APPENDICES TO

DRAFT ENVIRONMENTAL IMPACT REPORT

SAN MATEO COUNTY COMMUNITY COLLEGE DISTRICT

2015 FACILITIES MASTER PLAN AMENDMENT

STATE CLEARINGHOUSE #2015052007

August 2015



Appendix A **NOP and Scoping Comments**

Appendix A-1: Notice of Preparation

Appendix A-2: Scoping Comments







ANSHU NAND

Office of the Chancellor

3401 CSM Drive, San Mateo, CA 94402 P: (650) 574-6550 F: (650) 574-6566

www.smccd.edu

May 4, 2015

To:

State Agencies

Responsible Agencies Local and Public Agencies

Trustee Agencies
Interested Parties

From:

Barbara Christensen

San Mateo County Community College District Director of Community/ Government Relations

3401 CSM Drive San Mateo, CA 94402

NOTICE OF PREPARATION OF AN ENVIRONMENTAL IMPACT REPORT FOR THE SAN MATEO COUNTY COMMUNITY COLLEGE DISTRICT 2015 FACILITIES MASTER PLAN AMENDMENT

As the Lead Agency, San Mateo County Community College District (District) will prepare an Environmental Impact Report (EIR) for the above referenced project and would like your views regarding the scope and content of the environmental information to be addressed in the EIR. This EIR may be used by your agency when considering approvals for this Project. The Project description, location, and a brief summary of potential environmental effects are attached.

According to State law, the deadline for your response is 30 days after receipt of this notice; however, we would appreciate an earlier response, if possible. Written comments will be accepted until June 8, 2015 at 5:00 pm. Please identify a contact person, and send your comments to:

San Mateo County Community College District
Attention: Barbara Christensen
3401 CSM Drive
San Mateo, CA 94402
(650) 574-6560
christensen@smccd.edu

Barbara Christensen
Director of Community/Government Relations

Date

Nay 4, 2015

NOTICE OF PREPARATION OF AN ENVIRONMENTAL IMPACT REPORT FOR THE SAN MATEO COUNTY COMMUNITY COLLEGE DISTRICT 2015 FACILITIES MASTER PLAN AMENDMENT

A. INTRODUCTION

The purpose of an Environmental Impact Report (EIR) is to inform decision makers and the general public of the environmental effects of a proposed project. The EIR process is intended to provide environmental information sufficient to evaluate a proposed project and its potential for significant impacts on the environment; to examine methods of reducing adverse environmental impacts; and to consider alternatives to the project. Although an EIR is one of the first documents to be reviewed when considering a project, the document itself, including its certification, does not constitute project approval. Upon finding the EIR is complete and in compliance with the California Environmental Quality Act (CEQA) of 1970, as amended, the District Board of Trustees will consider certification of the EIR at a public hearing.

The EIR for the Project will be prepared and processed in accordance with CEQA and will include:

- A summary of the Project
- A Project description
- An environmental setting, impact analysis and mitigation measures
- Alternatives to the Project as proposed
- Other CEQA considerations including: (a) any significant environmental effects which cannot be avoided if the Project is implemented, (b) the growth-inducing impacts of the proposed Project, and (c) cumulative impacts.

B. PROJECT LOCATION

The San Mateo County Community College District (District) has three campuses in San Mateo County, California, including Cañada College in Redwood City and the Town of Woodside, College of San Mateo (CSM) in the City of San Mateo, and Skyline College in the City of San Bruno. Figure 1 shows the regional locations of each of the three campuses.

Cañada College

Cañada College is 124 acres located within Redwood City and the Town of Woodside. Regional access is from Interstate 280 (I-280) on the west side of the campus, as well as from State Route (SR) 84, approximately 1.5 miles to the southwest on the east side of campus. The main entrance is on Farm Hill Boulevard. There is a second entrance on West Entry Drive off of Cañada Road. The campus is surrounded by residential development on all sides; Emerald Hills Golf Course to the northeast; and Barkley Fields and Park on Farm Hill Boulevard to the south.

College of San Mateo

CSM is 150 acres located in the City of San Mateo. Regional access is from SR 92 on the northeast side of the campus. The main entrance is on West Hillsdale Boulevard on the southeast side of campus. There is a second entrance on CSM Drive, on the southwest side of campus. The campus is surrounded by residential development to the north, west, and east and by an office complex to the south.

Skyline College

Skyline College is 108 acres located in the City of San Bruno. Regional access is from I-280 on the east side of campus. The main entrance is from College Drive off of Skyline Boulevard on the east side of the campus.

There is a second entrance from College Drive off of Sharp Park Boulevard on the northwest side of the campus. The campus is surrounded by residential development to the north and east, undeveloped land to the west and south, and a County jail to the south.

C. DESCRIPTION OF THE PROJECT

The 2015 Facilities Master Plan Amendment would continue the modernization and renovation work that began with adoption of the District's 2001 and 2006 Facilities Master Plans. The 2015 Facilities Master Plan Amendment identifies planned improvements at the three campuses including, but not limited to: building modernization and renovation, building demolition, new building construction, tree removal, landscaping/pedestrian improvements, and changes in parking and roadways. The locations of each of the proposed improvements are shown in Figures 2 through 4. The specific design and construction of campus projects would occur as projects are funded through the District's Capital Improvement Program.

The Project proposes the following development at each campus:

Cañada College

- New construction:
 - Building 1, Kinesiology/Wellness, including demolition of existing Building 1
 (approximately 39,500 sf) and construction of a new Building 1 (approximately 85,000 sf)
 and two new swimming pools (25 meters each)
 - o Math/Science/Engineering Building (approximately 55,000 sf)
- Modernization and renovation:
 - o Building 3, Performing Arts Center
 - o Building 9, Library/Student Resource Center
 - o Building 13, Multi-Disciplinary Instructional Center
 - o Building 16, Instructional
 - o Building 18, Instructional
- Pedestrian improvements:
 - North quad between existing Buildings 17 and 22
- Parking lot expansion:
 - o Lot 6, an additional approximately 325 parking stalls
 - Lot 10, an additional approximately 150 to 200 parking stalls, including demolition of temporary Buildings 19, 20, and 21
- Potential renewable energy installations (e.g., photovoltaic, solar thermal, or cogeneration):
 - o Building 1, Kinesiology/Wellness
 - o Math/Science/Engineering Building

College of San Mateo

- New construction:
 - Building 8, Kinesiology/Wellness, including demolition of existing Building 8
 (approximately 56,000 sf) and construction of a new Building 8 (approximately 75,000 to 80,000 sf)
- Modernization and renovation:
 - Building 1, Public Safety
 - o Building 3, Arts & Humanities

- Building 7, Facilities Maintenance Center
- o Building 9, Library/Information Technology Services
- o Building 17, Student Services
- o Building 34, Fire Science/Facilities Management
- o Corporation Yard
- Potential renewable energy installations (e.g., photovoltaic, solar thermal, or cogeneration):
 - o Parking Lots 1, 2, and 9 (solar)
 - o Building 7, Facilities Maintenance Center (cogeneration)

Skyline Campus

- New construction:
 - Environmental Sciences Building (approximately 18,000 to 20,000 sf), located west of parking lots F and G
 - Building 1, Social Science/Creative Arts Programs, including demolition of existing Building
 1 (approximately 78,000 sf) and construction of new Building 1 (approximately 120,000 sf)
 - o Boiler Plant adjacent to Building 2 (approximately 3,000 to 5,000 sf)
 - Energy Management Programs building (approximately 8,500 to 10,000 sf), located south of the Overflow Parking near Lot L
 - Residential Complex, up to 71 housing units, including up to 47 single-family detached homes for members of the public and up to 24 multi-family residential units for College faculty and staff, on Surplus Parcel B (approximate 8-acre parcel, located south of College Drive)
- Modernization and renovation:
 - o Building 2, Workforce/Economic Development Prosperity Center
 - o Building 5, Library
 - o Building 14, Early Childhood Education
- Pedestrian improvements:
 - o South pedestrian gateway between Building 1 and Lot C
 - Pedestrian connection between new Environmental Sciences Building and Building 8
- Parking lot expansion:
 - Demolition of existing Building 19 (approximately 39,000 sf) and expansion of Lot L, with approximately 125 to 175 additional parking stalls
- Potential renewable energy installations (e.g., photovoltaic, solar thermal, or cogeneration):
 - o Building 1/1A
 - o Energy Management Programs Facility

The proposed improvements would not facilitate increases in enrollment, employment, or contribute to campus growth. Enrollment at the three campuses has stabilized and is not currently limited as a function of campus size. The overarching purpose of the proposed improvements, including increasing building square footage, is to better serve approximately the same numbers of current students and staff with modern facilities and technology for the foreseeable future. Therefore, increasing the building square footage to improve functionality is not expected to result in significantly increased enrollment or campus employment.

However, there are two components of the Project that would increase use of specific campus facilities. Building 1, Kinesiology/Wellness Building, at the Cañada campus would be open to public memberships, in addition to use by students, staff and faculty. The residential complex at Skyline College would house the general public in single-family homes and staff and faculty in the multi-family housing.

D. ENVIRONMENTAL EFFECTS OF THE PROJECT

The Project could result in potential environmental effects associated with the following resource topics or environmental issues: aesthetics, air quality and energy, biological resources, cultural resources, geology and soils, greenhouse gas emissions, hazards and hazardous materials, hydrology and water quality, land use and planning, noise, population and housing, public services and utilities, and transportation/traffic, cumulative impacts, alternatives to the project, and growth inducing impacts. The analysis and potential effects are described further below. The Project would not result in environmental effects associated with agriculture and forest resources or mineral resources because these are not present on the Project site or area.

Aesthetics

The EIR will describe the existing visual character of the Project site and surrounding area including the existing viewpoints, notable visual resources, and the visual quality of the Project area and any impacts to scenic views that would result from development of the Project. This resource section will also consider the potential impacts of the creation of new sources of light and glare. Visual simulations from critical public viewpoints will be prepared to demonstrate changes in views as a result of the Project. The impact analysis will focus on changes in key public views, including alteration of visual character, impacts to scenic highways, and any proposed nighttime light and daytime glare, and will include recommendations and mitigation measures to lessen potential Project impacts, as appropriate.

Air Quality and Energy

Air Quality

The EIR will describe existing air quality conditions, potential impacts from Project construction and operation, and mitigation measures, including those recommended and required by the Bay Area Air Quality Management District (BAAQMD) designed to reduce the significance of identified Project-related air quality impacts. A screening-level health risk assessment will be prepared to estimate potential health risks associated with the Project. It is anticipated that construction activities could result in emissions of toxic air contaminants from diesel fuel combustion in construction equipment and heavy-duty trucks. Mitigation and/or avoidance measures will be identified for significant air quality impacts, as appropriate.

Energy Conservation

If feasible, the EIR will provide a quantitative analysis of transportation energy impacts, construction and operational energy impacts, and renewable energy impacts. The EIR will include a qualitative energy analysis for the Project based on Appendix F of the CEQA Guidelines. The energy analysis will include a discussion of relevant regulations and will describe existing energy resources and consumption levels within California and San Mateo County and by the District. Consistent with CEQA Guidelines Appendix F, the proposed Project will be evaluated for its potential to lead to a wasteful, inefficient, and unnecessary usage of direct or indirect energy.

Biological Resources

The EIR will provide a description of the existing biological resources on each of the three campuses, a discussion of potential impacts including tree removal, and appropriate mitigation and/or avoidance measures will be included in the EIR.

Cultural Resources

The EIR will evaluate potential impacts to historical resources, archaeological resources, and human remains. Potential impacts include the inadvertent discovery of unknown buried resources and altering the character of historic resources. The EIR will identify mitigation and/or avoidance measures for significant impacts to cultural resources, as appropriate.

Geology and Soils

The EIR will describe geologic and soil constraints and potential geologic and seismic hazards that could result in Project impacts, which could also include loss of top soil and erosion from grading. The EIR will identify mitigation and/or avoidance measures for significant geology and soils impacts, as appropriate.

Greenhouse Gas Emissions

The EIR will describe the existing greenhouse gas (GHG) emissions at each of the campuses, the Project's impacts to climate change and climate change's impacts to the Project, and mitigation measures designed to reduce the significance of Project-related climate change impacts.

Hazards and Hazardous Materials

There may be hazardous materials issues associated with building demolition (e.g., asbestos) and with serpentine soils at all three campuses. The EIR will discuss site hazards on the basis of available mapping of hazards and information in the Department of Toxic Substances Control database. In analyzing the Project's potential impacts, the EIR will take into account standard code requirements and best management practices for the handling of hazardous materials. Mitigation measures will be identified to reduce significant hazardous materials impacts, as appropriate.

Hydrology and Water Quality

The EIR will describe potential effects on hydrology and water quality, including stormwater drainage and the potential for flooding on the site, and will identify appropriate mitigation and/or avoidance measures for these impacts. In addition, the EIR will describe impacts from stormwater runoff and drainage from the proposed development. The impact analysis will identify any additional mitigation to avoid significant impacts, if necessary.

Land Use and Planning

The EIR will describe the existing land uses on and adjacent to the Project site, and the Project's compatibility with existing and planned land uses on and adjacent to the campuses. It is important to note that the College District Board of Trustees has exempted the 2015 Facilities Master Plan Amendment project from the application of city and county zoning ordinances. At Skyline College, the proposed future housing will be examined on the basis of its consistency with the City of San Bruno General Plan in coordination with the City. Housing is not exempt from zoning because it is not a classroom use. Land use impacts resulting from the proposed uses on the site will be addressed. Mitigation and/or avoidance measures will be identified for significant land use impacts, as appropriate.

Noise

The EIR will evaluate noise and vibration impacts associated with construction and operation of the Project. Existing noise conditions at each of the three campuses will be described. The EIR will also address the compatibility of the proposed uses with the Project site's existing and future noise exposure, offsite impacts resulting from onsite noise sources, Project-generated traffic noise impacts to sensitive receptors in the area, and the temporary noise increase during Project construction. Mitigation and/or avoidance measures will be identified for significant noise impacts, as appropriate.

Population and Housing

The EIR will examine the Project's potential to effect population and housing. This section will discuss qualitatively the housing supply and demand in the context of Association of Bay Area Governments (ABAG) regional household forecasts and fair share housing allocations. Mitigation measures will be identified that would avoid or reduce significant impacts to population and housing.

Public Services and Utilities

The EIR will identify existing public services, systems utilities, and service providers. The analysis will examine whether existing public services and utilities are sufficient to serve the Project and the impacts, if any, of expanding public services if that is necessary. Existing public services and utilities and providers in the Project area will be identified to determine the needs of the new facilities. The analysis will also evaluate the Project's effects on public services and utility disruption, if any, and mitigation measures will be identified that would avoid or reduce significant impacts to public services and utilities, if necessary.

Recreation

The EIR will examine the extent to which the Project may affect nearby recreation areas or create the need for new recreation areas. Existing recreational facilities in the campus areas will be identified to determine whether any such facilities would be disrupted during Project construction. An assessment will be performed to determine whether Project implementation would result in substantial increase in demand for recreational facilities such that new or improved facilities would be required. The Project includes a public Health Club and Aquatic Center at the new Kinesiology/Wellness Building on the Cañada College campus that would be available to the public; this is an addition to recreation uses in the area. Mitigation measures will be identified that would avoid or reduce significant impacts to recreation, if necessary.

Transportation/Traffic

The EIR will describe the existing transportation network and evaluate the Project's traffic impacts. The EIR will analyze construction-related traffic impacts at each campus. An operations or trip generation analysis will be conducted for the public Health Club and Aquatic Center located at the Kinesiology/Wellness Building at Cañada College and the new residential development proposed at Skyline College. Mitigation and/or avoidance measures will be identified for any significant traffic impacts.

Cumulative Impacts

In accordance with CEQA, the EIR will address the impacts of implementing this Project in combination with other past, present, and reasonably foreseeable future projects in San Mateo County and neighboring jurisdictions. The EIR will identify the Project's contribution to cumulative impacts and, if necessary, mitigation to reduce the contribution to a less than significant level.

Alternatives to the Project

In accordance with CEQA, the EIR will qualitatively evaluate a reasonable range of potentially feasible alternatives to the Project and a "No Project" alternative. Alternatives will be identified based on their ability to meet most of the Project objectives but reduce or avoid significant environmental impacts, and will likely include a reduced intensity alternative.

Other CEQA Sections

The EIR will include other sections required by CEQA, including Significant Unavoidable Impacts, Significant Irreversible Environmental Changes, Growth-inducing Impacts, Authors and Consultants, References, and Technical Appendices.

E. SCOPING COMMENTS

The District is soliciting input regarding the scope and content of the EIR and environmental information appropriate to your agency's statutory responsibilities or of interest to your organization. Specifically, we are requesting the following.

- 1. Identify significant environmental effects and mitigation measures that you believe need to be explored in the EIR with supporting discussion of why you believe these effects may be significant.
- 2. Describe special studies and other information that you believe are necessary for the District to analyze the significant environmental effects, alternatives, and mitigation measures you have identified.
- 3. For public agencies that provide infrastructure and public services, identify any facilities that will be required to provide services.
- 4. Indicate whether staff from your agency would like to meet with District staff to discuss the scope and content of the EIR's environmental information.
- 5. Provide the name, title, telephone number, postal, and email addresses of the contact person from your agency or organization that we can contact regarding your comments.
- 6. Identify alternatives that you believe need to be explored in further detail in the EIR.

Comments may be sent to:

Barbara Christensen
San Mateo County Community College District
Director of Community/Government Relations
3401 CSM Drive
San Mateo, CA 94402
christensen@smccd.edu

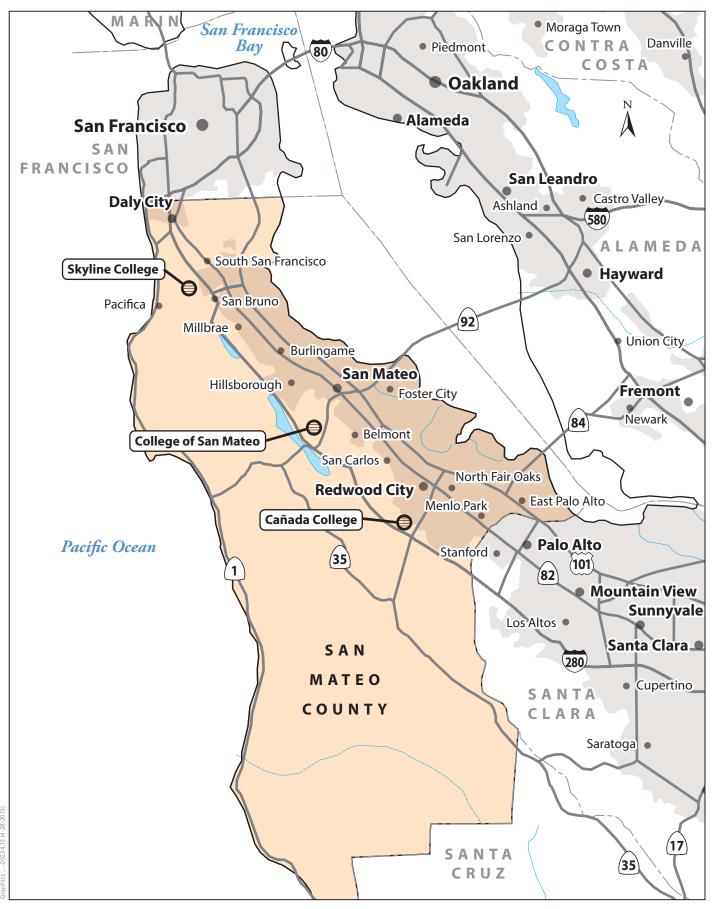




Figure 1
Regional Location of Cañada College,
College of San Mateo, and Skyline College Campuses





Figure 2 Proposed Improvements at Cañada College

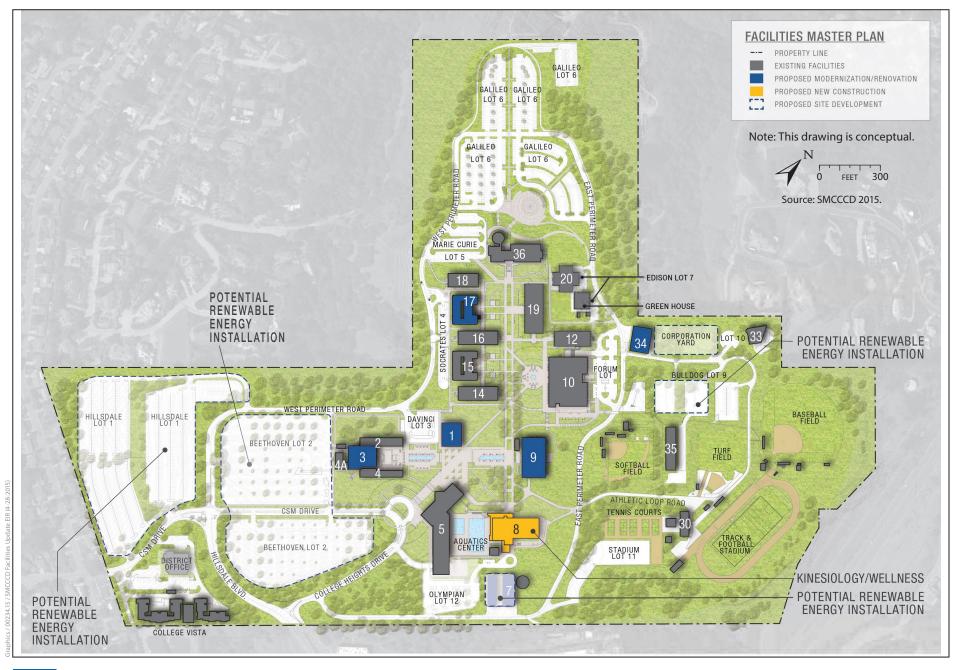
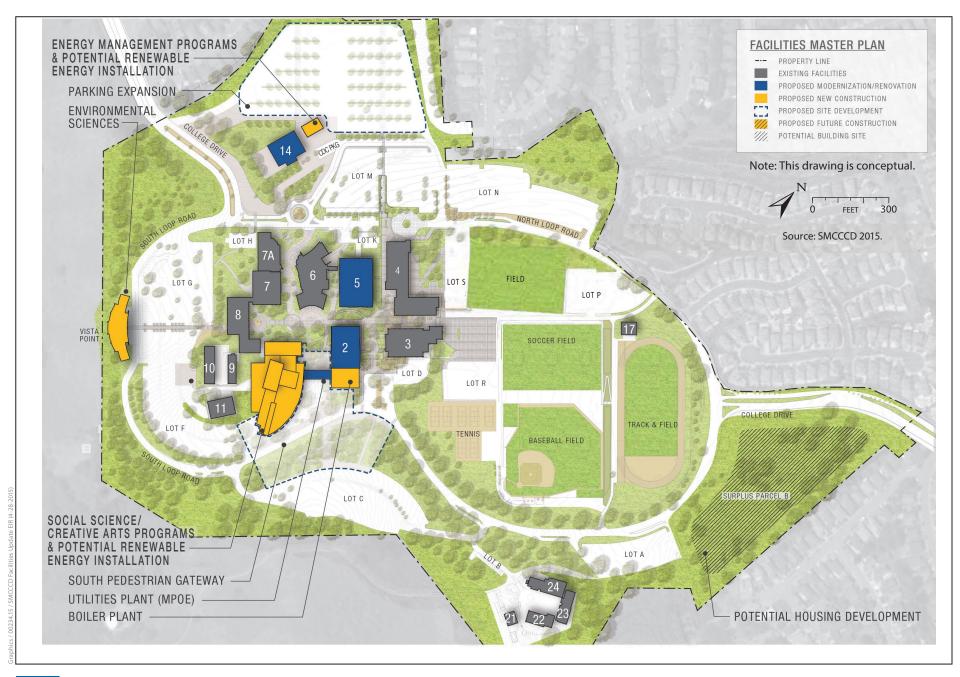




Figure 3 Proposed Improvements at College of San Mateo





Notice of Completion & Environmental Document Transmittal

2015052007

Mail to: State Clearinghouse, P.O. Box 3044, Sacramento, CA 95812-3044 (916) 445-0613 SCH# For Hand Delivery/Street Address: 1400 Tenth Street, Sacramento, CA 95814

Project Title: San Mateo County Community College Di	strict 2015 Facilities I	Master Plan Amend	ment
Lead Agency: San Mateo County Community College Dis	trict	Contact Person: Barb	ara Christensen
Mailing Address: 3401 CSM Drive		Phone: (650) 574-65	560
City: San Mateo	Zip: 94402	County: San Mateo	
Cross Streets, Form Hill Boulevard: West Hilledgle Boulever	and Chaline Dealessen		/, Woodside; San Mateo; San Brugo Zip Code: 94061:94402-9406
Longitude/Latitude (degrees, minutes and seconds):°	′″N/ °	′ ″W Tota	l Acres:124:150:108
Assessor's Parcel No.:		wp.: Rang	
Within 2 Miles: State Hwy #:I-280, SR 84, SR 92			ngs Reservoir; Pacific Ocean
Airports:	•	Scho	
Document Type: CEQA: NOP	NEPA:	NOI Other: EA Draft EIS FONSI	Joint Document Final Document Other:
Local Action Type:			
☐ General Plan Update ☐ Specific Plan ☐ General Plan Amendment ☐ Master Plan ☐ General Plan Element ☐ Planned Unit Developme ☐ Community Plan ☐ Site Plan	Rezone Prezone Use Permit Land Divisi	ECEIVED ion (Subdivision, etc.) MAY 0.5 2015	Annexation Redevelopment Coastal Permit Other:
Development Type:			
X Residential: Units 71 Acres +/- 8 Office: Sq.ft. Acres Employees Commercial:Sq.ft. Acres Employees Industrial: Sq.ft. Acres Employees Educational: College facility improvements X Recreational: 25 meter swimming pools (2) and health cl X Water Facilities: Type swimming pools MGD	☐ Transports ☐ Mining: ☐ W Power: ☐ Waste Tre	Type Solar eatment: Type	
Project Issues Discussed in Document:			
Agricultural Land	Solid Waste nce Toxic/Hazardo	rsities s y ompaction/Grading us	∀ Vegetation ₩ Water Quality ₩ Water Supply/Groundwater ₩ Wetland/Riparian Growth Inducement Land Use Cumulative Effects Other: GHG Emissions
Present Land Use/Zoning/General Plan Designation:			

Existing college campuses

Project Description: (please use a separate page if necessary)

San Mateo Community College District (District) has three campuses in San Mateo County, California including Cañada College in Redwood City and the Town of Woodside, College of San Mateo (CSM) in the City of San Mateo, and Skyline College in the City of San Bruno. The 2015 Facilities Master Plan Amendment would continue the modernization and renovation work that began with adoption of the District's 2001 and 2006 Facilities Master Plans. The 2015 Facilities Master Plan Amendment identifies planned improvements at the three campuses including, but not limited to: building modernization and renovation, building demolition, new building construction, tree removal, landscaping/pedestrian improvements, roadway construction/ reconstruction, and changes in parking and roadway reconfiguration.

Reviewing Agencies Checklist		
Lead Agencies may recommend State Clearinghouse distr If you have already sent your document to the agency plea		
X Air Resources Board	X	Office of Historic Preservation
Boating & Waterways, Department of		Office of Public School Construction
California Emergency Management Agency	-	Parks & Recreation, Department of
California Highway Patrol	-	Pesticide Regulation, Department of
X Caltrans District #4		Public Utilities Commission
Caltrans Division of Aeronautics	X	Regional WQCB #2
Caltrans Planning	201	Resources Agency
Central Valley Flood Protection Board		Resources Recycling and Recovery, Department of
Coachella Valley Mtns. Conservancy	-	S.F. Bay Conservation & Development Comm.
Coastal Commission		San Gabriel & Lower L.A. Rivers & Mtns. Conservancy
Colorado River Board		San Joaquin River Conservancy
Conservation, Department of		Santa Monica Mtns. Conservancy
Corrections, Department of		State Lands Commission
Delta Protection Commission	-	SWRCB: Clean Water Grants
Education, Department of		SWRCB: Water Quality
Energy Commission		SWRCB: Water Rights
Fish & Game Region #	-	Tahoe Regional Planning Agency
Food & Agriculture, Department of		Toxic Substances Control, Department of
Forestry and Fire Protection, Department of		Water Resources, Department of
General Services, Department of	-	_
Health Services, Department of		_ Other:
Housing & Community Development	-	Other:
X Native American Heritage Commission	-	
		, ·
Local Public Review Period (to be filled in by lead ager	ncy)	
Starting Date May 5, 2015	Ending	g Date June 8, 2015
Lead Agency (Complete if applicable):		
Consulting Firm: ICF International	Applic	cant: San Mateo County Community College District
Address: 620 Folsom Street-2nd Floor	Addres	ss: 3401 CSM Drive
City/State/Zip: San Francisco, CA 94107	City/St	tate/Zip: San Mateo, CA 94402
Contact: Elizabeth Antin	Phone:	(650) 574-6560
Phone: (415) 677-7102		
	/-	
Signature of Lead Agency Representative:	\times	Date: 5/4/15
Authority cited: Section 21083, Public Resources Code. Re	ference: Se	ection 21161, Public Resources Code.

California Home

Tuesday, June 9, 2015



San Mateo County Community College District 2015 Facilities Master Plan Amendment

SCH Number: 2015052007

Document Type: NOP - Notice of Preparation

Project Lead Agency: San Mateo County Community College District

Project Description

San Mateo Community College District has three campuses in San Mateo County, California including Canada College in Redwood City and the Town of Woodside, College of San Mateo (CSM) in the City of San Mateo, and Skyline College in the City of San Bruno. The 2015 Facilities Master Plan Amendment would continue the modernization and renovation work that began with adoption of the District's 2001 and 2006 Facilities Master Plans. The 2015 Facilities Master Plan Amendment identifies planned improvements at the three campuses including, but not limited to: building modernization and renovation, building demolition, new building construction, tree removal, landscaping/pedestrian improvements, roadway construction/reconstruction, and changes in parking and roadway reconfiguration.

Contact Information

Primary Contact:

Barbara Christensen San Mateo County Community College District 650-574-6560 3401 CSM Drive San Mateo, CA 94402

Project Location

County: San Mateo

City: Redwood City, Woodside, San Mateo, San Bruno

Region:

Cross Streets: Farm Hill Boulevard; West Hillside Boulevard; Skyline Boulevard

Latitude/Longitude:

Parcel No: Township: Range: Section:

Other Location Info:

Proximity To

Highways: I-280, SR 84, SR 92

Airports: Railways:

Waterways: Emerald Lake; Crystal Springs Reservoir; Pacific Ocean

Schools: Various

Land Use: Existing College Campuses

Development Type

Residential, Educational (College facility improvements), Recreational (25 meter swimming pools (2) & health club), Water Facilities, Power: Other Power Type (Solar), Other (Parking lot expansion & roadway reconfiguration)

Local Action

Redevelopment

Project Issues

Aesthetic/Visual, Air Quality, Archaeologic-Historic, Biological Resources, Drainage/Absorption, Flood Plain/Flooding, Geologic/Seismic, Noise, Population/Housing Balance, Public Services, Recreation/Parks, Schools/Universities, Sewer Capacity, Soil Erosion/Compaction/Grading, Solid Waste, Toxic/Hazardous, Traffic/Circulation, Vegetation, Water Quality, Water Supply, Growth Inducing, Landuse, Cumulative Effects, Other Issues (GHG Emissions)

Reviewing Agencies (Agencies in **Bold Type** submitted comment letters to the State Clearinghouse)

Resources Agency; Office of Historic Preservation; Department of Parks and Recreation; Resources, Recycling and Recovery; Department of Water Resources; Department of Fish and Wildlife, Region 3; Native American Heritage Commission; California Highway Patrol; Caltrans, District 4; Air Resources Board; Department of Toxic Substances Control; Regional Water Quality Control Board, Region 2

Date Received: 5/5/2015 Start of Review: 5/5/2015 End of Review: 6/3/2015

CEQAnet HOME NEW SEARCH

DEPARTMENT OF TRANSPORTATION

DISTRICT 4
P.O. BOX 23660, MS-10D
OAKLAND, CA 94623-0660
PHONE (510) 286-5528
FAX (510) 286-5559
TTY 711
http://www.dot.ca.gov/dist4/



Serious Drought. Help save water!

May 28, 2015

MSVar030 SCH# 2015052007

Ms. Barbara Christensen San Mateo County Community College District 3401 CSM Drive San Mateo, CA 94402

Dear Ms. Christensen:

San Mateo County Community College District 2015 Facilities Master Plan Amendment – Notice of Preparation

Thank you for including the California Department of Transportation (Caltrans) in the environmental review process for the above project. Caltrans' new mission, vision, and goals signal a modernization of our approach to California's transportation system; provide a safe, sustainable, integrated, and efficient transportation system to enhance California's economy and livability. The Local Development-Intergovernmental Review Program reviews land use projects and plans to ensure consistency with our mission and state planning priorities of infill, conservation, and efficient development. We provide these comments consistent with the State's smart mobility goals that support a vibrant economy, and build communities, not sprawl. The following comments are based on the Notice of Preparation.

Project Understanding

The project identifies planned improvements at the San Mateo County Community College District's (District) three campuses. These improvements include but not limited to: building modernization and renovation, building demolition, new building construction, tree removal, landscaping/pedestrian improvements, and changes in the parking and roadways. The specific design and construction of campus projects would occur as projects are funded through the District's Capital Improvement Program.

Traffic Impact Fees

Please identify any Transportation Impact Fees associated with this proposed project. The scheduling and costs associated with planned improvements on the Caltrans right-of-way should be listed, in addition to identifying viable funding sources per General Plan Guidelines.

Ms. Barbara Christensen/San Mateo Co. Community College District May 28, 2015 Page 2

Traffic Impact Study and Multi-Modal Transportation Please provide the following:

- 1. Mitigation for any roadway sections or intersections with increasing Vehicles Miles Travelled (VMT) need to be identified. Mitigation may include contribution to a regional fee program as applicable, and should support the use of transit and active transportation modes.
- 2. Impacts on pedestrians and bicyclists resulting from projected VMT increases need to be analyzed. The analysis should describe any pedestrian and bicycle mitigation measures and safety countermeasures needed to maintain and improve access to transit facilities and reduce vehicle trips.
- 3. Please consider pedestrian, bicycling, and transit performance or quality of service measures and modeling as a means of estimating the project impacts to these modes and evaluating mitigation measures and tradeoffs.
- 4. Include a Transportation Demand Management (TDM) Plan that will provide for appropriate documentation for monitoring TDM measures, including annual reports to demonstrate the ongoing reduction of vehicle trips while continuing to survey the travel pattern of employees and visitors.

Vehicle Trip Reduction

We encourage you to develop Travel Demand Management (TDM) policies to encourage usage of nearby public transit lines and reduce vehicle trips on the State Highway System. These policies could include lower parking ratios, car-sharing programs, preferential car/van pool parking, electric vehicle charging stations, bicycle parking and showers, shuttle services to transit, subsidized transit passes, and providing transit passes to students and employees.

For information about parking ratios, see the Metropolitan Transportation Commission (MTC) report *Reforming Parking Policies to Support Smart Growth* or visit the MTC parking webpage: http://www.mtc.ca.gov/planning/smart_growth/parking/.

In addition, secondary impacts on pedestrians and bicyclists resulting from any traffic impact mitigation measures should be analyzed. The analysis should describe any pedestrian and bicycle mitigation measures and safety countermeasures that would in turn be needed as a means of maintaining and improving access to transit facilities and reducing vehicle trips and traffic impacts on state highways.

Ms. Barbara Christensen/San Mateo Co. Community College District May 28, 2015 Page 3

Please provide at least one hard copy and one CD of the environmental document including technical appendices as soon as they are available.

Please feel free to call or email Sandra Finegan at (510) 622-1644 or sandra.finegan@dot.ca.gov with any questions regarding this letter.

Sincerely,

PATRICIA MAURICE

Potici

District Branch Chief

Local Development - Intergovernmental Review

cc: State Clearinghouse





June 5, 2015

Barbara Christensen Director of Community/Government Relations San Mateo County Community College District 3401 CSM Drive San Mateo, CA 94402

Re: Notice of Preparation of an Environmental Impact Report for the San Mateo County Community College District 2015 Public Facilities Master Plan Amendment

Dear Ms. Christensen,

Thank you for notifying the City of San Bruno of the opportunity to comment on the scope and content of the Environmental Impact Report (EIR) being prepared for the San Mateo County Community College District 2015 Facilities Master Plan Amendment. All of the City's comments apply to the Skyline campus projects. The City has a particular interest making sure that the EIR evaluates potential environmental impacts that may affect surrounding neighborhoods, City infrastructure and public services:

- Project Description. Describe the residential project at Skyline College as completely as
 possible, both the single family homes and multi-family staff/faculty housing, including the
 layout of streets and lots, approximate size of lots and units, estimated persons per
 household, and targeted household income.
 - Describe the overall construction timeline for all projects on the Skyline campus.
- 2. <u>Aesthetics</u>. Evaluate the visual impacts of the proposed residential project, including appearance from College Drive and surrounding residences. Evaluate the compatibility of scale and design of the residential project(s) with the surrounding Pacific Heights residential neighborhood. Analyze the consistency of the new residential development with the City's zoning regulations and Residential Design Guidelines.
- 3. <u>Geology and Soils</u>. Skyline College is in proximity to San Andreas Fault and Alquist-Priolo Earthquake Fault Zone. Geotechnical and soils reports should evaluate the potential impacts of grading the residential subdivision and its potential impacts on the surrounding residential neighborhoods, storm drain infrastructure, and City streets.
- 4. <u>Hazards and Hazardous Materials</u>. Describe as thoroughly as possible the demolition component of the project, especially the demolition of the Social Science/Creative Arts Building 1 (78,000 square feet) and Building 19 (39,000 square feet), including timing, estimated tons of demolition and construction debris, hazardous materials, transport of debris, and planned haul routes through the City.

- 5. <u>Noise and Vibration</u>. Pay particular attention to impacts of construction noise, construction equipment, and transport of materials on surrounding residential neighborhoods.
- 6. <u>Hydrology and Water Quality</u>. This needs to be thoroughly analyzed with consideration given to the current California drought and recently adopted City of San Bruno water conservation measures.
- 7. <u>Traffic</u>. Analyze traffic impacts of construction equipment trips during the construction period as well as automobile trips from the completed residential project(s) at the following intersections: College/Marisol, College/Skyline, and College/Sharp Park Boulevard.

Describe and evaluate any TDM measures to encourage the use of creative and effective ways to reduce motor vehicle trips and their associated impacts created by new housing development as well as any increase in usage of expanded facilities. How might TDM measures mitigate GHG impacts?

Describe options for access to single family homes fronting College Drive and access options for faculty, users, studios, etc.

