1 | 122 | 0 | 0 | 123 | 3 | 0 | 2 | 0 | 5 | 255 |
| 17:00 | 0 | 119 | 11 | 0 | 130 | 0 | 0 | 0 | 0 | 0 | 3 | 107 | 0 | 0 | 110 | 9 | 0 | 3 | 0 | 12 | 252 |
| 17:15 | 0 | 122 | 5 | 0 | 127 | 0 | 0 | 0 | 0 | 0 | 0 | 147 | 0 | 0 | 147 | 4 | 0 | 1 | 0 | 5 | 279 |
| 17:30 | 0 | 120 | 5 | 0 | 125 | 0 | 0 | 0 | 0 | 0 | 3 | 107 | 0 | 0 | 110 | 5 | 0 | 1 | 0 | 6 | 241 |
| Total Volume | 0 | 478 | 31 | 0 | 509 | 0 | 0 | 0 | 0 | 0 | 7 | 483 | 0 | 0 | 490 | 21 | 0 | 7 | 0 | 28 | 1027 |
| % App Total | 0.0% | 93.9% | 6.1% | 0.0% | | 0.0% | 0.0% | 0.0% | 0.0% | | 1.4% | 98.6% | 0.0% | 0.0% | | 75.0% | 0.0% | 25.0% | 0.0% | | |
| PHF | .000 | .980 | .705 | .000 | .979 | .000 | .000 | .000 | .000 | .000 | .583 | .821 | .000 | .000 | .833 | .583 | .000 | .583 | .000 | .583 | .920 |

# ALL TRAFFIC DATA

City of Sunnyvale
All Vehicles & Uturns On Unshifted
Bikes & Peds On Bank 1
Nothing On Bank 2

**(916) 771-8700**
orders@atdtraffic.com

File Name : 15-7935-009 Sunnyvale Saratoga Road & Southeast Project Drivewa
Date : 12/2/2015

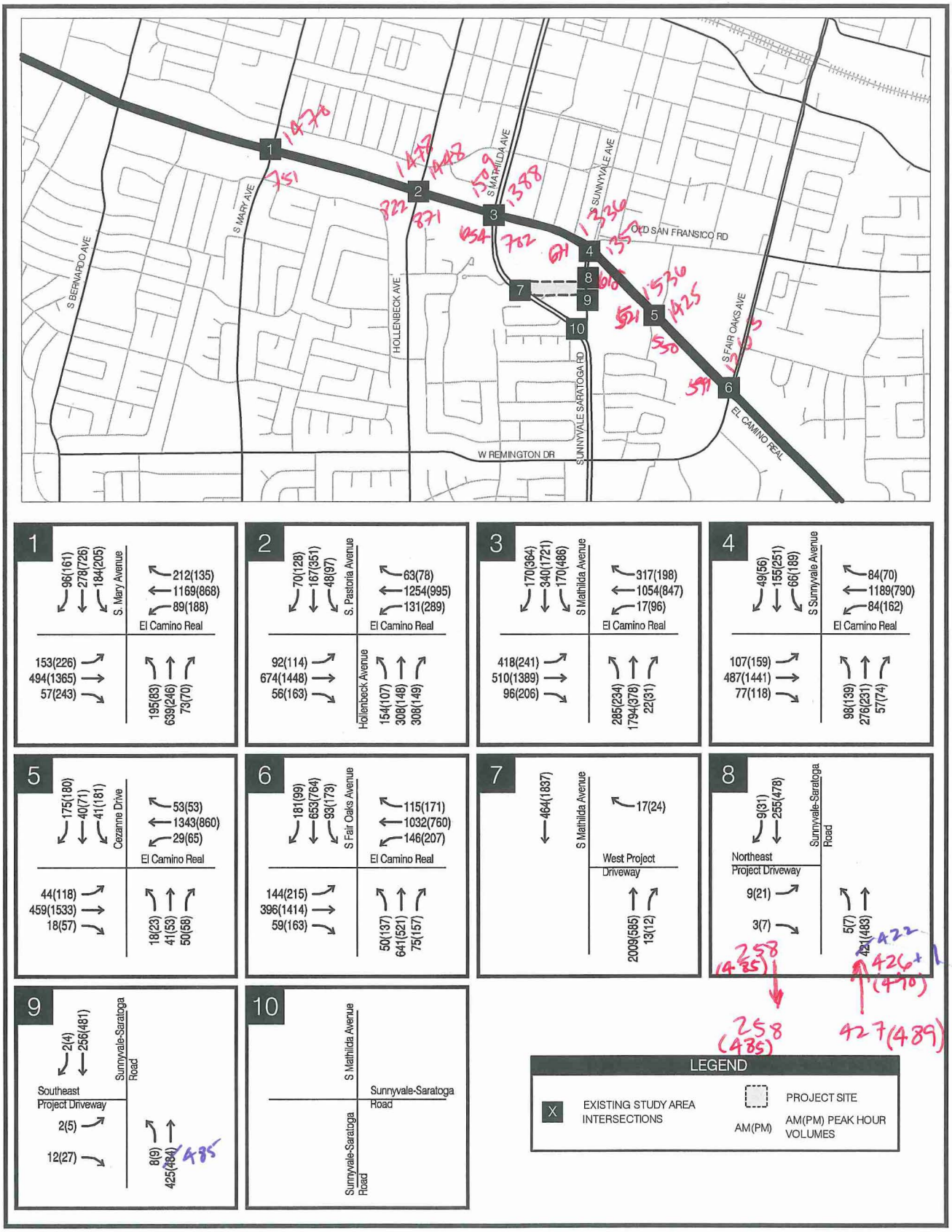
**Unshifted Count = All Vehicles & Uturns**

| | Sunnyvale Saratoga Road Southbound | | | | | Southeast Project Driveway Westbound | | | | | Sunnyvale Saratoga Road Northbound | | | | | Southeast Project Driveway Eastbound | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| START TIME | LEFT | THRU | RIGHT | UTURNS | APP.TOTAL | LEFT | THRU | RIGHT | UTURNS | APP.TOTAL | LEFT | THRU | RIGHT | UTURNS | APP.TOTAL | LEFT | THRU | RIGHT | UTURNS | APP.TOTAL | Total | Uturns Total |
| 7:00 | 0 | 31 | 1 | 0 | 32 | 0 | 0 | 0 | 0 | 0 | 2 | 61 | 0 | 0 | 63 | 0 | 0 | 0 | 0 | 0 | 95 | 0 |
| 7:15 | 0 | 52 | 0 | 0 | 52 | 0 | 0 | 0 | 0 | 0 | 0 | 68 | 0 | 0 | 68 | 0 | 0 | 0 | 0 | 0 | 120 | 0 |
| 7:30 | 0 | 30 | 0 | 0 | 30 | 0 | 0 | 0 | 0 | 0 | 0 | 69 | 0 | 0 | 69 | 0 | 0 | 0 | 0 | 0 | 99 | 0 |
| 7:45 | 0 | 53 | 1 | 0 | 54 | 0 | 0 | 0 | 0 | 0 | 3 | 89 | 0 | 0 | 92 | 0 | 0 | 0 | 0 | 0 | 146 | 0 |
| Total | 0 | 166 | 2 | 0 | 168 | 0 | 0 | 0 | 0 | 0 | 5 | 287 | 0 | 0 | 292 | 0 | 0 | 0 | 0 | 0 | 460 | 0 |
| 8:00 | 0 | 59 | 0 | 0 | 59 | 0 | 0 | 0 | 0 | 0 | 3 | 107 | 0 | 0 | 110 | 1 | 0 | 3 | 0 | 4 | 173 | 0 |
| 8:15 | 0 | 65 | 1 | 0 | 66 | 0 | 0 | 0 | 0 | 0 | 0 | 100 | 0 | 0 | 100 | 0 | 0 | 3 | 0 | 3 | 169 | 0 |
| 8:30 | 0 | 60 | 0 | 0 | 60 | 0 | 0 | 0 | 0 | 0 | 3 | 111 | 0 | 0 | 114 | 1 | 0 | 3 | 0 | 4 | 178 | 0 |
| 8:45 | 0 | 72 | 1 | 0 | 73 | 0 | 0 | 0 | 0 | 0 | 2 | 107 | 0 | 0 | 109 | 0 | 0 | 3 | 0 | 3 | 185 | 0 |
| Total | 0 | 256 | 2 | 0 | 258 | 0 | 0 | 0 | 0 | 0 | 8 | 425 | 0 | 0 | 433 | 2 | 0 | 12 | 0 | 14 | 705 | 0 |
| 16:00 | 0 | 92 | 0 | 0 | 92 | 0 | 0 | 0 | 0 | 0 | 5 | 129 | 0 | 0 | 134 | 0 | 0 | 7 | 0 | 7 | 233 | 0 |
| 16:15 | 0 | 121 | 0 | 0 | 121 | 0 | 0 | 0 | 0 | 0 | 2 | 111 | 0 | 0 | 113 | 1 | 0 | 9 | 0 | 10 | 244 | 0 |
| 16:30 | 0 | 111 | 0 | 0 | 111 | 0 | 0 | 0 | 0 | 0 | 2 | 112 | 0 | 0 | 114 | 0 | 0 | 5 | 0 | 5 | 230 | 0 |
| 16:45 | 0 | 115 | 3 | 0 | 118 | 0 | 0 | 0 | 0 | 0 | 1 | 120 | 0 | 0 | 121 | 1 | 0 | 9 | 0 | 10 | 249 | 0 |
| Total | 0 | 439 | 3 | 0 | 442 | 0 | 0 | 0 | 0 | 0 | 10 | 472 | 0 | 0 | 482 | 2 | 0 | 30 | 0 | 32 | 956 | 0 |
| 17:00 | 0 | 119 | 1 | 0 | 120 | 0 | 0 | 0 | 0 | 0 | 5 | 110 | 0 | 0 | 115 | 1 | 0 | 11 | 0 | 12 | 247 | 0 |
| 17:15 | 0 | 124 | 0 | 0 | 124 | 0 | 0 | 0 | 0 | 0 | 2 | 146 | 0 | 0 | 148 | 2 | 0 | 5 | 0 | 7 | 279 | 0 |
| 17:30 | 0 | 123 | 0 | 0 | 123 | 0 | 0 | 0 | 0 | 0 | 1 | 108 | 0 | 0 | 109 | 1 | 0 | 2 | 0 | 3 | 235 | 0 |
| 17:45 | 0 | 124 | 0 | 0 | 124 | 0 | 0 | 0 | 0 | 0 | 0 | 122 | 0 | 0 | 122 | 0 | 0 | 1 | 0 | 1 | 247 | 0 |
| Total | 0 | 490 | 1 | 0 | 491 | 0 | 0 | 0 | 0 | 0 | 8 | 486 | 0 | 0 | 494 | 4 | 0 | 19 | 0 | 23 | 1008 | 0 |
| Grand Total | 0 | 1351 | 8 | 0 | 1359 | 0 | 0 | 0 | 0 | 0 | 31 | 1670 | 0 | 0 | 1701 | 8 | 0 | 61 | 0 | 69 | 3129 | 0 |
| Apprch % | 0.0% | 99.4% | 0.6% | 0.0% | | 0.0% | 0.0% | 0.0% | 0.0% | | 1.8% | 98.2% | 0.0% | 0.0% | | 11.6% | 0.0% | 88.4% | 0.0% | | | |
| Total % | 0.0% | 43.2% | 0.3% | 0.0% | 43.4% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | 1.0% | 53.4% | 0.0% | 0.0% | 54.4% | 0.3% | 0.0% | 1.9% | 0.0% | 2.2% | 100.0% | |

| **AM PEAK HOUR** | Sunnyvale Saratoga Road Southbound | | | | | Southeast Project Driveway Westbound | | | | | Sunnyvale Saratoga Road Northbound | | | | | Southeast Project Driveway Eastbound | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| START TIME | LEFT | THRU | RIGHT | UTURNS | APP.TOTAL | LEFT | THRU | RIGHT | UTURNS | APP.TOTAL | LEFT | THRU | RIGHT | UTURNS | APP.TOTAL | LEFT | THRU | RIGHT | UTURNS | APP.TOTAL | Total |
| Peak Hour Analysis From 08:00 to 09:00 | | | | | | | | | | | | | | | | | | | | | |
| Peak Hour For Entire Intersection Begins at 08:00 | | | | | | | | | | | | | | | | | | | | | |
| 8:00 | 0 | 59 | 0 | 0 | 59 | 0 | 0 | 0 | 0 | 0 | 3 | 107 | 0 | 0 | 110 | 1 | 0 | 3 | 0 | 4 | 173 |
| 8:15 | 0 | 65 | 1 | 0 | 66 | 0 | 0 | 0 | 0 | 0 | 0 | 100 | 0 | 0 | 100 | 0 | 0 | 3 | 0 | 3 | 169 |
| 8:30 | 0 | 60 | 0 | 0 | 60 | 0 | 0 | 0 | 0 | 0 | 3 | 111 | 0 | 0 | 114 | 1 | 0 | 3 | 0 | 4 | 178 |
| 8:45 | 0 | 72 | 1 | 0 | 73 | 0 | 0 | 0 | 0 | 0 | 2 | 107 | 0 | 0 | 109 | 0 | 0 | 3 | 0 | 3 | 185 |
| Total Volume | 0 | 256 | 2 | 0 | 258 | 0 | 0 | 0 | 0 | 0 | 8 | 425 | 0 | 0 | 433 | 2 | 0 | 12 | 0 | 14 | 705 |
| % App Total | 0.0% | 99.2% | 0.8% | 0.0% | | 0.0% | 0.0% | 0.0% | 0.0% | | 1.8% | 98.2% | 0.0% | 0.0% | | 14.3% | 0.0% | 85.7% | 0.0% | | |
| PHF | .000 | .889 | .500 | .000 | .884 | .000 | .000 | .000 | .000 | .000 | .667 | .957 | .000 | .000 | .950 | .500 | .000 | 1.000 | .000 | .875 | .953 |

| **PM PEAK HOUR** | Sunnyvale Saratoga Road Southbound | | | | | Southeast Project Driveway Westbound | | | | | Sunnyvale Saratoga Road Northbound | | | | | Southeast Project Driveway Eastbound | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| START TIME | LEFT | THRU | RIGHT | UTURNS | APP.TOTAL | LEFT | THRU | RIGHT | UTURNS | APP.TOTAL | LEFT | THRU | RIGHT | UTURNS | APP.TOTAL | LEFT | THRU | RIGHT | UTURNS | APP.TOTAL | Total |
| Peak Hour Analysis From 16:45 to 17:45 | | | | | | | | | | | | | | | | | | | | | |
| Peak Hour For Entire Intersection Begins at 16:45 | | | | | | | | | | | | | | | | | | | | | |
| 16:45 | 0 | 115 | 3 | 0 | 118 | 0 | 0 | 0 | 0 | 0 | 1 | 120 | 0 | 0 | 121 | 1 | 0 | 9 | 0 | 10 | 249 |
| 17:00 | 0 | 119 | 1 | 0 | 120 | 0 | 0 | 0 | 0 | 0 | 5 | 110 | 0 | 0 | 115 | 1 | 0 | 11 | 0 | 12 | 247 |
| 17:15 | 0 | 124 | 0 | 0 | 124 | 0 | 0 | 0 | 0 | 0 | 2 | 146 | 0 | 0 | 148 | 2 | 0 | 5 | 0 | 7 | 279 |
| 17:30 | 0 | 123 | 0 | 0 | 123 | 0 | 0 | 0 | 0 | 0 | 1 | 108 | 0 | 0 | 109 | 1 | 0 | 2 | 0 | 3 | 235 |
| Total Volume | 0 | 481 | 4 | 0 | 485 | 0 | 0 | 0 | 0 | 0 | 9 | 484 | 0 | 0 | 493 | 5 | 0 | 27 | 0 | 32 | 1010 |
| % App Total | 0.0% | 99.2% | 0.8% | 0.0% | | 0.0% | 0.0% | 0.0% | 0.0% | | 1.8% | 98.2% | 0.0% | 0.0% | | 15.6% | 0.0% | 84.4% | 0.0% | | |
| PHF | .000 | .970 | .333 | .000 | .978 | .000 | .000 | .000 | .000 | .000 | .450 | .829 | .000 | .000 | .833 | .625 | .000 | .614 | .000 | .667 | .905 |

# Volume Balance Worksheet




Kimley»Horn

NOT TO SCALE

FIGURE 5

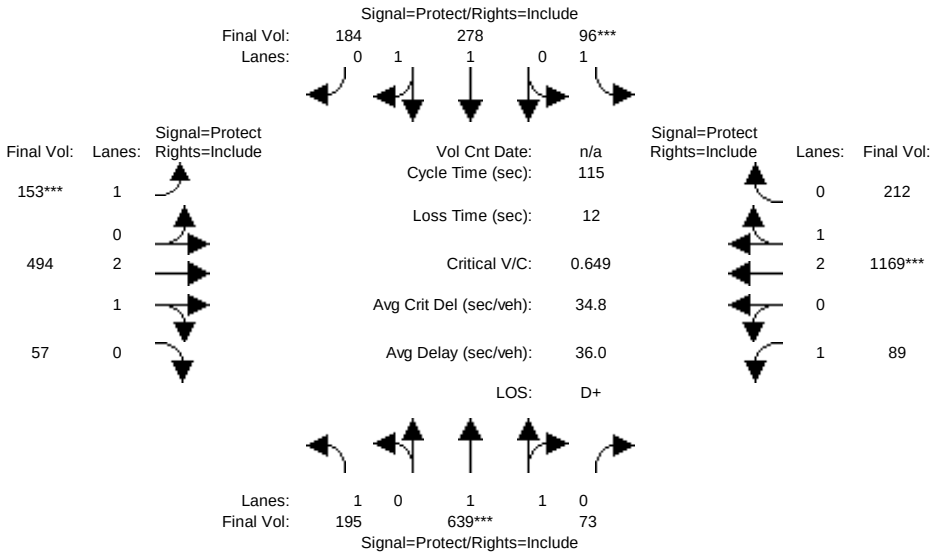
EXISTING (2015) CONDITION
PEAK HOUR TURNING MOVEMENT VOLUMES

# Existing Traffic Conditions

City of Sunnyvale
Oppidan Grocery Store (777 Sunnvyale-Saratoga Road)
097318104

Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex AM

## Intersection #1: S Mary Ave / El Camino Real




| Street Name: | S Mary Ave | | | | | | El Camino Real | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
| Movement: | L - | T - | R | L - | T - | R | L - | T - | R | L - | T - | R |
| Min. Green: | 7 | 10 | 10 | 7 | 10 | 10 | 7 | 10 | 10 | 7 | 10 | 10 |
| Y+R: | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 |
| Volume Module: | | | | | | | | | | | | |
| Base Vol: | 195 | 639 | 73 | 96 | 278 | 184 | 153 | 494 | 57 | 89 | 1169 | 212 |
| Growth 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 |
| Initial Bse: | 195 | 639 | 73 | 96 | 278 | 184 | 153 | 494 | 57 | 89 | 1169 | 212 |
| Added Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| PasserByVol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Initial Fut: | 195 | 639 | 73 | 96 | 278 | 184 | 153 | 494 | 57 | 89 | 1169 | 212 |
| User 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 |
| PHF 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 |
| PHF Volume: | 195 | 639 | 73 | 96 | 278 | 184 | 153 | 494 | 57 | 89 | 1169 | 212 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 195 | 639 | 73 | 96 | 278 | 184 | 153 | 494 | 57 | 89 | 1169 | 212 |
| PCE 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 |
| MLF 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 |
| FinalVolume: | 195 | 639 | 73 | 96 | 278 | 184 | 153 | 494 | 57 | 89 | 1169 | 212 |
| Saturation Flow Module: | | | | | | | | | | | | |
| Sat/Lane: | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adjustment: | 0.92 | 0.98 | 0.95 | 0.92 | 0.99 | 0.95 | 0.92 | 0.99 | 0.95 | 0.92 | 0.99 | 0.95 |
| Lanes: | 1.00 | 1.79 | 0.21 | 1.00 | 1.18 | 0.82 | 1.00 | 2.68 | 0.32 | 1.00 | 2.52 | 0.48 |
| Final Sat.: | 1750 | 3320 | 379 | 1750 | 2225 | 1473 | 1750 | 5020 | 579 | 1750 | 4739 | 859 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.11 | 0.19 | 0.19 | 0.05 | 0.12 | 0.12 | 0.09 | 0.10 | 0.10 | 0.05 | 0.25 | 0.25 |
| Crit Moves: | | **** | | **** | | | **** | | | | **** | |
| Green Time: | 20.7 | 34.1 | 34.1 | 9.7 | 23.2 | 23.2 | 15.5 | 36.6 | 36.6 | 22.6 | 43.7 | 43.7 |
| Volume/Cap: | 0.62 | 0.65 | 0.65 | 0.65 | 0.62 | 0.62 | 0.65 | 0.31 | 0.31 | 0.26 | 0.65 | 0.65 |
| Delay/Veh: | 47.3 | 36.6 | 36.6 | 60.7 | 43.5 | 43.5 | 53.4 | 29.8 | 29.8 | 39.5 | 30.1 | 30.1 |
| User DelAdj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| AdjDel/Veh: | 47.3 | 36.6 | 36.6 | 60.7 | 43.5 | 43.5 | 53.4 | 29.8 | 29.8 | 39.5 | 30.1 | 30.1 |
| LOS by Move: | D | D+ | D+ | E | D | D | D- | C | C | D | C | C |
| HCM2k95thQ: | 366 | 539 | 539 | 233 | 395 | 395 | 318 | 243 | 243 | 138 | 595 | 595 |

Note: Queue reported is the distance per lane in feet.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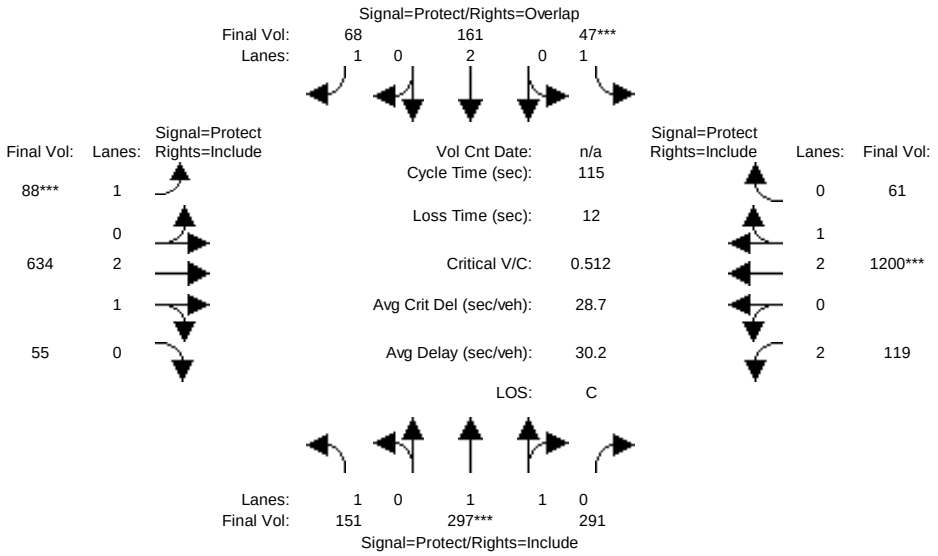
City of Sunnyvale
Oppidan Grocery Store (777 Sunnvyale-Saratoga Road)
097318104

Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex AM

## Intersection #2: S Pastoria Avenue / El Camino Real




| Street Name: | S Pastoria Avenue | | | | | | El Camino Real | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
| Movement: | L - | T - | R | L - | T - | R | L - | T - | R | L - | T - | R |
| Min. Green: | 7 | 10 | 10 | 7 | 10 | 10 | 7 | 10 | 10 | 7 | 10 | 10 |
| Y+R: | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 |
| Volume Module: | | | | | | | | | | | | |
| Base Vol: | 151 | 297 | 291 | 47 | 161 | 68 | 88 | 634 | 55 | 119 | 1200 | 61 |
| Growth 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 |
| Initial Bse: | 151 | 297 | 291 | 47 | 161 | 68 | 88 | 634 | 55 | 119 | 1200 | 61 |
| Added Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| PasserByVol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Initial Fut: | 151 | 297 | 291 | 47 | 161 | 68 | 88 | 634 | 55 | 119 | 1200 | 61 |
| User 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 |
| PHF 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 |
| PHF Volume: | 151 | 297 | 291 | 47 | 161 | 68 | 88 | 634 | 55 | 119 | 1200 | 61 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 151 | 297 | 291 | 47 | 161 | 68 | 88 | 634 | 55 | 119 | 1200 | 61 |
| PCE 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 |
| MLF 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 |
| FinalVolume: | 151 | 297 | 291 | 47 | 161 | 68 | 88 | 634 | 55 | 119 | 1200 | 61 |
| Saturation Flow Module: | | | | | | | | | | | | |
| Sat/Lane: | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adjustment: | 0.92 | 1.00 | 0.95 | 0.92 | 1.00 | 0.92 | 0.92 | 0.99 | 0.95 | 0.83 | 0.98 | 0.95 |
| Lanes: | 1.00 | 1.00 | 1.00 | 1.00 | 2.00 | 1.00 | 1.00 | 2.75 | 0.25 | 2.00 | 2.85 | 0.15 |
| Final Sat.: | 1750 | 1899 | 1800 | 1750 | 3800 | 1750 | 1750 | 5152 | 447 | 3150 | 5329 | 271 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.09 | 0.16 | 0.16 | 0.03 | 0.04 | 0.04 | 0.05 | 0.12 | 0.12 | 0.04 | 0.23 | 0.23 |
| Crit Moves: | | **** | | **** | | | **** | | | | **** | |
| Green Time: | 20.8 | 34.8 | 34.8 | 7.0 | 21.0 | 32.1 | 11.2 | 41.0 | 41.0 | 20.3 | 50.1 | 50.1 |
| Volume/Cap: | 0.48 | 0.52 | 0.53 | 0.44 | 0.23 | 0.14 | 0.52 | 0.35 | 0.35 | 0.21 | 0.52 | 0.52 |
| Delay/Veh: | 43.4 | 33.6 | 33.9 | 55.0 | 40.3 | 31.2 | 52.1 | 27.3 | 27.3 | 40.7 | 23.9 | 23.9 |
| User DelAdj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| AdjDel/Veh: | 43.4 | 33.6 | 33.9 | 55.0 | 40.3 | 31.2 | 52.1 | 27.3 | 27.3 | 40.7 | 23.9 | 23.9 |
| LOS by Move: | D | C- | C- | E+ | D | C | D- | C | C | D | C | C |
| HCM2k95thQ: | 270 | 415 | 431 | 117 | 126 | 98 | 160 | 281 | 281 | 103 | 476 | 476 |

Note: Queue reported is the distance per lane in feet.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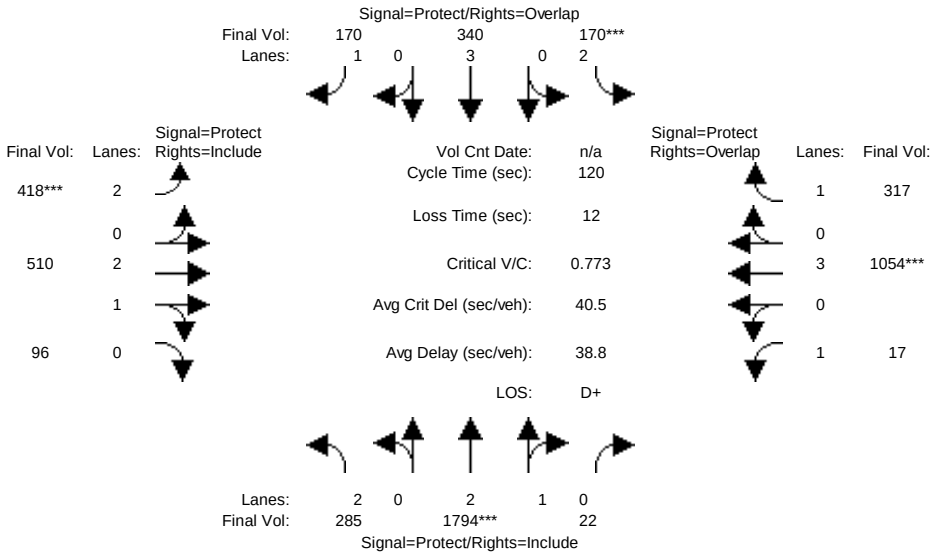
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex AM

## Intersection #3: S. Mathilda Avenue / El Camino Real




| Street Name: | S. Mathilda Avenue | | | | | | El Camino Real | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
| Movement: | L - | T - | R | L - | T - | R | L - | T - | R | L - | T - | R |
| Min. Green: | 7 | 10 | 10 | 7 | 10 | 10 | 7 | 10 | 10 | 7 | 10 | 10 |
| Y+R: | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 |
| Volume Module: | | | | | | | | | | | | |
| Base Vol: | 285 | 1794 | 22 | 170 | 340 | 170 | 418 | 510 | 96 | 17 | 1054 | 317 |
| Growth 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 |
| Initial Bse: | 285 | 1794 | 22 | 170 | 340 | 170 | 418 | 510 | 96 | 17 | 1054 | 317 |
| Added Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| PasserByVol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Initial Fut: | 285 | 1794 | 22 | 170 | 340 | 170 | 418 | 510 | 96 | 17 | 1054 | 317 |
| User 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 |
| PHF 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 |
| PHF Volume: | 285 | 1794 | 22 | 170 | 340 | 170 | 418 | 510 | 96 | 17 | 1054 | 317 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 285 | 1794 | 22 | 170 | 340 | 170 | 418 | 510 | 96 | 17 | 1054 | 317 |
| PCE 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 |
| MLF 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 |
| FinalVolume: | 285 | 1794 | 22 | 170 | 340 | 170 | 418 | 510 | 96 | 17 | 1054 | 317 |
| Saturation Flow Module: | | | | | | | | | | | | |
| Sat/Lane: | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adjustment: | 0.83 | 0.98 | 0.95 | 0.83 | 1.00 | 0.92 | 0.83 | 0.99 | 0.95 | 0.92 | 1.00 | 0.92 |
| Lanes: | 2.00 | 2.96 | 0.04 | 2.00 | 3.00 | 1.00 | 2.00 | 2.51 | 0.49 | 1.00 | 3.00 | 1.00 |
| Final Sat.: | 3150 | 5532 | 68 | 3150 | 5700 | 1750 | 3150 | 4712 | 887 | 1750 | 5700 | 1750 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.09 | 0.32 | 0.32 | 0.05 | 0.06 | 0.10 | 0.13 | 0.11 | 0.11 | 0.01 | 0.18 | 0.18 |
| Crit Moves: | | **** | | **** | | | **** | | | | **** | |
| Green Time: | 30.6 | 50.3 | 50.3 | 8.4 | 28.1 | 48.7 | 20.6 | 32.0 | 32.0 | 17.3 | 28.7 | 37.1 |
| Volume/Cap: | 0.36 | 0.77 | 0.77 | 0.77 | 0.25 | 0.24 | 0.77 | 0.41 | 0.41 | 0.07 | 0.77 | 0.59 |
| Delay/Veh: | 36.9 | 31.6 | 31.6 | 70.4 | 37.5 | 23.6 | 54.3 | 36.3 | 36.3 | 44.5 | 45.4 | 36.7 |
| User DelAdj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| AdjDel/Veh: | 36.9 | 31.6 | 31.6 | 70.4 | 37.5 | 23.6 | 54.3 | 36.3 | 36.3 | 44.5 | 45.4 | 36.7 |
| LOS by Move: | D+ | C | C | E | D+ | C | D- | D+ | D+ | D | D | D+ |
| HCM2k95thQ: | 255 | 873 | 873 | 268 | 170 | 215 | 429 | 289 | 289 | 29 | 557 | 479 |

Note: Queue reported is the distance per lane in feet.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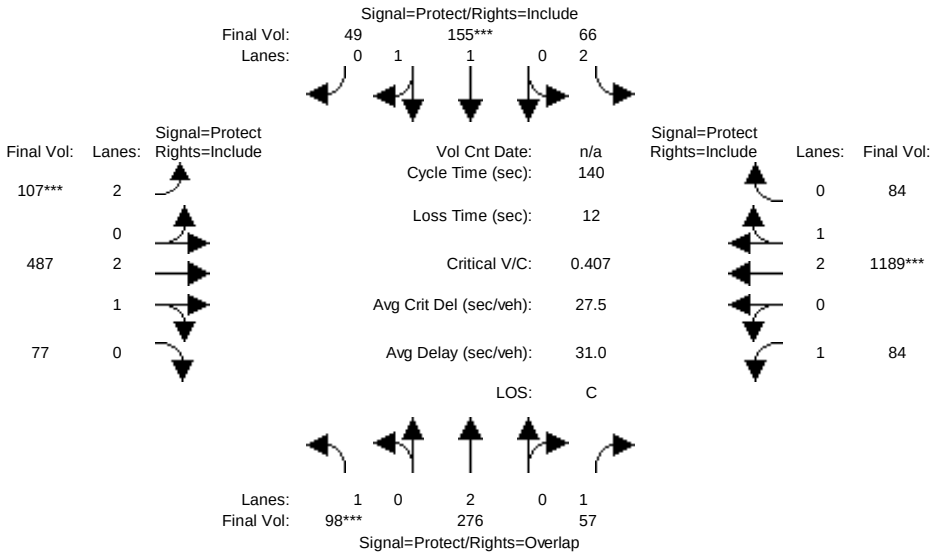
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex AM

## Intersection #4: S. Sunnyvale Avenue / El Camino Real




| Street Name: | S. Sunnyvale Avenue | | | | | | El Camino Real | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
| Movement: | L - | T - | R | L - | T - | R | L - | T - | R | L - | T - | R |
| Min. Green: | 7 | 10 | 10 | 7 | 10 | 10 | 7 | 10 | 10 | 7 | 10 | 10 |
| Y+R: | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 |
| Volume Module: | | | | | | | | | | | | |
| Base Vol: | 98 | 276 | 57 | 66 | 155 | 49 | 107 | 487 | 77 | 84 | 1189 | 84 |
| Growth 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 |
| Initial Bse: | 98 | 276 | 57 | 66 | 155 | 49 | 107 | 487 | 77 | 84 | 1189 | 84 |
| Added Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| PasserByVol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Initial Fut: | 98 | 276 | 57 | 66 | 155 | 49 | 107 | 487 | 77 | 84 | 1189 | 84 |
| User 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 |
| PHF 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 |
| PHF Volume: | 98 | 276 | 57 | 66 | 155 | 49 | 107 | 487 | 77 | 84 | 1189 | 84 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 98 | 276 | 57 | 66 | 155 | 49 | 107 | 487 | 77 | 84 | 1189 | 84 |
| PCE 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 |
| MLF 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 |
| FinalVolume: | 98 | 276 | 57 | 66 | 155 | 49 | 107 | 487 | 77 | 84 | 1189 | 84 |
| Saturation Flow Module: | | | | | | | | | | | | |
| Sat/Lane: | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adjustment: | 0.92 | 1.00 | 0.92 | 0.83 | 0.98 | 0.95 | 0.83 | 0.99 | 0.95 | 0.92 | 0.98 | 0.95 |
| Lanes: | 1.00 | 2.00 | 1.00 | 2.00 | 1.51 | 0.49 | 2.00 | 2.58 | 0.42 | 1.00 | 2.79 | 0.21 |
| Final Sat.: | 1750 | 3800 | 1750 | 3150 | 2811 | 889 | 3150 | 4834 | 764 | 1750 | 5230 | 369 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.06 | 0.07 | 0.03 | 0.02 | 0.06 | 0.06 | 0.03 | 0.10 | 0.10 | 0.05 | 0.23 | 0.23 |
| Crit Moves: | **** | | | | **** | | **** | | | | **** | |
| Green Time: | 19.2 | 22.6 | 52.4 | 15.6 | 19.0 | 19.0 | 11.7 | 60.0 | 60.0 | 29.8 | 78.1 | 78.1 |
| Volume/Cap: | 0.41 | 0.45 | 0.09 | 0.19 | 0.41 | 0.41 | 0.41 | 0.23 | 0.23 | 0.23 | 0.41 | 0.41 |
| Delay/Veh: | 56.3 | 53.6 | 28.4 | 56.7 | 55.9 | 55.9 | 61.9 | 25.5 | 25.5 | 45.9 | 17.8 | 17.8 |
| User DelAdj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| AdjDel/Veh: | 56.3 | 53.6 | 28.4 | 56.7 | 55.9 | 55.9 | 61.9 | 25.5 | 25.5 | 45.9 | 17.8 | 17.8 |
| LOS by Move: | E+ | D- | C | E+ | E+ | E+ | E | C | C | D | B | B |
| HCM2k95thQ: | 219 | 273 | 85 | 84 | 216 | 216 | 130 | 242 | 242 | 154 | 470 | 470 |

Note: Queue reported is the distance per lane in feet.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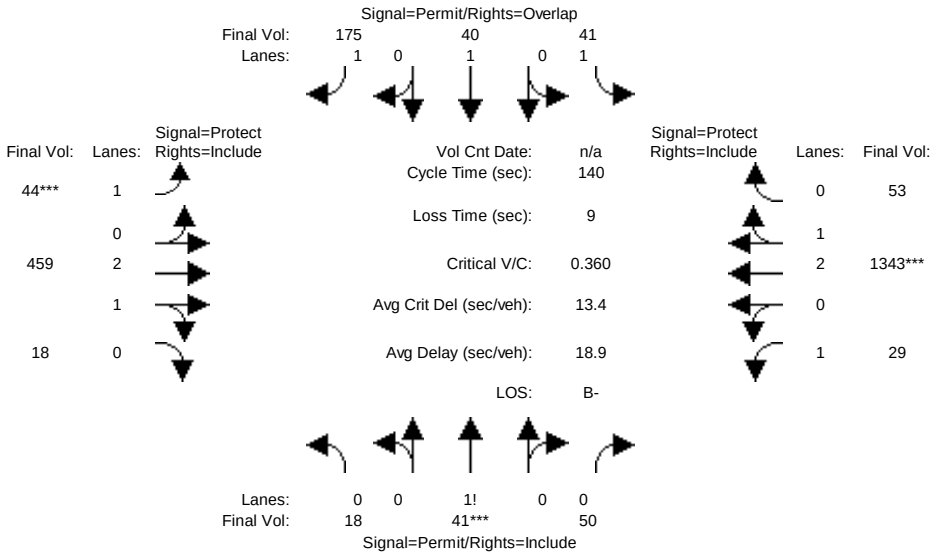
2000 HCM Operations (Future Volume Alternative)
Ex AM

## Intersection #5: Cezanne Drive / El Camino Real




| Street Name: | Cezanne Drive | | | | | | El Camino Real | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
| Movement: | L - | T - | R | L - | T - | R | L - | T - | R | L - | T - | R |
| Min. Green: | 10 | 10 | 10 | 10 | 10 | 10 | 7 | 10 | 10 | 7 | 10 | 10 |
| Y+R: | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 |
| Volume Module: | | | | | | | | | | | | |
| Base Vol: | 18 | 41 | 50 | 41 | 40 | 175 | 44 | 459 | 18 | 29 | 1343 | 53 |
| Growth 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 |
| Initial Bse: | 18 | 41 | 50 | 41 | 40 | 175 | 44 | 459 | 18 | 29 | 1343 | 53 |
| Added Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| PasserByVol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Initial Fut: | 18 | 41 | 50 | 41 | 40 | 175 | 44 | 459 | 18 | 29 | 1343 | 53 |
| User 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 |
| PHF 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 |
| PHF Volume: | 18 | 41 | 50 | 41 | 40 | 175 | 44 | 459 | 18 | 29 | 1343 | 53 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 18 | 41 | 50 | 41 | 40 | 175 | 44 | 459 | 18 | 29 | 1343 | 53 |
| PCE 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 |
| MLF 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 |
| FinalVolume: | 18 | 41 | 50 | 41 | 40 | 175 | 44 | 459 | 18 | 29 | 1343 | 53 |
| Saturation Flow Module: | | | | | | | | | | | | |
| Sat/Lane: | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adjustment: | 0.92 | 0.92 | 0.92 | 0.92 | 1.00 | 0.92 | 0.92 | 0.98 | 0.95 | 0.92 | 0.98 | 0.95 |
| Lanes: | 0.16 | 0.38 | 0.46 | 1.00 | 1.00 | 1.00 | 1.00 | 2.88 | 0.12 | 1.00 | 2.88 | 0.12 |
| Final Sat.: | 289 | 658 | 803 | 1750 | 1900 | 1750 | 1750 | 5388 | 211 | 1750 | 5387 | 213 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.06 | 0.06 | 0.06 | 0.02 | 0.02 | 0.10 | 0.03 | 0.09 | 0.09 | 0.02 | 0.25 | 0.25 |
| Crit Moves: | | **** | | | | | **** | | | | **** | |
| Green Time: | 24.2 | 24.2 | 24.2 | 24.2 | 24.2 | 34.0 | 9.8 | 67.3 | 67.3 | 39.5 | 97.0 | 97.0 |
| Volume/Cap: | 0.36 | 0.36 | 0.36 | 0.14 | 0.12 | 0.41 | 0.36 | 0.18 | 0.18 | 0.06 | 0.36 | 0.36 |
| Delay/Veh: | 51.8 | 51.8 | 51.8 | 49.2 | 49.1 | 45.2 | 63.9 | 20.7 | 20.7 | 36.7 | 8.9 | 8.9 |
| User DelAdj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| AdjDel/Veh: | 51.8 | 51.8 | 51.8 | 49.2 | 49.1 | 45.2 | 63.9 | 20.7 | 20.7 | 36.7 | 8.9 | 8.9 |
| LOS by Move: | D- | D- | D- | D | D | D | E | C+ | C+ | D+ | A | A |
| HCM2k95thQ: | 226 | 226 | 226 | 83 | 75 | 329 | 98 | 186 | 186 | 49 | 381 | 381 |

Note: Queue reported is the distance per lane in feet.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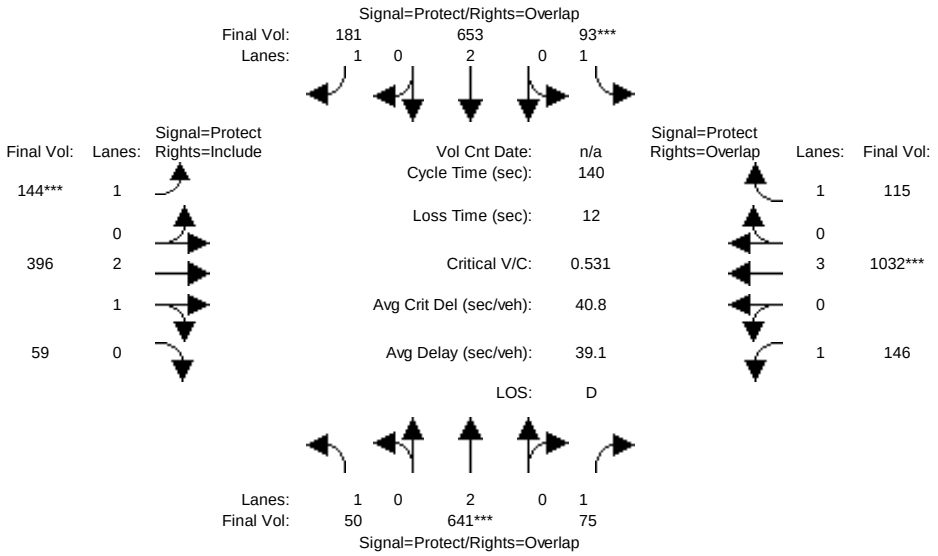
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex AM

## Intersection #6: S. Fair Oaks Avenue / El Camino Real




| Street Name: | S. Fair Oaks Avenue | | | | | | El Camino Real | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
| Movement: | L - | T - | R | L - | T - | R | L - | T - | R | L - | T - | R |
| Min. Green: | 7 | 10 | 10 | 7 | 10 | 10 | 7 | 10 | 10 | 7 | 10 | 10 |
| Y+R: | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 |
| Volume Module: | | | | | | | | | | | | |
| Base Vol: | 50 | 641 | 75 | 93 | 653 | 181 | 144 | 396 | 59 | 146 | 1032 | 115 |
| Growth 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 |
| Initial Bse: | 50 | 641 | 75 | 93 | 653 | 181 | 144 | 396 | 59 | 146 | 1032 | 115 |
| Added Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| PasserByVol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Initial Fut: | 50 | 641 | 75 | 93 | 653 | 181 | 144 | 396 | 59 | 146 | 1032 | 115 |
| User 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 |
| PHF 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 |
| PHF Volume: | 50 | 641 | 75 | 93 | 653 | 181 | 144 | 396 | 59 | 146 | 1032 | 115 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 50 | 641 | 75 | 93 | 653 | 181 | 144 | 396 | 59 | 146 | 1032 | 115 |
| PCE 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 |
| MLF 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 |
| FinalVolume: | 50 | 641 | 75 | 93 | 653 | 181 | 144 | 396 | 59 | 146 | 1032 | 115 |
| Saturation Flow Module: | | | | | | | | | | | | |
| Sat/Lane: | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adjustment: | 0.92 | 1.00 | 0.92 | 0.92 | 1.00 | 0.92 | 0.92 | 0.99 | 0.95 | 0.92 | 1.00 | 0.92 |
| Lanes: | 1.00 | 2.00 | 1.00 | 1.00 | 2.00 | 1.00 | 1.00 | 2.60 | 0.40 | 1.00 | 3.00 | 1.00 |
| Final Sat.: | 1750 | 3800 | 1750 | 1750 | 3800 | 1750 | 1750 | 4873 | 726 | 1750 | 5700 | 1750 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.03 | 0.17 | 0.04 | 0.05 | 0.17 | 0.10 | 0.08 | 0.08 | 0.08 | 0.08 | 0.18 | 0.07 |
| Crit Moves: | | **** | | **** | | | **** | | | | **** | |
| Green Time: | 13.2 | 44.5 | 79.7 | 14.0 | 45.3 | 67.0 | 21.7 | 34.3 | 34.3 | 35.2 | 47.8 | 61.8 |
| Volume/Cap: | 0.30 | 0.53 | 0.08 | 0.53 | 0.53 | 0.22 | 0.53 | 0.33 | 0.33 | 0.33 | 0.53 | 0.15 |
| Delay/Veh: | 60.2 | 39.6 | 13.6 | 62.9 | 39.1 | 21.3 | 56.5 | 43.6 | 43.6 | 43.2 | 37.4 | 23.5 |
| User DelAdj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| AdjDel/Veh: | 60.2 | 39.6 | 13.6 | 62.9 | 39.1 | 21.3 | 56.5 | 43.6 | 43.6 | 43.2 | 37.4 | 23.5 |
| LOS by Move: | E | D | B | E | D | C+ | E+ | D | D | D | D+ | C |
| HCM2k95thQ: | 121 | 515 | 77 | 234 | 521 | 231 | 293 | 254 | 254 | 268 | 537 | 154 |

Note: Queue reported is the distance per lane in feet.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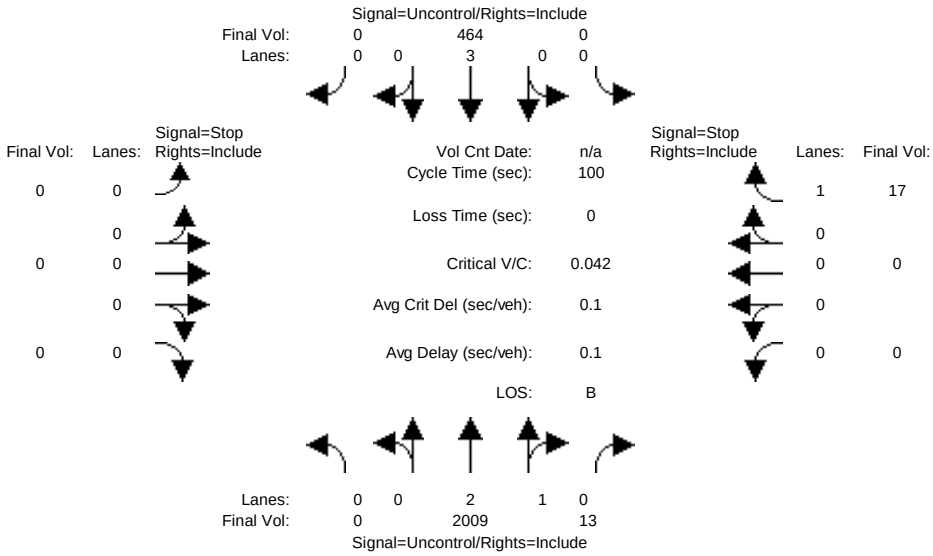
097318104

Level Of Service Computation Report
2000 HCM Unsignalized (Future Volume Alternative)
Ex AM

## Intersection #7: S Mathilda Ave / Southwest Project Driveway

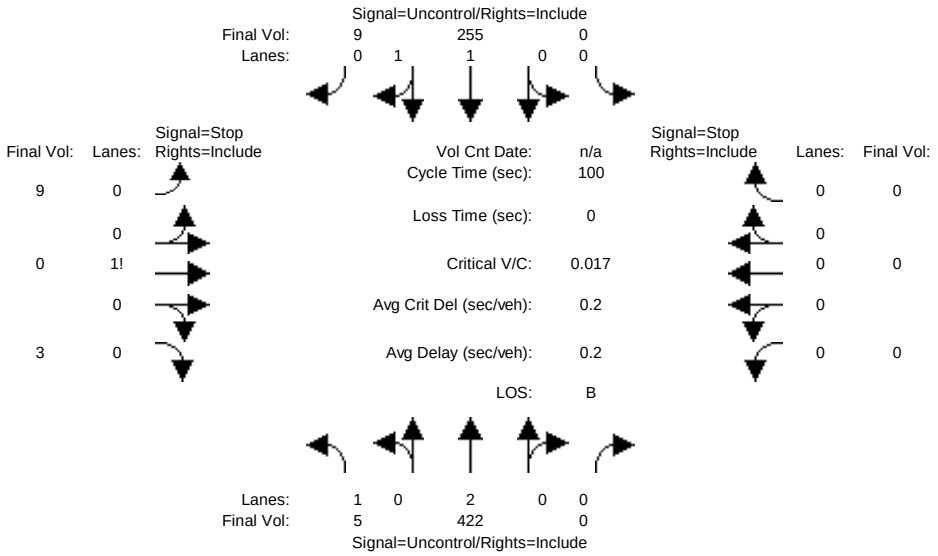



```
Street Name:        S Mathilda Avenue             SouthwestProject Driveway
Approach:      North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Volume Module:
Base Vol:       0 2009    13     0  464     0     0    0     0     0    0    17
Growth 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
Initial Bse:    0 2009    13     0  464     0     0    0     0     0    0    17
Added Vol:      0    0     0     0    0     0     0    0     0     0    0     0
PasserByVol:    0    0     0     0    0     0     0    0     0     0    0     0
Initial Fut:    0 2009    13     0  464     0     0    0     0     0    0    17
User 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
PHF 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
PHF Volume:     0 2009    13     0  464     0     0    0     0     0    0    17
Reduct Vol:     0    0     0     0    0     0     0    0     0     0    0     0
FinalVolume:    0 2009    13     0  464     0     0    0     0     0    0    17
------------|---------------||---------------||---------------||---------------|
Critical Gap Module:
Critical Gp:xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx   6.9
FollowUpTim:xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx   3.3
------------|---------------||---------------||---------------||---------------|
Capacity Module:
Cnflict Vol: xxxx xxxx xxxxx  xxxx xxxx xxxxx  xxxx xxxx xxxxx  xxxx xxxx   676
Potent Cap.: xxxx xxxx xxxxx  xxxx xxxx xxxxx  xxxx xxxx xxxxx  xxxx xxxx   401
Move Cap.:   xxxx xxxx xxxxx  xxxx xxxx xxxxx  xxxx xxxx xxxxx  xxxx xxxx   401
Volume/Cap:  xxxx xxxx  xxxx  xxxx xxxx  xxxx  xxxx xxxx  xxxx  xxxx xxxx  0.04
------------|---------------||---------------||---------------||---------------|
Level Of Service Module:
2Way95thQ:   xxxx xxxx xxxxx  xxxx xxxx xxxxx  xxxx xxxx xxxxx  xxxx xxxx   3.3
Control Del:xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx  14.4
LOS by Move:    *    *     *     *    *     *     *    *     *     *    *     B
Movement:     LT - LTR - RT    LT - LTR - RT    LT - LTR - RT    LT - LTR - RT
Shared Cap.: xxxx xxxx xxxxx  xxxx xxxx xxxxx  xxxx xxxx xxxxx  xxxx xxxx xxxxx
SharedQueue:xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx
Shrd ConDel:xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx
Shared LOS:     *    *     *     *    *     *     *    *     *     *    *     *
ApproachDel:    xxxxxx            xxxxxx            xxxxxx             14.4
ApproachLOS:         *                 *                 *                B
Note: Queue reported is the distance per lane in feet.
                     Peak Hour Delay Signal Warrant Report
*******************************************************************************
Intersection #7 S Mathilda Ave / Southwest Project Driveway
*******************************************************************************
```

City of Sunnyvale
Oppidan Grocery Store (777 Sunnvyale-Saratoga Road)
097318104

Level Of Service Computation Report
2000 HCM Unsignalized (Future Volume Alternative)
Ex AM

## Intersection #8: Sunnyvale-Saratoga Road / East Project Driveway




```
Street Name:     Sunnyvale-Saratoga Road            East Project Driveway
Approach:      North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Volume Module:
Base Vol:       5  422     0     0  255     9     9    0     3     0    0     0
Growth 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
Initial Bse:    5  422     0     0  255     9     9    0     3     0    0     0
Added Vol:      0    0     0     0    0     0     0    0     0     0    0     0
PasserByVol:    0    0     0     0    0     0     0    0     0     0    0     0
Initial Fut:    5  422     0     0  255     9     9    0     3     0    0     0
User 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
PHF 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
PHF Volume:     5  422     0     0  255     9     9    0     3     0    0     0
Reduct Vol:     0    0     0     0    0     0     0    0     0     0    0     0
FinalVolume:    5  422     0     0  255     9     9    0     3     0    0     0
------------|---------------||---------------||---------------||---------------|
Critical Gap Module:
Critical Gp:  4.1 xxxx xxxxx xxxxx xxxx xxxxx   6.8  6.5   6.9 xxxxx xxxx xxxxx
FollowUpTim:  2.2 xxxx xxxxx xxxxx xxxx xxxxx   3.5  4.0   3.3 xxxxx xxxx xxxxx
------------|---------------||---------------||---------------||---------------|
Capacity Module:
Cnflict Vol:  264 xxxx xxxxx  xxxx xxxx xxxxx   481  692   132  xxxx xxxx xxxxx
Potent Cap.: 1312 xxxx xxxxx  xxxx xxxx xxxxx   519  370   899  xxxx xxxx xxxxx
Move Cap.:   1312 xxxx xxxxx  xxxx xxxx xxxxx   518  369   899  xxxx xxxx xxxxx
Volume/Cap:  0.00 xxxx  xxxx  xxxx xxxx  xxxx  0.02 0.00  0.00  xxxx xxxx  xxxx
------------|---------------||---------------||---------------||---------------|
Level Of Service Module:
2Way95thQ:    0.3 xxxx xxxxx  xxxx xxxx xxxxx  xxxx xxxx xxxxx  xxxx xxxx xxxxx
Control Del:  7.8 xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx
LOS by Move:    A     *     *     *    *     *     *    *     *     *    *     *
Movement:     LT - LTR - RT    LT - LTR - RT    LT - LTR - RT    LT - LTR - RT
Shared Cap.: xxxx xxxx xxxxx  xxxx xxxx xxxxx  xxxx  579 xxxxx  xxxx xxxx xxxxx
SharedQueue:xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx  0.1 xxxxx xxxxx xxxx xxxxx
Shrd ConDel:xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx 11.3 xxxxx xxxxx xxxx xxxxx
Shared LOS:     *    *     *     *    *     *     *    B     *     *    *     *
ApproachDel:    xxxxxx            xxxxxx             11.3           xxxxxx
ApproachLOS:         *                 *                B                *
Note: Queue reported is the distance per lane in feet.
                     Peak Hour Delay Signal Warrant Report
*******************************************************************************
Intersection #8 Sunnyvale-Saratoga Road / East Project Driveway
*******************************************************************************
```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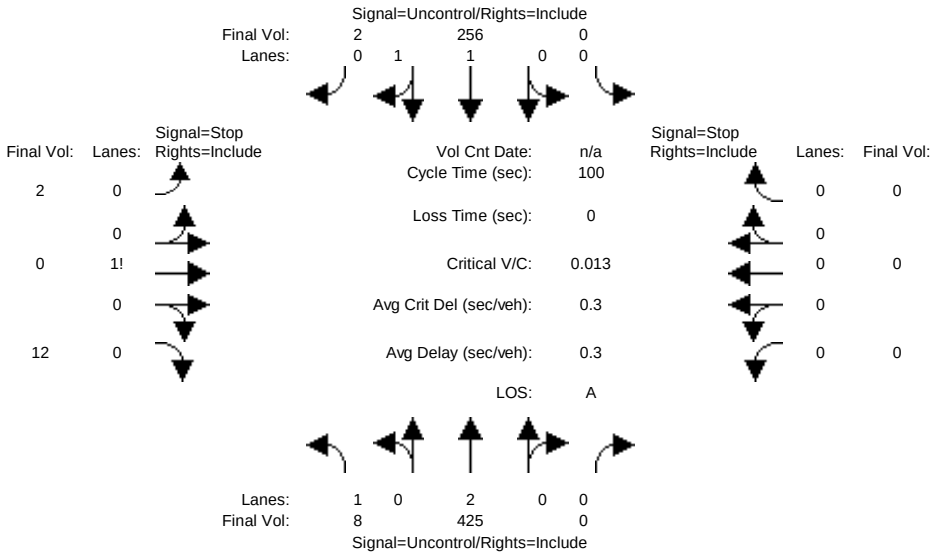
City of Sunnyvale
Oppidan Grocery Store (777 Sunnvyale-Saratoga Road)
097318104

Level Of Service Computation Report
2000 HCM Unsignalized (Future Volume Alternative)
Ex AM