8. <u>Utilities Systems and Public Services</u>. Evaluate potential impacts on City sewer, water, and storm drain infrastructure and capacity. Evaluate potential impacts on public services provided by the City, including Police, Fire protection, Water, Sewer, and Parks.

Thank you for the opportunity to comment on the scope of issues to be analyzed in the EIR. Should you have any questions regarding the City's comments, please do not hesitate to contact me at (650) 616-7053 or at msullivan@sanbruno.ca.gov.

Sincerely,

Mark Sullivan, AICP

Long-Range Planning Manager

cc: Connie Jackson, City Manager

David Woltering, Community Development Director

Marc Zafferano, City Attorney

Jimmy Tan, City Engineer/Deputy Public Services Director



Woodside

June 8, 2015

San Mateo County Community College District Attention: Barbara Chirstensen 3401 CSM Drive San Mateo, CA 94402

RE: NOP OF AN EIR FOR THE SAN MATEO COUNTY COMMUNITY COLLEGE DISTRICT 2015 FACILITIES MASTER PLAN AMENDMENT

Dear Barbara:

Thank you for sending the Town of Woodside the Notice of Preparation (NOP) for the 2015 Facilities Master Plan Amendment. At this stage in the process, the environmental impact which could have the greatest impact on Woodside is the replacement of Building 1 with a new Kinesiology/Wellness building. Currently, Building 1 is visible upon entering Woodside on Interstate 280, a state scenic highway. Replacement of this building is an opportunity to improve the visual impression when one looks toward the Cañada College campus. I note that the NOP indicates aesthetic analysis will be done as part of the EIR process. Attached to this letter are two pages from the Town of Woodside's General Plan which identify all of the Town's scenic corridors. This information should be considered when conducting the aesthetic analysis.

P.O. Box 620005 2955 Woodside Road Woodside CA 94062

With a new, public Kinesiology/Wellness facility, which is proposed to be open to the public, it is important that the traffic generation and traffic patterns are carefully analyzed, as both entrances to the College, off of Farm Hill Boulevard and Cañada Road, are within the Town of Woodside. On Cañada Road particularly, any substantial increase in use of the entrance could have an impact on the rural nature of the road and the Town.

I would appreciate a meeting as you begin this process to better understand any details you have on the Facilities Master Plan Amendment, and in particular what the District may have in mind for the design of the Kinesiology/Wellness building.

If you have any questions about these comments, please feel free to contact me at (650) 851-6790 or kbryant@woodsidetown.org.

Sincerely,

Kevin Bryant Town Manager

650-851-6790 Fax: 650-851-2195

townhall@woodsidetown.org

SCENIC HIGHWAYS AND ROADS

Woodside's scenic highways and roads (see Map CL2, Scenic Corridors) provide vistas which enhance perception of the rural and natural character of the Town.

Designated scenic roads in the Woodside Planning Area include State scenic highways, county scenic roads, and Town scenic roads.

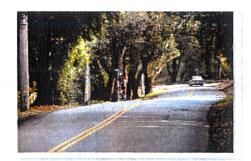
State scenic highways are officially designated by the State. Two significant segments of designated State Scenic Highways are Skyline Boulevard (State Highway 35) and Junipero Serra Freeway (Interstate 280).

County scenic roads are officially designated by the County of San Mateo. No County scenic roads are located within Town limits, but a portion of the Cañada Road County Scenic Corridor exists north of the Town's corporate limits within the Woodside Planning Area.

Town scenic roads are officially designated by the Woodside Town Council, and include:

- Cañada Road
- · Kings Mountain Road
- · La Honda Road
- · Mountain Home Road
- Portola Road
- Sand Hill Road
- · Whiskey Hill Road
- Woodside Road (State Highway 84)

SCENIC CORRIDOR PROTECTION



Scenic Road.

Pursuant to the Woodside Municipal Code (WMC), development that meets any of the following criteria is subject to review by either staff, the Architectural and Site Review Board, or the Planning Commission, depending on size and location:

- · Located within State scenic corridors, or
- Located within 1,000 feet and visible from the driving surface of Town scenic roads, or
- Located on ridge tops visible from designated scenic highways and roads.
- The WMC also sets forth special setback requirements for properties within scenic corridors.

CIRCULATION SYSTEM MAINTENANCE

Circulation system maintenance in Town includes maintaining and improving Town roads, bikeways, pedestrian pathways, pedestrian trails, and equestrian trails

The Woodside Municipal Code, Title 3, Administration, describes the basis and requirements for the Road Program of the Town of Woodside, including design parameters, funding sources, prioritization of work, reporting, and the requirement to solicit input from Town residents and committees. This Program applies to work within Town rights-of-way.

Funding sources for transportation improvements within Town rights-of-way (roadways, bikeways, and pedestrian paths) include General Fund monies, State gas taxes, Measure A taxes, traffic safety fines and forfeitures, and road impact fees. Trails Maintenance Fees, collected annually, and General Fund monies are used to maintain public trails within Town rights-of-way and off-road trails within dedicated easements. Occasionally, State and federal grant monies are secured for circulation system improvements.

b. Improve Road Safety

- Respond to safety issues on public road rights-of-way, such as hazardous pavement conditions, hindrances to sight distance, roadway obstructions, and trees that are structurally defective or damaging infrastructure. The Town has no current plans for the construction of new public roads.
- Safety improvements on private roads are the responsibility of the private property owners. Utilize available means to require or encourage adequate safety features on private roadways.
- 3. Review substandard roadway widths and identify and prioritize potential improvements.

c. Maintain roadways

- Monitor the condition of Town roads, and prioritize preventive maintenance.
- The maintenance of private roads shall be the responsibility of the private property owners. All newly constructed private roads shall require the recordation of a private road maintenance agreement.

POLICY CL2.2 - PROTECT AND DESIGNATE SCENIC CORRIDORS

State scenic highway legislation does not prohibit development projects within officially designated scenic corridors. The only prohibited structures are outdoor advertising signs. State guidelines do, however, require the adoption of scenic corridor architectural regulations by local governments for those portions of scenic corridors within their jurisdictions. In Woodside, these regulations are extended to local scenic roads.

Strategies:

a. Development review

- Skyline Boulevard and I-280 are official State Scenic Highways and the scenic corridors along these roads have been defined. Local regulation of development within these scenic corridors, including design review, must be continued in order to maintain official State scenic highway status and to accomplish Town objectives.
- Continue Architectural and Site Plan Review of all structures and site developments proposed in the scenic corridors along designated State scenic highways and Town scenic roads to ensure appropriateness of design and materials, proper placement of structures, and landscape design.
- Continue zoning and subdivision regulations in force requiring adequate setbacks of all structures from road rights-of-way and other measures to protect the scenic qualities in all scenic corridors.

b. Scenic corridor designation for State Highway 84

In addition to Skyline Boulevard and I-280, State Highway 84 is indicated in this Plan as a local scenic highway and is recommended to the State for inclusion in the State Scenic Highway System. The Town will continue to seek official State scenic highway status for Highway 84.

Appendix B

Air Quality and Greenhouse Gas Data and Calculations

Appendix B-1: Emissions Modeling Assumptions

Appendix B-2: Air Quality Analysis

Appendix B-3: Vehicle Trip Data

Appendix B-4: Health Risk Assessment

Canada College																																																							
Construction Task	_					2016			o I w I						017		- 1 -							2018		1 6 1			٠.				20							1			20			I o	١.,	F M			2021				
B1 - Demo Existing Building & Rebuild		F	M	A	M J	J J	A	5	UN	D	J F	M	A IV	1 1	J	A 3	5 0	N	U	JF	M	А	IVI .	1 1	A	3	U	N D	1	F	IVI	AN	ијј	- 1	Α :	5 0	N	U	JF	IVI	AN	1 1	J	A S	0 1	N D	٠,	F M	A	M .	1	A	3	0 1	N D
Abatement & Demolish Existing Building	_		_		_	+						_		+		-	_	+	_	_	+			_	+	+ +	_	+	+-				_		_	_	1	_	_	+	_	_		_		_	_	-	+		+	-		\vdash	+
Excavation		+	-	+	+	+	-	_		_	-		_	+	\vdash		_	+	-		+	\vdash	-	_	+	+	+	_	+		\vdash			+	_	+	+	-t		+		_	+	_	+		+		+		_	\vdash	\vdash	\vdash	+
Construct New Building		+	-	+	+	+	-	-+	-		+																							+	_	+	+	-t		+		_	+	_	+		+		+		_	\vdash	\vdash	\vdash	+
Landscape and Parking Lot 6 Expansion		+	+-		_	+		-				_				_		П	_		_			_	_			+	_				_	+	_	+	+	-	_		_	_					+		+-		_	-			+
Occupancy		1				+		_			1	t		+					-						1	+										_				+			Ħ	_					1						+
New Math/Science Building		1				+		_			1	t		+					-						1	+			1							_				+			Ħ	_					1						+
Excavation		_				_				_								+	_					_	1			\neg	1					-				_						_					1						\neg
Construct New Building		+	+-		_	+		-		-	_	+		_																			_	+	_	+	+	-	_		_	_					+		+-		_	-			+
Landscape and Paving		+	+-		_	+		-		-	_	+		+-		_		П	_		_			_	_								_	+	_	+	+	-	_		_	_					+		+-		_	-			+
Occupy New Building		1				+		_			1	t		+		_			-						1	+										_				+			Ħ	_					1						+
B3 - Modernization/Renovation		1				+		_			1	t		+		_			-						1	+			1							_				+			Ħ	_					1						+
Abatement & Selective Demolition		1				+		_			1	t		+					-						1	+			1							_				+			Ħ	_					1						+
Renovations		1				+		_			1	t		+					-						1	+			1																				1						+
Occupancy																																																							\neg
B9 - Modernization/Renovation												\Box																																											Т
Abatement & Selective Demolition		1				+		_			1	t		+					-						1	+			1							_				+			Ħ	_					1						+
Renovations		1				+		_			1	t		+					-						1	+			1																										+
Occupancy												П																																											7
B13 - Modernization/Renovation												П																																											7
Abatement & Selective Demolition																																																							\top
Renovations																																																							\top
Occupancy												П																																											7
B16/18 - Modernization/Renovation																																																							T
Abatement & Selective Demolition																																																							Т
Renovations																																																							\top
Occupancy																																																							\top
Campus Site Development																																																							\top
Parking Lot 10 Expansion																																																							\top
Repave Roadways																																																							Т

-11--- -6 C-- 84-4-

College of San Mateo																																								
Construction Task			016				17			20					2019					2020			l	2021					2022				202	3				2024		
	J F M	A M J	J A S	OND.	J F M	A M J	J A S	O N D	J F M	A M J	J A S	ON	D J F	M A	MJJ	A S	O N D	JF	M A N	V J J	A S O	N D	J F M A	MJJ	AS	O N D	J F M	I A M	J J A S	5 O N	D J F	M A	M J	J A S	ONE	J J F N	A A M	.]]	A S O	N D
B1 - Modernization/Renovation												\bot \bot \bot																										'	\perp	
Abatement & Selective Demolition																	\bot																						\perp	
Renovations												\bot \bot \bot																										'	\perp	
Occupancy																	\bot																			4			\perp	
B3 - Modernization/Renovation																																							1	.
Abatement & Selective Demolition																																								
Renovations																																							السلسا	
Occupancy																																							1 1 1 1	.
B7 - Modernization/Renovation																																						\Box		. Т
Abatement & Selective Demolition																																						\Box		. —
Renovations																																								\Box
Occupancy																																						$\perp \perp \perp$		\Box
8 - Demo Existing Building & Rebuild																																							1 1 1 1	.
Abatement & Demolish Existing Building																																							1 1 1 1	.
Construct New Building																	4 7																					\Box		. Т
Landscape and Paving																																								
Occupancy																																							السلسا	
B12/19 - Demo Existing Buildings & Build B19																																							السلسا	
Abatement and Demolish Existing Building																																							السلسا	
Excavation																																							السلسا	
Construct New Building																	\perp																						\perp	
Landscape and Paving																																							\perp	
Occupancy																																							\perp	\perp
9 - Modernization/Renovation																																								
Abatement & Selective Demolition																																								
Renovations																	\perp																						\perp	
Occupancy																	\perp																						\perp	\perp
B17 - Modernization/Renovation																	\perp																						\perp	
Abatement & Selective Demolition																	\bot																						\perp	
Renovations																																							السلسا	
Occupancy 34 - Modernization/Renovation																	\bot																						\perp	
																																				\perp		$\perp \perp \perp$	$\perp \perp \perp \perp$	
Abatement & Selective Demolition																																				\perp		$\perp \perp \perp$	$\perp \perp \perp \perp$	
Renovations																																				\perp		$\perp \perp \perp$	$\perp \perp \perp \perp$	
Occupancy																																						$\perp \perp \perp$		\Box
Campus Site Development																	$\perp \perp \perp$																					\perp		
Beethoven Lot Drainage and Paving																																							4	
Repave Roadways	1						1 1 1	1 1 1 1		1 1 1	1	1 1 1						1	1 1				1				1 1 1	1					1		1 1	11			4 '	

Skyline College		2016			2017			20	110			2010				2020			2021			,	1022			2022				2024			20	125			2026			2027	7
Construction Task	J F M	4 M I	A S O N D	LEMI	2017 A M I I I	ASON	D I E M	I A M I	J A S O	N D I	F M A	M	A I S I O I	ID I E	MAM	2020	SOND	LEM	Δ M I I	ASON	DIE	MAMI	1 A S 4	NDI	F M A	M I I	ASON	DIE	MAM	2024 Δ S		LEA	4 A M I	11 A S O	N D I	E M A I	ZUZ6		I F M A	M I	I A S O
B1 - Demo Existing Building & Rebuild Abatement & Demolition	7		X 3 0 N 5	1 1 1 1 1 1 1 1		A 3 0 N	J J		, A 3 0				A 3 0 .			, , , ,	3 0 11 2		A	A 3 0 N			, n ,	,		, ,	A 3 0 N			, , , , ,	0 11 5			J A 3 0	111 2 1			0 11 0	7	- m - j	
Abatement & Demolition																																									-
Excavation																																									-
Construct New Building																																									-
Landscape and Paving																																									-
Occupancy																																									
Occupancy Environmental Studies - New Building																																									
Excavation																																									
Construct New Building																																									
Landscape and Paving																																									
Occupancy Energy Management - New Building																																									
Excavation																																									
Construct New Building																																									
Landscape and Paving																																									
Occupancy																																									
Occupancy Residential Complex																																									
Excavation																																									
Construct New Building																																									
Landscape and Paving																																									
Occupancy B2 - Modernization/Renovation																																									
B2 - Modernization/Renovation																																									
Abatement & Selective Demolition																																									
Renovations																																									
Occupancy B5 Modernization/Renovation																																									
Abatement & Selective Demolition																																									
Renovations																																									
Occupancy B14 - Modernization/Renovation																																									
Abatement & Selective Demolition																																									
Renovations																																									
Occupancy																																									
Campus Site Development Abatement & Demolition B19 Pacific Heights																																									
Abatement & Demolition B19 Pacific Heights																																									
Repave Roadways											1 77				1 1 7 7	1 7 7															1 1					1 7 7					

Canada College

	Construction Task
B1 - I	Demo Existing Building & Rebuild
	Abatement & Demolish Existing Building
	Excavation
	Construct New Building
	Landscape and Parking Lot 6 Expansion
	Occupancy
New	Math/Science Building
	Excavation
	Construct New Building
	Landscape and Paving
	Occupy New Building
B3 - I	Modernization/Renovation
	Abatement & Selective Demolition
	Renovations
	Occupancy
B9 - I	Modernization/Renovation
	Abatement & Selective Demolition
	Renovations
	Occupancy
B13 -	Modernization/Renovation
	Abatement & Selective Demolition
	Renovations
	Occupancy
B16/	18 - Modernization/Renovation
	Abatement & Selective Demolition
	Renovations
	Occupancy
Camp	ous Site Development
	Parking Lot 10 Expansion
	Repave Roadways

College of San Mateo

	Construction Task
B1 - f	Modernization/Renovation
	Abatement & Selective Demolition
	Renovations
	Occupancy
	Modernization/Renovation
	Abatement & Selective Demolition
	Renovations
	Occupancy
	Modernization/Renovation
	Abatement & Selective Demolition
	Renovations
	Occupancy
8 - De	emo Existing Building & Rebuild
	Abatement & Demolish Existing Building
	Construct New Building
	Landscape and Paving
	Occupancy
B12/	19 - Demo Existing Buildings & Build B19
	Abatement and Demolish Existing Building
	Excavation
	Construct New Building
	Landscape and Paving
	Occupancy
9 - M	odernization/Renovation
	Abatement & Selective Demolition
	Renovations
	Occupancy
	Modernization/Renovation
	Abatement & Selective Demolition
	Renovations
	Occupancy
	Andernization/Renovation
	Abatement & Selective Demolition
	Renovations
	Occupancy
	ous Site Development
	Beethoven Lot Drainage and Paving
	Repave Roadways

Existing Operational

Total Project Area	124 acres
Existing annual electricity usage	9.97 kWh/sf/yr
Existing annual natural gas usage	0.35 therm/sf/yr
Total water usage	13 million gallons
Percent of waste recycled per building demolished	minimum 50%
Square footage of buildings demolished	
Building 1, Gymnasium	39,500 sf
Building 19	1,920 sf
Building 20	1,920 sf
Building 21	1,920 sf
Existing parking spaces at lots to be expanded	
Lot 6	558 spaces
Lot 10	20 spaces
Electricity provider	PG&E
Natural gas provider	PG&E
Water provider	City of Redwood City
Solid Waste Provider	Green Waste Recovery

Proposed Operational

Total Project Area	124 acres
Proposed annual electricity usage	10 kWh/sf/yr
Proposed annual natural gas usage	0.4 therm/sf/yr
Proposed annual water consumption	32 gallons/sf
Square footage of buildings built	
Building 1, Kinesiology/Wellness	85,000 sf
# of members for the Kinesiology/Wellness building	5,000 - 6,000
Math/Science/Engineering building	55,000 sf
Proposed parking spaces at lots to be expanded	
Lot 6	558 + 325 = 883 spaces
Lot 10	20 + 200 = 220 spaces
Project related green building practices	
New construction	LEED Gold certified
New & Modernization Projects	Exceed Title 24 by 15%
Proposed emergency diesel generator	No
Potential Renewable Energy Installations	
Solar Thermal	???
	250.000 kWh/vr

Construction

Electricity for construction	Yes, but unknown
Exported material	Goal is to recycle dirt, use low end of industry standard range
Imported material	Use industry standard metrics
Hours of construction	6am-7pm Mon-Fri, some weekends
Paving with asphalt	
parking lots	14.2 acres
walkways and hardscapes	2.3 acres
total roadways*	2.4 miles (152,064 sq. ft.) = 3.49 acres
Square footage of buildings constructed	
New Math/Science Building	55,000 gsf
Building 1 Kinesiology/Wellness	85,000 gsf
# of new parking spaces at lots to be expanded	
Lot 6	325 spaces
Lot 10	150-200 spaces

* 1 mile = 5,280 feet

Existing Operational

Existing annual natural gas usage Otal water usage Oral water usage orercent of waste recycled per building demolished Square footage of buildings demolished Building 8 Building 12/19 5	.85 kWh/sf/yr .67 therm/sf/yr .6.2 million gallons ninimum 50%
Total water usage Percent of waste recycled per building demolished square footage of buildings demolished Building 8 Building 8 Buildings 12/19	6.2 million gallons ninimum 50%
Percent of waste recycled per building demolished Square footage of buildings demolished Building 8 Buildings 12/19 5	ninimum 50% 5,813 sf
Square footage of buildings demolished Building 8 5 Buildings 12/19 5	5,813 sf
Building 8 5 Buildings 12/19 5	
Buildings 12/19	
	2 222 1
Existing parking spaces at lots to be expanded N	3,232 sf
	I/A
Electricity provider P	'G&E
Natural gas provider P	G&E
Water provider C	A Water Service
Solid Waste Provider A	Ilied Waste Recolog

Proposed Operational Total Project Area

Total Project Area	150 acres
Proposed annual electricity usage	10 kWh/sf/yr
Proposed annual natural gas usage	0.7 therm/sf/yr
Proposed annual water consumption	52 gallons/sf
Square footage of buildings built	
Building 8, Kinesiology/Wellness	80,000 sf
Building 19, Emerging Technologies	53,250 sf
Project related green building practices	
New construction	LEED Gold certified
New & Modernization projects	Exceed Title 24 by 15
Proposed emergency diesel generator	No
Potential Renewable Energy Installations	
Solar PV	800,000 kWh/yr
Solar Thermal	???
Cogeneration system	250,000 kWh/yr

Construction

Exported material Hours of construction Paving with asphalt parking lots walkways and hardscapes total roadways* Square footage of buildings constructed Building 8, Kinesiology/Wellness	Goal is to recycle dirt, use low end of industry standard range Use industry standard metrics 6am-7pm Mon-Fri, some weekends 31 acres 4.7 acres 2.7 miles (171,072 sq. ft.) = 3.93 acres
Hours of construction Paving with asphalt parking lots walkways and hardscapes total roadways* Square footage of buildings constructed	6am-7pm Mon-Fri, some weekends 31 acres 4.7 acres
Paving with asphalt parking lots walkways and hardscapes total roadways* Square footage of buildings constructed	31 acres 4.7 acres
parking lots walkways and hardscapes total roadways* Square footage of buildings constructed	4.7 acres
walkways and hardscapes total roadways* Square footage of buildings constructed	4.7 acres
total roadways* Square footage of buildings constructed	
Square footage of buildings constructed	2.7 miles (171,072 sq. ft.) = 3.93 acres
Building 8, Kinesiology/Wellness	
	75,000-80,000 gsf
Building 19, Emerging Technologies	53,250 sf
Modernization and Renovation	
Building 1, Public Safety	24,930 sf
Building 3, Humanities/Arts	28,027 sf
Building 7, Facilities Maintenance	49,402 sf
Building 9, Library/IT	7,500 sf
Building 17, Student Support	10,800 sf
Building 34, Fire Science	1 acre
Corporation Yard	???

* 1 mile = 5,280 feet
Assume road width = 12 feet across (1 lane in each direction)
1 acre = 43,560 sq feet

Skyline College

Construction Task	
B1 - Demo Existing Building & Rebuild	
Abatement & Demolition	
Excavation	
Construct New Building	
Landscape and Paving	
Occupancy	
Environmental Studies - New Building	
Excavation	
Construct New Building	
Landscape and Paving	
Occupancy	
Energy Management - New Building	
Excavation	
Construct New Building	
Landscape and Paving	
Occupancy	
Residential Complex	
Excavation	
Construct New Building	
Landscape and Paving	
Occupancy	
B2 - Modernization/Renovation	
Abatement & Selective Demolition	
Renovations	
Occupancy	
B5 Modernization/Renovation	
Abatement & Selective Demolition	
Renovations	
Occupancy	
B14 - Modernization/Renovation	
Abatement & Selective Demolition	
Renovations	
Occupancy	
Campus Site Development	
Abatement & Demolition B19 Pacific Heights	
Repave Roadways	

Existing Operational Total Project Area Existing annual electricity usage Existing annual natural gas usage

Percent of waste recycled per building demolished Square footage of buildings demolished 11.6 million gallons minimum 50% 77,587 sf 38,842 sf Building 1 Building 19

108 acres

8.95 kWh/sf/yr 0.52 therm/sf/yr

Existing parking spaces at lots to be expanded

Lot L Electricity provider 112 spaces PG&E Natural gas provider PG&E City of San Bruno Water provider Solid Waste Provider Recology San Bruno

Proposed Operational

Total Project Area 108 acres Proposed annual electricity usage Proposed annual natural gas usage 9 kWh/sf/yr 0.5 therm/sf/yr oposed annual water consumption 22 gallons/sf quare footage of buildings built

120,000 sf 18,000-20,000 sf Building 1, Social Science/Creative Arts Environmental Science Boiler Plant** 3,000-5,000 sf Energy Management Programs Residential Complex* 8,500-10,000 sf Up to 71 units oposed parking spaces at lots to be expanded

Lot L Project related green building practices 287 spaces

New construction
New and modernization projects LEED Gold certified Exceed Title 24 by 15% roposed emergency diesel generator totential Renewable Energy Installations No

200,000 kWh/yr Solar PV Solar Thermal 250,000 kWh/yr Cogeneration system

Construction Electricity for construction Yes, but unknown Goal is to recycle dirt, use low end of industry standard range Use industry standard metrics xported material Imported material lours of construction 6am-7pm Mon-Fri, some weekends Paving with asphalt parking lots

walkways and hardscapes 3.6 acres 2.5 miles (158,400 sq. ft.) = 3.64 acres total roadways* quare footage of buildings constructed

18,000-20,000 sf 120,000 sf Environmental Sciences Building 1, Social Science/Creative Arts 3,000-5,000 sf (part of Building 1) Boiler Plant (part of Building 1)

Energy Management Programs Residential Complex* 8,500-10,000 sf Up to 71 units (47 single fam, 24 multi fam) on 8 acres of new parking spaces at lots to be expanded

125-175 spaces Lot L

Construction could start as early as Fall 2017;

actual construction time would be 3 years to

* completion. (Antin pers. comm.)

1 mile = 5,280 feet Assume road width = 12 feet across (1 lane in

each direction) 1 acre = 43,560 sq feet

** Assumed as part of Building 1 construction

		-				
Car	I nada College					
	Construction Task					
	Construction Task	Equipment Pieces	Number of Pieces	Hours/day	Horsepower	Load Factor
B1 -	Demo Existing Building & Rebuild					
	Abatement & Demolish Existing Building	Concrete/Industrial Saws	1	8	81	0.73
		Rubber Tired Dozers Excavators	2	8	255 162	0.4
		Executations			102	0.50
	Excavation	Crawler Tractors	1	8	208	0.4288
		Rubber Tired Dozers	3	8	255	0.4
		Tractors/Loaders/Backhoes	4	8	97	0.37
	Construct New Building	Cranes	2	7	226	0.29
	Construct New Building	Forklifts	3	8	89	0.29
		Generator Sets	1	8	84	0.74
		Tractors/Loaders/Backhoes	3	7	97	0.37
		Welders	1	8	46	0.45
		Other Construction Equipment	1	8	172	0.42
	Landscape and Parking Lot 6 Expansion	Cement and Mortar Mixers	2	6	9	0.56
	Landscape and Parking Lot 0 Expansion	Pavers	1	8	125	0.42
		Rollers	2	6	80	0.38
_		Paving Equipment	2	6	130	0.36
		Tractors/Loaders/Backhoes	1	8	97	0.37
		Skid Steer Loaders	1	8	64	0.3685
		Other Construction Equipment	1	8	172	0.42
	Occupancy					
	- Coccupancy					
Nev	v Math/Science Building					
	Excavation	Graders	1	8	174	0.41
		Rubber Tired Dozers	1	7	255	0.4
		Tractors/Loaders/Backhoes Crawler Tractors	1	8	97 208	0.37 0.4288
		Crawler Tractors	1	٥	200	0.4200
	Construct New Building	Cranes	1	6	226	0.29
		Forklifts	2	6	89	0.2
		Generator Sets	1	8	84	0.74
		Tractors/Loaders/Backhoes	2	6	97	0.37
		Welders	3	8	46	0.45
	Landscape and Paving	Cement and Mortar Mixers	1	6	9	0.56
	Editoscope una vaving	Pavers	1	6	125	0.42
		Rollers	1	7	80	0.38
		Paving Equipment	1	8	130	0.36
		Tractors/Loaders/Backhoes	1	8	97	0.37
		Skid Steer Loaders	1	8	64	0.3685
	Occupy New Building					
В3 -	Modernization/Renovation					
	Abatement & Selective Demolition (2019)	Concrete/Industrial Saws	1	8	81	0.73
	(62 days)	Rubber Tired Dozers	1 2	1	255	0.4
		Tractors/Loaders/Backhoes	2	6	97	0.37
	Renovations (2019)	Forklifts	2	6	89	0.2
_	(301 days)	Cranes	1	4	226	0.29
						-
	Occupancy					
D.	Modernization/Persustics					
р У -	Modernization/Renovation Abatement & Selective Demolition (2019)	Concrete/Industrial Saws	1	8	81	0.73
	(45 days)	Rubber Tired Dozers	1	1	255	0.73
_		Tractors/Loaders/Backhoes	2	6	97	0.37
	Renovations (2019)	Forklifts	2	6	89	0.2
	(436 days)	Cranes	1	4	226	0.29
	Occupancy					
	оссаринсу					
B13	- Modernization/Renovation					
	Abatement & Selective Demolition (2019)	Concrete/Industrial Saws	1	8	81	0.73
	62 days	Rubber Tired Dozers	1	1	255	0.4
		Tractors/Loaders/Backhoes	2	6	97	0.37
		i i				
	Penavations (2019)	Forklifts	2	· ·	0.0	^ ^
	Renovations (2019) 436 days	Forklifts Cranes	2	6	89 226	
	Renovations (2019) 436 days	Forklifts Cranes	1	6 4	89 226	0.2 0.29

			T	ı		
B16	/18 - Modernization/Renovation	Constant the destrict Const		0	04	0.72
	Abatement & Selective Demolition (2019) 62 days	Concrete/Industrial Saws Rubber Tired Dozers	1	8	81 255	0.73
	62 days	Tractors/Loaders/Backhoes	2	6	255 97	0.4
		Tractors/ Loaders/ Backrides		0	37	0.37
	Renovations (2019)	Forklifts	2	6	89	0.2
	168 days	Cranes	1	4	226	0.29
	100 days	Crunes	1	-	220	0.23
	Occupancy					
Cam	pus Site Development					
	Parking Lot 10 Expansion	Concrete/Industrial Saws	1	8	81	0.73
	. g p	Rubber Tired Dozers	1	8		0.4
		Tractors/Loaders/Backhoes	3	8	97	0.37
		Cement and Mortar Mixers	1	6	9	0.56
		Pavers	1	6	125	0.42
		Rollers	1	7	80	0.38
		Paving Equipment	1	8	130	0.36
		Tractors/Loaders/Backhoes	1	8	97	0.37
	Repave Roadways	Cement and Mortar Mixers	2	6		0.56
		Pavers	1	8		0.42
		Rollers	2	6	80	0.38
		Paving Equipment	2	6		0.36
		Tractors/Loaders/Backhoes	1	8	97	0.37
Col	lege of San Mateo					
	Construction Task					
		Equipment Pieces	Number of Pieces	Hours/day	Horsepower	Load Factor
B1 -	Modernization/Renovation					
	Abatement & Selective Demolition (2022)	Concrete/Industrial Saws	1	8		0.73
	52 days	Rubber Tired Dozers	1	1	255	0.4
		Tractors/Loaders/Backhoes	2	6	97	0.37
		- 106	_	_		
	Renovations (2022)	Forklifts	2	6		0.2
	433 days	Cranes	1	4	226	0.29
	_					
	Occupancy					
В3 -	Modernization/Renovation					0.70
	Abatement & Selective Demolition (2016)	Concrete/Industrial Saws	1	8		0.73
	64 days	Rubber Tired Dozers	1	1	255	0.4
		Tractors/Loaders/Backhoes	2	6	97	0.37
	D	Fauliffe	2		00	0.3
	Renovations (2017)	Forklifts	2	6		0.2
	289 days	Cranes	1	4	220	0.29
	Occupancy					
	Оссирансу					
R7 -	Modernization/Renovation					
D/ -	Abatement & Selective Demolition (2022)	*Due to lack of specific information ab	out this phase emissions	from this phase were	not guantified	
	62 days	Due to lack of specific information ab	out triis priase, erriissioris	Trom this phase were	not quantined	
	02 ddy3					
	Renovations (2022)	*Due to lack of specific information ab	out this phase emissions	from this phase were	not quantified	
	290 days	Due to lack of specific information as	out time priuse, crimisionis	Trom tins pridse were	not quantinea	
	,					
	Occupancy					
CSIV	1 8 Demo Existing Building & Rebuild					
	Abatement & Demolish Existing Building	Concrete/Industrial Saws	1	8	81	0.73
		Rubber Tired Dozers	1	8	255	0.4
		Tractors/Loaders/Backhoes	3	8		0.37
		Crawler Tractors	1	8	208	0.4288
	Construct New Building	Cranes	2	6		0.29
		Forklifts	3			0.2
		Generator Sets	1	8		0.74
		Tractors/Loaders/Backhoes	2	6		0.37
		Welders	3			0.45
		Other Construction Equipment	1	8	172	0.42
	Landscape and Paving	Cement and Mortar Mixers	1	6	9	0.56
		Pavers	1	6		0.42
		Rollers	1	7		0.38
		Paving Equipment	1	8		0.36
		Tractors/Loaders/Backhoes	1	8		0.37
		Skid Steer Loaders	1	8	64	0.3685
		Other Construction Equipment	1	8	172	0.42
	Occupancy					

		1		T	
12/19 - Demo Existing Building & Build B19					
Abatement & Demolition	Concrete/Industrial Saws	1			0.
	Rubber Tired Dozers	1			(
	Tractors/Loaders/Backhoes	3	8	97	0.
Excavation	Graders	1			0.4
	Rubber Tired Dozers	1			C
	Tractors/Loaders/Backhoes	1			0.
	Crawler Tractors	1	. 8	208	0.42
Construct New Building	Cranes	2	. 6	226	0.
	Forklifts	3	6	89	(
	Generator Sets	1	. 8	84	0.
	Tractors/Loaders/Backhoes	3	6	97	0.
	Welders	3	8	46	0.
	Other Construction Equipment	1	. 8	172	0.
Landscape and Paving	Cement and Mortar Mixers	1	. 6	9	0.
	Pavers	1	. 6	125	0.4
	Rollers	1			0.:
	Paving Equipment	1			0.
	Tractors/Loaders/Backhoes	1			0.
	Skid Steer Loaders	1			0.36
			1	0.	2.30
Occupancy					
- Modernization/Renovation					
Abatement & Selective Demolition (2017)	Concrete/Industrial Saws	1	. 8	81	0.
60 days	Rubber Tired Dozers	1			0.
oo days	Tractors/Loaders/Backhoes	2			0.3
	Tractors/ Loaders/ Backrides	2		37	0
Renovations (2017)	Forklifts	2	6	89	0
· · ·		1			0.2
433 days	Cranes	1	4	226	U.2
Occupancy					
17 - Modernization/Renovation					
Abatement & Selective Demolition (2016)	Concrete/Industrial Saws	1			0.
65 days	Rubber Tired Dozers	1			
	Tractors/Loaders/Backhoes	2	. 6	97	0.3
Renovations (2017)	Forklifts	2			0
298 days	Cranes	1	. 4	226	0.2
Occupancy					
4 - Modernization/Renovation					
Abatement & Selective Demolition (2019)	Concrete/Industrial Saws	1			0.
62 days	Rubber Tired Dozers	1	. 1	255	0
	Tractors/Loaders/Backhoes	2	. 6	97	0.3
Renovations (2019)	Forklifts	2	6	89	C
162 days	Cranes	1	4	226	0.
Occupancy					
ampus Site Development					
Beethoven Lot Drainage and Paving					
Repave Roadways	Cement and Mortar Mixers	2	. 6	9	0.!
	Pavers	1			0.4
+	Rollers	2			0.:
+	Paving Equipment	2			0.3
	Tractors/Loaders/Backhoes	1			0.3
	Tractors, Educers, Dackinges	 	. 0	37	0.3
+		+	1		
+		+	 		
			1		

Skyline College					
Construction Task	Equipment Pieces	Number of Pieces	Hours/day	Horsepower	Load Factor
B1 - Demo Existing Building & Rebuild					
Abatement & Demolition	Concrete/Industrial Saws	1	8	81	0.73
	Rubber Tired Dozers	1	8	255	0.4
	Tractors/Loaders/Backhoes	3	8	97	0.3
Excavation	Graders	1	8	174	0.43
	Rubber Tired Dozers	1	7	255	0.4
	Tractors/Loaders/Backhoes	1	7	97	0.3
	Crawler Tractors	1	8	208	0.428
Construct New Building	Cranes	2	6	226	0.2
Construct New Building	Forklifts	3	6	89	0.2
	Generator Sets	1	8	84	0.74
	Tractors/Loaders/Backhoes	3	6	97	0.3
	Welders	3	8	46	0.4
	Other Construction Equipment	1	8	172	0.43
Landscape and Paving	Cement and Mortar Mixers	1	6	9	0.56
	Pavers	1	6	125	0.43
	Rollers	1	7	80	0.3
	Paving Equipment	1	8	130	0.30
	Tractors/Loaders/Backhoes	1	8	97	0.3
	Skid Steer Loaders	1	8	64	0.368
Occupancy					
Environmental Studies - New Building					
Excavation	Graders	1	8	174	0.41
	Tractors/Loaders/Backhoes	1	8	97	0.37
Construct New Building	Cranes	1	4	226	0.29
	Forklifts	2	6	89	0.:
	Tractors/Loaders/Backhoes	2	8	97	0.3
	Other Construction Equipment	1	8	172	0.4
Landana and Davis	Company and Markey Missey			0	0.5
Landscape and Paving	Cement and Mortar Mixers	4	6	9	0.5
	Pavers Rollers	1	7	80	0.4
	Tractors/Loaders/Backhoes	1	7	97	0.3
	Skid Steer Loaders	1	8	64	0.368
	Skid Steel Loaders	1		04	0.300
Occupancy					
occupancy.					
Energy Management - New Building					
Excavation	Graders	1	8	174	0.4
	Tractors/Loaders/Backhoes	1	8	97	0.3
Construct New Building	Cranes	1	4	226	0.29
	Forklifts	2	6	89	0.:
	Tractors/Loaders/Backhoes	2	8	97	0.3
	Other Construction Equipment	1	8	172	0.4
Landscape and Paving	Cement and Mortar Mixers	4	6	9	0.5
	Pavers	1	7	125	0.4
	Rollers	1	7	80	0.3
	Tractors/Loaders/Backhoes	1	7	97	0.3
	Skid Steer Loaders	1	8	64	0.368
Occupancy					