## Intersection #9: Sunnyvale-Saratoga Road / Southeast Project Driveway




```
Street Name:     Sunnyvale-Saratoga Road          Southeast Project Driveway
Approach:      North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Volume Module:
Base Vol:       8  425     0     0  256     2     2    0    12     0    0     0
Growth 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
Initial Bse:    8  425     0     0  256     2     2    0    12     0    0     0
Added Vol:      0    0     0     0    0     0     0    0     0     0    0     0
PasserByVol:    0    0     0     0    0     0     0    0     0     0    0     0
Initial Fut:    8  425     0     0  256     2     2    0    12     0    0     0
User 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
PHF 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
PHF Volume:     8  425     0     0  256     2     2    0    12     0    0     0
Reduct Vol:     0    0     0     0    0     0     0    0     0     0    0     0
FinalVolume:    8  425     0     0  256     2     2    0    12     0    0     0
------------|---------------||---------------||---------------||---------------|
Critical Gap Module:
Critical Gp:  4.1 xxxx xxxxx xxxxx xxxx xxxxx   6.8  6.5   6.9 xxxxx xxxx xxxxx
FollowUpTim:  2.2 xxxx xxxxx xxxxx xxxx xxxxx   3.5  4.0   3.3 xxxxx xxxx xxxxx
------------|---------------||---------------||---------------||---------------|
Capacity Module:
Cnflict Vol:  258 xxxx xxxxx  xxxx xxxx xxxxx   486  698   129  xxxx xxxx xxxxx
Potent Cap.: 1318 xxxx xxxxx  xxxx xxxx xxxxx   516  367   903  xxxx xxxx xxxxx
Move Cap.:   1318 xxxx xxxxx  xxxx xxxx xxxxx   513  365   903  xxxx xxxx xxxxx
Volume/Cap:  0.01 xxxx  xxxx  xxxx xxxx  xxxx  0.00 0.00  0.01  xxxx xxxx  xxxx
------------|---------------||---------------||---------------||---------------|
Level Of Service Module:
2Way95thQ:    0.5 xxxx xxxxx  xxxx xxxx xxxxx  xxxx xxxx xxxxx  xxxx xxxx xxxxx
Control Del:  7.7 xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx
LOS by Move:    A    *     *     *    *     *     *    *     *     *    *     *
Movement:     LT - LTR - RT    LT - LTR - RT    LT - LTR - RT    LT - LTR - RT
Shared Cap.: xxxx xxxx xxxxx  xxxx xxxx xxxxx  xxxx  815 xxxxx  xxxx xxxx xxxxx
SharedQueue:xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx  0.1 xxxxx xxxxx xxxx xxxxx
Shrd ConDel:xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx  9.5 xxxxx xxxxx xxxx xxxxx
Shared LOS:     *    *     *     *    *     *     *    A     *     *    *     *
ApproachDel:    xxxxxx           xxxxxx              9.5          xxxxxx
ApproachLOS:         *                *               A                *
Note: Queue reported is the distance per lane in feet.
                     Peak Hour Delay Signal Warrant Report
*******************************************************************************
Intersection #9 Sunnyvale-Saratoga Road / Southeast Project Driveway
*******************************************************************************
```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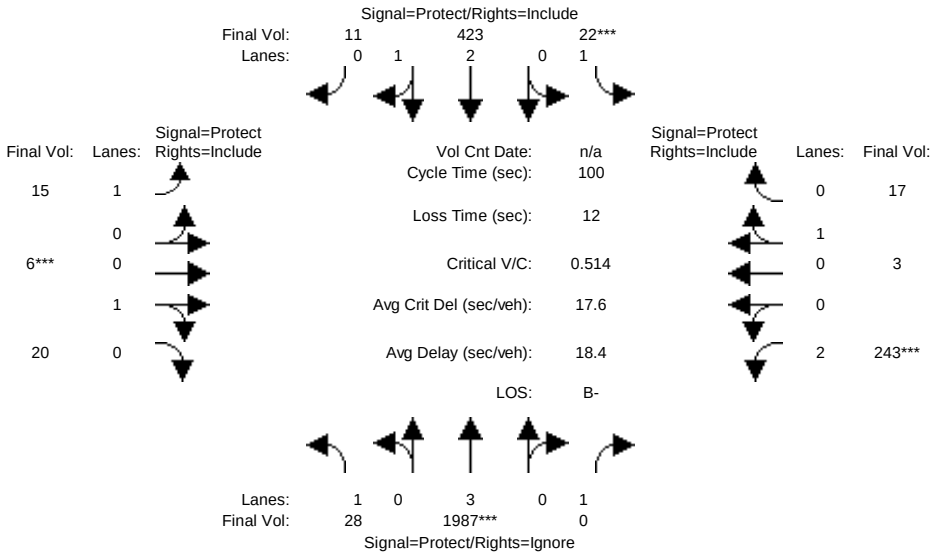
City of Sunnyvale
Oppidan Grocery Store (777 Sunnvyale-Saratoga Road)
097318104

Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex AM

## Intersection #10: S Mathilda Ave - Sunnyvale-Saratoga Rd / Talisman Dr - Sunnvyale-Saratoga Rd




Street Name:S Mathilda Ave - Sunnyvale-Sarato Talisman Dr - Sunnyvale-Saratoga

| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Movement: | L - | T - | R | L - | T - | R | L - | T - | R | L - | T - | R |
| Min. Green: | 7 | 10 | 10 | 7 | 10 | 10 | 7 | 10 | 10 | 7 | 10 | 10 |
| Y+R: | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 |
| Volume Module: | | | | | | | | | | | | |
| Base Vol: | 28 | 1987 | 467 | 22 | 423 | 11 | 15 | 6 | 20 | 243 | 3 | 17 |
| Growth 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 |
| Initial Bse: | 28 | 1987 | 467 | 22 | 423 | 11 | 15 | 6 | 20 | 243 | 3 | 17 |
| Added Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| PasserByVol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Initial Fut: | 28 | 1987 | 467 | 22 | 423 | 11 | 15 | 6 | 20 | 243 | 3 | 17 |
| User Adj: | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj: | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume: | 28 | 1987 | 0 | 22 | 423 | 11 | 15 | 6 | 20 | 243 | 3 | 17 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 28 | 1987 | 0 | 22 | 423 | 11 | 15 | 6 | 20 | 243 | 3 | 17 |
| PCE Adj: | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj: | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| FinalVolume: | 28 | 1987 | 0 | 22 | 423 | 11 | 15 | 6 | 20 | 243 | 3 | 17 |
| Saturation Flow Module: | | | | | | | | | | | | |
| Sat/Lane: | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adjustment: | 0.92 | 1.00 | 0.92 | 0.92 | 0.98 | 0.95 | 0.92 | 0.95 | 0.95 | 0.83 | 0.95 | 0.95 |
| Lanes: | 1.00 | 3.00 | 1.00 | 1.00 | 2.92 | 0.08 | 1.00 | 0.23 | 0.77 | 2.00 | 0.15 | 0.85 |
| Final Sat.: | 1750 | 5700 | 1750 | 1750 | 5458 | 142 | 1750 | 415 | 1385 | 3150 | 270 | 1530 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.02 | 0.35 | 0.00 | 0.01 | 0.08 | 0.08 | 0.01 | 0.01 | 0.01 | 0.08 | 0.01 | 0.01 |
| Crit Moves: | | **** | | **** | | | | **** | | **** | | |
| Green Time: | 26.8 | 58.1 | 0.0 | 7.0 | 38.3 | 38.3 | 9.4 | 10.0 | 10.0 | 12.9 | 13.5 | 13.5 |
| Volume/Cap: | 0.06 | 0.60 | 0.00 | 0.18 | 0.20 | 0.20 | 0.09 | 0.14 | 0.14 | 0.60 | 0.08 | 0.08 |
| Delay/Veh: | 27.3 | 13.8 | 0.0 | 44.5 | 20.7 | 20.7 | 41.6 | 41.5 | 41.5 | 43.6 | 38.0 | 38.0 |
| User DelAdj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| AdjDel/Veh: | 27.3 | 13.8 | 0.0 | 44.5 | 20.7 | 20.7 | 41.6 | 41.5 | 41.5 | 43.6 | 38.0 | 38.0 |
| LOS by Move: | C | B | A | D | C+ | C+ | D | D | D | D | D+ | D+ |
| HCM2k95thQ: | 34 | 581 | 0 | 44 | 150 | 150 | 27 | 45 | 45 | 253 | 31 | 31 |

Note: Queue reported is the distance per lane in feet.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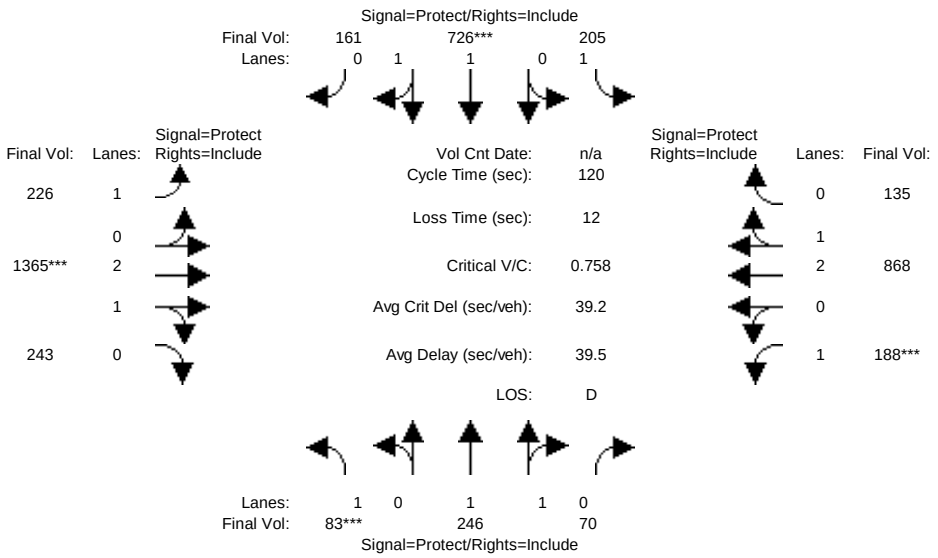
City of Sunnyvale
Oppidan Grocery Store (777 Sunnvyale-Saratoga Road)
097318104

Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex PM

## Intersection #1: S Mary Ave / El Camino Real




| Street Name: | S Mary Ave | | | | | | El Camino Real | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
| Movement: | L - | T - | R | L - | T - | R | L - | T - | R | L - | T - | R |
| Min. Green: | 7 | 10 | 10 | 7 | 10 | 10 | 7 | 10 | 10 | 7 | 10 | 10 |
| Y+R: | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 |
| Volume Module: | | | | | | | | | | | | |
| Base Vol: | 83 | 246 | 70 | 205 | 726 | 161 | 226 | 1365 | 243 | 188 | 868 | 135 |
| Growth 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 |
| Initial Bse: | 83 | 246 | 70 | 205 | 726 | 161 | 226 | 1365 | 243 | 188 | 868 | 135 |
| Added Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| PasserByVol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Initial Fut: | 83 | 246 | 70 | 205 | 726 | 161 | 226 | 1365 | 243 | 188 | 868 | 135 |
| User 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 |
| PHF 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 |
| PHF Volume: | 83 | 246 | 70 | 205 | 726 | 161 | 226 | 1365 | 243 | 188 | 868 | 135 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 83 | 246 | 70 | 205 | 726 | 161 | 226 | 1365 | 243 | 188 | 868 | 135 |
| PCE 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 |
| MLF 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 |
| FinalVolume: | 83 | 246 | 70 | 205 | 726 | 161 | 226 | 1365 | 243 | 188 | 868 | 135 |
| Saturation Flow Module: | | | | | | | | | | | | |
| Sat/Lane: | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adjustment: | 0.92 | 0.98 | 0.95 | 0.92 | 0.98 | 0.95 | 0.92 | 0.99 | 0.95 | 0.92 | 0.99 | 0.95 |
| Lanes: | 1.00 | 1.54 | 0.46 | 1.00 | 1.63 | 0.37 | 1.00 | 2.53 | 0.47 | 1.00 | 2.58 | 0.42 |
| Final Sat.: | 1750 | 2880 | 819 | 1750 | 3028 | 671 | 1750 | 4753 | 846 | 1750 | 4845 | 754 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.05 | 0.09 | 0.09 | 0.12 | 0.24 | 0.24 | 0.13 | 0.29 | 0.29 | 0.11 | 0.18 | 0.18 |
| Crit Moves: | **** | | | | **** | | | **** | | **** | | |
| Green Time: | 7.5 | 19.2 | 19.2 | 26.3 | 38.0 | 38.0 | 26.2 | 45.5 | 45.5 | 17.0 | 36.3 | 36.3 |
| Volume/Cap: | 0.76 | 0.53 | 0.53 | 0.53 | 0.76 | 0.76 | 0.59 | 0.76 | 0.76 | 0.76 | 0.59 | 0.59 |
| Delay/Veh: | 81.1 | 47.3 | 47.3 | 42.9 | 39.8 | 39.8 | 44.6 | 34.1 | 34.1 | 62.1 | 36.1 | 36.1 |
| User DelAdj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| AdjDel/Veh: | 81.1 | 47.3 | 47.3 | 42.9 | 39.8 | 39.8 | 44.6 | 34.1 | 34.1 | 62.1 | 36.1 | 36.1 |
| LOS by Move: | F | D | D | D | D | D | D | C- | C- | E | D+ | D+ |
| HCM2k95thQ: | 243 | 292 | 292 | 362 | 713 | 713 | 407 | 797 | 797 | 356 | 478 | 478 |

Note: Queue reported is the distance per lane in feet.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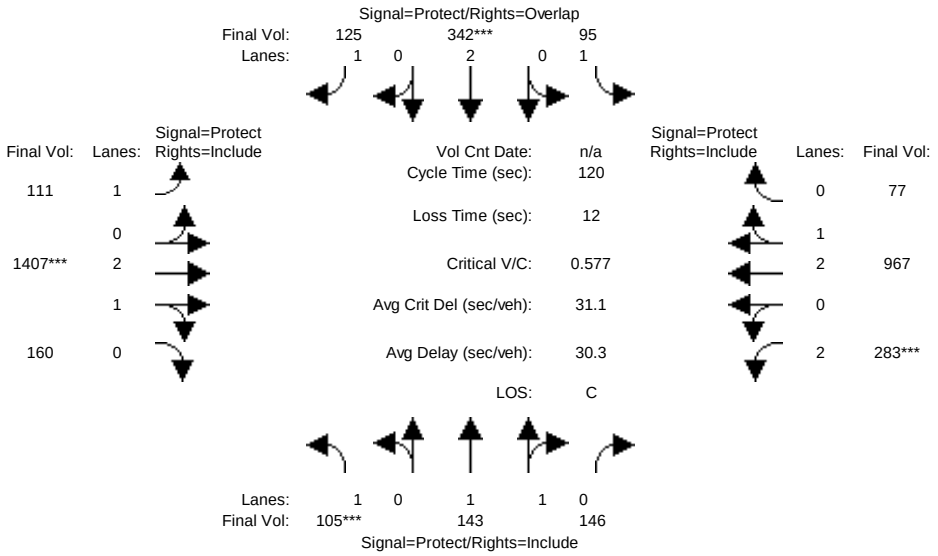
097318104

Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex PM

## Intersection #2: S Pastoria Avenue / El Camino Real




| Street Name: | S Pastoria Avenue | | | | | | El Camino Real | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
| Movement: | L - | T - | R | L - | T - | R | L - | T - | R | L - | T - | R |
| Min. Green: | 7 | 10 | 10 | 7 | 10 | 10 | 7 | 10 | 10 | 7 | 10 | 10 |
| Y+R: | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 |
| Volume Module: | | | | | | | | | | | | |
| Base Vol: | 105 | 143 | 146 | 95 | 342 | 125 | 111 | 1407 | 160 | 283 | 967 | 77 |
| Growth 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 |
| Initial Bse: | 105 | 143 | 146 | 95 | 342 | 125 | 111 | 1407 | 160 | 283 | 967 | 77 |
| Added Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| PasserByVol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Initial Fut: | 105 | 143 | 146 | 95 | 342 | 125 | 111 | 1407 | 160 | 283 | 967 | 77 |
| User 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 |
| PHF 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 |
| PHF Volume: | 105 | 143 | 146 | 95 | 342 | 125 | 111 | 1407 | 160 | 283 | 967 | 77 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 105 | 143 | 146 | 95 | 342 | 125 | 111 | 1407 | 160 | 283 | 967 | 77 |
| PCE 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 |
| MLF 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 |
| FinalVolume: | 105 | 143 | 146 | 95 | 342 | 125 | 111 | 1407 | 160 | 283 | 967 | 77 |
| Saturation Flow Module: | | | | | | | | | | | | |
| Sat/Lane: | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adjustment: | 0.92 | 1.00 | 0.92 | 0.92 | 1.00 | 0.92 | 0.92 | 0.99 | 0.95 | 0.83 | 0.99 | 0.95 |
| Lanes: | 1.00 | 1.00 | 1.00 | 1.00 | 2.00 | 1.00 | 1.00 | 2.68 | 0.32 | 2.00 | 2.77 | 0.23 |
| Final Sat.: | 1750 | 1900 | 1750 | 1750 | 3800 | 1750 | 1750 | 5027 | 572 | 3150 | 5186 | 413 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.06 | 0.08 | 0.08 | 0.05 | 0.09 | 0.07 | 0.06 | 0.28 | 0.28 | 0.09 | 0.19 | 0.19 |
| Crit Moves: | **** | | | | **** | | | **** | | **** | | |
| Green Time: | 12.5 | 18.3 | 18.3 | 12.8 | 18.7 | 38.2 | 19.5 | 58.2 | 58.2 | 18.7 | 57.3 | 57.3 |
| Volume/Cap: | 0.58 | 0.49 | 0.55 | 0.51 | 0.58 | 0.22 | 0.39 | 0.58 | 0.58 | 0.58 | 0.39 | 0.39 |
| Delay/Veh: | 55.8 | 47.2 | 48.2 | 52.9 | 48.4 | 30.2 | 45.8 | 22.4 | 22.4 | 48.7 | 20.2 | 20.2 |
| User DelAdj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| AdjDel/Veh: | 55.8 | 47.2 | 48.2 | 52.9 | 48.4 | 30.2 | 45.8 | 22.4 | 22.4 | 48.7 | 20.2 | 20.2 |
| LOS by Move: | E+ | D | D | D- | D | C | D | C+ | C+ | D | C+ | C+ |
| HCM2k95thQ: | 237 | 258 | 290 | 208 | 314 | 180 | 186 | 593 | 593 | 277 | 377 | 377 |

Note: Queue reported is the distance per lane in feet.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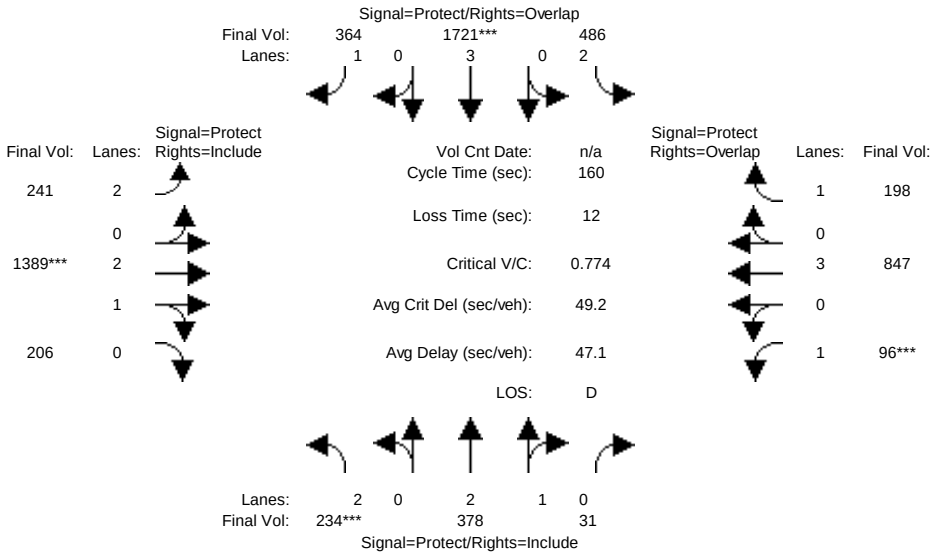
097318104

Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex PM

## Intersection #3: S. Mathilda Avenue / El Camino Real




| Street Name: | S. Mathilda Avenue | | | | | | El Camino Real | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
| Movement: | L - | T - | R | L - | T - | R | L - | T - | R | L - | T - | R |
| Min. Green: | 7 | 10 | 10 | 7 | 10 | 10 | 7 | 10 | 10 | 7 | 10 | 10 |
| Y+R: | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 |
| Volume Module: | | | | | | | | | | | | |
| Base Vol: | 234 | 378 | 31 | 486 | 1721 | 364 | 241 | 1389 | 206 | 96 | 847 | 198 |
| Growth 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 |
| Initial Bse: | 234 | 378 | 31 | 486 | 1721 | 364 | 241 | 1389 | 206 | 96 | 847 | 198 |
| Added Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| PasserByVol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Initial Fut: | 234 | 378 | 31 | 486 | 1721 | 364 | 241 | 1389 | 206 | 96 | 847 | 198 |
| User 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 |
| PHF 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 |
| PHF Volume: | 234 | 378 | 31 | 486 | 1721 | 364 | 241 | 1389 | 206 | 96 | 847 | 198 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 234 | 378 | 31 | 486 | 1721 | 364 | 241 | 1389 | 206 | 96 | 847 | 198 |
| PCE 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 |
| MLF 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 |
| FinalVolume: | 234 | 378 | 31 | 486 | 1721 | 364 | 241 | 1389 | 206 | 96 | 847 | 198 |
| Saturation Flow Module: | | | | | | | | | | | | |
| Sat/Lane: | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adjustment: | 0.83 | 0.99 | 0.95 | 0.83 | 1.00 | 0.92 | 0.83 | 0.99 | 0.95 | 0.92 | 1.00 | 0.92 |
| Lanes: | 2.00 | 2.76 | 0.24 | 2.00 | 3.00 | 1.00 | 2.00 | 2.60 | 0.40 | 1.00 | 3.00 | 1.00 |
| Final Sat.: | 3150 | 5175 | 424 | 3150 | 5700 | 1750 | 3150 | 4876 | 723 | 1750 | 5700 | 1750 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.07 | 0.07 | 0.07 | 0.15 | 0.30 | 0.21 | 0.08 | 0.28 | 0.28 | 0.05 | 0.15 | 0.11 |
| Crit Moves: | **** | | | | **** | | | **** | | **** | | |
| Green Time: | 15.4 | 25.0 | 52.8 | 62.4 | 86.3 | 23.9 | 58.9 | 58.9 | 11.3 | 46.4 | 99.1 | |
| Volume/Cap: | 0.77 | 0.47 | 0.47 | 0.47 | 0.77 | 0.39 | 0.51 | 0.77 | 0.77 | 0.77 | 0.51 | 0.18 |
| Delay/Veh: | 82.4 | 61.8 | 61.8 | 42.8 | 44.4 | 21.7 | 63.7 | 46.6 | 46.6 | 98.6 | 47.7 | 13.1 |
| User DelAdj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| AdjDel/Veh: | 82.4 | 61.8 | 61.8 | 42.8 | 44.4 | 21.7 | 63.7 | 46.6 | 46.6 | 98.6 | 47.7 | 13.1 |
| LOS by Move: | F | E | E | D | D | C+ | E | D | D | F | D | B |
| HCM2k95thQ: | 397 | 310 | 310 | 510 | 1041 | 496 | 304 | 966 | 966 | 260 | 508 | 213 |

Note: Queue reported is the distance per lane in feet.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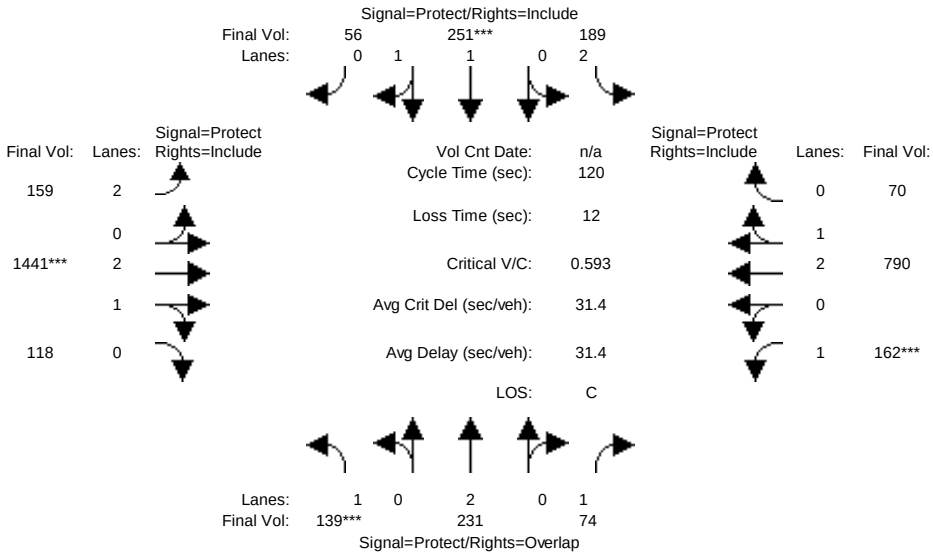
City of Sunnyvale
Oppidan Grocery Store (777 Sunnvyale-Saratoga Road)
097318104

Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex PM

## Intersection #4: S. Sunnyvale Avenue / El Camino Real




| Street Name: | S. Sunnyvale Avenue | | | | | | El Camino Real | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
| Movement: | L - | T - | R | L - | T - | R | L - | T - | R | L - | T - | R |
| Min. Green: | 7 | 10 | 10 | 7 | 10 | 10 | 7 | 10 | 10 | 7 | 10 | 10 |
| Y+R: | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 |
| Volume Module: | | | | | | | | | | | | |
| Base Vol: | 139 | 231 | 74 | 189 | 251 | 56 | 159 | 1441 | 118 | 162 | 790 | 70 |
| Growth 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 |
| Initial Bse: | 139 | 231 | 74 | 189 | 251 | 56 | 159 | 1441 | 118 | 162 | 790 | 70 |
| Added Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| PasserByVol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Initial Fut: | 139 | 231 | 74 | 189 | 251 | 56 | 159 | 1441 | 118 | 162 | 790 | 70 |
| User 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 |
| PHF 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 |
| PHF Volume: | 139 | 231 | 74 | 189 | 251 | 56 | 159 | 1441 | 118 | 162 | 790 | 70 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 139 | 231 | 74 | 189 | 251 | 56 | 159 | 1441 | 118 | 162 | 790 | 70 |
| PCE 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 |
| MLF 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 |
| FinalVolume: | 139 | 231 | 74 | 189 | 251 | 56 | 159 | 1441 | 118 | 162 | 790 | 70 |
| Saturation Flow Module: | | | | | | | | | | | | |
| Sat/Lane: | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adjustment: | 0.92 | 1.00 | 0.92 | 0.83 | 0.98 | 0.95 | 0.83 | 0.99 | 0.95 | 0.92 | 0.99 | 0.95 |
| Lanes: | 1.00 | 2.00 | 1.00 | 2.00 | 1.63 | 0.37 | 2.00 | 2.76 | 0.24 | 1.00 | 2.75 | 0.25 |
| Final Sat.: | 1750 | 3800 | 1750 | 3150 | 3025 | 675 | 3150 | 5176 | 424 | 1750 | 5144 | 456 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.08 | 0.06 | 0.04 | 0.06 | 0.08 | 0.08 | 0.05 | 0.28 | 0.28 | 0.09 | 0.15 | 0.15 |
| Crit Moves: | **** | | | | **** | | | **** | | **** | | |
| Green Time: | 16.1 | 19.1 | 37.9 | 13.8 | 16.8 | 16.8 | 20.7 | 56.4 | 56.4 | 18.7 | 54.4 | 54.4 |
| Volume/Cap: | 0.59 | 0.38 | 0.13 | 0.52 | 0.59 | 0.59 | 0.29 | 0.59 | 0.59 | 0.59 | 0.34 | 0.34 |
| Delay/Veh: | 52.9 | 45.6 | 29.5 | 51.4 | 50.2 | 50.2 | 43.6 | 23.7 | 23.7 | 50.5 | 21.2 | 21.2 |
| User DelAdj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| AdjDel/Veh: | 52.9 | 45.6 | 29.5 | 51.4 | 50.2 | 50.2 | 43.6 | 23.7 | 23.7 | 50.5 | 21.2 | 21.2 |
| LOS by Move: | D- | D | C | D- | D | D | D | C | C | D | C+ | C+ |
| HCM2k95thQ: | 292 | 200 | 105 | 226 | 301 | 301 | 145 | 604 | 604 | 289 | 318 | 318 |

Note: Queue reported is the distance per lane in feet.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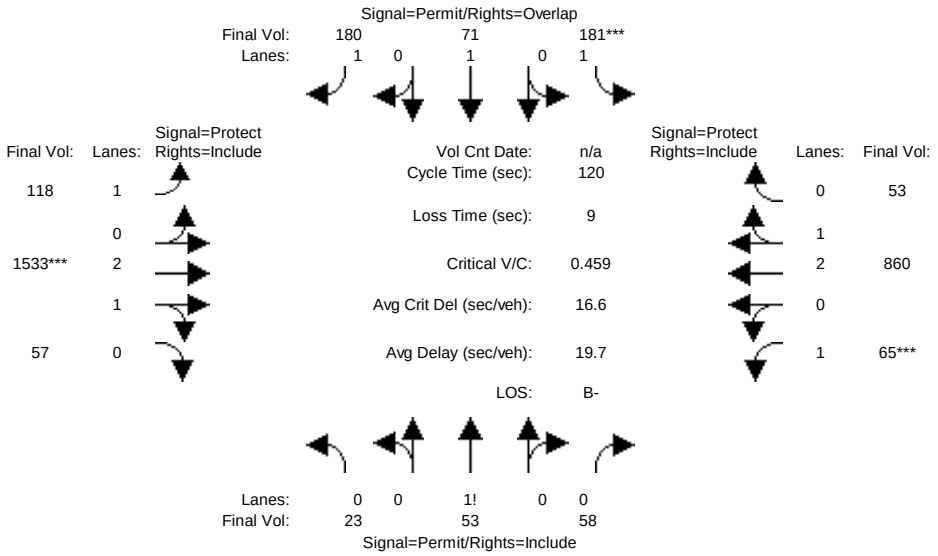
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex PM

## Intersection #5: Cezanne Drive / El Camino Real




| Street Name: | Cezanne Drive | | | | | | El Camino Real | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
| Movement: | L - | T - | R | L - | T - | R | L - | T - | R | L - | T - | R |
| Min. Green: | 10 | 10 | 10 | 10 | 10 | 10 | 7 | 10 | 10 | 7 | 10 | 10 |
| Y+R: | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 |
| Volume Module: | | | | | | | | | | | | |
| Base Vol: | 23 | 53 | 58 | 181 | 71 | 180 | 118 | 1533 | 57 | 65 | 860 | 53 |
| Growth 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 |
| Initial Bse: | 23 | 53 | 58 | 181 | 71 | 180 | 118 | 1533 | 57 | 65 | 860 | 53 |
| Added Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| PasserByVol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Initial Fut: | 23 | 53 | 58 | 181 | 71 | 180 | 118 | 1533 | 57 | 65 | 860 | 53 |
| User 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 |
| PHF 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 |
| PHF Volume: | 23 | 53 | 58 | 181 | 71 | 180 | 118 | 1533 | 57 | 65 | 860 | 53 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 23 | 53 | 58 | 181 | 71 | 180 | 118 | 1533 | 57 | 65 | 860 | 53 |
| PCE 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 |
| MLF 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 |
| FinalVolume: | 23 | 53 | 58 | 181 | 71 | 180 | 118 | 1533 | 57 | 65 | 860 | 53 |
| Saturation Flow Module: | | | | | | | | | | | | |
| Sat/Lane: | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adjustment: | 0.92 | 0.92 | 0.92 | 0.92 | 1.00 | 0.92 | 0.92 | 0.98 | 0.95 | 0.92 | 0.98 | 0.95 |
| Lanes: | 0.17 | 0.40 | 0.43 | 1.00 | 1.00 | 1.00 | 1.00 | 2.89 | 0.11 | 1.00 | 2.82 | 0.18 |
| Final Sat.: | 300 | 692 | 757 | 1750 | 1900 | 1750 | 1750 | 5399 | 201 | 1750 | 5274 | 325 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.08 | 0.08 | 0.08 | 0.10 | 0.04 | 0.10 | 0.07 | 0.28 | 0.28 | 0.04 | 0.16 | 0.16 |
| Crit Moves: | | | | **** | | | | **** | | **** | | |
| Green Time: | 27.0 | 27.0 | 27.0 | 27.0 | 27.0 | 51.6 | 24.6 | 74.2 | 74.2 | 9.7 | 59.4 | 59.4 |
| Volume/Cap: | 0.34 | 0.34 | 0.34 | 0.46 | 0.17 | 0.24 | 0.33 | 0.46 | 0.46 | 0.46 | 0.33 | 0.33 |
| Delay/Veh: | 39.5 | 39.5 | 39.5 | 41.0 | 37.6 | 21.9 | 41.2 | 12.3 | 12.3 | 55.0 | 18.4 | 18.4 |
| User DelAdj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| AdjDel/Veh: | 39.5 | 39.5 | 39.5 | 41.0 | 37.6 | 21.9 | 41.2 | 12.3 | 12.3 | 55.0 | 18.4 | 18.4 |
| LOS by Move: | D | D | D | D | D+ | C+ | D | B | B | D- | B- | B- |
| HCM2k95thQ: | 225 | 225 | 225 | 311 | 107 | 219 | 190 | 468 | 468 | 152 | 321 | 321 |

Note: Queue reported is the distance per lane in feet.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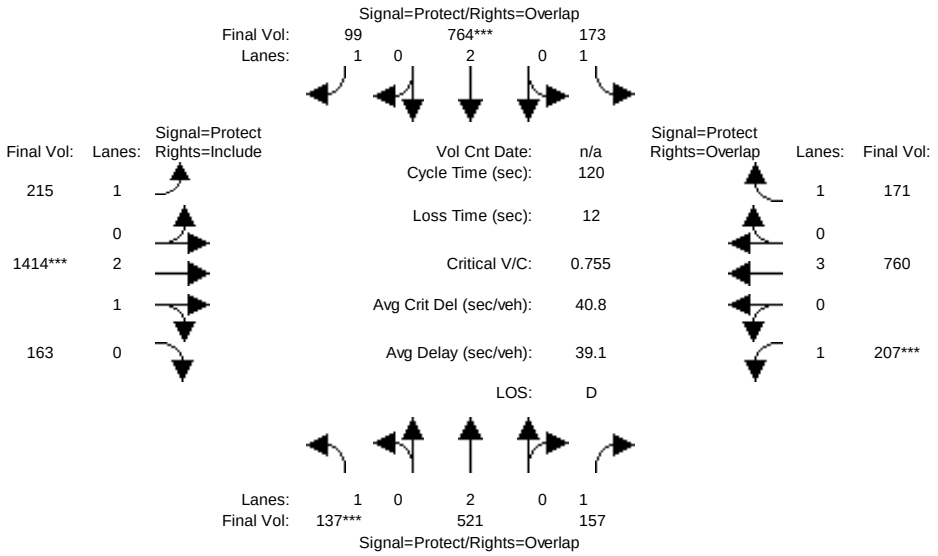
097318104

Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex PM

## Intersection #6: S. Fair Oaks Avenue / El Camino Real




| Street Name: | S. Fair Oaks Avenue | | | | | | El Camino Real | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
| Movement: | L - | T - | R | L - | T - | R | L - | T - | R | L - | T - | R |
| Min. Green: | 7 | 10 | 10 | 7 | 10 | 10 | 7 | 10 | 10 | 7 | 10 | 10 |
| Y+R: | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 |
| Volume Module: | | | | | | | | | | | | |
| Base Vol: | 137 | 521 | 157 | 173 | 764 | 99 | 215 | 1414 | 163 | 207 | 760 | 171 |
| Growth 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 |
| Initial Bse: | 137 | 521 | 157 | 173 | 764 | 99 | 215 | 1414 | 163 | 207 | 760 | 171 |
| Added Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| PasserByVol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Initial Fut: | 137 | 521 | 157 | 173 | 764 | 99 | 215 | 1414 | 163 | 207 | 760 | 171 |
| User 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 |
| PHF 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 |
| PHF Volume: | 137 | 521 | 157 | 173 | 764 | 99 | 215 | 1414 | 163 | 207 | 760 | 171 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 137 | 521 | 157 | 173 | 764 | 99 | 215 | 1414 | 163 | 207 | 760 | 171 |
| PCE 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 |
| MLF 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 |
| FinalVolume: | 137 | 521 | 157 | 173 | 764 | 99 | 215 | 1414 | 163 | 207 | 760 | 171 |
| Saturation Flow Module: | | | | | | | | | | | | |
| Sat/Lane: | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adjustment: | 0.92 | 1.00 | 0.92 | 0.92 | 1.00 | 0.92 | 0.92 | 0.99 | 0.95 | 0.92 | 1.00 | 0.92 |
| Lanes: | 1.00 | 2.00 | 1.00 | 1.00 | 2.00 | 1.00 | 1.00 | 2.68 | 0.32 | 1.00 | 3.00 | 1.00 |
| Final Sat.: | 1750 | 3800 | 1750 | 1750 | 3800 | 1750 | 1750 | 5020 | 579 | 1750 | 5700 | 1750 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.08 | 0.14 | 0.09 | 0.10 | 0.20 | 0.06 | 0.12 | 0.28 | 0.28 | 0.12 | 0.13 | 0.10 |
| Crit Moves: | **** | | | | **** | | | **** | | **** | | |
| Green Time: | 12.4 | 25.8 | 44.6 | 18.6 | 32.0 | 62.5 | 30.5 | 44.8 | 44.8 | 18.8 | 33.1 | 51.7 |
| Volume/Cap: | 0.75 | 0.64 | 0.24 | 0.64 | 0.75 | 0.11 | 0.48 | 0.75 | 0.75 | 0.75 | 0.48 | 0.23 |
| Delay/Veh: | 68.7 | 44.5 | 26.2 | 52.5 | 43.7 | 14.7 | 38.9 | 34.4 | 34.4 | 59.7 | 36.5 | 21.7 |
| User DelAdj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| AdjDel/Veh: | 68.7 | 44.5 | 26.2 | 52.5 | 43.7 | 14.7 | 38.9 | 34.4 | 34.4 | 59.7 | 36.5 | 21.7 |
| LOS by Move: | E | D | C | D- | D | B | D+ | C- | C- | E+ | D+ | C+ |
| HCM2k95thQ: | 337 | 441 | 209 | 353 | 634 | 99 | 336 | 746 | 746 | 444 | 376 | 207 |

Note: Queue reported is the distance per lane in feet.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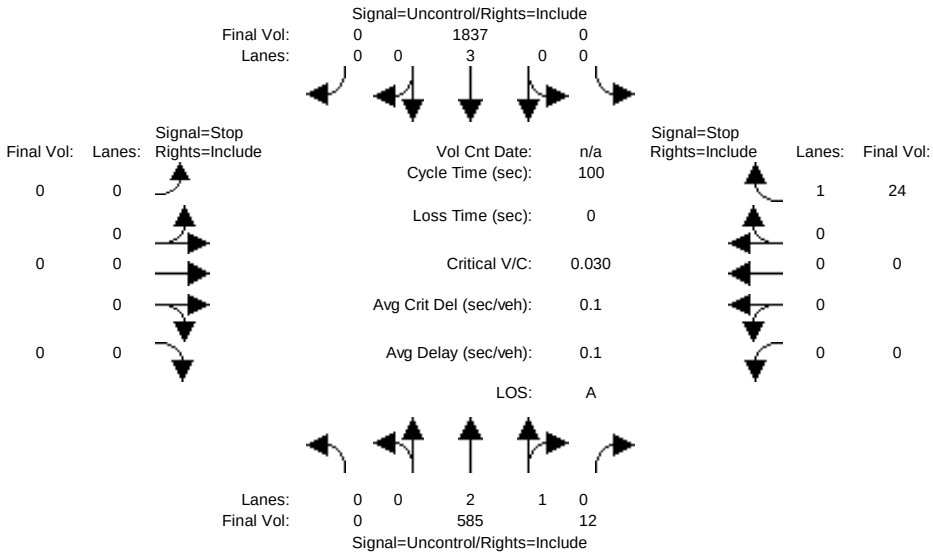
City of Sunnyvale
Oppidan Grocery Store (777 Sunnvyale-Saratoga Road)
097318104

Level Of Service Computation Report
2000 HCM Unsignalized (Future Volume Alternative)
Ex PM

## Intersection #7: S Mathilda Ave / Southwest Project Driveway




```
Street Name:        S Mathilda Avenue             SouthwestProject Driveway
Approach:      North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Volume Module:
Base Vol:       0  585    12     0 1837     0     0    0     0     0    0    24
Growth 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
Initial Bse:    0  585    12     0 1837     0     0    0     0     0    0    24
Added Vol:      0    0     0     0    0     0     0    0     0     0    0     0
PasserByVol:    0    0     0     0    0     0     0    0     0     0    0     0
Initial Fut:    0  585    12     0 1837     0     0    0     0     0    0    24
User 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
PHF 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
PHF Volume:     0  585    12     0 1837     0     0    0     0     0    0    24
Reduct Vol:     0    0     0     0    0     0     0    0     0     0    0     0
FinalVolume:    0  585    12     0 1837     0     0    0     0     0    0    24
------------|---------------||---------------||---------------||---------------|
Critical Gap Module:
Critical Gp:xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx   6.9
FollowUpTim:xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx   3.3
------------|---------------||---------------||---------------||---------------|
Capacity Module:
Cnflict Vol: xxxx xxxx xxxxx  xxxx xxxx xxxxx  xxxx xxxx xxxxx  xxxx xxxx   201
Potent Cap.: xxxx xxxx xxxxx  xxxx xxxx xxxxx  xxxx xxxx xxxxx  xxxx xxxx   813
Move Cap.:   xxxx xxxx xxxxx  xxxx xxxx xxxxx  xxxx xxxx xxxxx  xxxx xxxx   813
Volume/Cap:  xxxx xxxx  xxxx  xxxx xxxx  xxxx  xxxx xxxx  xxxx  xxxx xxxx  0.03
------------|---------------||---------------||---------------||---------------|
Level Of Service Module:
2Way95thQ:   xxxx xxxx xxxxx  xxxx xxxx xxxxx  xxxx xxxx xxxxx  xxxx xxxx   2.3
Control Del:xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx   9.6
LOS by Move:    *    *     *     *    *     *     *    *     *     *    *     A
Movement:     LT - LTR - RT    LT - LTR - RT    LT - LTR - RT    LT - LTR - RT
Shared Cap.: xxxx xxxx xxxxx  xxxx xxxx xxxxx  xxxx xxxx xxxxx  xxxx xxxx xxxxx
SharedQueue:xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx
Shrd ConDel:xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx
Shared LOS:     *    *     *     *    *     *     *    *     *     *    *     *
ApproachDel:    xxxxxx            xxxxxx            xxxxxx              9.6
ApproachLOS:         *                 *                 *                A
Note: Queue reported is the distance per lane in feet.
                     Peak Hour Delay Signal Warrant Report
*******************************************************************************
Intersection #7 S Mathilda Ave / Southwest Project Driveway
*******************************************************************************
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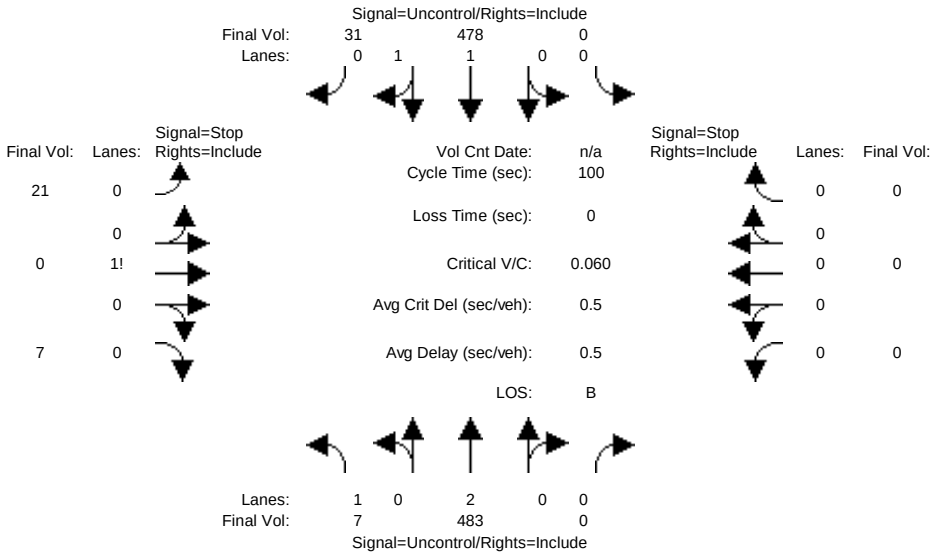
City of Sunnyvale
Oppidan Grocery Store (777 Sunnvyale-Saratoga Road)
097318104

Level Of Service Computation Report
2000 HCM Unsignalized (Future Volume Alternative)
Ex PM

## Intersection #8: Sunnyvale-Saratoga Road / East Project Driveway




```
Street Name:     Sunnyvale-Saratoga Road          East Project Driveway
Approach:      North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Volume Module:
Base Vol:       7  483     0     0  478    31    21    0     7     0    0     0
Growth 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
Initial Bse:    7  483     0     0  478    31    21    0     7     0    0     0
Added Vol:      0    0     0     0    0     0     0    0     0     0    0     0
PasserByVol:    0    0     0     0    0     0     0    0     0     0    0     0
Initial Fut:    7  483     0     0  478    31    21    0     7     0    0     0
User 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
PHF 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
PHF Volume:     7  483     0     0  478    31    21    0     7     0    0     0
Reduct Vol:     0    0     0     0    0     0     0    0     0     0    0     0
FinalVolume:    7  483     0     0  478    31    21    0     7     0    0     0
------------|---------------||---------------||---------------||---------------|
Critical Gap Module:
Critical Gp:  4.1 xxxx xxxxx xxxxx xxxx xxxxx   6.8  6.5   6.9 xxxxx xxxx xxxxx
FollowUpTim:  2.2 xxxx xxxxx xxxxx xxxx xxxxx   3.5  4.0   3.3 xxxxx xxxx xxxxx
------------|---------------||---------------||---------------||---------------|
Capacity Module:
Cnflict Vol:  509 xxxx xxxxx  xxxx xxxx xxxxx   749  991   255  xxxx xxxx xxxxx
Potent Cap.: 1066 xxxx xxxxx  xxxx xxxx xxxxx   352  248   751  xxxx xxxx xxxxx
Move Cap.:   1066 xxxx xxxxx  xxxx xxxx xxxxx   350  247   751  xxxx xxxx xxxxx
Volume/Cap:  0.01 xxxx  xxxx  xxxx xxxx  xxxx  0.06 0.00  0.01  xxxx xxxx  xxxx
------------|---------------||---------------||---------------||---------------|
Level Of Service Module:
2Way95thQ:    0.5 xxxx xxxxx  xxxx xxxx xxxxx  xxxx xxxx xxxxx  xxxx xxxx xxxxx
Control Del:  8.4 xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx
LOS by Move:    A    *     *     *    *     *     *    *     *     *    *     *
Movement:     LT - LTR - RT    LT - LTR - RT    LT - LTR - RT    LT - LTR - RT
Shared Cap.: xxxx xxxx xxxxx  xxxx xxxx xxxxx  xxxx  404 xxxxx  xxxx xxxx xxxxx
SharedQueue:xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx  0.2 xxxxx xxxxx xxxx xxxxx
Shrd ConDel:xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx 14.6 xxxxx xxxxx xxxx xxxxx
Shared LOS:     *    *     *     *    *     *     *    B     *     *    *     *
ApproachDel:    xxxxxx           xxxxxx             14.6           xxxxxx
ApproachLOS:         *                *               B                *
Note: Queue reported is the distance per lane in feet.
                     Peak Hour Delay Signal Warrant Report
*******************************************************************************
Intersection #8 Sunnyvale-Saratoga Road / East Project Driveway
*******************************************************************************
```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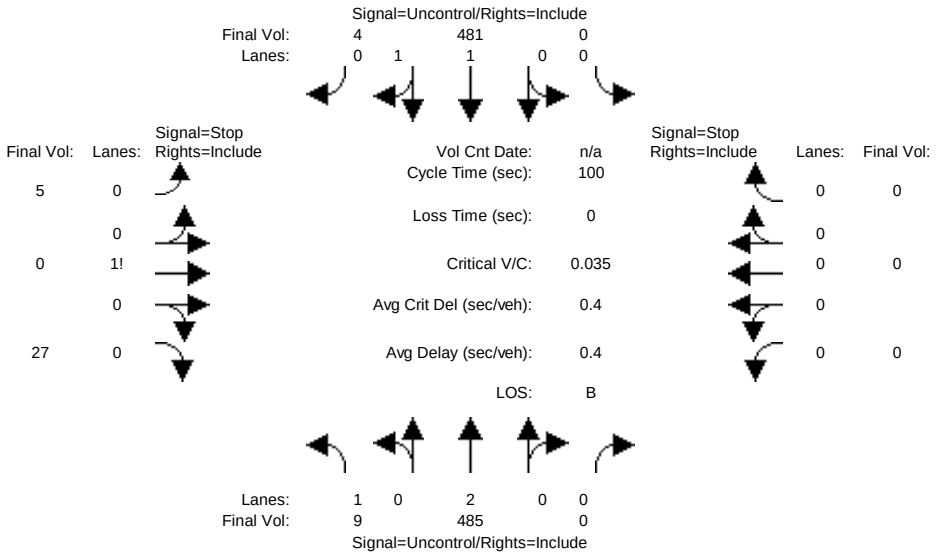
City of Sunnyvale
Oppidan Grocery Store (777 Sunnyvale-Saratoga Road)
097318104

Level Of Service Computation Report
2000 HCM Unsignalized (Future Volume Alternative)
Ex PM

## Intersection #9: Sunnyvale-Saratoga Road / Southeast Project Driveway




```
Street Name:     Sunnyvale-Saratoga Road          Southeast Project Driveway
Approach:      North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Volume Module:
Base Vol:       9  485     0     0  481     4     5    0    27     0    0     0
Growth 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
Initial Bse:    9  485     0     0  481     4     5    0    27     0    0     0
Added Vol:      0    0     0     0    0     0     0    0     0     0    0     0
PasserByVol:    0    0     0     0    0     0     0    0     0     0    0     0
Initial Fut:    9  485     0     0  481     4     5    0    27     0    0     0
User 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
PHF 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
PHF Volume:     9  485     0     0  481     4     5    0    27     0    0     0
Reduct Vol:     0    0     0     0    0     0     0    0     0     0    0     0
FinalVolume:    9  485     0     0  481     4     5    0    27     0    0     0
------------|---------------||---------------||---------------||---------------|
Critical Gap Module:
Critical Gp:  4.1 xxxx xxxxx xxxxx xxxx xxxxx   6.8  6.5   6.9 xxxxx xxxx xxxxx
FollowUpTim:  2.2 xxxx xxxxx xxxxx xxxx xxxxx   3.5  4.0   3.3 xxxxx xxxx xxxxx
------------|---------------||---------------||---------------||---------------|
Capacity Module:
Cnflict Vol:  485 xxxx xxxxx  xxxx xxxx xxxxx   744  986   243  xxxx xxxx xxxxx
Potent Cap.: 1088 xxxx xxxxx  xxxx xxxx xxxxx   355  250   764  xxxx xxxx xxxxx
Move Cap.:   1088 xxxx xxxxx  xxxx xxxx xxxxx   352  248   764  xxxx xxxx xxxxx
Volume/Cap:  0.01 xxxx  xxxx  xxxx xxxx  xxxx  0.01 0.00  0.04  xxxx xxxx  xxxx
------------|---------------||---------------||---------------||---------------|
Level Of Service Module:
2Way95thQ:    0.6 xxxx xxxxx  xxxx xxxx xxxxx  xxxx xxxx xxxxx  xxxx xxxx xxxxx
Control Del:  8.3 xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx
LOS by Move:    A    *     *     *    *     *     *    *     *     *    *     *
Movement:     LT - LTR - RT    LT - LTR - RT    LT - LTR - RT    LT - LTR - RT
Shared Cap.: xxxx xxxx xxxxx  xxxx xxxx xxxxx  xxxx  646 xxxxx  xxxx xxxx xxxxx
SharedQueue:xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx  0.2 xxxxx xxxxx xxxx xxxxx
Shrd ConDel:xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx 10.9 xxxxx xxxxx xxxx xxxxx
Shared LOS:     *    *     *     *    *     *     *    B     *     *    *     *
ApproachDel:    xxxxxx           xxxxxx             10.9           xxxxxx
ApproachLOS:         *                *               B                *
Note: Queue reported is the distance per lane in feet.
                     Peak Hour Delay Signal Warrant Report
*******************************************************************************
Intersection #9 Sunnyvale-Saratoga Road / Southeast Project Driveway
*******************************************************************************
```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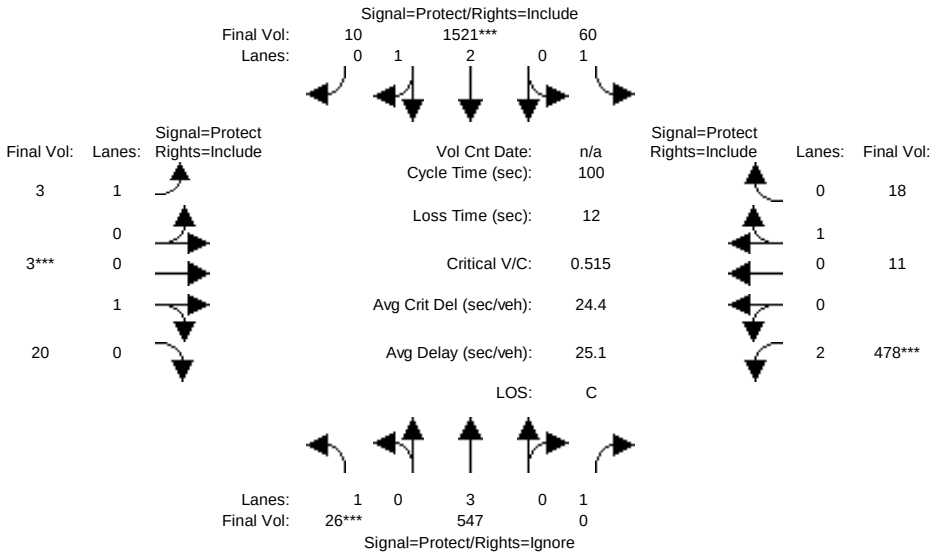
City of Sunnyvale
Oppidan Grocery Store (777 Sunnvyale-Saratoga Road)
097318104

Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex PM

## Intersection #10: S Mathilda Ave - Sunnyvale-Saratoga Rd / Talisman Dr - Sunnvyale-Saratoga Rd