D '	dential Complex					
Kesi	Excavation	Cradore	1		174	0.4
	EXCAVACION	Graders Rubber Tired Dozers				0.4
			-			0.3
		Tractors/Loaders/Backhoes	-	. 0	97	0.5
	Construct New Building	Cranes	1	. 6	226	0.2
	Construct New Building	Forklifts	1			0.2
		Generator Sets				0.74
		Tractors/Loaders/Backhoes				0.3
		Welders				0.4
				-	-	-
	Landscape and Paving	Cement and Mortar Mixers	1	. 6	9	0.5
	-	Pavers	1	. 6	125	0.4
		Rollers	1	. 7	80	0.3
		Paving Equipment	1	. 8	130	0.3
		Tractors/Loaders/Backhoes	1	. 8	97	0.3
		Skid Steer Loaders		. 8	64	0.368
	Occupancy					
B2 -	Modernization/Renovation		_			
	Abatement & Selective Demolition (2024)	Concrete/Industrial Saws	1	. 8		0.7
	60 days	Rubber Tired Dozers	1			0.4
		Tractors/Loaders/Backhoes	7	. 6	97	0.3
	Renovations (2024)	Forklifts		! 6	89	0.:
	417 days	Cranes		4		0.2
	417 days	Craffes	-	. 4	220	0.23
	Occupancy					
	Occupancy					
B5 N	Modernization/Renovation					
	Abatement & Selective Demolition (2022)	Concrete/Industrial Saws		. 8	81	0.73
	62 days	Rubber Tired Dozers				0.4
		Tractors/Loaders/Backhoes	2			0.3
		Skid Steer Loaders	1			0.368
	Renovations (2022)	Forklifts	2	. 6	89	0
	278 days	Cranes	1	. 4	226	0.29
	Occupancy					
B14	- Modernization/Renovation					
	Abatement & Selective Demolition (2018)	Concrete/Industrial Saws	1	_		0.73
	63 days	Rubber Tired Dozers	1		255	0.4
		Tractors/Loaders/Backhoes		. 6	97	0.3
		= 100				
	Renovations (2018)	Forklifts				0.:
	208 days	Cranes	1	. 4	226	0.29
	Occupancy					
	Occupancy		+	 		
Cam	pus Site Development			+		
	Abatement & Demolition B19 Pacific Heights	Concrete/Industrial Saws	1	. 8	81	0.7
		Rubber Tired Dozers				0.7
		Tractors/Loaders/Backhoes	3			0.3
					3,	0.0
	Parking Lot L Expansion	Cement and Mortar Mixers	1	. 6	9	0.5
		Pavers	1			0.4
		Rollers	1	. 7	80	0.3
		Paving Equipment	1	. 8		0.3
		Tractors/Loaders/Backhoes	1	. 8	97	0.3
	Repave Roadways	Cement and Mortar Mixers	2			0.50
		Pavers	1			0.4.
	-	Rollers	2			0.3
		Paving Equipment Tractors/Loaders/Backhoes				0.3

Construction BTUs

Canada			
29,666 MT	22.2 lbs/gal	129 /8	8 BTU/gal
2,204.60 lbs/MT	65401663.6 lbs	2946020.88	_
65401664 lbs	2946020.883 gallons	381474352082.7	•
CSM	2340020.003 gailons	301474332002.7	4 810
29,950 MT	22.2 lbs/gal	129,48	8 BTU/gal
2,204.60 lbs/MT	66027770 lbs	2974223.87	
66027770 lbs	2974223.874 gallons	385126300980.1	8 BTU
Skyline			
22,782 MT	22.2 lbs/gal	129,488	8 BTU/gal
2,204.60 lbs/MT	50225197.2 lbs	2262396.2	7 gallons
50225197 lbs	2262396.27 gallons	292953168244.7	6 BTU
On road Operational BTUs propos	ad		
health club	1,380,406 vmt		
canada campus proposed	2,461,827 vmt	3,842,233 Canada vmt total	17993177139 Canada BTU
csm campus proposed	5,930,584 vmt	5,930,584 CSM vmt total	27772924872 CSM BTU
skyline campus proposed	6,332,698 vmt	-,,	
res complex to canada	79,071 vmt		
res complex to csm	48,566 vmt		
res complex offsite	1,221,528 vmt		
res complex onsite	9,704 vmt	7,691,567 Skyline vmt total	36019608261 Skyline BTU
•	17,464,384 vmt total	, , ,	· , · · ·
	4,683 BTU/vmt		
	81785710272 BTU total	3,416 BTU/kWh	4782400000.00 BTU
Off road Operational BTUs propos Canada electricity Canada natural gas CSM elec	81785710272 BTU total ed (unmitigated) 1.40E+06 kWh/yr 5.60E+06 kBTU/yr	1,000 BTU/kBTU	5598600000.00 BTU
Canada electricity Canada natural gas CSM elec	81785710272 BTU total ed (unmitigated) 1.40E+06 kWh/yr	•	
Canada electricity Canada natural gas CSM elec CSM nat gas	81785710272 BTU total ed (unmitigated) 1.40E+06 kWh/yr 5.60E+06 kBTU/yr 1.33E+06 kWh/yr	1,000 BTU/kBTU 3,416 BTU/kWh	5598600000.00 BTU 4543280000.00 BTU
Canada electricity	81785710272 BTU total ed (unmitigated) 1.40E+06 kWh/yr 5.60E+06 kBTU/yr 1.33E+06 kWh/yr 9.32E+06 kBTU/yr	1,000 BTU/kBTU 3,416 BTU/kWh 1,000 BTU/kBTU	5598600000.00 BTU 4543280000.00 BTU 9320000000.00 BTU
Canada electricity Canada natural gas CSM elec CSM nat gas Skyline elec	81785710272 BTU total ed (unmitigated) 1.40E+06 kWh/yr 5.60E+06 kBTU/yr 1.33E+06 kWh/yr 9.32E+06 kBTU/yr 2.33E+06 kWh/yr	1,000 BTU/kBTU 3,416 BTU/kWh 1,000 BTU/kBTU 3,416 BTU/kWh	5598600000.00 BTU 4543280000.00 BTU 9320000000.00 BTU 7950398400.00 BTU
Canada electricity Canada natural gas CSM elec CSM nat gas Skyline elec Skyline nat gas	81785710272 BTU total ed (unmitigated) 1.40E+06 kWh/yr 5.60E+06 kBTU/yr 1.33E+06 kWh/yr 9.32E+06 kBTU/yr 2.33E+06 kWh/yr 1.29E+07 kBTU/yr	1,000 BTU/kBTU 3,416 BTU/kWh 1,000 BTU/kBTU 3,416 BTU/kWh	5598600000.00 BTU 4543280000.00 BTU 9320000000.00 BTU 7950398400.00 BTU 12926900000.00 BTU 17276078400.00 total electricity BTU
Canada electricity Canada natural gas CSM elec CSM nat gas Skyline elec Skyline nat gas	81785710272 BTU total ed (unmitigated) 1.40E+06 kWh/yr 5.60E+06 kBTU/yr 1.33E+06 kWh/yr 9.32E+06 kBTU/yr 2.33E+06 kWh/yr 1.29E+07 kBTU/yr	1,000 BTU/kBTU 3,416 BTU/kWh 1,000 BTU/kBTU 3,416 BTU/kWh	5598600000.00 BTU 4543280000.00 BTU 9320000000.00 BTU 7950398400.00 BTU 12926900000.00 BTU 17276078400.00 total electricity BTU
Canada electricity Canada natural gas CSM elec CSM nat gas Skyline elec Skyline nat gas Off road Operational BTUs propos Canada electricity	81785710272 BTU total ed (unmitigated) 1.40E+06 kWh/yr 5.60E+06 kBTU/yr 1.33E+06 kWh/yr 9.32E+06 kBTU/yr 2.33E+06 kWh/yr 1.29E+07 kBTU/yr	1,000 BTU/kBTU 3,416 BTU/kWh 1,000 BTU/kBTU 3,416 BTU/kWh 1,000 BTU/kBTU	5598600000.00 BTU 4543280000.00 BTU 9320000000.00 BTU 7950398400.00 BTU 12926900000.00 BTU 17276078400.00 total electricity BTU 27845500000.00 total natural gas BT
Canada electricity Canada natural gas CSM elec CSM nat gas Skyline elec Skyline nat gas Off road Operational BTUs propos Canada electricity Canada natural gas	81785710272 BTU total ed (unmitigated) 1.40E+06 kWh/yr 5.60E+06 kBTU/yr 1.33E+06 kWh/yr 9.32E+06 kBTU/yr 2.33E+06 kWh/yr 1.29E+07 kBTU/yr 4.34E+05 kWh/yr 3.36E+06 kBTU/yr -7.50E+02 kWh/yr	1,000 BTU/kBTU 3,416 BTU/kWh 1,000 BTU/kBTU 3,416 BTU/kWh 1,000 BTU/kBTU	5598600000.00 BTU 4543280000.00 BTU 9320000000.00 BTU 7950398400.00 BTU 12926900000.00 BTU 17276078400.00 total electricity BTU 27845500000.00 total natural gas BT
Canada electricity Canada natural gas CSM elec CSM nat gas Skyline elec Skyline nat gas Off road Operational BTUs propos Canada electricity Canada natural gas CSM elec	81785710272 BTU total ed (unmitigated) 1.40E+06 kWh/yr 5.60E+06 kBTU/yr 1.33E+06 kWh/yr 9.32E+06 kBTU/yr 2.33E+06 kWh/yr 1.29E+07 kBTU/yr 4.40E+05 kWh/yr 3.36E+06 kBTU/yr -7.50E+02 kWh/yr 5.59E+06 kBTU/yr	1,000 BTU/kBTU 3,416 BTU/kWh 1,000 BTU/kBTU 3,416 BTU/kWh 1,000 BTU/kBTU 3,416 BTU/kWh 1,000 BTU/kBTU 3,416 BTU/kWh 1,000 BTU/kBTU 3,416 BTU/kWh	5598600000.00 BTU 4543280000.00 BTU 9320000000.00 BTU 7950398400.00 BTU 12926900000.00 BTU 17276078400.00 total electricity BTU 27845500000.00 total natural gas BT 2868586000.00 BTU 3359160000.00 BTU
Canada electricity Canada natural gas CSM elec CSM nat gas Skyline elec Skyline nat gas Off road Operational BTUs propos Canada electricity Canada natural gas CSM elec CSM nat gas Skyline elec	### 81785710272 BTU total ### (unmitigated) 1.40E+06 kWh/yr 5.60E+06 kBTU/yr 1.33E+06 kWh/yr 9.32E+06 kBTU/yr 2.33E+06 kWh/yr 1.29E+07 kBTU/yr *### (mitigated) 8.40E+05 kWh/yr 3.36E+06 kBTU/yr -7.50E+02 kWh/yr 5.59E+06 kBTU/yr 1.30E+06 kWh/yr	1,000 BTU/kBTU 3,416 BTU/kWh 1,000 BTU/kBTU 3,416 BTU/kWh 1,000 BTU/kBTU 3,416 BTU/kWh 1,000 BTU/kBTU 3,416 BTU/kWh 1,000 BTU/kBTU 3,416 BTU/kWh 1,000 BTU/kBTU 3,416 BTU/kWh	5598600000.00 BTU 4543280000.00 BTU 9320000000.00 BTU 7950398400.00 BTU 12926900000.00 BTU 17276078400.00 total electricity BTU 27845500000.00 total natural gas BT 2868586000.00 BTU 3359160000.00 BTU -2562000.00 BTU 5594900000.00 BTU 4428194960.00 BTU
Canada electricity Canada natural gas CSM elec CSM nat gas Skyline elec	81785710272 BTU total ed (unmitigated) 1.40E+06 kWh/yr 5.60E+06 kBTU/yr 1.33E+06 kWh/yr 9.32E+06 kBTU/yr 2.33E+06 kWh/yr 1.29E+07 kBTU/yr 4.40E+05 kWh/yr 3.36E+06 kBTU/yr -7.50E+02 kWh/yr 5.59E+06 kBTU/yr	1,000 BTU/kBTU 3,416 BTU/kWh 1,000 BTU/kBTU 3,416 BTU/kWh 1,000 BTU/kBTU 3,416 BTU/kWh 1,000 BTU/kBTU 3,416 BTU/kWh 1,000 BTU/kBTU 3,416 BTU/kWh	5598600000.00 BTU 4543280000.00 BTU 9320000000.00 BTU 7950398400.00 BTU 12926900000.00 BTU 17276078400.00 total electricity BTU 27845500000.00 total natural gas BT 2868586000.00 BTU 3359160000.00 BTU -2562000.00 BTU 5594900000.00 BTU
Canada electricity Canada natural gas CSM elec CSM nat gas Skyline elec Skyline nat gas Off road Operational BTUs propos Canada electricity Canada natural gas CSM elec CSM nat gas Skyline elec	### 81785710272 BTU total ### (unmitigated) 1.40E+06 kWh/yr 5.60E+06 kBTU/yr 1.33E+06 kWh/yr 9.32E+06 kBTU/yr 2.33E+06 kWh/yr 1.29E+07 kBTU/yr *### (mitigated) 8.40E+05 kWh/yr 3.36E+06 kBTU/yr -7.50E+02 kWh/yr 5.59E+06 kBTU/yr 1.30E+06 kWh/yr	1,000 BTU/kBTU 3,416 BTU/kWh 1,000 BTU/kBTU 3,416 BTU/kWh 1,000 BTU/kBTU 3,416 BTU/kWh 1,000 BTU/kBTU 3,416 BTU/kWh 1,000 BTU/kBTU 3,416 BTU/kWh 1,000 BTU/kBTU 3,416 BTU/kWh	5598600000.00 BTU 4543280000.00 BTU 9320000000.00 BTU 7950398400.00 BTU 12926900000.00 BTU 17276078400.00 total electricity BTU 27845500000.00 total natural gas BT 2868586000.00 BTU 3359160000.00 BTU -2562000.00 BTU 5594900000.00 BTU 4428194960.00 BTU
Canada electricity Canada natural gas CSM elec CSM nat gas Skyline elec Skyline nat gas Off road Operational BTUs propos Canada electricity Canada natural gas CSM elec CSM nat gas Skyline elec	### 81785710272 BTU total ### color="1" style="block-color: blue;" bit of the color: blue;" bit of the color: blue; bit of th	1,000 BTU/kBTU 3,416 BTU/kWh 1,000 BTU/kBTU 3,416 BTU/kWh 1,000 BTU/kBTU 3,416 BTU/kWh 1,000 BTU/kBTU 3,416 BTU/kWh 1,000 BTU/kBTU 3,416 BTU/kWh 1,000 BTU/kBTU 3,416 BTU/kWh	5598600000.00 BTU 4543280000.00 BTU 9320000000.00 BTU 7950398400.00 BTU 12926900000.00 BTU 17276078400.00 total electricity BTU 27845500000.00 total natural gas BT 2868586000.00 BTU 3359160000.00 BTU -2562000.00 BTU 5594900000.00 BTU 4428194960.00 BTU 7756450000.00 BTU
Canada electricity Canada natural gas CSM elec CSM nat gas Skyline elec Skyline nat gas Off road Operational BTUs propos Canada electricity Canada natural gas CSM elec CSM nat gas Skyline elec Skyline nat gas	### 81785710272 BTU total ### color="block"> ### color="block" block" block BTU/yr	1,000 BTU/kBTU 3,416 BTU/kWh 1,000 BTU/kBTU 3,416 BTU/kWh 1,000 BTU/kBTU 3,416 BTU/kWh 1,000 BTU/kBTU 3,416 BTU/kWh 1,000 BTU/kBTU 3,416 BTU/kWh 1,000 BTU/kBTU 3,416 BTU/kWh	5598600000.00 BTU 4543280000.00 BTU 9320000000.00 BTU 7950398400.00 BTU 12926900000.00 BTU 17276078400.00 total electricity BTU 27845500000.00 total natural gas BT 2868586000.00 BTU 3359160000.00 BTU -2562000.00 BTU 5594900000.00 BTU 4428194960.00 BTU 7756450000.00 BTU 7756450000.00 BTU 16710510000.00 total electricity BTU 16710510000.00 total natural gas BT
Canada electricity Canada natural gas CSM elec CSM nat gas Skyline elec Skyline nat gas Off road Operational BTUs propos Canada electricity Canada natural gas CSM elec CSM nat gas Skyline elec Skyline nat gas	### ### ##############################	1,000 BTU/kBTU 3,416 BTU/kWh 1,000 BTU/kBTU 3,416 BTU/kWh 1,000 BTU/kBTU 3,416 BTU/kWh 1,000 BTU/kBTU 3,416 BTU/kWh 1,000 BTU/kBTU 3,416 BTU/kWh 1,000 BTU/kBTU 3,416 BTU/kWh 1,000 BTU/kBTU	5598600000.00 BTU 4543280000.00 BTU 9320000000.00 BTU 7950398400.00 BTU 12926900000.00 BTU 17276078400.00 total electricity BTU 27845500000.00 total natural gas BT 2868586000.00 BTU 3359160000.00 BTU -2562000.00 BTU -5594900000.00 BTU 4428194960.00 BTU 7756450000.00 BTU 77294218960.00 total electricity BTU 16710510000.00 total natural gas BT erational (mitigated)
Canada electricity Canada natural gas CSM elec CSM nat gas Skyline elec Skyline nat gas Off road Operational BTUs propos Canada electricity Canada natural gas CSM elec CSM nat gas Skyline elec Skyline nat gas Total proposed operational (unmitation)	### ### ##############################	1,000 BTU/kBTU 3,416 BTU/kWh 1,000 BTU/kBTU 3,416 BTU/kWh 1,000 BTU/kBTU 3,416 BTU/kWh 1,000 BTU/kBTU 3,416 BTU/kWh 1,000 BTU/kBTU 3,416 BTU/kWh 1,000 BTU/kBTU 3,416 BTU/kWh 1,000 BTU/kBTU 3,416 BTU/kWh 1,000 BTU/kBTU	5598600000.00 BTU 4543280000.00 BTU 9320000000.00 BTU 7950398400.00 BTU 12926900000.00 BTU 17276078400.00 total electricity BTU 27845500000.00 total natural gas BT 2868586000.00 BTU 3359160000.00 BTU -2562000.00 BTU 5594900000.00 BTU 4428194960.00 BTU 7756450000.00 BTU 7756450000.00 BTU 16710510000.00 total electricity BTU 16710510000.00 total natural gas BT erational (mitigated) 0 BTU

On road Operational BTUs existing

2,461,827 vmt 11528735841 Canada BTU 5,930,002 vmt 27770199366 CSM BTU 6,332,698 vmt 29656034734 CV ... canada campus existing csm campus existing 29656024734 Skyline BTU skyline campus existing

14,724,527 vmt total 4,683 BTU/vmt 68954959941 BTU total

Off road Operational BTUs existing

canada electricity	4.51E+05 kWh/yr	3,416 BTU/kWh	1541442672.00 BTU
canada natural gas	1.58E+06 kBTU/yr	1,000 BTU/kBTU	1583650000.00 BTU
san mateo elec	1,070,000 kWh/yr	3,416 BTU/kWh	3655120000.00 BTU
san mateo nat gas	7.30E+06 kBTU/yr	1,000 BTU/kBTU	7300000000.00 BTU
skyline elec	1.04E+06 kWh/yr	3,416 BTU/kWh	3559608640.00 BTU
skyline nat gas	6.05E+06 kBTU/yr	1,000 BTU/kBTU	6052910000.00 BTU

8756171312.00 total electricity BTU 14936560000.00 total natural gas BTU

Total existing operational

92647691253.00 BTU

14653828513.00 canada total 38725319366.00 csm total 39268543374.00 skyline total

SMCCCD - Skyline College Residential Development

Trip Generation Estimates

					AM Peak Hour					PM Peak Hour						
			Daily	Daily	Pk-Hr	Sp	lits				Pk-Hr	Sp	lits			
Land Use	Size	Units	Rates	Trips	Rate	ln	Out	ln	Out	Total	Rate	ln	Out	ln	Out	Total
Multi-family building for faculty and staff 1	24	DUs	6.65	160	0.51	0.20	0.80	2	10	12	0.62	0.65	0.35	10	5	15
Single-family homes for general public ²	47	DUs	9.52	447	0.75	0.25	0.75	9	26	35	1.00	0.63	0.37	30	17	47
New Trips Generated				607				11	36	47				40	22	62
New trips distributed on-site (Skyline Colleg New trips distributed off-site	e) ³			30 577				1 10	5 31	6 41				5 35	3 19	8 54

Notes:

DUs = dwelling units

Trip rates based on Apartment (Land Use 220), ITE Trip Generation, 9th Edition, 2012. Average rates are used.

² Trip rates based on Single-Family Detached Housing (Land Use 210), ITE Trip Generation, 9th Edition, 2012. Average rates are used.

³ It is assumed that 50 percent of the multi-family residential units would be occupied by Skyline College faculty and staff (on-site) and remaining units would be occupied by Canada College and College of San Mateo faculty and staff (off-site).

SMCCCD - Canada College Gym Facility

Trip Generation Estimates

						AM Peak Hour						PN	l Peak	Hou	r	
			Daily	Daily	Pk-Hr	Sp	lits				Pk-Hr	Sp	lits			
Land Use	Size	Units	Rates	Trips	Rate	ln	Out	ln	Out	Total	Rate	ln	Out	ln	Out	Total
Building 1 Health Club ¹	6,000	members	0.13	799	0.02	62%	38%	73	46	119	0.02	59%	41%	82	57	139

Notes:

ksf = 1,000 square feet gross area

¹ Trip rates based on the check-ins and membership data for the existing College of San Mateo health club. See Appendix X for trip rate calculations.

College of San Mateo Health Club Usage and Vehicle Trip Rate Estimates

		Daily		AM Peak Hour (weekday)					PM Peak Hour (weekday)						
		Vehicle	Weekday Check-ins ¹	Pk-Hr		plit Out	In ¹		Total Check- Ins & -Outs ²	Pk-Hr Trip Rate	Sp In	olit Out	In ¹	Out ¹	Check-Ins & -Outs ³
		Trip Nates	CHECK-IIIS	Trip ivate	""	Out		Out	ilis & -Outs	Nate	""	Out		Out	& -Outs
Member Check-Ins	- 000		044				0.4		100					0.5	450
All Members	5,380		911				84	52	136				94	65	159
General Public Members ⁴	4,231		716				66	41	107				74	51	125
Vehicle Trip and Trip Rate	Estimate	s													
All Members ⁵	5,380	0.13	716	0.02	62%	38%	66	41	107	0.02	59%	41%	74	51	125

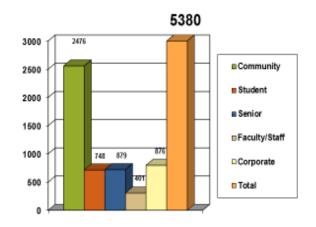
Notes:

Table developed by Hexagon Transportation Consultants.

- 1. Based on 2015 January Check-Ins Data collected by SMCCCD. There were 5,380 members as of January 2015.
- 2. AM peak hour check-ins & -outs include 84 check-ins in 8-9 am and 52 check-ins in 7-8 am which was assumed to exit in 8-9 am.
- 3. PM peak hour check-ins & -outs include 94 check-ins in 5-6 pm and 65 check-ins in 4-5 pm which was assumed to exit in 5-6 pm.
- 4. It was assumed that faculty, staff, and student members go to the club before and after work or school, so they don't generate additional vehicle trips. Therefore, check-ins were calculated for the general public (GP) members, using the ratio of GP members to all members.
- 5. Daily and peak-hour trip rates were calculated using chick-ins from GP members. It is assumed one vehicle trip per check-in.

MEMBERS

Through January 2015



San Mateo College HRA

Emission Rate									
Building	DPM (tons)	PM2.5 Dust	Hours/Day	Days	DPM (g/sec)	PM2.5 D (g/sec)	Con Start	Con End	ED (Years)
Building 3	0.1232	0.00000	8	558	0.006955	0.000000	12/22/2016	7/3/2018	
Building 1	0.1232	0.00000	8	762	0.005093	0.000000	1/12/2022	2/13/2024	
Building 9	0.1232	0.00000	8	757	0.005126	0.000000	7/3/2017	7/30/2019	
Building 17	0.1232	0.00000	8	569	0.006820	0.000000	10/26/2016	5/18/2018	
Building 34	0.1232	0.00000	8	377	0.010294	0.000000	7/31/2019	8/11/2020	
Buliding 8	0.1355	0.00417	8	956	0.004465	0.000137	5/31/2019	1/11/2022	
Bethn Lot	0.0197	0.00000	8	154	0.004029	0.000000	2/15/2024	7/18/2024	
Building 19	0.4633	0.06627	8	1032	0.014141	0.002023	2/1/2017	11/30/2019	
						Total	10/26/2016	7/18/2024	5.5

Cancer Risk Assessmen

Methodolology, OEHHA Air Toxics Hot Spots Program Guidance Manual for the Preparation of Risk Assessments, March 6, 2015

http://oehha.ca.gov/air/hot_spots/hotspots2015.html

Assumed to start in 3rd trimester for residential

Dose:

Dose-air = $C_{alr} \times \{BR/BW\} \times A \times EF \times 10^{-6}$

Cancer Risk:

 $RISKinh-res = DOSEair \times CPF \times ASF \times ED/AT \times FAH$

				Dose-Inhallation	n by age		
Receptor	Annual Conc. (ug/m3)	3rd trimester	0<2	2<9	2<16	16<30	16-70
Maximum Receptor - Onsite Res	0.0224	7.74E-06	2.34E-05	1.35E-05	1.23E-05	5.59E-06	4.99E-06
Maximum Receptor - Offsite Res	0.0357	1.24E-05	3.73E-05	2.16E-05	1.96E-05	8.93E-06	7.97E-06
Offsite School	0.0165	4.88E-07	2.44E-06	1.30E-06	1.06E-06	4.88E-07	4.67E-07
Offsite Park	0.0026	2.20E-08	1.10E-07	5.87E-08	4.77E-08	2.20E-08	2.11E-08

Receptor	3rd trimester	0<2	2<9	2<16	16<30	16-70	summed risk
Maximum Receptor - Onsite Res	3.04E-07	7.34E-06	2.09E-06	0.00E+00	0.00E+00	0.00E+00	9.734E-06
Maximum Receptor - Offsite Res	4.85E-07	1.17E-05	3.34E-06	0.00E+00	0.00E+00	0.00E+00	1.554E-05
Offsite School	1.92E-08	7.66E-07	2.01E-07	0.00E+00	0.00E+00	0.00E+00	9.863E-07
Offsite Park	8.65E-10	3.46E-08	9.07E-09	0.00E+00	0.00E+00	0.00E+00	4.455E-08

		with Tier 4 (90%	
		reduction over	
Unmit per million	with onsite MM	unmit)	With MERV-15
9.73	5.35	0.973	
15.54	8.55	1.554	-
0.99	0.54	0.099	-
0.04	0.02	0.004	-
	9.73 15.54 0.99	9.73 5.35 15.54 8.55 0.99 0.54	Unmit per million with onsite MM reduction over unmit) 9.73 5.35 0.973 15.54 8.55 1.554 0.99 0.54 0.099

Chronic Hazard

Chronic hazard assessment is based on annual average exposure and chronicRELs. Chronic REL for DPM is 5.

				with Tier 4 (90%	
				reduction over	
Receptor	Annual Conc. (ug/m3)	Chronic HI unmit	Chronic HI mit	unmit)	With MERV-15
Maximum Receptor - Onsite Res	0.022350	0.00447	0.00246	-	-
Maximum Receptor - Offsite Res	0.035690	0.00714	0.00393	-	-
Offsite School	0.016480	0.00330	0.00181	-	-
Offsite Park	0.002570	0.00051	0.00028	-	-

PM2.5 Concentration

Assessment based on annual average exposure to total PM2.5 (exhaust + dust)

			with Tier 4 (90%	
	Annual Conc. (ug/m3)	Annual Conc.	reduction over	With MERV-15 and
Receptor	unmit	(ug/m3) mit	unmit)	Tier 4
Maximum Receptor - Onsite Res	0.0227	0.0124	0.002	0.0003
Maximum Receptor - Offsite Res	0.0368	0.0201	0.004	
Offsite School	0.0167	0.0092	0.002	
Offsite Park	0.0026	0.0014	0.000	

ED, Exposure Duration (years)	3rd trimester	0<2	2<9	2<16	16<30	16-70	
Res and Park	0.25	2	3.28	0	0	0	Equation 8.2.4 A, OEHHA 2015
School	0.25	2	3.28	0	0	0	Equation 8.2.4 A, OEHHA 2015

Skyline College HRA

Emission Rate									
Building	DPM (tons)	PM2.5 Dust	Hours/Day	Days	DPM (g/sec)	PM2.5 D (g/sec)	Con Start	Con End	Years
Env Studies	0.13	0.0000	8	561	0.007035	0.00000	2/28/2018	9/12/2019	
Building 14	0.12	0.0000	8	444	0.008740	0.00000	9/18/2018	12/6/2019	
Energy Mgmt.	0.10	0.0000	8	446	0.006752	0.00000	6/28/2017	9/17/2018	
Building 5	0.13	0.0000	8	545	0.007641	0.00000	8/11/2022	2/7/2024	
Building 2	0.12	0.0000	8	729	0.005323	0.00000	2/8/2024	2/6/2026	
Building 1 (boiler + utilities + Social sciences)	0.20	0.0307	8	1309	0.004858	0.00074	1/9/2019	8/10/2022	
Parcel 8 (residential)	0.08	0.0942	8	1188	0.002105	0.00250	10/1/2017	1/1/2021	2.3
Parking Expansion	0.04	0.0029	8	414	0.003365	0.00022	2/9/2026	3/30/2027	
						Total	6/28/2017	3/30/2027	7.0

Cancer Risk Assessment

Methodolology, OEHHA Air Toxics Hot Spots Program Guidance Manual for the Preparation of Risk Assessments, March 6, 2015 http://oehha.ca.gov/air/hot_spots/hotspots2015.html

Assumed to start in 3rd trimester for residential

Dose: Cancer Risk: Dose-air = $C_{alr} \times \{BR/BW\} \times A \times EF \times 10^{-6}$

RISKinh-res = DOSEair × CPF × ASF × ED/AT × FAH

				<u>Dose-Inhallation</u>	on by age		
Receptor	Annual Conc. (ug/m3)	3rd trimester	0<2	2<9	2<16	16<30	16-70
Maximum Receptor - Onsite Res	0.1044	3.61E-05	1.09E-04	6.32E-05	5.73E-05	2.61E-05	2.33E-05
Maximum Receptor - Offsite Res	0.1066	3.69E-05	1.11E-04	6.45E-05	5.85E-05	2.67E-05	2.38E-05
Offsite Park	0.0143	1.22E-07	6.12E-07	3.26E-07	2.65E-07	1.22E-07	1.17E-07
Offsite Jail	0.0038	0.00E+00	0.00E+00	0.00E+00	0.00E+00	7.63E-07	6.72E-07

		Individual Cancer Risk								
Receptor	3rd trimester	0<2	2<9	2<16	16<30	16-70	summed risk			
Maximum Receptor - Onsite	1.42E-06	3.43E-05	7.13E-06	0.00E+00	0.00E+00	0.00E+00	4.28E-05			
Maximum Receptor - Offsite	1.45E-06	3.50E-05	1.44E-05	0.00E+00	0.00E+00	0.00E+00	5.082E-05			
Offsite Park	4.81E-09	1.92E-07	7.27E-08	0.00E+00	0.00E+00	0.00E+00	2.698E-07			
Offsite Jail	0.00E+00	0.00E+00	0.00E+00	0.00E+00	8.40E-08	0.00E+00	8.395E-08			

		with onsite MM (CC-AQ-2 and AQ-	
Summed Risk	Unmit per million	4)	over unmit)
Maximum Receptor - Onsite	42.85	23.57	4.285
Maximum Receptor - Offsite	50.82	27.95	5.082
Offsite Park	0.27	0.15	0.027
Offsite Jail	0.08	0.05	0.008

Chronic hazard assessment is based on annual average exposure and chronicRELs. Chronic REL for DPM is 5.

				with Tier 4 (90% reduction		
Receptor	Annual Conc. (ug/m3)	Chronic HI	with onsite MM	over unmit)	With MERV-15	After MM
Maximum Receptor - Onsite Res	0.104410	0.02088	0.01	0.002	0.0017	0.0017
Maximum Receptor - Offsite Res	0.106580	0.02132	0.01	0.002	-	0.01
Offsite Park	0.014280	0.00286	0.00	0.000	-	0.00
Offsite Jail	0.003790	0.00076	0.00	0.000	-	0.00

PM2.5 Concentration
Assessment based on annual average exposure to total PM2.5 (exhaust + dust)

			with Tier 4 (90%		
	Annual Conc. (ug/m3)	Annual Conc.	reduction over		
Receptor	unmit	(ug/m3) mit	unmit)	With MERV-15	After MM
Maximum Receptor - Onsite Res	0.2874	0.1434	0.029	0.022	0.022
Maximum Receptor - Offsite Res	0.1326	0.0708	0.013	-	0.071
Offsite Park	0.0174	0.0093	0.002	-	0.009
Offsite Jail	0.0046	0.0025	0.000	-	0.002

ED, Exposure Duration (years)		3rd trimester	0<2	2<9	2<16	16<30	16-70	
	Offsite (Res and Park)	0.25	2	4.72	0	0	0	Equation 8.2.4 A, OEHHA 2015
	Offsite (Jail)					7	0	Equation 8.2.4 A, OEHHA 2015
								Equation 8.2.4 A, OEHHA 2015 (completed in
	Onsite Residential	0.25	2	2.39	0	0	0	2021; exposed to onsite pollution thereafter)

Cañada College HRA

Emission Rate										
Building		DPM (tons)	PM2.5 Dust	Hours/Day	Days	DPM (g/sec)	PM2.5 D (g/sec)	Con Start	Con End	ED (Years)
Building 1 + Lot 6		0.214	0.00109	8	967	0.006972	0.000036	10/5/2016	5/30/2019	1.9
	building 1	0.193	0.0009	8	849	0.007146	0.000033			
	lot 6	0.021	0.0002	8	118	0.005723	0.000054			
Building 3		0.07	0.00000	8	537	0.003975	0.000000	5/29/2019	11/16/2020	1.1
Building 9		0.07	0.00000	8	698	0.003058	0.000000	5/29/2019	4/26/2021	1.4
Building 13		0.07	0.00000	8	758	0.002816	0.000000	5/29/2019	6/25/2021	1.5
Building 16		0.03	0.00000	8	384	0.002779	0.000000	5/29/2019	6/16/2020	0.8
Building 18		0.03	0.00000	8	384	0.002779	0.000000	5/29/2019	6/16/2020	0.8
New Math		0.0713	0.02726	8	700	0.003210	0.001227	6/28/2017	5/29/2019	1.4
Lot 10 Expansion		0.021	0.00020	8	118	0.005723	0.000054	6/26/2021	10/22/2021	0.2
		0.79			•		Total	10/5/2016	10/22/2021	3.6

Cancer Risk Assessment

Methodolology, OEHHA Air Toxics Hot Spots Program Guidance Manual for the Preparation of Risk Assessments, March 6, 2015 http://oehha.ca.gov/air/hot_spots/hotspots2015.html
Assumed to start in 3rd trimester for residential

Dose:

Dose-air = C_{alr} × {BR/BW} × A × EF × 10⁻⁶

Cancer Risk:

RISKinh-res = DOSEair × CPF × ASF × ED/AT × FAH

	<u>Dose-Inhallation by age</u>						
Receptor	Annual Conc. (ug/m3)	3rd trimester	0<2	2<9	2<16	16<30	16-70
Maximum Receptor - Onsite	0.028390	9.83E-06	2.97E-05	1.72E-05	1.56E-05	7.11E-06	6.34E-06
Maximum Receptor - Offsite	0.09315	3.22E-05	9.74E-05	5.64E-05	5.11E-05	2.33E-05	2.08E-05

			<u>Individual Car</u>	ncer Risk_			
Receptor	3rd trimester	0<2	2<9	2<16	16<30	16-70	summed risk
Maximum Receptor - Onsite	3.86E-07	9.33E-06	1.10E-06	0.00E+00	0.00E+00	0.00E+00	1.08E-05
Maximum Receptor - Offsite	1.27E-06	3.06E-05	3.62E-06	0.00E+00	0.00E+00	0.00E+00	3.548E-05

			with Tier 4 (90%
			reduction over
Summed Risk	Unmit per million	with onsite MM	unmit)
Maximum Receptor - Onsite	10.81	5.95	1.081
Maximum Receptor - Offsite	35.48	19.52	3.548

Chronic hazard assessment is based on annual average exposure and chronicRELs. Chronic REL for DPM is 5.

				with Tier 4 (90%	
				reduction over	
Receptor	Annual Conc. (ug/m3)	Chronic HI unmit	Chronic HI mit	unmit)	
Maximum Receptor - Onsite	0.028390	0.01	0.00	0.001	
Maximum Receptor - Offsite	0.09315	0.02	0.01	0.002	

PM2.5 Concentration

Assessment based on annual average exposure to total PM2.5 (exhaust + dust)

			with Tier 4 (90%	
		Annual Conc.	reduction over	
Receptor	Annual Conc. (ug/m3) unmit	(ug/m3) mit	unmit)	With MERV-15
Maximum Receptor - Onsite	0.03	0.02	0.003	0.00
Maximum Receptor - Offsite	0.10	0.06	0.010	

ED, Exposure Duration (years)								
	Res	0.25	2	1.36	0	0	0	Equation 8.2.4 A, OEHHA 2015

Dose and Risk Factors for all Schools (ED varies)

Durathing Datas by him and use	3rd	0<2	2<9	2<16	16<30	16<70	
Breathing Rates by bin and use	Trimester	years	years	years	years	years	
							OEHHA 2015, Table 5.6, 95th %ile for 3rdtri-2yrs old; 80th% otherwise (from
Daily Breath Rate (L/kg-day) Residential	361	1090	631	572	261	233	SJVACPD guidance)
Daily Breath Rate (L/kg-day) Park	240	1200	640	520	240	230	OEHHA 2015, Table 5.8 (95th, moderate) for all bins but 3rd tri, which was taker from SJVUAPCD's draft guidance
Daily Breath Rate (L/kg-day) School	240	1200	640	520	240	230	same as park
Daily Breath Rate (L/kg-day) Jail					210	185	OEHHA 2015, Table 5.6, only 16+
EF, Fraction of time exposed							
Residential	0.96	0.96	0.96	0.96	0.96	0.96	OEHHA 2015, page 5-24, 350 days/yr
Park	0.036	0.036	0.036	0.036	0.036	0.036	3x/week, 2 hours/day, for 9 years
School	0.12	0.12	0.12	0.12	0.12	0.12	180 days/yr, 6 hours/day
Jail					0.96	0.96	OEHHA 2015, page 5-24, 350 days/yr
A	1	1	1	1	1	1	OEHHA 2015, page 5-24
Conversion Factor	1.00E-06	1.00E-06	1.00E-06	1.00E-06	1.00E-06	1.00E-06	(mg/ug + m3/L)
CPF, DPM ([mg/kg-day] ⁻¹)	1.1	1.1	1.1	1.1	1.1	1.1	OEHHA 2015, Table 7.1
Average Age Sensitivity Factor - residence	10	10	3	3	1	1	OEHHA 2015, Table 8.3
AT, Average Time (days)	70	70	70	70	70	70	Averaging time for lifetime cancer risk
FAH	1.00	1.00	1.00	1.00	1.00	1.00	OEHHA 2015, Table 8.4
Chronic REL, respiratory, DPM	5						OEHHA 2015, Table 6.3

Mitigation Reductions	
MERV	15% Achieves a 85% PM removal efficiency
BAAQMD PM10 exh reduction	55% Achieves a 45% PM10 exhaust reduction
PM dust reduction	47% Achieves a 53% PM2.5 dust reduction
PM10 exh reduction, tier 4	10% Achieves a 90% PM10 exhaust reduction (relative to unmitgated)

Mitigation Measure AQE-2 Mitigation Measure AQE-4 Mitigation Measure AQE-5

San M	lateo	Aml	oient
-------	-------	-----	-------

Source ID	Name	Address	Cancer	Hazard	PM2.5	
17347	San Mateo	1700 W Hillsdale Blvd	1.6	0.00	0.00	Geneator, adjusted for distance to campus (onsite receptor); 900 feet
15349	San Mateo	1700 W Hillsdale Blvd	3.6	0.03	1.56	
SR 92	SR 92	-	3.0	0.00	0.03	<measured 500="" at="" feet<="" td=""></measured>
Total			8.2	0.03	1.6	(apply to offsite receptorss)
17347	San Mateo	1700 W Hillsdale Blvd	0.2	0.00	0.00	WITH MERV
15349	San Mateo	1700 W Hillsdale Blvd	0.5	0.00	0.23	
SR 92	SR 92	-	0.4	0.00	0.00	
			1.2	0.00	0.24	(only apply to onsite receptors)

Source ID	Name	Address	Cancer	Hazard	PM2.5	
15348	Skyline College	3300 College Drive	1	0.01	0.57	
SR35	SR35	-	0	0.00	0.00	<
Total			2	0.01	0.6	
		WITH MERV	0	0.00	0.09	
			0	0.00	0.00	
			0	0.00	0.09	

<Technically not within 1,000 feet of the campus, but residences at the 1,000 foot line could be affected by k

Canada Ambient

Source ID	Name	Address	Hazard	Cancer	PM2.5	
1280	1280	-	0.00	3	0.05	<technically 1,000="" affected="" at="" be="" both="" but="" by="" campus,="" could="" feet="" foot="" line="" not="" of="" residences="" sources<="" td="" the="" within=""></technically>
Total			0.00	3	0.0	
		WITH MERV	0.00	0	0.01	
			0.00	0	0.01	

AERMOD output sheets available upon request

Appendix C

Biological Resources Documentation

Appendix C-1: USFWS Endangered and Threatened Species Letter

Appendix C-2: CNDDB Species List

Appendix C-3: CNPS Species List



United States Department of the Interior FISH AND WILDLIFF SERVICE

Sacramento Fish and Wildlife Office 2800 Cottage Way, Room W-2605 Sacramento, California 95825



April 14, 2015

Document Number: 150414115703

Eric Christensen ICF International 620 Folsom St. 2nd Floor San Francisco, CA 94107

Subject: Not specified

Dear: Mr. Christensen

We are sending this official species list in response to your April 14, 2015 request for information about endangered and threatened species. The list covers the California counties and/or U.S. Geological Survey 7½ minute guad or guads you requested.

Our database was developed primarily to assist Federal agencies that are consulting with us. Therefore, our lists include all of the sensitive species that have been found in a certain area and also ones that may be affected by projects in the area. For example, a fish may be on the list for a quad if it lives somewhere downstream from that quad. Birds are included even if they only migrate through an area. In other words, we include all of the species we want people to consider when they do something that affects the environment.

Please read Important Information About Your Species List (below). It explains how we made the list and describes your responsibilities under the Endangered Species Act.

Our database is constantly updated as species are proposed, listed and delisted. If you address proposed and candidate species in your planning, this should not be a problem. However, we recommend that you get an updated list every 90 days. That would be July 13, 2015.

Please contact us if your project may affect endangered or threatened species or if you have any questions about the attached list or your responsibilities under the Endangered Species Act. A list of Endangered Species Program contacts can be found here.

Endangered Species Division





United States Department of the Interior FISH AND WILDLIFF SERVICE

Sacramento Fish and Wildlife Office 2800 Cottage Way, Room W-2605 Sacramento, California 95825



November 20, 2013

Document Number: 131120125516

Eric Christensen ICF International 75 E. Santa Clara San Jose, CA 95113

Subject: Species List for SMCCC

Dear: Mr. Christensen

We are sending this official species list in response to your November 20, 2013 request for information about endangered and threatened species. The list covers the California counties and/or U.S. Geological Survey 7½ minute quad or quads you requested.

Our database was developed primarily to assist Federal agencies that are consulting with us. Therefore, our lists include all of the sensitive species that have been found in a certain area *and also ones that may be affected by projects in the area*. For example, a fish may be on the list for a quad if it lives somewhere downstream from that quad. Birds are included even if they only migrate through an area. In other words, we include all of the species we want people to consider when they do something that affects the environment.

Please read Important Information About Your Species List (below). It explains how we made the list and describes your responsibilities under the Endangered Species Act.

Our database is constantly updated as species are proposed, listed and delisted. If you address proposed and candidate species in your planning, this should not be a problem. However, we recommend that you get an updated list every 90 days. That would be February 18, 2014.

Please contact us if your project may affect endangered or threatened species or if you have any questions about the attached list or your responsibilities under the Endangered Species Act. A list of Endangered Species Program contacts can be found here.

Endangered Species Division



U.S. Fish & Wildlife Service Sacramento Fish & Wildlife Office

Federal Endangered and Threatened Species that Occur in or may be Affected by Projects in the Counties and/or U.S.G.S. 7 1/2 Minute Quads you requested

> Document Number: 131120125516 Database Last Updated: September 18, 2011

Quad Lists

Listed Species Invertebrates Euphydryas editha bayensis bay checkerspot butterfly (T) Critical habitat, bay checkerspot butterfly (X) Fish Eucyclogobius newberryi tidewater goby (E) Hypomesus transpacificus delta smelt (T) Oncorhynchus kisutch coho salmon - central CA coast (E) (NMFS) Oncorhynchus mykiss Central California Coastal steelhead (T) (NMFS) Central Valley steelhead (T) (NMFS) Critical habitat, Central California coastal steelhead (X) (NMFS) Oncorhynchus tshawytscha Central Valley spring-run chinook salmon (T) (NMFS) winter-run chinook salmon, Sacramento River (E) (NMFS) **Amphibians** Ambystoma californiense California tiger salamander, central population (T) Rana draytonii California red-legged frog (T) Critical habitat, California red-legged frog (X) Reptiles Thamnophis sirtalis tetrataenia San Francisco garter snake (E) Birds Brachyramphus marmoratus Critical habitat, marbled murrelet (X) marbled murrelet (T)

Charadrius alexandrinus nivosus

western snowy plover (T)

Pelecanus occidentalis californicus

California brown pelican (E)

Rallus longirostris obsoletus

California clapper rail (E)

Sternula antillarum (=Sterna, =albifrons) browni

California least tern (E)

Mammals

Reithrodontomys raviventris

salt marsh harvest mouse (E)

Plants

Acanthomintha duttonii

San Mateo thornmint (E)

Cirsium fontinale var. fontinale

fountain thistle (E)

Hesperolinon congestum

Marin dwarf-flax (=western flax) (T)

Pentachaeta bellidiflora

white-rayed pentachaeta (E)

Trifolium amoenum

showy Indian clover (E)

Quads Containing Listed, Proposed or Candidate Species:

PALO ALTO (428B)

WOODSIDE (429A)

County Lists

No county species lists requested.

Key:

- (E) Endangered Listed as being in danger of extinction.
- (T) Threatened Listed as likely to become endangered within the foreseeable future.
- (P) Proposed Officially proposed in the Federal Register for listing as endangered or threatened.

(NMFS) Species under the Jurisdiction of the <u>National Oceanic & Atmospheric Administration Fisheries Service</u>. Consult with them directly about these species.

Critical Habitat - Area essential to the conservation of a species.

- (PX) Proposed Critical Habitat The species is already listed. Critical habitat is being proposed for it.
- (C) Candidate Candidate to become a proposed species.
- (V) Vacated by a court order. Not currently in effect. Being reviewed by the Service.
- (X) Critical Habitat designated for this species

Important Information About Your Species List

How We Make Species Lists

We store information about endangered and threatened species lists by U.S. Geological Survey 7½ minute quads. The United States is divided into these quads, which are about the size of San Francisco.

The animals on your species list are ones that occur within, **or may be affected by** projects within, the quads covered by the list.

- Fish and other aquatic species appear on your list if they are in the same watershed as your quad or if water use in your quad might affect them.
- Amphibians will be on the list for a quad or county if pesticides applied in that area may be carried to their habitat by air currents.
- Birds are shown regardless of whether they are resident or migratory. Relevant birds on the county list should be considered regardless of whether they appear on a quad list.

Plants

Any plants on your list are ones that have actually been observed in the area covered by the list. Plants may exist in an area without ever having been detected there. You can find out what's in the surrounding quads through the California Native Plant Society's online Inventory of Rare and Endangered Plants.

Surveying

Some of the species on your list may not be affected by your project. A trained biologist and/or botanist, familiar with the habitat requirements of the species on your list, should determine whether they or habitats suitable for them may be affected by your project. We recommend that your surveys include any proposed and candidate species on your list. See our Protocol and Recovery Permits pages.

For plant surveys, we recommend using the <u>Guidelines for Conducting and Reporting</u> <u>Botanical Inventories</u>. The results of your surveys should be published in any environmental documents prepared for your project.

Your Responsibilities Under the Endangered Species Act

All animals identified as listed above are fully protected under the Endangered Species Act of 1973, as amended. Section 9 of the Act and its implementing regulations prohibit the take of a federally listed wildlife species. Take is defined by the Act as "to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect" any such animal.

Take may include significant habitat modification or degradation where it actually kills or injures wildlife by significantly impairing essential behavioral patterns, including breeding, feeding, or shelter (50 CFR §17.3).

Take incidental to an otherwise lawful activity may be authorized by one of two procedures:

- If a Federal agency is involved with the permitting, funding, or carrying out of a project that may result in take, then that agency must engage in a formal consultation with the Service.
 - During formal consultation, the Federal agency, the applicant and the Service work together to avoid or minimize the impact on listed species and their habitat. Such consultation would result in a biological opinion by the Service addressing the anticipated effect of the project on listed and proposed species. The opinion may authorize a limited level of incidental take.
- If no Federal agency is involved with the project, and federally listed species may be taken as

part of the project, then you, the applicant, should apply for an incidental take permit. The Service may issue such a permit if you submit a satisfactory conservation plan for the species that would be affected by your project.

Should your survey determine that federally listed or proposed species occur in the area and are likely to be affected by the project, we recommend that you work with this office and the California Department of Fish and Game to develop a plan that minimizes the project's direct and indirect impacts to listed species and compensates for project-related loss of habitat. You should include the plan in any environmental documents you file.

Critical Habitat

When a species is listed as endangered or threatened, areas of habitat considered essential to its conservation may be designated as critical habitat. These areas may require special management considerations or protection. They provide needed space for growth and normal behavior; food, water, air, light, other nutritional or physiological requirements; cover or shelter; and sites for breeding, reproduction, rearing of offspring, germination or seed dispersal.

Although critical habitat may be designated on private or State lands, activities on these lands are not restricted unless there is Federal involvement in the activities or direct harm to listed wildlife.

If any species has proposed or designated critical habitat within a quad, there will be a separate line for this on the species list. Boundary descriptions of the critical habitat may be found in the Federal Register. The information is also reprinted in the Code of Federal Regulations (50 CFR 17.95). See our Map Room page.

Candidate Species

We recommend that you address impacts to candidate species. We put plants and animals on our candidate list when we have enough scientific information to eventually propose them for listing as threatened or endangered. By considering these species early in your planning process you may be able to avoid the problems that could develop if one of these candidates was listed before the end of your project.

Species of Concern

The Sacramento Fish & Wildlife Office no longer maintains a list of species of concern. However, various other agencies and organizations maintain lists of at-risk species. These lists provide essential information for land management planning and conservation efforts. More info

Wetlands

If your project will impact wetlands, riparian habitat, or other jurisdictional waters as defined by section 404 of the Clean Water Act and/or section 10 of the Rivers and Harbors Act, you will need to obtain a permit from the U.S. Army Corps of Engineers. Impacts to wetland habitats require site specific mitigation and monitoring. For questions regarding wetlands, please contact Mark Littlefield of this office at (916) 414-6520.

Updates

Our database is constantly updated as species are proposed, listed and delisted. If you address proposed and candidate species in your planning, this should not be a problem. However, we recommend that you get an updated list every 90 days. That would be

February 18, 2014.

FISH and WILDLIFE RareFind

Query Summary:

Quad IS (San Francisco South (3712264) OR Montara Mountain (3712254) OR Woodside (3712243) OR Palo Alto (3712242) OR San Mateo (3712253))



Close

CNDDB Element Query Results

Scientific Name	Common Name	Taxonomic Group	Element Code		Returned Occs	Federal Status	State Status	Global Rank	State Rank	CA Rare Plant Rank	Other Status	Habitats
Acanthomintha duttonii	San Mateo thorn-mint	Dicots	PDLAM01040	5	5	Endangered	Endangered	G1	S1	1B.1	SB_UCBBG-UC Berkeley Botanical Garden	Chaparral Coastal scrub Ultramafic Valley & foothill grassland
Adela oplerella	Opler's longhorn moth	Insects	IILEE0G040	14	1	None	None	G2	S2	null	null	Ultramafic Valley & foothill grassland
Allium peninsulare var. franciscanum	Franciscan onion	Monocots	PMLIL021R1	21	16	None	None	G5T1	S1	1B.2	null	Cismontane woodland Ultramafic Valley & foothill grassland
Ambystoma californiense	California tiger salamander	Amphibians	AAAAA01180	1122	5	Threatened	Threatened	G2G3	S2S3	null	CDFW_SSC-Species of Special Concern IUCN_VU-Vulnerable	Cismontane woodland Meadow & seep Riparian woodland Valley & foothill grassland Vernal pool Wetland
Amsinckia lunaris	bent-flowered fiddleneck	Dicots	PDBOR01070	64	3	None	None	G2?	S2?	1B.2	BLM_S-Sensitive	Cismontane woodland Valley & foothill grassland
Antrozous pallidus	pallid bat	Mammals	AMACC10010	402	4	None	None	G5	S3	null	BLM_S-Sensitive CDFW_SSC-Species of Special Concern IUCN_LC-Least Concern USFS_S-Sensitive WBWG_H-High Priority	Chaparral Coastal scrub Desert wash Great Basin grassland Great Basin scrub Mojavean desert scrub Riparian woodland Sonoran desert scrub Upper montane coniferous forest Valley & foothill grassland
Arctostaphylos andersonii	Anderson's manzanita	Dicots	PDERI04030	58	1	None	None	G2	S2	1B.2	SB_RSABG-Rancho Santa Ana Botanic Garden	Broadleaved upland forest Chaparral North coast coniferous forest
Arctostaphylos franciscana	Franciscan manzanita	Dicots	PDERI040J3	4	1	Endangered	None	G1	S1	1B.1	SB_UCBBG-UC Berkeley Botanical Garden	Chaparral Ultramafic
Arctostaphylos imbricata	San Bruno Mountain manzanita	Dicots	PDERI040L0	3	3	None	Endangered	G1	S1	1B.1	null	Chaparral Coastal scrub
Arctostaphylos montana ssp. ravenii	Presidio manzanita	Dicots	PDERI040J2	7	1	Endangered	Endangered	G3T1	S1	1B.1	null	Chaparral Coastal prairie Coastal scrub Ultramafic
Arctostaphylos montaraensis	Montara manzanita	Dicots	PDERI042W0	4	4	None	None	G1	S1	1B.2	null	Chaparral Coastal scrub
Arctostaphylos pacifica	Pacific manzanita	Dicots	PDERI040Z0	1	1	None	Endangered	G1	S1	1B.2	null	Coastal scrub
Arctostaphylos regismontana	Kings Mountain manzanita	Dicots	PDERI041C0	17	15	None	None	G2	S2	1B.2	null	Broadleaved upland forest Chaparral North coast coniferous forest
Astragalus pycnostachyus var.	coastal marsh milk-vetch	Dicots	PDFAB0F7B2	25	2	None	None	G2T2	S2	1B.2	BLM_S-Sensitive SB_SBBG-Santa Barbara Botanic Garden	Coastal dunes Coastal scrub Marsh & swamp Wetland

pycnostachyus									1			
Astragalus tener var. tener	alkali milk-vetch	Dicots	PDFAB0F8R1	65	1	None	None	G2T2	S2	1B.2	null	Alkali playa Valley & foothill grassland Vernal pool Wetland
Athene cunicularia	burrowing owl	Birds	ABNSB10010	1864	1	None	None	G4	S3	null	BLM_S-Sensitive CDFW_SSC-Species of Special Concern IUCN_LC-Least Concern USFWS_BCC-Birds of Conservation Concern	Coastal prairie Coastal scrub Great Basin grassland Great Basin scrub Mojavean desert scrub Sonoran desert scrub Valley & foothill grassland
Banksula incredula	incredible harvestman	Arachnids	ILARA14100	1	1	None	None	G1	S1	null	null	Chaparral Talus slope
Caecidotea tomalensis	Tomales is opod	Crustaceans	ICMAL01220	6	2	None	None	G2	S2	null	null	Aquatic Sacramento/San Joaquin flowing waters Sacramento/San Joaquin standing waters
Calicina minor	Edgewood blind harvestman	Arachnids	ILARA13020	2	2	None	None	G1	S1	null	null	Ultramafic Valley & foothill grassland
Callophrys mossii bayensis	San Bruno elfin butterfly	Insects	IILEPE2202	10	7	Endangered	None	G4T1	S1	null	XERCES_CI-Critically Imperiled	Valley & foothill grassland
Carex comosa	bristly sedge	Monocots	PMCYP032Y0	29	1	None	None	G5	S2	2B.1	null	Freshwater marsh Marsh & swamp Wetland
Centromadia parryi ssp. congdonii	Congdon's tarplant	Dicots	PDAST4R0P1	91	1	None	None	G3T2	S2	1B.1	BLM_S-Sensitive SB_RSABG-Rancho Santa Ana Botanic Garden	Valley & foothill grassland
Centromadia parryi ssp. parryi	pappose tarplant	Dicots	PDAST4R0P2	29	1	None	None	G3T1	S1	1B.2	BLM_S-Sensitive	Coastal prairie Marsh & swamp Meadow & seep Valley & foothill grassland
Charadrius alexandrinus nivosus	western snowy plover	Birds	ABNNB03031	121	3	Threatened	None	G3T3	S2	null	CDFW_SSC-Species of Special Concern NABCI_RWL-Red Watch List USFWS_BCC-Birds of Conservation Concern	Great Basin standing waters Sand shore Wetland
Chloropyron maritimum ssp. palustre	Point Reyes salty bird's-beak	Dicots	PDSCR0J0C3	68	1	None	None	G4?T2	S2	1B.2	BLM_S-Sensitive	Marsh & swamp Salt marsh Wetland
Chorizanthe cuspidata var. cuspidata	San Francisco Bay spineflower	Dicots	PDPGN04081	17	8	None	None	G2T1	S1	1B.2	null	Coastal bluff scrub Coastal dunes Coastal prairie Coastal scrub
Chorizanthe robusta var. robusta	robust spineflower	Dicots	PDPGN040Q2	22	2	Endangered	None	G2T1	S1	1B.1	BLM_S-Sensitive	Cismontane woodland Coastal bluff scrub Coastal dunes
Cicindela hirticollis gravida	sandy beach tiger beetle	Insects	IICOL02101	34	1	None	None	G5T2	S1	null	null	Coastal dunes
Cirsium andrewsii	Franciscan thistle	Dicots	PDAST2E050	27	3	None	None	G3	S3	1B.2	null	Broadleaved upland forest Coastal bluff scrub Coastal prairie Coastal scrub Ultramafic
Cirsium fontinale var. fontinale	Crystal Springs fountain thistle	Dicots	PDAST2E161	5	5	Endangered	Endangered	G2T1	S1	1B.1	SB_RSABG-Rancho Santa Ana Botanic Garden	Chaparral Meadow & seep Ultramafic Valley & foothill grassland Wetland
Cirsium occidentale var. compactum	compact cobwebby thistle	Dicots	PDAST2E1Z1	14	1	None	None	G3G4T1	S1	1B.2	null	Chaparral Coastal dunes Coastal prairie Coastal scrub

Cirsium praeteriens	lost thistle	Dicots	PDAST2E2B0	1	1	None	None	GX	sx	1A	null	null
Collinsia multicolor	San Francisco collinsia	Dicots	PDSCR0H0B0	25	13	None	None	G2	S2	1B.2	SB_RSABG-Rancho Santa Ana Botanic Garden	Closed-cone coniferous forest Coastal scrub
Corynorhinus townsendii	Townsend's big-eared bat	Mammals	AMACC08010	619	6	None	Candidate Threatened	G3G4	S2	null	BLM_S-Sensitive CDFW_SSC-Species of Special Concern IUCN_LC-Least Concern USFS_S-Sensitive WBWG_H-High Priority	Broadleaved upland forest Chaparral Chenopod scrub Great Basin grassland Great Basin scrub Joshua tree woodland Lower montane coniferous forest Meadow & seep Mojavean desert scrub Riparian forest Riparian woodland Sonoran desert scrub Sonoran thorn woodland Upper montane coniferous forest Valley & foothill grassland
Danaus plexippus pop. 1	monarch - California overwintering population	Insects	IILEPP2012	334	4	None	None	G4T2T3	S2S3	null	USFS_S-Sensitive	Closed-cone coniferous forest
Dipodomys venustus venustus	Santa Cruz kangaroo rat	Mammals	AMAFD03042	14	3	None	None	G4T1	S1	null	null	Chaparral
Dirca occidentalis	western leatherwood	Dicots	PDTHY03010	65	15	None	None	G2	S2	1B.2	null	Broadleaved upland forest Chaparral Cismontane woodland Closed-cone coniferous forest North coast coniferous forest Riparian forest Riparian woodland
Dufourea stagei	Stage's dufourine bee	Insects	IIHYM22010	1	1	None	None	G1G2	S1?	null	null	Coastal scrub
Emys marmorata	western pond turtle	Reptiles	ARAAD02030	1138	15	None	None	G3G4	S3	null	BLM_S-Sensitive CDFW_SSC-Species of Special Concern IUCN_VU-Vulnerable USFS_S-Sensitive	Aquatic Artificial flowing waters Klamath/North coast flowing waters Klamath/North coast standing waters Marsh & swamp Sacramento/San Joaquin flowing waters Sacramento/San Joaquin standing waters South coast flowing waters South coast standing waters Wetland
Eriophyllum latilobum	San Mateo woolly sunflower	Dicots	PDAST3N060	4	2	Endangered	Endangered	G1	S1	1B.1	SB_RSABG-Rancho Santa Ana Botanic Garden	Cismontane woodland Ultramafic
Eryngium aristulatum var. hooveri	Hoover's button-celery	Dicots	PDAPI0Z043	16	1	None	None	G5T1	S1	1B.1	SB_RSABG-Rancho Santa Ana Botanic Garden	Vernal pool Wetland
Eucyclogobius newberryi	tidewater goby	Fish	AFCQN04010	117	1	Endangered	None	G3	S2S3	null	AFS_EN-Endangered CDFW_SSC-Species of Special Concern IUCN_VU-Vulnerable	Aquatic Klamath/North coast flowing waters Sacramento/San Joaquin flowing waters South coast flowing waters
Euphydryas editha bayensis	Bay checkerspot butterfly	Insects	IILEPK4055	24	8	Threatened	None	G5T1	S1	null	XERCES_CI-Critically Imperiled	Coastal dunes Ultramafic Valley & foothill grassland
Falco columbarius	merlin	Birds	ABNKD06030	34	1	None	None	G5	S3S4	null	CDFW_WL-Watch List IUCN_LC-Least Concern	Estuary Great Basin grassland Valley & foothill grassland
Falco peregrinus anatum	American peregrine falcon	Birds	ABNKD06071	38	1	Delisted	Delisted	G4T4	S3S4	null	CDF_S-Sensitive CDFW_FP-Fully Protected USFWS_BCC-Birds of Conservation Concern	null
Fritillaria biflora var. ineziana	Hillsborough chocolate lily	Monocots	PMLIL0V031	2	2	None	None	G1QT1Q	S1	1B.1	null	Cismontane woodland Ultramafic Valley & foothill grassland

Fritillaria liliacea	fragrant fritillary	Monocots	PMLIL0V0C0	77	10	None	None	G2	S2	1B.2	USFS_S-Sensitive	Coastal prairie Coastal scrub Ultramafic Valley & foothill grassland
Geothlypis trichas sinuosa	saltmarsh common yellowthroat	Birds	ABPBX1201A	111	9	None	None	G5T2	S2	null	CDFW_SSC-Species of Special Concern USFWS_BCC-Birds of Conservation Concern	Marsh & swamp
Gilia capitata ssp. chamissonis	blue coast gilia	Dicots	PDPLM040B3	29	3	None	None	G5T2	S2	1B.1	null	Coastal dunes Coastal scrub
Grindelia hirsutula var. maritima	San Francisco gumplant	Dicots	PDAST470D3	15	9	None	None	G5T1Q	S1	3.2	null	Coastal bluff scrub Coastal scrub Ultramafic Valley & foothill grassland
Helianthella castanea	Diablo helianthella	Dicots	PDAST4M020	96	2	None	None	G2	S2	1B.2	BLM_S-Sensitive	Broadleaved upland forest Chaparral Cismontane woodland Coastal scrub Valley & foothill grassland
Hemizonia congesta ssp. congesta	congested- headed hayfield tarplant	Dicots	PDAST4R065	33	2	None	None	G5T1T2	S1S2	1B.2	null	Valley & foothill grassland
Hesperevax sparsiflora var. brevifolia	short-leaved evax	Dicots	PDASTE5011	36	2	None	None	G4T3	S2	1B.2	BLM_S-Sensitive	Coastal bluff scrub Coastal dunes Coastal prairie
Hesperolinon congestum	Marin western flax	Dicots	PDLIN01060	26	11	Threatened	Threatened	G2	S2	1B.1	SB_RSABG-Rancho Santa Ana Botanic Garden	Chaparral Ultramafic Valley & foothill grassland
Heteranthera dubia	water star-grass	Monocots	PMPON03010	9	1	None	None	G5	S1	2B.2	null	Marsh & swamp
Horkelia cuneata var. sericea	Kellogg's horkelia	Dicots	PDROS0W043	38	3	None	None	G4T2	S2?	1B.1	USFS_S-Sensitive	Chaparral Closed-cone coniferous forest Coastal dunes Coastal scrub
Horkelia marinensis	Point Reyes horkelia	Dicots	PDROS0W0B0	26	1	None	None	G2	S2	1B.2	null	Coastal dunes Coastal prairie Coastal scrub
Hydrochara rickseckeri	Ricksecker's water scavenger beetle	Insects	IICOL5V010	13	2	None	None	G2?	S2?	null	null	Aquatic Sacramento/San Joaquin flowing waters Sacramento/San Joaquin standing waters
Hydroporus leechi	Leech's skyline diving beetle	Insects	IICOL55040	13	1	None	None	G1?	S1?	null	null	Aquatic
Ischnura gemina	San Francisco forktail damselfly	Insects	IIODO72010	7	4	None	None	G2	S2	null	IUCN_VU-Vulnerable	null
Lasiurus cinereus	hoary bat	Mammals	AMACC05030	235	11	None	None	G5	S4	null	IUCN_LC-Least Concern WBWG_M-Medium Priority	Broadleaved upland forest Cismontane woodland Lower montane coniferous forest North coast coniferous forest
Laterallus jamaicensis coturniculus	California black rail	Birds	ABNME03041	241	3	None	Threatened	G3G4T1	S1	null	BLM_S-Sensitive CDFW_FP-Fully Protected IUCN_NT-Near Threatened NABCI_RWL-Red Watch List USFWS_BCC-Birds of Conservation Concern	Brackish marsh Freshwater marsh Marsh & swamp Salt marsh Wetland
Layia carnosa	beach layia	Dicots	PDAST5N010	23	1	Endangered	Endangered	G2	S2	1B.1	SB_RSABG-Rancho Santa Ana Botanic Garden	Coastal dunes Coastal scrub

Leptosiphon croceus	coast yellow leptosiphon	Dicots	PDPLM09170	4	2	None	None	G1	S1	1B.1	SB_UCBBG-UC Berkeley Botanical Garden	Coastal bluff scrub Coastal prairie
Leptosiphon rosaceus	rose leptosiphon	Dicots	PDPLM09180	31	4	None	None	G1	S1	1B.1	null	Coastal bluff scrub
Lessingia arachnoidea	Crystal Springs lessingia	Dicots	PDAST5S0C0	11	8	None	None	G1	S1	1B.2	SB_RSABG-Rancho Santa Ana Botanic Garden	Cismontane woodland Coastal scrub Ultramafic Valley & foothill grassland
Lessingia germanorum	San Francisco lessingia	Dicots	PDAST5S010	5	2	Endangered	Endangered	G1	S1	1B.1	null	Coastal scrub
Lichnanthe ursina	bumblebee scarab beetle	Insects	IICOL67020	8	2	None	None	G2	S2	null	null	Coastal dunes
Limnanthes douglasii ssp. ornduffii	Ornduff's meadowfoam	Dicots	PDLIM02039	2	2	None	None	G4T1	S1	1B.1	null	Meadow & seep
Malacothamnus aboriginum	Indian Valley bush-mallow	Dicots	PDMAL0Q020	40	1	None	None	G2	S2	1B.2	BLM_S-Sensitive SB_RSABG-Rancho Santa Ana Botanic Garden	Chaparral Cismontane woodland
Malacothamnus arcuatus	arcuate bush-mallow	Dicots	PDMAL0Q0E0	25	10	None	None	G1Q	S1	1B.2	null	Chaparral Cismontane woodland
Malacothamnus davidsonii	Davidson's bush-mallow	Dicots	PDMAL0Q040	56	3	None	None	G2	S2	1B.2	null	Chaparral Cismontane woodland Coastal scrub Riparian woodland
Malacothamnus hallii	Hall's bush-mallow	Dicots	PDMAL0Q0F0	37	2	None	None	G2Q	S2	1B.2	BLM_S-Sensitive	Chaparral Ultramafic
Melospiza melodia pusillula	Alameda song sparrow	Birds	ABPBXA301S	38	10	None	None	G5T2?	S2?	null	CDFW_SSC-Species of Special Concern USFWS_BCC-Birds of Conservation Concern	Salt marsh
Microcina edgewoodensis	Edgewood Park micro-blind harvestman	Arachnids	ILARA47010	1	1	None	None	G1	S1	null	null	Ultramafic Valley & foothill grassland
Monardella sinuata ssp. nigrescens	northern curly- leaved monardella	Dicots	PDLAM18162	25	1	None	None	G3T2	S2	1B.2	null	Chaparral Coastal dunes Coastal scrub Lower montane coniferous forest
Monolopia gracilens	woodland woollythreads	Dicots	PDAST6G010	51	7	None	None	G2G3	S2S3	1B.2	null	Broadleaved upland forest Chaparral Cismontane woodland North coast coniferous forest Ultramafic Valley & foothill grassland
Mylopharodon conocephalus	hardhead	Fish	AFCJB25010	32	1	None	None	G3	S3	null	CDFW_SSC-Species of Special Concern USFS_S-Sensitive	Klamath/North coast flowing waters Sacramento/San Joaquin flowing waters
Myotis thysanodes	fringed myotis	Mammals	AMACC01090	83	1	None	None	G4	S3	null	BLM_S-Sensitive IUCN_LC-Least Concern USFS_S-Sensitive WBWG_H-High Priority	null
Neotoma fuscipes annectens	San Francisco dusky-footed woodrat	Mammals	AMAFF08082	11	3	None	None	G5T2T3	S2S3	null	CDFW_SSC-Species of Special Concern	Chaparral Redwood
Northern Coastal Salt Marsh	Northern Coastal Salt Marsh	Marsh	CTT52110CA	53	5	None	None	G3	S3.2	null	null	Marsh & swamp Wetland

Northern Maritime Chaparral	Northern Maritime Chaparral	Scrub	CTT37C10CA	17	2	None	None	G1	S1.2	null	null	Chaparral
Nyctinomops macrotis	big free-tailed bat	Mammals	AMACD04020	32	1	None	None	G5	S 3	null	CDFW_SSC-Species of Special Concern IUCN_LC-Least Concern WBWG_MH- Medium-High Priority	null
Oncorhynchus mykiss irideus	steelhead - central California coast DPS	Fish	AFCHA0209G	38	4	Threatened	None	G5T2T3Q	S2S3	null	AFS_TH-Threatened	Aquatic Sacramento/San Joaquin flowing waters
Pentachaeta bellidiflora	white-rayed pentachaeta	Dicots	PDAST6X030	14	4	Endangered	Endangered	G1	S1	1B.1	SB_UCBBG-UC Berkeley Botanical Garden	Ultramafic Valley & foothill grassland
Phalacrocorax auritus	double-crested cormorant	Birds	ABNFD01020	37	3	None	None	G5	S4	null	CDFW_WL-Watch List IUCN_LC-Least Concern	Riparian forest Riparian scrub Riparian woodland
Plagiobothrys chorisianus var. chorisianus	Choris' popcornflower	Dicots	PDBOR0V061	40	6	None	None	G3T2Q	S2	1B.2	null	Chaparral Coastal prairie Coastal scrub
Plebejus icarioides missionensis	Mission blue butterfly	Insects	IILEPG801A	14	13	Endangered	None	G5T1	S1	null	XERCES_CI-Critically Imperiled	Coastal prairie
Polemonium carneum	Oregon polemonium	Dicots	PDPLM0E050	16	1	None	None	G3G4	S2	2B.2	null	Coastal prairie Coastal scrub Lower montane coniferous forest
Potentilla hickmanii	Hickman's cinquefoil	Dicots	PDROS1B0U0	5	2	Endangered	Endangered	G1	S1	1B.1	null	Closed-cone coniferous forest Coastal bluff scrub Freshwater marsh Marsh & swamp Meadow & seep Wetland
Rallus longirostris obsoletus	California clapper rail	Birds	ABNME05016	94	9	Endangered	Endangered	G5T1	S1	null	CDFW_FP-Fully Protected NABCI_RWL-Red Watch List	Brackish marsh Marsh & swamp Salt marsh Wetland
Rana draytonii	California red-legged frog	Amphibians	AAABH01022	1339	54	Threatened	None	G2G3	S2S3	null	CDFW_SSC-Species of Special Concern IUCN_VU-Vulnerable	Aquatic Artificial flowing waters Artificial standing waters Freshwater marsh Marsh & swamp Riparian forest Riparian scrub Riparian woodland Sacramento/San Joaquin flowing waters Sacramento/San Joaquin standing waters South coast flowing waters South coast standing waters Wetland
Reithrodontomys raviventris	salt-marsh harvest mouse	Mammals	AMAFF02040	130	4	Endangered	Endangered	G1G2	S1S2	null	CDFW_FP-Fully Protected IUCN_EN- Endangered	Marsh & swamp Wetland
Riparia riparia	bank swallow	Birds	ABPAU08010	296	3	None	Threatened	G5	S2	null	BLM_S-Sensitive IUCN_LC-Least Concern	Riparian scrub Riparian woodland
Sanicula maritima	adobe sanicle	Dicots	PDAPI1Z0D0	16	1	None	Rare	G2	S2	1B.1	USFS_S-Sensitive	Chaparral Coastal prairie Meadow & seep Ultramafic Valley & foothill grassland
Serpentine Bunchgrass	Serpentine Bunchgrass	Herbaceous	CTT42130CA	22	5	None	None	G2	S2.2	null	null	Valley & foothill grassland
Silene verecunda ssp. verecunda	San Francisco campion	Dicots	PDCAR0U213	11	4	None	None	G5T2	S2	1B.2	null	Chaparral Coastal bluff scrub Coastal prairie Coastal scrub Ultramafic Valley & foothill grassland
Sorex vagrans halicoetes	salt-marsh wandering shrew	Mammals	AMABA01071	12	1	None	None	G5T1	S1	null	CDFW_SSC-Species of Special Concern	Marsh & swamp Wetland

Speyeria callippe callippe	callippe silverspot butterfly	Insects	IILEPJ6091	8	6	Endangered	None	G5T1	S1	null	XERCES_CI-Critically Imperiled	Coastal scrub
Speyeria zerene myrtleae	Myrtle's silverspot butterfly	Insects	IILEPJ608C	17	2	Endangered	None	G5T1	S1	null	XERCES_CI-Critically Imperiled	Coastal dunes
Spirinchus thaleichthys	longfin smelt	Fish	AFCHB03010	45	2	Candidate	Threatened	G5	S1	null	CDFW_SSC-Species of Special Concern	Aquatic Estuary
Sternula antillarum browni	California least tern	Birds	ABNNM08103	67	1	Endangered	Endangered	G4T2T3Q	S2	null	CDFW_FP-Fully Protected NABCI_RWL-Red Watch List	Alkali playa Wetland
Stuckenia filiformis ssp. alpina	slender-leaved pondweed	Monocots	PMPOT03091	21	1	None	None	G5T5	S3	2B.2	null	Marsh & swamp Wetland
Taxidea taxus	American badger	Mammals	AMAJF04010	476	3	None	None	G5	S3	null	CDFW_SSC-Species of Special Concern IUCN_LC-Least Concern	Alkali marsh Alkali playa Alpine Alpine dwarf scrub Bog & fen Brackish marsh Broadleaved upland forest Chaparral Chenopod scrub Cismontane woodland Closed-cone coniferous forest Coastal bluff scrub Coastal dunes Coastal prairie Coastal scrub Desert dunes Desert wash Freshwater marsh Great Basin grassland Great Basin scrub Interior dunes Ione formation Joshua tree woodland Limestone Lower montane coniferous forest Marsh & swamp Meadow & seep Mojavean desert scrub Montane dwarf scrub North coast coniferous forest Oldgrowth Pavement plain Redwood Riparian forest Riparian scrub Riparian woodland Salt marsh Sonoran desert scrub Sonoran thorn woodland Ultramafic Upper montane coniferous forest Upper Sonoran scrub Valley & foothill grassland
Thamnophis sirtalis tetrataenia	San Francisco garter snake	Reptiles	ARADB3613B	67	26	Endangered	Endangered	G5T2Q	S2	null	CDFW_FP-Fully Protected	Artificial standing waters Marsh & swamp Sacramento/San Joaquin standing waters Wetland
Trachusa gummifera	San Francisco Bay Area leaf-cutter bee	Insects	IIHYM80010	2	1	None	None	G1	S1	null	null	null
Trifolium amoenum	showy rancheria clover	Dicots	PDFAB40040	26	2	Endangered	None	G1	S1	1B.1	SB_RSABG-Rancho Santa Ana Botanic Garden SB_USDA-US Dept of Agriculture	Coastal bluff scrub Ultramafic Valley & foothill grassland
Trifolium hydrophilum	saline clover	Dicots	PDFAB400R5	49	1	None	None	G2	S2	1B.2	null	Marsh & swamp Valley & foothill grassland Vernal pool Wetland
Triphysaria floribunda	San Francisco owl's-clover	Dicots	PDSCR2T010	41	7	None	None	G2	S2	1B.2	null	Coastal prairie Coastal scrub Ultramafic Valley & foothill grassland
Triquetrella californica	coastal triquetrella	Bryophytes	NBMUS7S010	13	3	None	None	G1	S1	1B.2	USFS_S-Sensitive	Coastal bluff scrub Coastal scrub Valley & foothill grassland
Usnea longissima	Methuselah's beard lichen	Lichens	NLLEC5P420	206	1	None	None	G4	S4	4.2	BLM_S-Sensitive	Broadleaved upland forest North coast coniferous forest Oldgrowth Redwood

Valley Needlegrass Grassland	Valley Needlegrass Grassland	Herbaceous	CTT42110CA	45	1	None	None	G3	S3.1	null	null	Valley & foothill grassland
Valley Oak Woodland	Valley Oak Woodland	Woodland	CTT71130CA	91	1	None	None	G3	S2.1	null	null	Cismontane woodland

8 of 8 4/14/2015 10:46 PM

Inventory of Rare and Endangered Plants - 7th edition

interface v7-15apr 4-6-15

Status: search results - Wed, Apr. 15, 2015 01:27 ET c

 ${QUADS_123} = m/448C/$

Search

Tip: +Lathyrus + "coastal dunes" returns only those Lathyrus in coastal dunes. Note the "+" and quotes. [all tips and help.][search history]

Your Quad Selection: Montara Mountain (448C) 3712254

Hits 1 to 35 of 35

Requests that specify topo quads will return only Lists 1-3.