```
Street Name:S Mathilda Ave - Sunnyvale-Sarato Talisman Dr - Sunnyvale-Saratoga
Approach:      North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Min. Green:     7   10    10     7   10    10     7   10    10     7   10    10
Y+R:          4.0  4.0   4.0   4.0  4.0   4.0   4.0  4.0   4.0   4.0  4.0   4.0
------------|---------------||---------------||---------------||---------------|
Volume Module:
Base Vol:      26  547   553    60 1521    10     3    3    20   478   11    18
Growth 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
Initial Bse:   26  547   553    60 1521    10     3    3    20   478   11    18
Added Vol:      0    0     0     0    0     0     0    0     0     0    0     0
PasserByVol:    0    0     0     0    0     0     0    0     0     0    0     0
Initial Fut:   26  547   553    60 1521    10     3    3    20   478   11    18
User Adj:    1.00 1.00  0.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
PHF Adj:     1.00 1.00  0.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
PHF Volume:    26  547     0    60 1521    10     3    3    20   478   11    18
Reduct Vol:     0    0     0     0    0     0     0    0     0     0    0     0
Reduced Vol:   26  547     0    60 1521    10     3    3    20   478   11    18
PCE Adj:     1.00 1.00  0.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
MLF Adj:     1.00 1.00  0.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
FinalVolume:   26  547     0    60 1521    10     3    3    20   478   11    18
------------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Sat/Lane:    1900 1900  1900  1900 1900  1900  1900 1900  1900  1900 1900  1900
Adjustment:  0.92 1.00  0.92  0.92 0.98  0.95  0.92 0.95  0.95  0.83 0.95  0.95
Lanes:       1.00 3.00  1.00  1.00 2.98  0.02  1.00 0.13  0.87  2.00 0.38  0.62
Final Sat.:  1750 5700  1750  1750 5563    37  1750  235  1565  3150  683  1117
------------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:     0.01 0.10  0.00  0.03 0.27  0.27  0.00 0.01  0.01  0.15 0.02  0.02
Crit Moves:  ****                 ****              ****        ****
Green Time:   7.0 31.0   0.0  21.7 45.7  45.7  14.6 10.0  10.0  25.3 20.8  20.8
Volume/Cap:  0.21 0.31  0.00  0.16 0.60  0.60  0.01 0.13  0.13  0.60 0.08  0.08
Delay/Veh:   44.8 26.5   0.0  32.0 20.7  20.7  36.6 41.3  41.3  34.1 32.0  32.0
User DelAdj: 1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
AdjDel/Veh:  44.8 26.5   0.0  32.0 20.7  20.7  36.6 41.3  41.3  34.1 32.0  32.0
LOS by Move:    D    C     A     C   C+    C+    D+    D     D    C-    C     C
HCM2k95thQ:    41  203     0    85  552   552     5   39    39   397   40    40
Note: Queue reported is the distance per lane in feet.
```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# Trip Generation

# Trip Generation Planner (ITE 9th Edition)

***Weekday Trip Generation***
***Trips Based on Average Rates/Equations***

***Project Name*** **777 Sunnyvale Saratoga Rd**
***Project Number*** **Existing**

| ITE Code | Land Use Description | Independent Variable | No. of Units | Avg Rate or Eq | Trip Rates: Daily Rate | Trip Rates: AM Rate | Trip Rates: PM Rate | Total Trips: Daily Trips | Total Trips: AM Trips | Total Trips: PM Trips | Total Trips: AM Trips In | Total Trips: AM Trips Out | Total Trips: PM Trips In | Total Trips: PM Trips Out |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 850 | Supermarket | 1,000 Sq Ft | | Avg | 102.24 | 3.40 | 9.48 | | | | | | | |
| 862 | Home Improvement Superstore | 1,000 Sq Ft | 55.104 | Avg | 30.74 | 1.49 | 2.33 | 1694 | 82 | 128 | 47 | 35 | 63 | 65 |
| | | | | | | | **Totals** | **1694** | **82** | **128** | **47** | **35** | **63** | **65** |

Notes:
*(1)* AM and/or PM rates correspond to peak hour of generator

A Trip generation data from ITE *Trip Generation, 8th Edition*
B AM/PM rates correspond to peak of adjacent street traffic (if data available)
C Includes weekday rates only
D Total trips include pass-by trips w/ no internal capture
E Pass-by rates from ITE *Trip Generation Handbook, 2nd Edition*
F Internal capture rates from ITE *Trip Generation Handbook, 2nd Edition*
G Worksheet is intended as a planning tool. Verify results w/ ITE *Trip Generation, 9th Edition*
H Enter data only in green shaded cells
I Comments on typical building sizes based on internet search results.

# Trip Generation Planner (ITE 9th Edition)

K

***Weekday Trip Generation***
***Trips Based on Average Rates/Equations***

***Project Name*** **777 Sunnyvale Saratoga Rd**
***Project Number*** **Project**

| | | | | | Trip Rates | | | Total Trips | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **ITE Code** | **Land Use Description** | **Independent Variable** | **No. of Units** | **Avg Rate or Eq** | **Daily Rate** | **AM Rate** | **PM Rate** | **Daily Trips** | **AM Trips** | **PM Trips** | **AM Trips In** | **AM Trips Out** | **PM Trips In** | **PM Trips Out** |
| 850 | Supermarket | 1,000 Sq Ft | 11.6 | Avg | 102.24 | 3.40 | 9.48 | 1186 | 39 | 110 | 24 | 15 | 56 | 54 |
| 862 | Home Improvement Superstore | 1,000 Sq Ft | 48.324 | Avg | 30.74 | 1.49 | 2.33 | 1486 | 72 | 113 | 41 | 31 | 55 | 58 |
| | | | | | | | **Totals** | **2672** | **111** | **223** | **65** | **46** | **111** | **112** |

Notes:

*(1)* AM and/or PM rates correspond to peak hour of generator

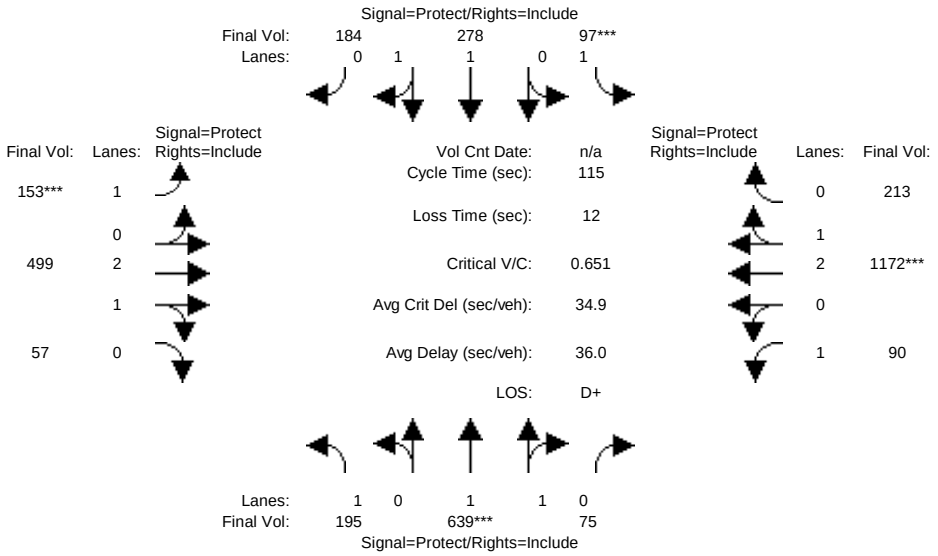
A Trip generation data from ITE *Trip Generation, 8th Edition*
B AM/PM rates correspond to peak of adjacent street traffic (if data available)
C Includes weekday rates only
D Total trips include pass-by trips w/ no internal capture
E Pass-by rates from ITE *Trip Generation Handbook, 2nd Edition*
F Internal capture rates from ITE *Trip Generation Handbook, 2nd Edition*
G Worksheet is intended as a planning tool. Verify results w/ ITE *Trip Generation, 9th Edition*
H Enter data only in green shaded cells
I Comments on typical building sizes based on internet search results.

# Existing Plus Project Traffic Conditions

City of Sunnyvale
Oppidan Grocery Store (777 Sunnvyale-Saratoga Road)
097318104

Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex + P AM

## Intersection #1: S Mary Ave / El Camino Real




| Street Name: | S Mary Ave | | | | | | El Camino Real | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
| Movement: | L - | T - | R | L - | T - | R | L - | T - | R | L - | T - | R |
| Min. Green: | 7 | 10 | 10 | 7 | 10 | 10 | 7 | 10 | 10 | 7 | 10 | 10 |
| Y+R: | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 |
| Volume Module: | | | | | | | | | | | | |
| Base Vol: | 195 | 639 | 73 | 96 | 278 | 184 | 153 | 494 | 57 | 89 | 1169 | 212 |
| Growth 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 |
| Initial Bse: | 195 | 639 | 73 | 96 | 278 | 184 | 153 | 494 | 57 | 89 | 1169 | 212 |
| Added Vol: | 0 | 0 | 2 | 1 | 0 | 0 | 0 | 5 | 0 | 1 | 3 | 1 |
| PasserByVol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Initial Fut: | 195 | 639 | 75 | 97 | 278 | 184 | 153 | 499 | 57 | 90 | 1172 | 213 |
| User 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 |
| PHF 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 |
| PHF Volume: | 195 | 639 | 75 | 97 | 278 | 184 | 153 | 499 | 57 | 90 | 1172 | 213 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 195 | 639 | 75 | 97 | 278 | 184 | 153 | 499 | 57 | 90 | 1172 | 213 |
| PCE 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 |
| MLF 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 |
| FinalVolume: | 195 | 639 | 75 | 97 | 278 | 184 | 153 | 499 | 57 | 90 | 1172 | 213 |
| Saturation Flow Module: | | | | | | | | | | | | |
| Sat/Lane: | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adjustment: | 0.92 | 0.98 | 0.95 | 0.92 | 0.99 | 0.95 | 0.92 | 0.99 | 0.95 | 0.92 | 0.99 | 0.95 |
| Lanes: | 1.00 | 1.78 | 0.22 | 1.00 | 1.18 | 0.82 | 1.00 | 2.68 | 0.32 | 1.00 | 2.52 | 0.48 |
| Final Sat.: | 1750 | 3311 | 389 | 1750 | 2225 | 1473 | 1750 | 5025 | 574 | 1750 | 4738 | 861 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.11 | 0.19 | 0.19 | 0.06 | 0.12 | 0.12 | 0.09 | 0.10 | 0.10 | 0.05 | 0.25 | 0.25 |
| Crit Moves: | | **** | | **** | | | **** | | | | **** | |
| Green Time: | 20.7 | 34.1 | 34.1 | 9.8 | 23.2 | 23.2 | 15.4 | 36.7 | 36.7 | 22.5 | 43.7 | 43.7 |
| Volume/Cap: | 0.62 | 0.65 | 0.65 | 0.65 | 0.62 | 0.62 | 0.65 | 0.31 | 0.31 | 0.26 | 0.65 | 0.65 |
| Delay/Veh: | 47.3 | 36.7 | 36.7 | 60.8 | 43.5 | 43.5 | 53.6 | 29.7 | 29.7 | 39.7 | 30.1 | 30.1 |
| User DelAdj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| AdjDel/Veh: | 47.3 | 36.7 | 36.7 | 60.8 | 43.5 | 43.5 | 53.6 | 29.7 | 29.7 | 39.7 | 30.1 | 30.1 |
| LOS by Move: | D | D+ | D+ | E | D | D | D- | C | C | D | C | C |
| HCM2k95thQ: | 366 | 541 | 541 | 235 | 395 | 395 | 319 | 245 | 245 | 140 | 597 | 597 |

Note: Queue reported is the distance per lane in feet.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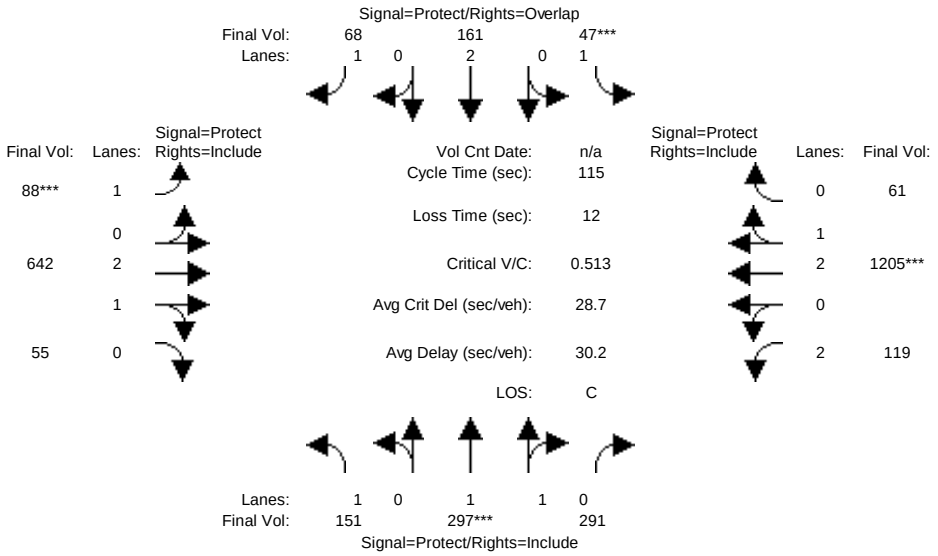
City of Sunnyvale
Oppidan Grocery Store (777 Sunnvyale-Saratoga Road)
097318104

Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex + P AM

## Intersection #2: S Pastoria Avenue / El Camino Real




| Street Name: | S Pastoria Avenue | | | | | | El Camino Real | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
| Movement: | L - | T - | R | L - | T - | R | L - | T - | R | L - | T - | R |
| Min. Green: | 7 | 10 | 10 | 7 | 10 | 10 | 7 | 10 | 10 | 7 | 10 | 10 |
| Y+R: | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 |
| Volume Module: | | | | | | | | | | | | |
| Base Vol: | 151 | 297 | 291 | 47 | 161 | 68 | 88 | 634 | 55 | 119 | 1200 | 61 |
| Growth 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 |
| Initial Bse: | 151 | 297 | 291 | 47 | 161 | 68 | 88 | 634 | 55 | 119 | 1200 | 61 |
| Added Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 8 | 0 | 0 | 5 | 0 |
| PasserByVol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Initial Fut: | 151 | 297 | 291 | 47 | 161 | 68 | 88 | 642 | 55 | 119 | 1205 | 61 |
| User 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 |
| PHF 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 |
| PHF Volume: | 151 | 297 | 291 | 47 | 161 | 68 | 88 | 642 | 55 | 119 | 1205 | 61 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 151 | 297 | 291 | 47 | 161 | 68 | 88 | 642 | 55 | 119 | 1205 | 61 |
| PCE 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 |
| MLF 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 |
| FinalVolume: | 151 | 297 | 291 | 47 | 161 | 68 | 88 | 642 | 55 | 119 | 1205 | 61 |
| Saturation Flow Module: | | | | | | | | | | | | |
| Sat/Lane: | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adjustment: | 0.92 | 1.00 | 0.95 | 0.92 | 1.00 | 0.92 | 0.92 | 0.99 | 0.95 | 0.83 | 0.98 | 0.95 |
| Lanes: | 1.00 | 1.00 | 1.00 | 1.00 | 2.00 | 1.00 | 1.00 | 2.75 | 0.25 | 2.00 | 2.85 | 0.15 |
| Final Sat.: | 1750 | 1899 | 1800 | 1750 | 3800 | 1750 | 1750 | 5158 | 442 | 3150 | 5330 | 270 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.09 | 0.16 | 0.16 | 0.03 | 0.04 | 0.04 | 0.05 | 0.12 | 0.12 | 0.04 | 0.23 | 0.23 |
| Crit Moves: | | **** | | **** | | | **** | | | | **** | |
| Green Time: | 20.8 | 34.7 | 34.7 | 7.0 | 20.9 | 32.1 | 11.2 | 41.2 | 41.2 | 20.1 | 50.2 | 50.2 |
| Volume/Cap: | 0.48 | 0.52 | 0.54 | 0.44 | 0.23 | 0.14 | 0.52 | 0.35 | 0.35 | 0.22 | 0.52 | 0.52 |
| Delay/Veh: | 43.4 | 33.7 | 34.0 | 55.0 | 40.4 | 31.2 | 52.2 | 27.2 | 27.2 | 40.9 | 23.8 | 23.8 |
| User DelAdj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| AdjDel/Veh: | 43.4 | 33.7 | 34.0 | 55.0 | 40.4 | 31.2 | 52.2 | 27.2 | 27.2 | 40.9 | 23.8 | 23.8 |
| LOS by Move: | D | C- | C- | E+ | D | C | D- | C | C | D | C | C |
| HCM2k95thQ: | 271 | 415 | 432 | 117 | 126 | 98 | 160 | 283 | 283 | 103 | 478 | 478 |

Note: Queue reported is the distance per lane in feet.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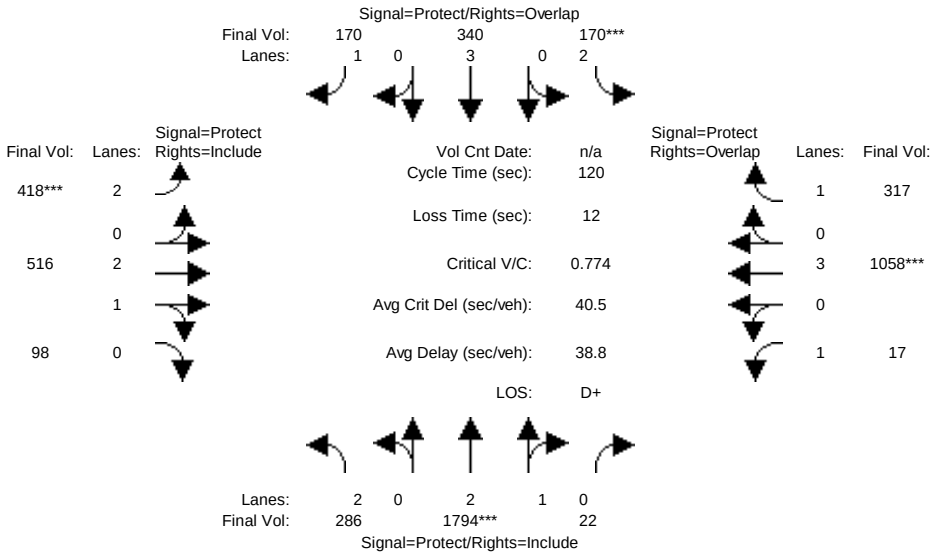
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex + P AM

## Intersection #3: S. Mathilda Avenue / El Camino Real




| Street Name: | S. Mathilda Avenue | | | | | | El Camino Real | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
| Movement: | L - | T - | R | L - | T - | R | L - | T - | R | L - | T - | R |
| Min. Green: | 7 | 10 | 10 | 7 | 10 | 10 | 7 | 10 | 10 | 7 | 10 | 10 |
| Y+R: | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 |
| Volume Module: | | | | | | | | | | | | |
| Base Vol: | 285 | 1794 | 22 | 170 | 340 | 170 | 418 | 510 | 96 | 17 | 1054 | 317 |
| Growth 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 |
| Initial Bse: | 285 | 1794 | 22 | 170 | 340 | 170 | 418 | 510 | 96 | 17 | 1054 | 317 |
| Added Vol: | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 6 | 2 | 0 | 4 | 0 |
| PasserByVol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Initial Fut: | 286 | 1794 | 22 | 170 | 340 | 170 | 418 | 516 | 98 | 17 | 1058 | 317 |
| User 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 |
| PHF 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 |
| PHF Volume: | 286 | 1794 | 22 | 170 | 340 | 170 | 418 | 516 | 98 | 17 | 1058 | 317 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 286 | 1794 | 22 | 170 | 340 | 170 | 418 | 516 | 98 | 17 | 1058 | 317 |
| PCE 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 |
| MLF 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 |
| FinalVolume: | 286 | 1794 | 22 | 170 | 340 | 170 | 418 | 516 | 98 | 17 | 1058 | 317 |
| Saturation Flow Module: | | | | | | | | | | | | |
| Sat/Lane: | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adjustment: | 0.83 | 0.98 | 0.95 | 0.83 | 1.00 | 0.92 | 0.83 | 0.99 | 0.95 | 0.92 | 1.00 | 0.92 |
| Lanes: | 2.00 | 2.96 | 0.04 | 2.00 | 3.00 | 1.00 | 2.00 | 2.50 | 0.50 | 1.00 | 3.00 | 1.00 |
| Final Sat.: | 3150 | 5532 | 68 | 3150 | 5700 | 1750 | 3150 | 4705 | 894 | 1750 | 5700 | 1750 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.09 | 0.32 | 0.32 | 0.05 | 0.06 | 0.10 | 0.13 | 0.11 | 0.11 | 0.01 | 0.19 | 0.18 |
| Crit Moves: | | **** | | **** | | | **** | | | | **** | |
| Green Time: | 30.6 | 50.3 | 50.3 | 8.4 | 28.1 | 48.6 | 20.6 | 32.2 | 32.2 | 17.1 | 28.8 | 37.1 |
| Volume/Cap: | 0.36 | 0.77 | 0.77 | 0.77 | 0.26 | 0.24 | 0.77 | 0.41 | 0.41 | 0.07 | 0.77 | 0.59 |
| Delay/Veh: | 36.9 | 31.6 | 31.6 | 70.5 | 37.6 | 23.7 | 54.4 | 36.2 | 36.2 | 44.6 | 45.4 | 36.6 |
| User DelAdj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| AdjDel/Veh: | 36.9 | 31.6 | 31.6 | 70.5 | 37.6 | 23.7 | 54.4 | 36.2 | 36.2 | 44.6 | 45.4 | 36.6 |
| LOS by Move: | D+ | C | C | E | D+ | C | D- | D+ | D+ | D | D | D+ |
| HCM2k95thQ: | 256 | 874 | 874 | 268 | 171 | 215 | 429 | 292 | 292 | 29 | 559 | 479 |

Note: Queue reported is the distance per lane in feet.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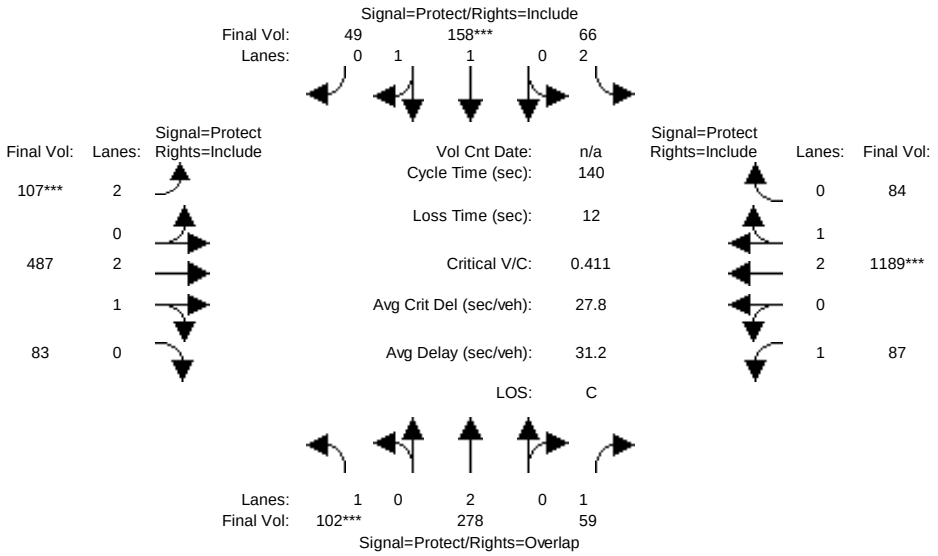
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex + P AM

## Intersection #4: S. Sunnyvale Avenue / El Camino Real




| Street Name: | S. Sunnyvale Avenue | | | | | | El Camino Real | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
| Movement: | L - | T - | R | L - | T - | R | L - | T - | R | L - | T - | R |
| Min. Green: | 7 | 10 | 10 | 7 | 10 | 10 | 7 | 10 | 10 | 7 | 10 | 10 |
| Y+R: | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 |
| Volume Module: | | | | | | | | | | | | |
| Base Vol: | 98 | 276 | 57 | 66 | 155 | 49 | 107 | 487 | 77 | 84 | 1189 | 84 |
| Growth 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 |
| Initial Bse: | 98 | 276 | 57 | 66 | 155 | 49 | 107 | 487 | 77 | 84 | 1189 | 84 |
| Added Vol: | 4 | 2 | 2 | 0 | 3 | 0 | 0 | 0 | 6 | 3 | 0 | 0 |
| PasserByVol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Initial Fut: | 102 | 278 | 59 | 66 | 158 | 49 | 107 | 487 | 83 | 87 | 1189 | 84 |
| User 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 |
| PHF 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 |
| PHF Volume: | 102 | 278 | 59 | 66 | 158 | 49 | 107 | 487 | 83 | 87 | 1189 | 84 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 102 | 278 | 59 | 66 | 158 | 49 | 107 | 487 | 83 | 87 | 1189 | 84 |
| PCE 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 |
| MLF 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 |
| FinalVolume: | 102 | 278 | 59 | 66 | 158 | 49 | 107 | 487 | 83 | 87 | 1189 | 84 |
| Saturation Flow Module: | | | | | | | | | | | | |
| Sat/Lane: | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adjustment: | 0.92 | 1.00 | 0.92 | 0.83 | 0.98 | 0.95 | 0.83 | 0.99 | 0.95 | 0.92 | 0.98 | 0.95 |
| Lanes: | 1.00 | 2.00 | 1.00 | 2.00 | 1.51 | 0.49 | 2.00 | 2.55 | 0.45 | 1.00 | 2.79 | 0.21 |
| Final Sat.: | 1750 | 3800 | 1750 | 3150 | 2824 | 876 | 3150 | 4783 | 815 | 1750 | 5230 | 369 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.06 | 0.07 | 0.03 | 0.02 | 0.06 | 0.06 | 0.03 | 0.10 | 0.10 | 0.05 | 0.23 | 0.23 |
| Crit Moves: | **** | | | | **** | | **** | | | | **** | |
| Green Time: | 19.9 | 23.1 | 52.5 | 15.8 | 19.1 | 19.1 | 11.6 | 59.7 | 59.7 | 29.3 | 77.5 | 77.5 |
| Volume/Cap: | 0.41 | 0.44 | 0.09 | 0.19 | 0.41 | 0.41 | 0.41 | 0.24 | 0.24 | 0.24 | 0.41 | 0.41 |
| Delay/Veh: | 55.8 | 53.1 | 28.4 | 56.5 | 55.9 | 55.9 | 62.0 | 25.7 | 25.7 | 46.4 | 18.2 | 18.2 |
| User DelAdj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| AdjDel/Veh: | 55.8 | 53.1 | 28.4 | 56.5 | 55.9 | 55.9 | 62.0 | 25.7 | 25.7 | 46.4 | 18.2 | 18.2 |
| LOS by Move: | E+ | D- | C | E+ | E+ | E+ | E | C | C | D | B- | B- |
| HCM2k95thQ: | 226 | 273 | 87 | 83 | 219 | 219 | 130 | 246 | 246 | 160 | 474 | 474 |

Note: Queue reported is the distance per lane in feet.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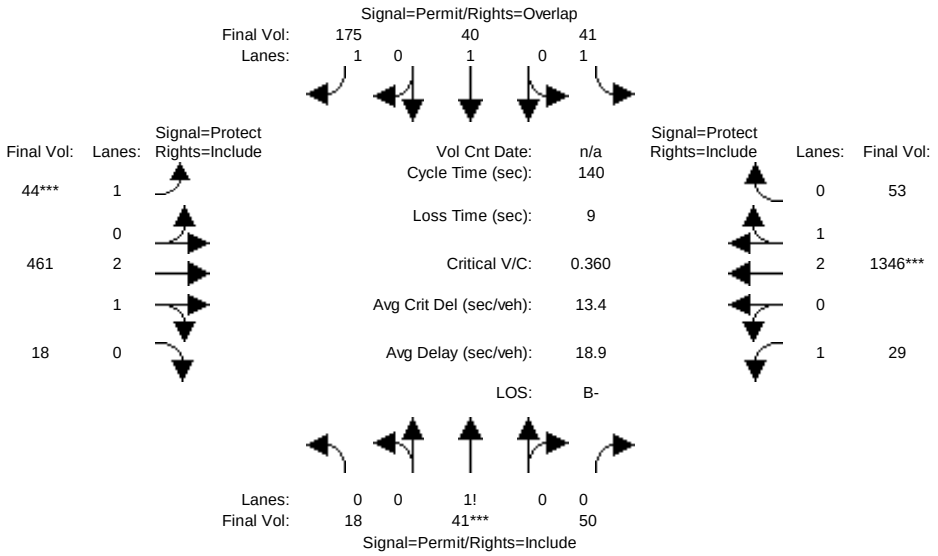
2000 HCM Operations (Future Volume Alternative)
Ex + P AM

## Intersection #5: Cezanne Drive / El Camino Real




| Street Name: | Cezanne Drive | | | | | | El Camino Real | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
| Movement: | L - | T - | R | L - | T - | R | L - | T - | R | L - | T - | R |
| Min. Green: | 10 | 10 | 10 | 10 | 10 | 10 | 7 | 10 | 10 | 7 | 10 | 10 |
| Y+R: | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 |
| Volume Module: | | | | | | | | | | | | |
| Base Vol: | 18 | 41 | 50 | 41 | 40 | 175 | 44 | 459 | 18 | 29 | 1343 | 53 |
| Growth 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 |
| Initial Bse: | 18 | 41 | 50 | 41 | 40 | 175 | 44 | 459 | 18 | 29 | 1343 | 53 |
| Added Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 3 | 0 |
| PasserByVol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Initial Fut: | 18 | 41 | 50 | 41 | 40 | 175 | 44 | 461 | 18 | 29 | 1346 | 53 |
| User 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 |
| PHF 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 |
| PHF Volume: | 18 | 41 | 50 | 41 | 40 | 175 | 44 | 461 | 18 | 29 | 1346 | 53 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 18 | 41 | 50 | 41 | 40 | 175 | 44 | 461 | 18 | 29 | 1346 | 53 |
| PCE 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 |
| MLF 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 |
| FinalVolume: | 18 | 41 | 50 | 41 | 40 | 175 | 44 | 461 | 18 | 29 | 1346 | 53 |
| Saturation Flow Module: | | | | | | | | | | | | |
| Sat/Lane: | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adjustment: | 0.92 | 0.92 | 0.92 | 0.92 | 1.00 | 0.92 | 0.92 | 0.98 | 0.95 | 0.92 | 0.98 | 0.95 |
| Lanes: | 0.16 | 0.38 | 0.46 | 1.00 | 1.00 | 1.00 | 1.00 | 2.88 | 0.12 | 1.00 | 2.88 | 0.12 |
| Final Sat.: | 289 | 658 | 803 | 1750 | 1900 | 1750 | 1750 | 5389 | 210 | 1750 | 5388 | 212 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.06 | 0.06 | 0.06 | 0.02 | 0.02 | 0.10 | 0.03 | 0.09 | 0.09 | 0.02 | 0.25 | 0.25 |
| Crit Moves: | | **** | | | | | **** | | | | **** | |
| Green Time: | 24.2 | 24.2 | 24.2 | 24.2 | 24.2 | 34.0 | 9.8 | 67.4 | 67.4 | 39.4 | 97.0 | 97.0 |
| Volume/Cap: | 0.36 | 0.36 | 0.36 | 0.14 | 0.12 | 0.41 | 0.36 | 0.18 | 0.18 | 0.06 | 0.36 | 0.36 |
| Delay/Veh: | 51.8 | 51.8 | 51.8 | 49.3 | 49.1 | 45.3 | 64.0 | 20.6 | 20.6 | 36.8 | 8.8 | 8.8 |
| User DelAdj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| AdjDel/Veh: | 51.8 | 51.8 | 51.8 | 49.3 | 49.1 | 45.3 | 64.0 | 20.6 | 20.6 | 36.8 | 8.8 | 8.8 |
| LOS by Move: | D- | D- | D- | D | D | D | E | C+ | C+ | D+ | A | A |
| HCM2k95thQ: | 226 | 226 | 226 | 83 | 75 | 330 | 98 | 187 | 187 | 50 | 382 | 382 |

Note: Queue reported is the distance per lane in feet.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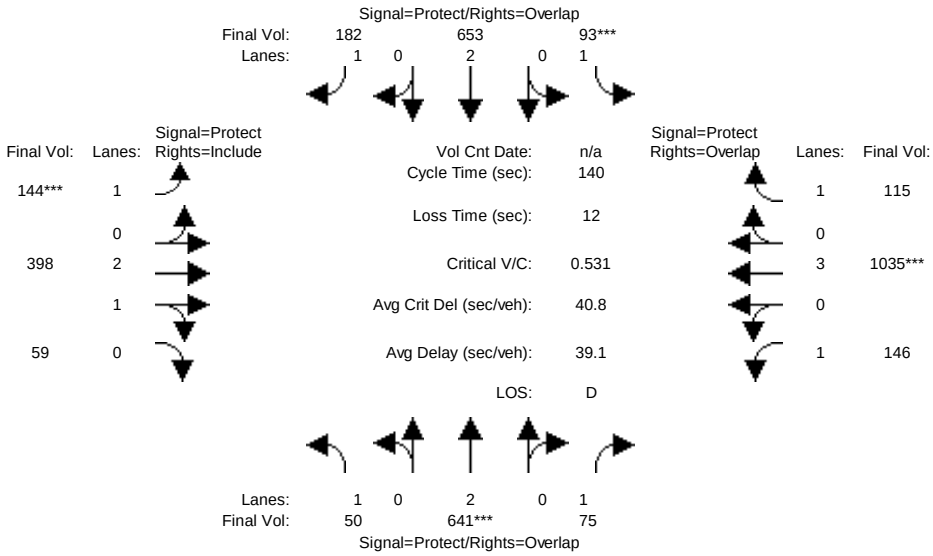
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex + P AM

## Intersection #6: S. Fair Oaks Avenue / El Camino Real




| Street Name: | S. Fair Oaks Avenue | | | | | | El Camino Real | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
| Movement: | L - | T - | R | L - | T - | R | L - | T - | R | L - | T - | R |
| Min. Green: | 7 | 10 | 10 | 7 | 10 | 10 | 7 | 10 | 10 | 7 | 10 | 10 |
| Y+R: | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 |
| Volume Module: | | | | | | | | | | | | |
| Base Vol: | 50 | 641 | 75 | 93 | 653 | 181 | 144 | 396 | 59 | 146 | 1032 | 115 |
| Growth 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 |
| Initial Bse: | 50 | 641 | 75 | 93 | 653 | 181 | 144 | 396 | 59 | 146 | 1032 | 115 |
| Added Vol: | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 2 | 0 | 0 | 3 | 0 |
| PasserByVol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Initial Fut: | 50 | 641 | 75 | 93 | 653 | 182 | 144 | 398 | 59 | 146 | 1035 | 115 |
| User 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 |
| PHF 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 |
| PHF Volume: | 50 | 641 | 75 | 93 | 653 | 182 | 144 | 398 | 59 | 146 | 1035 | 115 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 50 | 641 | 75 | 93 | 653 | 182 | 144 | 398 | 59 | 146 | 1035 | 115 |
| PCE 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 |
| MLF 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 |
| FinalVolume: | 50 | 641 | 75 | 93 | 653 | 182 | 144 | 398 | 59 | 146 | 1035 | 115 |
| Saturation Flow Module: | | | | | | | | | | | | |
| Sat/Lane: | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adjustment: | 0.92 | 1.00 | 0.92 | 0.92 | 1.00 | 0.92 | 0.92 | 0.99 | 0.95 | 0.92 | 1.00 | 0.92 |
| Lanes: | 1.00 | 2.00 | 1.00 | 1.00 | 2.00 | 1.00 | 1.00 | 2.60 | 0.40 | 1.00 | 3.00 | 1.00 |
| Final Sat.: | 1750 | 3800 | 1750 | 1750 | 3800 | 1750 | 1750 | 4876 | 723 | 1750 | 5700 | 1750 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.03 | 0.17 | 0.04 | 0.05 | 0.17 | 0.10 | 0.08 | 0.08 | 0.08 | 0.08 | 0.18 | 0.07 |
| Crit Moves: | | **** | | **** | | | **** | | | | **** | |
| Green Time: | 13.2 | 44.5 | 79.6 | 14.0 | 45.3 | 67.0 | 21.7 | 34.4 | 34.4 | 35.2 | 47.9 | 61.9 |
| Volume/Cap: | 0.30 | 0.53 | 0.08 | 0.53 | 0.53 | 0.22 | 0.53 | 0.33 | 0.33 | 0.33 | 0.53 | 0.15 |
| Delay/Veh: | 60.2 | 39.7 | 13.6 | 63.0 | 39.1 | 21.4 | 56.5 | 43.5 | 43.5 | 43.3 | 37.3 | 23.4 |
| User DelAdj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| AdjDel/Veh: | 60.2 | 39.7 | 13.6 | 63.0 | 39.1 | 21.4 | 56.5 | 43.5 | 43.5 | 43.3 | 37.3 | 23.4 |
| LOS by Move: | E | D | B | E | D | C+ | E+ | D | D | D | D+ | C |
| HCM2k95thQ: | 121 | 515 | 77 | 234 | 521 | 233 | 293 | 255 | 255 | 268 | 538 | 154 |

Note: Queue reported is the distance per lane in feet.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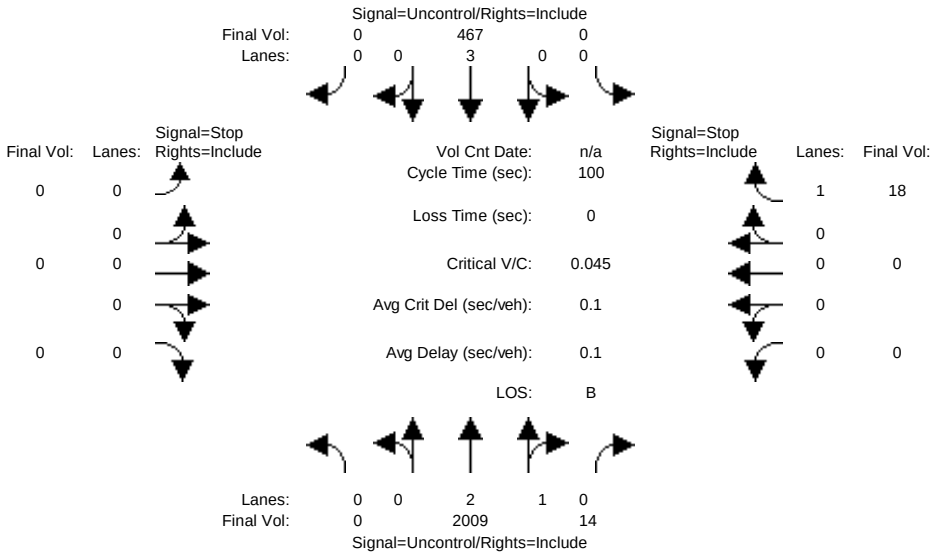
097318104

Level Of Service Computation Report
2000 HCM Unsignalized (Future Volume Alternative)
Ex + P AM

## Intersection #7: S Mathilda Ave / Southwest Project Driveway




```
Street Name:        S Mathilda Avenue             SouthwestProject Driveway
Approach:      North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Volume Module:
Base Vol:       0 2009    13     0  464     0     0    0     0     0    0    17
Growth 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
Initial Bse:    0 2009    13     0  464     0     0    0     0     0    0    17
Added Vol:      0    0     0     0    3     0     0    0     0     0    0     1
PasserByVol:    0    0     1     0    0     0     0    0     0     0    0     0
Initial Fut:    0 2009    14     0  467     0     0    0     0     0    0    18
User 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
PHF 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
PHF Volume:     0 2009    14     0  467     0     0    0     0     0    0    18
Reduct Vol:     0    0     0     0    0     0     0    0     0     0    0     0
FinalVolume:    0 2009    14     0  467     0     0    0     0     0    0    18
------------|---------------||---------------||---------------||---------------|
Critical Gap Module:
Critical Gp:xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx   6.9
FollowUpTim:xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx   3.3
------------|---------------||---------------||---------------||---------------|
Capacity Module:
Cnflict Vol: xxxx xxxx xxxxx  xxxx xxxx xxxxx  xxxx xxxx xxxxx  xxxx xxxx   677
Potent Cap.: xxxx xxxx xxxxx  xxxx xxxx xxxxx  xxxx xxxx xxxxx  xxxx xxxx   400
Move Cap.:   xxxx xxxx xxxxx  xxxx xxxx xxxxx  xxxx xxxx xxxxx  xxxx xxxx   400
Volume/Cap:  xxxx xxxx  xxxx  xxxx xxxx  xxxx  xxxx xxxx  xxxx  xxxx xxxx  0.04
------------|---------------||---------------||---------------||---------------|
Level Of Service Module:
2Way95thQ:   xxxx xxxx xxxxx  xxxx xxxx xxxxx  xxxx xxxx xxxxx  xxxx xxxx   3.5
Control Del:xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx  14.4
LOS by Move:    *    *     *     *    *     *     *    *     *     *    *     B
Movement:     LT - LTR - RT    LT - LTR - RT    LT - LTR - RT    LT - LTR - RT
Shared Cap.: xxxx xxxx xxxxx  xxxx xxxx xxxxx  xxxx xxxx xxxxx  xxxx xxxx xxxxx
SharedQueue:xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx
Shrd ConDel:xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx
Shared LOS:     *    *     *     *    *     *     *    *     *     *    *     *
ApproachDel:    xxxxxx            xxxxxx            xxxxxx             14.4
ApproachLOS:         *                 *                 *                B
Note: Queue reported is the distance per lane in feet.
                     Peak Hour Delay Signal Warrant Report
*******************************************************************************
Intersection #7 S Mathilda Ave / Southwest Project Driveway
*******************************************************************************
```

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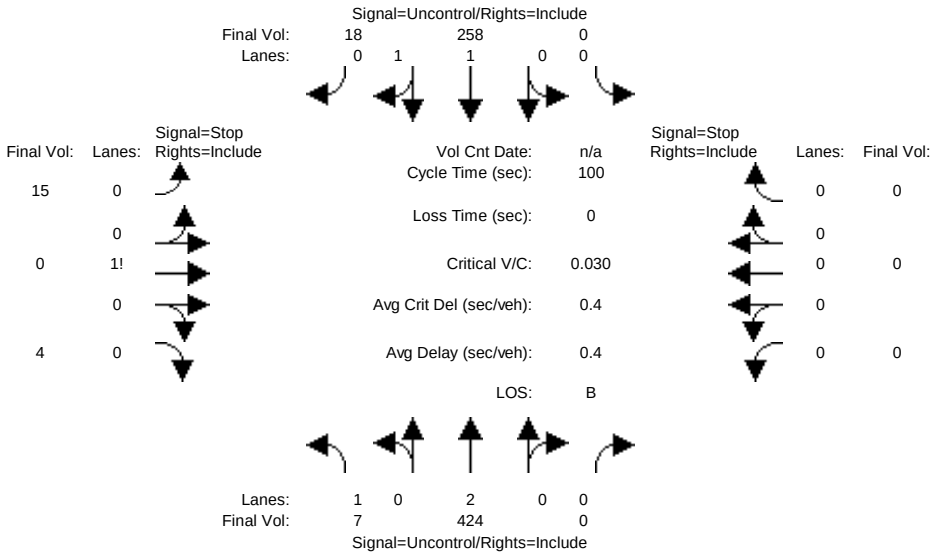
Level Of Service Computation Report
2000 HCM Unsignalized (Future Volume Alternative)
Ex + P AM

## Intersection #8: Sunnyvale-Saratoga Road / East Project Driveway




```
Street Name:     Sunnyvale-Saratoga Road            East Project Driveway
Approach:      North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Volume Module:
Base Vol:       5  422     0     0  255     9     9    0     3     0    0     0
Growth 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
Initial Bse:    5  422     0     0  255     9     9    0     3     0    0     0
Added Vol:      2    2     0     0    3     9     6    0     1     0    0     0
PasserByVol:    0    0     0     0    0     0     0    0     0     0    0     0
Initial Fut:    7  424     0     0  258    18    15    0     4     0    0     0
User 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
PHF 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
PHF Volume:     7  424     0     0  258    18    15    0     4     0    0     0
Reduct Vol:     0    0     0     0    0     0     0    0     0     0    0     0
FinalVolume:    7  424     0     0  258    18    15    0     4     0    0     0
------------|---------------||---------------||---------------||---------------|
Critical Gap Module:
Critical Gp:  4.1 xxxx xxxxx xxxxx xxxx xxxxx   6.8  6.5   6.9 xxxxx xxxx xxxxx
FollowUpTim:  2.2 xxxx xxxxx xxxxx xxxx xxxxx   3.5  4.0   3.3 xxxxx xxxx xxxxx
------------|---------------||---------------||---------------||---------------|
Capacity Module:
Cnflict Vol:  276 xxxx xxxxx  xxxx xxxx xxxxx   493  705   138  xxxx xxxx xxxxx
Potent Cap.: 1299 xxxx xxxxx  xxxx xxxx xxxxx   510  363   891  xxxx xxxx xxxxx
Move Cap.:   1299 xxxx xxxxx  xxxx xxxx xxxxx   508  362   891  xxxx xxxx xxxxx
Volume/Cap:  0.01 xxxx  xxxx  xxxx xxxx  xxxx  0.03 0.00  0.00  xxxx xxxx  xxxx
------------|---------------||---------------||---------------||---------------|
Level Of Service Module:
2Way95thQ:    0.4 xxxx xxxxx  xxxx xxxx xxxxx  xxxx xxxx xxxxx  xxxx xxxx xxxxx
Control Del:  7.8 xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx
LOS by Move:    A    *     *     *    *     *     *    *     *     *    *     *
Movement:     LT - LTR - RT    LT - LTR - RT    LT - LTR - RT    LT - LTR - RT
Shared Cap.: xxxx xxxx xxxxx  xxxx xxxx xxxxx  xxxx  559 xxxxx  xxxx xxxx xxxxx
SharedQueue:xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx  0.1 xxxxx xxxxx xxxx xxxxx
Shrd ConDel:xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx 11.7 xxxxx xxxxx xxxx xxxxx
Shared LOS:     *    *     *     *    *     *     *    B     *     *    *     *
ApproachDel:    xxxxxx           xxxxxx             11.7           xxxxxx
ApproachLOS:         *                *               B                *
Note: Queue reported is the distance per lane in feet.
                     Peak Hour Delay Signal Warrant Report
*******************************************************************************
Intersection #8 Sunnyvale-Saratoga Road / East Project Driveway
*******************************************************************************
```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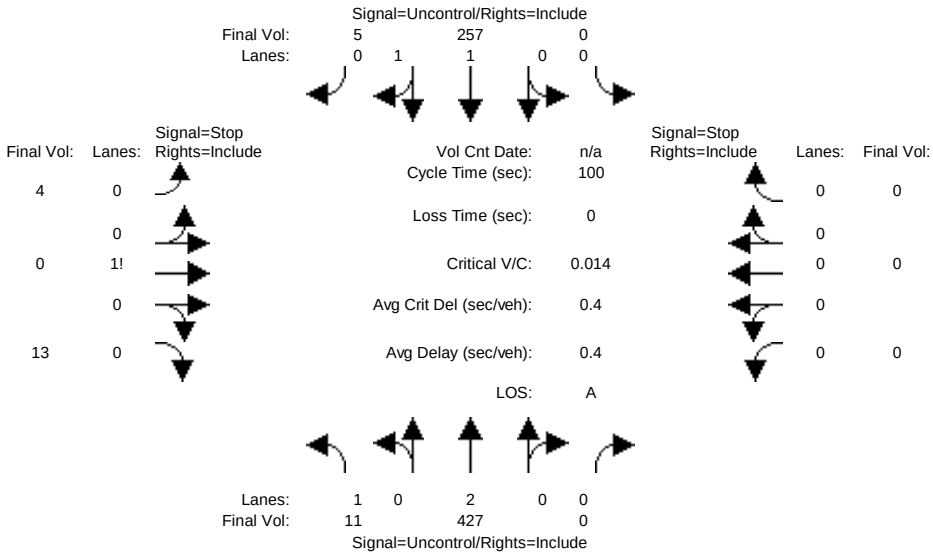
Level Of Service Computation Report
2000 HCM Unsignalized (Future Volume Alternative)
Ex + P AM

## Intersection #9: Sunnyvale-Saratoga Road / Southeast Project Driveway