To save selected records for later study, click the ADD button.

ADD checked items to Plant Press

check all

check none

Selections will appear in a new window.

open	save	hits	scientific	common	family	CNPS
=		1	Allium peninsulare var. franciscanum	Franciscan onion	Alliaceae	List 1B.2
<u>~</u>		1	Amsinckia lunaris	bent-flowered fiddleneck	Boraginaceae	List 1B.2
<u>~</u>		1	Arctostaphylos montaraensis	Montara manzanita	Ericaceae	List 1B.2
<u>~</u>		1	Arctostaphylos regismontana	Kings Mountain manzanita	Ericaceae	List 1B.2
<u>~</u>		1	Astragalus pycnostachyus var. pycnostachyus	coastal marsh milk-vetch	Fabaceae	List 1B.2
<u>~</u>		1	Centromadia parryi ssp. parryi	pappose tarplant	Asteraceae	List 1B.2
<u>~</u>		1	Chorizanthe cuspidata var. cuspidata	San Francisco Bay spineflower	Polygonaceae	List 1B.2
<u>~</u>		1	<u>Cirsium</u> andrewsii	Franciscan thistle	Asteraceae	List 1B.2
<u>~</u>		1	Collinsia multicolor	San Francisco collinsia	Plantaginaceae	List 1B.2
<u>~</u>		1	<u>Dirca</u> <u>occidentalis</u>	western leatherwood	Thymelaeaceae	List 1B.2
<u>~</u>		1	Eriophyllum latilobum	San Mateo woolly sunflower	Asteraceae	List 1B.1
<u>~</u>		1	Fritillaria biflora var. ineziana	Hillsborough chocolate lily	Liliaceae	List 1B.1
<u>~</u>		1	Fritillaria lanceolata var. tristulis	Marin checker lily	Liliaceae	List 1B.1
<u>~</u>		1	Fritillaria liliacea	fragrant fritillary	Liliaceae	List 1B.2
<u>~</u>		1	Grindelia hirsutula var. maritima	San Francisco gumplant	Asteraceae	List 3.2
~		1	Hesperevax sparsiflora var. brevifolia	short-leaved evax	Asteraceae	List 1B.2

4/14/2015 10:28 PM 1 of 2

=	1	<u>Horkelia</u> marinensis	Point Reyes horkelia	Rosaceae	List 1B.2
=	1	Leptosiphon croceus	coast yellow leptosiphon	Polemoniaceae	List 1B.1
≅	1	Leptosiphon rosaceus	rose leptosiphon	Polemoniaceae	List 1B.1
△	1	Lessingia arachnoidea	Crystal Springs lessingia	Asteraceae	List 1B.2
~	1	Lessingia hololeuca	woolly-headed lessingia	Asteraceae	List 3
=	1	<u>Limnanthes</u> <u>douglasii</u> ssp. <u>ornduffii</u>	Ornduff's meadowfoam	Limnanthaceae	List 1B.1
=	1	<u>Lupinus</u> <u>arboreus</u> var. <u>eximius</u>	San Mateo tree lupine	Fabaceae	List 3.2
=	1	Malacothamnus aboriginum	Indian Valley bush-mallow	Malvaceae	List 1B.2
=	1	Malacothamnus arcuatus	arcuate bush-mallow	Malvaceae	List 1B.2
=	1	Malacothamnus davidsonii	Davidson's bush-mallow	Malvaceae	List 1B.2
=	1	Malacothamnus hallii	Hall's bush-mallow	Malvaceae	List 1B.2
=	1	Monolopia gracilens	woodland woolythreads	Asteraceae	List 1B.2
=	1	Pentachaeta bellidiflora	white-rayed pentachaeta	Asteraceae	List 1B.1
=	1	Plagiobothrys chorisianus var. chorisianus	Choris' popcorn-flower	Boraginaceae	List 1B.2
=	1	Polemonium carneum	Oregon polemonium	Polemoniaceae	List 2B.2
=	1	Potentilla hickmanii	Hickman's cinquefoil	Rosaceae	List 1B.1
=	1	Silene verecunda ssp. verecunda	San Francisco campion	Caryophyllaceae	List 1B.2
=	1	Triphysaria floribunda	San Francisco owl's-clover	Orobanchaceae	List 1B.2
=	1	Triquetrella californica	coastal triquetrella	Pottiaceae	List 1B.2

To save selected records for later study, click the ADD button.

ADD checked items to Plant Press check all check none

Selections will appear in a new window.

No more hits.





2 of 2 4/14/2015 10:28 PM

Inventory of Rare and Endangered Plants - 7th edition

interface

Status: search results - Wed, Apr. 15, 2015 01:39 ET c

 ${QUADS_123} = m/428B/$

Search

Tip: Terms prefixed by "+" are required, and by "-" excluded.[all tips and help.][search history]

Your Quad Selection: Palo Alto (428B) 3712242

Hits 1 to 20 of 20

Requests that specify topo quads will return only Lists 1-3.

To save selected records for later study, click the ADD button.

ADD checked items to Plant Press

check all

check none

Selections will appear in a new window.

open	save	hits	scientific	common	family	CNPS
=		1	Acanthomintha duttonii	San Mateo thorn-mint	Lamiaceae	List 1B.1
<u>~</u>		1	Allium peninsulare var. franciscanum	Franciscan onion	Alliaceae	List 1B.2
<u>~</u>		1	Arctostaphylos regismontana	Kings Mountain manzanita	Ericaceae	List 1B.2
<u>~</u>		1	Centromadia parryi ssp. congdonii	Congdon's tarplant	Asteraceae	List 1B.1
<u>~</u>		1	<u>Cirsium</u> fontinale var. fontinale	Crystal Springs fountain thistle	Asteraceae	List 1B.1
<u>~</u>		1	<u>Cirsium</u> <u>praeteriens</u>	lost thistle	Asteraceae	List 1A
<u>7</u>		1	Collinsia multicolor	San Francisco collinsia	Plantaginaceae	List 1B.2
<u>7</u>		1	<u>Dirca</u> <u>occidentalis</u>	western leatherwood	Thymelaeaceae	List 1B.2
<u>~</u>		1	Eryngium aristulatum var. hooveri	Hoover's button-celery	Apiaceae	List 1B.1
<u>~</u>		1	Fritillaria liliacea	fragrant fritillary	Liliaceae	List 1B.2
<u>~</u>		1	Hesperolinon congestum	Marin western flax	Linaceae	List 1B.1
<u>7</u>		1	Lessingia hololeuca	woolly-headed lessingia	Asteraceae	List 3
<u>7</u>		1	Malacothamnus arcuatus	arcuate bush-mallow	Malvaceae	List 1B.2
<u>7</u>		1	Malacothamnus davidsonii	Davidson's bush-mallow	Malvaceae	List 1B.2
**		1	Micropus amphibolus	Mt. Diablo cottonweed	Asteraceae	List 3.2
Ğ		1	Monolopia gracilens	woodland woolythreads	Asteraceae	List 1B.2

1 of 2 4/14/2015 10:40 PM

=	1	Plagiobothrys chorisianus var. chorisianus	Choris' popcorn-flower	Boraginaceae	List 1B.2
=	1	Stuckenia filiformis ssp. alpina	slender-leaved pondweed	Potamogetonaceae	List 2B.2
=	1	Trifolium amoenum	two-fork clover	Fabaceae	List 1B.1

To save selected records for later study, click the ADD button.

ADD checked items to Plant Press

check none

check all

Selections will appear in a new window.

No more hits.





2 of 2 4/14/2015 10:40 PM

Inventory of Rare and Endangered Plants - 7th edition

interface

Status: search results - Wed, Apr. 15, 2015 01:34 ET c

 ${QUADS_123} = m/448D/$

Search

Tip: +Lathyrus + "coastal dunes" returns only those Lathyrus in coastal dunes. Note the "+" and quotes.[all tips and help.][search history]

Your Quad Selection: San Mateo (448D) 3712253

Hits 1 to 26 of 26

Requests that specify topo quads will return only Lists 1-3.

To save selected records for later study, click the ADD button.

ADD checked items to Plant Press

check all

check none

Selections will appear in a new window.

open	save	hits	scientific	common	family	CNPS
=		1	Acanthomintha duttonii	San Mateo thorn-mint	Lamiaceae	List 1B.1
ĕ		1	Allium peninsulare var. franciscanum	Franciscan onion	Alliaceae	List 1B.2
ĕ		1	Amsinckia lunaris	bent-flowered fiddleneck	Boraginaceae	List 1B.2
ĕ		1	Arctostaphylos montaraensis	Montara manzanita	Ericaceae	List 1B.2
=		1	Astragalus pycnostachyus var. pycnostachyus	coastal marsh milk-vetch	Fabaceae	List 1B.2
ĕ		1	Chloropyron maritimum ssp. palustre	Point Reyes bird's-beak	Orobanchaceae	List 1B.2
ĕ		1	Chorizanthe cuspidata var. cuspidata	San Francisco Bay spineflower	Polygonaceae	List 1B.2
ĕ		1	Cirsium fontinale var. fontinale	Crystal Springs fountain thistle	Asteraceae	List 1B.1
ĕ		1	Collinsia multicolor	San Francisco collinsia	Plantaginaceae	List 1B.2
ĕ		1	<u>Dirca</u> <u>occidentalis</u>	western leatherwood	Thymelaeaceae	List 1B.2
Ď		1	Eriophyllum latilobum	San Mateo woolly sunflower	Asteraceae	List 1B.1
ĕ		1	Fritillaria biflora var. ineziana	Hillsborough chocolate lily	Liliaceae	List 1B.1
Ď		1	Fritillaria liliacea	fragrant fritillary	Liliaceae	List 1B.2
Ď		1	Hesperevax sparsiflora var. brevifolia	short-leaved evax	Asteraceae	List 1B.2
△		1	Hesperolinon congestum	Marin western flax	Linaceae	List 1B.1
~		1	Lessingia arachnoidea	Crystal Springs lessingia	Asteraceae	List 1B.2

1 of 2 4/14/2015 10:35 PM

=	1	<u>Lilium</u> maritimum	coast lily	Liliaceae	List 1B.1
≧	1	<u>Lupinus</u> <u>arboreus</u> var. <u>eximius</u>	San Mateo tree lupine	Fabaceae	List 3.2
=	1	Malacothamnus arcuatus	arcuate bush-mallow	Malvaceae	List 1B.2
=	1	Malacothamnus davidsonii	Davidson's bush-mallow	Malvaceae	List 1B.2
=	1	Malacothamnus hallii	Hall's bush-mallow	Malvaceae	List 1B.2
=	1	Monolopia gracilens	woodland woolythreads	Asteraceae	List 1B.2
=	1	Pentachaeta bellidiflora	white-rayed pentachaeta	Asteraceae	List 1B.1
***	1	Polemonium carneum	Oregon polemonium	Polemoniaceae	List 2B.2
=	1	Trifolium hydrophilum	saline clover	Fabaceae	List 1B.2
~	1	Triphysaria floribunda	San Francisco owl's-clover	Orobanchaceae	List 1B.2

check none

To save selected records for later study, click the ADD button.

ADD checked items to Plant Press check all

Selections will appear in a new window.

No more hits.





2 of 2 4/14/2015 10:35 PM

Inventory of Rare and Endangered Plants - 7th edition

interface v7-15apr 4-6-15

Status: search results - Wed, Apr. 15, 2015 01:32 ET c

 ${QUADS_123} = m/448B/$

Search

Tip: Lathyrus Astragalus returns species from both genera.[all tips and help.][search history]

Your Quad Selection: San Francisco South (448B) 3712264

Hits 1 to 31 of 31

Requests that specify topo quads will return only Lists 1-3.

To save selected records for later study, click the ADD button.

ADD checked items to Plant Press

check all

check none

Selections will appear in a new window.

open	save	hits	scientific	common	family	CNPS
~		1	Amsinckia lunaris	bent-flowered fiddleneck	Boraginaceae	List 1B.2
<u>~</u>		1	Arctostaphylos franciscana	Franciscan manzanita	Ericaceae	List 1B.1
<u>~</u>		1	Arctostaphylos imbricata	San Bruno Mountain manzanita	Ericaceae	List 1B.1
<u>~</u>		1	Arctostaphylos montana ssp. ravenii	Presidio manzanita	Ericaceae	List 1B.1
<u>~</u>		1	Arctostaphylos montaraensis	Montara manzanita	Ericaceae	List 1B.2
也		1	Arctostaphylos pacifica	Pacific manzanita	Ericaceae	List 1B.2
查		1	Astragalus tener var. tener	alkali milk-vetch	Fabaceae	List 1B.2
查		1	Centromadia parryi ssp. parryi	pappose tarplant	Asteraceae	List 1B.2
查		1	Chorizanthe cuspidata var. cuspidata	San Francisco Bay spineflower	Polygonaceae	List 1B.2
查		1	Chorizanthe robusta var. robusta	robust spineflower	Polygonaceae	List 1B.1
查		1	<u>Cirsium</u> andrewsii	Franciscan thistle	Asteraceae	List 1B.2
查		1	Cirsium occidentale var. compactum	compact cobwebby thistle	Asteraceae	List 1B.2
查		1	Collinsia multicolor	San Francisco collinsia	Plantaginaceae	List 1B.2
Ď		1	Equisetum palustre	marsh horsetail	Equisetaceae	List 3
△		1	Fritillaria liliacea	fragrant fritillary	Liliaceae	List 1B.2
△		1	Gilia capitata ssp. chamissonis	blue coast gilia	Polemoniaceae	List 1B.1

4/14/2015 10:32 PM 1 of 2

~	1	Grindelia hirsutula var. maritima	San Francisco gumplant	Asteraceae	List 3.2
~	1	Helianthella castanea	Diablo helianthella	Asteraceae	List 1B.2
~	1	Hemizonia congesta ssp. congesta	congested-headed hayfield tarplant	Asteraceae	List 1B.2
~	1	Hesperevax sparsiflora var. brevifolia	short-leaved evax	Asteraceae	List 1B.2
~	1	Heteranthera dubia	water star-grass	Pontederiaceae	List 2B.2
~	1	Horkelia cuneata var. sericea	Kellogg's horkelia	Rosaceae	List 1B.1
=	1	Lessingia germanorum	San Francisco lessingia	Asteraceae	List 1B.1
=	1	Malacothamnus arcuatus	arcuate bush-mallow	Malvaceae	List 1B.2
~	1	Monardella sinuata ssp. nigrescens	northern curly-leaved monardella	Lamiaceae	List 1B.2
~	1	Pentachaeta bellidiflora	white-rayed pentachaeta	Asteraceae	List 1B.1
~	1	Plagiobothrys chorisianus var. chorisianus	Choris' popcorn-flower	Boraginaceae	List 1B.2
=	1	Silene verecunda ssp. verecunda	San Francisco campion	Caryophyllaceae	List 1B.2
=	1	Trifolium amoenum	two-fork clover	Fabaceae	List 1B.1
=	1	<u>Triphysaria</u> <u>floribunda</u>	San Francisco owl's-clover	Orobanchaceae	List 1B.2
~	1	<u>Triquetrella</u> <u>californica</u>	coastal triquetrella	Pottiaceae	List 1B.2

To save selected records for later study, click the ADD button.

ADD checked items to Plant Press

check all check none

Selections will appear in a new window.

No more hits.





2 of 2 4/14/2015 10:32 PM



Inventory of Rare and Endangered Plants - 7th edition

interface

v7-15apr 4-6-15

Status: search results - Wed, Apr. 15, 2015 01:37 ET c

 ${QUADS_123} = m/429A/$

Search

Tip: CNPS_LIST: "List 3" (note the field name) returns only taxa on List 3. "List 3" by itself, matches the phrase wherever found. Browse the list of field names.[all tips and help.][search history]

Your Quad Selection: Woodside (429A) 3712243

Hits 1 to 20 of 20

Requests that specify topo quads will return only Lists 1-3.

To save selected records for later study, click the ADD button.

ADD checked items to Plant Press

check all

check none

Selections will appear in a new window.

open	save	hits	scientific	common	family	CNPS
=		1	Acanthomintha duttonii	San Mateo thorn-mint	Lamiaceae	List 1B.1
² <u>∆</u>		1	Allium peninsulare var. franciscanum	Franciscan onion	Alliaceae	List 1B.2
² <u>∆</u>		1	Arctostaphylos andersonii	Anderson's manzanita	Ericaceae	List 1B.2
² <u>∆</u>		1	Arctostaphylos regismontana	Kings Mountain manzanita	Ericaceae	List 1B.2
² <u>∆</u>		1	Astragalus pycnostachyus var. pycnostachyus	coastal marsh milk-vetch	Fabaceae	List 1B.2
² <u>∆</u>		1	Cirsium fontinale var. fontinale	Crystal Springs fountain thistle	Asteraceae	List 1B.1
² <u>∆</u>		1	Collinsia multicolor	San Francisco collinsia	Plantaginaceae	List 1B.2
² <u>∆</u>		1	<u>Dirca</u> <u>occidentalis</u>	western leatherwood	Thymelaeaceae	List 1B.2
² <u>∆</u>		1	Fritillaria liliacea	fragrant fritillary	Liliaceae	List 1B.2
² <u>∆</u>		1	Hesperolinon congestum	Marin western flax	Linaceae	List 1B.1
² <u>∆</u>		1	Lessingia arachnoidea	Crystal Springs lessingia	Asteraceae	List 1B.2
=		1	Lessingia hololeuca	woolly-headed lessingia	Asteraceae	List 3
=		1	<u>Lupinus</u> <u>arboreus</u> var. <u>eximius</u>	San Mateo tree lupine	Fabaceae	List 3.2
=		1	Malacothamnus arcuatus	arcuate bush-mallow	Malvaceae	List 1B.2
ĭ		1	Malacothamnus davidsonii	Davidson's bush-mallow	Malvaceae	List 1B.2
=		1	Monolopia gracilens	woodland woolythreads	Asteraceae	List 1B.2

1 of 2 4/14/2015 10:37 PM

≥	1	Pedicularis dudleyi	Dudley's lousewort	Orobanchaceae	List 1B.2
=	1	Pentachaeta bellidiflora	white-rayed pentachaeta	Asteraceae	List 1B.1
=	1	Plagiobothrys chorisianus var. chorisianus	Choris' popcorn-flower	Boraginaceae	List 1B.2
=	1	Silene verecunda ssp. verecunda	San Francisco campion	Caryophyllaceae	List 1B.2

To save selected records for later study, click the ADD button.

ADD checked items to Plant Press

check none

check all

Selections will appear in a new window.

No more hits.





2 of 2 4/14/2015 10:37 PM

Appendix D

Cultural Resources Background Information and Documentation

Appendix D-1: Regional Background Conditions

Appendix D-2: CSM Photographic Record

Appendix D-3: Previous DPR Form

Appendix D-4: Native American Correspondence

This appendix summarizes prehistoric, ethnographic, geoarchaeological, and historical contexts of the Project site and surrounding lands. This summary of the regional conditions is based on previous reports and other secondary sources.

Prehistoric Setting

This appendix summarizes prehistoric, ethnographic, geoarchaeological, and historical contexts of the Project site and surrounding lands. This summary of the regional conditions is based on previous reports and other secondary sources.

The entire Bay Area was a region of intense human occupation long before the European explorers settled in the region in the eighteenth century. In the early twentieth century, the prehistory of the region was virtually unknown, aside from a small amount of ethnographic information (Kroeber 1925) and the discovery of a few prehistoric sites at the south end of the San Francisco Bay (Nelson 1909). Because of the intense and rapid urban development in the Bay Area during the late nineteenth and early twentieth centuries, many archaeological resources were damaged or destroyed before scientific inquiry could be conducted. Many of the archaeological excavations in this region have been salvage efforts, often conducted without the time or resources necessary to perform adequate data recovery and professional reporting. However, over the past several years, the understanding of this region's prehistory has changed, partly because of intensive fieldwork resulting from compliance with environmental laws.

Milliken et al. (2007) present a series of culture changes in the Bay Area. The period of occupation during the cal 11,500 to 8000 B.C., when Clovis big-game hunters, then initial Holocene gatherers, presumably lived in the area, lacks evidence, because such evidence has likely been washed away by stream action, buried under more recent alluvium, or submerged on the continental shelf (Rosenthal and Meyer 2004:1). There is evidence, however, that an in-place forager economic pattern began around cal 8000 B.C., and was followed by five cycles of change that began at approximately cal 3500 B.C.

Early Holocene (Lower Archaic), cal 8000–3500 B.C.

Between cal 8000 and 3500 B.C., the Bay Area appears to have been occupied by a widespread but sparse population of hunter-gatherers. The millingslab and handstone, as well as a variety of large, wide-stemmed and leaf-shaped projectile points, all emerged during this period (Milliken et al. 2007:114). Local Franciscan chert dominated the Early Holocene Santa Clara Valley components (Hylkema 2002:235). Radiocarbon determinations from a feature and an *Olivella biplicata* spirelopped bead indicate the presence of cultural materials dating as early as 7500 cal B.C. (Fitzgerald and Porcasi 2003; Fitzgerald et al. 2005).

Early Period (Middle Archaic), cal 3500–500 B.C.

Several technological and social developments characterize this period in the Bay Area. Rectangular *Haliotis* and *Olivella* shell beads, the markers of the Early Period bead horizon, continued in use until

at least 2,800 years ago (Ingram 1998; Wallace and Lathrop 1975:19). The mortar and pestle were first documented in the Bay Area shortly after 4000 B.C., and by 1500 cal B.C., cobble mortars and pestles, and not millingslabs and handstones, were used at sites throughout the Bay Area, including ALA-483 (Livermore Valley) (Wiberg 1996:373).

Lower Middle Period (Initial Upper Archaic), cal 500 B.C.-cal A.D. 430

Although it is unclear when the "major disruption in symbolic integration systems" originated, it is clear in the record around 500 B.C. and may have begun several hundred years earlier (Milliken et al. 2007:115). Rectangular shell beads disappeared from the Bay Area, Central Valley, and portions of Southern California during this time; and a whole new suite of decorative and presumed religious objects appeared during the Early Period-Middle Period Transition (EMT) (Elsasser 1978), which corresponds to the beginning of this period. Net sinkers, a typical early period marker throughout the bay, disappeared from most sites, with the exception of SFR-112, where they continued in use well into the Middle Period (Pastron and Walsh 1988:90).

Upper Middle Period (Late Upper Archaic), A.D. cal 430–1050

Around 430 A.D., the *Olivella* saucer bead trade network collapsed, and over half of known bead horizon M1 sites were abandoned, while the remaining sites saw a large increase in sea otter bones. Additionally, the Meganos extended burial mortuary pattern began to spread in the interior East Bay (Bennyhoff 1994a, 1994b), and the Meganos mortuary complex spread from the interior into the Santa Clara Valley at Wade Ranch (SCL-302) (Milliken et al. 2007:116).

Initial Late Period (Lower Emergent), A.D. CAL 1050-1550

Fredrickson (1973) coined the term "Emergent" to describe this period, in recognition of the appearance of a new level of sedentism, status ascription, and ceremonial integration in lowland central California. Obsidian production and mortuary practices showed evidence of increased social stratification after 1250 A.D., and while the quantity of burial items decreased, the quality of these items, particularly in high-status burials and cremations, increased (Fredrickson 1994:62). This development may have reflected a new regional ceremonial system that was the precursor of the ethnographic Kuksu cult, a ceremonial system that unified the many language groups around the Bay during this period (Fredrickson 1974:66; Bennyhoff 1994b). In the San Jose and Point Año Nuevo Localities, local Franciscan chert remained the primary production material for debitage and casual tools, and Napa Valley obsidian remained the primary production material for projectile points (Bellifemine 1997:124-136; Clark and Reynolds 2003:8; Hylkema 2002:250).

Terminal Late Period: Protohistoric Ambiguities

Changes in artifact types and mortuary objects characterized A.D. cal 1500–1650. The signature *Olivella* sequin and cup beads of the central California L1 Bead Horizon abruptly disappeared, and clamshell disk beads, markers of the L2 Bead Horizon, spread across the North Bay (Milliken et al. 2007:117). Simple corner-notched points began to appear in the Central Bay, while Desert sidenotched points spread into the South Bay from the Central Coast (see Hylkema 2002; Jackson 1986, 1989; Jurmain 1983).

Another upward cycle of regional integration was commencing when it was interrupted by Spanish settlement in the Bay Area beginning in 1776. Such regional integration was a continuing

characteristic of the Augustine Pattern, most likely brought to the Bay Area by Patwin speakers from Oregon, who introduced new tools (such as the bow) and traits (such as pre-internment grave pit burning) into central California. Perhaps the Augustine Pattern, with its inferred shared regional religious and ceremonial organization, was developed as a means of overcoming insularity, not in the core area of one language group but in an area where many neighboring language groups were in contact (Milliken et al. 2007:118).

Ethnographic Setting

At the time of European contact, the Bay Area was occupied by a group of Native Americans whom ethnographers refer to as the Ohlone or Costanoan. The Ohlone are a linguistically defined group composed of several autonomous tribelets that spoke eight different but related languages. The Ohlone languages, together with Miwok, compose the Utian language family of the Penutian stock. The territory of the Ohlone people extended along the coast from the Golden Gate in the north to just below Carmel to the south, and as far as 60 miles inland. The territory encompassed a lengthy coastline, as well as several inland valleys (Levy 1978:485–486).

All three campuses lie within the tribal group known as the Pruristac; this name also refers to their village in San Pedro Valley on the Pacific Coast just south of San Francisco. Numerous Mission San Francisco baptismal entries name "Pruristac, alias San Pedro." Pruristac and Timigtac, just a few miles north on the coast at the present town of Rockaway Beach, were inhabited by small groups of closely interrelated families. Like the people of nearby Urebure to the east, they seem to have been independent bands, rather than members of a large, multi-village tribe. The Mission San Francisco outstation of San Pedro was constructed at Pruristac during the mid-1780s (Milliken 1995:251).

The Ohlone were hunter-gatherers and relied heavily on acorns and seafood. They also exploited a wide range of other foods, including various seeds (the growth of which was promoted by controlled burning), buckeye, berries, roots, land and sea mammals, waterfowl, reptiles, and insects. The Ohlone used tule balsas for watercraft, and bow and arrow, cordage, bone tools, and twined basketry to procure and process their foodstuffs (Levy 1978:491–493).

Prior to contact, the Ohlone were politically organized by tribelet, with each having a designated territory. A tribelet consisted of one or more villages and camps within a territory designated by physiographic features. This type of organization was prevalent in pre-contact California (Kroeber 1925). Duties of the chief included providing for visitors and directing ceremonial activities. The chief also served as the leader of a council of elders that functioned primarily in an advisory capacity to the community (Harrington 1933:3).

Seven Spanish missions were founded in Ohlone territory between 1776 and 1797. While living within the mission system, the Ohlone commingled with other groups, including the Esselen, Yokuts, Miwok, and Patwin. Mission life was devastating to the Ohlone population (Milliken 1995). It has been estimated that in 1776, when the first mission was established in Ohlone territory, the Ohlone population numbered around 10,000. By 1832, the Ohlones numbered less than 2,000 as a result of introduced disease, harsh living conditions, and reduced birth rates (Cook 1943a, 1943b).

Under the Mexican government, secularization of the mission lands began in earnest in 1834. The indigenous population scattered away from the mission centers, and the few that were given rancherias from the mission lands were ill-equipped to maintain or work their land. Most of the former mission land was divided among loyal Mexican subjects, and the Ohlone who chose to

remain in their ancestral territory usually became squatters. Some were given jobs as manual laborers or domestic servants on Mexican ranchos or, later, American cattle ranches. During the next few decades, there was a partial return to aboriginal religious practices, particularly shamanism, and some return to food collection as a means of subsistence. Consequently, several multiethnic Indian communities (consisting of individuals of Chochenyo, Plains Miwok, Northern Valley Yokuts, Patwin, and/or Coast Miwok descent) were established in the mid-nineteenth century within Ohlone territory (Levy 1978:487).

Ohlone recognition and assertion began to move to the forefront during the early twentieth century, enforced by two legal suits brought against the U.S. government by Indians of California (1928–1964) for reparation due them for the loss of traditional lands. A review of what was known about Indians for the entire state of California commenced, and the political organizing necessary to mount this action on the part of Indians led to the formation of political advocacy groups throughout the state. The Ohlone participated, and a new roll of descendants was established, bringing a new focus on the community and reevaluation of rights due its members (Bean 1994:xxiv). Although they have yet to receive formal recognition from the federal government, the Ohlone are becoming increasingly organized as a political unit, and have an active interest in preserving their ancestral heritage and advocating for Native American issues.

Historic Setting

Early History: Spanish and Mexican Era

Explorer Sebastian Vizcaino visited the San Mateo County region as early as 1602 when he sailed along the California coast in search of a suitable harbor for Spain. In 1769, Gaspar de Portola and his party traveled through the area in the vicinity of present-day Half Moon Bay, Woodside, and Monterey Bay. Other visitors included Fernando de Rivera y Moncada and Juan Bautista de Anza, who explored portions of the county in 1774 and in 1776, respectively (Kyle 1990).

By the early 1800s, two Mexican ranchos, including Rancho San Mateo and Rancho de las Pulgas, encompassed the present-day city of San Mateo, and Rancho Buri Buri the present day cities of San Bruno and Millbrae. After the rancho period ended in the mid-1800s, put largely in motion by the discovery of gold and the subsequent gold rush of 1849, they were subdivided into smaller parcels and settled. In 1864, the San Francisco & San Jose Rail Road Company (later Southern Pacific Railroad Company) laid an alignment that linked San Francisco and San Jose, stopping in the new township of San Mateo. The railroad also opened San Mateo County to the residents of San Francisco who wished to establish summer residences in the country. These estates were largely self-sufficient, working farms, and some had their own services, such as general stores, blacksmith shops, livery stables, saloons, and hotels. The San Mateo region gradually developed over the years and eventually featured several businesses, churches, and schools. The City of San Mateo, in which the CSM campus is located, incorporated in 1894 (Cerny 2007; Shoecraft 1989). Cañada College campus is located mostly in the Town of Woodside which was incorporated in 1956, but settlement and growth of the town dates back to the 1880s. A small northeastern portion of Cañada College is in the City of Redwood City which was incorporated in 1897 (Cerny 2007).

The City of San Bruno, in which the Skyline College campus is located, was incorporated in 1914. During much of the late ninetieth century, San Bruno consisted of a few farms and roadhouses. The city began to develop in earnest after the 1906 earthquake and fire that destroyed much of San Francisco. San Bruno began to grow as a suburban community. In 1927, Mills field was dedicated as

an airport near the site now occupied by San Francisco International Airport. Although owned and operated by the City and County of San Francisco, the airport is an influential part of San Bruno's economy (Cerny 2007; Shoecraft 1989).

All three campuses are located within the County of San Mateo, which was organized in 1856 from portions of San Francisco County. The City of Belmont served as the original County seat, but in 1856 the seat moved to the City of Redwood City (Kyle 1990).

PHOTOGRAPH RECORD

Resource Name or #: College of San Mateo

Primary # HRI# Trinomial

ial

Year 2015

Page **1** of **7**

College of San Mateo. Photos taken by Aisha Fike, ICF International, May 11, 2015.



Photograph 1. The Music, Theater and Art buildings (2-4) connected by a colonnade with a central courtyard and fronted by pool.



Photograph 2. The Theater building (3) with central stepped courtyard.



Photograph 3. Entry space of Theater building. Note the typical hyperbolic paraboloid roof, original interior with diamond shaped drop lights and curved wood screen.



Photograph 4. Art building (4). View northwest.

PHOTOGRAPH RECORD

HRI# Trinomial

Primary #

Resource Name or #: College of San Mateo
Page 2 of 7

Year 2015



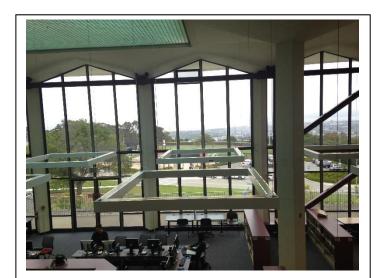
Photograph 5. Library building. View east at main entrance.



Photograph 5. Library building. View north.



Photograph 7. Library building. View north at main entrance and below grade level.



Photograph 8. Library interior. View north looking at bay.



Photograph 9. Library interior. View of two-story colonnades.



Photograph 10. Building 1. View west looking at main elevation and entrance.



Photograph 11. Gymnasium. View east looking at main elevation and entrance.



Photograph 12. Gym interior showing roof beams and folded plate design.

State of California — The Resources Agency DEPARTMENT OF PARKS AND RECREATION PHOTOGRAPH RECORD

Primary # HRI# Trinomial

Resource Name or #: College of San Mateo

Year 2015

Page 4 of 7



Photograph 13. View west showing Fine Arts Complex and Administration building.



Photograph 14. Building 19, view north of one-story elevation. Façade similar to building 19.



Photograph 15. Building 14, view west showing narrow elevation. Façade similar to building 16 and 18.



Photograph 16. View northwest at colonnade and building 18. Building 17 is recessed behind the colonnade.

PHOTOGRAPH RECORD

Resource Name or #: College of San Mateo Page **5** of **7** Primary # HRI# Trinomial

Year 2015



Photograph 17. Building 14 view north. Example glass curtain wall facade.



Photograph 18. View looking west from building 10 showing buildings 14-16 and the newly redesigned courtyard.



Photograph 19. Art Building and original pool, circa 1964.



Photograph 20. The Theater building central courtyard with the original circular play arena, circa 1960s.

PHOTOGRAPH RECORD

Primary # HRI# Trinomial

Resource Name or #: College of San Mateo Page 6 of **7** **Year** 2015

College of San Mateo. Historic photographs courtesy of the College of San Mateo Library Archives, Historical Photographic Collection. Available online at http://smccd.edu/photoarchives, accessed May 18, 2015.



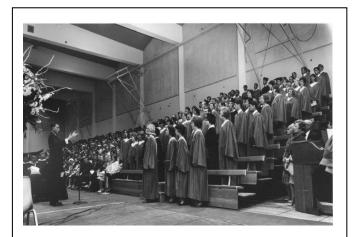
Photograph 21. Library, view east, circa 1965.



Photograph 22. Library interior, view east towards the bay, circa 1965.



Photograph 23. CSM Campus, aerial view, 1964.



Photograph 24. Gym interior, commencement, 1965.

PHOTOGRAPH RECORD

Primary # HRI# Trinomial

Resource Name or #: College of San Mateo
Page 7 of 7

Year 2015



Photograph 25. Admin Building 1, view west, showing original concrete colonnade attached to building 1 and 5. 1965. Circa 1965.



Photograph 26. Courtyard showing library to the right and building 14 to the left, circa 1960s.

Prin	mary #P-41	-002284	
HR	#		
Trir	nomial		
NR	HP Status Code		
Other Listings			
Review Code	Reviewer	Date	

Page 1 of 6

*Resource Name or #: College of San Mateo Fine and Performing Arts Building

- P1. Other Identifier: College Heights Campus; Building No. 3
- *P2. Location: ☐ Not for Publication Unrestricted *a. County: San Mateo
- *b. USGS Quad: San Mateo, CA 7.5' 1995 MDM
- c. Address: 1700 West Hillsdale Drive City: San Mateo Zip: 94402
- d. UTM: Zone:
- *e. Other Locational Data: (e.g., parcel #, directions to resource, elevation, etc., as appropriate): The Fine and Performing Arts Building is located at the far northeast corner of the hilltop campus. APN 038-281-360.

*P3a. Description:

The property consists of a two to three-story reinforced concrete fine arts complex designed in the Formal Modern Classical style of architecture, characterized by a central plaza surrounded on three sides by two-story classrooms and a two-story arcade formed by a series of square concrete columns that terminate on a flat roof that connects the two opposing buildings. In the front, or to the east of the arcaded entrance to the plaza, is a trapezoidal fountain and pool set in a low concrete foundation. On opposite sides of the poured concrete plaza surrounding the fountain are a series of free-standing arcaded pergolas of concrete that form the central space. The inside of the plaza, which stands two-stories tall, features the main entrance to the theater facing east and the Music and Art wings. All three elevations feature banks of pointed arched windows running from the ground floor to the ceiling, all of which provides extraordinary views outward towards the interior plaza. The building itself is sited atop a flat terrace with sloping sides to the north and south respectively. The east arcaded entrance to the plaza is flanked by smooth painted concrete walls surfaces lacking fenestration, but embellished by an exaggerated flat roof that extends well beyond the wall plane of the building. The side elevations of the building feature two rows of anodized aluminum windows with four windows per bank, having two lights per window with the top windows forming a v-shaped arch created by an elliptical roof that wraps around the building. Between the banks of windows are slightly textured concrete panels. The building returns inward on both its north and south elevations, featuring plain concrete panel walls that extend to the west forming the theater with the one-story sculpture and ceramics building on the far northwest end of the theater. An abstract stairway leads to the upper floors of the theater building along its northwest elevation, featuring two trapezoidal vertical slabs of concrete that mimic the fountain on the south of the building complex. Paneled concrete walls and banks of anodized aluminum windows finish the western end of the building, along with a tower extending upward for nearly four-stories. The far west elevation generally lacks fenestration, characterized by flat paneled concrete walls and the same roof profile. Unlike the east elevation, which is dominated by a hardscape, benches, and a fountain, the north and south elevations are surrounded by lawns.