```
Street Name:     Sunnyvale-Saratoga Road          Southeast Project Driveway
Approach:      North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Volume Module:
Base Vol:       8  425     0     0  256     2     2    0    12     0    0     0
Growth 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
Initial Bse:    8  425     0     0  256     2     2    0    12     0    0     0
Added Vol:      3    2     0     0    1     3     2    0     1     0    0     0
PasserByVol:    0    0     0     0    0     0     0    0     0     0    0     0
Initial Fut:   11  427     0     0  257     5     4    0    13     0    0     0
User 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
PHF 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
PHF Volume:    11  427     0     0  257     5     4    0    13     0    0     0
Reduct Vol:     0    0     0     0    0     0     0    0     0     0    0     0
FinalVolume:   11  427     0     0  257     5     4    0    13     0    0     0
------------|---------------||---------------||---------------||---------------|
Critical Gap Module:
Critical Gp:  4.1 xxxx xxxxx xxxxx xxxx xxxxx   6.8  6.5   6.9 xxxxx xxxx xxxxx
FollowUpTim:  2.2 xxxx xxxxx xxxxx xxxx xxxxx   3.5  4.0   3.3 xxxxx xxxx xxxxx
------------|---------------||---------------||---------------||---------------|
Capacity Module:
Cnflict Vol:  262 xxxx xxxxx  xxxx xxxx xxxxx   495  709   131  xxxx xxxx xxxxx
Potent Cap.: 1314 xxxx xxxxx  xxxx xxxx xxxxx   509  362   901  xxxx xxxx xxxxx
Move Cap.:   1314 xxxx xxxxx  xxxx xxxx xxxxx   505  359   901  xxxx xxxx xxxxx
Volume/Cap:  0.01 xxxx  xxxx  xxxx xxxx  xxxx  0.01 0.00  0.01  xxxx xxxx  xxxx
------------|---------------||---------------||---------------||---------------|
Level Of Service Module:
2Way95thQ:    0.6 xxxx xxxxx  xxxx xxxx xxxxx  xxxx xxxx xxxxx  xxxx xxxx xxxxx
Control Del:  7.8 xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx
LOS by Move:    A    *     *     *    *     *     *    *     *     *    *     *
Movement:     LT - LTR - RT    LT - LTR - RT    LT - LTR - RT    LT - LTR - RT
Shared Cap.: xxxx xxxx xxxxx  xxxx xxxx xxxxx  xxxx  761 xxxxx  xxxx xxxx xxxxx
SharedQueue:xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx  0.1 xxxxx xxxxx xxxx xxxxx
Shrd ConDel:xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx  9.8 xxxxx xxxxx xxxx xxxxx
Shared LOS:     *    *     *     *    *     *     *    A     *     *    *     *
ApproachDel:    xxxxxx            xxxxxx              9.8           xxxxxx
ApproachLOS:         *                 *                A                 *
Note: Queue reported is the distance per lane in feet.
                     Peak Hour Delay Signal Warrant Report
*******************************************************************************
Intersection #9 Sunnyvale-Saratoga Road / Southeast Project Driveway
*******************************************************************************
```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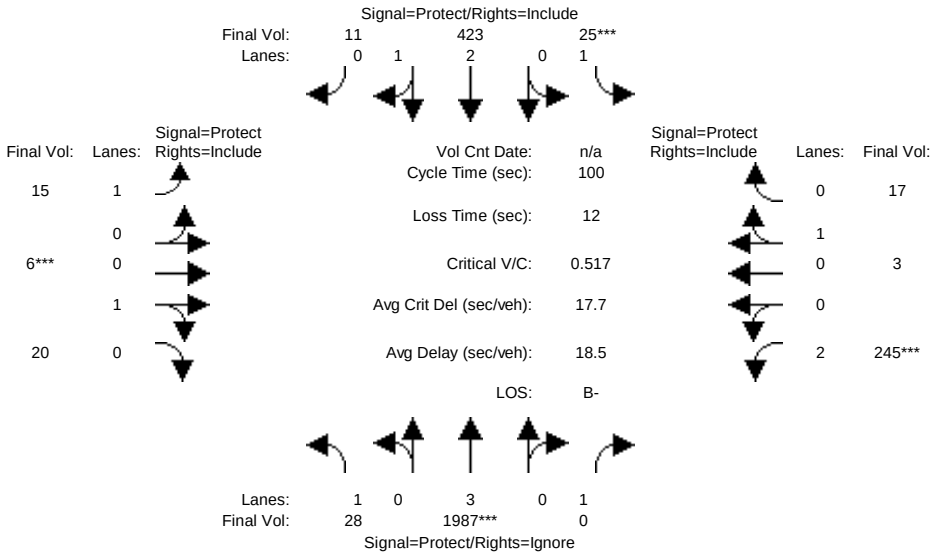
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex + P AM

## Intersection #10: S Mathilda Ave - Sunnyvale-Saratoga Rd / Talisman Dr - Sunnvyale-Saratoga Rd




Street Name:S Mathilda Ave - Sunnyvale-Sarato Talisman Dr - Sunnyvale-Saratoga

| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Movement: | L - | T - | R | L - | T - | R | L - | T - | R | L - | T - | R |
| Min. Green: | 7 | 10 | 10 | 7 | 10 | 10 | 7 | 10 | 10 | 7 | 10 | 10 |
| Y+R: | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 |
| Volume Module: | | | | | | | | | | | | |
| Base Vol: | 28 | 1987 | 467 | 22 | 423 | 11 | 15 | 6 | 20 | 243 | 3 | 17 |
| Growth 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 |
| Initial Bse: | 28 | 1987 | 467 | 22 | 423 | 11 | 15 | 6 | 20 | 243 | 3 | 17 |
| Added Vol: | 0 | 0 | 3 | 3 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 |
| PasserByVol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Initial Fut: | 28 | 1987 | 470 | 25 | 423 | 11 | 15 | 6 | 20 | 245 | 3 | 17 |
| User Adj: | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj: | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume: | 28 | 1987 | 0 | 25 | 423 | 11 | 15 | 6 | 20 | 245 | 3 | 17 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 28 | 1987 | 0 | 25 | 423 | 11 | 15 | 6 | 20 | 245 | 3 | 17 |
| PCE Adj: | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj: | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| FinalVolume: | 28 | 1987 | 0 | 25 | 423 | 11 | 15 | 6 | 20 | 245 | 3 | 17 |
| Saturation Flow Module: | | | | | | | | | | | | |
| Sat/Lane: | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adjustment: | 0.92 | 1.00 | 0.92 | 0.92 | 0.98 | 0.95 | 0.92 | 0.95 | 0.95 | 0.83 | 0.95 | 0.95 |
| Lanes: | 1.00 | 3.00 | 1.00 | 1.00 | 2.92 | 0.08 | 1.00 | 0.23 | 0.77 | 2.00 | 0.15 | 0.85 |
| Final Sat.: | 1750 | 5700 | 1750 | 1750 | 5458 | 142 | 1750 | 415 | 1385 | 3150 | 270 | 1530 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.02 | 0.35 | 0.00 | 0.01 | 0.08 | 0.08 | 0.01 | 0.01 | 0.01 | 0.08 | 0.01 | 0.01 |
| Crit Moves: | | **** | | **** | | | | **** | | **** | | |
| Green Time: | 26.8 | 58.0 | 0.0 | 7.0 | 38.3 | 38.3 | 9.5 | 10.0 | 10.0 | 13.0 | 13.5 | 13.5 |
| Volume/Cap: | 0.06 | 0.60 | 0.00 | 0.20 | 0.20 | 0.20 | 0.09 | 0.14 | 0.14 | 0.60 | 0.08 | 0.08 |
| Delay/Veh: | 27.3 | 13.8 | 0.0 | 44.7 | 20.7 | 20.7 | 41.6 | 41.5 | 41.5 | 43.6 | 38.0 | 38.0 |
| User DelAdj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| AdjDel/Veh: | 27.3 | 13.8 | 0.0 | 44.7 | 20.7 | 20.7 | 41.6 | 41.5 | 41.5 | 43.6 | 38.0 | 38.0 |
| LOS by Move: | C | B | A | D | C+ | C+ | D | D | D | D | D+ | D+ |
| HCM2k95thQ: | 34 | 582 | 0 | 50 | 150 | 150 | 27 | 45 | 45 | 255 | 31 | 31 |

Note: Queue reported is the distance per lane in feet.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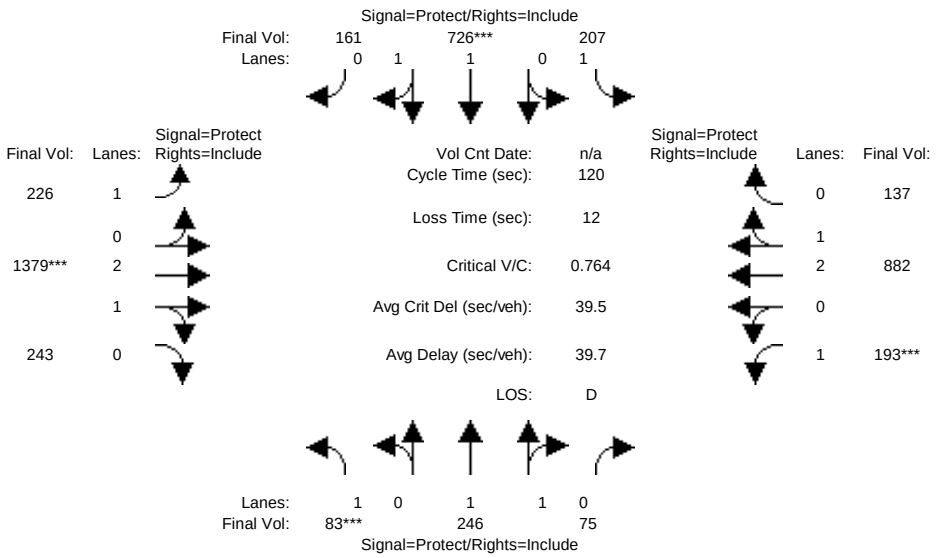
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex + P PM

## Intersection #1: S Mary Ave / El Camino Real




| Street Name: | S Mary Ave | | | | | | El Camino Real | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
| Movement: | L - | T - | R | L - | T - | R | L - | T - | R | L - | T - | R |
| Min. Green: | 7 | 10 | 10 | 7 | 10 | 10 | 7 | 10 | 10 | 7 | 10 | 10 |
| Y+R: | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 |
| Volume Module: | | | | | | | | | | | | |
| Base Vol: | 83 | 246 | 70 | 205 | 726 | 161 | 226 | 1365 | 243 | 188 | 868 | 135 |
| Growth 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 |
| Initial Bse: | 83 | 246 | 70 | 205 | 726 | 161 | 226 | 1365 | 243 | 188 | 868 | 135 |
| Added Vol: | 0 | 0 | 5 | 2 | 0 | 0 | 0 | 14 | 0 | 5 | 14 | 2 |
| PasserByVol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Initial Fut: | 83 | 246 | 75 | 207 | 726 | 161 | 226 | 1379 | 243 | 193 | 882 | 137 |
| User 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 |
| PHF 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 |
| PHF Volume: | 83 | 246 | 75 | 207 | 726 | 161 | 226 | 1379 | 243 | 193 | 882 | 137 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 83 | 246 | 75 | 207 | 726 | 161 | 226 | 1379 | 243 | 193 | 882 | 137 |
| PCE 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 |
| MLF 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 |
| FinalVolume: | 83 | 246 | 75 | 207 | 726 | 161 | 226 | 1379 | 243 | 193 | 882 | 137 |
| Saturation Flow Module: | | | | | | | | | | | | |
| Sat/Lane: | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adjustment: | 0.92 | 0.98 | 0.95 | 0.92 | 0.98 | 0.95 | 0.92 | 0.99 | 0.95 | 0.92 | 0.99 | 0.95 |
| Lanes: | 1.00 | 1.52 | 0.48 | 1.00 | 1.63 | 0.37 | 1.00 | 2.53 | 0.47 | 1.00 | 2.58 | 0.42 |
| Final Sat.: | 1750 | 2835 | 864 | 1750 | 3028 | 671 | 1750 | 4760 | 839 | 1750 | 4846 | 753 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.05 | 0.09 | 0.09 | 0.12 | 0.24 | 0.24 | 0.13 | 0.29 | 0.29 | 0.11 | 0.18 | 0.18 |
| Crit Moves: | **** | | | | **** | | | **** | | **** | | |
| Green Time: | 7.5 | 19.1 | 19.1 | 26.0 | 37.7 | 37.7 | 26.1 | 45.5 | 45.5 | 17.3 | 36.8 | 36.8 |
| Volume/Cap: | 0.76 | 0.55 | 0.55 | 0.55 | 0.76 | 0.76 | 0.59 | 0.76 | 0.76 | 0.76 | 0.59 | 0.59 |
| Delay/Veh: | 82.3 | 47.5 | 47.5 | 43.4 | 40.2 | 40.2 | 44.7 | 34.2 | 34.2 | 62.3 | 35.9 | 35.9 |
| User DelAdj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| AdjDel/Veh: | 82.3 | 47.5 | 47.5 | 43.4 | 40.2 | 40.2 | 44.7 | 34.2 | 34.2 | 62.3 | 35.9 | 35.9 |
| LOS by Move: | F | D | D | D | D | D | D | C- | C- | E | D+ | D+ |
| HCM2k95thQ: | 244 | 298 | 298 | 368 | 717 | 717 | 408 | 807 | 807 | 365 | 484 | 484 |

Note: Queue reported is the distance per lane in feet.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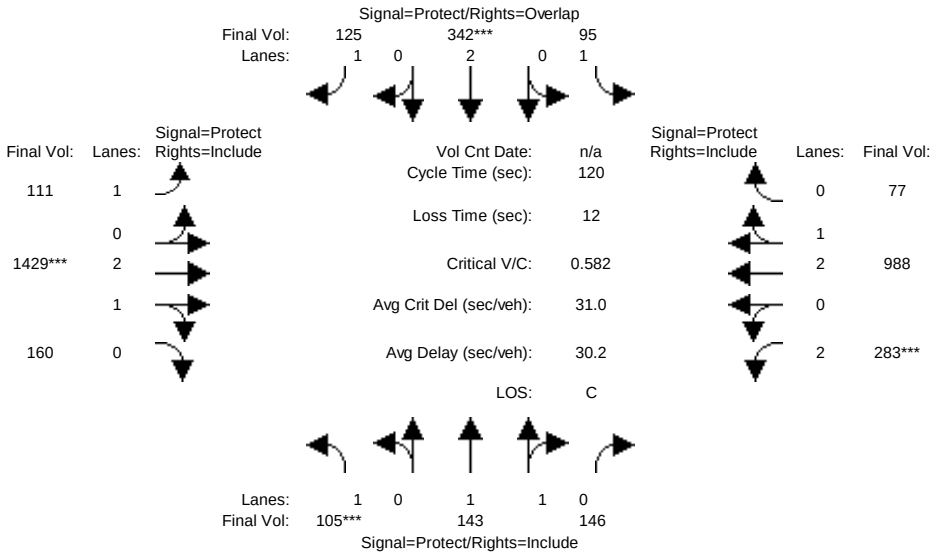
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex + P PM

## Intersection #2: S Pastoria Avenue / El Camino Real




| Street Name: | S Pastoria Avenue | | | | | | El Camino Real | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
| Movement: | L - | T - | R | L - | T - | R | L - | T - | R | L - | T - | R |
| Min. Green: | 7 | 10 | 10 | 7 | 10 | 10 | 7 | 10 | 10 | 7 | 10 | 10 |
| Y+R: | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 |
| Volume Module: | | | | | | | | | | | | |
| Base Vol: | 105 | 143 | 146 | 95 | 342 | 125 | 111 | 1407 | 160 | 283 | 967 | 77 |
| Growth 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 |
| Initial Bse: | 105 | 143 | 146 | 95 | 342 | 125 | 111 | 1407 | 160 | 283 | 967 | 77 |
| Added Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 22 | 0 | 0 | 21 | 0 |
| PasserByVol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Initial Fut: | 105 | 143 | 146 | 95 | 342 | 125 | 111 | 1429 | 160 | 283 | 988 | 77 |
| User 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 |
| PHF 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 |
| PHF Volume: | 105 | 143 | 146 | 95 | 342 | 125 | 111 | 1429 | 160 | 283 | 988 | 77 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 105 | 143 | 146 | 95 | 342 | 125 | 111 | 1429 | 160 | 283 | 988 | 77 |
| PCE 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 |
| MLF 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 |
| FinalVolume: | 105 | 143 | 146 | 95 | 342 | 125 | 111 | 1429 | 160 | 283 | 988 | 77 |
| Saturation Flow Module: | | | | | | | | | | | | |
| Sat/Lane: | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adjustment: | 0.92 | 1.00 | 0.92 | 0.92 | 1.00 | 0.92 | 0.92 | 0.99 | 0.95 | 0.83 | 0.99 | 0.95 |
| Lanes: | 1.00 | 1.00 | 1.00 | 1.00 | 2.00 | 1.00 | 1.00 | 2.69 | 0.31 | 2.00 | 2.78 | 0.22 |
| Final Sat.: | 1750 | 1900 | 1750 | 1750 | 3800 | 1750 | 1750 | 5035 | 564 | 3150 | 5195 | 405 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.06 | 0.08 | 0.08 | 0.05 | 0.09 | 0.07 | 0.06 | 0.28 | 0.28 | 0.09 | 0.19 | 0.19 |
| Crit Moves: | **** | | | | **** | | | **** | | **** | | |
| Green Time: | 12.4 | 18.2 | 18.2 | 12.7 | 18.6 | 37.8 | 19.3 | 58.5 | 58.5 | 18.5 | 57.8 | 57.8 |
| Volume/Cap: | 0.58 | 0.50 | 0.55 | 0.51 | 0.58 | 0.23 | 0.39 | 0.58 | 0.58 | 0.58 | 0.39 | 0.39 |
| Delay/Veh: | 56.1 | 47.4 | 48.4 | 53.1 | 48.6 | 30.5 | 46.1 | 22.3 | 22.3 | 48.9 | 20.0 | 20.0 |
| User DelAdj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| AdjDel/Veh: | 56.1 | 47.4 | 48.4 | 53.1 | 48.6 | 30.5 | 46.1 | 22.3 | 22.3 | 48.9 | 20.0 | 20.0 |
| LOS by Move: | E+ | D | D | D- | D | C | D | C+ | C+ | D | C+ | C+ |
| HCM2k95thQ: | 238 | 258 | 291 | 208 | 315 | 180 | 186 | 600 | 600 | 278 | 383 | 383 |

Note: Queue reported is the distance per lane in feet.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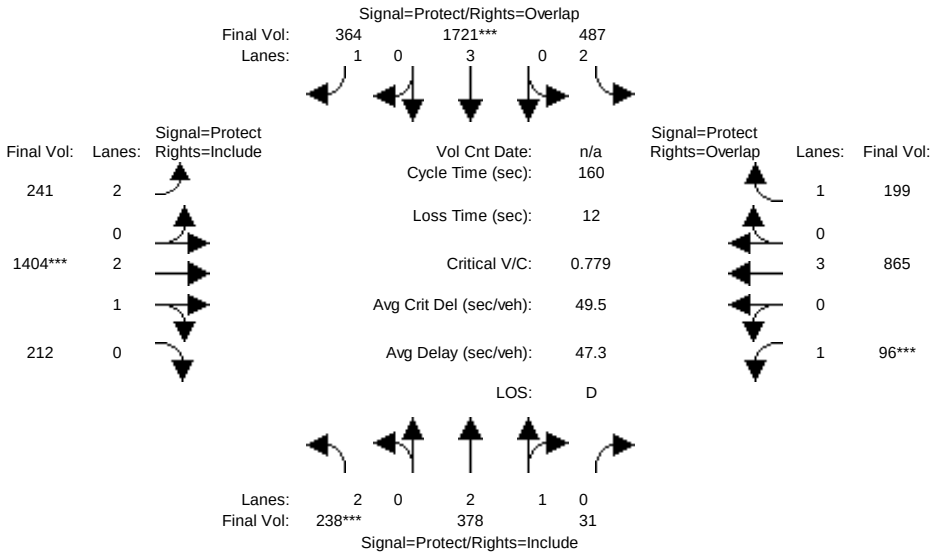
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex + P PM

## Intersection #3: S. Mathilda Avenue / El Camino Real




| Street Name: | S. Mathilda Avenue | | | | | | El Camino Real | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
| Movement: | L - | T - | R | L - | T - | R | L - | T - | R | L - | T - | R |
| Min. Green: | 7 | 10 | 10 | 7 | 10 | 10 | 7 | 10 | 10 | 7 | 10 | 10 |
| Y+R: | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 |
| Volume Module: | | | | | | | | | | | | |
| Base Vol: | 234 | 378 | 31 | 486 | 1721 | 364 | 241 | 1389 | 206 | 96 | 847 | 198 |
| Growth 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 |
| Initial Bse: | 234 | 378 | 31 | 486 | 1721 | 364 | 241 | 1389 | 206 | 96 | 847 | 198 |
| Added Vol: | 4 | 0 | 0 | 1 | 0 | 0 | 0 | 15 | 6 | 0 | 18 | 1 |
| PasserByVol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Initial Fut: | 238 | 378 | 31 | 487 | 1721 | 364 | 241 | 1404 | 212 | 96 | 865 | 199 |
| User 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 |
| PHF 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 |
| PHF Volume: | 238 | 378 | 31 | 487 | 1721 | 364 | 241 | 1404 | 212 | 96 | 865 | 199 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 238 | 378 | 31 | 487 | 1721 | 364 | 241 | 1404 | 212 | 96 | 865 | 199 |
| PCE 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 |
| MLF 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 |
| FinalVolume: | 238 | 378 | 31 | 487 | 1721 | 364 | 241 | 1404 | 212 | 96 | 865 | 199 |
| Saturation Flow Module: | | | | | | | | | | | | |
| Sat/Lane: | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adjustment: | 0.83 | 0.99 | 0.95 | 0.83 | 1.00 | 0.92 | 0.83 | 0.99 | 0.95 | 0.92 | 1.00 | 0.92 |
| Lanes: | 2.00 | 2.76 | 0.24 | 2.00 | 3.00 | 1.00 | 2.00 | 2.59 | 0.41 | 1.00 | 3.00 | 1.00 |
| Final Sat.: | 3150 | 5175 | 424 | 3150 | 5700 | 1750 | 3150 | 4864 | 735 | 1750 | 5700 | 1750 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.08 | 0.07 | 0.07 | 0.15 | 0.30 | 0.21 | 0.08 | 0.29 | 0.29 | 0.05 | 0.15 | 0.11 |
| Crit Moves: | **** | | | | **** | | | **** | | **** | | |
| Green Time: | 15.5 | 24.9 | 52.6 | 62.0 | 85.6 | 23.6 | 59.2 | 59.2 | 11.3 | 46.9 | 99.5 | |
| Volume/Cap: | 0.78 | 0.47 | 0.47 | 0.47 | 0.78 | 0.39 | 0.52 | 0.78 | 0.78 | 0.78 | 0.52 | 0.18 |
| Delay/Veh: | 82.7 | 62.0 | 62.0 | 43.0 | 44.9 | 22.1 | 64.0 | 46.6 | 46.6 | 99.7 | 47.4 | 13.0 |
| User DelAdj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| AdjDel/Veh: | 82.7 | 62.0 | 62.0 | 43.0 | 44.9 | 22.1 | 64.0 | 46.6 | 46.6 | 99.7 | 47.4 | 13.0 |
| LOS by Move: | F | E | E | D | D | C+ | E | D | D | F | D | B |
| HCM2k95thQ: | 404 | 310 | 310 | 511 | 1047 | 500 | 305 | 979 | 979 | 261 | 517 | 213 |

Note: Queue reported is the distance per lane in feet.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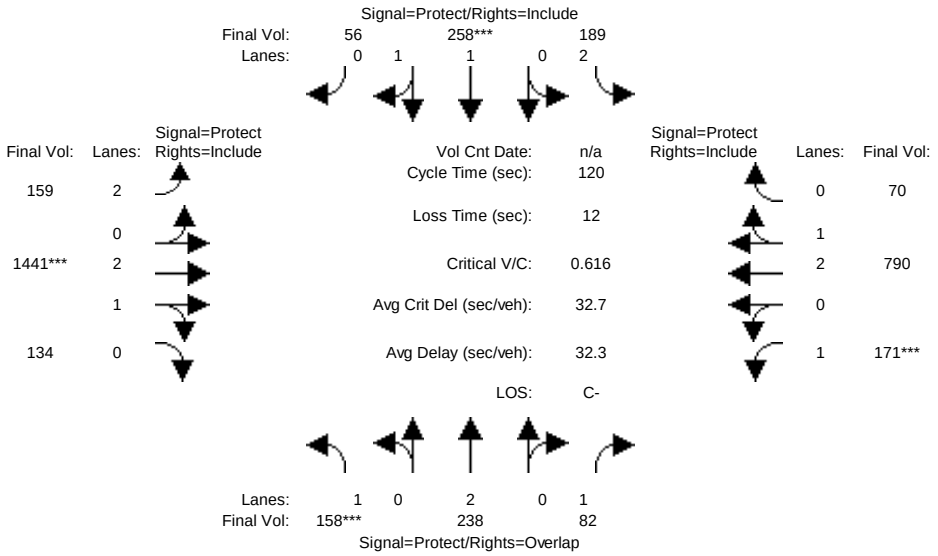
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex + P PM

## Intersection #4: S. Sunnyvale Avenue / El Camino Real




| Street Name: | S. Sunnyvale Avenue | | | | | | El Camino Real | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
| Movement: | L - | T - | R | L - | T - | R | L - | T - | R | L - | T - | R |
| Min. Green: | 7 | 10 | 10 | 7 | 10 | 10 | 7 | 10 | 10 | 7 | 10 | 10 |
| Y+R: | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 |
| Volume Module: | | | | | | | | | | | | |
| Base Vol: | 139 | 231 | 74 | 189 | 251 | 56 | 159 | 1441 | 118 | 162 | 790 | 70 |
| Growth 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 |
| Initial Bse: | 139 | 231 | 74 | 189 | 251 | 56 | 159 | 1441 | 118 | 162 | 790 | 70 |
| Added Vol: | 19 | 7 | 8 | 0 | 7 | 0 | 0 | 0 | 16 | 9 | 0 | 0 |
| PasserByVol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Initial Fut: | 158 | 238 | 82 | 189 | 258 | 56 | 159 | 1441 | 134 | 171 | 790 | 70 |
| User 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 |
| PHF 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 |
| PHF Volume: | 158 | 238 | 82 | 189 | 258 | 56 | 159 | 1441 | 134 | 171 | 790 | 70 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 158 | 238 | 82 | 189 | 258 | 56 | 159 | 1441 | 134 | 171 | 790 | 70 |
| PCE 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 |
| MLF 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 |
| FinalVolume: | 158 | 238 | 82 | 189 | 258 | 56 | 159 | 1441 | 134 | 171 | 790 | 70 |
| Saturation Flow Module: | | | | | | | | | | | | |
| Sat/Lane: | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adjustment: | 0.92 | 1.00 | 0.92 | 0.83 | 0.98 | 0.95 | 0.83 | 0.99 | 0.95 | 0.92 | 0.99 | 0.95 |
| Lanes: | 1.00 | 2.00 | 1.00 | 2.00 | 1.63 | 0.37 | 2.00 | 2.74 | 0.26 | 1.00 | 2.75 | 0.25 |
| Final Sat.: | 1750 | 3800 | 1750 | 3150 | 3040 | 660 | 3150 | 5123 | 476 | 1750 | 5144 | 456 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.09 | 0.06 | 0.05 | 0.06 | 0.08 | 0.08 | 0.05 | 0.28 | 0.28 | 0.10 | 0.15 | 0.15 |
| Crit Moves: | **** | | | | **** | | | **** | | **** | | |
| Green Time: | 17.6 | 19.8 | 38.9 | 14.3 | 16.5 | 16.5 | 20.3 | 54.8 | 54.8 | 19.0 | 53.5 | 53.5 |
| Volume/Cap: | 0.62 | 0.38 | 0.14 | 0.50 | 0.62 | 0.62 | 0.30 | 0.62 | 0.62 | 0.62 | 0.34 | 0.34 |
| Delay/Veh: | 52.5 | 45.0 | 28.9 | 50.6 | 51.0 | 51.0 | 43.9 | 25.1 | 25.1 | 51.2 | 21.8 | 21.8 |
| User DelAdj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| AdjDel/Veh: | 52.5 | 45.0 | 28.9 | 50.6 | 51.0 | 51.0 | 43.9 | 25.1 | 25.1 | 51.2 | 21.8 | 21.8 |
| LOS by Move: | D- | D | C | D | D | D | D | C | C | D- | C+ | C+ |
| HCM2k95thQ: | 325 | 204 | 115 | 222 | 312 | 312 | 145 | 625 | 625 | 305 | 322 | 322 |

Note: Queue reported is the distance per lane in feet.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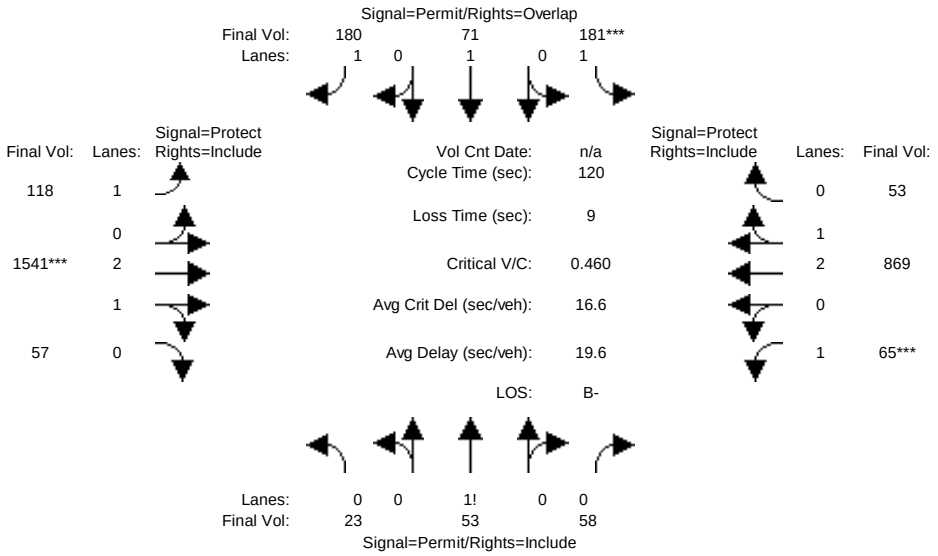
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex + P PM

## Intersection #5: Cezanne Drive / El Camino Real




| Street Name: | Cezanne Drive | | | | | | El Camino Real | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
| Movement: | L - | T - | R | L - | T - | R | L - | T - | R | L - | T - | R |
| Min. Green: | 10 | 10 | 10 | 10 | 10 | 10 | 7 | 10 | 10 | 7 | 10 | 10 |
| Y+R: | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 |
| Volume Module: | | | | | | | | | | | | |
| Base Vol: | 23 | 53 | 58 | 181 | 71 | 180 | 118 | 1533 | 57 | 65 | 860 | 53 |
| Growth 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 |
| Initial Bse: | 23 | 53 | 58 | 181 | 71 | 180 | 118 | 1533 | 57 | 65 | 860 | 53 |
| Added Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 8 | 0 | 0 | 9 | 0 |
| PasserByVol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Initial Fut: | 23 | 53 | 58 | 181 | 71 | 180 | 118 | 1541 | 57 | 65 | 869 | 53 |
| User 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 |
| PHF 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 |
| PHF Volume: | 23 | 53 | 58 | 181 | 71 | 180 | 118 | 1541 | 57 | 65 | 869 | 53 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 23 | 53 | 58 | 181 | 71 | 180 | 118 | 1541 | 57 | 65 | 869 | 53 |
| PCE 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 |
| MLF 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 |
| FinalVolume: | 23 | 53 | 58 | 181 | 71 | 180 | 118 | 1541 | 57 | 65 | 869 | 53 |
| Saturation Flow Module: | | | | | | | | | | | | |
| Sat/Lane: | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adjustment: | 0.92 | 0.92 | 0.92 | 0.92 | 1.00 | 0.92 | 0.92 | 0.98 | 0.95 | 0.92 | 0.98 | 0.95 |
| Lanes: | 0.17 | 0.40 | 0.43 | 1.00 | 1.00 | 1.00 | 1.00 | 2.89 | 0.11 | 1.00 | 2.82 | 0.18 |
| Final Sat.: | 300 | 692 | 757 | 1750 | 1900 | 1750 | 1750 | 5400 | 200 | 1750 | 5278 | 322 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.08 | 0.08 | 0.08 | 0.10 | 0.04 | 0.10 | 0.07 | 0.29 | 0.29 | 0.04 | 0.16 | 0.16 |
| Crit Moves: | | | | **** | | | | **** | | **** | | |
| Green Time: | 27.0 | 27.0 | 27.0 | 27.0 | 27.0 | 51.4 | 24.4 | 74.4 | 74.4 | 9.7 | 59.6 | 59.6 |
| Volume/Cap: | 0.34 | 0.34 | 0.34 | 0.46 | 0.17 | 0.24 | 0.33 | 0.46 | 0.46 | 0.46 | 0.33 | 0.33 |
| Delay/Veh: | 39.6 | 39.6 | 39.6 | 41.1 | 37.7 | 22.0 | 41.4 | 12.2 | 12.2 | 55.0 | 18.3 | 18.3 |
| User DelAdj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| AdjDel/Veh: | 39.6 | 39.6 | 39.6 | 41.1 | 37.7 | 22.0 | 41.4 | 12.2 | 12.2 | 55.0 | 18.3 | 18.3 |
| LOS by Move: | D | D | D | D | D+ | C+ | D | B | B | E+ | B- | B- |
| HCM2k95thQ: | 225 | 225 | 225 | 311 | 107 | 220 | 190 | 469 | 469 | 152 | 324 | 324 |

Note: Queue reported is the distance per lane in feet.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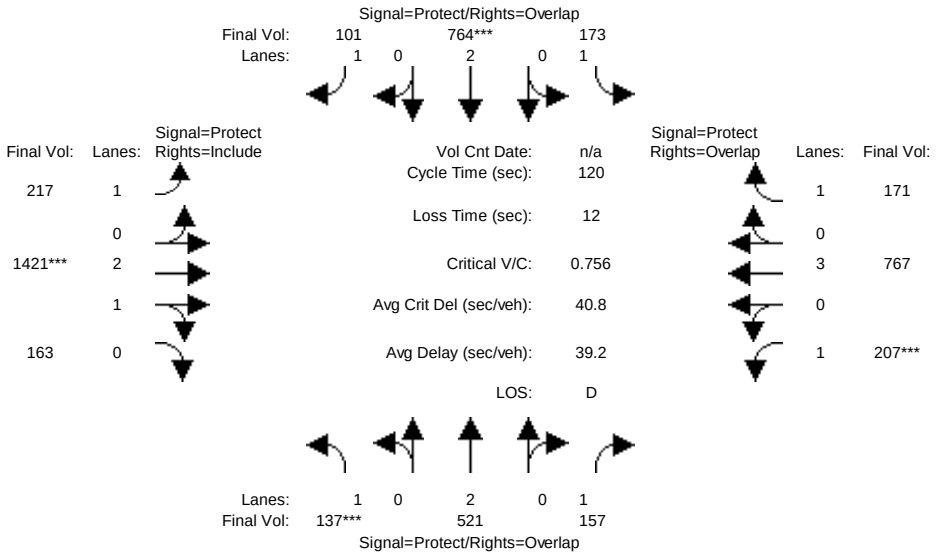
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex + P PM

## Intersection #6: S. Fair Oaks Avenue / El Camino Real




| Street Name: | S. Fair Oaks Avenue | | | | | | El Camino Real | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
| Movement: | L - | T - | R | L - | T - | R | L - | T - | R | L - | T - | R |
| Min. Green: | 7 | 10 | 10 | 7 | 10 | 10 | 7 | 10 | 10 | 7 | 10 | 10 |
| Y+R: | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 |
| Volume Module: | | | | | | | | | | | | |
| Base Vol: | 137 | 521 | 157 | 173 | 764 | 99 | 215 | 1414 | 163 | 207 | 760 | 171 |
| Growth 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 |
| Initial Bse: | 137 | 521 | 157 | 173 | 764 | 99 | 215 | 1414 | 163 | 207 | 760 | 171 |
| Added Vol: | 0 | 0 | 0 | 0 | 0 | 2 | 2 | 7 | 0 | 0 | 7 | 0 |
| PasserByVol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Initial Fut: | 137 | 521 | 157 | 173 | 764 | 101 | 217 | 1421 | 163 | 207 | 767 | 171 |
| User 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 |
| PHF 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 |
| PHF Volume: | 137 | 521 | 157 | 173 | 764 | 101 | 217 | 1421 | 163 | 207 | 767 | 171 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 137 | 521 | 157 | 173 | 764 | 101 | 217 | 1421 | 163 | 207 | 767 | 171 |
| PCE 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 |
| MLF 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 |
| FinalVolume: | 137 | 521 | 157 | 173 | 764 | 101 | 217 | 1421 | 163 | 207 | 767 | 171 |
| Saturation Flow Module: | | | | | | | | | | | | |
| Sat/Lane: | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adjustment: | 0.92 | 1.00 | 0.92 | 0.92 | 1.00 | 0.92 | 0.92 | 0.99 | 0.95 | 0.92 | 1.00 | 0.92 |
| Lanes: | 1.00 | 2.00 | 1.00 | 1.00 | 2.00 | 1.00 | 1.00 | 2.68 | 0.32 | 1.00 | 3.00 | 1.00 |
| Final Sat.: | 1750 | 3800 | 1750 | 1750 | 3800 | 1750 | 1750 | 5023 | 576 | 1750 | 5700 | 1750 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.08 | 0.14 | 0.09 | 0.10 | 0.20 | 0.06 | 0.12 | 0.28 | 0.28 | 0.12 | 0.13 | 0.10 |
| Crit Moves: | **** | | | | **** | | | **** | | **** | | |
| Green Time: | 12.4 | 25.8 | 44.5 | 18.6 | 31.9 | 62.4 | 30.5 | 44.9 | 44.9 | 18.8 | 33.1 | 51.7 |
| Volume/Cap: | 0.76 | 0.64 | 0.24 | 0.64 | 0.76 | 0.11 | 0.49 | 0.76 | 0.76 | 0.76 | 0.49 | 0.23 |
| Delay/Veh: | 68.9 | 44.6 | 26.3 | 52.6 | 43.8 | 14.7 | 38.9 | 34.4 | 34.4 | 59.8 | 36.6 | 21.7 |
| User DelAdj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| AdjDel/Veh: | 68.9 | 44.6 | 26.3 | 52.6 | 43.8 | 14.7 | 38.9 | 34.4 | 34.4 | 59.8 | 36.6 | 21.7 |
| LOS by Move: | E | D | C | D- | D | B | D+ | C- | C- | E+ | D+ | C+ |
| HCM2k95thQ: | 337 | 441 | 209 | 353 | 635 | 101 | 339 | 749 | 749 | 445 | 379 | 207 |

Note: Queue reported is the distance per lane in feet.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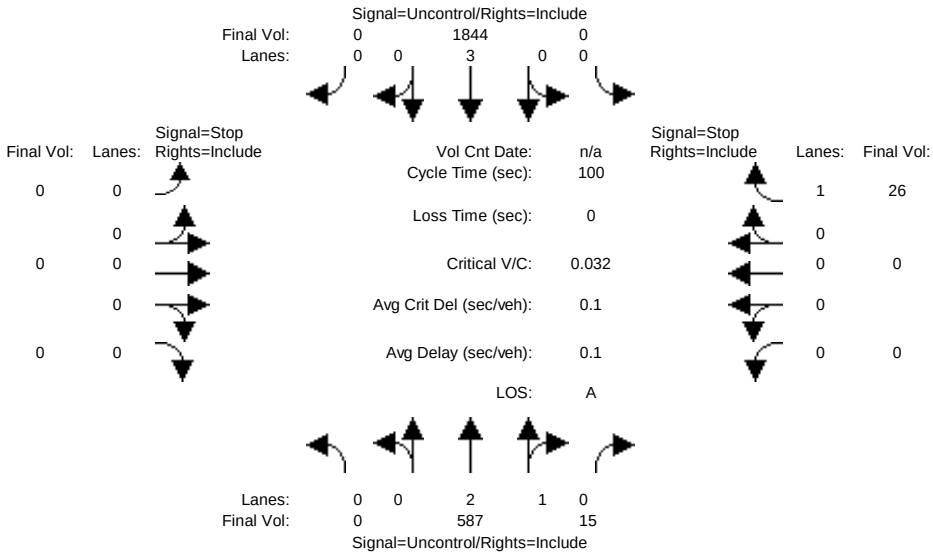
Level Of Service Computation Report
2000 HCM Unsignalized (Future Volume Alternative)
Ex + P PM

## Intersection #7: S Mathilda Ave / Southwest Project Driveway




```
Street Name:        S Mathilda Avenue             SouthwestProject Driveway
Approach:      North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Volume Module:
Base Vol:       0  585    12     0 1837     0     0    0     0     0    0    24
Growth 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
Initial Bse:    0  585    12     0 1837     0     0    0     0     0    0    24
Added Vol:      0    2     1     0    7     0     0    0     0     0    0     2
PasserByVol:    0    0     2     0    0     0     0    0     0     0    0     0
Initial Fut:    0  587    15     0 1844     0     0    0     0     0    0    26
User 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
PHF 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
PHF Volume:     0  587    15     0 1844     0     0    0     0     0    0    26
Reduct Vol:     0    0     0     0    0     0     0    0     0     0    0     0
FinalVolume:    0  587    15     0 1844     0     0    0     0     0    0    26
------------|---------------||---------------||---------------||---------------|
Critical Gap Module:
Critical Gp:xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx   6.9
FollowUpTim:xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx   3.3
------------|---------------||---------------||---------------||---------------|
Capacity Module:
Cnflict Vol: xxxx xxxx xxxxx  xxxx xxxx xxxxx  xxxx xxxx xxxxx  xxxx xxxx   203
Potent Cap.: xxxx xxxx xxxxx  xxxx xxxx xxxxx  xxxx xxxx xxxxx  xxxx xxxx   810
Move Cap.:   xxxx xxxx xxxxx  xxxx xxxx xxxxx  xxxx xxxx xxxxx  xxxx xxxx   810
Volume/Cap:  xxxx xxxx  xxxx  xxxx xxxx  xxxx  xxxx xxxx  xxxx  xxxx xxxx  0.03
------------|---------------||---------------||---------------||---------------|
Level Of Service Module:
2Way95thQ:   xxxx xxxx xxxxx  xxxx xxxx xxxxx  xxxx xxxx xxxxx  xxxx xxxx   2.5
Control Del:xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx   9.6
LOS by Move:    *    *     *     *    *     *     *    *     *     *    *     A
Movement:     LT - LTR - RT    LT - LTR - RT    LT - LTR - RT    LT - LTR - RT
Shared Cap.: xxxx xxxx xxxxx  xxxx xxxx xxxxx  xxxx xxxx xxxxx  xxxx xxxx xxxxx
SharedQueue:xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx
Shrd ConDel:xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx
Shared LOS:     *    *     *     *    *     *     *    *     *     *    *     *
ApproachDel:    xxxxxx            xxxxxx            xxxxxx              9.6
ApproachLOS:         *                 *                 *                A
Note: Queue reported is the distance per lane in feet.
                     Peak Hour Delay Signal Warrant Report
*******************************************************************************
Intersection #7 S Mathilda Ave / Southwest Project Driveway
*******************************************************************************
```

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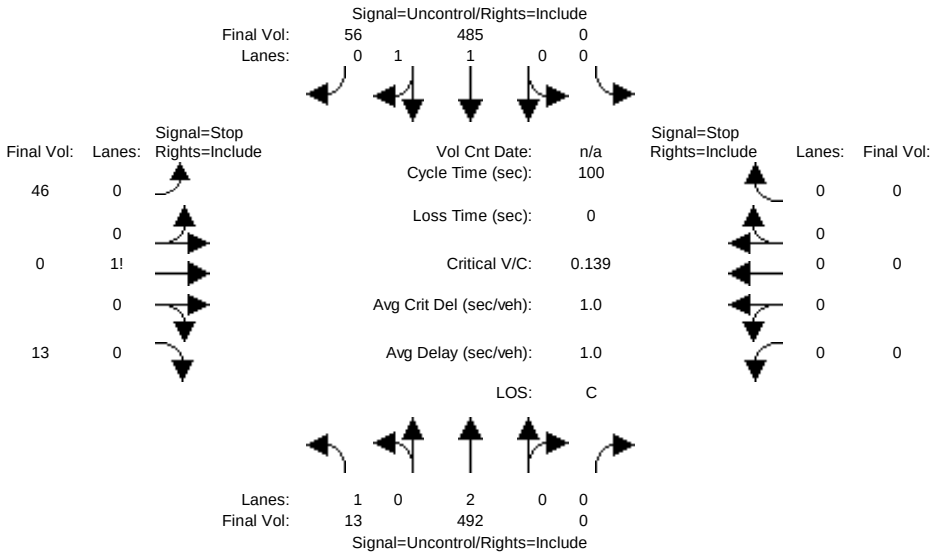
City of Sunnyvale
Oppidan Grocery Store (777 Sunnvyale-Saratoga Road)
097318104

Level Of Service Computation Report
2000 HCM Unsignalized (Future Volume Alternative)
Ex + P PM

## Intersection #8: Sunnyvale-Saratoga Road / East Project Driveway




```
Street Name:     Sunnyvale-Saratoga Road          East Project Driveway
Approach:      North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Volume Module:
Base Vol:       7  483     0     0  478    31    21    0     7     0    0     0
Growth 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
Initial Bse:    7  483     0     0  478    31    21    0     7     0    0     0
Added Vol:      6    9     0     0    7    25    25    0     6     0    0     0
PasserByVol:    0    0     0     0    0     0     0    0     0     0    0     0
Initial Fut:   13  492     0     0  485    56    46    0    13     0    0     0
User 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
PHF 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
PHF Volume:    13  492     0     0  485    56    46    0    13     0    0     0
Reduct Vol:     0    0     0     0    0     0     0    0     0     0    0     0
FinalVolume:   13  492     0     0  485    56    46    0    13     0    0     0
------------|---------------||---------------||---------------||---------------|
Critical Gap Module:
Critical Gp:  4.1 xxxx xxxxx xxxxx xxxx xxxxx   6.8  6.5   6.9 xxxxx xxxx xxxxx
FollowUpTim:  2.2 xxxx xxxxx xxxxx xxxx xxxxx   3.5  4.0   3.3 xxxxx xxxx xxxxx
------------|---------------||---------------||---------------||---------------|
Capacity Module:
Cnflict Vol:  541 xxxx xxxxx  xxxx xxxx xxxxx   785 1031   271  xxxx xxxx xxxxx
Potent Cap.: 1038 xxxx xxxxx  xxxx xxxx xxxxx   334  235   733  xxxx xxxx xxxxx
Move Cap.:   1038 xxxx xxxxx  xxxx xxxx xxxxx   331  232   733  xxxx xxxx xxxxx
Volume/Cap:  0.01 xxxx  xxxx  xxxx xxxx  xxxx  0.14 0.00  0.02  xxxx xxxx  xxxx
------------|---------------||---------------||---------------||---------------|
Level Of Service Module:
2Way95thQ:    1.0 xxxx xxxxx  xxxx xxxx xxxxx  xxxx xxxx xxxxx  xxxx xxxx xxxxx
Control Del:  8.5 xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx
LOS by Move:    A    *     *     *    *     *     *    *     *     *    *     *
Movement:     LT - LTR - RT    LT - LTR - RT    LT - LTR - RT    LT - LTR - RT
Shared Cap.: xxxx xxxx xxxxx  xxxx xxxx xxxxx  xxxx  376 xxxxx  xxxx xxxx xxxxx
SharedQueue:xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx  0.6 xxxxx xxxxx xxxx xxxxx
Shrd ConDel:xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx 16.3 xxxxx xxxxx xxxx xxxxx
Shared LOS:     *    *     *     *    *     *     *    C     *     *    *     *
ApproachDel:    xxxxxx           xxxxxx             16.3           xxxxxx
ApproachLOS:         *                *               C                *
Note: Queue reported is the distance per lane in feet.
                     Peak Hour Delay Signal Warrant Report
*******************************************************************************
Intersection #8 Sunnyvale-Saratoga Road / East Project Driveway
*******************************************************************************
```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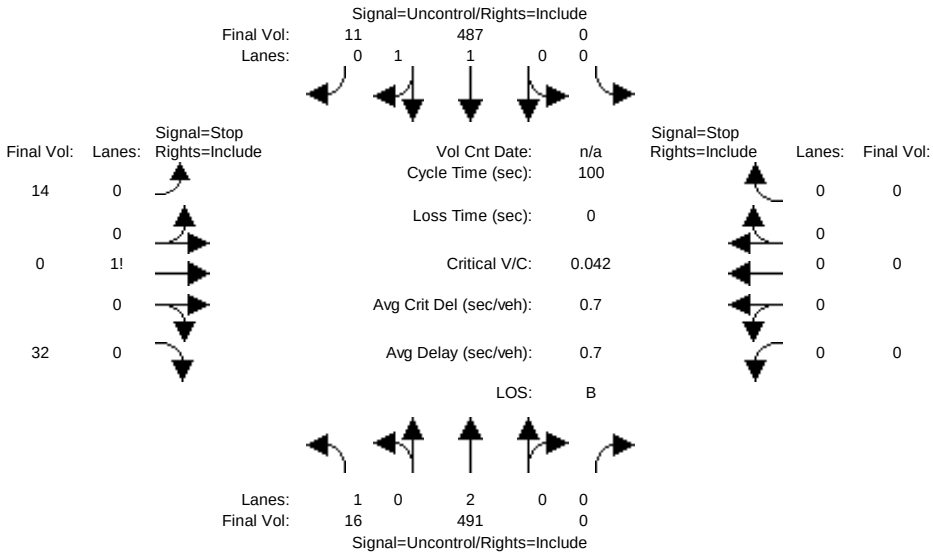
City of Sunnyvale
Oppidan Grocery Store (777 Sunnvyale-Saratoga Road)
097318104

Level Of Service Computation Report
2000 HCM Unsignalized (Future Volume Alternative)
Ex + P PM

## Intersection #9: Sunnyvale-Saratoga Road / Southeast Project Driveway




```
Street Name:     Sunnyvale-Saratoga Road          Southeast Project Driveway
Approach:      North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Volume Module:
Base Vol:       9  485     0     0  481     4     5    0    27     0    0     0
Growth 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
Initial Bse:    9  485     0     0  481     4     5    0    27     0    0     0
Added Vol:      7    6     0     0    6     7     9    0     5     0    0     0
PasserByVol:    0    0     0     0    0     0     0    0     0     0    0     0
Initial Fut:   16  491     0     0  487    11    14    0    32     0    0     0
User 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
PHF 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
PHF Volume:    16  491     0     0  487    11    14    0    32     0    0     0
Reduct Vol:     0    0     0     0    0     0     0    0     0     0    0     0
FinalVolume:   16  491     0     0  487    11    14    0    32     0    0     0
------------|---------------||---------------||---------------||---------------|
Critical Gap Module:
Critical Gp:  4.1 xxxx xxxxx xxxxx xxxx xxxxx   6.8  6.5   6.9 xxxxx xxxx xxxxx
FollowUpTim:  2.2 xxxx xxxxx xxxxx xxxx xxxxx   3.5  4.0   3.3 xxxxx xxxx xxxxx
------------|---------------||---------------||---------------||---------------|
Capacity Module:
Cnflict Vol:  498 xxxx xxxxx  xxxx xxxx xxxxx   770 1016   249  xxxx xxxx xxxxx
Potent Cap.: 1076 xxxx xxxxx  xxxx xxxx xxxxx   341  240   757  xxxx xxxx xxxxx
Move Cap.:   1076 xxxx xxxxx  xxxx xxxx xxxxx   337  236   757  xxxx xxxx xxxxx
Volume/Cap:  0.01 xxxx  xxxx  xxxx xxxx  xxxx  0.04 0.00  0.04  xxxx xxxx  xxxx
------------|---------------||---------------||---------------||---------------|
Level Of Service Module:
2Way95thQ:    1.1 xxxx xxxxx  xxxx xxxx xxxxx  xxxx xxxx xxxxx  xxxx xxxx xxxxx
Control Del:  8.4 xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx
LOS by Move:    A    *     *     *    *     *     *    *     *     *    *     *
Movement:     LT - LTR - RT    LT - LTR - RT    LT - LTR - RT    LT - LTR - RT
Shared Cap.: xxxx xxxx xxxxx  xxxx xxxx xxxxx  xxxx  549 xxxxx  xxxx xxxx xxxxx
SharedQueue:xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx  0.3 xxxxx xxxxx xxxx xxxxx
Shrd ConDel:xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx 12.2 xxxxx xxxxx xxxx xxxxx
Shared LOS:     *    *     *     *    *     *     *    B     *     *    *     *
ApproachDel:    xxxxxx           xxxxxx             12.2           xxxxxx
ApproachLOS:         *                *               B                *
Note: Queue reported is the distance per lane in feet.
                     Peak Hour Delay Signal Warrant Report
*******************************************************************************
Intersection #9 Sunnyvale-Saratoga Road / Southeast Project Driveway
*******************************************************************************
```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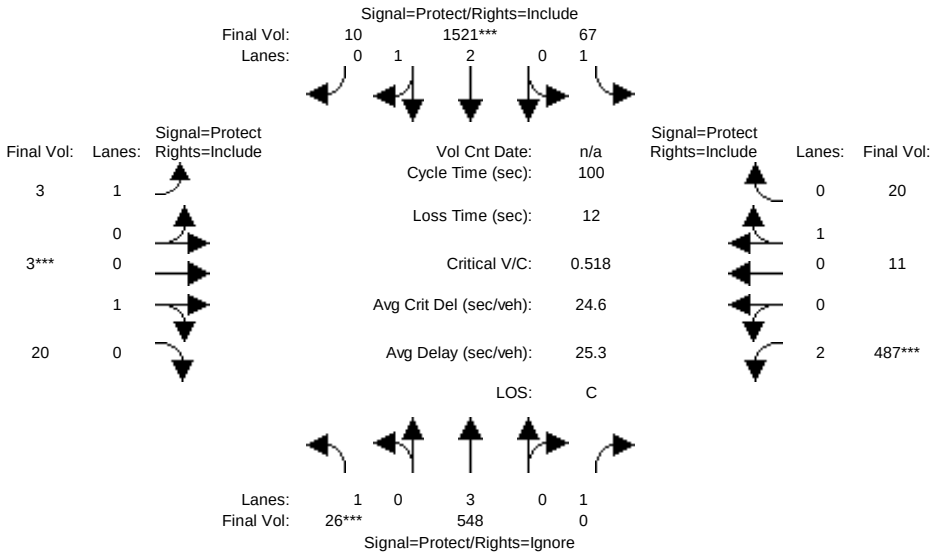
Oppidan Grocery Store (777 Sunnvyale-Saratoga Road)
097318104

Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex + P PM

## Intersection #10: S Mathilda Ave - Sunnyvale-Saratoga Rd / Talisman Dr - Sunnvyale-Saratoga Rd




```
Street Name:S Mathilda Ave - Sunnyvale-Sarato Talisman Dr - Sunnyvale-Saratoga
Approach:      North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Min. Green:     7   10    10     7   10    10     7   10    10     7   10    10
Y+R:          4.0  4.0   4.0   4.0  4.0   4.0   4.0  4.0   4.0   4.0  4.0   4.0
------------|---------------||---------------||---------------||---------------|
Volume Module:
Base Vol:      26  547   553    60 1521    10     3    3    20   478   11    18
Growth 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
Initial Bse:   26  547   553    60 1521    10     3    3    20   478   11    18
Added Vol:      0    1     8     7    0     0     0    0     0     9    0     2
PasserByVol:    0    0     0     0    0     0     0    0     0     0    0     0
Initial Fut:   26  548   561    67 1521    10     3    3    20   487   11    20
User Adj:    1.00 1.00  0.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
PHF Adj:     1.00 1.00  0.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
PHF Volume:    26  548     0    67 1521    10     3    3    20   487   11    20
Reduct Vol:     0    0     0     0    0     0     0    0     0     0    0     0
Reduced Vol:   26  548     0    67 1521    10     3    3    20   487   11    20
PCE Adj:     1.00 1.00  0.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
MLF Adj:     1.00 1.00  0.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
FinalVolume:   26  548     0    67 1521    10     3    3    20   487   11    20
------------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Sat/Lane:    1900 1900  1900  1900 1900  1900  1900 1900  1900  1900 1900  1900
Adjustment:  0.92 1.00  0.92  0.92 0.98  0.95  0.92 0.95  0.95  0.83 0.95  0.95
Lanes:       1.00 3.00  1.00  1.00 2.98  0.02  1.00 0.13  0.87  2.00 0.35  0.65
Final Sat.:  1750 5700  1750  1750 5563    37  1750  235  1565  3150  639  1161
------------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:     0.01 0.10  0.00  0.04 0.27  0.27  0.00 0.01  0.01  0.15 0.02  0.02
Crit Moves:  ****                 ****             ****        ****
Green Time:   7.0 30.8   0.0  21.6 45.4  45.4  14.7 10.0  10.0  25.6 21.0  21.0
Volume/Cap:  0.21 0.31  0.00  0.18 0.60  0.60  0.01 0.13  0.13  0.60 0.08  0.08
Delay/Veh:   44.8 26.6   0.0  32.2 21.0  21.0  36.5 41.3  41.3  34.0 31.9  31.9
User DelAdj: 1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
AdjDel/Veh:  44.8 26.6   0.0  32.2 21.0  21.0  36.5 41.3  41.3  34.0 31.9  31.9
LOS by Move:    D    C     A    C-   C+    C+    D+    D     D    C-    C     C
HCM2k95thQ:    41  204     0    95  555   555     5   39    39   403   43    43
Note: Queue reported is the distance per lane in feet.
```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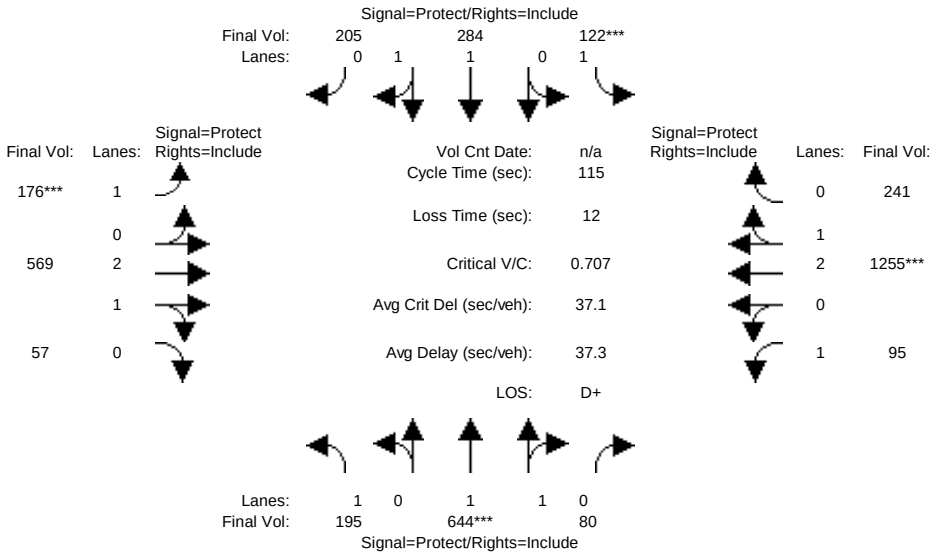
# Existing Plus Background Traffic Conditions

City of Sunnyvale
Oppidan Grocery Store (777 Sunnvyale-Saratoga Road)
097318104

Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex + BG AM

## Intersection #1: S Mary Ave / El Camino Real




| Street Name: | S Mary Ave | | | | | | El Camino Real | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
| Movement: | L - | T - | R | L - | T - | R | L - | T - | R | L - | T - | R |
| Min. Green: | 7 | 10 | 10 | 7 | 10 | 10 | 7 | 10 | 10 | 7 | 10 | 10 |
| Y+R: | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 |
| Volume Module: | | | | | | | | | | | | |
| Base Vol: | 195 | 639 | 73 | 96 | 278 | 184 | 153 | 494 | 57 | 89 | 1169 | 212 |
| Growth 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 |
| Initial Bse: | 195 | 639 | 73 | 96 | 278 | 184 | 153 | 494 | 57 | 89 | 1169 | 212 |
| Added Vol: | 0 | 5 | 7 | 26 | 6 | 21 | 23 | 75 | 0 | 6 | 86 | 29 |
| PasserByVol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Initial Fut: | 195 | 644 | 80 | 122 | 284 | 205 | 176 | 569 | 57 | 95 | 1255 | 241 |
| User 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 |
| PHF 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 |
| PHF Volume: | 195 | 644 | 80 | 122 | 284 | 205 | 176 | 569 | 57 | 95 | 1255 | 241 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 195 | 644 | 80 | 122 | 284 | 205 | 176 | 569 | 57 | 95 | 1255 | 241 |
| PCE 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 |
| MLF 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 |
| FinalVolume: | 195 | 644 | 80 | 122 | 284 | 205 | 176 | 569 | 57 | 95 | 1255 | 241 |
| Saturation Flow Module: | | | | | | | | | | | | |
| Sat/Lane: | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adjustment: | 0.92 | 0.98 | 0.95 | 0.92 | 0.99 | 0.95 | 0.92 | 0.99 | 0.95 | 0.92 | 0.99 | 0.95 |
| Lanes: | 1.00 | 1.77 | 0.23 | 1.00 | 1.14 | 0.86 | 1.00 | 2.72 | 0.28 | 1.00 | 2.50 | 0.50 |
| Final Sat.: | 1750 | 3291 | 409 | 1750 | 2148 | 1550 | 1750 | 5089 | 510 | 1750 | 4697 | 902 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.11 | 0.20 | 0.20 | 0.07 | 0.13 | 0.13 | 0.10 | 0.11 | 0.11 | 0.05 | 0.27 | 0.27 |
| Crit Moves: | | **** | | **** | | | **** | | | | **** | |
| Green Time: | 19.7 | 31.8 | 31.8 | 11.3 | 23.4 | 23.4 | 16.4 | 38.7 | 38.7 | 21.1 | 43.5 | 43.5 |
| Volume/Cap: | 0.65 | 0.71 | 0.71 | 0.71 | 0.65 | 0.65 | 0.71 | 0.33 | 0.33 | 0.30 | 0.71 | 0.71 |
| Delay/Veh: | 49.3 | 39.7 | 39.7 | 62.8 | 44.0 | 44.0 | 56.0 | 28.6 | 28.6 | 41.1 | 31.5 | 31.5 |
| User DelAdj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| AdjDel/Veh: | 49.3 | 39.7 | 39.7 | 62.8 | 44.0 | 44.0 | 56.0 | 28.6 | 28.6 | 41.1 | 31.5 | 31.5 |
| LOS by Move: | D | D | D | E | D | D | E+ | C | C | D | C | C |
| HCM2k95thQ: | 375 | 576 | 576 | 289 | 421 | 421 | 370 | 270 | 270 | 150 | 660 | 660 |

Note: Queue reported is the distance per lane in feet.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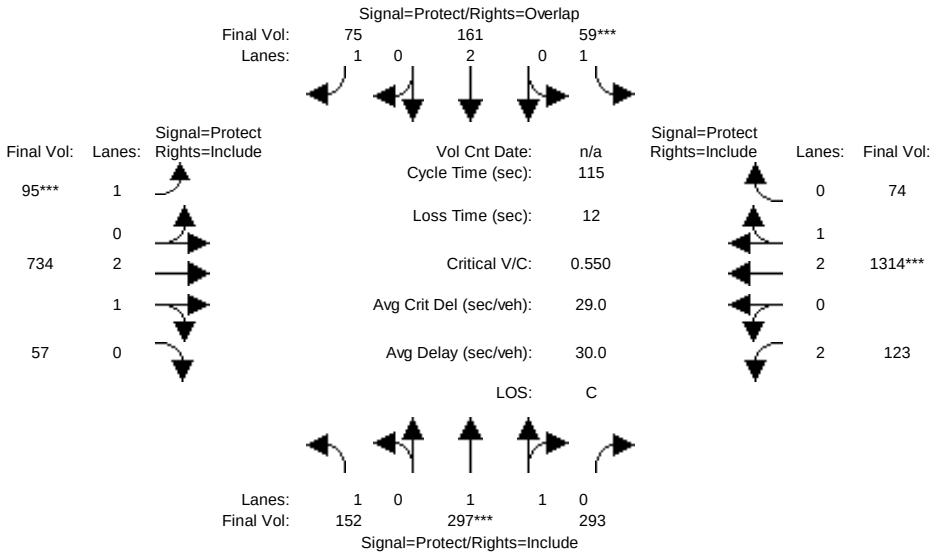
City of Sunnyvale
Oppidan Grocery Store (777 Sunnvyale-Saratoga Road)
097318104

Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex + BG AM

## Intersection #2: S Pastoria Avenue / El Camino Real




| Street Name: | S Pastoria Avenue | | | | | | El Camino Real | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
| Movement: | L - | T - | R | L - | T - | R | L - | T - | R | L - | T - | R |
| Min. Green: | 7 | 10 | 10 | 7 | 10 | 10 | 7 | 10 | 10 | 7 | 10 | 10 |
| Y+R: | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 |
| Volume Module: | | | | | | | | | | | | |
| Base Vol: | 151 | 297 | 291 | 47 | 161 | 68 | 88 | 634 | 55 | 119 | 1200 | 61 |
| Growth 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 |
| Initial Bse: | 151 | 297 | 291 | 47 | 161 | 68 | 88 | 634 | 55 | 119 | 1200 | 61 |
| Added Vol: | 1 | 0 | 2 | 12 | 0 | 7 | 7 | 100 | 2 | 4 | 114 | 13 |
| PasserByVol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Initial Fut: | 152 | 297 | 293 | 59 | 161 | 75 | 95 | 734 | 57 | 123 | 1314 | 74 |
| User 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 |
| PHF 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 |
| PHF Volume: | 152 | 297 | 293 | 59 | 161 | 75 | 95 | 734 | 57 | 123 | 1314 | 74 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 152 | 297 | 293 | 59 | 161 | 75 | 95 | 734 | 57 | 123 | 1314 | 74 |
| PCE 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 |
| MLF 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 |
| FinalVolume: | 152 | 297 | 293 | 59 | 161 | 75 | 95 | 734 | 57 | 123 | 1314 | 74 |
| Saturation Flow Module: | | | | | | | | | | | | |
| Sat/Lane: | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adjustment: | 0.92 | 1.00 | 0.95 | 0.92 | 1.00 | 0.92 | 0.92 | 0.99 | 0.95 | 0.83 | 0.98 | 0.95 |
| Lanes: | 1.00 | 1.00 | 1.00 | 1.00 | 2.00 | 1.00 | 1.00 | 2.78 | 0.22 | 2.00 | 2.83 | 0.17 |
| Final Sat.: | 1750 | 1899 | 1800 | 1750 | 3800 | 1750 | 1750 | 5196 | 403 | 3150 | 5301 | 299 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.09 | 0.16 | 0.16 | 0.03 | 0.04 | 0.04 | 0.05 | 0.14 | 0.14 | 0.04 | 0.25 | 0.25 |
| Crit Moves: | | **** | | **** | | | **** | | | | **** | |
| Green Time: | 19.9 | 32.7 | 32.7 | 7.1 | 19.9 | 31.3 | 11.4 | 44.2 | 44.2 | 19.0 | 51.9 | 51.9 |
| Volume/Cap: | 0.50 | 0.55 | 0.57 | 0.55 | 0.24 | 0.16 | 0.55 | 0.37 | 0.37 | 0.24 | 0.55 | 0.55 |
| Delay/Veh: | 44.4 | 35.5 | 35.9 | 58.4 | 41.3 | 32.0 | 53.1 | 25.5 | 25.5 | 41.9 | 23.3 | 23.3 |
| User DelAdj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| AdjDel/Veh: | 44.4 | 35.5 | 35.9 | 58.4 | 41.3 | 32.0 | 53.1 | 25.5 | 25.5 | 41.9 | 23.3 | 23.3 |
| LOS by Move: | D | D+ | D+ | E+ | D | C- | D- | C | C | D | C | C |
| HCM2k95thQ: | 278 | 429 | 450 | 152 | 128 | 110 | 173 | 312 | 312 | 108 | 518 | 518 |

Note: Queue reported is the distance per lane in feet.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City of Sunnyvale
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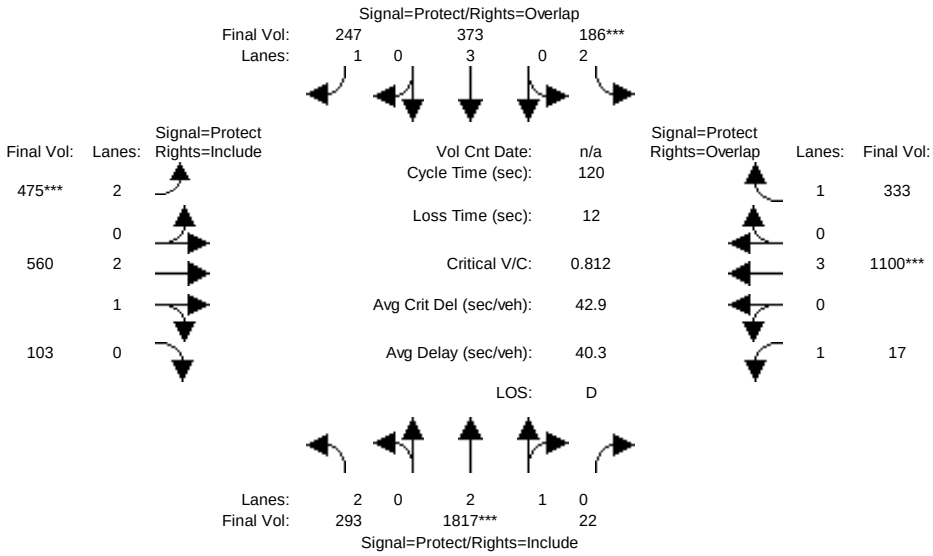
097318104

Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex + BG AM

## Intersection #3: S. Mathilda Avenue / El Camino Real




| Street Name: | S. Mathilda Avenue | | | | | | El Camino Real | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
| Movement: | L - | T - | R | L - | T - | R | L - | T - | R | L - | T - | R |
| Min. Green: | 7 | 10 | 10 | 7 | 10 | 10 | 7 | 10 | 10 | 7 | 10 | 10 |
| Y+R: | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 |
| Volume Module: | | | | | | | | | | | | |
| Base Vol: | 285 | 1794 | 22 | 170 | 340 | 170 | 418 | 510 | 96 | 17 | 1054 | 317 |
| Growth 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 |
| Initial Bse: | 285 | 1794 | 22 | 170 | 340 | 170 | 418 | 510 | 96 | 17 | 1054 | 317 |
| Added Vol: | 8 | 23 | 0 | 16 | 33 | 77 | 57 | 50 | 7 | 0 | 46 | 16 |
| PasserByVol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Initial Fut: | 293 | 1817 | 22 | 186 | 373 | 247 | 475 | 560 | 103 | 17 | 1100 | 333 |
| User 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 |
| PHF 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 |
| PHF Volume: | 293 | 1817 | 22 | 186 | 373 | 247 | 475 | 560 | 103 | 17 | 1100 | 333 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 293 | 1817 | 22 | 186 | 373 | 247 | 475 | 560 | 103 | 17 | 1100 | 333 |
| PCE 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 |
| MLF 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 |
| FinalVolume: | 293 | 1817 | 22 | 186 | 373 | 247 | 475 | 560 | 103 | 17 | 1100 | 333 |
| Saturation Flow Module: | | | | | | | | | | | | |
| Sat/Lane: | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adjustment: | 0.83 | 0.98 | 0.95 | 0.83 | 1.00 | 0.92 | 0.83 | 0.99 | 0.95 | 0.92 | 1.00 | 0.92 |
| Lanes: | 2.00 | 2.96 | 0.04 | 2.00 | 3.00 | 1.00 | 2.00 | 2.52 | 0.48 | 1.00 | 3.00 | 1.00 |
| Final Sat.: | 3150 | 5533 | 67 | 3150 | 5700 | 1750 | 3150 | 4729 | 870 | 1750 | 5700 | 1750 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.09 | 0.33 | 0.33 | 0.06 | 0.07 | 0.14 | 0.15 | 0.12 | 0.12 | 0.01 | 0.19 | 0.19 |
| Crit Moves: | | **** | | **** | | | **** | | | | **** | |
| Green Time: | 30.2 | 48.5 | 48.5 | 8.7 | 27.0 | 49.3 | 22.3 | 34.0 | 34.0 | 16.8 | 28.5 | 37.2 |
| Volume/Cap: | 0.37 | 0.81 | 0.81 | 0.81 | 0.29 | 0.34 | 0.81 | 0.42 | 0.42 | 0.07 | 0.81 | 0.61 |
| Delay/Veh: | 37.4 | 34.1 | 34.1 | 74.2 | 38.7 | 24.5 | 55.3 | 35.1 | 35.1 | 45.0 | 47.1 | 37.3 |
| User DelAdj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| AdjDel/Veh: | 37.4 | 34.1 | 34.1 | 74.2 | 38.7 | 24.5 | 55.3 | 35.1 | 35.1 | 45.0 | 47.1 | 37.3 |
| LOS by Move: | D+ | C- | C- | E | D+ | C | E+ | D+ | D+ | D | D | D+ |
| HCM2k95thQ: | 264 | 924 | 924 | 296 | 191 | 318 | 488 | 310 | 310 | 29 | 593 | 506 |

Note: Queue reported is the distance per lane in feet.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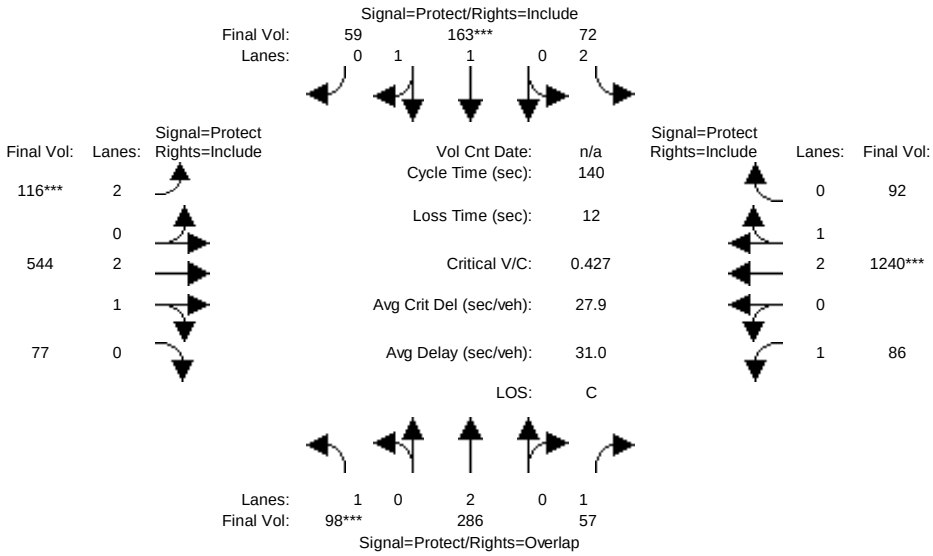
City of Sunnyvale
Oppidan Grocery Store (777 Sunnvyale-Saratoga Road)
097318104

Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex + BG AM

## Intersection #4: S. Sunnyvale Avenue / El Camino Real




| Street Name: | S. Sunnyvale Avenue | | | | | | El Camino Real | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
| Movement: | L - | T - | R | L - | T - | R | L - | T - | R | L - | T - | R |
| Min. Green: | 7 | 10 | 10 | 7 | 10 | 10 | 7 | 10 | 10 | 7 | 10 | 10 |
| Y+R: | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 |
| Volume Module: | | | | | | | | | | | | |
| Base Vol: | 98 | 276 | 57 | 66 | 155 | 49 | 107 | 487 | 77 | 84 | 1189 | 84 |
| Growth 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 |
| Initial Bse: | 98 | 276 | 57 | 66 | 155 | 49 | 107 | 487 | 77 | 84 | 1189 | 84 |
| Added Vol: | 0 | 10 | 0 | 6 | 8 | 10 | 9 | 57 | 0 | 2 | 51 | 8 |
| PasserByVol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Initial Fut: | 98 | 286 | 57 | 72 | 163 | 59 | 116 | 544 | 77 | 86 | 1240 | 92 |
| User 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 |
| PHF 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 |
| PHF Volume: | 98 | 286 | 57 | 72 | 163 | 59 | 116 | 544 | 77 | 86 | 1240 | 92 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 98 | 286 | 57 | 72 | 163 | 59 | 116 | 544 | 77 | 86 | 1240 | 92 |
| PCE 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 |
| MLF 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 |
| FinalVolume: | 98 | 286 | 57 | 72 | 163 | 59 | 116 | 544 | 77 | 86 | 1240 | 92 |
| Saturation Flow Module: | | | | | | | | | | | | |
| Sat/Lane: | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adjustment: | 0.92 | 1.00 | 0.92 | 0.83 | 0.98 | 0.95 | 0.83 | 0.99 | 0.95 | 0.92 | 0.99 | 0.95 |
| Lanes: | 1.00 | 2.00 | 1.00 | 2.00 | 1.45 | 0.55 | 2.00 | 2.61 | 0.39 | 1.00 | 2.79 | 0.21 |
| Final Sat.: | 1750 | 3800 | 1750 | 3150 | 2716 | 983 | 3150 | 4905 | 694 | 1750 | 5213 | 387 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.06 | 0.08 | 0.03 | 0.02 | 0.06 | 0.06 | 0.04 | 0.11 | 0.11 | 0.05 | 0.24 | 0.24 |
| Crit Moves: | **** | | | | **** | | **** | | | | **** | |
| Green Time: | 18.3 | 22.8 | 50.8 | 15.2 | 19.7 | 19.7 | 12.1 | 62.0 | 62.0 | 28.0 | 77.9 | 77.9 |
| Volume/Cap: | 0.43 | 0.46 | 0.09 | 0.21 | 0.43 | 0.43 | 0.43 | 0.25 | 0.25 | 0.25 | 0.43 | 0.43 |
| Delay/Veh: | 57.3 | 53.6 | 29.4 | 57.3 | 55.6 | 55.6 | 61.8 | 24.5 | 24.5 | 47.5 | 18.1 | 18.1 |
| User DelAdj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| AdjDel/Veh: | 57.3 | 53.6 | 29.4 | 57.3 | 55.6 | 55.6 | 61.8 | 24.5 | 24.5 | 47.5 | 18.1 | 18.1 |
| LOS by Move: | E+ | D- | C | E+ | E+ | E+ | E | C | C | D | B- | B- |
| HCM2k95thQ: | 223 | 283 | 86 | 92 | 234 | 234 | 140 | 262 | 262 | 161 | 497 | 497 |

Note: Queue reported is the distance per lane in feet.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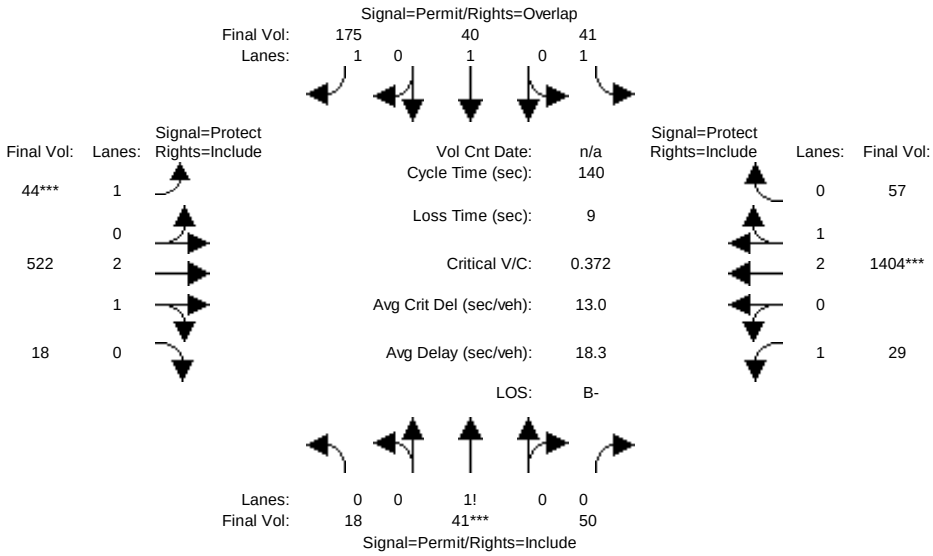
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex + BG AM

## Intersection #5: Cezanne Drive / El Camino Real




| Street Name: | Cezanne Drive | | | | | | El Camino Real | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
| Movement: | L - | T - | R | L - | T - | R | L - | T - | R | L - | T - | R |
| Min. Green: | 10 | 10 | 10 | 10 | 10 | 10 | 7 | 10 | 10 | 7 | 10 | 10 |
| Y+R: | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 |
| Volume Module: | | | | | | | | | | | | |
| Base Vol: | 18 | 41 | 50 | 41 | 40 | 175 | 44 | 459 | 18 | 29 | 1343 | 53 |
| Growth 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 |
| Initial Bse: | 18 | 41 | 50 | 41 | 40 | 175 | 44 | 459 | 18 | 29 | 1343 | 53 |
| Added Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 63 | 0 | 0 | 61 | 4 |
| PasserByVol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Initial Fut: | 18 | 41 | 50 | 41 | 40 | 175 | 44 | 522 | 18 | 29 | 1404 | 57 |
| User 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 |
| PHF 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 |
| PHF Volume: | 18 | 41 | 50 | 41 | 40 | 175 | 44 | 522 | 18 | 29 | 1404 | 57 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 18 | 41 | 50 | 41 | 40 | 175 | 44 | 522 | 18 | 29 | 1404 | 57 |
| PCE 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 |
| MLF 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 |
| FinalVolume: | 18 | 41 | 50 | 41 | 40 | 175 | 44 | 522 | 18 | 29 | 1404 | 57 |
| Saturation Flow Module: | | | | | | | | | | | | |
| Sat/Lane: | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adjustment: | 0.92 | 0.92 | 0.92 | 0.92 | 1.00 | 0.92 | 0.92 | 0.98 | 0.95 | 0.92 | 0.98 | 0.95 |
| Lanes: | 0.16 | 0.38 | 0.46 | 1.00 | 1.00 | 1.00 | 1.00 | 2.90 | 0.10 | 1.00 | 2.88 | 0.12 |
| Final Sat.: | 289 | 658 | 803 | 1750 | 1900 | 1750 | 1750 | 5413 | 187 | 1750 | 5381 | 218 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.06 | 0.06 | 0.06 | 0.02 | 0.02 | 0.10 | 0.03 | 0.10 | 0.10 | 0.02 | 0.26 | 0.26 |
| Crit Moves: | | **** | | | | | **** | | | | **** | |
| Green Time: | 23.4 | 23.4 | 23.4 | 23.4 | 23.4 | 32.9 | 9.5 | 70.8 | 70.8 | 36.7 | 98.1 | 98.1 |
| Volume/Cap: | 0.37 | 0.37 | 0.37 | 0.14 | 0.13 | 0.43 | 0.37 | 0.19 | 0.19 | 0.06 | 0.37 | 0.37 |
| Delay/Veh: | 52.6 | 52.6 | 52.6 | 49.9 | 49.8 | 46.2 | 64.4 | 18.9 | 18.9 | 38.8 | 8.5 | 8.5 |
| User DelAdj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| AdjDel/Veh: | 52.6 | 52.6 | 52.6 | 49.9 | 49.8 | 46.2 | 64.4 | 18.9 | 18.9 | 38.8 | 8.5 | 8.5 |
| LOS by Move: | D- | D- | D- | D | D | D | E | B- | B- | D+ | A | A |
| HCM2k95thQ: | 229 | 229 | 229 | 84 | 75 | 334 | 98 | 203 | 203 | 51 | 394 | 394 |

Note: Queue reported is the distance per lane in feet.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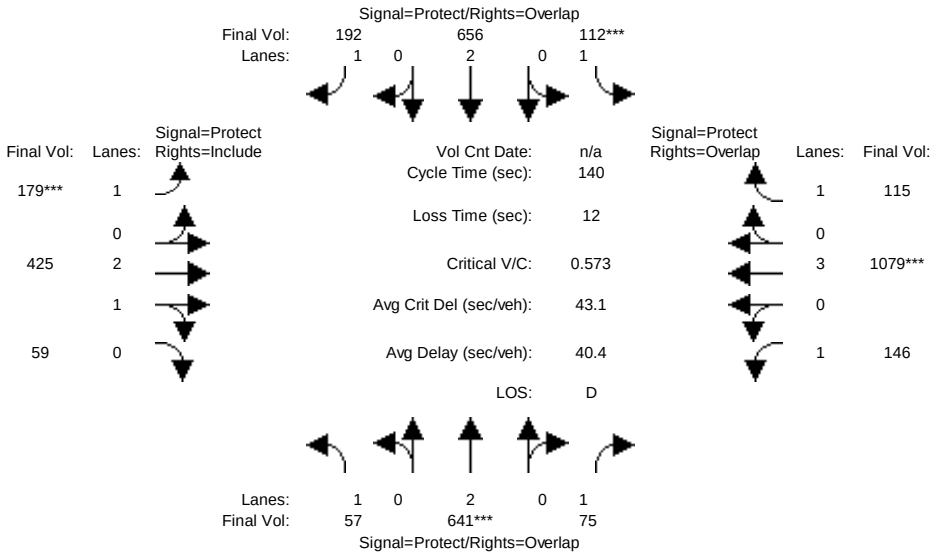
Oppidan Grocery Store (777 Sunnvyale-Saratoga Road)
097318104

Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex + BG AM

## Intersection #6: S. Fair Oaks Avenue / El Camino Real




| Street Name: | S. Fair Oaks Avenue | | | | | | El Camino Real | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
| Movement: | L - | T - | R | L - | T - | R | L - | T - | R | L - | T - | R |
| Min. Green: | 7 | 10 | 10 | 7 | 10 | 10 | 7 | 10 | 10 | 7 | 10 | 10 |
| Y+R: | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 |
| Volume Module: | | | | | | | | | | | | |
| Base Vol: | 50 | 641 | 75 | 93 | 653 | 181 | 144 | 396 | 59 | 146 | 1032 | 115 |
| Growth 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 |
| Initial Bse: | 50 | 641 | 75 | 93 | 653 | 181 | 144 | 396 | 59 | 146 | 1032 | 115 |
| Added Vol: | 7 | 0 | 0 | 19 | 3 | 11 | 35 | 29 | 0 | 0 | 47 | 0 |
| PasserByVol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Initial Fut: | 57 | 641 | 75 | 112 | 656 | 192 | 179 | 425 | 59 | 146 | 1079 | 115 |
| User 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 |
| PHF 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 |
| PHF Volume: | 57 | 641 | 75 | 112 | 656 | 192 | 179 | 425 | 59 | 146 | 1079 | 115 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 57 | 641 | 75 | 112 | 656 | 192 | 179 | 425 | 59 | 146 | 1079 | 115 |
| PCE 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 |
| MLF 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 |
| FinalVolume: | 57 | 641 | 75 | 112 | 656 | 192 | 179 | 425 | 59 | 146 | 1079 | 115 |
| Saturation Flow Module: | | | | | | | | | | | | |
| Sat/Lane: | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adjustment: | 0.92 | 1.00 | 0.92 | 0.92 | 1.00 | 0.92 | 0.92 | 0.99 | 0.95 | 0.92 | 1.00 | 0.92 |
| Lanes: | 1.00 | 2.00 | 1.00 | 1.00 | 2.00 | 1.00 | 1.00 | 2.62 | 0.38 | 1.00 | 3.00 | 1.00 |
| Final Sat.: | 1750 | 3800 | 1750 | 1750 | 3800 | 1750 | 1750 | 4916 | 683 | 1750 | 5700 | 1750 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.03 | 0.17 | 0.04 | 0.06 | 0.17 | 0.11 | 0.10 | 0.09 | 0.09 | 0.08 | 0.19 | 0.07 |
| Crit Moves: | | **** | | **** | | | **** | | | | **** | |
| Green Time: | 12.8 | 41.2 | 76.1 | 15.6 | 44.1 | 69.0 | 25.0 | 36.2 | 36.2 | 35.0 | 46.2 | 61.8 |
| Volume/Cap: | 0.36 | 0.57 | 0.08 | 0.57 | 0.55 | 0.22 | 0.57 | 0.33 | 0.33 | 0.33 | 0.57 | 0.15 |
| Delay/Veh: | 61.1 | 42.7 | 15.2 | 63.1 | 40.3 | 20.3 | 55.2 | 42.2 | 42.2 | 43.4 | 39.2 | 23.4 |
| User DelAdj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| AdjDel/Veh: | 61.1 | 42.7 | 15.2 | 63.1 | 40.3 | 20.3 | 55.2 | 42.2 | 42.2 | 43.4 | 39.2 | 23.4 |
| LOS by Move: | E | D | B | E | D | C+ | E+ | D | D | D | D | C |
| HCM2k95thQ: | 141 | 537 | 82 | 276 | 532 | 240 | 356 | 266 | 266 | 269 | 576 | 154 |

Note: Queue reported is the distance per lane in feet.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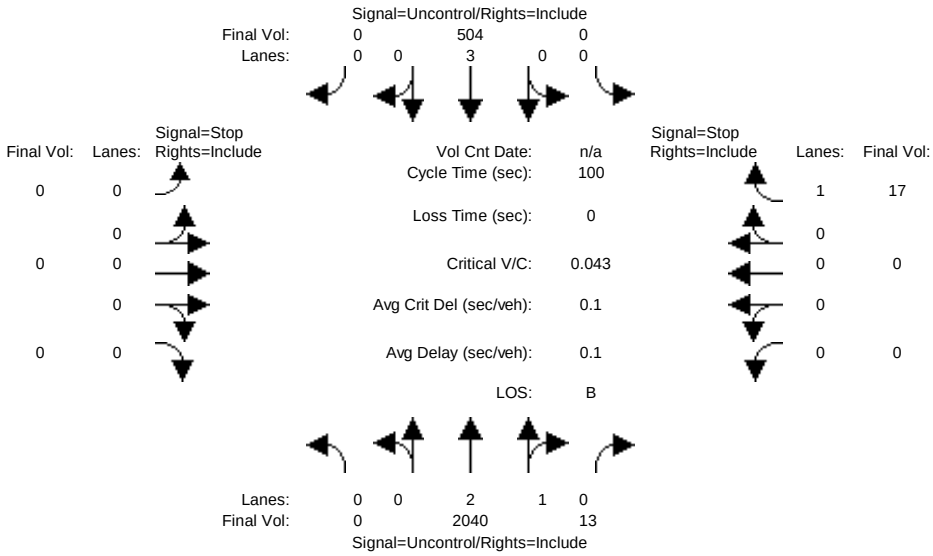
City of Sunnyvale
Oppidan Grocery Store (777 Sunnvyale-Saratoga Road)
097318104

Level Of Service Computation Report
2000 HCM Unsignalized (Future Volume Alternative)
Ex + BG AM

## Intersection #7: S Mathilda Ave / Southwest Project Driveway