*P3b. Resource Attributes: HP15 - Educational Building

*P4. Resources Present: ⊠ Building □ Structure □ Object

Photograph or Drawing (Photograph required for

P5b. Description of Photo: View looking north from the center of the plaza towards the east elevation of the Fine and Performing Arts Building.

☐ District

☐ Element of District

*P6. Date Constructed/Age and Sources: ■ Historic 1962-1963.

***P7. Owner and Address:** San Mateo County Community College District, 3401 CSM Drive, San Mateo, CA 94402.

***P8. Recorded by:** Dana E. Supernowicz, Historic Resource Associates, 2001 Sheffield Drive, El Dorado Hills, CA 95762.

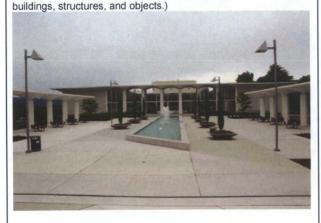
*P9. Date Recorded: June 2011

*P10. Type of Survey: ■ Architectural

☐ Site

Describe: Architectural Recordation and Evaluation per Section 106 of NHPA.

*P11. Report Citation: Cultural Resources Study of the College of San Mateo Project, AT&T Site No. CNU1796, 1700 West Hillsdale Drive, San Mateo, San Mateo County, California 94402. Prepared for EarthTouch, Inc., 3135 North Fairfield Road, Layton, Utah 84041. Prepared by Historic Resource Associates, 2001 Sheffield Drive, El Dorado Hills, CA 95762. June 2011.



*Attachments: Building, Structure, and Object Record; Photograph Record; Project Location Map

^{*}Required Information

State of California — The Resources Agency
DEPARTMENT OF PARKS AND RECREATION
BUILDING, STRUCTURE & OBJECT RECORD

*Resource Name or #: College of San Mateo Fine and Performing Arts Building

B1. Historic Name: Fine Arts Center Building

Page 2 of 6

B2. Common Name: Fine and Performing Arts Building

B3. Original Use: Educational Building B4. Present Use: Educational Building

*B5. Architectural Style: Modernist-Classical/Formal/Abstract

*B6. Construction History: According to San Mateo County Community College District records, construction began on the building in 1962 and it was completed in 1963.

*B7. Moved? ■ No ☐ Yes ☐ Unknown

Date: N/A Original Location:

NRHP Status Code: 3D

*B8. Related Features: The subject property is located atop a terraced hill overlooking San Mateo.

B9a. Architect: John Carl Warnecke B9b. Builder: Undetermined

*B10. Significance: Theme: Modern Formal/Classical/Abstract Architecture and Education Area: San Francisco Bay Area/San Mateo Period of Significance: 1963 Property Type: Educational Building Applicable Criteria: A, B and C

The historic context for the subject property reflects the post World War II expansion of San Mateo. During the Spanish Colonial period, Mission Dolores established a farming outpost and wayside hospice halfway down El Camino Real to San Jose in the area of present-day San Mateo. In the era of the ranchos, San Mateo became a stage stop. By 1863, the San Francisco-San Jose Railroad reached San Mateo, which boasted a waterfront and shipping industry. The city was platted and laid out by C. B. Polhemus in 1863 (Gudde 1969:290). In 1894, San Mateo was incorporated and by 1900, the population reached 1,832. The growth of San Mateo was slow, due to the disinclination of the wealthy San Franciscans west of the town, who built huge estates in Hillsborough, to subdivide and develop the area. Notable growth did not take place in San Mateo until after World War II, when housing tracts, shopping centers, and large educational plants were developed in the southern part of the city. In the 1950s, 70 percent of its working residents commuted to San Francisco, but by 1970 the majority worked in San Mateo at the electronic plants, retail stores, and business offices. With little manufacturing, San Mateo became geared toward tourism and commerce, promoting the Bay Meadows race track, parks, and retail shopping (Chapin et al. 1969:86-90; Gebhard 1985:133-134).

By 1950, the Hillsdale area of San Mateo was an evolving community and the need for new schools and college campuses to meet the demands of the burgeoning school district became apparent. The College of San Mateo, originally known as "College Heights" and completed in 1963, was designed by the Internationally recognized architect John C. Warnecke. Born on February 24, 1919 in Oakland, John Carl Warnecke earned a bachelor's degree from Stanford in 1941. He enrolled in Harvard's architecture school, where he studied with Walter Gropius and completed the three-year course in one year, receiving his master's degree in 1942. A football injury made him ineligible to serve in the military (Grimes 2010). Refer to BSO, Page 3 of 6.

B11. Additional Resource Attributes: N/A

B12. References: Alexander, Philip W. History of San Mateo County. 1916; Gebhard, David ed. The Guide to Architecture in San Francisco and Northern California. 1976, revised 1985; Gudde, Erwin G. California Place Names. Berkeley: University of California Press. 1969; Chapin, William et al. The Suburbs of San Francisco. San Francisco: Chronicle Books. 1969; Stone, Edward Durell. Edward Durell Stone: Recent and Future Architecture. New York: Horizon Press. 1967; College of San Mateo Archives, Historical Photograph Collection. Accessed June 2010; Grimes, William. "John Carl Warnecke, Architect to Kennedy, Dies at 91." New York Times, April 22, 2010; Betsky, Aaron. "John Carl Warnecke." Architect Magazine. www.architectmagazine.com. May 2010.

B13. Remarks: None

B14. Evaluator: Dana E. Supernowicz, Architectural Historian, Historic Resource Associates, 2001 Sheffield Drive, El Dorado Hills, CA 95762.

Date of Evaluation: June 2011

(This	space	reserved	for	official	comments	

Primary # P-41-002284

HRI#

BUILDING, STRUCTURE & OBJECT RECORD

Page 3 of 6

*Resource Name or #: College of San Mateo Fine and Performing Arts Building

NRHP Status Code: 3D

*B10. Significance: (Continued):

After working for the housing authority in Richmond and as a draftsman in his father's firm, he set up his own architectural practice and developed a reputation for his environmentally sensitive designs for buildings at Stanford and the University of California, Berkeley. His contextual approach was applied at the Mira Vista Elementary School in El Cerrito (1951), which appeared to grow organically out of the hills behind it. His open-space design for the Mabel McDowell Elementary School in Columbus, Indiana (1960), designated a National Historic Landmark in 2001, addressed the flat landscape, with its silos, barns and Victorian houses. By 1977 Warnecke was running the largest architectural firm in the United States, with offices in San Francisco, Los Angeles, New York, Boston, Washington and Honolulu. His large-scale projects included the AT&T Long Lines Building on Thomas Street in Manhattan (1974), the Soviet Embassy (1975) and the Hart Senate Office Building (1982) in Washington, and the South Terminal at Logan Airport in Boston (1977). After 1977 he began scaling down his practice. In retirement, he grew grapes on his ranch in the Alexander Valley and worked on his memoirs, which he completed shortly before his death on April 22, 2010 (Grimes 2010; Betsky 2010).

Another important nationally recognized Modernist architect whose work was similar to Warneckes' was Edward Durell Stone. In the mid-1950s Stone moved away from strict modernist tenets and began to fuse the formalism of his early Beaux-Arts training with a romantic historicism. This historicizing aspect of Stone's work was in part influenced by his second wife, Maria Elena Torchino, and his frequent travels to Italy, which reawakened his interest in classical and Italianate precedent. A cover story on Stone in the March 31, 1958 issue of Time magazine led to a series of important national and international commissions, and Stone's firm grew in size from 20 architects to over 200. No longer an intimate design atelier, Stone's office became a stratified corporate entity and his work became uneven and formulaic. Stone continued to garner major architectural commissions into the early 1970s. The State University of New York at Albany, the John F. Kennedy Center for the Performing Arts in Washington, DC, and the Standard Oil Building in Chicago were notable examples of late phase work (Stone 1967).

The College of San Mateo Fine Arts Building and the other campus buildings from the early 1960s represents some of Warnecke's finest achievements in Modern Eclectic architectural design that blended abstract styles with Neo-Classical or formal architecture to form a cohesive campus that visually represented his values in higher education and the natural setting he was engaged in developing. Warnecke's later work, particularly during the 1980s, has been said to be sub-par with his earlier work, particularly during the 1950s and 1960s. Today, the College of San Mateo consists of approximately 17 buildings. The original 1963 Warnecke buildings are distinguishable for their Modernist design influenced by Classicism and abstraction having concrete panel walls, flat roofs, arcades, banks of arched windows, and abstract sun screens. The newer campus buildings tend to be more abstract lacking the formalism or Classicism embodied in the designs provided by Warnecke.

As a whole the campus still retains a strong sense of architectural continuity from the 1960s, despite new building additions, minor alterations to the water feature in front of the Fine and Performing Arts Building, and increased campus parking and service structures. In conclusion, the buildings designed by Architect John Carl Warnecke and constructed in 1962-1963 appear to be contributing elements to a National Register of Historic Places (NRHP) campus historic district associated with Modern Architecture (1962-1963) and an important regional example of this form of architecture designed by the renowned and Internationally recognized architect John Carl Warnecke. The contributing buildings include the Fine and Performing Arts (Building 3), Administration (Building 1), Gymnasium (Building 8), and Library (Building 9). The campus building and structures constructed post-1965 and not part of the original Warnecke plan for the campus are non-contributing elements to the district. Refer to BSO, Page 4 of 6.

Primary # P-41-002284

HRI#

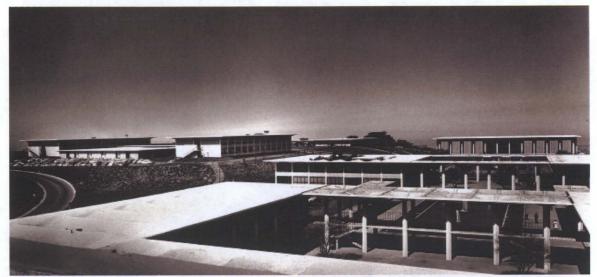
BUILDING, STRUCTURE & OBJECT RECORD

Page 4 of 6

*Resource Name or #: College of San Mateo Fine and Performing Arts Building

NRHP Status Code: 3D

*B10. Significance: (Continued):



View of the campus, circa 1964, looking at Buildings 14 and 16 on the left and the Library (Building 9) on the right (courtesy College of San Mateo Archives, Historical Photograph Collection)



View of the pool and fountain from the Library looking towards the Fine and Performing Arts Center, early 1960s (courtesy College of San Mateo Archives, Historical Photograph Collection, Photograph #000497).

Primary # P-41-002284

HRI#

BUILDING, STRUCTURE & OBJECT RECORD

Page 5 of 6

*Resource Name or #: College of San Mateo Fine and Performing Arts Building

NRHP Status Code: 3D

*B10. Significance: (Continued):



View of Fine and Performing Arts Center in 1963, the year the campus opened (courtesy College of San Mateo Archives, Historical Photograph Collection).



Fine and Performing Arts Center view through the plaza early 1960s (courtesy College of San Mateo Archives, Historical Photograph Collection, Photograph #000497).

Primary # _____P-41-002284 HRI#

BUILDING, STRUCTURE & OBJECT RECORD

Page 6 of 6

*Resource Name or #: College of San Mateo Fine and Performing Arts Building

NRHP Status Code: 3D

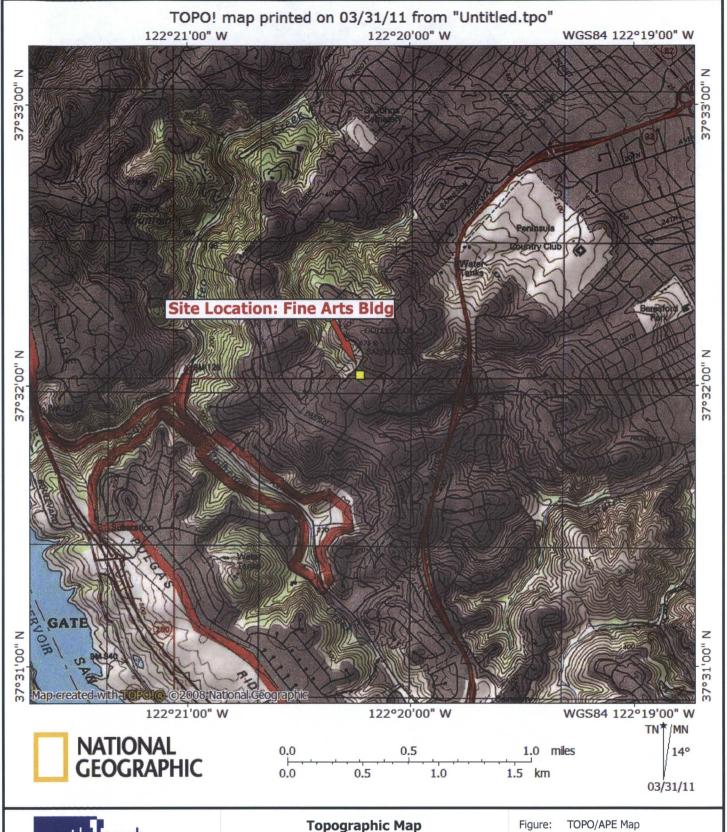
*B10. Significance: (Continued):



Fine and Performing Arts Center Building, 1970 (courtesy College of San Mateo Archives, Historical Photograph Collection, Photograph #000497).



Aerial Photograph of the College of San Mateo, 2011 (The arrow points to the Fine and Performing Arts Building).





EarthTouch, Inc. 3135 North Fairfield Road Layton, Utah 84041 Tel: 801.771.2800 Fax: 801.771.2838 (Site Location)
College of San Mateo
Fine & Performing Arts Bldg
1700 W Hillsdale Drive
San Mateo City and County, CA 94402
T5S R4W Section 6

Project: CA-CNU1796-ERI / College of

San Mateo

Source: USGS 7.5-minute quadrangle

San Mateo, CA



Fax Transmission

Date:	May 8, 2015
Attention:	Debbie Pilas-Treadway, Native American Heritage Commission
Fax Number:	916-373-5471
Number of Pages:	1
From:	Joanne Grant, Senior Archaeologist
Subject:	Sacred Lands File Search Request
Client:	San Mateo County Community College District (SMCCCD)
Project:	2015 Facilities Master Plan Amendment, Project #234.15

Dear Ms. Pilas-Treadway,

The San Mateo County Community College District (District) proposes improvements at 3 campuses in San Mateo County: Cañada College in Redwood City and the Town of Woodside, College of San Mateo (CSM) in the City of San Mateo, and Skyline College in the City of San Bruno. The planned improvements include building modernization and renovation, building demolition, new building construction, tree removal, landscaping/pedestrian improvements, changes in parking and roadways, and potential renewable energy installations.

The project locations for each of the 3 campuses are provided below. **Cañada College:** Woodside Quad, T5S and T6S, R4W, unsectioned **College of San Mateo**: Palo Alto Quad, T4S and T5S, R4W, unsectioned

Skyline College: San Francisco South and Montara Mountain Quads, T3S, R5W and 6W, unsectioned

I am requesting the following information:

- 1) Groups or individuals the NAHC believes should be notified regarding this project; and
- 2) Identification by the NAHC of any sacred lands within the subject lands that are listed within the Sacred Lands file.

Thank you for your assistance. Feel free to contact me with any questions regarding this request.

Sincerely,

Joanne S. Grant, RPA

STATE OF CALIFORNIA

Edmund G. Brown, Jr., Governor

NATIVE AMERICAN HERITAGE COMMISSION

1550 Harbor Blvd. West Sacramento, CA 95691 (916) 373-3710 Fax (916) 373-5471



June 8, 2015

Joanne Grant ICF 620 Folsom Street, 2nd Floor San Francisco, CA 94107

FAX: 415-677-7177

2 Pages 2015 Facilities Master Plan Amendment project 234.15, San Mateo, County

Ms. Grant;

A record search of the sacred land file has failed to indicate the presence of Native American cultural resources in the immediate project area. The absence of specific site information in the sacred lands file does not indicate the absence of cultural resources in any project area. Other sources of cultural resources should also be contacted for information regarding known and recorded sites.

Enclosed is a list of Native Americans individuals/organizations who may have knowledge of cultural resources in the project area. The Commission makes no recommendation or preference of a single individual, or group over another. This list should provide a starting place in locating areas of potential adverse impact within the proposed project area. I suggest you contact all of those indicated, if they cannot supply information, they might recommend others with specific knowledge. By contacting all those listed, your organization will be better able to respond to claims of failure to consult with the appropriate tribe or group. If a response has not been received within two weeks of notification, the Commission requests that you follow-up with a telephone call to ensure that the project information has been received.

If you receive notification of change of addresses and phone numbers from any of these individuals or groups, please notify me. With your assistance we are able to assure that our lists contain current information. If you have any questions or need additional information, please contact me at (916) 373-3713.

Sincerely.

Detrbie Pilas-Treadway Environmental Specialist III

Lasta Winston for

Native American Contacts San Mateo County June 8, 2015

Jakki Kehl 720 North 2nd Street Patterson , CA 95363

Ohlone/Costanoan

Indian Canyon Mutsun Band of Costanoan Ann Marie Sayers, Chairperson P.O. Box 28 Ohlone/Costanoan Hollister . CA 95024

jakkikehl@gmail.com 510-701-3975

ams@indiancanyon.org (831) 637-4238

Linda G. Yamane 1585 Mira Mar Ave

Seaside , CA 93955

rumsien123@yahoo.com

(831) 394-5915

Ohlone/Costanaon

Muwekma Ohlone Indian Tribe of the SF Bay Area Rosemary Cambra, Chairperson

P.O. Box 360791 Milpitas

, CA 95036

muwekma@muwekma.org

(408) 205-9714 (510) 581-5194

Amah MutsunTribal Band of Mission San Juan Bautista

Irenne Zwierlein, Chairperson

789 Canada Road

Ohlone/Costanoan

Woodside

, CA 94062

amahmutsuntribal@gmail.com

(650) 400-4806 Cell

(650) 332-1526 Fax

Amah MutsunTribal Band of Mission San Juan Bautista

Michelle Zimmer

789 Canada Road

Ohlone/Costanoan

, CA 94062 Woodside amahmutsuntribal@gmail.com

(650) 851-7747 Home

(650) 332-1526 Fax

Coastanoan Rumsen Carmel Tribe

Tony Cerda, Chairperson 240 E. 1st Street

Ohlone/Costanoan

Pomona

- CA 91766

rumsen@aol.com

(909) 524-8041 Cell

(909) 629-6081

The Ohlone Indian Tribe Andrew Galvan

P.O. Box 3152

, CA 94539

Fremont chochenyo@AQL.com

Plains Miwok Patwin

(510) 882-0527 Cell

(510) 687-9393 Fax

Trina Marine Ruano Family Ramona Garibay, Representative

30940 Watkins Street

Union City , CA 94587

soaprootmo@comcast.net (510) 972-0645

Ohlone/Costanoan

Ohlone/Costanoan

Bay Miwok

Ohlone / Costanoan

Bay Miwok Plains Miwok

Patwin

This list is current only as of the date of this document.

Distribution of this list does not relieve any person of statutory responsibility as defined in Section 7050.5 of the Health and Safety Code, Section 5097.94 of the Public Resource Section 5097.98 of the Public Resources Code

This list is only applicable for contacting local Native Americans with regard to cultural resources for the proposed 2015 Facilities Master Plan Amendment, project 234.15, San Mateo County.



August 6, 2015

Andrew Galvan PO Box 3152 Fremont, CA 94539

Subject: 2015 Facilities Master Plan Amendment, Project #234.15 – San Mateo County

Dear Mr. Galvan,

The San Mateo County Community College District (District) proposes improvements at 3 campuses in San Mateo County: Cañada College in Redwood City and the Town of Woodside, College of San Mateo (CSM) in the City of San Mateo, and Skyline College in the City of San Bruno. The planned improvements include building modernization and renovation, building demolition, new building construction, tree removal, landscaping/ pedestrian improvements, changes in parking and roadways, and potential renewable energy installations.

The project locations for each of the 3 campuses are provided below. **Cañada College:** Woodside Quad, T5S and T6S, R4W, unsectioned **College of San Mateo**: Palo Alto Quad, T4S and T5S, R4W, unsectioned

Skyline College: San Francisco South and Montara Mountain Quads, T3S, R5W and 6W,

unsectioned

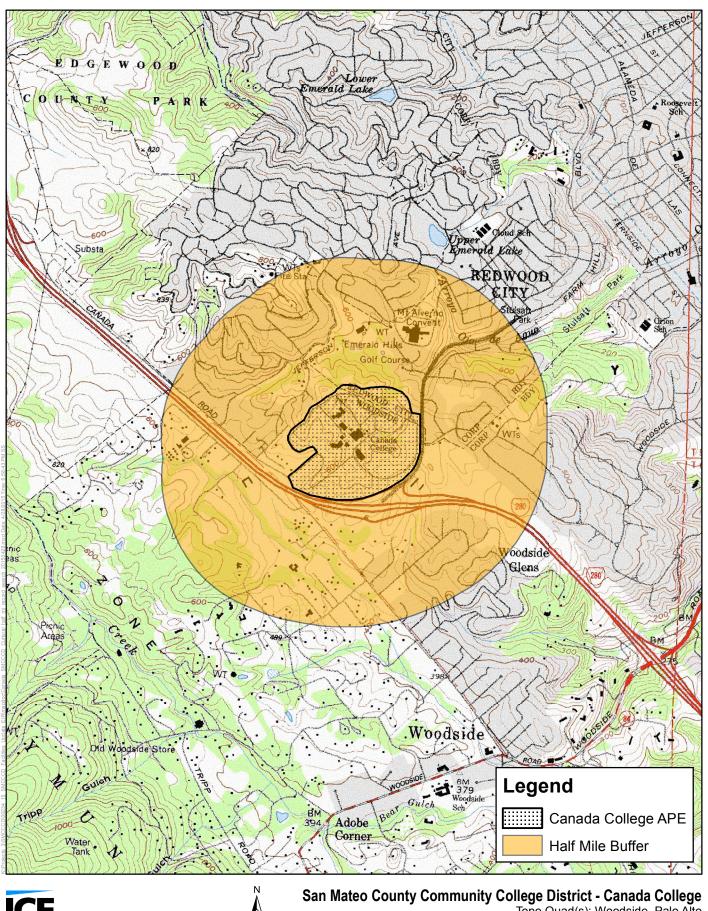
The Native American Heritage Commission searched their sacred lands database, which failed to indicate the presence of Native American cultural resources within the immediate project area. They also provided your name as a Native American representative who may have knowledge of cultural resources within or near the project area.

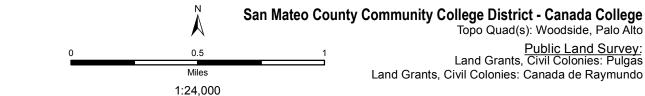
Please contact me by telephone (415) 677-7132 or by e-mail (lily.henryroberts@icfi.com) if you have any questions, concerns, or information regarding the sensitivity of the project area.

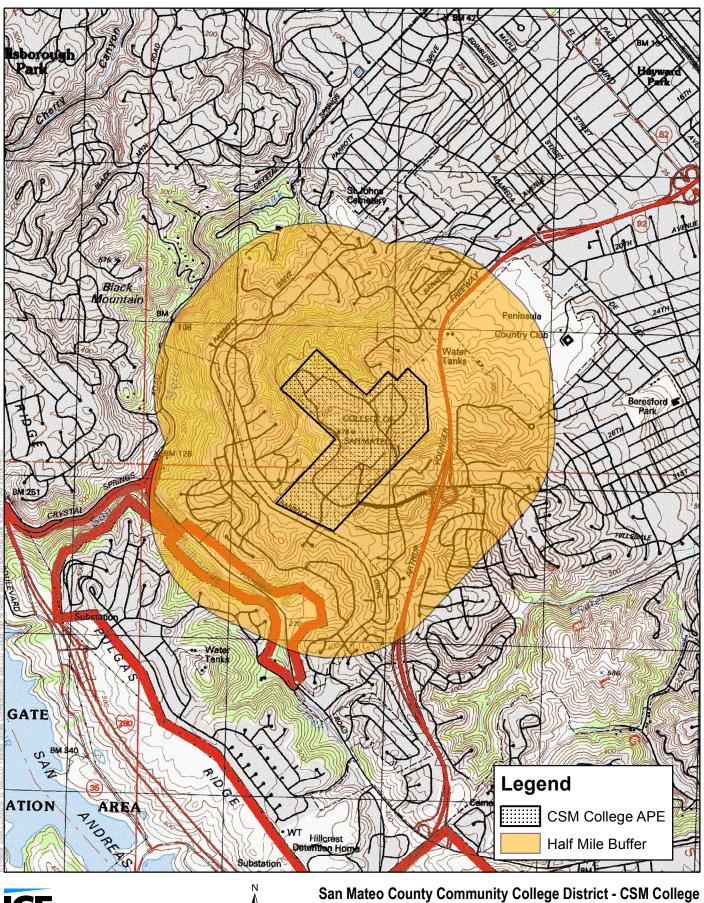
Sincerely,

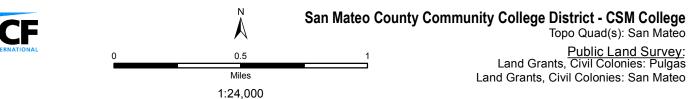
Lily Henry Roberts Archaeologist

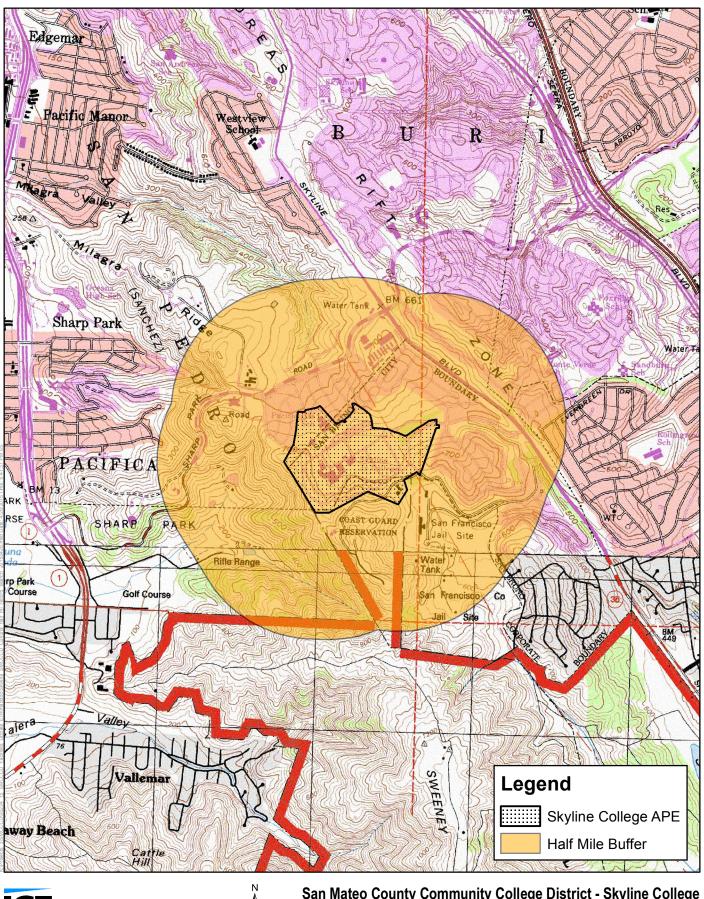
Map Enclosed

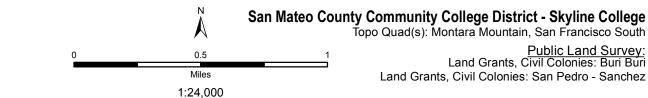












Appendix E

Transportation and Traffic Calculations

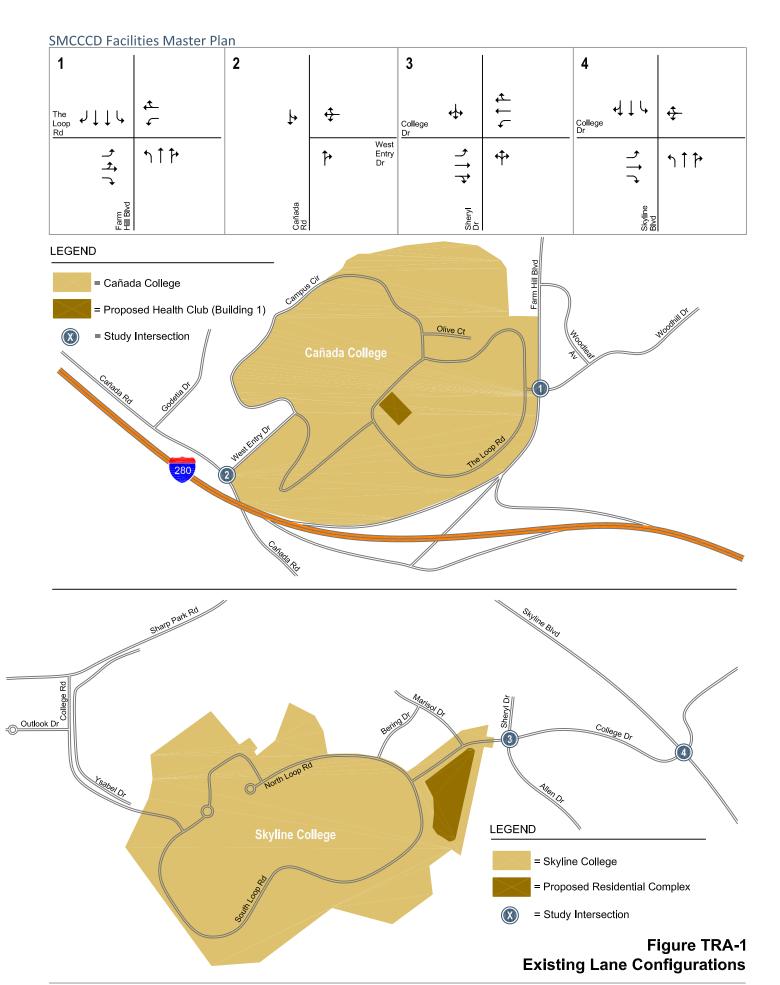
Appendix E-1: Figures and Tables

Appendix E-2: Traffic Counts

Appendix E-3: Traffic Volumes

Appendix E-4: LOS Calculations

Figures and Tables







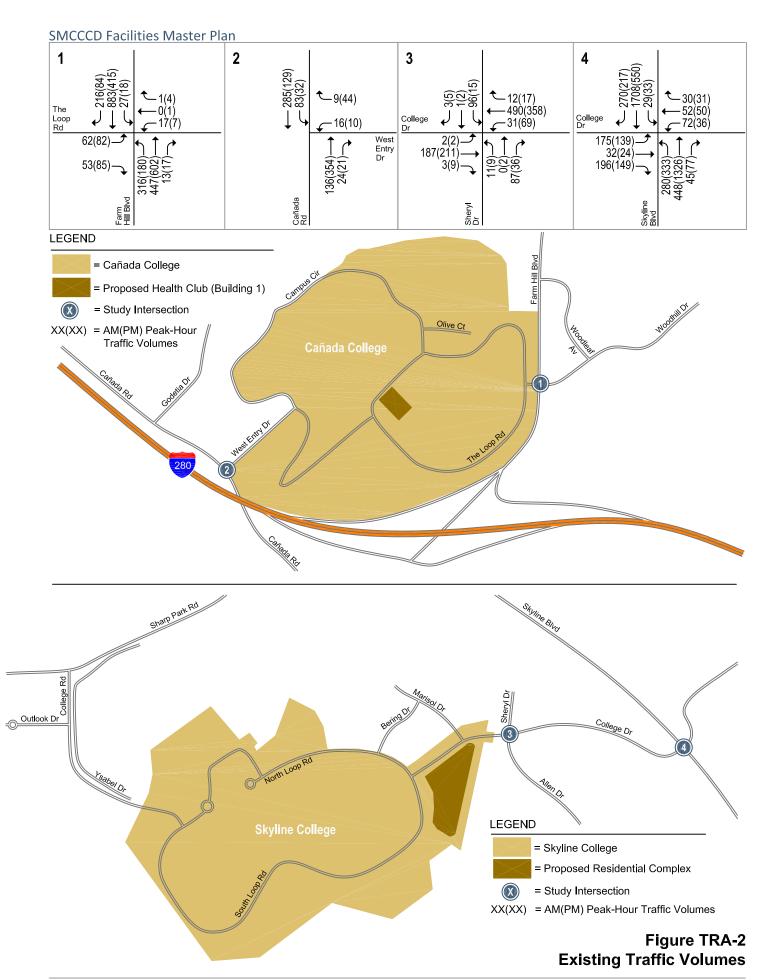






Table TRA-1. College of San Mateo Health Club Usage and Vehicle Trip Rate Estimates

		Daily	Weekday		AM F	eak Ho	our (w	eekday)		PM P	eak Ho	ur (we	ekday)	
		Vehicle	Check-	Pk-Hr	Sp	olit			Check-Ins	Pk-Hr	Sp	olit			Check-Ins
		Trip Rates	ins ¹	Trip Rate	ln	Out	In ¹	Out ¹	& -Outs ²	Trip Rate	ln	Out	In ¹	Out ¹	& -Outs ³
Member Check-Ins															
All Members	5,014		866				76	45	121				80	59	139
General Public Members ⁴	3,943		681				60	35	95				63	46	109
Vehicle Trip and Trip Rate	Estimate	es													
All Members ⁵	5,014	0.14	681	0.02	63%	37%	60	35	95	0.02	58%	42%	63	46	109

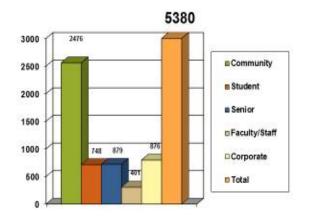
Notes:

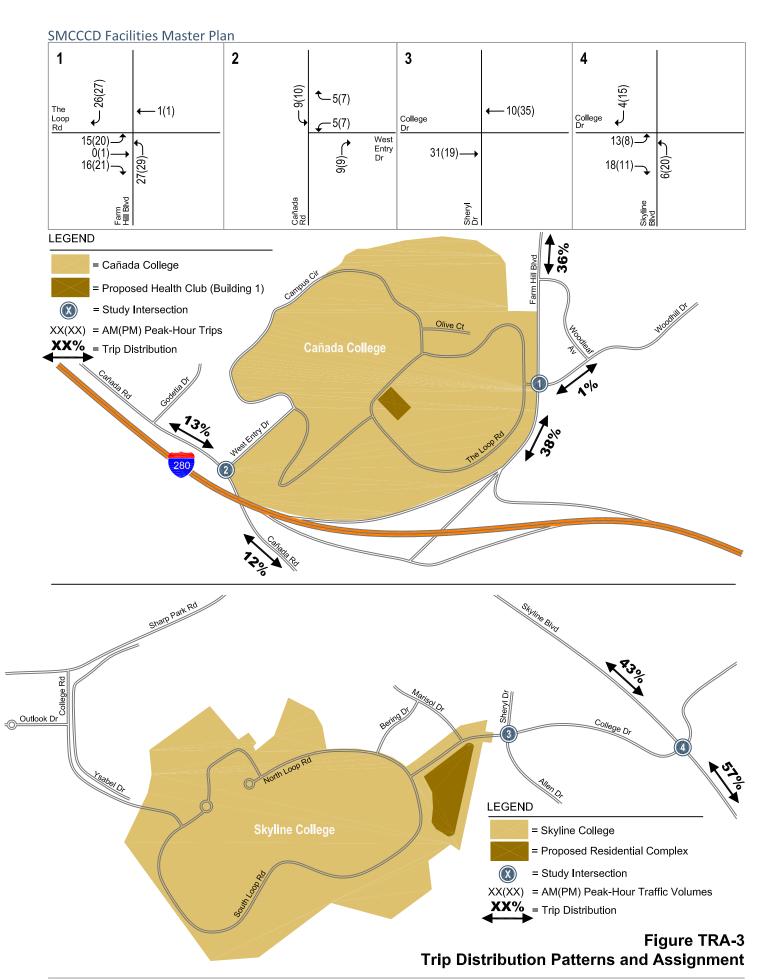
Table developed by Hexagon Transportation Consultants.

- 1. Based on 2014 September Check-Ins Data collected by SMCCCD. There were 5,014 members as of September 2014.
- 2. AM peak hour check-ins & -outs include 84 check-ins in 8-9 am and 52 check-ins in 7-8 am which was assumed to exit in 8-9 am.
- 3. PM peak hour check-ins & -outs include 94 check-ins in 5-6 pm and 65 check-ins in 4-5 pm which was assumed to exit in 5-6 pm.
- 4. It was assumed that faculty, staff, and student members go to the club before and after work or school, so they don't generate additional vehicle trips. Therefore, check-ins were calculated for the general public (GP) members, using the ratio of GP members to all members. It was assumed that the membership breakdown in September 2014 would be similar to the breakdown in January 2015.
- 5. Daily and peak-hour trip rates were calculated using chick-ins from GP members. It is assumed one vehicle trip per check-in.