```
Street Name:        S Mathilda Avenue             SouthwestProject Driveway
Approach:      North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Volume Module:
Base Vol:       0 2009    13     0  464     0     0    0     0     0    0    17
Growth 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
Initial Bse:    0 2009    13     0  464     0     0    0     0     0    0    17
Added Vol:      0   31     0     0   40     0     0    0     0     0    0     0
PasserByVol:    0    0     0     0    0     0     0    0     0     0    0     0
Initial Fut:    0 2040    13     0  504     0     0    0     0     0    0    17
User 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
PHF 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
PHF Volume:     0 2040    13     0  504     0     0    0     0     0    0    17
Reduct Vol:     0    0     0     0    0     0     0    0     0     0    0     0
FinalVolume:    0 2040    13     0  504     0     0    0     0     0    0    17
------------|---------------||---------------||---------------||---------------|
Critical Gap Module:
Critical Gp:xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx   6.9
FollowUpTim:xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx   3.3
------------|---------------||---------------||---------------||---------------|
Capacity Module:
Cnflict Vol: xxxx xxxx xxxxx  xxxx xxxx xxxxx  xxxx xxxx xxxxx  xxxx xxxx   687
Potent Cap.: xxxx xxxx xxxxx  xxxx xxxx xxxxx  xxxx xxxx xxxxx  xxxx xxxx   394
Move Cap.:   xxxx xxxx xxxxx  xxxx xxxx xxxxx  xxxx xxxx xxxxx  xxxx xxxx   394
Volume/Cap:  xxxx xxxx  xxxx  xxxx xxxx  xxxx  xxxx xxxx  xxxx  xxxx xxxx  0.04
------------|---------------||---------------||---------------||---------------|
Level Of Service Module:
2Way95thQ:   xxxx xxxx xxxxx  xxxx xxxx xxxxx  xxxx xxxx xxxxx  xxxx xxxx   3.4
Control Del:xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx  14.5
LOS by Move:    *    *     *     *    *     *     *    *     *     *    *     B
Movement:     LT - LTR - RT    LT - LTR - RT    LT - LTR - RT    LT - LTR - RT
Shared Cap.: xxxx xxxx xxxxx  xxxx xxxx xxxxx  xxxx xxxx xxxxx  xxxx xxxx xxxxx
SharedQueue:xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx
Shrd ConDel:xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx
Shared LOS:     *    *     *     *    *     *     *    *     *     *    *     *
ApproachDel:    xxxxxx            xxxxxx            xxxxxx             14.5
ApproachLOS:         *                 *                 *                B
Note: Queue reported is the distance per lane in feet.
                     Peak Hour Delay Signal Warrant Report
*******************************************************************************
Intersection #7 S Mathilda Ave / Southwest Project Driveway
*******************************************************************************
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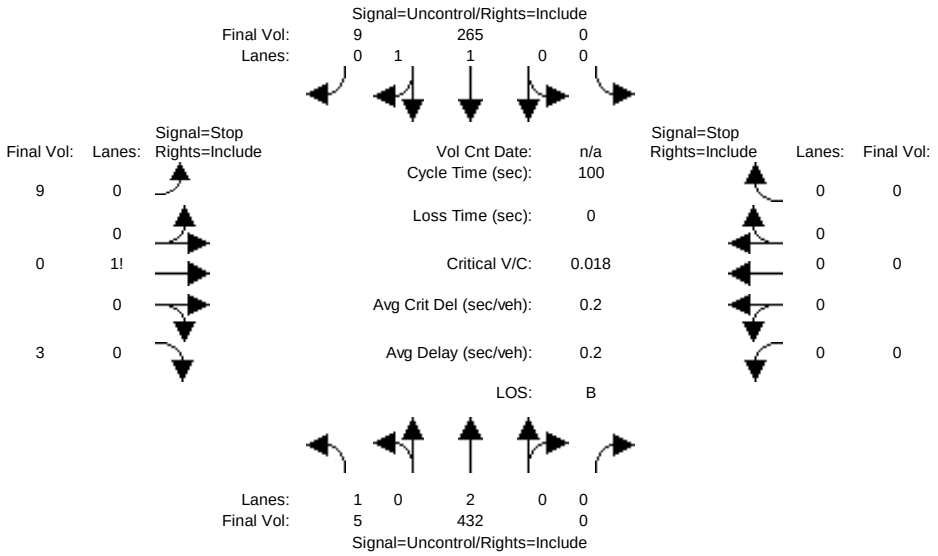
City of Sunnyvale
Oppidan Grocery Store (777 Sunnyvale-Saratoga Road)
097318104

Level Of Service Computation Report
2000 HCM Unsignalized (Future Volume Alternative)
Ex + BG AM

## Intersection #8: Sunnyvale-Saratoga Road / East Project Driveway




```
Street Name:     Sunnyvale-Saratoga Road          East Project Driveway
Approach:      North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Volume Module:
Base Vol:       5  422     0     0  255     9     9    0     3     0    0     0
Growth 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
Initial Bse:    5  422     0     0  255     9     9    0     3     0    0     0
Added Vol:      0   10     0     0   10     0     0    0     0     0    0     0
PasserByVol:    0    0     0     0    0     0     0    0     0     0    0     0
Initial Fut:    5  432     0     0  265     9     9    0     3     0    0     0
User 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
PHF 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
PHF Volume:     5  432     0     0  265     9     9    0     3     0    0     0
Reduct Vol:     0    0     0     0    0     0     0    0     0     0    0     0
FinalVolume:    5  432     0     0  265     9     9    0     3     0    0     0
------------|---------------||---------------||---------------||---------------|
Critical Gap Module:
Critical Gp:  4.1 xxxx xxxxx xxxxx xxxx xxxxx   6.8  6.5   6.9 xxxxx xxxx xxxxx
FollowUpTim:  2.2 xxxx xxxxx xxxxx xxxx xxxxx   3.5  4.0   3.3 xxxxx xxxx xxxxx
------------|---------------||---------------||---------------||---------------|
Capacity Module:
Cnflict Vol:  274 xxxx xxxxx  xxxx xxxx xxxxx   496  712   137  xxxx xxxx xxxxx
Potent Cap.: 1301 xxxx xxxxx  xxxx xxxx xxxxx   508  360   893  xxxx xxxx xxxxx
Move Cap.:   1301 xxxx xxxxx  xxxx xxxx xxxxx   507  359   893  xxxx xxxx xxxxx
Volume/Cap:  0.00 xxxx  xxxx  xxxx xxxx  xxxx  0.02 0.00  0.00  xxxx xxxx  xxxx
------------|---------------||---------------||---------------||---------------|
Level Of Service Module:
2Way95thQ:    0.3 xxxx xxxxx  xxxx xxxx xxxxx  xxxx xxxx xxxxx  xxxx xxxx xxxxx
Control Del:  7.8 xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx
LOS by Move:    A     *     *     *    *     *     *    *     *     *    *     *
Movement:     LT - LTR - RT    LT - LTR - RT    LT - LTR - RT    LT - LTR - RT
Shared Cap.: xxxx xxxx xxxxx   xxxx xxxx xxxxx  xxxx  568 xxxxx   xxxx xxxx xxxxx
SharedQueue:xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx  0.1 xxxxx xxxxx xxxx xxxxx
Shrd ConDel:xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx 11.5 xxxxx xxxxx xxxx xxxxx
Shared LOS:     *    *     *     *    *     *     *    B     *     *    *     *
ApproachDel:    xxxxxx           xxxxxx             11.5           xxxxxx
ApproachLOS:         *                *               B                *
Note: Queue reported is the distance per lane in feet.
                     Peak Hour Delay Signal Warrant Report
*******************************************************************************
Intersection #8 Sunnyvale-Saratoga Road / East Project Driveway
*******************************************************************************
```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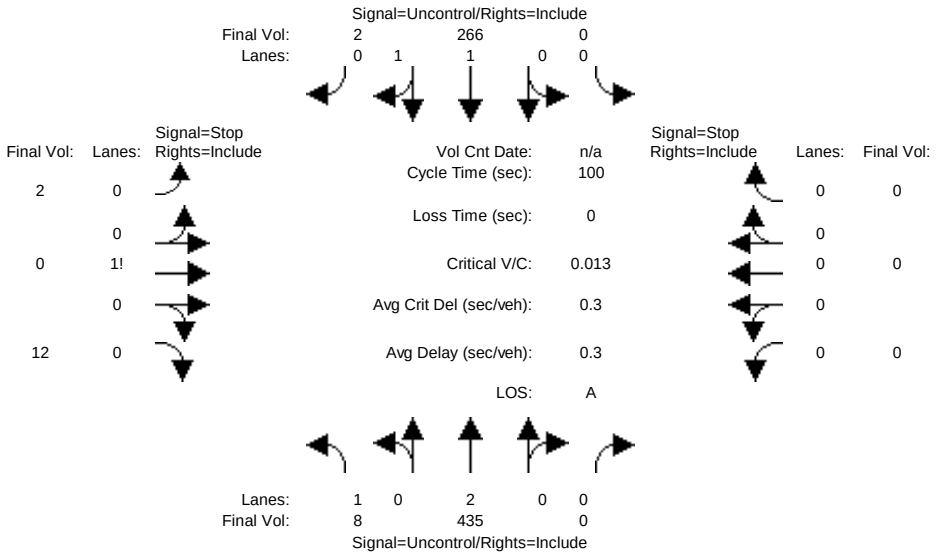
City of Sunnyvale
Oppidan Grocery Store (777 Sunnvyale-Saratoga Road)
097318104

Level Of Service Computation Report
2000 HCM Unsignalized (Future Volume Alternative)
Ex + BG AM

## Intersection #9: Sunnyvale-Saratoga Road / Southeast Project Driveway

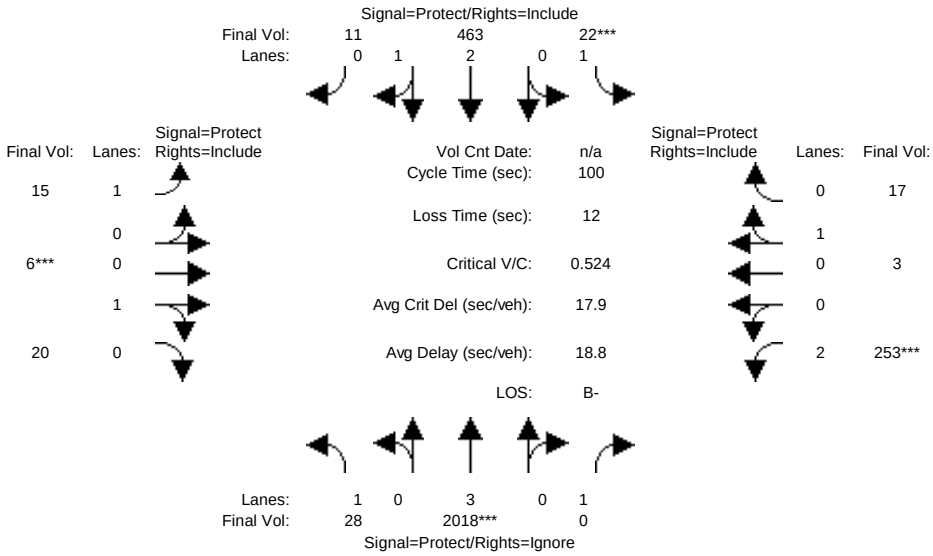



```
Street Name:     Sunnyvale-Saratoga Road          Southeast Project Driveway
Approach:      North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Volume Module:
Base Vol:       8  425     0     0  256     2     2    0    12     0    0     0
Growth 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
Initial Bse:    8  425     0     0  256     2     2    0    12     0    0     0
Added Vol:      0   10     0     0   10     0     0    0     0     0    0     0
PasserByVol:    0    0     0     0    0     0     0    0     0     0    0     0
Initial Fut:    8  435     0     0  266     2     2    0    12     0    0     0
User 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
PHF 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
PHF Volume:     8  435     0     0  266     2     2    0    12     0    0     0
Reduct Vol:     0    0     0     0    0     0     0    0     0     0    0     0
FinalVolume:    8  435     0     0  266     2     2    0    12     0    0     0
------------|---------------||---------------||---------------||---------------|
Critical Gap Module:
Critical Gp:  4.1 xxxx xxxxx xxxxx xxxx xxxxx   6.8  6.5   6.9 xxxxx xxxx xxxxx
FollowUpTim:  2.2 xxxx xxxxx xxxxx xxxx xxxxx   3.5  4.0   3.3 xxxxx xxxx xxxxx
------------|---------------||---------------||---------------||---------------|
Capacity Module:
Cnflict Vol:  268 xxxx xxxxx  xxxx xxxx xxxxx   501  718   134  xxxx xxxx xxxxx
Potent Cap.: 1307 xxxx xxxxx  xxxx xxxx xxxxx   505  357   897  xxxx xxxx xxxxx
Move Cap.:   1307 xxxx xxxxx  xxxx xxxx xxxxx   502  355   897  xxxx xxxx xxxxx
Volume/Cap:  0.01 xxxx  xxxx  xxxx xxxx  xxxx  0.00 0.00  0.01  xxxx xxxx  xxxx
------------|---------------||---------------||---------------||---------------|
Level Of Service Module:
2Way95thQ:    0.5 xxxx xxxxx  xxxx xxxx xxxxx  xxxx xxxx xxxxx  xxxx xxxx xxxxx
Control Del:  7.8 xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx
LOS by Move:    A    *     *     *    *     *     *    *     *     *    *     *
Movement:     LT - LTR - RT    LT - LTR - RT    LT - LTR - RT    LT - LTR - RT
Shared Cap.: xxxx xxxx xxxxx  xxxx xxxx xxxxx  xxxx  806 xxxxx  xxxx xxxx xxxxx
SharedQueue:xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx  0.1 xxxxx xxxxx xxxx xxxxx
Shrd ConDel:xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx  9.5 xxxxx xxxxx xxxx xxxxx
Shared LOS:     *    *     *     *    *     *     *    A     *     *    *     *
ApproachDel:    xxxxxx           xxxxxx              9.5          xxxxxx
ApproachLOS:         *                *                A                *
Note: Queue reported is the distance per lane in feet.
                     Peak Hour Delay Signal Warrant Report
*******************************************************************************
Intersection #9 Sunnyvale-Saratoga Road / Southeast Project Driveway
*******************************************************************************
```

City of Sunnyvale
Oppidan Grocery Store (777 Sunnvyale-Saratoga Road)
097318104

Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex + BG AM

## Intersection #10: S Mathilda Ave - Sunnyvale-Saratoga Rd / Talisman Dr - Sunnvyale-Saratoga Rd




Street Name:S Mathilda Ave - Sunnyvale-Sarato Talisman Dr - Sunnyvale-Saratoga

| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Movement: | L - | T - | R | L - | T - | R | L - | T - | R | L - | T - | R |
| Min. Green: | 7 | 10 | 10 | 7 | 10 | 10 | 7 | 10 | 10 | 7 | 10 | 10 |
| Y+R: | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 |
| Volume Module: | | | | | | | | | | | | |
| Base Vol: | 28 | 1987 | 467 | 22 | 423 | 11 | 15 | 6 | 20 | 243 | 3 | 17 |
| Growth 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 |
| Initial Bse: | 28 | 1987 | 467 | 22 | 423 | 11 | 15 | 6 | 20 | 243 | 3 | 17 |
| Added Vol: | 0 | 31 | 10 | 0 | 40 | 0 | 0 | 0 | 0 | 10 | 0 | 0 |
| PasserByVol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Initial Fut: | 28 | 2018 | 477 | 22 | 463 | 11 | 15 | 6 | 20 | 253 | 3 | 17 |
| User Adj: | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj: | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume: | 28 | 2018 | 0 | 22 | 463 | 11 | 15 | 6 | 20 | 253 | 3 | 17 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 28 | 2018 | 0 | 22 | 463 | 11 | 15 | 6 | 20 | 253 | 3 | 17 |
| PCE Adj: | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj: | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| FinalVolume: | 28 | 2018 | 0 | 22 | 463 | 11 | 15 | 6 | 20 | 253 | 3 | 17 |
| Saturation Flow Module: | | | | | | | | | | | | |
| Sat/Lane: | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adjustment: | 0.92 | 1.00 | 0.92 | 0.92 | 0.98 | 0.95 | 0.92 | 0.95 | 0.95 | 0.83 | 0.95 | 0.95 |
| Lanes: | 1.00 | 3.00 | 1.00 | 1.00 | 2.93 | 0.07 | 1.00 | 0.23 | 0.77 | 2.00 | 0.15 | 0.85 |
| Final Sat.: | 1750 | 5700 | 1750 | 1750 | 5470 | 130 | 1750 | 415 | 1385 | 3150 | 270 | 1530 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.02 | 0.35 | 0.00 | 0.01 | 0.08 | 0.08 | 0.01 | 0.01 | 0.01 | 0.08 | 0.01 | 0.01 |
| Crit Moves: | | **** | | **** | | | | **** | | **** | | |
| Green Time: | 26.7 | 57.9 | 0.0 | 7.0 | 38.2 | 38.2 | 9.5 | 10.0 | 10.0 | 13.1 | 13.6 | 13.6 |
| Volume/Cap: | 0.06 | 0.61 | 0.00 | 0.18 | 0.22 | 0.22 | 0.09 | 0.14 | 0.14 | 0.61 | 0.08 | 0.08 |
| Delay/Veh: | 27.3 | 14.1 | 0.0 | 44.5 | 20.9 | 20.9 | 41.5 | 41.5 | 41.5 | 43.7 | 37.9 | 37.9 |
| User DelAdj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| AdjDel/Veh: | 27.3 | 14.1 | 0.0 | 44.5 | 20.9 | 20.9 | 41.5 | 41.5 | 41.5 | 43.7 | 37.9 | 37.9 |
| LOS by Move: | C | B | A | D | C+ | C+ | D | D | D | D | D+ | D+ |
| HCM2k95thQ: | 34 | 597 | 0 | 44 | 165 | 165 | 27 | 45 | 45 | 263 | 31 | 31 |

Note: Queue reported is the distance per lane in feet.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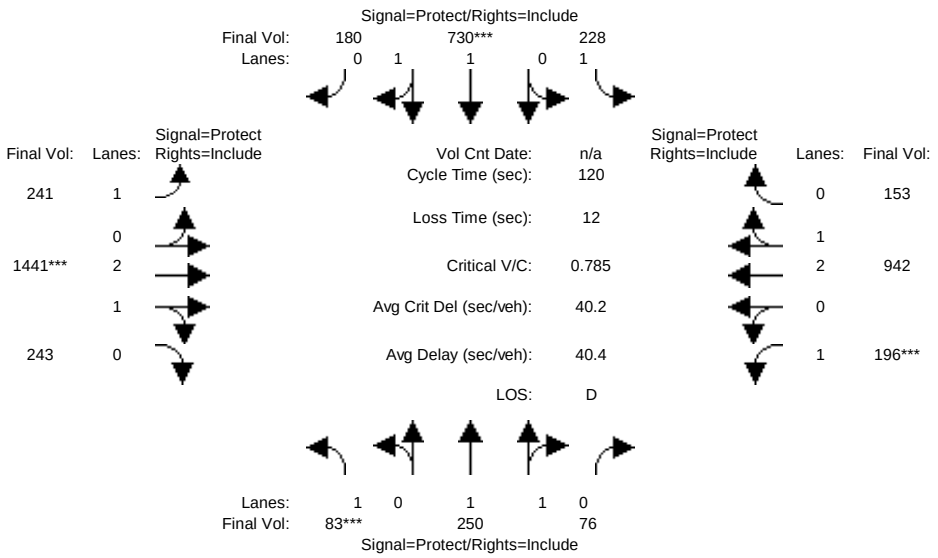
City of Sunnyvale
Oppidan Grocery Store (777 Sunnvyale-Saratoga Road)
097318104

Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex + BG PM

## Intersection #1: S Mary Ave / El Camino Real




| Street Name: | S Mary Ave | | | | | | El Camino Real | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
| Movement: | L - | T - | R | L - | T - | R | L - | T - | R | L - | T - | R |
| Min. Green: | 7 | 10 | 10 | 7 | 10 | 10 | 7 | 10 | 10 | 7 | 10 | 10 |
| Y+R: | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 |
| Volume Module: | | | | | | | | | | | | |
| Base Vol: | 83 | 246 | 70 | 205 | 726 | 161 | 226 | 1365 | 243 | 188 | 868 | 135 |
| Growth 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 |
| Initial Bse: | 83 | 246 | 70 | 205 | 726 | 161 | 226 | 1365 | 243 | 188 | 868 | 135 |
| Added Vol: | 0 | 4 | 6 | 23 | 4 | 19 | 15 | 76 | 0 | 8 | 74 | 18 |
| PasserByVol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Initial Fut: | 83 | 250 | 76 | 228 | 730 | 180 | 241 | 1441 | 243 | 196 | 942 | 153 |
| User 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 |
| PHF 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 |
| PHF Volume: | 83 | 250 | 76 | 228 | 730 | 180 | 241 | 1441 | 243 | 196 | 942 | 153 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 83 | 250 | 76 | 228 | 730 | 180 | 241 | 1441 | 243 | 196 | 942 | 153 |
| PCE 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 |
| MLF 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 |
| FinalVolume: | 83 | 250 | 76 | 228 | 730 | 180 | 241 | 1441 | 243 | 196 | 942 | 153 |
| Saturation Flow Module: | | | | | | | | | | | | |
| Sat/Lane: | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adjustment: | 0.92 | 0.98 | 0.95 | 0.92 | 0.98 | 0.95 | 0.92 | 0.99 | 0.95 | 0.92 | 0.99 | 0.95 |
| Lanes: | 1.00 | 1.52 | 0.48 | 1.00 | 1.59 | 0.41 | 1.00 | 2.55 | 0.45 | 1.00 | 2.57 | 0.43 |
| Final Sat.: | 1750 | 2837 | 862 | 1750 | 2968 | 732 | 1750 | 4791 | 808 | 1750 | 4817 | 782 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.05 | 0.09 | 0.09 | 0.13 | 0.25 | 0.25 | 0.14 | 0.30 | 0.30 | 0.11 | 0.20 | 0.20 |
| Crit Moves: | **** | | | | **** | | | **** | | **** | | |
| Green Time: | 7.3 | 18.1 | 18.1 | 26.8 | 37.6 | 37.6 | 26.1 | 46.0 | 46.0 | 17.1 | 37.0 | 37.0 |
| Volume/Cap: | 0.78 | 0.58 | 0.58 | 0.58 | 0.78 | 0.78 | 0.63 | 0.78 | 0.78 | 0.78 | 0.63 | 0.63 |
| Delay/Veh: | 86.6 | 49.0 | 49.0 | 43.9 | 41.1 | 41.1 | 46.1 | 34.6 | 34.6 | 64.6 | 36.4 | 36.4 |
| User DelAdj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| AdjDel/Veh: | 86.6 | 49.0 | 49.0 | 43.9 | 41.1 | 41.1 | 46.1 | 34.6 | 34.6 | 64.6 | 36.4 | 36.4 |
| LOS by Move: | F | D | D | D | D | D | D | C- | C- | E | D+ | D+ |
| HCM2k95thQ: | 249 | 311 | 311 | 407 | 746 | 746 | 441 | 847 | 847 | 374 | 524 | 524 |

Note: Queue reported is the distance per lane in feet.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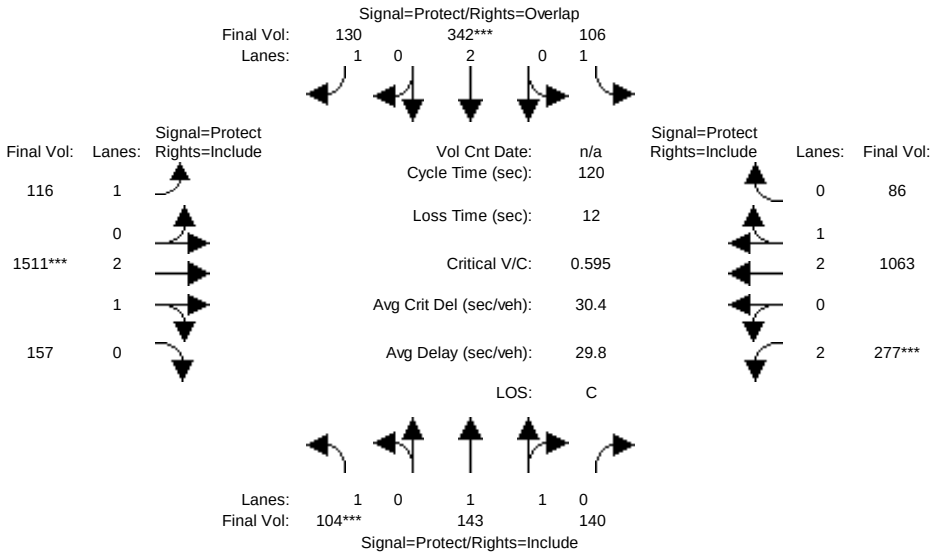
City of Sunnyvale
Oppidan Grocery Store (777 Sunnvyale-Saratoga Road)
097318104

Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex + BG PM

## Intersection #2: S Pastoria Avenue / El Camino Real




| Street Name: | S Pastoria Avenue | | | | | | El Camino Real | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
| Movement: | L - | T - | R | L - | T - | R | L - | T - | R | L - | T - | R |
| Min. Green: | 7 | 10 | 10 | 7 | 10 | 10 | 7 | 10 | 10 | 7 | 10 | 10 |
| Y+R: | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 |
| Volume Module: | | | | | | | | | | | | |
| Base Vol: | 105 | 143 | 146 | 95 | 342 | 125 | 111 | 1407 | 160 | 283 | 967 | 77 |
| Growth 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 |
| Initial Bse: | 105 | 143 | 146 | 95 | 342 | 125 | 111 | 1407 | 160 | 283 | 967 | 77 |
| Added Vol: | -1 | 0 | -6 | 11 | 0 | 5 | 5 | 104 | -3 | -6 | 96 | 9 |
| PasserByVol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Initial Fut: | 104 | 143 | 140 | 106 | 342 | 130 | 116 | 1511 | 157 | 277 | 1063 | 86 |
| User 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 |
| PHF 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 |
| PHF Volume: | 104 | 143 | 140 | 106 | 342 | 130 | 116 | 1511 | 157 | 277 | 1063 | 86 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 104 | 143 | 140 | 106 | 342 | 130 | 116 | 1511 | 157 | 277 | 1063 | 86 |
| PCE 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 |
| MLF 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 |
| FinalVolume: | 104 | 143 | 140 | 106 | 342 | 130 | 116 | 1511 | 157 | 277 | 1063 | 86 |
| Saturation Flow Module: | | | | | | | | | | | | |
| Sat/Lane: | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adjustment: | 0.92 | 1.00 | 0.95 | 0.92 | 1.00 | 0.92 | 0.92 | 0.99 | 0.95 | 0.83 | 0.99 | 0.95 |
| Lanes: | 1.00 | 1.00 | 1.00 | 1.00 | 2.00 | 1.00 | 1.00 | 2.71 | 0.29 | 2.00 | 2.77 | 0.23 |
| Final Sat.: | 1750 | 1899 | 1800 | 1750 | 3800 | 1750 | 1750 | 5072 | 527 | 3150 | 5180 | 419 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.06 | 0.08 | 0.08 | 0.06 | 0.09 | 0.07 | 0.07 | 0.30 | 0.30 | 0.09 | 0.21 | 0.21 |
| Crit Moves: | **** | | | | **** | | | **** | | **** | | |
| Green Time: | 12.0 | 17.5 | 17.5 | 12.7 | 18.2 | 37.2 | 19.0 | 60.1 | 60.1 | 17.7 | 58.8 | 58.8 |
| Volume/Cap: | 0.59 | 0.52 | 0.53 | 0.57 | 0.59 | 0.24 | 0.42 | 0.59 | 0.59 | 0.59 | 0.42 | 0.42 |
| Delay/Veh: | 57.1 | 48.3 | 48.6 | 55.4 | 49.2 | 31.1 | 46.5 | 21.6 | 21.6 | 49.9 | 19.7 | 19.7 |
| User DelAdj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| AdjDel/Veh: | 57.1 | 48.3 | 48.6 | 55.4 | 49.2 | 31.1 | 46.5 | 21.6 | 21.6 | 49.9 | 19.7 | 19.7 |
| LOS by Move: | E+ | D | D | E+ | D | C | D | C+ | C+ | D | B- | B- |
| HCM2k95thQ: | 240 | 263 | 273 | 238 | 319 | 190 | 195 | 622 | 622 | 273 | 410 | 410 |

Note: Queue reported is the distance per lane in feet.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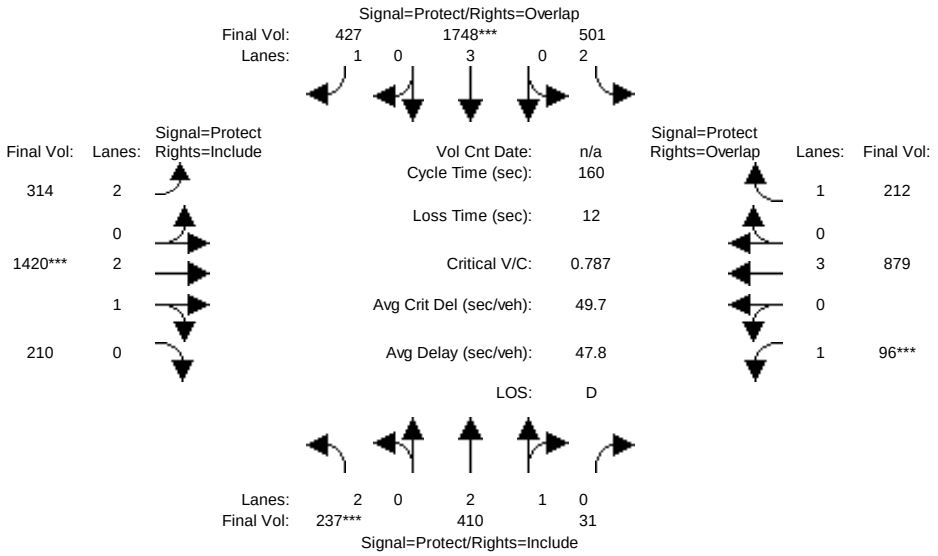
City of Sunnyvale
Oppidan Grocery Store (777 Sunnvyale-Saratoga Road)
097318104

Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex + BG PM

## Intersection #3: S. Mathilda Avenue / El Camino Real




| Street Name: | S. Mathilda Avenue | | | | | | El Camino Real | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
| Movement: | L - | T - | R | L - | T - | R | L - | T - | R | L - | T - | R |
| Min. Green: | 7 | 10 | 10 | 7 | 10 | 10 | 7 | 10 | 10 | 7 | 10 | 10 |
| Y+R: | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 |
| Volume Module: | | | | | | | | | | | | |
| Base Vol: | 234 | 378 | 31 | 486 | 1721 | 364 | 241 | 1389 | 206 | 96 | 847 | 198 |
| Growth 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 |
| Initial Bse: | 234 | 378 | 31 | 486 | 1721 | 364 | 241 | 1389 | 206 | 96 | 847 | 198 |
| Added Vol: | 3 | 32 | 0 | 15 | 27 | 63 | 73 | 31 | 4 | 0 | 32 | 14 |
| PasserByVol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Initial Fut: | 237 | 410 | 31 | 501 | 1748 | 427 | 314 | 1420 | 210 | 96 | 879 | 212 |
| User 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 |
| PHF 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 |
| PHF Volume: | 237 | 410 | 31 | 501 | 1748 | 427 | 314 | 1420 | 210 | 96 | 879 | 212 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 237 | 410 | 31 | 501 | 1748 | 427 | 314 | 1420 | 210 | 96 | 879 | 212 |
| PCE 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 |
| MLF 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 |
| FinalVolume: | 237 | 410 | 31 | 501 | 1748 | 427 | 314 | 1420 | 210 | 96 | 879 | 212 |
| Saturation Flow Module: | | | | | | | | | | | | |
| Sat/Lane: | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adjustment: | 0.83 | 0.99 | 0.95 | 0.83 | 1.00 | 0.92 | 0.83 | 0.99 | 0.95 | 0.92 | 1.00 | 0.92 |
| Lanes: | 2.00 | 2.78 | 0.22 | 2.00 | 3.00 | 1.00 | 2.00 | 2.60 | 0.40 | 1.00 | 3.00 | 1.00 |
| Final Sat.: | 3150 | 5206 | 394 | 3150 | 5700 | 1750 | 3150 | 4878 | 721 | 1750 | 5700 | 1750 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.08 | 0.08 | 0.08 | 0.16 | 0.31 | 0.24 | 0.10 | 0.29 | 0.29 | 0.05 | 0.15 | 0.12 |
| Crit Moves: | **** | | | | **** | | | **** | | **** | | |
| Green Time: | 15.3 | 25.7 | 25.7 | 51.9 | 62.4 | 90.0 | 27.6 | 59.2 | 59.2 | 11.2 | 42.7 | 94.7 |
| Volume/Cap: | 0.79 | 0.49 | 0.49 | 0.49 | 0.79 | 0.43 | 0.58 | 0.79 | 0.79 | 0.79 | 0.58 | 0.20 |
| Delay/Veh: | 83.6 | 61.6 | 61.6 | 43.8 | 44.9 | 20.6 | 62.4 | 46.9 | 46.9 | 101.2 | 51.4 | 15.3 |
| User DelAdj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| AdjDel/Veh: | 83.6 | 61.6 | 61.6 | 43.8 | 44.9 | 20.6 | 62.4 | 46.9 | 46.9 | 101.2 | 51.4 | 15.3 |
| LOS by Move: | F | E | E | D | D | C+ | E | D | D | F | D- | B |
| HCM2k95thQ: | 405 | 333 | 333 | 531 | 1066 | 570 | 388 | 991 | 991 | 262 | 546 | 245 |

Note: Queue reported is the distance per lane in feet.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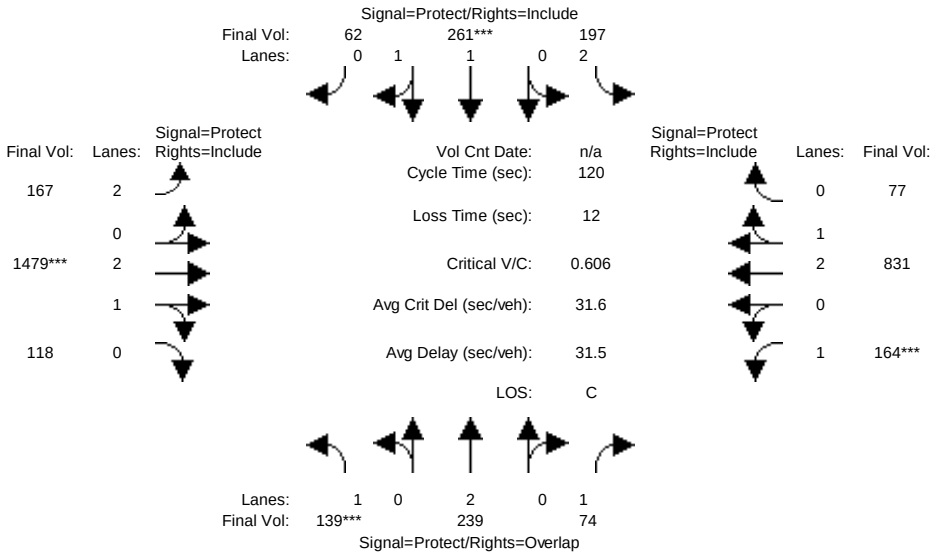
City of Sunnyvale
Oppidan Grocery Store (777 Sunnvyale-Saratoga Road)
097318104

Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex + BG PM

## Intersection #4: S. Sunnyvale Avenue / El Camino Real




| Street Name: | S. Sunnyvale Avenue | | | | | | El Camino Real | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
| Movement: | L - | T - | R | L - | T - | R | L - | T - | R | L - | T - | R |
| Min. Green: | 7 | 10 | 10 | 7 | 10 | 10 | 7 | 10 | 10 | 7 | 10 | 10 |
| Y+R: | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 |
| Volume Module: | | | | | | | | | | | | |
| Base Vol: | 139 | 231 | 74 | 189 | 251 | 56 | 159 | 1441 | 118 | 162 | 790 | 70 |
| Growth 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 |
| Initial Bse: | 139 | 231 | 74 | 189 | 251 | 56 | 159 | 1441 | 118 | 162 | 790 | 70 |
| Added Vol: | 0 | 8 | 0 | 8 | 10 | 6 | 8 | 38 | 0 | 2 | 41 | 7 |
| PasserByVol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Initial Fut: | 139 | 239 | 74 | 197 | 261 | 62 | 167 | 1479 | 118 | 164 | 831 | 77 |
| User 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 |
| PHF 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 |
| PHF Volume: | 139 | 239 | 74 | 197 | 261 | 62 | 167 | 1479 | 118 | 164 | 831 | 77 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 139 | 239 | 74 | 197 | 261 | 62 | 167 | 1479 | 118 | 164 | 831 | 77 |
| PCE 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 |
| MLF 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 |
| FinalVolume: | 139 | 239 | 74 | 197 | 261 | 62 | 167 | 1479 | 118 | 164 | 831 | 77 |
| Saturation Flow Module: | | | | | | | | | | | | |
| Sat/Lane: | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adjustment: | 0.92 | 1.00 | 0.92 | 0.83 | 0.98 | 0.95 | 0.83 | 0.99 | 0.95 | 0.92 | 0.99 | 0.95 |
| Lanes: | 1.00 | 2.00 | 1.00 | 2.00 | 1.61 | 0.39 | 2.00 | 2.77 | 0.23 | 1.00 | 2.74 | 0.26 |
| Final Sat.: | 1750 | 3800 | 1750 | 3150 | 2989 | 710 | 3150 | 5186 | 414 | 1750 | 5124 | 475 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.08 | 0.06 | 0.04 | 0.06 | 0.09 | 0.09 | 0.05 | 0.29 | 0.29 | 0.09 | 0.16 | 0.16 |
| Crit Moves: | **** | | | | **** | | | **** | | **** | | |
| Green Time: | 15.7 | 18.9 | 37.4 | 14.1 | 17.3 | 17.3 | 19.8 | 56.4 | 56.4 | 18.5 | 55.2 | 55.2 |
| Volume/Cap: | 0.61 | 0.40 | 0.14 | 0.53 | 0.61 | 0.61 | 0.32 | 0.61 | 0.61 | 0.61 | 0.35 | 0.35 |
| Delay/Veh: | 53.8 | 45.9 | 29.8 | 51.3 | 50.2 | 50.2 | 44.5 | 24.0 | 24.0 | 51.2 | 21.0 | 21.0 |
| User DelAdj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| AdjDel/Veh: | 53.8 | 45.9 | 29.8 | 51.3 | 50.2 | 50.2 | 44.5 | 24.0 | 24.0 | 51.2 | 21.0 | 21.0 |
| LOS by Move: | D- | D | C | D- | D | D | D | C | C | D- | C+ | C+ |
| HCM2k95thQ: | 295 | 209 | 106 | 234 | 315 | 315 | 153 | 621 | 621 | 294 | 334 | 334 |

Note: Queue reported is the distance per lane in feet.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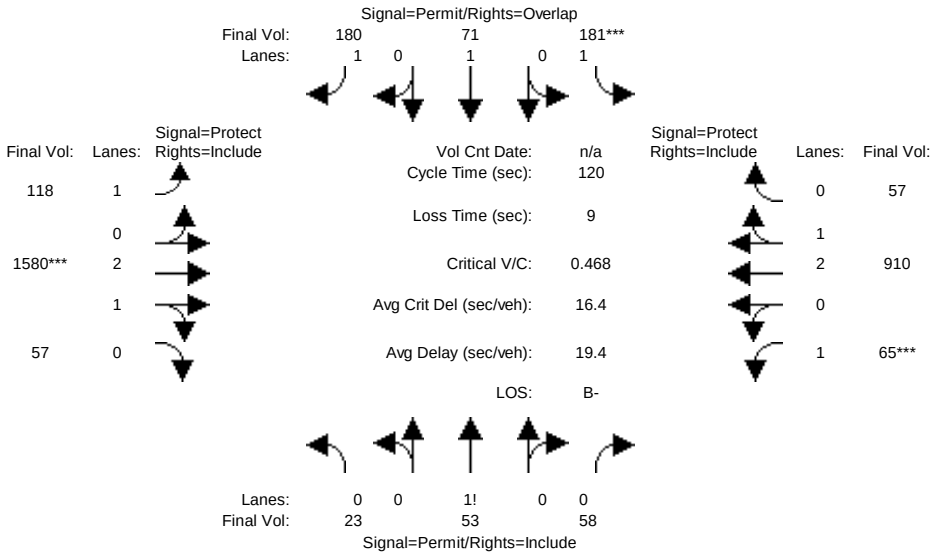
097318104

Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex + BG PM

## Intersection #5: Cezanne Drive / El Camino Real




| Street Name: | Cezanne Drive | | | | | | El Camino Real | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
| Movement: | L - | T - | R | L - | T - | R | L - | T - | R | L - | T - | R |
| Min. Green: | 10 | 10 | 10 | 10 | 10 | 10 | 7 | 10 | 10 | 7 | 10 | 10 |
| Y+R: | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 |
| Volume Module: | | | | | | | | | | | | |
| Base Vol: | 23 | 53 | 58 | 181 | 71 | 180 | 118 | 1533 | 57 | 65 | 860 | 53 |
| Growth 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 |
| Initial Bse: | 23 | 53 | 58 | 181 | 71 | 180 | 118 | 1533 | 57 | 65 | 860 | 53 |
| Added Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 47 | 0 | 0 | 50 | 4 |
| PasserByVol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Initial Fut: | 23 | 53 | 58 | 181 | 71 | 180 | 118 | 1580 | 57 | 65 | 910 | 57 |
| User 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 |
| PHF 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 |
| PHF Volume: | 23 | 53 | 58 | 181 | 71 | 180 | 118 | 1580 | 57 | 65 | 910 | 57 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 23 | 53 | 58 | 181 | 71 | 180 | 118 | 1580 | 57 | 65 | 910 | 57 |
| PCE 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 |
| MLF 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 |
| FinalVolume: | 23 | 53 | 58 | 181 | 71 | 180 | 118 | 1580 | 57 | 65 | 910 | 57 |
| Saturation Flow Module: | | | | | | | | | | | | |
| Sat/Lane: | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adjustment: | 0.92 | 0.92 | 0.92 | 0.92 | 1.00 | 0.92 | 0.92 | 0.98 | 0.95 | 0.92 | 0.98 | 0.95 |
| Lanes: | 0.17 | 0.40 | 0.43 | 1.00 | 1.00 | 1.00 | 1.00 | 2.89 | 0.11 | 1.00 | 2.82 | 0.18 |
| Final Sat.: | 300 | 692 | 757 | 1750 | 1900 | 1750 | 1750 | 5405 | 195 | 1750 | 5269 | 330 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.08 | 0.08 | 0.08 | 0.10 | 0.04 | 0.10 | 0.07 | 0.29 | 0.29 | 0.04 | 0.17 | 0.17 |
| Crit Moves: | | | | **** | | | | **** | | **** | | |
| Green Time: | 26.5 | 26.5 | 26.5 | 26.5 | 26.5 | 50.2 | 23.7 | 75.0 | 75.0 | 9.5 | 60.8 | 60.8 |
| Volume/Cap: | 0.35 | 0.35 | 0.35 | 0.47 | 0.17 | 0.25 | 0.34 | 0.47 | 0.47 | 0.47 | 0.34 | 0.34 |
| Delay/Veh: | 40.0 | 40.0 | 40.0 | 41.5 | 38.0 | 22.8 | 42.0 | 12.0 | 12.0 | 55.3 | 17.7 | 17.7 |
| User DelAdj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| AdjDel/Veh: | 40.0 | 40.0 | 40.0 | 41.5 | 38.0 | 22.8 | 42.0 | 12.0 | 12.0 | 55.3 | 17.7 | 17.7 |
| LOS by Move: | D | D | D | D | D+ | C+ | D | B | B | E+ | B | B |
| HCM2k95thQ: | 227 | 227 | 227 | 314 | 108 | 223 | 191 | 479 | 479 | 154 | 335 | 335 |

Note: Queue reported is the distance per lane in feet.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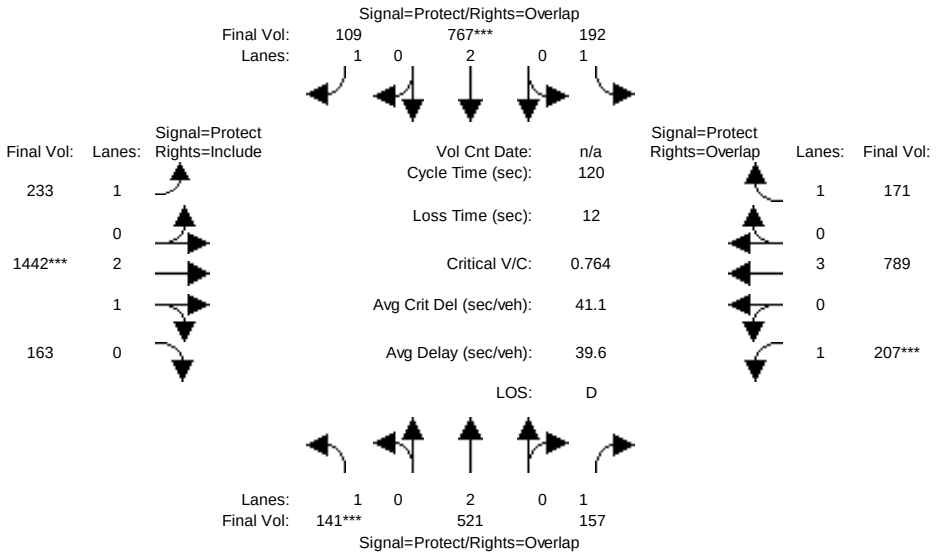
Oppidan Grocery Store (777 Sunnvyale-Saratoga Road)
097318104

Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex + BG PM

## Intersection #6: S. Fair Oaks Avenue / El Camino Real




| Street Name: | S. Fair Oaks Avenue | | | | | | El Camino Real | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
| Movement: | L - | T - | R | L - | T - | R | L - | T - | R | L - | T - | R |
| Min. Green: | 7 | 10 | 10 | 7 | 10 | 10 | 7 | 10 | 10 | 7 | 10 | 10 |
| Y+R: | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 |
| Volume Module: | | | | | | | | | | | | |
| Base Vol: | 137 | 521 | 157 | 173 | 764 | 99 | 215 | 1414 | 163 | 207 | 760 | 171 |
| Growth 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 |
| Initial Bse: | 137 | 521 | 157 | 173 | 764 | 99 | 215 | 1414 | 163 | 207 | 760 | 171 |
| Added Vol: | 4 | 0 | 0 | 19 | 3 | 10 | 18 | 28 | 0 | 0 | 29 | 0 |
| PasserByVol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Initial Fut: | 141 | 521 | 157 | 192 | 767 | 109 | 233 | 1442 | 163 | 207 | 789 | 171 |
| User 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 |
| PHF 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 |
| PHF Volume: | 141 | 521 | 157 | 192 | 767 | 109 | 233 | 1442 | 163 | 207 | 789 | 171 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 141 | 521 | 157 | 192 | 767 | 109 | 233 | 1442 | 163 | 207 | 789 | 171 |
| PCE 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 |
| MLF 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 |
| FinalVolume: | 141 | 521 | 157 | 192 | 767 | 109 | 233 | 1442 | 163 | 207 | 789 | 171 |
| Saturation Flow Module: | | | | | | | | | | | | |
| Sat/Lane: | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adjustment: | 0.92 | 1.00 | 0.92 | 0.92 | 1.00 | 0.92 | 0.92 | 0.99 | 0.95 | 0.92 | 1.00 | 0.92 |
| Lanes: | 1.00 | 2.00 | 1.00 | 1.00 | 2.00 | 1.00 | 1.00 | 2.68 | 0.32 | 1.00 | 3.00 | 1.00 |
| Final Sat.: | 1750 | 3800 | 1750 | 1750 | 3800 | 1750 | 1750 | 5031 | 569 | 1750 | 5700 | 1750 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.08 | 0.14 | 0.09 | 0.11 | 0.20 | 0.06 | 0.13 | 0.29 | 0.29 | 0.12 | 0.14 | 0.10 |
| Crit Moves: | **** | | | | **** | | | **** | | **** | | |
| Green Time: | 12.7 | 24.6 | 43.2 | 19.7 | 31.7 | 62.9 | 31.2 | 45.0 | 45.0 | 18.6 | 32.4 | 52.2 |
| Volume/Cap: | 0.76 | 0.67 | 0.25 | 0.67 | 0.76 | 0.12 | 0.51 | 0.76 | 0.76 | 0.76 | 0.51 | 0.22 |
| Delay/Veh: | 69.3 | 46.1 | 27.2 | 53.0 | 44.2 | 14.5 | 38.9 | 34.5 | 34.5 | 60.7 | 37.4 | 21.4 |
| User DelAdj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| AdjDel/Veh: | 69.3 | 46.1 | 27.2 | 53.0 | 44.2 | 14.5 | 38.9 | 34.5 | 34.5 | 60.7 | 37.4 | 21.4 |
| LOS by Move: | E | D | C | D- | D | B | D+ | C- | C- | E | D+ | C+ |
| HCM2k95thQ: | 346 | 453 | 213 | 389 | 641 | 109 | 364 | 761 | 761 | 448 | 396 | 206 |

Note: Queue reported is the distance per lane in feet.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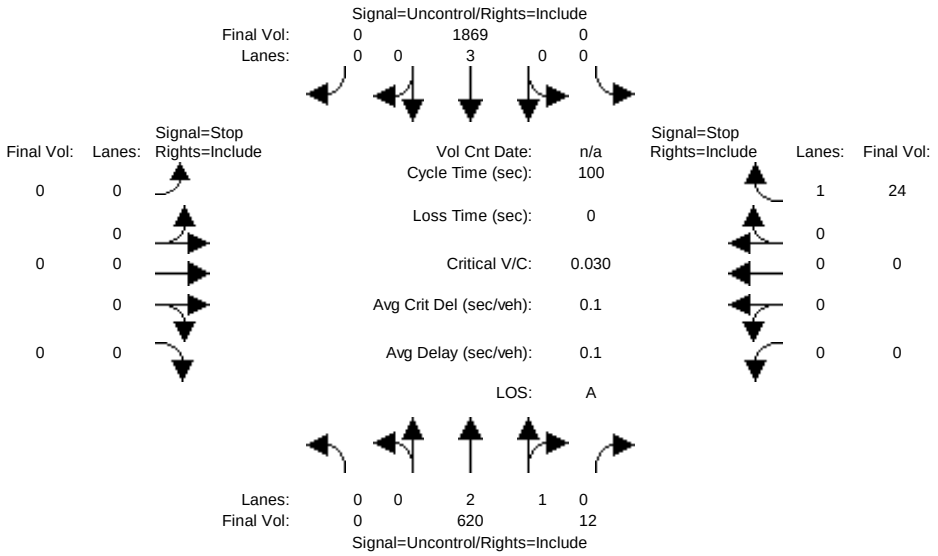
City of Sunnyvale
Oppidan Grocery Store (777 Sunnvyale-Saratoga Road)
097318104

Level Of Service Computation Report
2000 HCM Unsignalized (Future Volume Alternative)
Ex + BG PM

## Intersection #7: S Mathilda Ave / Southwest Project Driveway

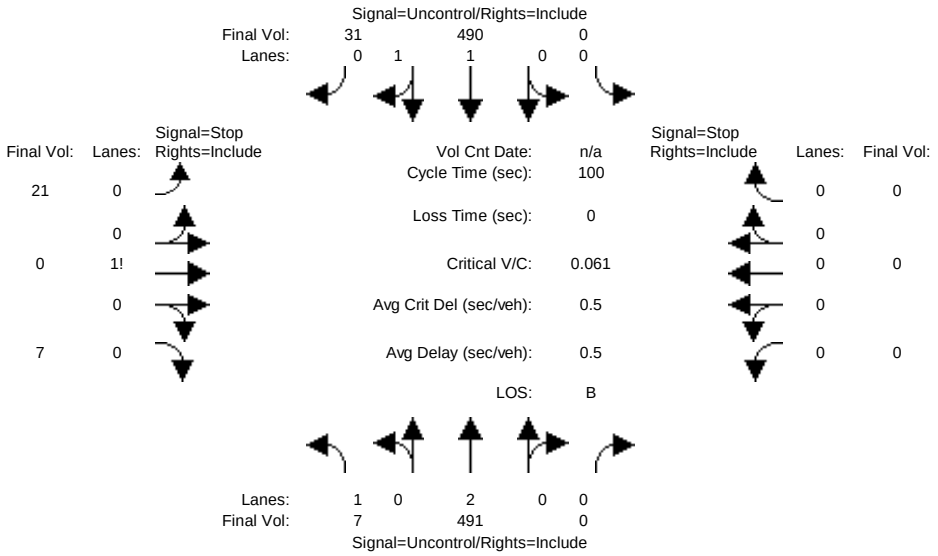



```
Street Name:        S Mathilda Avenue             SouthwestProject Driveway
Approach:      North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Volume Module:
Base Vol:       0  585    12     0 1837     0     0    0     0     0    0    24
Growth 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
Initial Bse:    0  585    12     0 1837     0     0    0     0     0    0    24
Added Vol:      0   35     0     0   32     0     0    0     0     0    0     0
PasserByVol:    0    0     0     0    0     0     0    0     0     0    0     0
Initial Fut:    0  620    12     0 1869     0     0    0     0     0    0    24
User 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
PHF 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
PHF Volume:     0  620    12     0 1869     0     0    0     0     0    0    24
Reduct Vol:     0    0     0     0    0     0     0    0     0     0    0     0
FinalVolume:    0  620    12     0 1869     0     0    0     0     0    0    24
------------|---------------||---------------||---------------||---------------|
Critical Gap Module:
Critical Gp:xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx   6.9
FollowUpTim:xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx   3.3
------------|---------------||---------------||---------------||---------------|
Capacity Module:
Cnflict Vol: xxxx xxxx xxxxx  xxxx xxxx xxxxx  xxxx xxxx xxxxx  xxxx xxxx   213
Potent Cap.: xxxx xxxx xxxxx  xxxx xxxx xxxxx  xxxx xxxx xxxxx  xxxx xxxx   799
Move Cap.:   xxxx xxxx xxxxx  xxxx xxxx xxxxx  xxxx xxxx xxxxx  xxxx xxxx   799
Volume/Cap:  xxxx xxxx  xxxx  xxxx xxxx  xxxx  xxxx xxxx  xxxx  xxxx xxxx  0.03
------------|---------------||---------------||---------------||---------------|
Level Of Service Module:
2Way95thQ:   xxxx xxxx xxxxx  xxxx xxxx xxxxx  xxxx xxxx xxxxx  xxxx xxxx   2.3
Control Del:xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx   9.6
LOS by Move:    *    *     *     *    *     *     *    *     *     *    *     A
Movement:     LT - LTR - RT    LT - LTR - RT    LT - LTR - RT    LT - LTR - RT
Shared Cap.: xxxx xxxx xxxxx  xxxx xxxx xxxxx  xxxx xxxx xxxxx  xxxx xxxx xxxxx
SharedQueue:xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx
Shrd ConDel:xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx
Shared LOS:     *    *     *     *    *     *     *    *     *     *    *     *
ApproachDel:    xxxxxx            xxxxxx            xxxxxx              9.6
ApproachLOS:         *                 *                 *                A
Note: Queue reported is the distance per lane in feet.
                     Peak Hour Delay Signal Warrant Report
*******************************************************************************
Intersection #7 S Mathilda Ave / Southwest Project Driveway
*******************************************************************************
```

City of Sunnyvale
Oppidan Grocery Store (777 Sunnvyale-Saratoga Road)
097318104

Level Of Service Computation Report
2000 HCM Unsignalized (Future Volume Alternative)
Ex + BG PM

## Intersection #8: Sunnyvale-Saratoga Road / East Project Driveway




```
Street Name:     Sunnyvale-Saratoga Road          East Project Driveway
Approach:      North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Volume Module:
Base Vol:       7  483     0     0  478    31    21    0     7     0    0     0
Growth 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
Initial Bse:    7  483     0     0  478    31    21    0     7     0    0     0
Added Vol:      0    8     0     0   12     0     0    0     0     0    0     0
PasserByVol:    0    0     0     0    0     0     0    0     0     0    0     0
Initial Fut:    7  491     0     0  490    31    21    0     7     0    0     0
User 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
PHF 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
PHF Volume:     7  491     0     0  490    31    21    0     7     0    0     0
Reduct Vol:     0    0     0     0    0     0     0    0     0     0    0     0
FinalVolume:    7  491     0     0  490    31    21    0     7     0    0     0
------------|---------------||---------------||---------------||---------------|
Critical Gap Module:
Critical Gp:  4.1 xxxx xxxxx xxxxx xxxx xxxxx   6.8  6.5   6.9 xxxxx xxxx xxxxx
FollowUpTim:  2.2 xxxx xxxxx xxxxx xxxx xxxxx   3.5  4.0   3.3 xxxxx xxxx xxxxx
------------|---------------||---------------||---------------||---------------|
Capacity Module:
Cnflict Vol:  521 xxxx xxxxx  xxxx xxxx xxxxx   765 1011   261  xxxx xxxx xxxxx
Potent Cap.: 1056 xxxx xxxxx  xxxx xxxx xxxxx   344  242   744  xxxx xxxx xxxxx
Move Cap.:   1056 xxxx xxxxx  xxxx xxxx xxxxx   342  240   744  xxxx xxxx xxxxx
Volume/Cap:  0.01 xxxx  xxxx  xxxx xxxx  xxxx  0.06 0.00  0.01  xxxx xxxx  xxxx
------------|---------------||---------------||---------------||---------------|
Level Of Service Module:
2Way95thQ:    0.5 xxxx xxxxx  xxxx xxxx xxxxx  xxxx xxxx xxxxx  xxxx xxxx xxxxx
Control Del:  8.4 xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx
LOS by Move:    A    *     *     *    *     *     *    *     *     *    *     *
Movement:     LT - LTR - RT    LT - LTR - RT    LT - LTR - RT    LT - LTR - RT
Shared Cap.: xxxx xxxx xxxxx  xxxx xxxx xxxxx  xxxx  395 xxxxx  xxxx xxxx xxxxx
SharedQueue:xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx  0.2 xxxxx xxxxx xxxx xxxxx
Shrd ConDel:xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx 14.8 xxxxx xxxxx xxxx xxxxx
Shared LOS:     *    *     *     *    *     *     *    B     *     *    *     *
ApproachDel:    xxxxxx           xxxxxx             14.8           xxxxxx
ApproachLOS:         *                *               B                *
Note: Queue reported is the distance per lane in feet.
                     Peak Hour Delay Signal Warrant Report
*******************************************************************************
Intersection #8 Sunnyvale-Saratoga Road / East Project Driveway
*******************************************************************************
```

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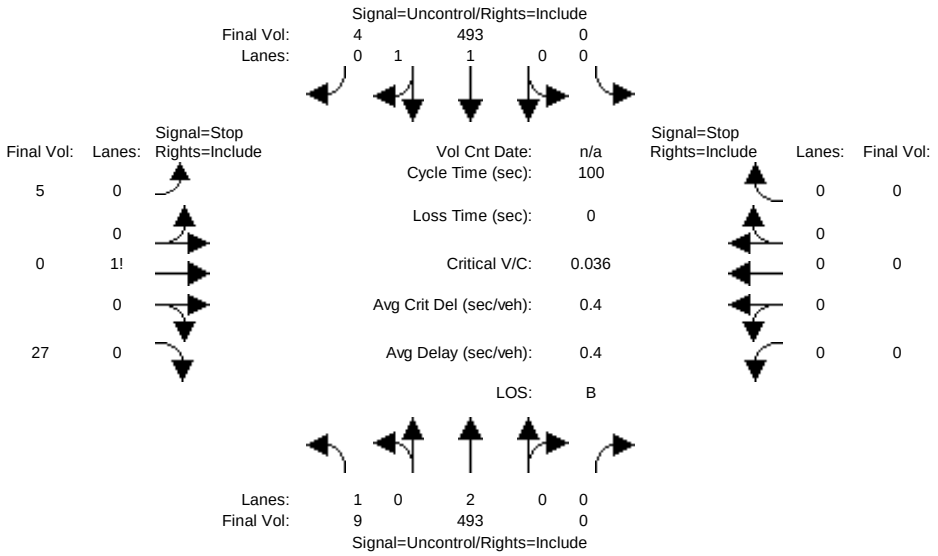
City of Sunnyvale
Oppidan Grocery Store (777 Sunnvyale-Saratoga Road)
097318104

Level Of Service Computation Report
2000 HCM Unsignalized (Future Volume Alternative)
Ex + BG PM

## Intersection #9: Sunnyvale-Saratoga Road / Southeast Project Driveway




```
Street Name:     Sunnyvale-Saratoga Road          Southeast Project Driveway
Approach:      North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Volume Module:
Base Vol:       9  485     0     0  481     4     5    0    27     0    0     0
Growth 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
Initial Bse:    9  485     0     0  481     4     5    0    27     0    0     0
Added Vol:      0    8     0     0   12     0     0    0     0     0    0     0
PasserByVol:    0    0     0     0    0     0     0    0     0     0    0     0
Initial Fut:    9  493     0     0  493     4     5    0    27     0    0     0
User 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
PHF 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
PHF Volume:     9  493     0     0  493     4     5    0    27     0    0     0
Reduct Vol:     0    0     0     0    0     0     0    0     0     0    0     0
FinalVolume:    9  493     0     0  493     4     5    0    27     0    0     0
------------|---------------||---------------||---------------||---------------|
Critical Gap Module:
Critical Gp:  4.1 xxxx xxxxx xxxxx xxxx xxxxx   6.8  6.5   6.9 xxxxx xxxx xxxxx
FollowUpTim:  2.2 xxxx xxxxx xxxxx xxxx xxxxx   3.5  4.0   3.3 xxxxx xxxx xxxxx
------------|---------------||---------------||---------------||---------------|
Capacity Module:
Cnflict Vol:  497 xxxx xxxxx  xxxx xxxx xxxxx   760 1006   249  xxxx xxxx xxxxx
Potent Cap.: 1077 xxxx xxxxx  xxxx xxxx xxxxx   347  243   758  xxxx xxxx xxxxx
Move Cap.:   1077 xxxx xxxxx  xxxx xxxx xxxxx   344  241   758  xxxx xxxx xxxxx
Volume/Cap:  0.01 xxxx  xxxx  xxxx xxxx  xxxx  0.01 0.00  0.04  xxxx xxxx  xxxx
------------|---------------||---------------||---------------||---------------|
Level Of Service Module:
2Way95thQ:    0.6 xxxx xxxxx  xxxx xxxx xxxxx  xxxx xxxx xxxxx  xxxx xxxx xxxxx
Control Del:  8.4 xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx
LOS by Move:    A    *     *     *    *     *     *    *     *     *    *     *
Movement:     LT - LTR - RT    LT - LTR - RT    LT - LTR - RT    LT - LTR - RT
Shared Cap.: xxxx xxxx xxxxx   xxxx xxxx xxxxx  xxxx  638 xxxxx   xxxx xxxx xxxxx
SharedQueue:xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx  0.2 xxxxx xxxxx xxxx xxxxx
Shrd ConDel:xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx 10.9 xxxxx xxxxx xxxx xxxxx
Shared LOS:     *    *     *     *    *     *     *    B     *     *    *     *
ApproachDel:    xxxxxx           xxxxxx             10.9           xxxxxx
ApproachLOS:         *                *               B                *
Note: Queue reported is the distance per lane in feet.
                     Peak Hour Delay Signal Warrant Report
*******************************************************************************
Intersection #9 Sunnyvale-Saratoga Road / Southeast Project Driveway
*******************************************************************************
```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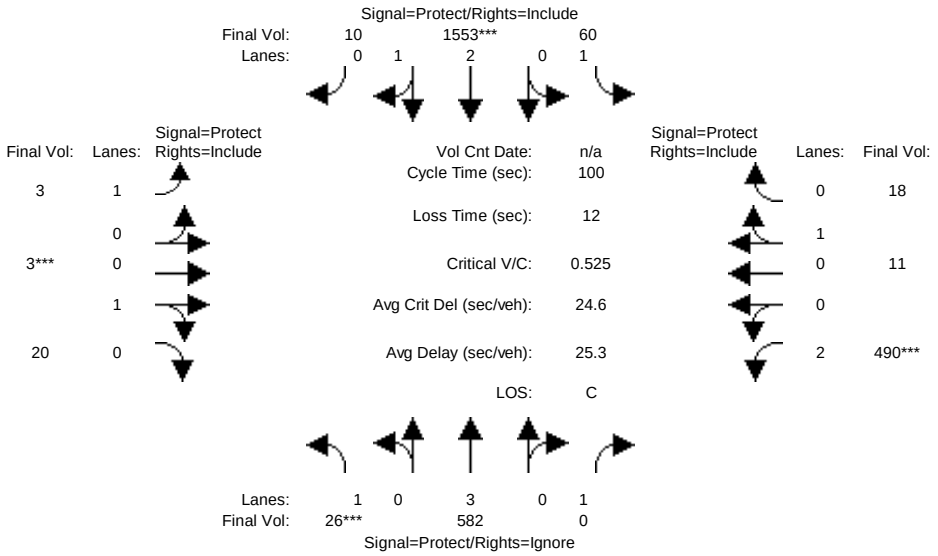
City of Sunnyvale
Oppidan Grocery Store (777 Sunnvyale-Saratoga Road)
097318104

Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex + BG PM

## Intersection #10: S Mathilda Ave - Sunnyvale-Saratoga Rd / Talisman Dr - Sunnvyale-Saratoga Rd




```
Street Name:S Mathilda Ave - Sunnyvale-Sarato Talisman Dr - Sunnyvale-Saratoga
Approach:      North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Min. Green:     7   10    10     7   10    10     7   10    10     7   10    10
Y+R:          4.0  4.0   4.0   4.0  4.0   4.0   4.0  4.0   4.0   4.0  4.0   4.0
------------|---------------||---------------||---------------||---------------|
Volume Module:
Base Vol:      26  547   553    60 1521    10     3    3    20   478   11    18
Growth 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
Initial Bse:   26  547   553    60 1521    10     3    3    20   478   11    18
Added Vol:      0   35     8     0   32     0     0    0     0    12    0     0
PasserByVol:    0    0     0     0    0     0     0    0     0     0    0     0
Initial Fut:   26  582   561    60 1553    10     3    3    20   490   11    18
User Adj:    1.00 1.00  0.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
PHF Adj:     1.00 1.00  0.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
PHF Volume:    26  582     0    60 1553    10     3    3    20   490   11    18
Reduct Vol:     0    0     0     0    0     0     0    0     0     0    0     0
Reduced Vol:   26  582     0    60 1553    10     3    3    20   490   11    18
PCE Adj:     1.00 1.00  0.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
MLF Adj:     1.00 1.00  0.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
FinalVolume:   26  582     0    60 1553    10     3    3    20   490   11    18
------------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Sat/Lane:    1900 1900  1900  1900 1900  1900  1900 1900  1900  1900 1900  1900
Adjustment:  0.92 1.00  0.92  0.92 0.98  0.95  0.92 0.95  0.95  0.83 0.95  0.95
Lanes:       1.00 3.00  1.00  1.00 2.98  0.02  1.00 0.13  0.87  2.00 0.38  0.62
Final Sat.:  1750 5700  1750  1750 5564    36  1750  235  1565  3150  683  1117
------------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:     0.01 0.10  0.00  0.03 0.28  0.28  0.00 0.01  0.01  0.16 0.02  0.02
Crit Moves:  ****                 ****              ****        ****
Green Time:   7.0 31.2   0.0  21.4 45.6  45.6  14.6 10.0  10.0  25.4 20.8  20.8
Volume/Cap:  0.21 0.33  0.00  0.16 0.61  0.61  0.01 0.13  0.13  0.61 0.08  0.08
Delay/Veh:   44.8 26.5   0.0  32.2 21.0  21.0  36.6 41.3  41.3  34.4 31.9  31.9
User DelAdj: 1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
AdjDel/Veh:  44.8 26.5   0.0  32.2 21.0  21.0  36.6 41.3  41.3  34.4 31.9  31.9
LOS by Move:    D    C     A    C-   C+    C+    D+    D     D    C-    C     C
HCM2k95thQ:    41  216     0    85  568   568     5   39    39   408   40    40
Note: Queue reported is the distance per lane in feet.
```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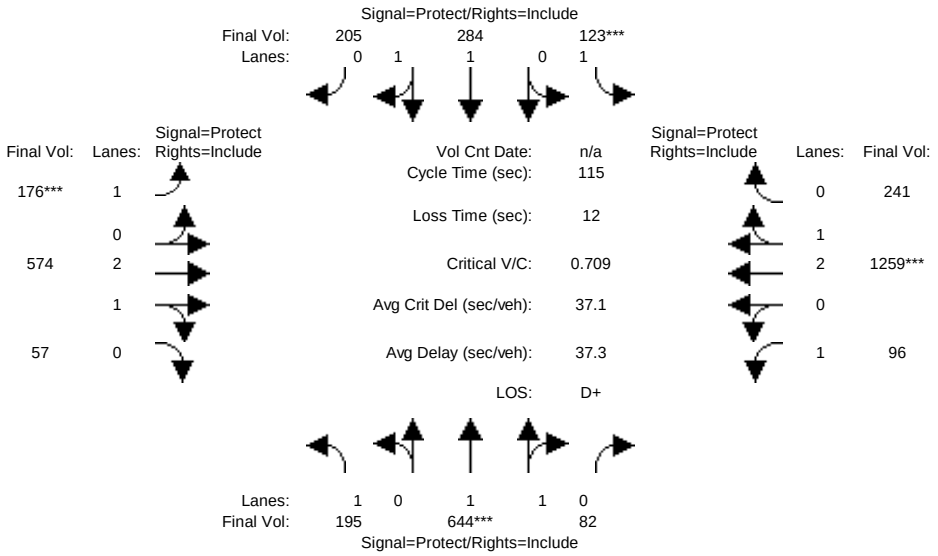
# Existing Plus Background Plus Project Traffic Conditions

City of Sunnyvale
Oppidan Grocery Store (777 Sunnvyale-Saratoga Road)
097318104

Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex + BG + P AM

## Intersection #1: S Mary Ave / El Camino Real




| Street Name: | S Mary Ave | | | | | | El Camino Real | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
| Movement: | L - | T - | R | L - | T - | R | L - | T - | R | L - | T - | R |
| Min. Green: | 7 | 10 | 10 | 7 | 10 | 10 | 7 | 10 | 10 | 7 | 10 | 10 |
| Y+R: | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 |
| Volume Module: | | | | | | | | | | | | |
| Base Vol: | 195 | 639 | 73 | 96 | 278 | 184 | 153 | 494 | 57 | 89 | 1169 | 212 |
| Growth 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 |
| Initial Bse: | 195 | 639 | 73 | 96 | 278 | 184 | 153 | 494 | 57 | 89 | 1169 | 212 |
| Added Vol: | 0 | 5 | 9 | 27 | 6 | 21 | 23 | 80 | 0 | 7 | 90 | 29 |
| PasserByVol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Initial Fut: | 195 | 644 | 82 | 123 | 284 | 205 | 176 | 574 | 57 | 96 | 1259 | 241 |
| User 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 |
| PHF 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 |
| PHF Volume: | 195 | 644 | 82 | 123 | 284 | 205 | 176 | 574 | 57 | 96 | 1259 | 241 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 195 | 644 | 82 | 123 | 284 | 205 | 176 | 574 | 57 | 96 | 1259 | 241 |
| PCE 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 |
| MLF 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 |
| FinalVolume: | 195 | 644 | 82 | 123 | 284 | 205 | 176 | 574 | 57 | 96 | 1259 | 241 |
| Saturation Flow Module: | | | | | | | | | | | | |
| Sat/Lane: | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adjustment: | 0.92 | 0.98 | 0.95 | 0.92 | 0.99 | 0.95 | 0.92 | 0.99 | 0.95 | 0.92 | 0.99 | 0.95 |
| Lanes: | 1.00 | 1.77 | 0.23 | 1.00 | 1.14 | 0.86 | 1.00 | 2.72 | 0.28 | 1.00 | 2.50 | 0.50 |
| Final Sat.: | 1750 | 3282 | 418 | 1750 | 2148 | 1550 | 1750 | 5093 | 506 | 1750 | 4699 | 900 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.11 | 0.20 | 0.20 | 0.07 | 0.13 | 0.13 | 0.10 | 0.11 | 0.11 | 0.05 | 0.27 | 0.27 |
| Crit Moves: | | **** | | **** | | | **** | | | | **** | |
| Green Time: | 19.8 | 31.8 | 31.8 | 11.4 | 23.5 | 23.5 | 16.3 | 38.8 | 38.8 | 21.0 | 43.5 | 43.5 |
| Volume/Cap: | 0.65 | 0.71 | 0.71 | 0.71 | 0.65 | 0.65 | 0.71 | 0.33 | 0.33 | 0.30 | 0.71 | 0.71 |
| Delay/Veh: | 49.3 | 39.7 | 39.7 | 62.9 | 44.0 | 44.0 | 56.2 | 28.6 | 28.6 | 41.2 | 31.5 | 31.5 |
| User DelAdj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| AdjDel/Veh: | 49.3 | 39.7 | 39.7 | 62.9 | 44.0 | 44.0 | 56.2 | 28.6 | 28.6 | 41.2 | 31.5 | 31.5 |
| LOS by Move: | D | D | D | E | D | D | E+ | C | C | D | C | C |
| HCM2k95thQ: | 375 | 578 | 578 | 291 | 421 | 421 | 370 | 272 | 272 | 152 | 663 | 663 |

Note: Queue reported is the distance per lane in feet.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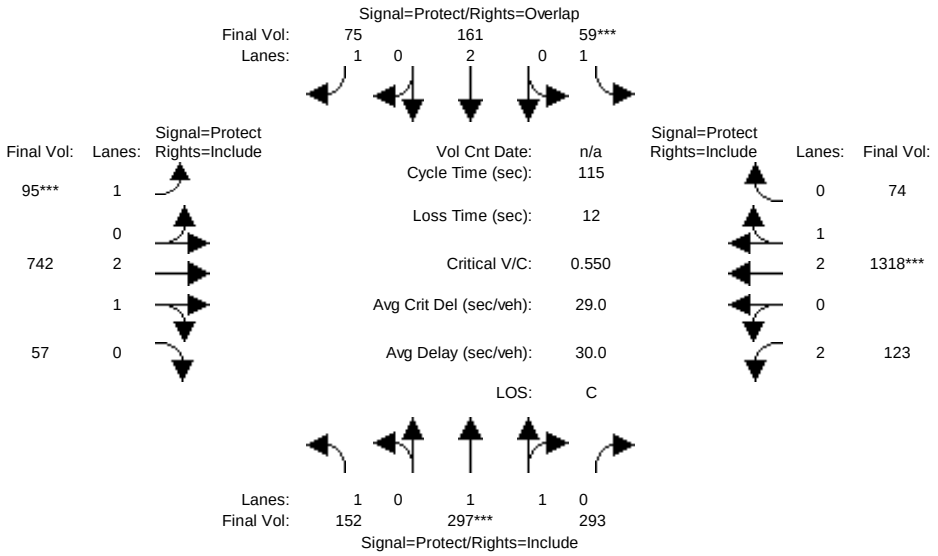
City of Sunnyvale
Oppidan Grocery Store (777 Sunnvyale-Saratoga Road)
097318104

Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex + BG + P AM

## Intersection #2: S Pastoria Avenue / El Camino Real




| Street Name: | S Pastoria Avenue | | | | | | El Camino Real | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
| Movement: | L - | T - | R | L - | T - | R | L - | T - | R | L - | T - | R |
| Min. Green: | 7 | 10 | 10 | 7 | 10 | 10 | 7 | 10 | 10 | 7 | 10 | 10 |
| Y+R: | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 |
| Volume Module: | | | | | | | | | | | | |
| Base Vol: | 151 | 297 | 291 | 47 | 161 | 68 | 88 | 634 | 55 | 119 | 1200 | 61 |
| Growth 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 |
| Initial Bse: | 151 | 297 | 291 | 47 | 161 | 68 | 88 | 634 | 55 | 119 | 1200 | 61 |
| Added Vol: | 1 | 0 | 2 | 12 | 0 | 7 | 7 | 108 | 2 | 4 | 118 | 13 |
| PasserByVol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Initial Fut: | 152 | 297 | 293 | 59 | 161 | 75 | 95 | 742 | 57 | 123 | 1318 | 74 |
| User 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 |
| PHF 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 |
| PHF Volume: | 152 | 297 | 293 | 59 | 161 | 75 | 95 | 742 | 57 | 123 | 1318 | 74 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 152 | 297 | 293 | 59 | 161 | 75 | 95 | 742 | 57 | 123 | 1318 | 74 |
| PCE 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 |
| MLF 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 |
| FinalVolume: | 152 | 297 | 293 | 59 | 161 | 75 | 95 | 742 | 57 | 123 | 1318 | 74 |
| Saturation Flow Module: | | | | | | | | | | | | |
| Sat/Lane: | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adjustment: | 0.92 | 1.00 | 0.95 | 0.92 | 1.00 | 0.92 | 0.92 | 0.99 | 0.95 | 0.83 | 0.98 | 0.95 |
| Lanes: | 1.00 | 1.00 | 1.00 | 1.00 | 2.00 | 1.00 | 1.00 | 2.78 | 0.22 | 2.00 | 2.83 | 0.17 |
| Final Sat.: | 1750 | 1899 | 1800 | 1750 | 3800 | 1750 | 1750 | 5200 | 399 | 3150 | 5302 | 298 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.09 | 0.16 | 0.16 | 0.03 | 0.04 | 0.04 | 0.05 | 0.14 | 0.14 | 0.04 | 0.25 | 0.25 |
| Crit Moves: | | **** | | **** | | | **** | | | | **** | |
| Green Time: | 19.8 | 32.7 | 32.7 | 7.0 | 19.9 | 31.2 | 11.3 | 44.4 | 44.4 | 18.9 | 51.9 | 51.9 |
| Volume/Cap: | 0.50 | 0.55 | 0.57 | 0.55 | 0.25 | 0.16 | 0.55 | 0.37 | 0.37 | 0.24 | 0.55 | 0.55 |
| Delay/Veh: | 44.5 | 35.5 | 36.0 | 58.4 | 41.3 | 32.0 | 53.2 | 25.4 | 25.4 | 42.0 | 23.3 | 23.3 |
| User DelAdj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| AdjDel/Veh: | 44.5 | 35.5 | 36.0 | 58.4 | 41.3 | 32.0 | 53.2 | 25.4 | 25.4 | 42.0 | 23.3 | 23.3 |
| LOS by Move: | D | D+ | D+ | E+ | D | C- | D- | C | C | D | C | C |
| HCM2k95thQ: | 278 | 429 | 450 | 153 | 128 | 110 | 173 | 315 | 315 | 108 | 520 | 520 |

Note: Queue reported is the distance per lane in feet.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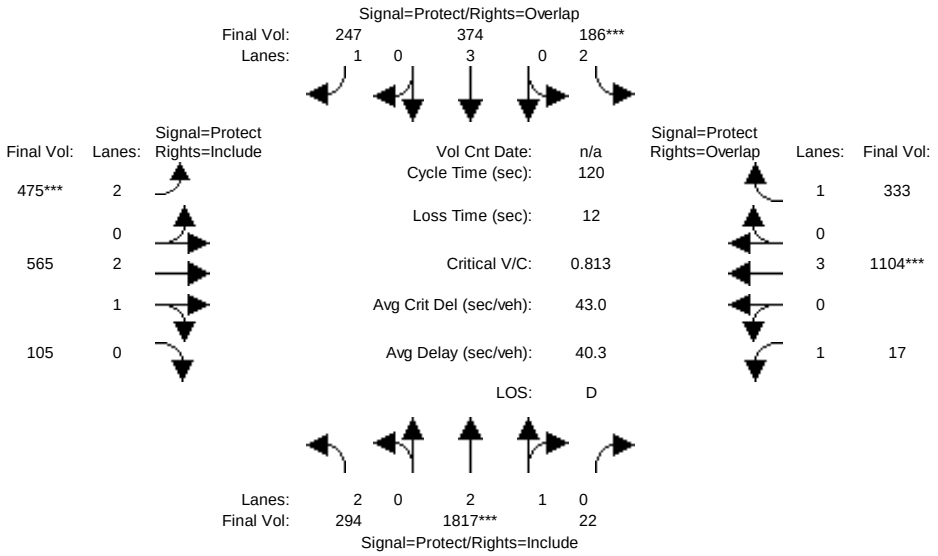
City of Sunnyvale
Oppidan Grocery Store (777 Sunnvyale-Saratoga Road)
097318104

Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex + BG + P AM

## Intersection #3: S. Mathilda Avenue / El Camino Real




| Street Name: | S. Mathilda Avenue | | | | | | El Camino Real | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
| Movement: | L - | T - | R | L - | T - | R | L - | T - | R | L - | T - | R |
| Min. Green: | 7 | 10 | 10 | 7 | 10 | 10 | 7 | 10 | 10 | 7 | 10 | 10 |
| Y+R: | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 |
| Volume Module: | | | | | | | | | | | | |
| Base Vol: | 285 | 1794 | 22 | 170 | 340 | 170 | 418 | 510 | 96 | 17 | 1054 | 317 |
| Growth 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 |
| Initial Bse: | 285 | 1794 | 22 | 170 | 340 | 170 | 418 | 510 | 96 | 17 | 1054 | 317 |
| Added Vol: | 9 | 23 | 0 | 16 | 34 | 77 | 57 | 55 | 9 | 0 | 50 | 16 |
| PasserByVol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Initial Fut: | 294 | 1817 | 22 | 186 | 374 | 247 | 475 | 565 | 105 | 17 | 1104 | 333 |
| User 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 |
| PHF 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 |
| PHF Volume: | 294 | 1817 | 22 | 186 | 374 | 247 | 475 | 565 | 105 | 17 | 1104 | 333 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 294 | 1817 | 22 | 186 | 374 | 247 | 475 | 565 | 105 | 17 | 1104 | 333 |
| PCE 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 |
| MLF 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 |
| FinalVolume: | 294 | 1817 | 22 | 186 | 374 | 247 | 475 | 565 | 105 | 17 | 1104 | 333 |
| Saturation Flow Module: | | | | | | | | | | | | |
| Sat/Lane: | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adjustment: | 0.83 | 0.98 | 0.95 | 0.83 | 1.00 | 0.92 | 0.83 | 0.99 | 0.95 | 0.92 | 1.00 | 0.92 |
| Lanes: | 2.00 | 2.96 | 0.04 | 2.00 | 3.00 | 1.00 | 2.00 | 2.51 | 0.49 | 1.00 | 3.00 | 1.00 |
| Final Sat.: | 3150 | 5533 | 67 | 3150 | 5700 | 1750 | 3150 | 4721 | 877 | 1750 | 5700 | 1750 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.09 | 0.33 | 0.33 | 0.06 | 0.07 | 0.14 | 0.15 | 0.12 | 0.12 | 0.01 | 0.19 | 0.19 |
| Crit Moves: | | **** | | **** | | | **** | | | | **** | |
| Green Time: | 30.2 | 48.5 | 48.5 | 8.7 | 27.0 | 49.2 | 22.3 | 34.2 | 34.2 | 16.7 | 28.6 | 37.3 |
| Volume/Cap: | 0.37 | 0.81 | 0.81 | 0.81 | 0.29 | 0.34 | 0.81 | 0.42 | 0.42 | 0.07 | 0.81 | 0.61 |
| Delay/Veh: | 37.4 | 34.1 | 34.1 | 74.3 | 38.7 | 24.6 | 55.4 | 35.0 | 35.0 | 45.1 | 47.1 | 37.3 |
| User DelAdj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| AdjDel/Veh: | 37.4 | 34.1 | 34.1 | 74.3 | 38.7 | 24.6 | 55.4 | 35.0 | 35.0 | 45.1 | 47.1 | 37.3 |
| LOS by Move: | D+ | C- | C- | E | D+ | C | E+ | D+ | D+ | D | D | D+ |
| HCM2k95thQ: | 265 | 925 | 925 | 296 | 191 | 319 | 489 | 313 | 313 | 29 | 595 | 506 |

Note: Queue reported is the distance per lane in feet.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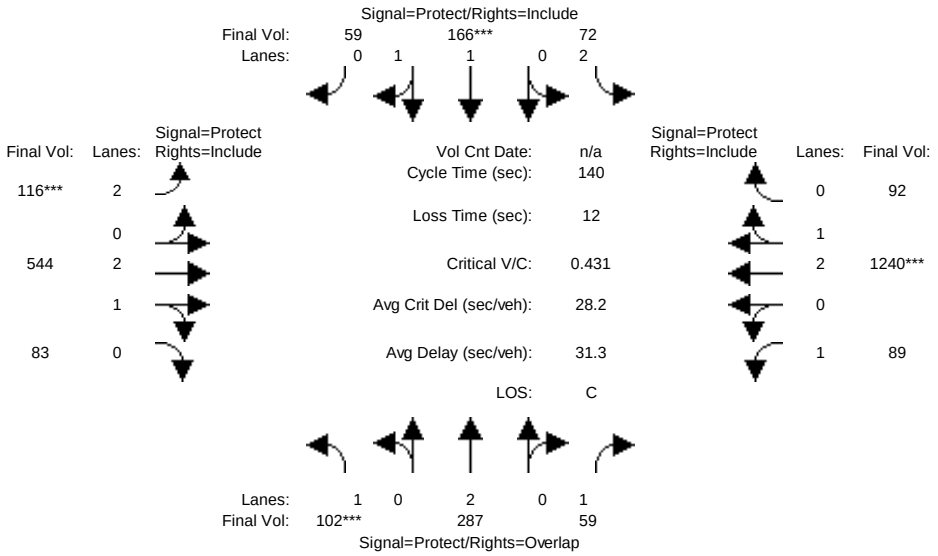
097318104

Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex + BG + P AM

## Intersection #4: S. Sunnyvale Avenue / El Camino Real




| Street Name: | S. Sunnyvale Avenue | | | | | | El Camino Real | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
| Movement: | L - | T - | R | L - | T - | R | L - | T - | R | L - | T - | R |
| Min. Green: | 7 | 10 | 10 | 7 | 10 | 10 | 7 | 10 | 10 | 7 | 10 | 10 |
| Y+R: | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 |
| Volume Module: | | | | | | | | | | | | |
| Base Vol: | 98 | 276 | 57 | 66 | 155 | 49 | 107 | 487 | 77 | 84 | 1189 | 84 |
| Growth 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 |
| Initial Bse: | 98 | 276 | 57 | 66 | 155 | 49 | 107 | 487 | 77 | 84 | 1189 | 84 |
| Added Vol: | 4 | 11 | 2 | 6 | 11 | 10 | 9 | 57 | 6 | 5 | 51 | 8 |
| PasserByVol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Initial Fut: | 102 | 287 | 59 | 72 | 166 | 59 | 116 | 544 | 83 | 89 | 1240 | 92 |
| User 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 |
| PHF 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 |
| PHF Volume: | 102 | 287 | 59 | 72 | 166 | 59 | 116 | 544 | 83 | 89 | 1240 | 92 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 102 | 287 | 59 | 72 | 166 | 59 | 116 | 544 | 83 | 89 | 1240 | 92 |
| PCE 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 |
| MLF 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 |
| FinalVolume: | 102 | 287 | 59 | 72 | 166 | 59 | 116 | 544 | 83 | 89 | 1240 | 92 |
| Saturation Flow Module: | | | | | | | | | | | | |
| Sat/Lane: | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adjustment: | 0.92 | 1.00 | 0.92 | 0.83 | 0.98 | 0.95 | 0.83 | 0.99 | 0.95 | 0.92 | 0.99 | 0.95 |
| Lanes: | 1.00 | 2.00 | 1.00 | 2.00 | 1.46 | 0.54 | 2.00 | 2.59 | 0.41 | 1.00 | 2.79 | 0.21 |
| Final Sat.: | 1750 | 3800 | 1750 | 3150 | 2729 | 970 | 3150 | 4858 | 741 | 1750 | 5213 | 387 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.06 | 0.08 | 0.03 | 0.02 | 0.06 | 0.06 | 0.04 | 0.11 | 0.11 | 0.05 | 0.24 | 0.24 |
| Crit Moves: | **** | | | | **** | | **** | | | | **** | |
| Green Time: | 18.9 | 23.3 | 51.2 | 15.4 | 19.8 | 19.8 | 12.0 | 61.4 | 61.4 | 27.9 | 77.3 | 77.3 |
| Volume/Cap: | 0.43 | 0.45 | 0.09 | 0.21 | 0.43 | 0.43 | 0.43 | 0.26 | 0.26 | 0.26 | 0.43 | 0.43 |
| Delay/Veh: | 56.8 | 53.1 | 29.2 | 57.0 | 55.5 | 55.5 | 61.9 | 24.9 | 24.9 | 47.7 | 18.5 | 18.5 |
| User DelAdj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| AdjDel/Veh: | 56.8 | 53.1 | 29.2 | 57.0 | 55.5 | 55.5 | 61.9 | 24.9 | 24.9 | 47.7 | 18.5 | 18.5 |
| LOS by Move: | E+ | D- | C | E+ | E+ | E+ | E | C | C | D | B- | B- |
| HCM2k95thQ: | 230 | 282 | 89 | 92 | 237 | 237 | 140 | 266 | 266 | 166 | 501 | 501 |

Note: Queue reported is the distance per lane in feet.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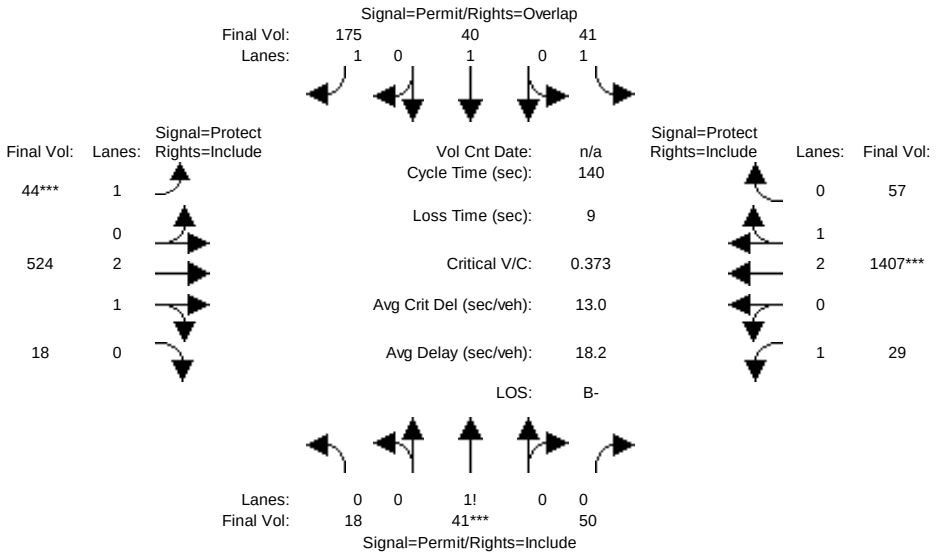
097318104

Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex + BG + P AM

## Intersection #5: Cezanne Drive / El Camino Real




| Street Name: | Cezanne Drive | | | | | | El Camino Real | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
| Movement: | L - | T - | R | L - | T - | R | L - | T - | R | L - | T - | R |
| Min. Green: | 10 | 10 | 10 | 10 | 10 | 10 | 7 | 10 | 10 | 7 | 10 | 10 |
| Y+R: | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 |
| Volume Module: | | | | | | | | | | | | |
| Base Vol: | 18 | 41 | 50 | 41 | 40 | 175 | 44 | 459 | 18 | 29 | 1343 | 53 |
| Growth 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 |
| Initial Bse: | 18 | 41 | 50 | 41 | 40 | 175 | 44 | 459 | 18 | 29 | 1343 | 53 |
| Added Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 65 | 0 | 0 | 64 | 4 |
| PasserByVol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Initial Fut: | 18 | 41 | 50 | 41 | 40 | 175 | 44 | 524 | 18 | 29 | 1407 | 57 |
| User 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 |
| PHF 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 |
| PHF Volume: | 18 | 41 | 50 | 41 | 40 | 175 | 44 | 524 | 18 | 29 | 1407 | 57 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 18 | 41 | 50 | 41 | 40 | 175 | 44 | 524 | 18 | 29 | 1407 | 57 |
| PCE 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 |
| MLF 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 |
| FinalVolume: | 18 | 41 | 50 | 41 | 40 | 175 | 44 | 524 | 18 | 29 | 1407 | 57 |
| Saturation Flow Module: | | | | | | | | | | | | |
| Sat/Lane: | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adjustment: | 0.92 | 0.92 | 0.92 | 0.92 | 1.00 | 0.92 | 0.92 | 0.98 | 0.95 | 0.92 | 0.98 | 0.95 |
| Lanes: | 0.16 | 0.38 | 0.46 | 1.00 | 1.00 | 1.00 | 1.00 | 2.90 | 0.10 | 1.00 | 2.88 | 0.12 |
| Final Sat.: | 289 | 658 | 803 | 1750 | 1900 | 1750 | 1750 | 5414 | 186 | 1750 | 5382 | 218 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.06 | 0.06 | 0.06 | 0.02 | 0.02 | 0.10 | 0.03 | 0.10 | 0.10 | 0.02 | 0.26 | 0.26 |
| Crit Moves: | | **** | | | | | **** | | | | **** | |
| Green Time: | 23.4 | 23.4 | 23.4 | 23.4 | 23.4 | 32.8 | 9.4 | 71.0 | 71.0 | 36.7 | 98.2 | 98.2 |
| Volume/Cap: | 0.37 | 0.37 | 0.37 | 0.14 | 0.13 | 0.43 | 0.37 | 0.19 | 0.19 | 0.06 | 0.37 | 0.37 |
| Delay/Veh: | 52.6 | 52.6 | 52.6 | 50.0 | 49.8 | 46.3 | 64.4 | 18.9 | 18.9 | 38.8 | 8.5 | 8.5 |
| User DelAdj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| AdjDel/Veh: | 52.6 | 52.6 | 52.6 | 50.0 | 49.8 | 46.3 | 64.4 | 18.9 | 18.9 | 38.8 | 8.5 | 8.5 |
| LOS by Move: | D- | D- | D- | D | D | D | E | B- | B- | D+ | A | A |
| HCM2k95thQ: | 229 | 229 | 229 | 84 | 75 | 334 | 98 | 203 | 203 | 51 | 394 | 394 |

Note: Queue reported is the distance per lane in feet.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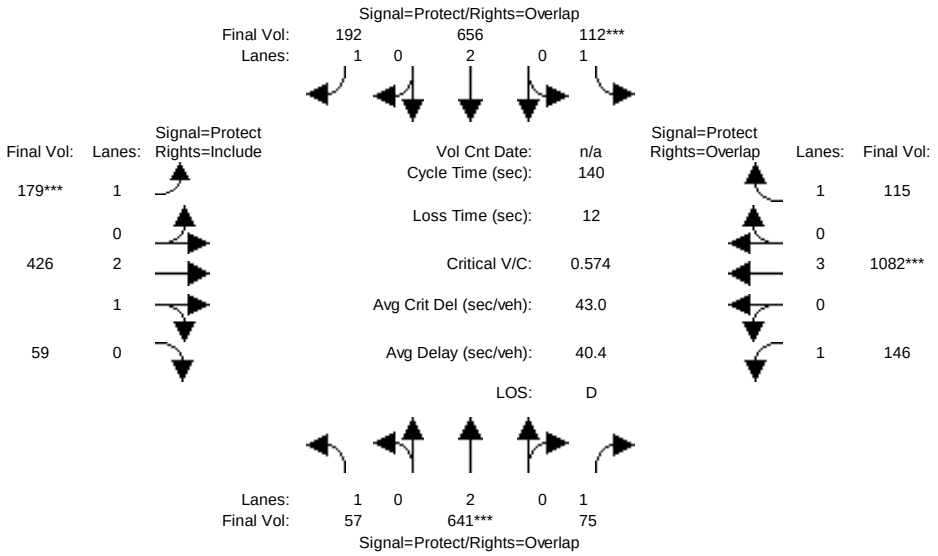
097318104

Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex + BG + P AM

## Intersection #6: S. Fair Oaks Avenue / El Camino Real




| Street Name: | S. Fair Oaks Avenue | | | | | | El Camino Real | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
| Movement: | L - | T - | R | L - | T - | R | L - | T - | R | L - | T - | R |
| Min. Green: | 7 | 10 | 10 | 7 | 10 | 10 | 7 | 10 | 10 | 7 | 10 | 10 |
| Y+R: | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 |
| Volume Module: | | | | | | | | | | | | |
| Base Vol: | 50 | 641 | 75 | 93 | 653 | 181 | 144 | 396 | 59 | 146 | 1032 | 115 |
| Growth 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 |
| Initial Bse: | 50 | 641 | 75 | 93 | 653 | 181 | 144 | 396 | 59 | 146 | 1032 | 115 |
| Added Vol: | 7 | 0 | 0 | 19 | 3 | 11 | 35 | 30 | 0 | 0 | 50 | 0 |
| PasserByVol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Initial Fut: | 57 | 641 | 75 | 112 | 656 | 192 | 179 | 426 | 59 | 146 | 1082 | 115 |
| User 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 |
| PHF 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 |
| PHF Volume: | 57 | 641 | 75 | 112 | 656 | 192 | 179 | 426 | 59 | 146 | 1082 | 115 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 57 | 641 | 75 | 112 | 656 | 192 | 179 | 426 | 59 | 146 | 1082 | 115 |
| PCE 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 |
| MLF 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 |
| FinalVolume: | 57 | 641 | 75 | 112 | 656 | 192 | 179 | 426 | 59 | 146 | 1082 | 115 |
| Saturation Flow Module: | | | | | | | | | | | | |
| Sat/Lane: | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adjustment: | 0.92 | 1.00 | 0.92 | 0.92 | 1.00 | 0.92 | 0.92 | 0.99 | 0.95 | 0.92 | 1.00 | 0.92 |
| Lanes: | 1.00 | 2.00 | 1.00 | 1.00 | 2.00 | 1.00 | 1.00 | 2.62 | 0.38 | 1.00 | 3.00 | 1.00 |
| Final Sat.: | 1750 | 3800 | 1750 | 1750 | 3800 | 1750 | 1750 | 4918 | 681 | 1750 | 5700 | 1750 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.03 | 0.17 | 0.04 | 0.06 | 0.17 | 0.11 | 0.10 | 0.09 | 0.09 | 0.08 | 0.19 | 0.07 |
| Crit Moves: | | **** | | **** | | | **** | | | | **** | |
| Green Time: | 12.7 | 41.1 | 76.1 | 15.6 | 44.0 | 69.0 | 24.9 | 36.3 | 36.3 | 35.0 | 46.3 | 61.9 |
| Volume/Cap: | 0.36 | 0.57 | 0.08 | 0.57 | 0.55 | 0.22 | 0.57 | 0.33 | 0.33 | 0.33 | 0.57 | 0.15 |
| Delay/Veh: | 61.2 | 42.7 | 15.3 | 63.2 | 40.3 | 20.4 | 55.3 | 42.2 | 42.2 | 43.5 | 39.1 | 23.4 |
| User DelAdj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| AdjDel/Veh: | 61.2 | 42.7 | 15.3 | 63.2 | 40.3 | 20.4 | 55.3 | 42.2 | 42.2 | 43.5 | 39.1 | 23.4 |
| LOS by Move: | E | D | B | E | D | C+ | E+ | D | D | D | D | C |
| HCM2k95thQ: | 141 | 538 | 82 | 276 | 532 | 240 | 356 | 266 | 266 | 269 | 578 | 154 |

Note: Queue reported is the distance per lane in feet.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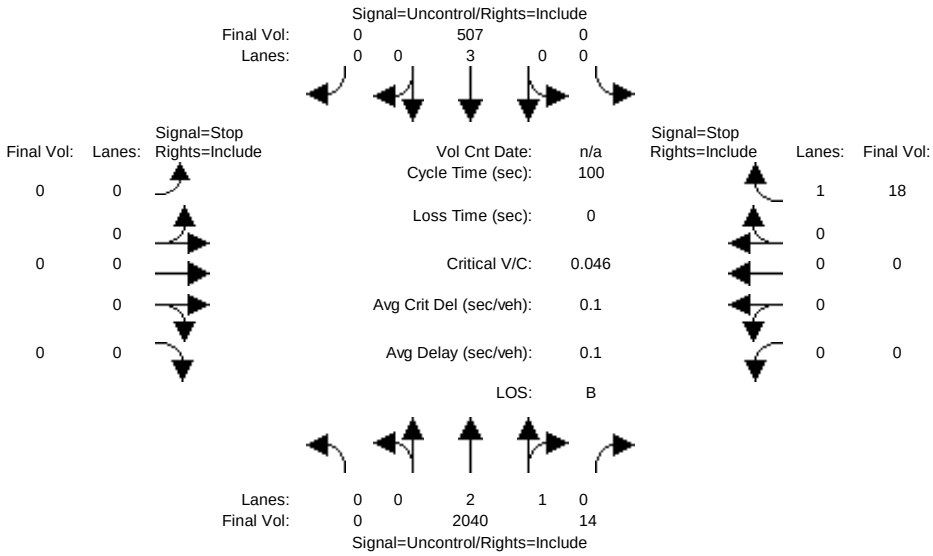
097318104

Level Of Service Computation Report
2000 HCM Unsignalized (Future Volume Alternative)
Ex + BG + P AM

## Intersection #7: S Mathilda Ave / Southwest Project Driveway




```
Street Name:        S Mathilda Avenue             SouthwestProject Driveway
Approach:      North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Volume Module:
Base Vol:       0 2009    13     0  464     0     0    0     0     0    0    17
Growth 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
Initial Bse:    0 2009    13     0  464     0     0    0     0     0    0    17
Added Vol:      0   31     0     0   43     0     0    0     0     0    0     1
PasserByVol:    0    0     1     0    0     0     0    0     0     0    0     0
Initial Fut:    0 2040    14     0  507     0     0    0     0     0    0    18
User 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
PHF 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
PHF Volume:     0 2040    14     0  507     0     0    0     0     0    0    18
Reduct Vol:     0    0     0     0    0     0     0    0     0     0    0     0
FinalVolume:    0 2040    14     0  507     0     0    0     0     0    0    18
------------|---------------||---------------||---------------||---------------|
Critical Gap Module:
Critical Gp:xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx   6.9
FollowUpTim:xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx   3.3
------------|---------------||---------------||---------------||---------------|
Capacity Module:
Cnflict Vol: xxxx xxxx xxxxx  xxxx xxxx xxxxx  xxxx xxxx xxxxx  xxxx xxxx   687
Potent Cap.: xxxx xxxx xxxxx  xxxx xxxx xxxxx  xxxx xxxx xxxxx  xxxx xxxx   394
Move Cap.:   xxxx xxxx xxxxx  xxxx xxxx xxxxx  xxxx xxxx xxxxx  xxxx xxxx   394
Volume/Cap:  xxxx xxxx  xxxx  xxxx xxxx  xxxx  xxxx xxxx  xxxx  xxxx xxxx  0.05
------------|---------------||---------------||---------------||---------------|
Level Of Service Module:
2Way95thQ:   xxxx xxxx xxxxx  xxxx xxxx xxxxx  xxxx xxxx xxxxx  xxxx xxxx   3.6
Control Del:xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx  14.6
LOS by Move:    *    *     *     *    *     *     *    *     *     *    *     B
Movement:     LT - LTR - RT    LT - LTR - RT    LT - LTR - RT    LT - LTR - RT
Shared Cap.: xxxx xxxx xxxxx  xxxx xxxx xxxxx  xxxx xxxx xxxxx  xxxx xxxx xxxxx
SharedQueue:xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx
Shrd ConDel:xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx
Shared LOS:     *    *     *     *    *     *     *    *     *     *    *     *
ApproachDel:    xxxxxx            xxxxxx            xxxxxx             14.6
ApproachLOS:         *                 *                 *                B
Note: Queue reported is the distance per lane in feet.
                     Peak Hour Delay Signal Warrant Report
*******************************************************************************
Intersection #7 S Mathilda Ave / Southwest Project Driveway
*******************************************************************************
```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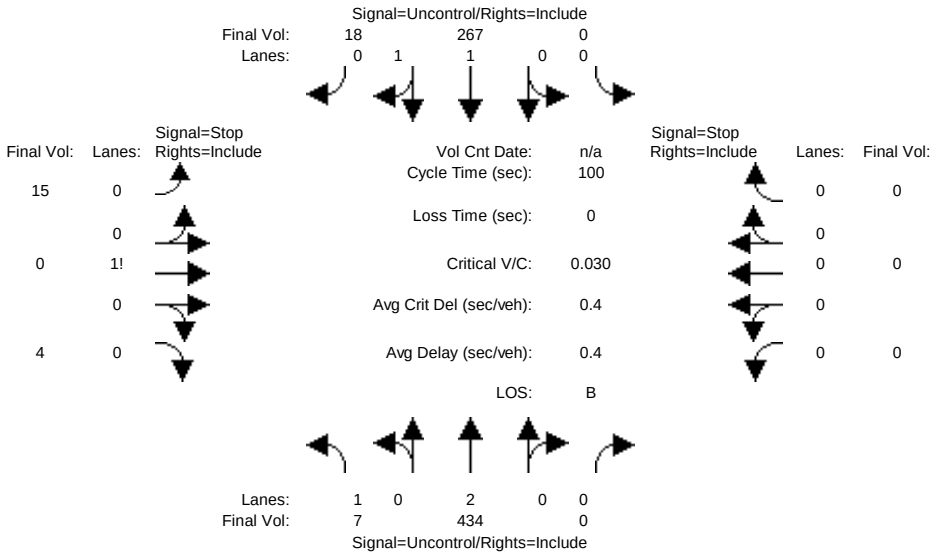
097318104

Level Of Service Computation Report
2000 HCM Unsignalized (Future Volume Alternative)
Ex + BG + P AM

## Intersection #8: Sunnyvale-Saratoga Road / East Project Driveway




```
Street Name:     Sunnyvale-Saratoga Road          East Project Driveway
Approach:      North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Volume Module:
Base Vol:       5  422     0     0  255     9     9    0     3     0    0     0
Growth 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
Initial Bse:    5  422     0     0  255     9     9    0     3     0    0     0
Added Vol:      2   12     0     0   12     9     6    0     1     0    0     0
PasserByVol:    0    0     0     0    0     0     0    0     0     0    0     0
Initial Fut:    7  434     0     0  267    18    15    0     4     0    0     0
User 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
PHF 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
PHF Volume:     7  434     0     0  267    18    15    0     4     0    0     0
Reduct Vol:     0    0     0     0    0     0     0    0     0     0    0     0
FinalVolume:    7  434     0     0  267    18    15    0     4     0    0     0
------------|---------------||---------------||---------------||---------------|
Critical Gap Module:
Critical Gp:  4.1 xxxx xxxxx xxxxx xxxx xxxxx   6.8  6.5   6.9 xxxxx xxxx xxxxx
FollowUpTim:  2.2 xxxx xxxxx xxxxx xxxx xxxxx   3.5  4.0   3.3 xxxxx xxxx xxxxx
------------|---------------||---------------||---------------||---------------|
Capacity Module:
Cnflict Vol:  285 xxxx xxxxx  xxxx xxxx xxxxx   507  724   143  xxxx xxxx xxxxx
Potent Cap.: 1289 xxxx xxxxx  xxxx xxxx xxxxx   500  354   886  xxxx xxxx xxxxx
Move Cap.:   1289 xxxx xxxxx  xxxx xxxx xxxxx   498  353   886  xxxx xxxx xxxxx
Volume/Cap:  0.01 xxxx  xxxx  xxxx xxxx  xxxx  0.03 0.00  0.00  xxxx xxxx  xxxx
------------|---------------||---------------||---------------||---------------|
Level Of Service Module:
2Way95thQ:    0.4 xxxx xxxxx  xxxx xxxx xxxxx  xxxx xxxx xxxxx  xxxx xxxx xxxxx
Control Del:  7.8 xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx
LOS by Move:    A    *     *     *    *     *     *    *     *     *    *     *
Movement:     LT - LTR - RT    LT - LTR - RT    LT - LTR - RT    LT - LTR - RT
Shared Cap.: xxxx xxxx xxxxx  xxxx xxxx xxxxx  xxxx  548 xxxxx  xxxx xxxx xxxxx
SharedQueue:xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx  0.1 xxxxx xxxxx xxxx xxxxx
Shrd ConDel:xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx 11.8 xxxxx xxxxx xxxx xxxxx
Shared LOS:     *    *     *     *    *     *     *    B     *     *    *     *
ApproachDel:    xxxxxx           xxxxxx             11.8           xxxxxx
ApproachLOS:         *                *               B                *
Note: Queue reported is the distance per lane in feet.
                     Peak Hour Delay Signal Warrant Report
*******************************************************************************
Intersection #8 Sunnyvale-Saratoga Road / East Project Driveway
*******************************************************************************
```

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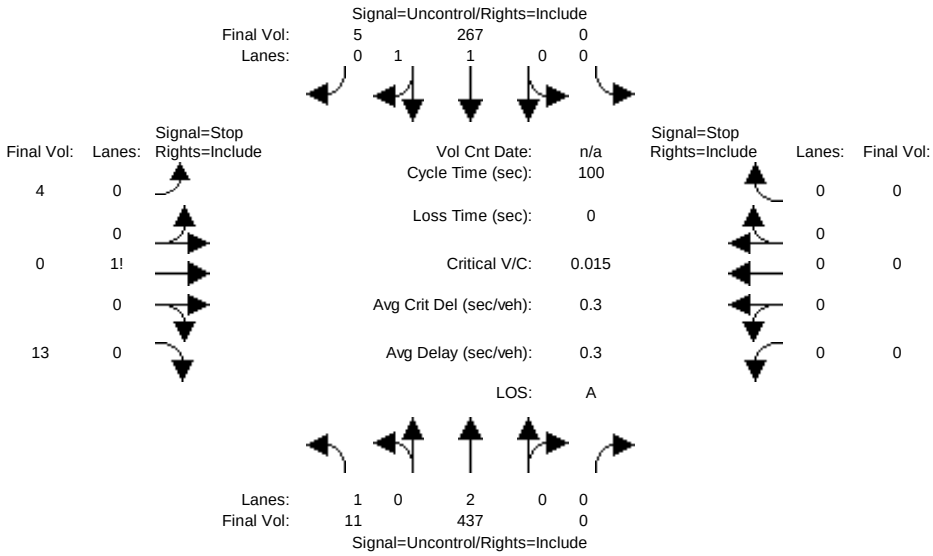
Oppidan Grocery Store (777 Sunnvyale-Saratoga Road)
097318104

Level Of Service Computation Report
2000 HCM Unsignalized (Future Volume Alternative)
Ex + BG + P AM

## Intersection #9: Sunnyvale-Saratoga Road / Southeast Project Driveway




```
Street Name:     Sunnyvale-Saratoga Road          Southeast Project Driveway
Approach:      North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Volume Module:
Base Vol:       8  425     0     0  256     2     2    0    12     0    0     0
Growth 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
Initial Bse:    8  425     0     0  256     2     2    0    12     0    0     0
Added Vol:      3   12     0     0   11     3     2    0     1     0    0     0
PasserByVol:    0    0     0     0    0     0     0    0     0     0    0     0
Initial Fut:   11  437     0     0  267     5     4    0    13     0    0     0
User 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
PHF 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
PHF Volume:    11  437     0     0  267     5     4    0    13     0    0     0
Reduct Vol:     0    0     0     0    0     0     0    0     0     0    0     0
FinalVolume:   11  437     0     0  267     5     4    0    13     0    0     0
------------|---------------||---------------||---------------||---------------|
Critical Gap Module:
Critical Gp:  4.1 xxxx xxxxx xxxxx xxxx xxxxx   6.8  6.5   6.9 xxxxx xxxx xxxxx
FollowUpTim:  2.2 xxxx xxxxx xxxxx xxxx xxxxx   3.5  4.0   3.3 xxxxx xxxx xxxxx
------------|---------------||---------------||---------------||---------------|
Capacity Module:
Cnflict Vol:  272 xxxx xxxxx  xxxx xxxx xxxxx   510  729   136  xxxx xxxx xxxxx
Potent Cap.: 1303 xxxx xxxxx  xxxx xxxx xxxxx   498  352   894  xxxx xxxx xxxxx
Move Cap.:   1303 xxxx xxxxx  xxxx xxxx xxxxx   495  349   894  xxxx xxxx xxxxx
Volume/Cap:  0.01 xxxx  xxxx  xxxx xxxx  xxxx  0.01 0.00  0.01  xxxx xxxx  xxxx
------------|---------------||---------------||---------------||---------------|
Level Of Service Module:
2Way95thQ:    0.6 xxxx xxxxx  xxxx xxxx xxxxx  xxxx xxxx xxxxx  xxxx xxxx xxxxx
Control Del:  7.8 xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx
LOS by Move:    A    *     *     *    *     *     *    *     *     *    *     *
Movement:     LT - LTR - RT    LT - LTR - RT    LT - LTR - RT    LT - LTR - RT
Shared Cap.: xxxx xxxx xxxxx  xxxx xxxx xxxxx  xxxx  751 xxxxx  xxxx xxxx xxxxx
SharedQueue:xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx  0.1 xxxxx xxxxx xxxx xxxxx
Shrd ConDel:xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx  9.9 xxxxx xxxxx xxxx xxxxx
Shared LOS:     *    *     *     *    *     *     *    A     *     *    *     *
ApproachDel:    xxxxxx            xxxxxx               9.9           xxxxxx
ApproachLOS:         *                 *                 A                *
Note: Queue reported is the distance per lane in feet.
                     Peak Hour Delay Signal Warrant Report
*******************************************************************************
Intersection #9 Sunnyvale-Saratoga Road / Southeast Project Driveway
*******************************************************************************
```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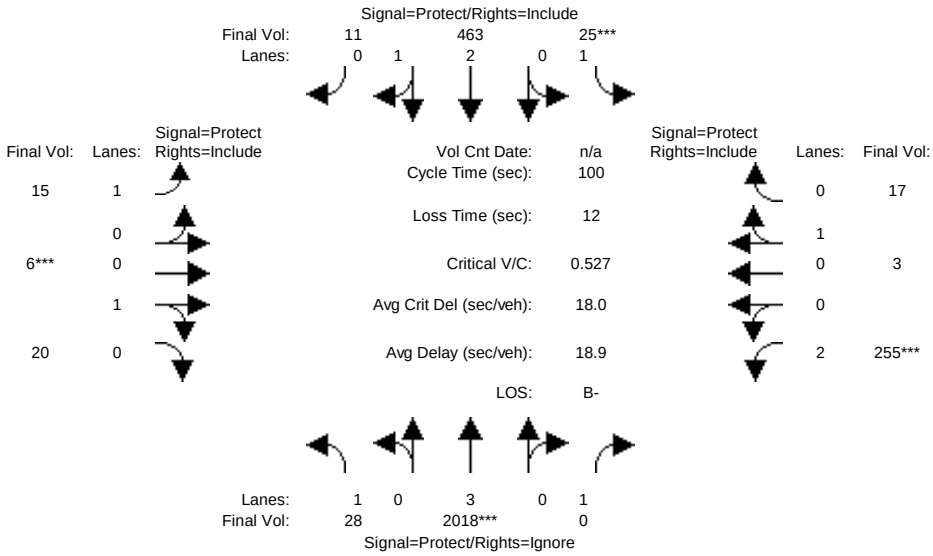
Oppidan Grocery Store (777 Sunnvyale-Saratoga Road)
097318104

Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex + BG + P AM

## Intersection #10: S Mathilda Ave - Sunnyvale-Saratoga Rd / Talisman Dr - Sunnvyale-Saratoga Rd




Street Name:S Mathilda Ave - Sunnyvale-Sarato Talisman Dr - Sunnyvale-Saratoga

| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Movement: | L - | T - | R | L - | T - | R | L - | T - | R | L - | T - | R |
| Min. Green: | 7 | 10 | 10 | 7 | 10 | 10 | 7 | 10 | 10 | 7 | 10 | 10 |
| Y+R: | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 |
| Volume Module: | | | | | | | | | | | | |
| Base Vol: | 28 | 1987 | 467 | 22 | 423 | 11 | 15 | 6 | 20 | 243 | 3 | 17 |
| Growth 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 |
| Initial Bse: | 28 | 1987 | 467 | 22 | 423 | 11 | 15 | 6 | 20 | 243 | 3 | 17 |
| Added Vol: | 0 | 31 | 13 | 3 | 40 | 0 | 0 | 0 | 0 | 12 | 0 | 0 |
| PasserByVol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Initial Fut: | 28 | 2018 | 480 | 25 | 463 | 11 | 15 | 6 | 20 | 255 | 3 | 17 |
| User Adj: | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj: | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume: | 28 | 2018 | 0 | 25 | 463 | 11 | 15 | 6 | 20 | 255 | 3 | 17 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 28 | 2018 | 0 | 25 | 463 | 11 | 15 | 6 | 20 | 255 | 3 | 17 |
| PCE Adj: | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj: | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| FinalVolume: | 28 | 2018 | 0 | 25 | 463 | 11 | 15 | 6 | 20 | 255 | 3 | 17 |
| Saturation Flow Module: | | | | | | | | | | | | |
| Sat/Lane: | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adjustment: | 0.92 | 1.00 | 0.92 | 0.92 | 0.98 | 0.95 | 0.92 | 0.95 | 0.95 | 0.83 | 0.95 | 0.95 |
| Lanes: | 1.00 | 3.00 | 1.00 | 1.00 | 2.93 | 0.07 | 1.00 | 0.23 | 0.77 | 2.00 | 0.15 | 0.85 |
| Final Sat.: | 1750 | 5700 | 1750 | 1750 | 5470 | 130 | 1750 | 415 | 1385 | 3150 | 270 | 1530 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.02 | 0.35 | 0.00 | 0.01 | 0.08 | 0.08 | 0.01 | 0.01 | 0.01 | 0.08 | 0.01 | 0.01 |
| Crit Moves: | | **** | | **** | | | | **** | | **** | | |
| Green Time: | 26.7 | 57.8 | 0.0 | 7.0 | 38.1 | 38.1 | 9.6 | 10.0 | 10.0 | 13.2 | 13.7 | 13.7 |
| Volume/Cap: | 0.06 | 0.61 | 0.00 | 0.20 | 0.22 | 0.22 | 0.09 | 0.14 | 0.14 | 0.61 | 0.08 | 0.08 |
| Delay/Veh: | 27.4 | 14.1 | 0.0 | 44.7 | 21.0 | 21.0 | 41.5 | 41.5 | 41.5 | 43.7 | 37.8 | 37.8 |
| User DelAdj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| AdjDel/Veh: | 27.4 | 14.1 | 0.0 | 44.7 | 21.0 | 21.0 | 41.5 | 41.5 | 41.5 | 43.7 | 37.8 | 37.8 |
| LOS by Move: | C | B | A | D | C+ | C+ | D | D | D | D | D+ | D+ |
| HCM2k95thQ: | 34 | 598 | 0 | 50 | 165 | 165 | 27 | 45 | 45 | 265 | 31 | 31 |

Note: Queue reported is the distance per lane in feet.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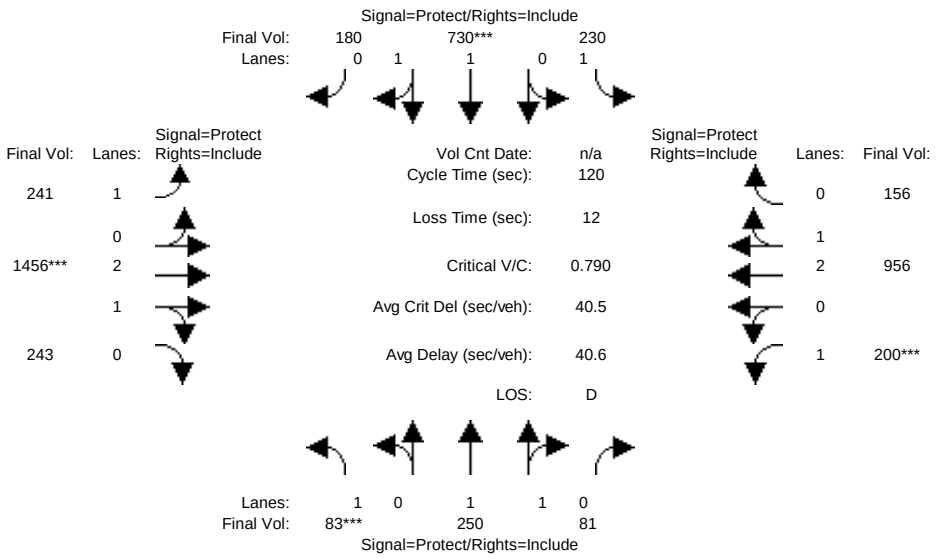
097318104

Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex + BG + P PM

## Intersection #1: S Mary Ave / El Camino Real




| Street Name: | S Mary Ave | | | | | | El Camino Real | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
| Movement: | L - | T - | R | L - | T - | R | L - | T - | R | L - | T - | R |
| Min. Green: | 7 | 10 | 10 | 7 | 10 | 10 | 7 | 10 | 10 | 7 | 10 | 10 |
| Y+R: | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 |
| Volume Module: | | | | | | | | | | | | |
| Base Vol: | 83 | 246 | 70 | 205 | 726 | 161 | 226 | 1365 | 243 | 188 | 868 | 135 |
| Growth 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 |
| Initial Bse: | 83 | 246 | 70 | 205 | 726 | 161 | 226 | 1365 | 243 | 188 | 868 | 135 |
| Added Vol: | 0 | 4 | 11 | 25 | 4 | 19 | 15 | 91 | 0 | 12 | 88 | 21 |
| PasserByVol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Initial Fut: | 83 | 250 | 81 | 230 | 730 | 180 | 241 | 1456 | 243 | 200 | 956 | 156 |
| User 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 |
| PHF 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 |
| PHF Volume: | 83 | 250 | 81 | 230 | 730 | 180 | 241 | 1456 | 243 | 200 | 956 | 156 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 83 | 250 | 81 | 230 | 730 | 180 | 241 | 1456 | 243 | 200 | 956 | 156 |
| PCE 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 |
| MLF 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 |
| FinalVolume: | 83 | 250 | 81 | 230 | 730 | 180 | 241 | 1456 | 243 | 200 | 956 | 156 |
| Saturation Flow Module: | | | | | | | | | | | | |
| Sat/Lane: | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adjustment: | 0.92 | 0.98 | 0.95 | 0.92 | 0.98 | 0.95 | 0.92 | 0.99 | 0.95 | 0.92 | 0.99 | 0.95 |
| Lanes: | 1.00 | 1.50 | 0.50 | 1.00 | 1.59 | 0.41 | 1.00 | 2.56 | 0.44 | 1.00 | 2.56 | 0.44 |
| Final Sat.: | 1750 | 2794 | 905 | 1750 | 2968 | 732 | 1750 | 4798 | 801 | 1750 | 4813 | 785 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.05 | 0.09 | 0.09 | 0.13 | 0.25 | 0.25 | 0.14 | 0.30 | 0.30 | 0.11 | 0.20 | 0.20 |
| Crit Moves: | **** | | | | **** | | | **** | | **** | | |
| Green Time: | 7.2 | 18.0 | 18.0 | 26.5 | 37.4 | 37.4 | 26.0 | 46.1 | 46.1 | 17.4 | 37.5 | 37.5 |
| Volume/Cap: | 0.79 | 0.59 | 0.59 | 0.59 | 0.79 | 0.79 | 0.64 | 0.79 | 0.79 | 0.79 | 0.64 | 0.64 |
| Delay/Veh: | 87.7 | 49.3 | 49.3 | 44.4 | 41.5 | 41.5 | 46.3 | 34.7 | 34.7 | 64.9 | 36.2 | 36.2 |
| User DelAdj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| AdjDel/Veh: | 87.7 | 49.3 | 49.3 | 44.4 | 41.5 | 41.5 | 46.3 | 34.7 | 34.7 | 64.9 | 36.2 | 36.2 |
| LOS by Move: | F | D | D | D | D | D | D | C- | C- | E | D+ | D+ |
| HCM2k95thQ: | 251 | 318 | 318 | 413 | 750 | 750 | 442 | 857 | 857 | 382 | 531 | 531 |

Note: Queue reported is the distance per lane in feet.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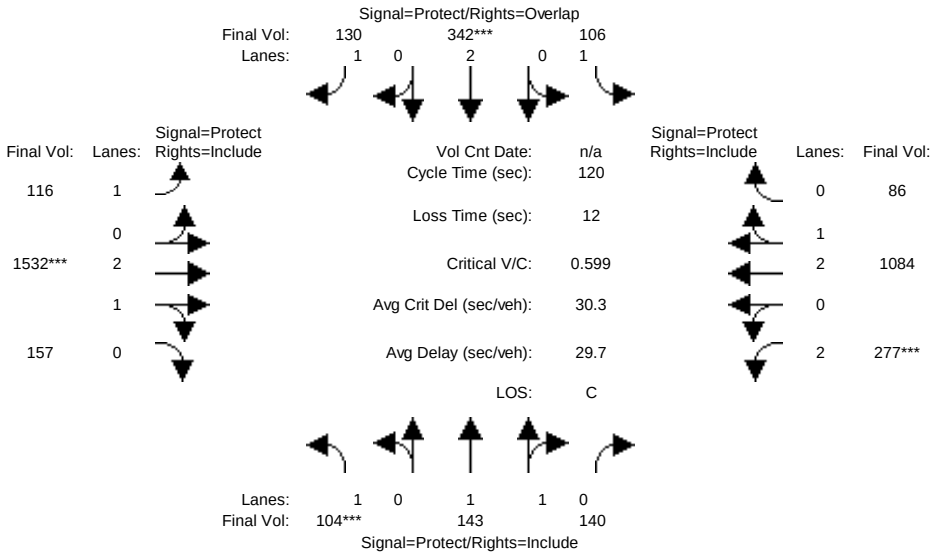
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex + BG + P PM

## Intersection #2: S Pastoria Avenue / El Camino Real




| Street Name: | S Pastoria Avenue | | | | | | El Camino Real | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
| Movement: | L - | T - | R | L - | T - | R | L - | T - | R | L - | T - | R |
| Min. Green: | 7 | 10 | 10 | 7 | 10 | 10 | 7 | 10 | 10 | 7 | 10 | 10 |
| Y+R: | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 |
| Volume Module: | | | | | | | | | | | | |
| Base Vol: | 105 | 143 | 146 | 95 | 342 | 125 | 111 | 1407 | 160 | 283 | 967 | 77 |
| Growth 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 |
| Initial Bse: | 105 | 143 | 146 | 95 | 342 | 125 | 111 | 1407 | 160 | 283 | 967 | 77 |
| Added Vol: | -1 | 0 | -6 | 11 | 0 | 5 | 5 | 125 | -3 | -6 | 117 | 9 |
| PasserByVol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Initial Fut: | 104 | 143 | 140 | 106 | 342 | 130 | 116 | 1532 | 157 | 277 | 1084 | 86 |
| User 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 |
| PHF 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 |
| PHF Volume: | 104 | 143 | 140 | 106 | 342 | 130 | 116 | 1532 | 157 | 277 | 1084 | 86 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 104 | 143 | 140 | 106 | 342 | 130 | 116 | 1532 | 157 | 277 | 1084 | 86 |
| PCE 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 |
| MLF 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 |
| FinalVolume: | 104 | 143 | 140 | 106 | 342 | 130 | 116 | 1532 | 157 | 277 | 1084 | 86 |
| Saturation Flow Module: | | | | | | | | | | | | |
| Sat/Lane: | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adjustment: | 0.92 | 1.00 | 0.95 | 0.92 | 1.00 | 0.92 | 0.92 | 0.99 | 0.95 | 0.83 | 0.99 | 0.95 |
| Lanes: | 1.00 | 1.00 | 1.00 | 1.00 | 2.00 | 1.00 | 1.00 | 2.71 | 0.29 | 2.00 | 2.77 | 0.23 |
| Final Sat.: | 1750 | 1899 | 1800 | 1750 | 3800 | 1750 | 1750 | 5079 | 520 | 3150 | 5188 | 412 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.06 | 0.08 | 0.08 | 0.06 | 0.09 | 0.07 | 0.07 | 0.30 | 0.30 | 0.09 | 0.21 | 0.21 |
| Crit Moves: | **** | | | | **** | | | **** | | **** | | |
| Green Time: | 11.9 | 17.3 | 17.3 | 12.6 | 18.0 | 36.8 | 18.8 | 60.4 | 60.4 | 17.6 | 59.3 | 59.3 |
| Volume/Cap: | 0.60 | 0.52 | 0.54 | 0.58 | 0.60 | 0.24 | 0.42 | 0.60 | 0.60 | 0.60 | 0.42 | 0.42 |
| Delay/Veh: | 57.4 | 48.4 | 48.7 | 55.6 | 49.4 | 31.4 | 46.8 | 21.5 | 21.5 | 50.1 | 19.5 | 19.5 |
| User DelAdj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| AdjDel/Veh: | 57.4 | 48.4 | 48.7 | 55.6 | 49.4 | 31.4 | 46.8 | 21.5 | 21.5 | 50.1 | 19.5 | 19.5 |
| LOS by Move: | E+ | D | D | E+ | D | C | D | C+ | C+ | D | B- | B- |
| HCM2k95thQ: | 240 | 264 | 274 | 239 | 320 | 191 | 195 | 629 | 629 | 274 | 416 | 416 |

Note: Queue reported is the distance per lane in feet.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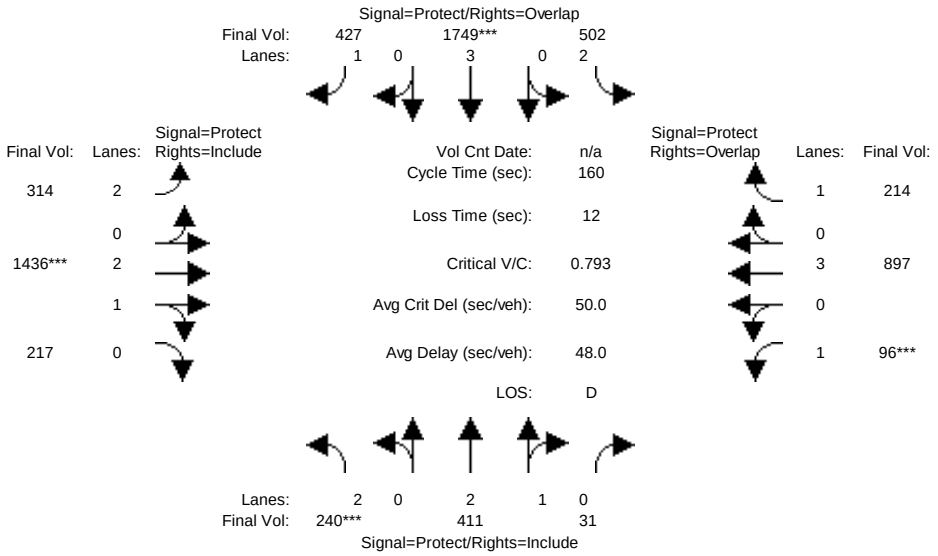
097318104

Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex + BG + P PM

## Intersection #3: S. Mathilda Avenue / El Camino Real




| Street Name: | S. Mathilda Avenue | | | | | | El Camino Real | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
| Movement: | L - | T - | R | L - | T - | R | L - | T - | R | L - | T - | R |
| Min. Green: | 7 | 10 | 10 | 7 | 10 | 10 | 7 | 10 | 10 | 7 | 10 | 10 |
| Y+R: | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 |
| Volume Module: | | | | | | | | | | | | |
| Base Vol: | 234 | 378 | 31 | 486 | 1721 | 364 | 241 | 1389 | 206 | 96 | 847 | 198 |
| Growth 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 |
| Initial Bse: | 234 | 378 | 31 | 486 | 1721 | 364 | 241 | 1389 | 206 | 96 | 847 | 198 |
| Added Vol: | 6 | 33 | 0 | 16 | 28 | 63 | 73 | 47 | 11 | 0 | 50 | 16 |
| PasserByVol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Initial Fut: | 240 | 411 | 31 | 502 | 1749 | 427 | 314 | 1436 | 217 | 96 | 897 | 214 |
| User 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 |
| PHF 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 |
| PHF Volume: | 240 | 411 | 31 | 502 | 1749 | 427 | 314 | 1436 | 217 | 96 | 897 | 214 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 240 | 411 | 31 | 502 | 1749 | 427 | 314 | 1436 | 217 | 96 | 897 | 214 |
| PCE 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 |
| MLF 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 |
| FinalVolume: | 240 | 411 | 31 | 502 | 1749 | 427 | 314 | 1436 | 217 | 96 | 897 | 214 |
| Saturation Flow Module: | | | | | | | | | | | | |
| Sat/Lane: | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adjustment: | 0.83 | 0.99 | 0.95 | 0.83 | 1.00 | 0.92 | 0.83 | 0.99 | 0.95 | 0.92 | 1.00 | 0.92 |
| Lanes: | 2.00 | 2.78 | 0.22 | 2.00 | 3.00 | 1.00 | 2.00 | 2.59 | 0.41 | 1.00 | 3.00 | 1.00 |
| Final Sat.: | 3150 | 5207 | 393 | 3150 | 5700 | 1750 | 3150 | 4864 | 735 | 1750 | 5700 | 1750 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.08 | 0.08 | 0.08 | 0.16 | 0.31 | 0.24 | 0.10 | 0.30 | 0.30 | 0.05 | 0.16 | 0.12 |
| Crit Moves: | **** | | | | **** | | | **** | | **** | | |
| Green Time: | 15.4 | 25.6 | 25.6 | 51.7 | 61.9 | 89.4 | 27.4 | 59.6 | 59.6 | 11.1 | 43.3 | 95.0 |
| Volume/Cap: | 0.79 | 0.49 | 0.49 | 0.49 | 0.79 | 0.44 | 0.58 | 0.79 | 0.79 | 0.79 | 0.58 | 0.21 |
| Delay/Veh: | 84.1 | 61.7 | 61.7 | 44.0 | 45.4 | 20.9 | 62.6 | 46.9 | 46.9 | 102.3 | 51.1 | 15.2 |
| User DelAdj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| AdjDel/Veh: | 84.1 | 61.7 | 61.7 | 44.0 | 45.4 | 20.9 | 62.6 | 46.9 | 46.9 | 102.3 | 51.1 | 15.2 |
| LOS by Move: | F | E | E | D | D | C+ | E | D | D | F | D- | B |
| HCM2k95thQ: | 411 | 334 | 334 | 534 | 1073 | 574 | 388 | 1005 | 1005 | 262 | 556 | 246 |

Note: Queue reported is the distance per lane in feet.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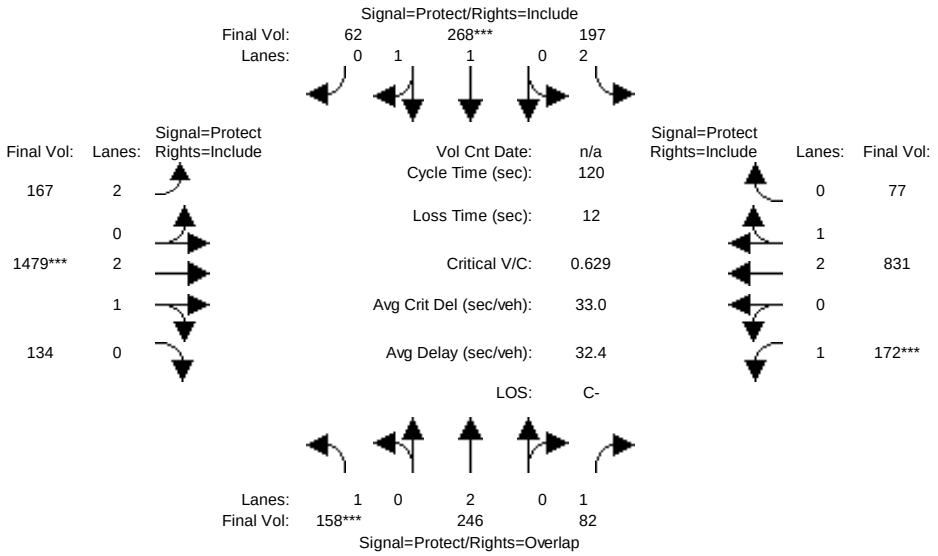
097318104

Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex + BG + P PM

## Intersection #4: S. Sunnyvale Avenue / El Camino Real




| Street Name: | S. Sunnyvale Avenue | | | | | | El Camino Real | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
| Movement: | L - | T - | R | L - | T - | R | L - | T - | R | L - | T - | R |
| Min. Green: | 7 | 10 | 10 | 7 | 10 | 10 | 7 | 10 | 10 | 7 | 10 | 10 |
| Y+R: | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 |
| Volume Module: | | | | | | | | | | | | |
| Base Vol: | 139 | 231 | 74 | 189 | 251 | 56 | 159 | 1441 | 118 | 162 | 790 | 70 |
| Growth 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 |
| Initial Bse: | 139 | 231 | 74 | 189 | 251 | 56 | 159 | 1441 | 118 | 162 | 790 | 70 |
| Added Vol: | 19 | 15 | 8 | 8 | 17 | 6 | 8 | 38 | 16 | 10 | 41 | 7 |
| PasserByVol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Initial Fut: | 158 | 246 | 82 | 197 | 268 | 62 | 167 | 1479 | 134 | 172 | 831 | 77 |
| User 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 |
| PHF 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 |
| PHF Volume: | 158 | 246 | 82 | 197 | 268 | 62 | 167 | 1479 | 134 | 172 | 831 | 77 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 158 | 246 | 82 | 197 | 268 | 62 | 167 | 1479 | 134 | 172 | 831 | 77 |
| PCE 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 |
| MLF 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 |
| FinalVolume: | 158 | 246 | 82 | 197 | 268 | 62 | 167 | 1479 | 134 | 172 | 831 | 77 |
| Saturation Flow Module: | | | | | | | | | | | | |
| Sat/Lane: | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adjustment: | 0.92 | 1.00 | 0.92 | 0.83 | 0.98 | 0.95 | 0.83 | 0.99 | 0.95 | 0.92 | 0.99 | 0.95 |
| Lanes: | 1.00 | 2.00 | 1.00 | 2.00 | 1.61 | 0.39 | 2.00 | 2.74 | 0.26 | 1.00 | 2.74 | 0.26 |
| Final Sat.: | 1750 | 3800 | 1750 | 3150 | 3004 | 695 | 3150 | 5134 | 465 | 1750 | 5124 | 475 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.09 | 0.06 | 0.05 | 0.06 | 0.09 | 0.09 | 0.05 | 0.29 | 0.29 | 0.10 | 0.16 | 0.16 |
| Crit Moves: | **** | | | | **** | | | **** | | **** | | |
| Green Time: | 17.2 | 19.6 | 38.3 | 14.7 | 17.0 | 17.0 | 19.5 | 55.0 | 55.0 | 18.8 | 54.2 | 54.2 |
| Volume/Cap: | 0.63 | 0.40 | 0.15 | 0.51 | 0.63 | 0.63 | 0.33 | 0.63 | 0.63 | 0.63 | 0.36 | 0.36 |
| Delay/Veh: | 53.4 | 45.4 | 29.3 | 50.4 | 50.9 | 50.9 | 44.8 | 25.2 | 25.2 | 52.0 | 21.6 | 21.6 |
| User DelAdj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| AdjDel/Veh: | 53.4 | 45.4 | 29.3 | 50.4 | 50.9 | 50.9 | 44.8 | 25.2 | 25.2 | 52.0 | 21.6 | 21.6 |
| LOS by Move: | D- | D | C | D | D | D | D | C | C | D- | C+ | C+ |
| HCM2k95thQ: | 329 | 212 | 116 | 230 | 326 | 326 | 154 | 642 | 642 | 309 | 339 | 339 |

Note: Queue reported is the distance per lane in feet.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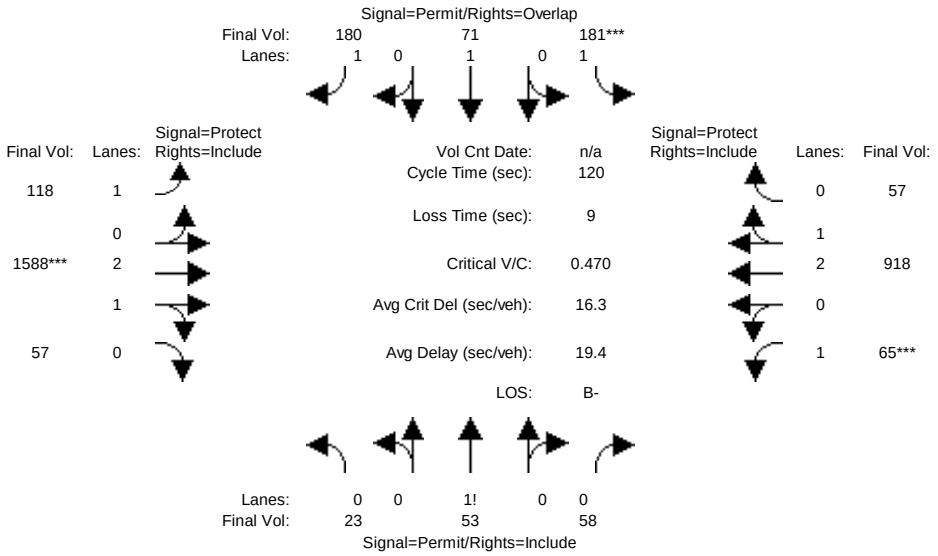
097318104

Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex + BG + P PM

## Intersection #5: Cezanne Drive / El Camino Real




| Street Name: | Cezanne Drive | | | | | | El Camino Real | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
| Movement: | L - | T - | R | L - | T - | R | L - | T - | R | L - | T - | R |
| Min. Green: | 10 | 10 | 10 | 10 | 10 | 10 | 7 | 10 | 10 | 7 | 10 | 10 |
| Y+R: | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 |
| Volume Module: | | | | | | | | | | | | |
| Base Vol: | 23 | 53 | 58 | 181 | 71 | 180 | 118 | 1533 | 57 | 65 | 860 | 53 |
| Growth 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 |
| Initial Bse: | 23 | 53 | 58 | 181 | 71 | 180 | 118 | 1533 | 57 | 65 | 860 | 53 |
| Added Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 55 | 0 | 0 | 58 | 4 |
| PasserByVol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Initial Fut: | 23 | 53 | 58 | 181 | 71 | 180 | 118 | 1588 | 57 | 65 | 918 | 57 |
| User 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 |
| PHF 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 |
| PHF Volume: | 23 | 53 | 58 | 181 | 71 | 180 | 118 | 1588 | 57 | 65 | 918 | 57 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 23 | 53 | 58 | 181 | 71 | 180 | 118 | 1588 | 57 | 65 | 918 | 57 |
| PCE 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 |
| MLF 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 |
| FinalVolume: | 23 | 53 | 58 | 181 | 71 | 180 | 118 | 1588 | 57 | 65 | 918 | 57 |
| Saturation Flow Module: | | | | | | | | | | | | |
| Sat/Lane: | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adjustment: | 0.92 | 0.92 | 0.92 | 0.92 | 1.00 | 0.92 | 0.92 | 0.98 | 0.95 | 0.92 | 0.98 | 0.95 |
| Lanes: | 0.17 | 0.40 | 0.43 | 1.00 | 1.00 | 1.00 | 1.00 | 2.89 | 0.11 | 1.00 | 2.82 | 0.18 |
| Final Sat.: | 300 | 692 | 757 | 1750 | 1900 | 1750 | 1750 | 5406 | 194 | 1750 | 5272 | 327 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.08 | 0.08 | 0.08 | 0.10 | 0.04 | 0.10 | 0.07 | 0.29 | 0.29 | 0.04 | 0.17 | 0.17 |
| Crit Moves: | | | | **** | | | | **** | | **** | | |
| Green Time: | 26.4 | 26.4 | 26.4 | 26.4 | 26.4 | 50.0 | 23.6 | 75.1 | 75.1 | 9.5 | 61.0 | 61.0 |
| Volume/Cap: | 0.35 | 0.35 | 0.35 | 0.47 | 0.17 | 0.25 | 0.34 | 0.47 | 0.47 | 0.47 | 0.34 | 0.34 |
| Delay/Veh: | 40.0 | 40.0 | 40.0 | 41.6 | 38.1 | 22.9 | 42.1 | 12.0 | 12.0 | 55.4 | 17.7 | 17.7 |
| User DelAdj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| AdjDel/Veh: | 40.0 | 40.0 | 40.0 | 41.6 | 38.1 | 22.9 | 42.1 | 12.0 | 12.0 | 55.4 | 17.7 | 17.7 |
| LOS by Move: | D | D | D | D | D+ | C+ | D | B | B | E+ | B | B |
| HCM2k95thQ: | 227 | 227 | 227 | 314 | 108 | 224 | 191 | 480 | 480 | 154 | 337 | 337 |

Note: Queue reported is the distance per lane in feet.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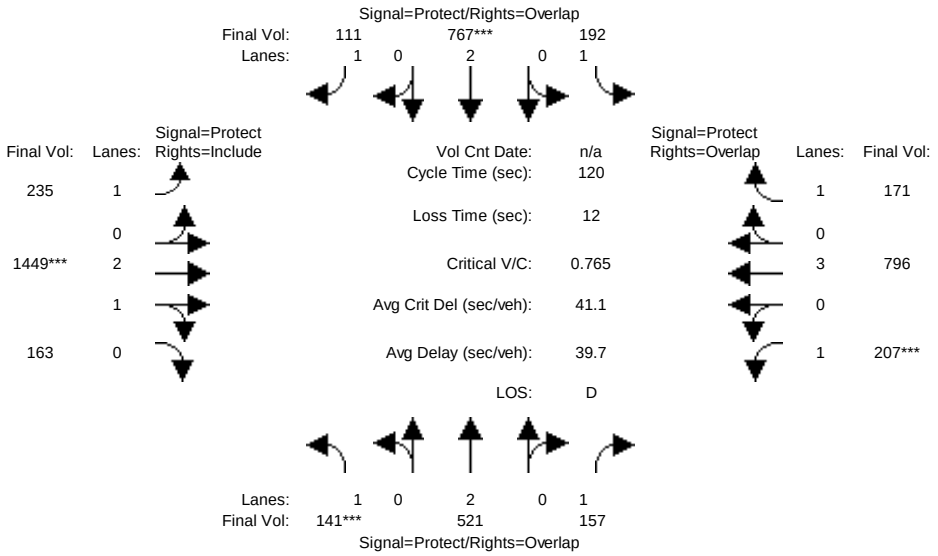
Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex + BG + P PM

## Intersection #6: S. Fair Oaks Avenue / El Camino Real




| Street Name: | S. Fair Oaks Avenue | | | | | | El Camino Real | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
| Movement: | L - | T - | R | L - | T - | R | L - | T - | R | L - | T - | R |
| Min. Green: | 7 | 10 | 10 | 7 | 10 | 10 | 7 | 10 | 10 | 7 | 10 | 10 |
| Y+R: | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 |
| Volume Module: | | | | | | | | | | | | |
| Base Vol: | 137 | 521 | 157 | 173 | 764 | 99 | 215 | 1414 | 163 | 207 | 760 | 171 |
| Growth 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 |
| Initial Bse: | 137 | 521 | 157 | 173 | 764 | 99 | 215 | 1414 | 163 | 207 | 760 | 171 |
| Added Vol: | 4 | 0 | 0 | 19 | 3 | 12 | 20 | 35 | 0 | 0 | 36 | 0 |
| PasserByVol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Initial Fut: | 141 | 521 | 157 | 192 | 767 | 111 | 235 | 1449 | 163 | 207 | 796 | 171 |
| User 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 |
| PHF 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 |
| PHF Volume: | 141 | 521 | 157 | 192 | 767 | 111 | 235 | 1449 | 163 | 207 | 796 | 171 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 141 | 521 | 157 | 192 | 767 | 111 | 235 | 1449 | 163 | 207 | 796 | 171 |
| PCE 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 |
| MLF 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 |
| FinalVolume: | 141 | 521 | 157 | 192 | 767 | 111 | 235 | 1449 | 163 | 207 | 796 | 171 |
| Saturation Flow Module: | | | | | | | | | | | | |
| Sat/Lane: | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adjustment: | 0.92 | 1.00 | 0.92 | 0.92 | 1.00 | 0.92 | 0.92 | 0.99 | 0.95 | 0.92 | 1.00 | 0.92 |
| Lanes: | 1.00 | 2.00 | 1.00 | 1.00 | 2.00 | 1.00 | 1.00 | 2.69 | 0.31 | 1.00 | 3.00 | 1.00 |
| Final Sat.: | 1750 | 3800 | 1750 | 1750 | 3800 | 1750 | 1750 | 5033 | 566 | 1750 | 5700 | 1750 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.08 | 0.14 | 0.09 | 0.11 | 0.20 | 0.06 | 0.13 | 0.29 | 0.29 | 0.12 | 0.14 | 0.10 |
| Crit Moves: | **** | | | | **** | | | **** | | **** | | |
| Green Time: | 12.6 | 24.6 | 43.2 | 19.7 | 31.7 | 62.9 | 31.2 | 45.2 | 45.2 | 18.6 | 32.5 | 52.2 |
| Volume/Cap: | 0.77 | 0.67 | 0.25 | 0.67 | 0.77 | 0.12 | 0.52 | 0.77 | 0.77 | 0.77 | 0.52 | 0.22 |
| Delay/Veh: | 69.5 | 46.2 | 27.2 | 53.1 | 44.3 | 14.6 | 39.0 | 34.5 | 34.5 | 60.9 | 37.4 | 21.4 |
| User DelAdj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| AdjDel/Veh: | 69.5 | 46.2 | 27.2 | 53.1 | 44.3 | 14.6 | 39.0 | 34.5 | 34.5 | 60.9 | 37.4 | 21.4 |
| LOS by Move: | E | D | C | D- | D | B | D+ | C- | C- | E | D+ | C+ |
| HCM2k95thQ: | 347 | 453 | 213 | 390 | 642 | 111 | 367 | 765 | 765 | 449 | 400 | 206 |

Note: Queue reported is the distance per lane in feet.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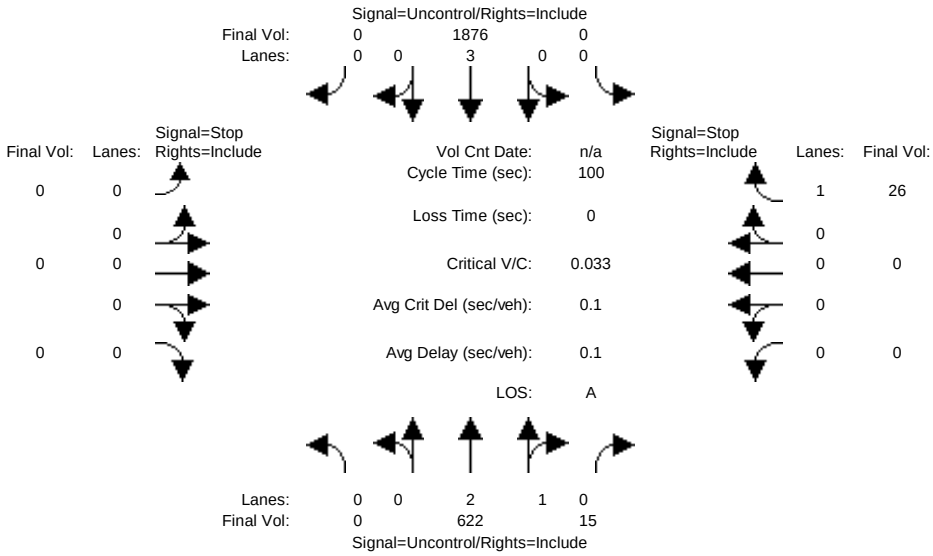
097318104

Level Of Service Computation Report
2000 HCM Unsignalized (Future Volume Alternative)
Ex + BG + P PM

## Intersection #7: S Mathilda Ave / Southwest Project Driveway




```
Street Name:        S Mathilda Avenue             SouthwestProject Driveway
Approach:      North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Volume Module:
Base Vol:       0  585    12     0 1837     0     0    0     0     0    0    24
Growth 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
Initial Bse:    0  585    12     0 1837     0     0    0     0     0    0    24
Added Vol:      0   37     1     0   39     0     0    0     0     0    0     2
PasserByVol:    0    0     2     0    0     0     0    0     0     0    0     0
Initial Fut:    0  622    15     0 1876     0     0    0     0     0    0    26
User 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
PHF 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
PHF Volume:     0  622    15     0 1876     0     0    0     0     0    0    26
Reduct Vol:     0    0     0     0    0     0     0    0     0     0    0     0
FinalVolume:    0  622    15     0 1876     0     0    0     0     0    0    26
------------|---------------||---------------||---------------||---------------|
Critical Gap Module:
Critical Gp:xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx   6.9
FollowUpTim:xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx   3.3
------------|---------------||---------------||---------------||---------------|
Capacity Module:
Cnflict Vol: xxxx xxxx xxxxx  xxxx xxxx xxxxx  xxxx xxxx xxxxx  xxxx xxxx   215
Potent Cap.: xxxx xxxx xxxxx  xxxx xxxx xxxxx  xxxx xxxx xxxxx  xxxx xxxx   796
Move Cap.:   xxxx xxxx xxxxx  xxxx xxxx xxxxx  xxxx xxxx xxxxx  xxxx xxxx   796
Volume/Cap:  xxxx xxxx  xxxx  xxxx xxxx  xxxx  xxxx xxxx  xxxx  xxxx xxxx  0.03
------------|---------------||---------------||---------------||---------------|
Level Of Service Module:
2Way95thQ:   xxxx xxxx xxxxx  xxxx xxxx xxxxx  xxxx xxxx xxxxx  xxxx xxxx   2.5
Control Del:xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx   9.7
LOS by Move:    *    *     *     *    *     *     *    *     *     *    *     A
Movement:     LT - LTR - RT    LT - LTR - RT    LT - LTR - RT    LT - LTR - RT
Shared Cap.: xxxx xxxx xxxxx  xxxx xxxx xxxxx  xxxx xxxx xxxxx  xxxx xxxx xxxxx
SharedQueue:xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx
Shrd ConDel:xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx
Shared LOS:     *    *     *     *    *     *     *    *     *     *    *     *
ApproachDel:    xxxxxx            xxxxxx            xxxxxx              9.7
ApproachLOS:         *                 *                 *                A
Note: Queue reported is the distance per lane in feet.
                     Peak Hour Delay Signal Warrant Report
*******************************************************************************
Intersection #7 S Mathilda Ave / Southwest Project Driveway
*******************************************************************************
```

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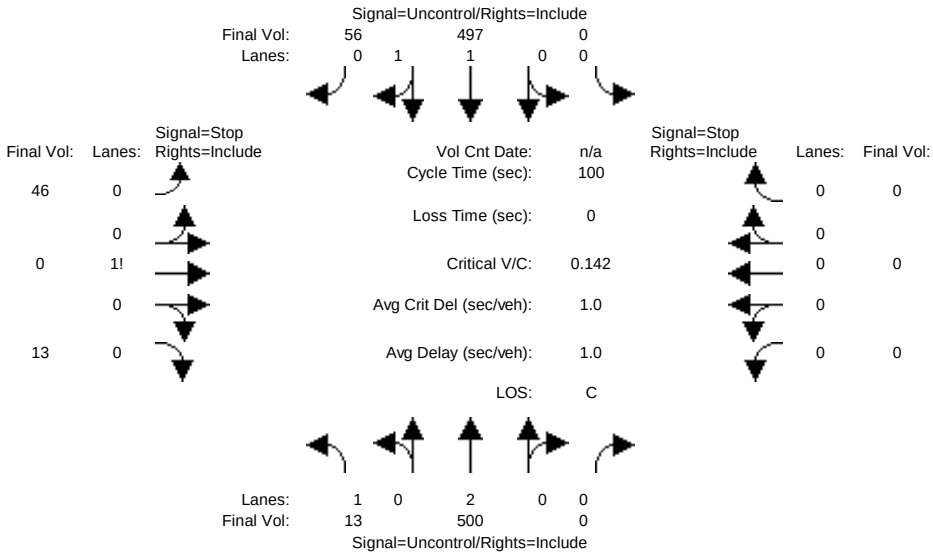
097318104

Level Of Service Computation Report
2000 HCM Unsignalized (Future Volume Alternative)
Ex + BG + P PM

## Intersection #8: Sunnyvale-Saratoga Road / East Project Driveway




```
Street Name:     Sunnyvale-Saratoga Road          East Project Driveway
Approach:      North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Volume Module:
Base Vol:       7  483     0     0  478    31    21    0     7     0    0     0
Growth 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
Initial Bse:    7  483     0     0  478    31    21    0     7     0    0     0
Added Vol:      6   17     0     0   19    25    25    0     6     0    0     0
PasserByVol:    0    0     0     0    0     0     0    0     0     0    0     0
Initial Fut:   13  500     0     0  497    56    46    0    13     0    0     0
User 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
PHF 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
PHF Volume:    13  500     0     0  497    56    46    0    13     0    0     0
Reduct Vol:     0    0     0     0    0     0     0    0     0     0    0     0
FinalVolume:   13  500     0     0  497    56    46    0    13     0    0     0
------------|---------------||---------------||---------------||---------------|
Critical Gap Module:
Critical Gp:  4.1 xxxx xxxxx xxxxx xxxx xxxxx   6.8  6.5   6.9 xxxxx xxxx xxxxx
FollowUpTim:  2.2 xxxx xxxxx xxxxx xxxx xxxxx   3.5  4.0   3.3 xxxxx xxxx xxxxx
------------|---------------||---------------||---------------||---------------|
Capacity Module:
Cnflict Vol:  553 xxxx xxxxx  xxxx xxxx xxxxx   801 1051   277  xxxx xxxx xxxxx
Potent Cap.: 1027 xxxx xxxxx  xxxx xxxx xxxxx   326  229   727  xxxx xxxx xxxxx
Move Cap.:   1027 xxxx xxxxx  xxxx xxxx xxxxx   323  226   727  xxxx xxxx xxxxx
Volume/Cap:  0.01 xxxx  xxxx  xxxx xxxx  xxxx  0.14 0.00  0.02  xxxx xxxx  xxxx
------------|---------------||---------------||---------------||---------------|
Level Of Service Module:
2Way95thQ:    1.0 xxxx xxxxx  xxxx xxxx xxxxx  xxxx xxxx xxxxx  xxxx xxxx xxxxx
Control Del:  8.5 xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx
LOS by Move:    A    *     *     *    *     *     *    *     *     *    *     *
Movement:     LT - LTR - RT    LT - LTR - RT    LT - LTR - RT    LT - LTR - RT
Shared Cap.: xxxx xxxx xxxxx  xxxx xxxx xxxxx  xxxx  368 xxxxx  xxxx xxxx xxxxx
SharedQueue:xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx  0.6 xxxxx xxxxx xxxx xxxxx
Shrd ConDel:xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx 16.6 xxxxx xxxxx xxxx xxxxx
Shared LOS:     *    *     *     *    *     *     *    C     *     *    *     *
ApproachDel:    xxxxxx            xxxxxx             16.6           xxxxxx
ApproachLOS:         *                 *               C                *
Note: Queue reported is the distance per lane in feet.
                     Peak Hour Delay Signal Warrant Report
*******************************************************************************
Intersection #8 Sunnyvale-Saratoga Road / East Project Driveway
*******************************************************************************
```

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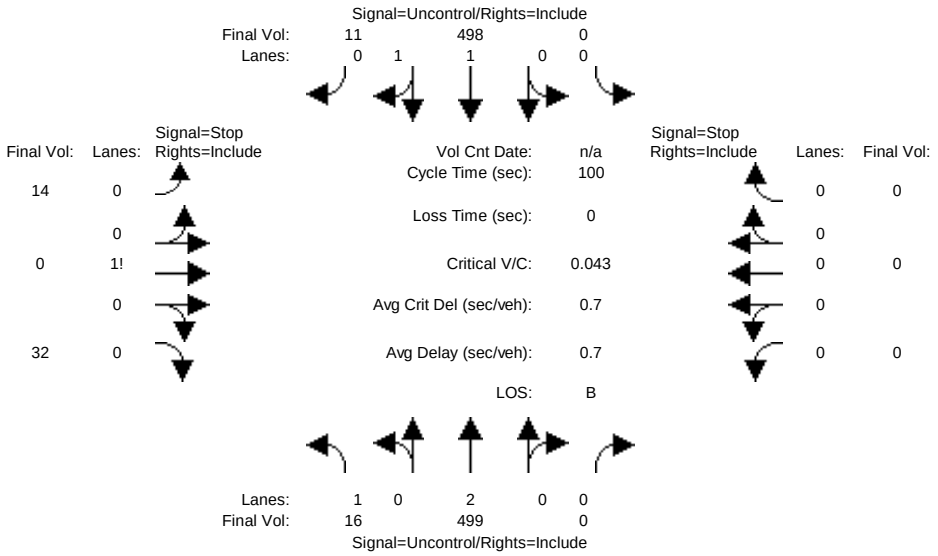
City of Sunnyvale
Oppidan Grocery Store (777 Sunnvyale-Saratoga Road)
097318104

Level Of Service Computation Report
2000 HCM Unsignalized (Future Volume Alternative)
Ex + BG + P PM

## Intersection #9: Sunnyvale-Saratoga Road / Southeast Project Driveway




```
Street Name:     Sunnyvale-Saratoga Road          Southeast Project Driveway
Approach:      North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Volume Module:
Base Vol:       9  485     0     0  481     4     5    0    27     0    0     0
Growth 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
Initial Bse:    9  485     0     0  481     4     5    0    27     0    0     0
Added Vol:      7   14     0     0   17     7     9    0     5     0    0     0
PasserByVol:    0    0     0     0    0     0     0    0     0     0    0     0
Initial Fut:   16  499     0     0  498    11    14    0    32     0    0     0
User 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
PHF 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
PHF Volume:    16  499     0     0  498    11    14    0    32     0    0     0
Reduct Vol:     0    0     0     0    0     0     0    0     0     0    0     0
FinalVolume:   16  499     0     0  498    11    14    0    32     0    0     0
------------|---------------||---------------||---------------||---------------|
Critical Gap Module:
Critical Gp:  4.1 xxxx xxxxx xxxxx xxxx xxxxx   6.8  6.5   6.9 xxxxx xxxx xxxxx
FollowUpTim:  2.2 xxxx xxxxx xxxxx xxxx xxxxx   3.5  4.0   3.3 xxxxx xxxx xxxxx
------------|---------------||---------------||---------------||---------------|
Capacity Module:
Cnflict Vol:  509 xxxx xxxxx  xxxx xxxx xxxxx   785 1035   255  xxxx xxxx xxxxx
Potent Cap.: 1066 xxxx xxxxx  xxxx xxxx xxxxx   334  234   751  xxxx xxxx xxxxx
Move Cap.:   1066 xxxx xxxxx  xxxx xxxx xxxxx   330  230   751  xxxx xxxx xxxxx
Volume/Cap:  0.02 xxxx  xxxx  xxxx xxxx  xxxx  0.04 0.00  0.04  xxxx xxxx  xxxx
------------|---------------||---------------||---------------||---------------|
Level Of Service Module:
2Way95thQ:    1.1 xxxx xxxxx  xxxx xxxx xxxxx  xxxx xxxx xxxxx  xxxx xxxx xxxxx
Control Del:  8.4 xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx
LOS by Move:    A    *     *     *    *     *     *    *     *     *    *     *
Movement:     LT - LTR - RT    LT - LTR - RT    LT - LTR - RT    LT - LTR - RT
Shared Cap.: xxxx xxxx xxxxx  xxxx xxxx xxxxx  xxxx  541 xxxxx  xxxx xxxx xxxxx
SharedQueue:xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx  0.3 xxxxx xxxxx xxxx xxxxx
Shrd ConDel:xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx 12.3 xxxxx xxxxx xxxx xxxxx
Shared LOS:     *    *     *     *    *     *     *    B     *     *    *     *
ApproachDel:    xxxxxx           xxxxxx             12.3          xxxxxx
ApproachLOS:         *                *               B               *
Note: Queue reported is the distance per lane in feet.
                     Peak Hour Delay Signal Warrant Report
*******************************************************************************
Intersection #9 Sunnyvale-Saratoga Road / Southeast Project Driveway
*******************************************************************************
```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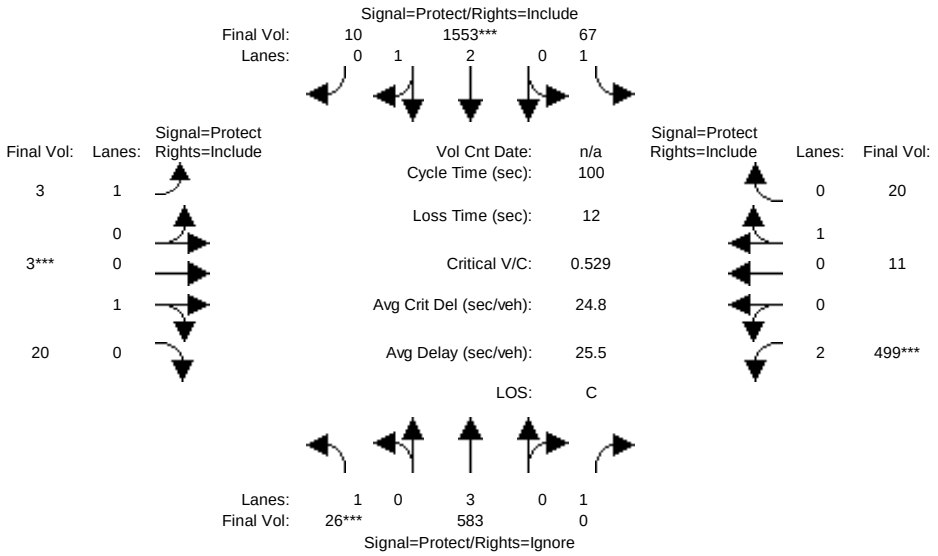
City of Sunnyvale
Oppidan Grocery Store (777 Sunnvyale-Saratoga Road)
097318104

Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Ex + BG + P PM

## Intersection #10: S Mathilda Ave - Sunnyvale-Saratoga Rd / Talisman Dr - Sunnvyale-Saratoga Rd




Street Name:S Mathilda Ave - Sunnyvale-Sarato Talisman Dr - Sunnyvale-Saratoga

| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Movement: | L - | T - | R | L - | T - | R | L - | T - | R | L - | T - | R |
| Min. Green: | 7 | 10 | 10 | 7 | 10 | 10 | 7 | 10 | 10 | 7 | 10 | 10 |
| Y+R: | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 |
| Volume Module: | | | | | | | | | | | | |
| Base Vol: | 26 | 547 | 553 | 60 | 1521 | 10 | 3 | 3 | 20 | 478 | 11 | 18 |
| Growth 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 |
| Initial Bse: | 26 | 547 | 553 | 60 | 1521 | 10 | 3 | 3 | 20 | 478 | 11 | 18 |
| Added Vol: | 0 | 36 | 16 | 7 | 32 | 0 | 0 | 0 | 0 | 21 | 0 | 2 |
| PasserByVol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Initial Fut: | 26 | 583 | 569 | 67 | 1553 | 10 | 3 | 3 | 20 | 499 | 11 | 20 |
| User Adj: | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj: | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume: | 26 | 583 | 0 | 67 | 1553 | 10 | 3 | 3 | 20 | 499 | 11 | 20 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 26 | 583 | 0 | 67 | 1553 | 10 | 3 | 3 | 20 | 499 | 11 | 20 |
| PCE Adj: | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj: | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| FinalVolume: | 26 | 583 | 0 | 67 | 1553 | 10 | 3 | 3 | 20 | 499 | 11 | 20 |
| Saturation Flow Module: | | | | | | | | | | | | |
| Sat/Lane: | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adjustment: | 0.92 | 1.00 | 0.92 | 0.92 | 0.98 | 0.95 | 0.92 | 0.95 | 0.95 | 0.83 | 0.95 | 0.95 |
| Lanes: | 1.00 | 3.00 | 1.00 | 1.00 | 2.98 | 0.02 | 1.00 | 0.13 | 0.87 | 2.00 | 0.35 | 0.65 |
| Final Sat.: | 1750 | 5700 | 1750 | 1750 | 5564 | 36 | 1750 | 235 | 1565 | 3150 | 639 | 1161 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.01 | 0.10 | 0.00 | 0.04 | 0.28 | 0.28 | 0.00 | 0.01 | 0.01 | 0.16 | 0.02 | 0.02 |
| Crit Moves: | **** | | | | **** | | | **** | | **** | | |
| Green Time: | 7.0 | 31.0 | 0.0 | 21.2 | 45.3 | 45.3 | 14.7 | 10.0 | 10.0 | 25.7 | 21.0 | 21.0 |
| Volume/Cap: | 0.21 | 0.33 | 0.00 | 0.18 | 0.62 | 0.62 | 0.01 | 0.13 | 0.13 | 0.62 | 0.08 | 0.08 |
| Delay/Veh: | 44.8 | 26.6 | 0.0 | 32.5 | 21.2 | 21.2 | 36.5 | 41.3 | 41.3 | 34.2 | 31.8 | 31.8 |
| User DelAdj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| AdjDel/Veh: | 44.8 | 26.6 | 0.0 | 32.5 | 21.2 | 21.2 | 36.5 | 41.3 | 41.3 | 34.2 | 31.8 | 31.8 |
| LOS by Move: | D | C | A | C- | C+ | C+ | D+ | D | D | C- | C | C |
| HCM2k95thQ: | 41 | 217 | 0 | 96 | 571 | 571 | 5 | 39 | 39 | 415 | 42 | 42 |

Note: Queue reported is the distance per lane in feet.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# Queuing Summary

## Oppidan Grocery Store TOA Queuing Summary

| Scenarios Analyzed | Turning Movement | El Camino Real | | | | | | | | | | | | | | | | | | Mathilda Ave | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Mary Ave #1 | | | Pastroia Ave #2 | | | Mathilda Ave #3 | | | Sunnyvale Ave #4 | | | Cezanne Dr #5 | | | Fair Oaks Ave #6 | | | Sunnyvale-Saratoga Rd #10 | | |
| | | Link | AM | PM | Link | AM | PM | Link | AM | PM | Link | AM | PM | Link | AM | PM | Link | AM | PM | Link | AM | PM |
| Existing Traffic | EBL | 420 | 318 | 407 | 415 | 160 | 186 | 345 | **429** | 304 | 395 | 130 | 145 | 145 | 98 | **190** | 410 | 293 | 336 | | | |
| | EBR | | | | | | | | | | | | | | | | | | | | | |
| | WBL | 500 | 138 | 356 | 310 | 103 | 277 | 215 | 29 | **260** | 265 | 154 | 289 | 235 | 49 | 152 | 230 | **268** | **444** | | | |
| | WBR | | | | | | | 320 | **479** | 213 | | | | | | | 380 | 154 | 207 | | | |
| | NBL | 225 | **366** | 243 | 135 | **270** | **237** | 370 | 255 | **397** | 160 | **219** | **292** | | | | 175 | 121 | **337** | 140 | 34 | 41 |
| | NBR | | | | | | | | | | 50 | **85** | **105** | | | | 35 | **77** | **209** | | | |
| | SBL | 200 | **233** | **362** | 160 | 117 | **208** | 435 | 268 | **510** | 105 | 84 | **226** | 50 | **83** | **311** | 320 | 234 | **353** | 145 | 44 | 85 |
| | SBR | | | | 185 | 98 | 180 | 275 | 215 | **496** | | | | 50 | **329** | **219** | 30 | **231** | **99** | | | |
| Existing + Project Traffic | EBL | 420 | 319 | 408 | 415 | 160 | 186 | 345 | **429** | 305 | 395 | 130 | 145 | 145 | 98 | **190** | 410 | 293 | 339 | | | |
| | EBR | | | | | | | | | | | | | | | | | | | | | |
| | WBL | 500 | 140 | 365 | 310 | 103 | 278 | 215 | 29 | **261** | 265 | 160 | **305** | 235 | 50 | 152 | 230 | **268** | **445** | | | |
| | WBR | | | | | | | 320 | **479** | 213 | | | | | | | 380 | 154 | 207 | | | |
| | NBL | 225 | **366** | 244 | 135 | **271** | **238** | 370 | 256 | **404** | 160 | **226** | **325** | | | | 175 | 121 | **337** | 140 | 34 | 41 |
| | NBR | | | | | | | | | | 50 | **87** | **115** | | | | 35 | **77** | **209** | | | |
| | SBL | 200 | **235** | **368** | 160 | 117 | **208** | 435 | 268 | **511** | 105 | 83 | **222** | 50 | **83** | **311** | 320 | 234 | **353** | 145 | 50 | 95 |
| | SBR | | | | 185 | 98 | 180 | 275 | 215 | **500** | | | | 50 | **330** | **220** | 30 | **233** | **101** | | | |
| Existing + Background Traffic | EBL | 420 | 370 | 441 | 415 | 173 | 195 | 345 | **488** | **388** | 395 | 140 | 153 | 145 | 98 | **191** | 410 | 356 | 364 | | | |
| | EBR | | | | | | | | | | | | | | | | | | | | | |
| | WBL | 500 | 150 | 374 | 310 | 108 | 273 | 215 | 29 | **262** | 265 | 161 | **294** | 235 | 51 | 154 | 230 | **269** | **448** | | | |
| | WBR | | | | | | | 320 | **506** | 245 | | | | | | | 380 | 154 | 206 | | | |
| | NBL | 225 | **375** | 249 | 135 | **278** | **240** | 370 | 264 | **405** | 160 | **223** | **295** | | | | 175 | 141 | **346** | 140 | 34 | 41 |
| | NBR | | | | | | | | | | 50 | **86** | **106** | | | | 35 | **82** | **213** | | | |
| | SBL | 200 | **289** | **407** | 160 | 152 | **238** | 435 | 296 | **531** | 105 | 92 | **234** | 50 | **84** | **314** | 320 | 276 | **389** | 145 | 44 | 85 |
| | SBR | | | | 185 | 110 | 190 | 275 | **318** | **570** | | | | 50 | **334** | **223** | 30 | **240** | **109** | | | |
| Existing + Background + Project Traffic | EBL | 420 | 370 | 442 | 415 | 173 | 195 | 345 | **489** | **388** | 395 | 140 | 154 | 145 | 98 | **191** | 410 | 356 | 367 | | | |
| | EBR | | | | | | | | | | | | | | | | | | | | | |
| | WBL | 500 | 152 | 382 | 310 | 108 | 274 | 215 | 29 | **262** | 265 | 166 | **309** | 235 | 51 | 154 | 230 | **269** | **449** | | | |
| | WBR | | | | | | | 320 | **506** | 246 | | | | | | | 380 | 154 | 206 | | | |
| | NBL | 225 | **375** | **251** | 135 | **278** | **240** | 370 | 265 | **411** | 160 | **230** | **329** | | | | 175 | 141 | **347** | 140 | 34 | 41 |
| | NBR | | | | | | | | | | 50 | **89** | **116** | | | | 35 | **82** | **213** | | | |
| | SBL | 200 | **291** | **413** | 160 | 153 | **239** | 435 | 296 | **534** | 105 | 92 | **230** | 50 | **84** | **314** | 320 | 276 | **390** | 145 | 50 | 96 |
| | SBR | | | | 185 | 110 | 191 | 275 | **319** | **574** | | | | 50 | **334** | **224** | 30 | **240** | **111** | | | |

Note: Locations where the queue length exceeds the link storage by 25 feet or more are shown in shaded cells. Operational Deficiencies are in red.

# Signal Warrants

**TRAFFIC SIGNAL VOLUME WARRANT ANALYSIS (2010 MUTCD)**

MAJOR STREET: **S Mathilda Avenue** NB SB # OF APPROACH LANES: **3**

MINOR STREET: **West Project Driveway** WB # OF APPROACH LANES: **1**

CITY, STATE: **Sunnyvale, CA**

COMMENTS: **Existing Conditions**

ISOLATED COMMUNITY WITH POPULATION LESS THAN 10,000 (Y OR N): **N**
85TH PERCENTILE SPEED GREATER THAN 40 MPH ON MAJOR STREET (Y OR N): **N**

| | MAJOR ST TWO-WAY TRAFFIC | MINOR ST TRAFFIC HEAVY LEG | Ped Count CROSSING MAJOR ST | WARRANT 1 - Condition A, Part 1 | | | WARRANT 1 - Condition B, Part 1 | | | WARRANT 1 - Condition A, Part 2 | | | WARRANT 1 - Condition B, Part 2 | | | WARRANT 2 Four-Hour | WARRANT 3 Peak Hour |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | MAIN LINE | SIDE STREET | BOTH MET | MAIN LINE | SIDE STREET | BOTH MET | MAIN LINE | SIDE STREET | BOTH MET | MAIN LINE | SIDE STREET | BOTH MET | | |
| **THRESHOLD VALUES** | | | | **600** | **150** | | **900** | **75** | | **480** | **120** | | **720** | **60** | | **60** | **75** |
| 06:30 AM TO 07:30 AM | | | | | | | | | | | | | | | | | |
| 07:30 AM TO 08:30 AM | | | | | | | | | | | | | | | | | |
| 08:30 AM TO 09:30 AM | 2,486 | 17 | | Y | | | Y | | | Y | | | Y | | | | |
| 09:30 AM TO 10:30 AM | | | | | | | | | | | | | | | | | |
| 10:30 AM TO 11:30 AM | | | | | | | | | | | | | | | | | |
| 11:00 AM TO 12:00 PM | | | | | | | | | | | | | | | | | |
| 12:30 PM TO 01:30 PM | | | | | | | | | | | | | | | | | |
| 01:30 PM TO 02:30 PM | | | | | | | | | | | | | | | | | |
| 02:30 PM TO 03:30 PM | | | | | | | | | | | | | | | | | |
| 03:30 PM TO 04:30 PM | | | | | | | | | | | | | | | | | |
| 04:30 PM TO 05:30 PM | | | | | | | | | | | | | | | | | |
| 05:30 PM TO 06:30 PM | 2,434 | 24 | | Y | | | Y | | | Y | | | Y | | | | |
| 06:30 PM TO 07:30 PM | | | | | | | | | | | | | | | | | |
| 07:30 PM TO 08:30 PM | | | | | | | | | | | | | | | | | |
| 08:30 PM TO 09:30 PM | | | | | | | | | | | | | | | | | |
| 09:30 PM TO 10:30 PM | | | | | | | | | | | | | | | | | |
| | 4,920 | 41 | | 2 | 0 | **0** | 2 | 0 | **0** | 2 | 0 | **0** | 2 | 0 | **0** | **0** | **0** |
| | | | | 8 HOURS NEEDED **NOT SATISFIED** | | | 8 HOURS NEEDED **NOT SATISFIED** | | | 8 HOURS NEEDED for both Condition A & B **NOT SATISFIED** | | | | | | 4 HRS NEEDED **NOT SATISFIED** | 1 HR NEEDED **NOT SATISFIED** |

12/30/15
Kimley-Horn and Associates

**TRAFFIC SIGNAL VOLUME WARRANT ANALYSIS (2010 MUTCD)**

MAJOR STREET: **Sunnyvale-Saratoga Road** NB SB # OF APPROACH LANES: **2**

MINOR STREET: **Northeast Project Driveway** EB # OF APPROACH LANES: **1**

CITY, STATE: **Sunnyvale, CA**

COMMENTS: **Existing Conditions**

ISOLATED COMMUNITY WITH POPULATION LESS THAN 10,000 (Y OR N): **N**
85TH PERCENTILE SPEED GREATER THAN 40 MPH ON MAJOR STREET (Y OR N): **N**

| | MAJOR ST TWO-WAY TRAFFIC | MINOR ST TRAFFIC HEAVY LEG | Ped Count CROSSING MAJOR ST | WARRANT 1 - Condition A, Part 1 | | | WARRANT 1 - Condition B, Part 1 | | | WARRANT 1 - Condition A, Part 2 | | | WARRANT 1 - Condition B, Part 2 | | | WARRANT 2 Four-Hour | WARRANT 3 Peak Hour |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | MAIN LINE | SIDE STREET | BOTH MET | MAIN LINE | SIDE STREET | BOTH MET | MAIN LINE | SIDE STREET | BOTH MET | MAIN LINE | SIDE STREET | BOTH MET | | |
| **THRESHOLD VALUES** | | | | **600** | **150** | | **900** | **75** | | **480** | **120** | | **720** | **60** | | **60** | **75** |
| 06:30 AM TO 07:30 AM | | | | | | | | | | | | | | | | | |
| 07:30 AM TO 08:30 AM | | | | | | | | | | | | | | | | | |
| 08:30 AM TO 09:30 AM | 691 | 12 | | Y | | | | | | Y | | | | | | | |
| 09:30 AM TO 10:30 AM | | | | | | | | | | | | | | | | | |
| 10:30 AM TO 11:30 AM | | | | | | | | | | | | | | | | | |
| 11:00 AM TO 12:00 PM | | | | | | | | | | | | | | | | | |
| 12:30 PM TO 01:30 PM | | | | | | | | | | | | | | | | | |
| 01:30 PM TO 02:30 PM | | | | | | | | | | | | | | | | | |
| 02:30 PM TO 03:30 PM | | | | | | | | | | | | | | | | | |
| 03:30 PM TO 04:30 PM | | | | | | | | | | | | | | | | | |
| 04:30 PM TO 05:30 PM | | | | | | | | | | | | | | | | | |
| 05:30 PM TO 06:30 PM | 999 | 28 | | Y | | | Y | | | Y | | | Y | | | | |
| 06:30 PM TO 07:30 PM | | | | | | | | | | | | | | | | | |
| 07:30 PM TO 08:30 PM | | | | | | | | | | | | | | | | | |
| 08:30 PM TO 09:30 PM | | | | | | | | | | | | | | | | | |
| 09:30 PM TO 10:30 PM | | | | | | | | | | | | | | | | | |
| | 1,690 | 40 | | 2 | 0 | **0** | 1 | 0 | **0** | 2 | 0 | **0** | 1 | 0 | **0** | **0** | **0** |
| | | | | 8 HOURS NEEDED | | | 8 HOURS NEEDED | | | 8 HOURS NEEDED for both Condition A & B | | | | | | 4 HRS NEEDED | 1 HR NEEDED |
| | | | | **NOT SATISFIED** | | | **NOT SATISFIED** | | | **NOT SATISFIED** | | | | | | **NOT SATISFIED** | **NOT SATISFIED** |

12/30/15
Kimley-Horn and Associates

**TRAFFIC SIGNAL VOLUME WARRANT ANALYSIS (2010 MUTCD)**

MAJOR STREET: **Sunnyvale-Saratoga Road** NB SB # OF APPROACH LANES: **2**

MINOR STREET: **Southeast Project Driveway** EB # OF APPROACH LANES: **1**

CITY, STATE: **Sunnyvale, CA**

COMMENTS: **Existing Conditions**

ISOLATED COMMUNITY WITH POPULATION LESS THAN 10,000 (Y OR N): **N**

85TH PERCENTILE SPEED GREATER THAN 40 MPH ON MAJOR STREET (Y OR N): **N**

| | MAJOR ST TWO-WAY TRAFFIC | MINOR ST TRAFFIC HEAVY LEG | Ped Count CROSSING MAJOR ST | WARRANT 1 - Condition A, Part 1 | | | WARRANT 1 - Condition B, Part 1 | | | WARRANT 1 - Condition A, Part 2 | | | WARRANT 1 - Condition B, Part 2 | | | WARRANT 2 Four-Hour | WARRANT 3 Peak Hour |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | MAIN LINE | SIDE STREET | BOTH MET | MAIN LINE | SIDE STREET | BOTH MET | MAIN LINE | SIDE STREET | BOTH MET | MAIN LINE | SIDE STREET | BOTH MET | | |
| **THRESHOLD VALUES** | | | | **600** | **150** | | **900** | **75** | | **480** | **120** | | **720** | **60** | | **60** | **75** |
| 06:30 AM TO 07:30 AM | | | | | | | | | | | | | | | | | |
| 07:30 AM TO 08:30 AM | | | | | | | | | | | | | | | | | |
| 08:30 AM TO 09:30 AM | 691 | 14 | | Y | | | | | | Y | | | | | | | |
| 09:30 AM TO 10:30 AM | | | | | | | | | | | | | | | | | |
| 10:30 AM TO 11:30 AM | | | | | | | | | | | | | | | | | |
| 11:00 AM TO 12:00 PM | | | | | | | | | | | | | | | | | |
| 12:30 PM TO 01:30 PM | | | | | | | | | | | | | | | | | |
| 01:30 PM TO 02:30 PM | | | | | | | | | | | | | | | | | |
| 02:30 PM TO 03:30 PM | | | | | | | | | | | | | | | | | |
| 03:30 PM TO 04:30 PM | | | | | | | | | | | | | | | | | |
| 04:30 PM TO 05:30 PM | | | | | | | | | | | | | | | | | |
| 05:30 PM TO 06:30 PM | 979 | 32 | | Y | | | Y | | | Y | | | Y | | | | |
| 06:30 PM TO 07:30 PM | | | | | | | | | | | | | | | | | |
| 07:30 PM TO 08:30 PM | | | | | | | | | | | | | | | | | |
| 08:30 PM TO 09:30 PM | | | | | | | | | | | | | | | | | |
| 09:30 PM TO 10:30 PM | | | | | | | | | | | | | | | | | |
| | 1,670 | 46 | | 2 | 0 | **0** | 1 | 0 | **0** | 2 | 0 | **0** | 1 | 0 | **0** | **0** | **0** |
| | | | | 8 HOURS NEEDED | | | 8 HOURS NEEDED | | | 8 HOURS NEEDED for both Condition A & B | | | | | | 4 HRS NEEDED | 1 HR NEEDED |
| | | | | **NOT SATISFIED** | | | **NOT SATISFIED** | | | **NOT SATISFIED** | | | | | | **NOT SATISFIED** | **NOT SATISFIED** |

12/30/15

Kimley-Horn and Associates

**TRAFFIC SIGNAL VOLUME WARRANT ANALYSIS (2010 MUTCD)**

MAJOR STREET: **S Mathilda Avenue** NB SB # OF APPROACH LANES: **3**

MINOR STREET: **West Project Driveway** WB # OF APPROACH LANES: **1**

CITY, STATE: **Sunnyvale, CA**

COMMENTS: **Existing Plus Poject Conditions**

ISOLATED COMMUNITY WITH POPULATION LESS THAN 10,000 (Y OR N): **N**
85TH PERCENTILE SPEED GREATER THAN 40 MPH ON MAJOR STREET (Y OR N): **N**

| | MAJOR ST TWO-WAY TRAFFIC | MINOR ST TRAFFIC HEAVY LEG | Ped Count CROSSING MAJOR ST | WARRANT 1 - Condition A, Part 1 | | | WARRANT 1 - Condition B, Part 1 | | | WARRANT 1 - Condition A, Part 2 | | | WARRANT 1 - Condition B, Part 2 | | | WARRANT 2 Four-Hour | WARRANT 3 Peak Hour |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | MAIN LINE | SIDE STREET | BOTH MET | MAIN LINE | SIDE STREET | BOTH MET | MAIN LINE | SIDE STREET | BOTH MET | MAIN LINE | SIDE STREET | BOTH MET | | |
| **THRESHOLD VALUES** | | | | **600** | **150** | | **900** | **75** | | **480** | **120** | | **720** | **60** | | **60** | **75** |
| 06:30 AM TO 07:30 AM | | | | | | | | | | | | | | | | | |
| 07:30 AM TO 08:30 AM | | | | | | | | | | | | | | | | | |
| 08:30 AM TO 09:30 AM | 2,490 | 18 | | Y | | | Y | | | Y | | | Y | | | | |
| 09:30 AM TO 10:30 AM | | | | | | | | | | | | | | | | | |
| 10:30 AM TO 11:30 AM | | | | | | | | | | | | | | | | | |
| 11:00 AM TO 12:00 PM | | | | | | | | | | | | | | | | | |
| 12:30 PM TO 01:30 PM | | | | | | | | | | | | | | | | | |
| 01:30 PM TO 02:30 PM | | | | | | | | | | | | | | | | | |
| 02:30 PM TO 03:30 PM | | | | | | | | | | | | | | | | | |
| 03:30 PM TO 04:30 PM | | | | | | | | | | | | | | | | | |
| 04:30 PM TO 05:30 PM | | | | | | | | | | | | | | | | | |
| 05:30 PM TO 06:30 PM | 2,446 | 26 | | Y | | | Y | | | Y | | | Y | | | | |
| 06:30 PM TO 07:30 PM | | | | | | | | | | | | | | | | | |
| 07:30 PM TO 08:30 PM | | | | | | | | | | | | | | | | | |
| 08:30 PM TO 09:30 PM | | | | | | | | | | | | | | | | | |
| 09:30 PM TO 10:30 PM | | | | | | | | | | | | | | | | | |
| | 4,936 | 44 | | 2 | 0 | **0** | 2 | 0 | **0** | 2 | 0 | **0** | 2 | 0 | **0** | **0** | **0** |
| | | | | 8 HOURS NEEDED **NOT SATISFIED** | | | 8 HOURS NEEDED **NOT SATISFIED** | | | 8 HOURS NEEDED for both Condition A & B **NOT SATISFIED** | | | | | | 4 HRS NEEDED **NOT SATISFIED** | 1 HR NEEDED **NOT SATISFIED** |

12/30/15
Kimley-Horn and Associates

**TRAFFIC SIGNAL VOLUME WARRANT ANALYSIS (2010 MUTCD)**

MAJOR STREET: **Sunnyvale-Saratoga Road** NB SB # OF APPROACH LANES: **2**

MINOR STREET: **Northeast Project Driveway** EB # OF APPROACH LANES: **1**

CITY, STATE: **Sunnyvale, CA**

COMMENTS: **Existing Plus Poject Conditions**

ISOLATED COMMUNITY WITH POPULATION LESS THAN 10,000 (Y OR N): **N**
85TH PERCENTILE SPEED GREATER THAN 40 MPH ON MAJOR STREET (Y OR N): **N**

| | MAJOR ST TWO-WAY TRAFFIC | MINOR ST TRAFFIC HEAVY LEG | Ped Count CROSSING MAJOR ST | WARRANT 1 - Condition A, Part 1 | | | WARRANT 1 - Condition B, Part 1 | | | WARRANT 1 - Condition A, Part 2 | | | WARRANT 1 - Condition B, Part 2 | | | WARRANT 2 Four-Hour | WARRANT 3 Peak Hour |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | MAIN LINE | SIDE STREET | BOTH MET | MAIN LINE | SIDE STREET | BOTH MET | MAIN LINE | SIDE STREET | BOTH MET | MAIN LINE | SIDE STREET | BOTH MET | | |
| **THRESHOLD VALUES** | | | | **600** | **150** | | **900** | **75** | | **480** | **120** | | **720** | **60** | | **60** | **75** |
| 06:30 AM TO 07:30 AM | | | | | | | | | | | | | | | | | |
| 07:30 AM TO 08:30 AM | | | | | | | | | | | | | | | | | |
| 08:30 AM TO 09:30 AM | 781 | 19 | | Y | | | | | | Y | | | Y | | | | |
| 09:30 AM TO 10:30 AM | | | | | | | | | | | | | | | | | |
| 10:30 AM TO 11:30 AM | | | | | | | | | | | | | | | | | |
| 11:00 AM TO 12:00 PM | | | | | | | | | | | | | | | | | |
| 12:30 PM TO 01:30 PM | | | | | | | | | | | | | | | | | |
| 01:30 PM TO 02:30 PM | | | | | | | | | | | | | | | | | |
| 02:30 PM TO 03:30 PM | | | | | | | | | | | | | | | | | |
| 03:30 PM TO 04:30 PM | | | | | | | | | | | | | | | | | |
| 04:30 PM TO 05:30 PM | | | | | | | | | | | | | | | | | |
| 05:30 PM TO 06:30 PM | 1,046 | 59 | | Y | | | Y | | | Y | | | Y | | | | |
| 06:30 PM TO 07:30 PM | | | | | | | | | | | | | | | | | |
| 07:30 PM TO 08:30 PM | | | | | | | | | | | | | | | | | |
| 08:30 PM TO 09:30 PM | | | | | | | | | | | | | | | | | |
| 09:30 PM TO 10:30 PM | | | | | | | | | | | | | | | | | |
| | 1,827 | 78 | | 2 | 0 | **0** | 1 | 0 | **0** | 2 | 0 | **0** | 2 | 0 | **0** | **0** | **0** |
| | | | | 8 HOURS NEEDED **NOT SATISFIED** | | | 8 HOURS NEEDED **NOT SATISFIED** | | | 8 HOURS NEEDED for both Condition A & B **NOT SATISFIED** | | | | | | 4 HRS NEEDED **NOT SATISFIED** | 1 HR NEEDED **NOT SATISFIED** |

12/30/15
Kimley-Horn and Associates

**TRAFFIC SIGNAL VOLUME WARRANT ANALYSIS (2010 MUTCD)**

MAJOR STREET: **Sunnyvale-Saratoga Road** NB SB # OF APPROACH LANES: **2**

MINOR STREET: **Southeast Project Driveway** EB # OF APPROACH LANES: **1**

CITY, STATE: **Sunnyvale, CA**

COMMENTS: **Existing Plus Poject Conditions**

ISOLATED COMMUNITY WITH POPULATION LESS THAN 10,000 (Y OR N): **N**
85TH PERCENTILE SPEED GREATER THAN 40 MPH ON MAJOR STREET (Y OR N): **N**

| | MAJOR ST TWO-WAY TRAFFIC | MINOR ST TRAFFIC HEAVY LEG | Ped Count CROSSING MAJOR ST | WARRANT 1 - Condition A, Part 1 | | | WARRANT 1 - Condition B, Part 1 | | | WARRANT 1 - Condition A, Part 2 | | | WARRANT 1 - Condition B, Part 2 | | | WARRANT 2 Four-Hour | WARRANT 3 Peak Hour |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | MAIN LINE | SIDE STREET | BOTH MET | MAIN LINE | SIDE STREET | BOTH MET | MAIN LINE | SIDE STREET | BOTH MET | MAIN LINE | SIDE STREET | BOTH MET | | |
| **THRESHOLD VALUES** | | | | **600** | **150** | | **900** | **75** | | **480** | **120** | | **720** | **60** | | **60** | **75** |
| 06:30 AM TO 07:30 AM | | | | | | | | | | | | | | | | | |
| 07:30 AM TO 08:30 AM | | | | | | | | | | | | | | | | | |
| 08:30 AM TO 09:30 AM | 700 | 17 | | Y | | | | | | Y | | | | | | | |
| 09:30 AM TO 10:30 AM | | | | | | | | | | | | | | | | | |
| 10:30 AM TO 11:30 AM | | | | | | | | | | | | | | | | | |
| 11:00 AM TO 12:00 PM | | | | | | | | | | | | | | | | | |
| 12:30 PM TO 01:30 PM | | | | | | | | | | | | | | | | | |
| 01:30 PM TO 02:30 PM | | | | | | | | | | | | | | | | | |
| 02:30 PM TO 03:30 PM | | | | | | | | | | | | | | | | | |
| 03:30 PM TO 04:30 PM | | | | | | | | | | | | | | | | | |
| 04:30 PM TO 05:30 PM | | | | | | | | | | | | | | | | | |
| 05:30 PM TO 06:30 PM | 1,005 | 46 | | Y | | | Y | | | Y | | | Y | | | | |
| 06:30 PM TO 07:30 PM | | | | | | | | | | | | | | | | | |
| 07:30 PM TO 08:30 PM | | | | | | | | | | | | | | | | | |
| 08:30 PM TO 09:30 PM | | | | | | | | | | | | | | | | | |
| 09:30 PM TO 10:30 PM | | | | | | | | | | | | | | | | | |
| | 1,705 | 63 | | 2 | 0 | **0** | 1 | 0 | **0** | 2 | 0 | **0** | 1 | 0 | **0** | **0** | **0** |
| | | | | 8 HOURS NEEDED | | | 8 HOURS NEEDED | | | 8 HOURS NEEDED for both Condition A & B | | | | | | 4 HRS NEEDED | 1 HR NEEDED |
| | | | | **NOT SATISFIED** | | | **NOT SATISFIED** | | | **NOT SATISFIED** | | | | | | **NOT SATISFIED** | **NOT SATISFIED** |

12/30/15
Kimley-Horn and Associates

**TRAFFIC SIGNAL VOLUME WARRANT ANALYSIS (2010 MUTCD)**

MAJOR STREET: **S Mathilda Avenue** NB SB # OF APPROACH LANES: **3**

MINOR STREET: **West Project Driveway** WB # OF APPROACH LANES: **1**

CITY, STATE: **Sunnyvale, CA**

COMMENTS: **Existing Plus Background Conditions**

ISOLATED COMMUNITY WITH POPULATION LESS THAN 10,000 (Y OR N): **N**
85TH PERCENTILE SPEED GREATER THAN 40 MPH ON MAJOR STREET (Y OR N): **N**

| | MAJOR ST TWO-WAY TRAFFIC | MINOR ST TRAFFIC HEAVY LEG | Ped Count CROSSING MAJOR ST | WARRANT 1 - Condition A, Part 1 | | | WARRANT 1 - Condition B, Part 1 | | | WARRANT 1 - Condition A, Part 2 | | | WARRANT 1 - Condition B, Part 2 | | | WARRANT 2 Four-Hour | WARRANT 3 Peak Hour |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | MAIN LINE | SIDE STREET | BOTH MET | MAIN LINE | SIDE STREET | BOTH MET | MAIN LINE | SIDE STREET | BOTH MET | MAIN LINE | SIDE STREET | BOTH MET | | |
| **THRESHOLD VALUES** | | | | **600** | **150** | | **900** | **75** | | **480** | **120** | | **720** | **60** | | **60** | **75** |
| 06:30 AM TO 07:30 AM | | | | | | | | | | | | | | | | | |
| 07:30 AM TO 08:30 AM | | | | | | | | | | | | | | | | | |
| 08:30 AM TO 09:30 AM | 2,764 | 17 | | Y | | | Y | | | Y | | | Y | | | | |
| 09:30 AM TO 10:30 AM | | | | | | | | | | | | | | | | | |
| 10:30 AM TO 11:30 AM | | | | | | | | | | | | | | | | | |
| 11:00 AM TO 12:00 PM | | | | | | | | | | | | | | | | | |
| 12:30 PM TO 01:30 PM | | | | | | | | | | | | | | | | | |
| 01:30 PM TO 02:30 PM | | | | | | | | | | | | | | | | | |
| 02:30 PM TO 03:30 PM | | | | | | | | | | | | | | | | | |
| 03:30 PM TO 04:30 PM | | | | | | | | | | | | | | | | | |
| 04:30 PM TO 05:30 PM | | | | | | | | | | | | | | | | | |
| 05:30 PM TO 06:30 PM | 2,729 | 24 | | Y | | | Y | | | Y | | | Y | | | | |
| 06:30 PM TO 07:30 PM | | | | | | | | | | | | | | | | | |
| 07:30 PM TO 08:30 PM | | | | | | | | | | | | | | | | | |
| 08:30 PM TO 09:30 PM | | | | | | | | | | | | | | | | | |
| 09:30 PM TO 10:30 PM | | | | | | | | | | | | | | | | | |
| | 5,493 | 41 | | 2 | 0 | **0** | 2 | 0 | **0** | 2 | 0 | **0** | 2 | 0 | **0** | **0** | **0** |
| | | | | 8 HOURS NEEDED | | | 8 HOURS NEEDED | | | 8 HOURS NEEDED for both Condition A & B | | | | | | 4 HRS NEEDED | 1 HR NEEDED |
| | | | | **NOT SATISFIED** | | | **NOT SATISFIED** | | | **NOT SATISFIED** | | | | | | **NOT SATISFIED** | **NOT SATISFIED** |

12/30/15
Kimley-Horn and Associates

**TRAFFIC SIGNAL VOLUME WARRANT ANALYSIS (2010 MUTCD)**

MAJOR STREET: **Sunnyvale-Saratoga Road** NB SB # OF APPROACH LANES: **2**

MINOR STREET: **Northeast Project Driveway** EB # OF APPROACH LANES: **1**

CITY, STATE: **Sunnyvale, CA**

COMMENTS: **Existing Plus Background Conditions**

ISOLATED COMMUNITY WITH POPULATION LESS THAN 10,000 (Y OR N): **N**
85TH PERCENTILE SPEED GREATER THAN 40 MPH ON MAJOR STREET (Y OR N): **N**

| | MAJOR ST TWO-WAY TRAFFIC | MINOR ST TRAFFIC HEAVY LEG | Ped Count CROSSING MAJOR ST | WARRANT 1 - Condition A, Part 1 | | | WARRANT 1 - Condition B, Part 1 | | | WARRANT 1 - Condition A, Part 2 | | | WARRANT 1 - Condition B, Part 2 | | | WARRANT 2 Four-Hour | WARRANT 3 Peak Hour |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | MAIN LINE | SIDE STREET | BOTH MET | MAIN LINE | SIDE STREET | BOTH MET | MAIN LINE | SIDE STREET | BOTH MET | MAIN LINE | SIDE STREET | BOTH MET | | |
| **THRESHOLD VALUES** | | | | **600** | **150** | | **900** | **75** | | **480** | **120** | | **720** | **60** | | **60** | **75** |
| 06:30 AM TO 07:30 AM | | | | | | | | | | | | | | | | | |
| 07:30 AM TO 08:30 AM | | | | | | | | | | | | | | | | | |
| 08:30 AM TO 09:30 AM | 711 | 12 | | Y | | | | | | Y | | | | | | | |
| 09:30 AM TO 10:30 AM | | | | | | | | | | | | | | | | | |
| 10:30 AM TO 11:30 AM | | | | | | | | | | | | | | | | | |
| 11:00 AM TO 12:00 PM | | | | | | | | | | | | | | | | | |
| 12:30 PM TO 01:30 PM | | | | | | | | | | | | | | | | | |
| 01:30 PM TO 02:30 PM | | | | | | | | | | | | | | | | | |
| 02:30 PM TO 03:30 PM | | | | | | | | | | | | | | | | | |
| 03:30 PM TO 04:30 PM | | | | | | | | | | | | | | | | | |
| 04:30 PM TO 05:30 PM | | | | | | | | | | | | | | | | | |
| 05:30 PM TO 06:30 PM | 1,019 | 28 | | Y | | | Y | | | Y | | | Y | | | | |
| 06:30 PM TO 07:30 PM | | | | | | | | | | | | | | | | | |
| 07:30 PM TO 08:30 PM | | | | | | | | | | | | | | | | | |
| 08:30 PM TO 09:30 PM | | | | | | | | | | | | | | | | | |
| 09:30 PM TO 10:30 PM | | | | | | | | | | | | | | | | | |
| | 1,730 | 40 | | 2 | 0 | **0** | 1 | 0 | **0** | 2 | 0 | **0** | 1 | 0 | **0** | **0** | **0** |
| | | | | 8 HOURS NEEDED **NOT SATISFIED** | | | 8 HOURS NEEDED **NOT SATISFIED** | | | 8 HOURS NEEDED for both Condition A & B **NOT SATISFIED** | | | | | | 4 HRS NEEDED **NOT SATISFIED** | 1 HR NEEDED **NOT SATISFIED** |

12/30/15
Kimley-Horn and Associates

**TRAFFIC SIGNAL VOLUME WARRANT ANALYSIS (2010 MUTCD)**

MAJOR STREET: **Sunnyvale-Saratoga Road** NB SB # OF APPROACH LANES: **2**

MINOR STREET: **Southeast Project Driveway** EB # OF APPROACH LANES: **1**

CITY, STATE: **Sunnyvale, CA**

COMMENTS: **Existing Plus Background Conditions**

ISOLATED COMMUNITY WITH POPULATION LESS THAN 10,000 (Y OR N): **N**
85TH PERCENTILE SPEED GREATER THAN 40 MPH ON MAJOR STREET (Y OR N): **N**

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|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | MAIN LINE | SIDE STREET | BOTH MET | MAIN LINE | SIDE STREET | BOTH MET | MAIN LINE | SIDE STREET | BOTH MET | MAIN LINE | SIDE STREET | BOTH MET | | |
| **THRESHOLD VALUES** | | | | **600** | **150** | | **900** | **75** | | **480** | **120** | | **720** | **60** | | **60** | **75** |
| 06:30 AM TO 07:30 AM | | | | | | | | | | | | | | | | | |
| 07:30 AM TO 08:30 AM | | | | | | | | | | | | | | | | | |
| 08:30 AM TO 09:30 AM | 711 | 14 | | Y | | | | | | Y | | | | | | | |
| 09:30 AM TO 10:30 AM | | | | | | | | | | | | | | | | | |
| 10:30 AM TO 11:30 AM | | | | | | | | | | | | | | | | | |
| 11:00 AM TO 12:00 PM | | | | | | | | | | | | | | | | | |
| 12:30 PM TO 01:30 PM | | | | | | | | | | | | | | | | | |
| 01:30 PM TO 02:30 PM | | | | | | | | | | | | | | | | | |
| 02:30 PM TO 03:30 PM | | | | | | | | | | | | | | | | | |
| 03:30 PM TO 04:30 PM | | | | | | | | | | | | | | | | | |
| 04:30 PM TO 05:30 PM | | | | | | | | | | | | | | | | | |
| 05:30 PM TO 06:30 PM | 999 | 32 | | Y | | | Y | | | Y | | | Y | | | | |
| 06:30 PM TO 07:30 PM | | | | | | | | | | | | | | | | | |
| 07:30 PM TO 08:30 PM | | | | | | | | | | | | | | | | | |
| 08:30 PM TO 09:30 PM | | | | | | | | | | | | | | | | | |
| 09:30 PM TO 10:30 PM | | | | | | | | | | | | | | | | | |
| | 1,710 | 46 | | 2 | 0 | **0** | 1 | 0 | **0** | 2 | 0 | **0** | 1 | 0 | **0** | **0** | **0** |
| | | | | 8 HOURS NEEDED | | | 8 HOURS NEEDED | | | 8 HOURS NEEDED for both Condition A & B | | | | | | 4 HRS NEEDED | 1 HR NEEDED |
| | | | | **NOT SATISFIED** | | | **NOT SATISFIED** | | | **NOT SATISFIED** | | | | | | **NOT SATISFIED** | **NOT SATISFIED** |

12/30/15
Kimley-Horn and Associates

**TRAFFIC SIGNAL VOLUME WARRANT ANALYSIS (2010 MUTCD)**

MAJOR STREET: **S Mathilda Avenue** NB SB # OF APPROACH LANES: **3**

MINOR STREET: **West Project Driveway** WB # OF APPROACH LANES: **1**

CITY, STATE: **Sunnyvale, CA**

COMMENTS: **Existing Plus Background Plus Poject Conditions**

ISOLATED COMMUNITY WITH POPULATION LESS THAN 10,000 (Y OR N): **N**
85TH PERCENTILE SPEED GREATER THAN 40 MPH ON MAJOR STREET (Y OR N): **N**

| | MAJOR ST TWO-WAY TRAFFIC | MINOR ST TRAFFIC HEAVY LEG | Ped Count CROSSING MAJOR ST | WARRANT 1 - Condition A, Part 1 | | | WARRANT 1 - Condition B, Part 1 | | | WARRANT 1 - Condition A, Part 2 | | | WARRANT 1 - Condition B, Part 2 | | | WARRANT 2 Four-Hour | WARRANT 3 Peak Hour |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | MAIN LINE | SIDE STREET | BOTH MET | MAIN LINE | SIDE STREET | BOTH MET | MAIN LINE | SIDE STREET | BOTH MET | MAIN LINE | SIDE STREET | BOTH MET | | |
| **THRESHOLD VALUES** | | | | **600** | **150** | | **900** | **75** | | **480** | **120** | | **720** | **60** | | **60** | **75** |
| 06:30 AM TO 07:30 AM | | | | | | | | | | | | | | | | | |
| 07:30 AM TO 08:30 AM | | | | | | | | | | | | | | | | | |
| 08:30 AM TO 09:30 AM | 2,768 | 18 | | Y | | | Y | | | Y | | | Y | | | | |
| 09:30 AM TO 10:30 AM | | | | | | | | | | | | | | | | | |
| 10:30 AM TO 11:30 AM | | | | | | | | | | | | | | | | | |
| 11:00 AM TO 12:00 PM | | | | | | | | | | | | | | | | | |
| 12:30 PM TO 01:30 PM | | | | | | | | | | | | | | | | | |
| 01:30 PM TO 02:30 PM | | | | | | | | | | | | | | | | | |
| 02:30 PM TO 03:30 PM | | | | | | | | | | | | | | | | | |
| 03:30 PM TO 04:30 PM | | | | | | | | | | | | | | | | | |
| 04:30 PM TO 05:30 PM | | | | | | | | | | | | | | | | | |
| 05:30 PM TO 06:30 PM | 2,741 | 26 | | Y | | | Y | | | Y | | | Y | | | | |
| 06:30 PM TO 07:30 PM | | | | | | | | | | | | | | | | | |
| 07:30 PM TO 08:30 PM | | | | | | | | | | | | | | | | | |
| 08:30 PM TO 09:30 PM | | | | | | | | | | | | | | | | | |
| 09:30 PM TO 10:30 PM | | | | | | | | | | | | | | | | | |
| | 5,509 | 44 | | 2 | 0 | **0** | 2 | 0 | **0** | 2 | 0 | **0** | 2 | 0 | **0** | **0** | **0** |
| | | | | 8 HOURS NEEDED | | | 8 HOURS NEEDED | | | 8 HOURS NEEDED for both Condition A & B | | | | | | 4 HRS NEEDED | 1 HR NEEDED |
| | | | | **NOT SATISFIED** | | | **NOT SATISFIED** | | | **NOT SATISFIED** | | | | | | **NOT SATISFIED** | **NOT SATISFIED** |

12/30/15
Kimley-Horn and Associates

**TRAFFIC SIGNAL VOLUME WARRANT ANALYSIS (2010 MUTCD)**

MAJOR STREET: **Sunnyvale-Saratoga Road** NB SB # OF APPROACH LANES: **2**

MINOR STREET: **Northeast Project Driveway** EB # OF APPROACH LANES: **1**

CITY, STATE: **Sunnyvale, CA**

COMMENTS: **Existing Plus Background Plus Poject Conditions**

ISOLATED COMMUNITY WITH POPULATION LESS THAN 10,000 (Y OR N): **N**
85TH PERCENTILE SPEED GREATER THAN 40 MPH ON MAJOR STREET (Y OR N): **N**

| | MAJOR ST TWO-WAY TRAFFIC | MINOR ST TRAFFIC HEAVY LEG | Ped Count CROSSING MAJOR ST | WARRANT 1 - Condition A, Part 1 | | | WARRANT 1 - Condition B, Part 1 | | | WARRANT 1 - Condition A, Part 2 | | | WARRANT 1 - Condition B, Part 2 | | | WARRANT 2 Four-Hour | WARRANT 3 Peak Hour |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | MAIN LINE | SIDE STREET | BOTH MET | MAIN LINE | SIDE STREET | BOTH MET | MAIN LINE | SIDE STREET | BOTH MET | MAIN LINE | SIDE STREET | BOTH MET | | |
| **THRESHOLD VALUES** → | | | | **600** | **150** | | **900** | **75** | | **480** | **120** | | **720** | **60** | | **60** | **75** |
| 06:30 AM TO 07:30 AM | | | | | | | | | | | | | | | | | |
| 07:30 AM TO 08:30 AM | | | | | | | | | | | | | | | | | |
| 08:30 AM TO 09:30 AM | 727 | 19 | | Y | | | | | | Y | | | Y | | | | |
| 09:30 AM TO 10:30 AM | | | | | | | | | | | | | | | | | |
| 10:30 AM TO 11:30 AM | | | | | | | | | | | | | | | | | |
| 11:00 AM TO 12:00 PM | | | | | | | | | | | | | | | | | |
| 12:30 PM TO 01:30 PM | | | | | | | | | | | | | | | | | |
| 01:30 PM TO 02:30 PM | | | | | | | | | | | | | | | | | |
| 02:30 PM TO 03:30 PM | | | | | | | | | | | | | | | | | |
| 03:30 PM TO 04:30 PM | | | | | | | | | | | | | | | | | |
| 04:30 PM TO 05:30 PM | | | | | | | | | | | | | | | | | |
| 05:30 PM TO 06:30 PM | 1,067 | 59 | | Y | | | Y | | | Y | | | Y | | | | |
| 06:30 PM TO 07:30 PM | | | | | | | | | | | | | | | | | |
| 07:30 PM TO 08:30 PM | | | | | | | | | | | | | | | | | |
| 08:30 PM TO 09:30 PM | | | | | | | | | | | | | | | | | |
| 09:30 PM TO 10:30 PM | | | | | | | | | | | | | | | | | |
| | 1,794 | 78 | | 2 | 0 | **0** | 1 | 0 | **0** | 2 | 0 | **0** | 2 | 0 | **0** | **0** | **0** |
| | | | | 8 HOURS NEEDED **NOT SATISFIED** | | | 8 HOURS NEEDED **NOT SATISFIED** | | | 8 HOURS NEEDED for both Condition A & B **NOT SATISFIED** | | | | | | 4 HRS NEEDED **NOT SATISFIED** | 1 HR NEEDED **NOT SATISFIED** |

12/30/15
Kimley-Horn and Associates

**TRAFFIC SIGNAL VOLUME WARRANT ANALYSIS (2010 MUTCD)**

MAJOR STREET: **Sunnyvale-Saratoga Road** NB SB # OF APPROACH LANES: **2**

MINOR STREET: **Southeast Project Driveway** EB # OF APPROACH LANES: **1**

CITY, STATE: **Sunnyvale, CA**

COMMENTS: **Existing Plus Background Plus Poject Conditions**

ISOLATED COMMUNITY WITH POPULATION LESS THAN 10,000 (Y OR N): **N**
85TH PERCENTILE SPEED GREATER THAN 40 MPH ON MAJOR STREET (Y OR N): **N**

| | MAJOR ST TWO-WAY TRAFFIC | MINOR ST TRAFFIC HEAVY LEG | Ped Count CROSSING MAJOR ST | WARRANT 1 - Condition A, Part 1 | | | WARRANT 1 - Condition B, Part 1 | | | WARRANT 1 - Condition A, Part 2 | | | WARRANT 1 - Condition B, Part 2 | | | WARRANT 2 Four-Hour | WARRANT 3 Peak Hour |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | MAIN LINE | SIDE STREET | BOTH MET | MAIN LINE | SIDE STREET | BOTH MET | MAIN LINE | SIDE STREET | BOTH MET | MAIN LINE | SIDE STREET | BOTH MET | | |
| **THRESHOLD VALUES** | | | | **600** | **150** | | **900** | **75** | | **480** | **120** | | **720** | **60** | | **60** | **75** |
| 06:30 AM TO 07:30 AM | | | | | | | | | | | | | | | | | |
| 07:30 AM TO 08:30 AM | | | | | | | | | | | | | | | | | |
| 08:30 AM TO 09:30 AM | 720 | 17 | | Y | | | | | | Y | | | Y | | | | |
| 09:30 AM TO 10:30 AM | | | | | | | | | | | | | | | | | |
| 10:30 AM TO 11:30 AM | | | | | | | | | | | | | | | | | |
| 11:00 AM TO 12:00 PM | | | | | | | | | | | | | | | | | |
| 12:30 PM TO 01:30 PM | | | | | | | | | | | | | | | | | |
| 01:30 PM TO 02:30 PM | | | | | | | | | | | | | | | | | |
| 02:30 PM TO 03:30 PM | | | | | | | | | | | | | | | | | |
| 03:30 PM TO 04:30 PM | | | | | | | | | | | | | | | | | |
| 04:30 PM TO 05:30 PM | | | | | | | | | | | | | | | | | |
| 05:30 PM TO 06:30 PM | 1,024 | 46 | | Y | | | Y | | | Y | | | Y | | | | |
| 06:30 PM TO 07:30 PM | | | | | | | | | | | | | | | | | |
| 07:30 PM TO 08:30 PM | | | | | | | | | | | | | | | | | |
| 08:30 PM TO 09:30 PM | | | | | | | | | | | | | | | | | |
| 09:30 PM TO 10:30 PM | | | | | | | | | | | | | | | | | |
| | 1,744 | 63 | | 2 | 0 | **0** | 1 | 0 | **0** | 2 | 0 | **0** | 2 | 0 | **0** | **0** | **0** |
| | | | | 8 HOURS NEEDED | | | 8 HOURS NEEDED | | | 8 HOURS NEEDED for both Condition A & B | | | | | | 4 HRS NEEDED | 1 HR NEEDED |
| | | | | **NOT SATISFIED** | | | **NOT SATISFIED** | | | **NOT SATISFIED** | | | | | | **NOT SATISFIED** | **NOT SATISFIED** |

12/30/15
Kimley-Horn and Associates

# Mitigations

City of Sunnyvale
Oppidan Grocery Store (777 Sunnvyale-Saratoga Road)
097318104

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #4 S. Sunnyvale Avenue / El Camino Real

| | | | |
|---|---|---|---|
| Cycle (sec): | 120 | Critical Vol./Cap.(X): | 0.616 |
| Loss Time (sec): | 12 | Average Delay (sec/veh): | 33.4 |
| Optimal Cycle: | 51 | Level Of Service: | C- |

| Street Name: | S. Sunnyvale Avenue | | | | | | El Camino Real | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
| Movement: | L - T - R | | | L - T - R | | | L - T - R | | | L - T - R | | |
| Control: | Protected | | | Protected | | | Protected | | | Protected | | |
| Rights: | Ovl | | | Include | | | Include | | | Include | | |
| Min. Green: | 7 | 10 | 10 | 7 | 10 | 10 | 7 | 10 | 10 | 7 | 10 | 10 |
| Y+R: | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 |
| Lanes: | 1 0 | 2 0 | 1 | 2 0 | 1 1 | 0 | 2 0 | 2 1 | 0 | 1 0 | 2 1 | 0 |
| Volume Module: | | | | | | | | | | | | |
| Base Vol: | 139 | 231 | 74 | 189 | 251 | 56 | 159 | 1441 | 118 | 162 | 790 | 70 |
| Growth 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 |
| Initial Bse: | 139 | 231 | 74 | 189 | 251 | 56 | 159 | 1441 | 118 | 162 | 790 | 70 |
| Added Vol: | 19 | 7 | 8 | 0 | 7 | 0 | 0 | 0 | 16 | 9 | 0 | 0 |
| PasserByVol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Initial Fut: | 158 | 238 | 82 | 189 | 258 | 56 | 159 | 1441 | 134 | 171 | 790 | 70 |
| User 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 |
| PHF 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 |
| PHF Volume: | 158 | 238 | 82 | 189 | 258 | 56 | 159 | 1441 | 134 | 171 | 790 | 70 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 158 | 238 | 82 | 189 | 258 | 56 | 159 | 1441 | 134 | 171 | 790 | 70 |
| PCE 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 |
| MLF 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 |
| FinalVolume: | 158 | 238 | 82 | 189 | 258 | 56 | 159 | 1441 | 134 | 171 | 790 | 70 |
| Saturation Flow Module: | | | | | | | | | | | | |
| Sat/Lane: | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adjustment: | 0.92 | 1.00 | 0.92 | 0.83 | 0.98 | 0.95 | 0.83 | 0.99 | 0.95 | 0.92 | 0.99 | 0.95 |
| Lanes: | 1.00 | 2.00 | 1.00 | 2.00 | 1.63 | 0.37 | 2.00 | 2.74 | 0.26 | 1.00 | 2.75 | 0.25 |
| Final Sat.: | 1750 | 3800 | 1750 | 3150 | 3040 | 660 | 3150 | 5123 | 476 | 1750 | 5144 | 456 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.09 | 0.06 | 0.05 | 0.06 | 0.08 | 0.08 | 0.05 | 0.28 | 0.28 | 0.10 | 0.15 | 0.15 |
| Crit Moves: | **** | | | | **** | | | **** | | **** | | |
| Green Time: | 22.0 | 21.9 | 40.1 | 15.8 | 15.7 | 15.7 | 19.3 | 52.2 | 52.2 | 18.1 | 50.9 | 50.9 |
| Volume/Cap: | 0.49 | 0.34 | 0.14 | 0.46 | 0.65 | 0.65 | 0.31 | 0.65 | 0.65 | 0.65 | 0.36 | 0.36 |
| Delay/Veh: | 45.2 | 43.0 | 28.1 | 48.9 | 52.5 | 52.5 | 44.8 | 27.3 | 27.3 | 53.4 | 23.6 | 23.6 |
| User DelAdj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| AdjDel/Veh: | 45.2 | 43.0 | 28.1 | 48.9 | 52.5 | 52.5 | 44.8 | 27.3 | 27.3 | 53.4 | 23.6 | 23.6 |
| LOS by Move: | D | D | C | D | D- | D- | D | C | C | D- | C | C |
| HCM2k95thQ: | 292 | 197 | 114 | 213 | 321 | 321 | 147 | 649 | 649 | 310 | 334 | 334 |

City of Sunnyvale
Oppidan Grocery Store (777 Sunnvyale-Saratoga Road)
097318104

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #4 S. Sunnyvale Avenue / El Camino Real

| | | | |
|---|---|---|---|
| Cycle (sec): | 120 | Critical Vol./Cap.(X): | 0.629 |
| Loss Time (sec): | 12 | Average Delay (sec/veh): | 33.6 |
| Optimal Cycle: | 53 | Level Of Service: | C- |

| Street Name: | S. Sunnyvale Avenue | | | | | | El Camino Real | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
| Movement: | L - T - R | | | L - T - R | | | L - T - R | | | L - T - R | | |
| Control: | Protected | | | Protected | | | Protected | | | Protected | | |
| Rights: | Ovl | | | Include | | | Include | | | Include | | |
| Min. Green: | 7 | 10 | 10 | 7 | 10 | 10 | 7 | 10 | 10 | 7 | 10 | 10 |
| Y+R: | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 |
| Lanes: | 1 0 | 2 0 | 1 | 2 0 | 1 1 | 0 | 2 0 | 2 1 | 0 | 1 0 | 2 1 | 0 |
| Volume Module: | | | | | | | | | | | | |
| Base Vol: | 139 | 231 | 74 | 189 | 251 | 56 | 159 | 1441 | 118 | 162 | 790 | 70 |
| Growth 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 |
| Initial Bse: | 139 | 231 | 74 | 189 | 251 | 56 | 159 | 1441 | 118 | 162 | 790 | 70 |
| Added Vol: | 19 | 15 | 8 | 8 | 17 | 6 | 8 | 38 | 16 | 10 | 41 | 7 |
| PasserByVol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Initial Fut: | 158 | 246 | 82 | 197 | 268 | 62 | 167 | 1479 | 134 | 172 | 831 | 77 |
| User 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 |
| PHF 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 |
| PHF Volume: | 158 | 246 | 82 | 197 | 268 | 62 | 167 | 1479 | 134 | 172 | 831 | 77 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 158 | 246 | 82 | 197 | 268 | 62 | 167 | 1479 | 134 | 172 | 831 | 77 |
| PCE 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 |
| MLF 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 |
| FinalVolume: | 158 | 246 | 82 | 197 | 268 | 62 | 167 | 1479 | 134 | 172 | 831 | 77 |
| Saturation Flow Module: | | | | | | | | | | | | |
| Sat/Lane: | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adjustment: | 0.92 | 1.00 | 0.92 | 0.83 | 0.98 | 0.95 | 0.83 | 0.99 | 0.95 | 0.92 | 0.99 | 0.95 |
| Lanes: | 1.00 | 2.00 | 1.00 | 2.00 | 1.61 | 0.39 | 2.00 | 2.74 | 0.26 | 1.00 | 2.74 | 0.26 |
| Final Sat.: | 1750 | 3800 | 1750 | 3150 | 3004 | 695 | 3150 | 5134 | 465 | 1750 | 5124 | 475 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.09 | 0.06 | 0.05 | 0.06 | 0.09 | 0.09 | 0.05 | 0.29 | 0.29 | 0.10 | 0.16 | 0.16 |
| Crit Moves: | **** | | | | **** | | | **** | | **** | | |
| Green Time: | 22.0 | 21.8 | 39.6 | 16.3 | 16.1 | 16.1 | 18.5 | 52.1 | 52.1 | 17.8 | 51.4 | 51.4 |
| Volume/Cap: | 0.49 | 0.36 | 0.14 | 0.46 | 0.66 | 0.66 | 0.34 | 0.66 | 0.66 | 0.66 | 0.38 | 0.38 |
| Delay/Veh: | 45.2 | 43.3 | 28.4 | 48.5 | 52.7 | 52.7 | 45.8 | 27.7 | 27.7 | 54.6 | 23.5 | 23.5 |
| User DelAdj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| AdjDel/Veh: | 45.2 | 43.3 | 28.4 | 48.5 | 52.7 | 52.7 | 45.8 | 27.7 | 27.7 | 54.6 | 23.5 | 23.5 |
| LOS by Move: | D | D | C | D | D- | D- | D | C | C | D- | C | C |
| HCM2k95thQ: | 292 | 204 | 114 | 220 | 337 | 337 | 156 | 669 | 669 | 314 | 352 | 352 |