MEMBERS

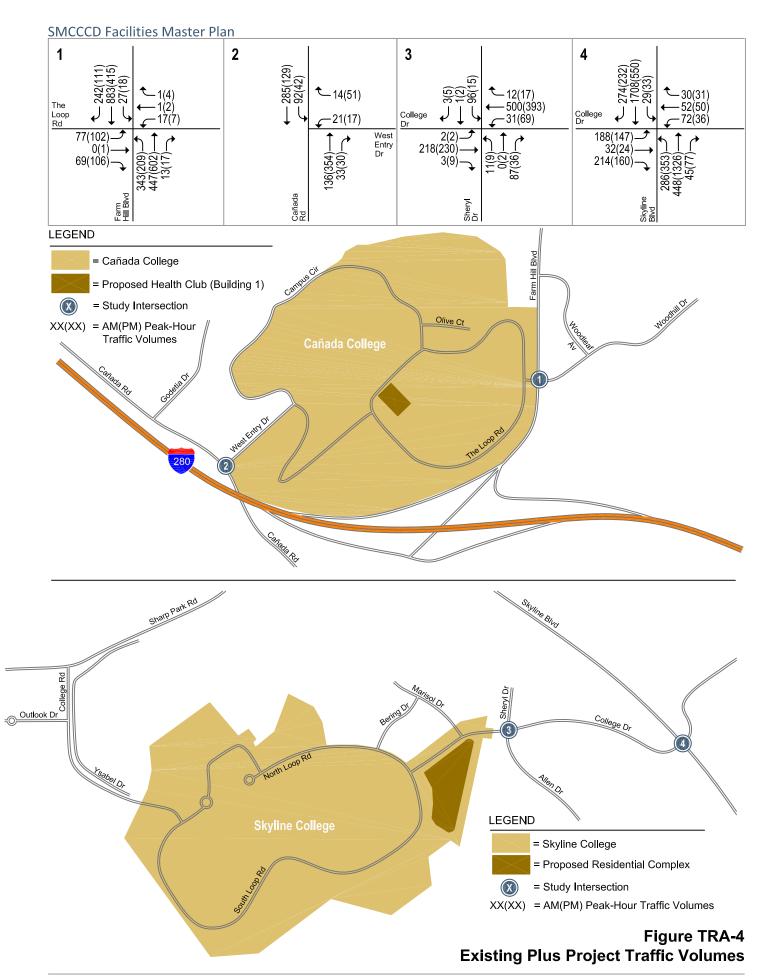
Through January 2015





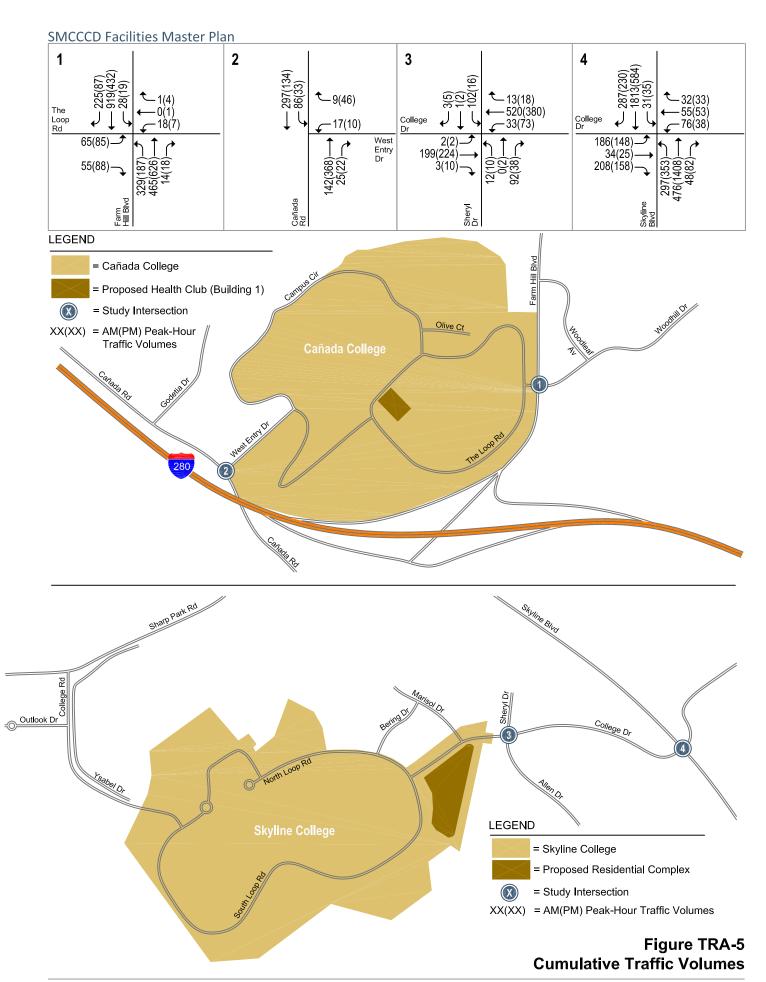






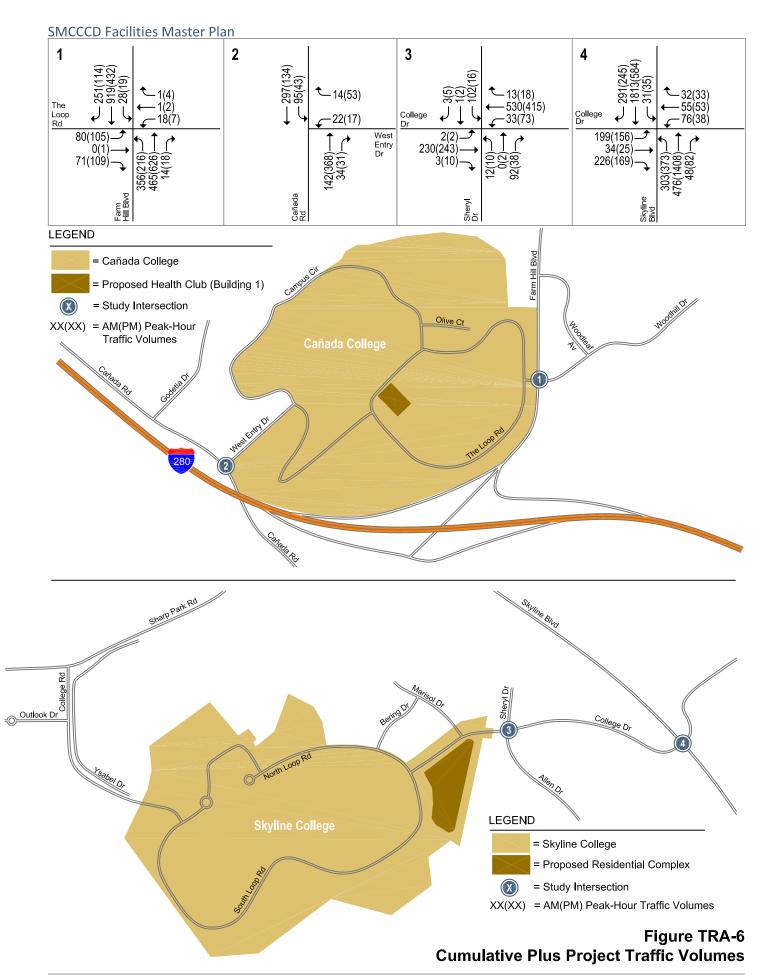






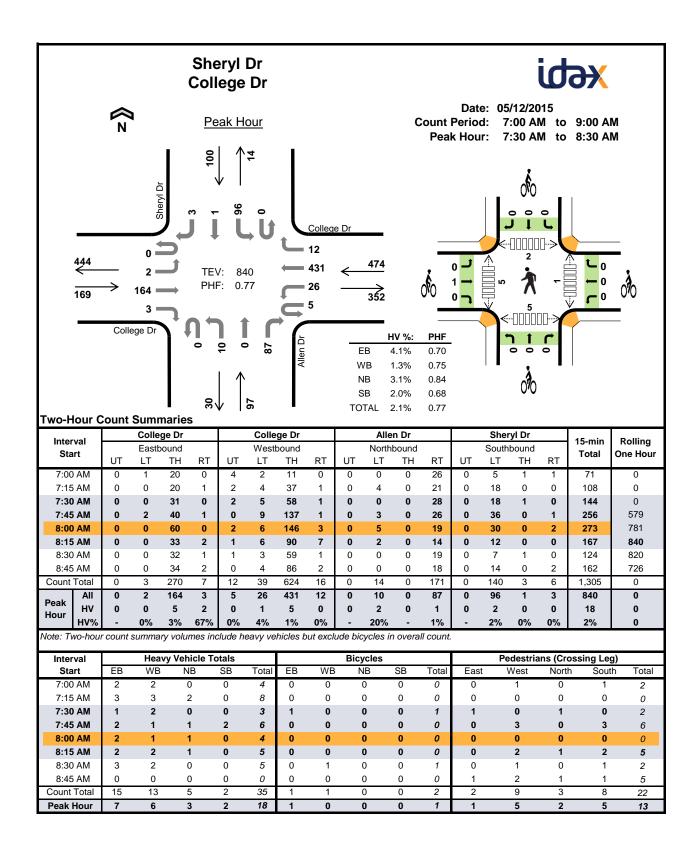






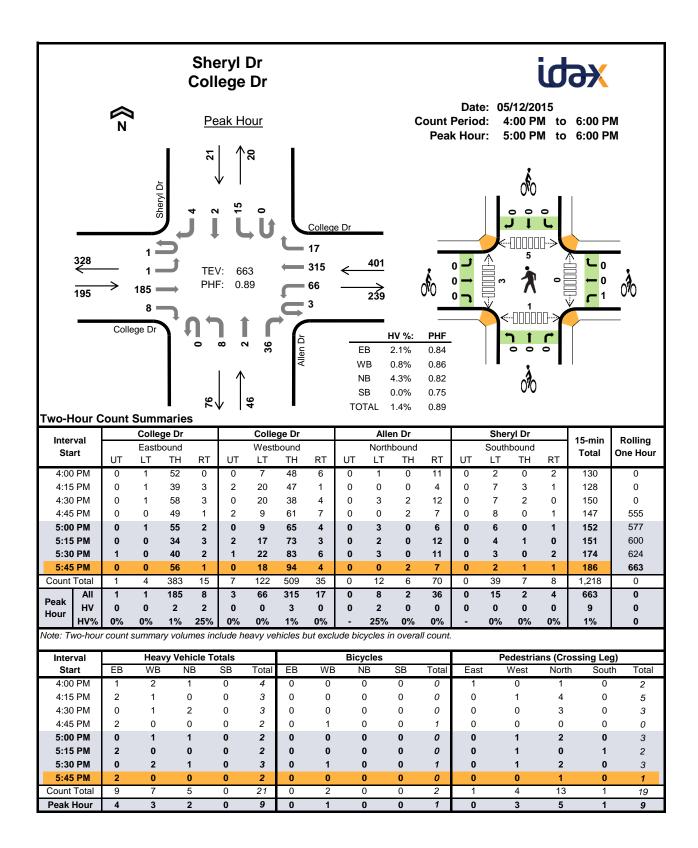






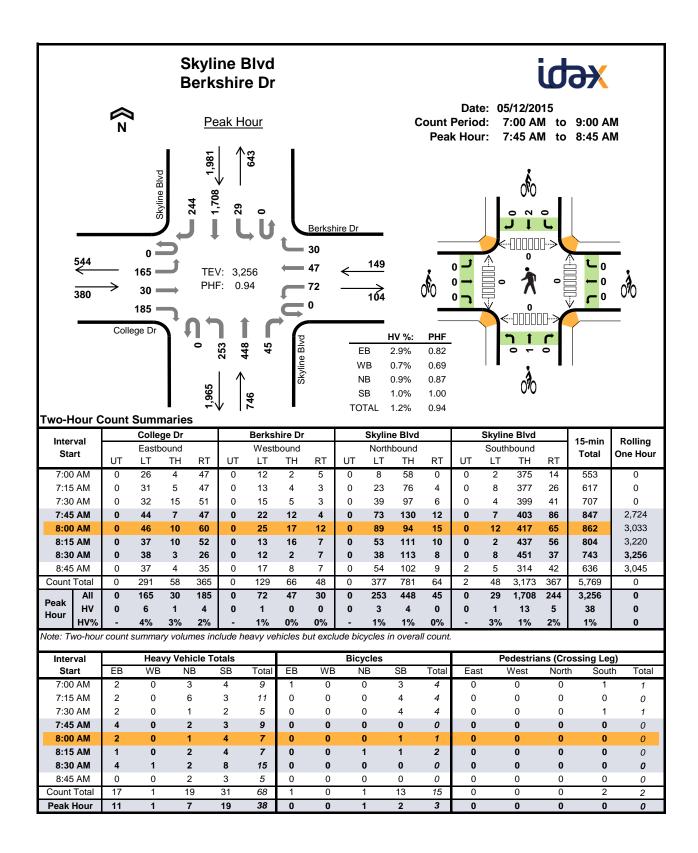
Interval		Colle	ge Dr			Colle	ge Dr			Alle	n Dr			Sher	yl Dr		45	Dallina
Start		Eastb	oound			Westl	bound			North	bound			South	bound		15-min Total	Rolling One Hou
Start	UT	LT	TH	RT	Total	One nou												
7:00 AM	0	0	2	0	0	0	2	0	0	0	0	0	0	0	0	0	4	0
7:15 AM	0	0	2	1	0	0	2	1	0	2	0	0	0	0	0	0	8	0
7:30 AM	0	0	1	0	0	0	2	0	0	0	0	0	0	0	0	0	3	0
7:45 AM	0	0	1	1	0	1	0	0	0	0	0	1	0	2	0	0	6	21
8:00 AM	0	0	2	0	0	0	1	0	0	1	0	0	0	0	0	0	4	21
8:15 AM	0	0	1	1	0	0	2	0	0	1	0	0	0	0	0	0	5	18
8:30 AM	0	0	3	0	0	0	2	0	0	0	0	0	0	0	0	0	5	20
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	14
Count Total	0	0	12	3	0	1	11	1	0	4	0	1	0	2	0	0	35	0
Peak Hour	0	0	5	2	0	1	5	0	0	2	0	1	0	2	0	0	18	0

Interval	(College D)r	(College D)r		Allen Dr	3 0		Sheryl D	r	15-min	Delling
Interval Start	I	Eastboun	d	V	Vestboun	ıd	١	lorthbour	nd	S	outhbour	nd	Total	Rolling One Hour
Start	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT	Total	One Hou
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	1	0	0	0	0	0	0	0	0	0	0	1	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	1
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	1
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	1
8:30 AM	0	0	0	0	1	0	0	0	0	0	0	0	1	1
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	1
Count Total	0	1	0	0	1	0	0	0	0	0	0	0	2	0
Peak Hour	0	1	0	0	0	0	0	0	0	0	0	0	1	0



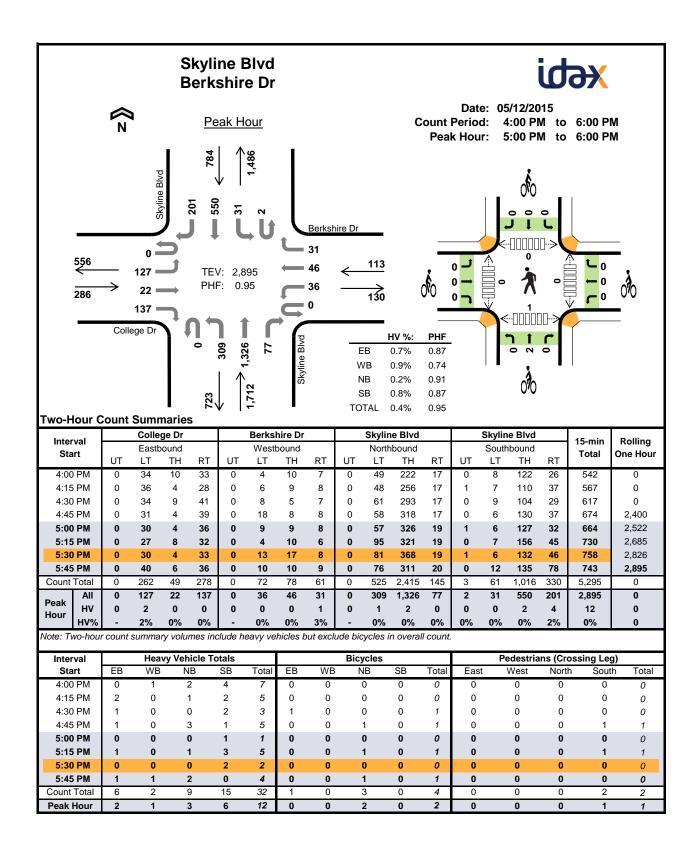
latamal.		Colle	ge Dr			Colle	ge Dr			Alle	n Dr			Sher	yl Dr		15-min	Dalling
Interval Start		Eastl	oound			West	bound			North	bound			South	bound		Total	Rolling One Hour
Otart	UT	LT	TH	RT	Total	One nou												
4:00 PM	0	0	1	0	0	0	2	0	0	1	0	0	0	0	0	0	4	0
4:15 PM	0	0	1	1	0	1	0	0	0	0	0	0	0	0	0	0	3	0
4:30 PM	0	0	0	0	0	0	1	0	0	1	0	1	0	0	0	0	3	0
4:45 PM	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	2	12
5:00 PM	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	2	10
5:15 PM	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	2	9
5:30 PM	0	0	0	0	0	0	2	0	0	1	0	0	0	0	0	0	3	9
5:45 PM	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	2	9
Count Total	0	0	5	4	0	1	6	0	0	4	0	1	0	0	0	0	21	0
Peak Hour	0	0	2	2	0	0	3	0	0	2	0	0	0	0	0	0	9	0

lusta maal	(College D	r	(College D)r		Allen Dr			Sheryl D	r	45	D - III
Interval Start		Eastbound	d	V	Vestboun	d	١	lorthbour	nd	S	outhbour	nd	15-min Total	Rolling One Hour
Start	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT	Total	One Hour
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	1	0	0	0	0	0	0	0	1	1
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	1
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	1
5:30 PM	0	0	0	1	0	0	0	0	0	0	0	0	1	2
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	1
Count Total	0	0	0	1	1	0	0	0	0	0	0	0	2	0
Peak Hour	0	0	0	1	0	0	0	0	0	0	0	0	1	0



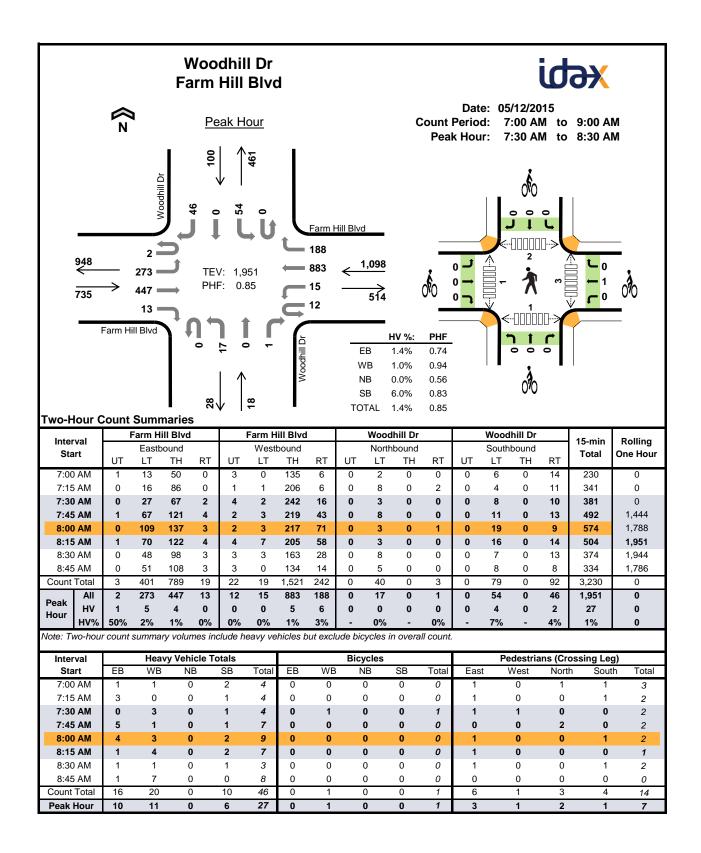
Interval		Colle	ge Dr			Berks	hire Dr			Skylin	e Blvd			Skylin	e Blvd		45	Dalling
Interval Start		Eastb	ound			Westl	bound			North	bound			South	bound		15-min Total	Rolling One Hour
Start	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	Total	One nour
7:00 AM	0	1	0	1	0	0	0	0	0	1	2	0	0	0	3	1	9	0
7:15 AM	0	2	0	0	0	0	0	0	0	2	4	0	0	1	0	2	11	0
7:30 AM	0	2	0	0	0	0	0	0	0	1	0	0	0	0	1	1	5	0
7:45 AM	0	3	0	1	0	0	0	0	0	1	1	0	0	0	2	1	9	34
8:00 AM	0	0	0	2	0	0	0	0	0	0	1	0	0	0	3	1	7	32
8:15 AM	0	1	0	0	0	0	0	0	0	2	0	0	0	0	3	1	7	28
8:30 AM	0	2	1	1	0	1	0	0	0	0	2	0	0	1	5	2	15	38
8:45 AM	0	0	0	0	0	0	0	0	0	0	2	0	0	0	3	0	5	34
Count Total	0	11	1	5	0	1	0	0	0	7	12	0	0	2	20	9	68	0
Peak Hour	0	6	1	4	0	1	0	0	0	3	4	0	0	1	13	5	38	0

Interval	(College D)r	В	erkshire	Dr	SI	kyline Bl	vd	SI	kyline Bl	/d	45 min	Dalling
Interval Start	ı	Eastboun	d	V	Vestbour	nd	١	Northbour	nd	S	Southbour	nd	15-min Total	Rolling One Hour
Otart	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT	Total	One nou
7:00 AM	0	0	1	0	0	0	0	0	0	0	3	0	4	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	4	0	4	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	4	0	4	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	12
8:00 AM	0	0	0	0	0	0	0	0	0	0	1	0	1	9
8:15 AM	0	0	0	0	0	0	0	1	0	0	1	0	2	7
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	3
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	3
Count Total	0	0	1	0	0	0	0	1	0	0	13	0	15	0
Peak Hour	0	0	0	0	0	0	0	1	0	0	2	0	3	0



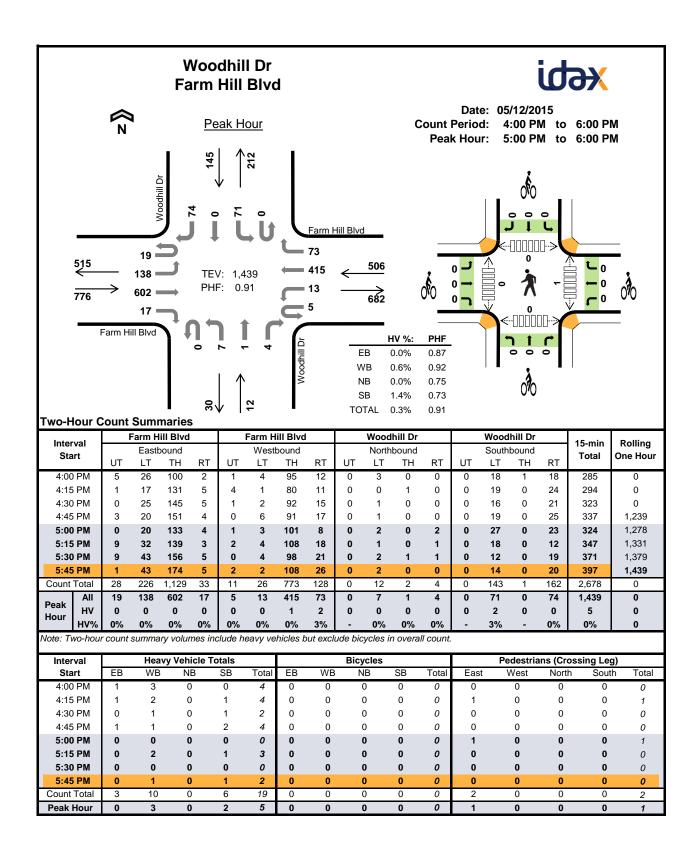
Interval		Colle	ge Dr			Berks	hire Dr			Skylin	e Blvd			Skylin	e Blvd		15-min	Rolling
Start		Eastb	ound			West	bound			North	bound			South	bound		Total	One Hour
Otart	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	Total	One nour
4:00 PM	0	0	0	0	0	0	1	0	0	1	1	0	0	0	3	1	7	0
4:15 PM	0	2	0	0	0	0	0	0	0	0	1	0	0	0	1	1	5	0
4:30 PM	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1	1	3	0
4:45 PM	0	1	0	0	0	0	0	0	0	1	1	1	0	0	1	0	5	20
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	14
5:15 PM	0	1	0	0	0	0	0	0	0	0	1	0	0	0	2	1	5	14
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	2	13
5:45 PM	0	1	0	0	0	0	0	1	0	1	1	0	0	0	0	0	4	12
Count Total	0	5	0	1	0	0	1	1	0	3	5	1	0	0	8	7	32	0
Peak Hour	0	2	0	0	0	0	0	1	0	1	2	0	0	0	2	4	12	0

lusta maal	(College D	r	В	erkshire	Dr	SI	kyline Bl	vd	SI	kyline Bl	/d	45	D - III
Interval Start		Eastboun	d	V	Vestbour	nd	١	Northbour	nd	S	outhbour	nd	15-min Total	Rolling One Hour
Start	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT	Total	One Hou
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	1	0	0	0	0	0	0	0	0	0	0	0	1	0
4:45 PM	0	0	0	0	0	0	1	0	0	0	0	0	1	2
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	2
5:15 PM	0	0	0	0	0	0	0	1	0	0	0	0	1	3
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	2
5:45 PM	0	0	0	0	0	0	0	1	0	0	0	0	1	2
Count Total	1	0	0	0	0	0	1	2	0	0	0	0	4	0
Peak Hour	0	0	0	0	0	0	0	2	0	0	0	0	2	0



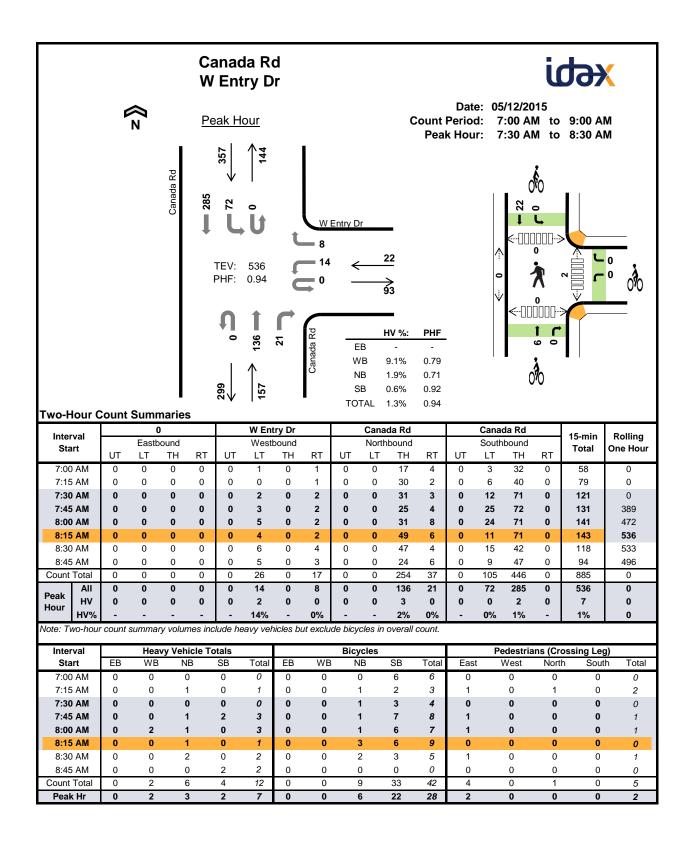
lutam al	ı	Farm H	ill Blvd		I	arm H	ill Blvc	l		Wood	hill Dr			Wood	hill Dr		45	Dallina
Interval Start		Eastb	ound			Westl	bound			North	bound			South	bound		15-min Total	Rolling One Hour
Start	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	Total	One riou
7:00 AM	0	1	0	0	0	0	0	1	0	0	0	0	0	0	0	2	4	0
7:15 AM	0	0	3	0	0	0	0	0	0	0	0	0	0	1	0	0	4	0
7:30 AM	0	0	0	0	0	0	1	2	0	0	0	0	0	1	0	0	4	0
7:45 AM	1	1	3	0	0	0	0	1	0	0	0	0	0	1	0	0	7	19
8:00 AM	0	4	0	0	0	0	1	2	0	0	0	0	0	2	0	0	9	24
8:15 AM	0	0	1	0	0	0	3	1	0	0	0	0	0	0	0	2	7	27
8:30 AM	0	0	1	0	0	0	1	0	0	0	0	0	0	1	0	0	3	26
8:45 AM	0	1	0	0	0	0	6	1	0	0	0	0	0	0	0	0	8	27
Count Total	1	7	8	0	0	0	12	8	0	0	0	0	0	6	0	4	46	0
Peak Hour	1	5	4	0	0	0	5	6	0	0	0	0	0	4	0	2	27	0

Internal	Fai	m Hill B	lvd	Fai	rm Hill B	lvd	W	oodhill I	Dr	V	/oodhill	Dr	45	D - III
Interval Start	E	Eastboun	d	V	Vestboun	ıd	١	Northbour	nd	S	outhbour	nd	15-min Total	Rolling One Hour
Start	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT	Total	One Hour
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	1	0	0	0	0	0	0	0	1	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	1
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	1
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	1
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Count Total	0	0	0	0	1	0	0	0	0	0	0	0	1	0
Peak Hour	0	0	0	0	1	0	0	0	0	0	0	0	1	0



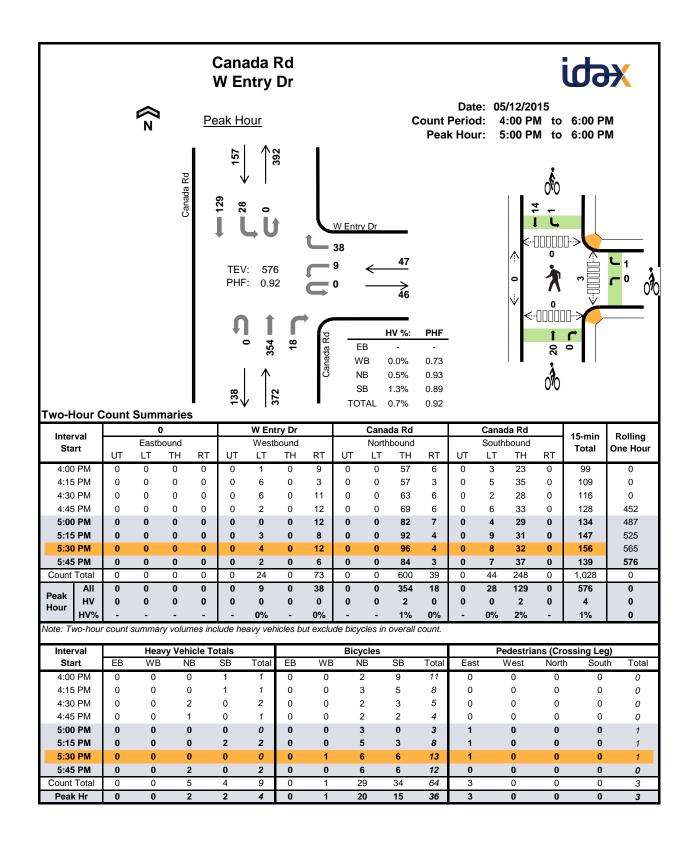
Interval	I	Farm H	ill Blvd	l		Farm H	lill Blvc	i		Wood	hill Dr			Wood	hill Dr		15-min	Dalling
Start		Eastl	oound			West	bound			North	bound			South	bound		Total	Rolling One Hour
Otart	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	Total	One nou
4:00 PM	0	0	1	0	0	1	2	0	0	0	0	0	0	0	0	0	4	0
4:15 PM	0	0	1	0	0	0	1	1	0	0	0	0	0	1	0	0	4	0
4:30 PM	0	0	0	0	0	0	1	0	0	0	0	0	0	1	0	0	2	0
4:45 PM	0	1	0	0	0	0	0	1	0	0	0	0	0	1	0	1	4	14
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	10
5:15 PM	0	0	0	0	0	0	1	1	0	0	0	0	0	1	0	0	3	9
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	7
5:45 PM	0	0	0	0	0	0	0	1	0	0	0	0	0	1	0	0	2	5
Count Total	0	1	2	0	0	1	5	4	0	0	0	0	0	5	0	1	19	0
Peak Hour	0	0	0	0	0	0	1	2	0	0	0	0	0	2	0	0	5	0

Interval	Fai	m Hill Bl	lvd	Fai	rm Hill B	lvd	W	oodhill I	Dr	V	oodhill l	Dr	45 min	Dalling
Interval Start	E	Eastboun	d	V	Vestboun	ıd	١	lorthbour	nd	S	outhbour	nd	15-min Total	Rolling One Hour
Start	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT	Total	One Hour
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Count Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Peak Hour	0	0	0	0	0	0	0	0	0	0	0	0	0	0



l., ((0			W En	try Dr			Canad	da Rd			Canad	da Rd		45	D - 111
Interval Start		Easth	oound			West	bound			North	bound			South	bound		15-min Total	Rolling One Hou
Start	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	Total	One nou
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	2	0	3	4
8:00 AM	0	0	0	0	0	2	0	0	0	0	1	0	0	0	0	0	3	7
8:15 AM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1	7
8:30 AM	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	2	9
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	2	8
Count Total	0	0	0	0	0	2	0	0	0	0	6	0	0	0	4	0	12	0
Peak Hour	0	0	0	0	0	2	0	0	0	0	3	0	0	0	2	0	7	0
wo-Hour C	Count	Sumi	narie	s - Bil	œs													
Interval			0			W En	try Dr			Canad	da Rd			Canad	da Rd		15-min	Rolling
Start		Eastb	oound				bound			North	bound			South	bound		Total	One Ho
	LT.	_	Ή	RT	LT	_	Ή	RT	LT		Ή	RT	LT		Н	RT		

Interval		0		٧	V Entry D	r	C	anada R	d	C	anada R	d	15-min	Rolling
Start	E	Eastboun	d	٧	Vestboun	d	١	lorthbour	nd	S	outhbour	nd	Total	One Hour
Otart	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT	Total	One riou
7:00 AM	0	0	0	0	0	0	0	0	0	0	6	0	6	0
7:15 AM	0	0	0	0	0	0	0	1	0	0	2	0	3	0
7:30 AM	0	0	0	0	0	0	0	1	0	0	3	0	4	0
7:45 AM	0	0	0	0	0	0	0	1	0	0	7	0	8	21
8:00 AM	0	0	0	0	0	0	0	1	0	0	6	0	7	22
8:15 AM	0	0	0	0	0	0	0	3	0	0	6	0	9	28
8:30 AM	0	0	0	0	0	0	0	2	0	0	3	0	5	29
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	21
Count Total	0	0	0	0	0	0	0	9	0	0	33	0	42	0
Peak Hour	0	0	0	0	0	0	0	6	0	0	22	0	28	0



Interval			0			W En	try Dr			Cana	da Rd			Canad	da Rd		15-min	Rolling
Start		Eastl	bound			West	bound			North	bound			South	bound		Total	One Ho
Start	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	Total	One no
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	2	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1	5
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	2	5
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3
5:45 PM	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	2	4
Count Total	0	0	0	0	0	0	0	0	0	0	4	1	0	0	4	0	9	0
Peak Hour	0	0	0	0	0	0	0	0	0	0	2	0	0	0	2	0	4	0

Interval		0		٧	V Entry D	r	C	anada R	d	C	anada R	d	15-min	Rolling
Start	E	astboun	d	V	Vestboun	d	1	Northbour	nd	S	outhbour	nd	Total	One Hour
Otart	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT	Total	One riou
4:00 PM	0	0	0	0	0	0	0	2	0	0	9	0	11	0
4:15 PM	0	0	0	0	0	0	0	3	0	0	5	0	8	0
4:30 PM	0	0	0	0	0	0	0	2	0	0	3	0	5	0
4:45 PM	0	0	0	0	0	0	0	2	0	0	2	0	4	28
5:00 PM	0	0	0	0	0	0	0	3	0	0	0	0	3	20
5:15 PM	0	0	0	0	0	0	0	5	0	1	2	0	8	20
5:30 PM	0	0	0	0	0	1	0	6	0	0	6	0	13	28
5:45 PM	0	0	0	0	0	0	0	6	0	0	6	0	12	36
Count Total	0	0	0	0	0	1	0	29	0	1	33	0	64	0
Peak Hour	0	0	0	0	0	1	0	20	0	1	14	0	36	0

Traffic Volumes

Intersection Number:

Traffix Node Number: Intersection Name:

Farm Hill Boulevard

& Woodhill Drive

Peak Hour: Count Date: AM 05/12/15 Date of Analysis: 07/06/15

Annual Growth Rate 1%

Existing Year 2015 Cumulative Year 2019

						Movem	ents						
	Southbo	und App	oroach	Westb	ound A	pproach	North	oound A	pproach	Eastbo	und Ap	proach	า
Scenario	RT	TH	LT	RT	TH	LT	RT	TH	LT	RT	TH	LT	Total
Existing Conditions	216	883	27	1	0	17	13	447	316	53	0	62	2035
Proposed Project Trips	26	0	0	0	1	0	0	0	27	16	0	15	85
Existing + Project Conditions	242	883	27	1	1	17	13	447	343	69	0	77	2120
Cumlative Growth	9	36	1	0	0	1	1	18	13	2	0	3	84
Cumlative No Project Conditions	225	919	28	1	0	18	14	465	329	55	0	65	2119
Cumulative + Project Conditions	251	919	28	1	1	18	14	465	356	71	0	80	2204

Intersection Number:

Traffix Node Number:

Intersection Name:

Canada Road

& West Entry Drive

Peak Hour: Count Date: AM 05/12/15

Annual Growth Rate 1% Existing Year 2015

Cumulative Year 2019

Date of Analysis: 07/06/15

						Movem	ents						_
	Southbo	und App	roach	Westb	ound A	pproach	Northb	ound A	pproach	Eastbo	und Ap	proach	
Scenario	RT	TH	LT	RT	TH	LT	RT	TH	LT	RT	TH	LT	Total
													_
Existing Conditions	0	285	83	9	0	16	24	136	0	0	0	0	553
Proposed Project Trips	0	0	9	5	0	5	9	0	0	0	0	0	28
Existing + Project Conditions	0	285	92	14	0	21	33	136	0	0	0	0	581
Cumlative Growth	0	12	3	0	0	1	1	6	0	0	0	0	23
Cumlative No Project Conditions	0	297	86	9	0	17	25	142	0	0	0	0	576
Cumulative + Project Conditions	0	297	95	14	0	22	34	142	0	0	0	0	604

Intersection Number:

3

Traffix Node Number: Intersection Name: 3 Sheryl Drive

& College Drive

Peak Hour: Count Date: AM 05/12/15

Date of Analysis: 07/06/15

Annual Growth Rate 1%
Existing Year 2015
Cumulative Year 2021

						Movem	ents						
	Southbo	und Ap	proach	Westb	ound A	pproach	Northb	ound A	pproach	Eastb	ound Ap	proach	<u> </u>
Scenario	RT	TH	LT	RT	TH	LT	RT	TH	LT	RT	TH	LT	Total
Existing Conditions	3	1	96	12	490	31	87	0	11	3	187	2	923
Proposed Project Trips	0	0	0	0	10	0	0	0	0	0	31	0	41
Existing + Project Conditions	3	1	96	12	500	31	87	0	11	3	218	2	964
Cumlative Growth	0	0	6	1	30	2	5	0	1	0	12	0	57
Cumlative No Project Conditions	3	1	102	13	520	33	92	0	12	3	199	2	980
Cumulative + Project Conditions	3	1	102	13	530	33	92	0	12	3	230	2	1021

Intersection Number:

4

Traffix Node Number:

4

Intersection Name:

Skyline Boulevard

& College Drive

Peak Hour: Count Date: AM 05/12/15 Date of Analysis: 07/06/15

Annual Growth Rate 1%

Existing Year 2015 Cumulative Year 2021

Movements Westbound Approach Eastbound Approach Southbound Approach Northbound Approach RT Total Scenario RT TH LT RT TH LT TH LT RT TH LT Existing Conditions 270 1708 29 30 52 72 45 448 280 196 32 175 3337 Proposed Project Trips 4 0 0 0 0 0 6 0 0 18 0 13 41 Existing + Project Conditions 52 274 1708 32 188 3378 29 30 72 45 448 286 214 Cumlative Growth 105 2 2 3 4 17 2 17 3 28 12 11 206 Cumlative No Project Conditions 287 1813 32 76 476 297 208 31 55 48 34 186 3543 Cumulative + Project Conditions 291 1813 31 32 55 76 48 476 303 226 34 199 3584 Intersection Number:

Traffix Node Number: Intersection Name:

Farm Hill Boulevard

& Woodhill Drive

Peak Hour: Count Date: PM 05/12/15 Date of Analysis: 07/06/15

Annual Growth Rate 1% Existing Year 2015 Cumulative Year 2019

										aa.a.a.			
						Movem	ents						
	Southbo	und App	roach	Westb	ound A	pproach	Northb	ound A	pproach	Eastbo	und Ap	proach	_ 1
Scenario	RT	TH	LT	RT	TH	LT	RT	TH	LT	RT	TH	LT	Total
Existing Conditions	84	415	18	4	1	7	17	602	180	85	0	82	1495
Proposed Project Trips	27	0	0	0	1	0	0	0	29	21	1	20	99
Existing + Project Conditions	111	415	18	4	2	7	17	602	209	106	1	102	1594
Cumlative Growth	3	17	1	0	0	0	1	24	7	3	0	3	59
Cumlative No Project Conditions	87	432	19	4	1	7	18	626	187	88	0	85	1554
Cumulative + Project Conditions	114	432	19	4	2	7	18	626	216	109	1	105	1653

Intersection Number:

Traffix Node Number:

Intersection Name:

Canada Road

& West Entry Drive

Peak Hour: Count Date: PM 05/12/15

Annual Growth Rate 1% Existing Year 2015

Cumulative Year 2019

Date of Analysis: 07/06/15

						Movem	ents						
	Southbo	und App	oroach	Westb	ound A	pproach	Northb	ound A	pproach	Eastbo	ound Ap	proac	h h
Scenario	RT	TH	LT	RT	TH	LT	RT	TH	LT	RT	TH	LT	Total
Existing Conditions	0	129	32	44	0	10	21	354	0	0	0	0	590
Proposed Project Trips	0	0	10	7	0	7	9	0	0	0	0	0	33
Existing + Project Conditions	0	129	42	51	0	17	30	354	0	0	0	0	623
Cumlative Growth	0	5	1	2	0	0	1	14	0	0	0	0	23
Cumlative No Project Conditions	0	134	33	46	0	10	22	368	0	0	0	0	613
Cumulative + Project Conditions	0	134	43	53	0	17	31	368	0	0	0	0	646

Intersection Number:

3

Traffix Node Number: Intersection Name: 3 Sheryl Drive

& College Drive

Peak Hour: Count Date: PM 05/12/15

Date of Analysis: 07/06/15

Annual Growth Rate 1% Existing Year 2015

									С	umulativ	e Year	2021	
	Movements												
	Southbound Approach			Westbound Approach			Northbound Approach			Eastbound Approach			_ h
Scenario	RT	TH	LT	RT	TH	LT	RT	TH	LT	RT	TH	LT	Total
Existing Conditions	5	2	15	17	358	69	36	2	9	9	211	2	735
Proposed Project Trips	0	0	0	0	35	0	0	0	0	0	19	0	54
Existing + Project Conditions	5	2	15	17	393	69	36	2	9	9	230	2	789
Cumlative Growth	0	0	1	1	22	4	2	0	1	1	13	0	45
Cumlative No Project Conditions	5	2	16	18	380	73	38	2	10	10	224	2	780
Cumulative + Project Conditions	5	2	16	18	415	73	38	2	10	10	243	2	834

Intersection Number:

4

Traffix Node Number:

4

Intersection Name:

Skyline Boulevard

& College Drive

Peak Hour: Count Date: PM 05/12/15 Date of Analysis: 07/06/15

Annual Growth Rate 1% Existing Year 2015

Cumulative Year 2021

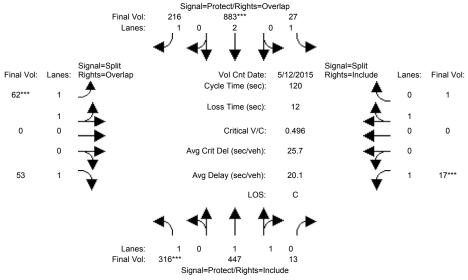
Movements Eastbound Approach
RT TH LT Total Westbound Approach Southbound Approach Northbound Approach Scenario RT TH LT RT TH LT RT TH LT 139 2965 Existing Conditions 217 550 33 31 50 36 77 1326 333 149 24 Proposed Project Trips 0 0 0 0 0 15 0 0 20 11 0 8 54 Existing + Project Conditions 232 50 147 3019 550 33 31 36 77 1326 353 160 24 Cumlative Growth 2 2 3 2 5 9 13 34 82 20 1 9 182 Cumlative No Project Conditions 230 584 1408 353 158 35 33 53 38 82 25 148 3147 Cumulative + Project Conditions 245 584 35 33 53 38 82 1408 373 169 25 156 3201

LOS Calculations

Level Of Service Computation Report

2000 HCM Operations (Future Volume Alternative)

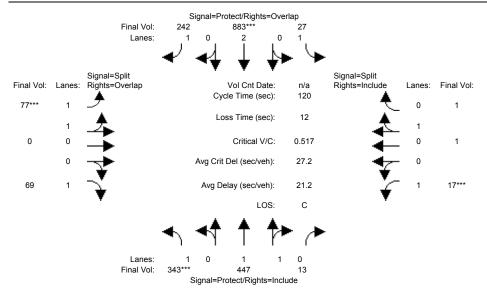
Intersection #1: Woodhill Drive & Farm Hill Boulevard [Canada College]



Street Name: Farm Hill Boulevard Woodhill Drive North Bound South Bound East Bound West Bound Approach: Movement: $L - T - R \quad L - T - R \quad L - T - R$ Min. Green: 0 0 0 0 0 0 0 0 0 0 0 -----| |-----| |------| |------| Volume Module: >> Count Date: 12 May 2015 << 7:30 - 8:30 am Base Vol: 316 447 13 27 883 216 62 0 53 17 0 Initial Bse: 316 447 13 27 883 216 62 0 53 17 0 1 Added Vol: 0 Ω 0 0 0 0 0 0 0 0 0 PasserByVol: 0 0 Ω 0 0 0 0 0 0 0 0 0 13 62 0 53 17 0 Initial Fut: 316 447 27 883 216 13 PHF Volume: 316 447 27 883 216 62 0 53 17 0 0 0 0 0 0 0 0 Reduct Vol: Ω Ω 0 0 0 Ω 27 883 Reduced Vol: 316 447 13 216 MLF Adj: FinalVolume: 316 447 13 27 883 216 62 0 53 17 0 1 -----| Saturation Flow Module: Adjustment: 0.95 0.95 0.95 0.95 0.95 0.85 0.95 1.00 0.85 0.95 1.00 0.85 Lanes: 1.00 1.94 0.06 1.00 2.00 1.00 2.00 0.00 1.00 1.00 0.00 1.00 Final Sat.: 1805 3494 102 1805 3610 1615 3618 0 1615 1805 0 1615 -----||-----||-----| Capacity Analysis Module: Vol/Sat: 0.18 0.13 0.13 0.01 0.24 0.13 0.02 0.00 0.03 0.01 0.00 0.00 Crit Moves: **** **** **** Green/Cycle: 0.35 0.76 0.76 0.09 0.49 0.53 0.03 0.00 0.39 0.02 0.00 0.02 Volume/Cap: 0.50 0.17 0.17 0.17 0.50 0.25 0.50 0.00 0.08 0.50 0.00 0.03 4.1 51.1 20.6 15.6 60.0 0.0 23.3 69.1 0.0 58.2 Delay/Veh: 31.0 4.1 AdjDel/Veh: 31.0 4.1 4.1 51.1 20.6 15.6 60.0 0.0 23.3 69.1 0.0 58.2 D C B E A C E A LOS by Move: C E А Α 5 5 2 21 8 4 0 HCM2k95thQ: 17 2 3 0 Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report 2000 HCM Operations (Future Volume Alternative) Ex+Proj AM

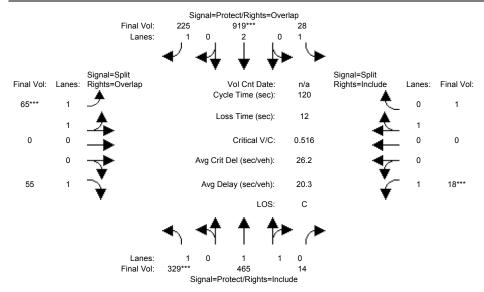
Intersection #1: Woodhill Drive & Farm Hill Boulevard [Canada College]



Street Name: Farm Hill Boulevard Woodhill Drive North Bound South Bound East Bound L-T-R L-T-R L-T-R Min. Green: 0 0 0 0 0 0 0 0 0 0 0 ---|------||-------| Volume Module: AM Peak Hour Base Vol: 343 447 13 27 883 242 77 0 69 17 242 77 0 69 17 1 1 27 883 Initial Bse: 343 447 13 0 Ω 0 0 0 0 0 0 0 0 0 Added Vol: 0 0 0 0 0 0 0 PasserByVol: 0 0 0 0 Initial Fut: 343 447 27 883 13 242 77 0 69 17 1 PHF Adj: PHF Volume: 343 447 13 27 883 242 77 0 69 17 1 1 0 0 0 0 Ω 0 0 0 0 0 Reduct Vol: 0 Reduced Vol: 343 447 13 27 883 77 0 69 17 1 242 1 MLF Adi: FinalVolume: 343 447 13 27 883 242 77 0 69 17 1 1 -----| | --------| Saturation Flow Module: Adjustment: 0.95 0.95 0.95 0.95 0.95 0.85 0.95 1.00 0.85 0.95 0.93 0.93 Lanes: 1.00 1.94 0.06 1.00 2.00 1.00 2.00 0.00 1.00 1.00 0.50 0.50 Final Sat.: 1805 3494 102 1805 3610 1615 3618 0 1615 1805 879 879 Capacity Analysis Module: Vol/Sat: 0.19 0.13 0.13 0.01 0.24 0.15 0.02 0.00 0.04 0.01 0.00 0.00 **** Crit Moves: **** Green/Cycle: 0.37 0.75 0.75 0.09 0.47 0.51 0.04 0.00 0.41 0.02 0.02 0.02 Volume/Cap: 0.52 0.17 0.17 0.17 0.52 0.29 0.52 0.00 0.10 0.52 0.06 0.06 4.2 51.2 22.3 16.8 59.5 0.0 22.0 72.0 58.7 58.7 Delay/Veh: 30.3 4.2 AdjDel/Veh: 30.3 4.2 4.2 51.2 22.3 16.8 59.5 0.0 22.0 72.0 58.7 58.7 E A C E E 4 0 3 3 0 D C B 2 21 10 LOS by Move: C A A E 5 18 5 HCM2k95thQ: Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report 2000 HCM Operations (Future Volume Alternative) Cum AM

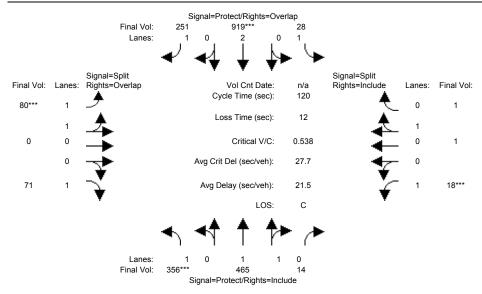
Intersection #1: Woodhill Drive & Farm Hill Boulevard [Canada College]



Street Name: Farm Hill Boulevard Woodhill Drive North Bound South Bound East Bound West Bound L-T-R L-T-R L-T-R Min. Green: 0 0 0 0 0 0 0 0 0 0 0 ---|------||-------| Volume Module: AM Peak Hour Base Vol: 329 465 28 919 225 65 0 55 18 0 14 14 225 65 0 55 18 0 1 Initial Bse: 329 465 28 919 0 0 0 0 0 0 0 0 Ω Added Vol: 0 0 0 0 0 0 0 PasserByVol: 0 0 0 0 Initial Fut: 329 465 14 28 919 225 65 0 55 18 0 PHF Adj: PHF Volume: 329 465 14 28 919 225 65 0 55 18 0 1 0 0 0 0 0 Ω 0 0 0 0 0 Reduct Vol: Reduced Vol: 329 465 28 919 225 65 0 55 18 0 1 14 MLF Adi: FinalVolume: 329 465 14 28 919 225 65 0 55 18 0 1 -----| | --------| Saturation Flow Module: Adjustment: 0.95 0.95 0.95 0.95 0.95 0.85 0.95 1.00 0.85 0.95 1.00 0.85 Lanes: 1.00 1.94 0.06 1.00 2.00 1.00 2.00 0.00 1.00 1.00 0.00 1.00 Final Sat.: 1805 3490 105 1805 3610 1615 3618 0 1615 1805 0 1615 Capacity Analysis Module: Vol/Sat: 0.18 0.13 0.13 0.02 0.25 0.14 0.02 0.00 0.03 0.01 0.00 0.00 **** Crit Moves: **** Green/Cycle: 0.35 0.76 0.76 0.09 0.49 0.53 0.03 0.00 0.39 0.02 0.00 0.02 Volume/Cap: 0.52 0.18 0.18 0.18 0.52 0.26 0.52 0.00 0.09 0.52 0.00 0.03 4.1 51.2 21.0 15.7 60.6 0.0 23.3 71.1 0.0 58.2 Delay/Veh: 31.5 4.1 AdjDel/Veh: 31.5 4.1 4.1 51.2 21.0 15.7 60.6 0.0 23.3 71.1 0.0 58.2 E A C E A 4 0 3 3 0 D C B 2 22 9 LOS by Move: C A Α E 5 18 5 HCM2k95thQ: Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report 2000 HCM Operations (Future Volume Alternative) Cum+Proj AM

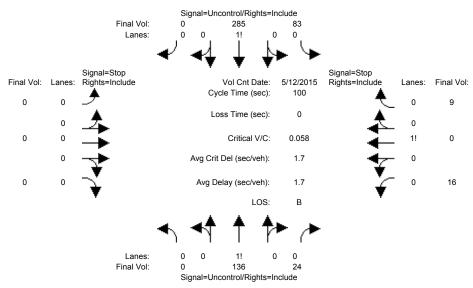
Intersection #1: Woodhill Drive & Farm Hill Boulevard [Canada College]



Street Name: Farm Hill Boulevard Woodhill Drive North Bound South Bound East Bound West Bound L-T-R L-T-R L-T-R Min. Green: 0 0 0 0 0 0 0 0 0 0 0 ---|------||-------| Volume Module: AM Peak Hour Base Vol: 356 465 28 919 251 80 0 71 18 14 14 251 80 0 71 18 1 1 28 919 Initial Bse: 356 465 0 Ω 0 0 0 0 0 0 0 Added Vol: 0 0 0 0 0 0 0 PasserByVol: 0 0 0 0 Initial Fut: 356 465 14 28 919 251 80 0 71 18 1 PHF Adj: PHF Volume: 356 465 14 28 919 251 80 0 71 18 1 1 0 0 0 0 0 0 0 0 0 0 0 Reduct Vol: Reduced Vol: 356 465 28 919 251 80 0 71 18 1 14 1 MLF Adi: FinalVolume: 356 465 14 28 919 251 80 0 71 18 1 1 Saturation Flow Module: Adjustment: 0.95 0.95 0.95 0.95 0.95 0.85 0.95 1.00 0.85 0.95 0.93 0.93 Lanes: 1.00 1.94 0.06 1.00 2.00 1.00 2.00 0.00 1.00 1.00 0.50 0.50 Final Sat.: 1805 3490 105 1805 3610 1615 3618 0 1615 1805 879 879 Capacity Analysis Module: Vol/Sat: 0.20 0.13 0.13 0.02 0.25 0.16 0.02 0.00 0.04 0.01 0.00 0.00 **** Crit Moves: **** Green/Cycle: 0.37 0.75 0.75 0.09 0.47 0.51 0.04 0.00 0.41 0.02 0.02 0.02 Volume/Cap: 0.54 0.18 0.18 0.18 0.54 0.30 0.54 0.00 0.11 0.54 0.06 0.06 Delay/Veh: 30.8 4.3 4.3 51.3 22.7 16.9 60.3 0.0 22.1 74.6 58.7 58.7 AdjDel/Veh: 30.8 4.3 4.3 51.3 22.7 16.9 60.3 0.0 22.1 74.6 58.7 58.7 E A C E E 5 0 3 3 0 D C B 2 23 10 LOS by Move: C A A E 5 19 5 HCM2k95thQ: Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report 2000 HCM Unsignalized (Future Volume Alternative) Ex AM

Intersection #2: Canada Road & West Entry Drive [Canada College]



Street Name: West Entry Drive Canada Road North Bound South Bound East Bound Approach: L-T-R L-T-R L-T-R Volume Module: >> Count Date: 12 May 2015 << 7:30 - 8:30 am 83 285 Base Vol: 0 136 24 0 0 0 Ω 16 0 83 285 0 Initial Bse: 0 136 24 Ω Ω 16 Added Vol: 0 0 0 0 0 0 0 0 0 0 0 0 PasserByVol: 0 0 0 0 0 0 0 0 0 16 0 136 83 285 0 0 24 0 Initial Fut: PHF Adj: PHF Volume: 0 136 24 83 285 0 0 0 0 16 0 9 0 Reduct Vol: 0 0 Ω Ω 0 Ω FinalVolume: 0 136 24 83 285 0 0 0 0 16 0 Critical Gap Module: FollowUpTim:xxxxx xxxxx xxxxx 2.2 xxxx xxxxx xxxxx xxxxx xxxxx 3.5 4.0 3.3 -----||----| Capacity Module: Potent Cap.: xxxx xxxx xxxxx 1432 xxxx xxxxx xxxx xxxx xxxxx 468 418 Move Cap.: xxxx xxxx xxxxx 1432 xxxx xxxxx xxxx xxxx xxxx 446 393 904 -----||-----||-----| Level Of Service Module: LOS by Move: * * A * * * * * Movement: LT - LTR - RT SharedQueue:xxxxx xxxxx xxxxx 0.2 xxxx xxxxx xxxxx xxxxx xxxxx xxxxx 0.1 xxxxx Shrd ConDel:xxxxx xxxx xxxxx 7.7 xxxx xxxxx xxxxx xxxxx xxxxx xxxxx 11.9 xxxxx Shared LOS: * * * A * * * * В 11.9 ApproachDel: XXXXXX XXXXXX XXXXXX ApproachLOS: Note: Queue reported is the number of cars per lane. Peak Hour Delay Signal Warrant Report ************************** Intersection #2 Canada Road & West Entry Drive Future Volume Alternative: Peak Hour Warrant NOT Met

-----||-----||-----| Approach: North Bound South Bound East Bound West Bound Movement: L - T - R L - T - R L - T - R Control: Uncontrolled Uncontrolled Stop Sign Stop Sig Lanes: 0 0 0 1 0 0 1 0 0 0 0 0 0 0 0 0 1! 0 0 Uncontrolled Uncontrolled Stop Sign Stop Sign Approach[westbound][lanes=1][control=Stop Sign] Signal Warrant Rule #1: [vehicle-hours=0.1] FAIL - Vehicle-hours less than 4 for one lane approach. Signal Warrant Rule #2: [approach volume=25] FAIL - Approach volume less than 100 for one lane approach. Signal Warrant Rule #3: [approach count=3][total volume=553] FAIL - Total volume less than 650 for intersection with less than four approaches. ______

SIGNAL WARRANT DISCLAIMER

This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace a rigorous and complete traffic signal warrant analysis by the responsible jurisdiction. Consideration of the other signal warrants, which is beyond the scope of this software, may yield different results.

Peak Hour Volume Signal Warrant Report [Urban]

Intersection #2 Canada Road & West Entry Drive

Future Volume Alternative: Peak Hour Warrant NOT Met

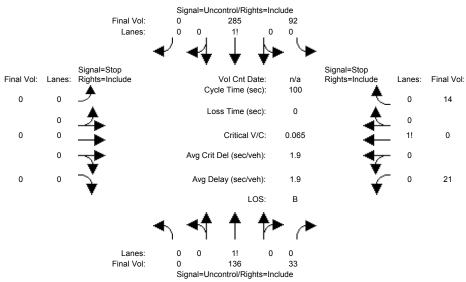
Major Street Volume: 528
Minor Approach Volume: 25
Minor Approach Volume Threshold: 390

SIGNAL WARRANT DISCLAIMER

This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

Level Of Service Computation Report 2000 HCM Unsignalized (Future Volume Alternative) Ex+Proj AM

Intersection #2: Canada Road & West Entry Drive [Canada College]



Street Name: West Entry Drive Canada Road North Bound South Bound East Bound West Bound Approach: L-T-R L-T-R L-T-R Volume Module: AM Peak Hour 92 285 0 Base Vol: 0 136 33 0 0 0 21 0 33 92 285 0 Initial Bse: 0 136 Ω 0 Added Vol: 0 0 0 0 0 0 0 0 0 0 0 0 PasserByVol: 0 0 0 0 0 0 0 0 0 136 92 285 0 0 21 14 33 0 0 0 Initial Fut: PHF Adj: PHF Volume: 0 136 33 92 285 0 0 0 0 21 0 14 Reduct Vol: 0 0 0 0 0 Ω Ω 0 FinalVolume: 0 136 33 92 285 0 0 0 0 21 0 Critical Gap Module: FollowUpTim:xxxxx xxxxx xxxxx 2.2 xxxx xxxxx xxxxx xxxxx xxxxx 3.5 4.0 3.3 -----||----| Capacity Module: 454 406 899 -----||-----||-----| Level Of Service Module: LOS by Move: * * A * * * * * Movement: LT - LTR - RT SharedQueue:xxxxx xxxxx xxxxx 0.2 xxxx xxxxx xxxxx xxxxx xxxxx xxxxx 0.2 xxxxx Shrd ConDel:xxxxx xxxx xxxxx 7.7 xxxx xxxxx xxxxx xxxxx xxxxx xxxxx 12.1 xxxxx Shared LOS: * * * A * * * * В 12.1 ApproachDel: XXXXXX XXXXXX XXXXXX ApproachLOS: Note: Queue reported is the number of cars per lane. Peak Hour Delay Signal Warrant Report ************************** Intersection #2 Canada Road & West Entry Drive

Future Volume Alternative: Peak Hour Warrant NOT Met

-----||-----||-----| Approach: North Bound South Bound East Bound West Bound Movement: L - T - R L - T - R L - T - R Control: Uncontrolled Uncontrolled Stop Sign Stop Sig Lanes: 0 0 0 1 0 0 1 0 0 0 0 0 0 0 0 0 1! 0 0 Uncontrolled Uncontrolled Stop Sign Stop Sign Approach[westbound][lanes=1][control=Stop Sign] Signal Warrant Rule #1: [vehicle-hours=0.1] FAIL - Vehicle-hours less than 4 for one lane approach. Signal Warrant Rule #2: [approach volume=35] FAIL - Approach volume less than 100 for one lane approach. Signal Warrant Rule #3: [approach count=3][total volume=581] FAIL - Total volume less than 650 for intersection with less than four approaches. ______

SIGNAL WARRANT DISCLAIMER

This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace a rigorous and complete traffic signal warrant analysis by the responsible jurisdiction. Consideration of the other signal warrants, which is beyond the scope of this software, may yield different results.

Peak Hour Volume Signal Warrant Report [Urban]

Intersection #2 Canada Road & West Entry Drive

Future Volume Alternative: Peak Hour Warrant NOT Met

Approach: North Bound South Bound East Bound West Bound Movement: L - T - R L - T - R L - T - R L - T - R Control: Uncontrolled Uncontrolled Stop Sign Stop Sign Lanes: 0 0 0 1 0 0 1 0 0 0 0 0 0 0 0 0 1! 0 0 Initial Vol: 0 136 33 92 285 0 0 0 0 21 0 14

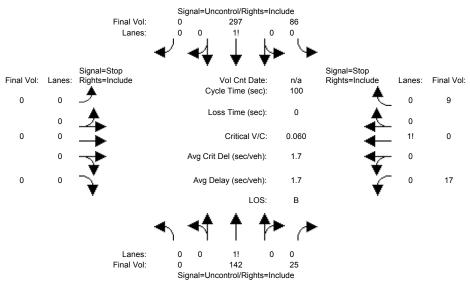
Major Street Volume: 546
Minor Approach Volume: 35
Minor Approach Volume Threshold: 381

SIGNAL WARRANT DISCLAIMER

This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

Level Of Service Computation Report 2000 HCM Unsignalized (Future Volume Alternative) Cum AM

Intersection #2: Canada Road & West Entry Drive [Canada College]



Street Name: West Entry Drive Canada Road North Bound South Bound East Bound West Bound Approach: L-T-R L-T-R L-T-R Volume Module: AM Peak Hour 86 297 0 Base Vol: 0 142 25 0 0 0 17 0 25 86 297 0 Initial Bse: 0 142 Ω 0 17 Added Vol: 0 0 0 0 0 0 0 0 0 0 0 0 0 0 PasserByVol: 0 0 0 0 0 0 0 0 142 86 297 0 0 17 0 25 0 0 Initial Fut: PHF Adj: PHF Volume: 0 142 25 86 297 0 0 0 0 17 0 9 0 0 0 Reduct Vol: 0 0 Ω Ω 0 FinalVolume: 0 142 25 86 297 0 0 0 0 17 0 Critical Gap Module: FollowUpTim:xxxxx xxxxx xxxxx 2.2 xxxx xxxxx xxxxx xxxxx xxxxx 3.5 4.0 3.3 -----||----| Capacity Module: Potent Cap.: xxxx xxxx xxxxx 1423 xxxx xxxxx xxxx xxxx xxxxx 453 405 Move Cap.: xxxx xxxx xxxxx 1423 xxxx xxxxx xxxx xxxx xxxx 431 379 897 -----||-----||-----| Level Of Service Module: LOS by Move: * * A * * * * * Movement: LT - LTR - RT SharedQueue:xxxxx xxxxx xxxxx 0.2 xxxx xxxxx xxxxx xxxxx xxxxx xxxxx 0.2 xxxxx Shrd ConDel:xxxxx xxxx xxxxx 7.7 xxxx xxxxx xxxxx xxxxx xxxxx xxxxx 12.2 xxxxx Shared LOS: * * * A * * * * В 12.2 ApproachDel: XXXXXX XXXXXX XXXXXX ApproachLOS: Note: Queue reported is the number of cars per lane. Peak Hour Delay Signal Warrant Report ************************** Intersection #2 Canada Road & West Entry Drive

Future Volume Alternative: Peak Hour Warrant NOT Met

-----||-----||-----| Approach: North Bound South Bound East Bound West Bound Movement: L - T - R L - T - R L - T - R Control: Uncontrolled Uncontrolled Stop Sign Stop Sig Lanes: 0 0 0 1 0 0 1 0 0 0 0 0 0 0 0 0 1! 0 0 Uncontrolled Uncontrolled Stop Sign Stop Sign Approach[westbound][lanes=1][control=Stop Sign] Signal Warrant Rule #1: [vehicle-hours=0.1] FAIL - Vehicle-hours less than 4 for one lane approach. Signal Warrant Rule #2: [approach volume=26] FAIL - Approach volume less than 100 for one lane approach. Signal Warrant Rule #3: [approach count=3][total volume=576] FAIL - Total volume less than 650 for intersection with less than four approaches. ______

SIGNAL WARRANT DISCLAIMER

This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace a rigorous and complete traffic signal warrant analysis by the responsible jurisdiction. Consideration of the other signal warrants, which is beyond the scope of this software, may yield different results.

Peak Hour Volume Signal Warrant Report [Urban]

Intersection #2 Canada Road & West Entry Drive

Future Volume Alternative: Peak Hour Warrant NOT Met

Major Street Volume: 550
Minor Approach Volume: 26

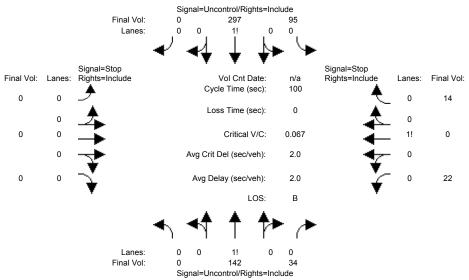
Minor Approach Volume Threshold: 379

SIGNAL WARRANT DISCLAIMER

This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

Level Of Service Computation Report 2000 HCM Unsignalized (Future Volume Alternative) Cum+Proj AM

Intersection #2: Canada Road & West Entry Drive [Canada College]



Street Name: West Entry Drive Canada Road North Bound South Bound East Bound West Bound Approach: L-T-R L-T-R L-T-R Volume Module: AM Peak Hour 95 297 0 Base Vol: 0 142 34 0 0 0 22 0 95 297 0 Initial Bse: 0 142 34 Ω 0 22 Added Vol: 0 0 0 0 0 0 0 0 0 0 0 0 PasserByVol: 0 0 0 0 0 0 0 0 0 142 34 95 297 0 0 22 14 0 0 0 Initial Fut: PHF Adj: PHF Volume: 0 142 34 95 297 0 0 0 0 22 0 14 0 0 0 0 Reduct Vol: 0 0 Ω 0 FinalVolume: 0 142 34 95 297 0 0 0 0 22 0 Critical Gap Module: FollowUpTim:xxxxx xxxxx xxxxx 2.2 xxxx xxxxx xxxxx xxxxx xxxxx 3.5 4.0 3.3 -----||----||----||----| Capacity Module: 439 393 892 -----||-----||-----| Level Of Service Module: LOS by Move: * * A * * * * * Movement: LT - LTR - RT SharedQueue:xxxxx xxxxx xxxxx 0.2 xxxx xxxxx xxxxx xxxxx xxxxx xxxxx 0.2 xxxxx Shrd ConDel:xxxxx xxxx xxxxx 7.7 xxxx xxxxx xxxxx xxxxx xxxxx xxxxx 12.4 xxxxx Shared LOS: * * * A * * * * В 12.4 ApproachDel: XXXXXX XXXXXX XXXXXX ApproachLOS: Note: Queue reported is the number of cars per lane. Peak Hour Delay Signal Warrant Report ************************** Intersection #2 Canada Road & West Entry Drive

Future Volume Alternative: Peak Hour Warrant NOT Met

-----||-----||-----| Approach: North Bound South Bound East Bound West Bound Movement: L - T - R L - T - R L - T - R Control: Uncontrolled Uncontrolled Stop Sign Stop Sig Lanes: 0 0 0 1 0 0 1 0 0 0 0 0 0 0 0 0 1! 0 0 Uncontrolled Uncontrolled Stop Sign Stop Sign Approach[westbound][lanes=1][control=Stop Sign] Signal Warrant Rule #1: [vehicle-hours=0.1] FAIL - Vehicle-hours less than 4 for one lane approach. Signal Warrant Rule #2: [approach volume=36] FAIL - Approach volume less than 100 for one lane approach. Signal Warrant Rule #3: [approach count=3][total volume=604] FAIL - Total volume less than 650 for intersection with less than four approaches. ______

SIGNAL WARRANT DISCLAIMER

This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace a rigorous and complete traffic signal warrant analysis by the responsible jurisdiction. Consideration of the other signal warrants, which is beyond the scope of this software, may yield different results.

Peak Hour Volume Signal Warrant Report [Urban]

Intersection #2 Canada Road & West Entry Drive

Future Volume Alternative: Peak Hour Warrant NOT Met

Major Street Volume: 568
Minor Approach Volume: 36

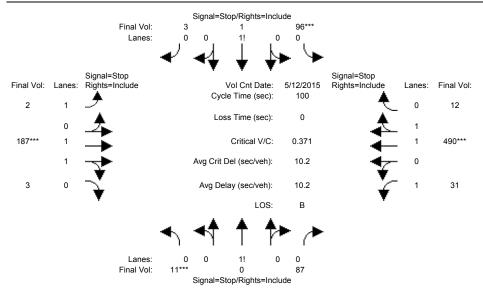
Minor Approach Volume Threshold: 370

SIGNAL WARRANT DISCLAIMER

This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

Level Of Service Computation Report 2000 HCM 4-Way Stop (Future Volume Alternative) Ex AM

Intersection #3: Sheryl Drive & College Drive [Skyline College]



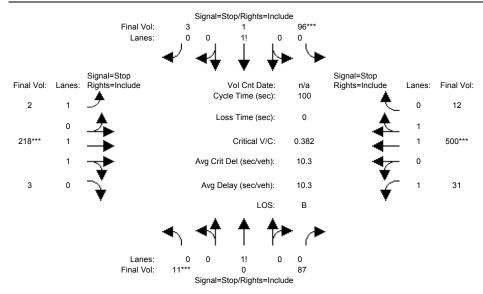
Street Name: Sheryl Drive College Drive					
Approach: North Bound South Bound East Bound West Bound					
Movement: L - T - R L - T - R L - T - R					
	1				
Min. Green: 0 0 0 0 0 0 0 0 0 0	'				
	1				
Volume Module: >> Count Date: 12 May 2015 << 7:30 - 8:30 am	'				
Base Vol: 11 0 87 96 1 3 2 187 3 31 490 12					
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.0	0				
Initial Bse: 11 0 87 96 1 3 2 187 3 31 490 12					
Added Vol: 0 0 0 0 0 0 0 0 0 0					
PasserByVol: 0 0 0 0 0 0 0 0 0 0					
Initial Fut: 11 0 87 96 1 3 2 187 3 31 490 12					
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.0)				
PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.0					
PHF Volume: 11 0 87 96 1 3 2 187 3 31 490 12	•				
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0					
Reduced Vol: 11 0 87 96 1 3 2 187 3 31 490 12					
	`				
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.0					
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.0)				
FinalVolume: 11 0 87 96 1 3 2 187 3 31 490 12					
Saturation Flow Module:					
Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.0	Ο				
Lanes: 0.11 0.00 0.89 0.96 0.01 0.03 1.00 1.97 0.03 1.00 1.95 0.05					
Final Sat.: 73 0 578 559 6 17 569 1220 20 615 1321 32					
	1				
Capacity Analysis Module:	1				
Vol/Sat: 0.15 xxxx 0.15 0.17 0.17 0.17 0.00 0.15 0.15 0.05 0.37 0.37	7				
Crit Moves: ***					
Delay/Veh: 8.9 0.0 8.9 9.9 9.9 9.9 8.8 9.2 9.2 8.7 10.9 10.8					
Delay Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.0	0				
AdjDel/Veh: 8.9 0.0 8.9 9.9 9.9 9.9 8.8 9.2 9.2 8.7 10.9 10.8	J				
ApproachDel: 8.9 9.9 9.2 10.8					
Delay Adj: 1.00 1.00 1.00 1.00					
Appradjuel: 8.9 9.9 9.2 10.8					
LOS by Appr: A A A B					
AllWayAvgQ: 0.1 0.1 0.1 0.2 0.2 0.2 0.0 0.2 0.2 0.1 0.6 0.6					
Note: Queue reported is the number of cars per lane.					
Peak Hour Volume Signal Warrant Report [Urban]					
	·***				
Intersection #3 Sheryl Drive & College Drive	****				

SIGNAL WARRANT DISCLAIMER

This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

Level Of Service Computation Report 2000 HCM 4-Way Stop (Future Volume Alternative) Ex+Proj AM

Intersection #3: Sheryl Drive & College Drive [Skyline College]



Movement: L - T - R	Drive					
Min. Green: 0 0 0						
Volume Module: AM Peak Hour						
Base Vol: 11 0 87	96 1 3 2 218 3 31 500 12					
	0 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.					
Initial Bse: 11 0 87	96 1 3 2 218 3 31 500 12					
Added Vol: 0 0 0	0 0 0 0 0 0 0 0					
PasserByVol: 0 0	0 0 0 0 0 0 0 0					
Initial Fut: 11 0 87	96 1 3 2 218 3 31 500 12					
User Adj: 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						
PHF Volume: 11 0 87	96 1 3 2 218 3 31 500 12					
Reduct Vol: 0 0 0	0 0 0 0 0 0 0 0					
Reduced Vol: 11 0 87	96 1 3 2 218 3 31 500 12					
PCE Adj: 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					
FinalVolume: 11 0 87	96 1 3 2 218 3 31 500 12					
Saturation Flow Module:						
	0 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.					
	0.96 0.01 0.03 1.00 1.97 0.03 1.00 1.95 0.05					
Final Sat.: 72 0 567						
Capacity Analysis Module:						
Vol/Sat: 0.15 xxxx 0.15	0.17 0.17 0.17 0.00 0.18 0.18 0.05 0.38 0.38					
Crit Moves: ****	****					
Delay/Veh: 9.0 0.0 9.0	10.0 10.0 10.0 8.8 9.5 9.5 8.8 11.1 11.1					
Delay Adj: 1.00 1.00 1.00	0 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.					
AdjDel/Veh: 9.0 0.0 9.0	10.0 10.0 10.0 8.8 9.5 9.5 8.8 11.1 11.1					
LOS by Move: A * A	A A A A A B B					
ApproachDel: 9.0	10.0 9.5 11.0					
Delav Adi: 1.00	1.00 1.00 1.00					
ApprAdjDel: 9.0	10.0 9.5 11.0					
LOS by Appr: A	A A B					
AllWayAvgQ: 0.2 0.2 0.2	0.2 0.2 0.2 0.0 0.2 0.2 0.1 0.6 0.6					
Note: Queue reported is the						
Peak Hour Volume Signal Warrant Report [Urban]						

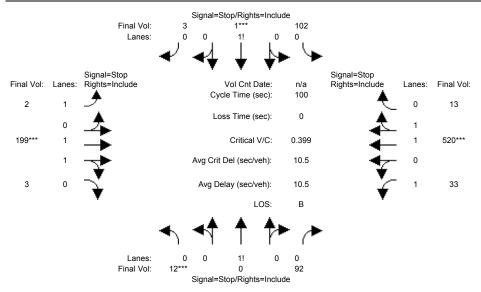
Intersection #3 Sheryl Drive & College Drive ************************************						

SIGNAL WARRANT DISCLAIMER

This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

Level Of Service Computation Report 2000 HCM 4-Way Stop (Future Volume Alternative) Cum AM

Intersection #3: Sheryl Drive & College Drive [Skyline College]



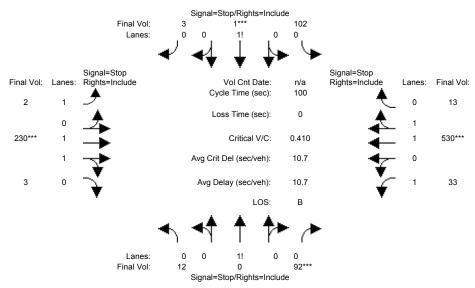
Street Name: Approach: Movement:	North Bo	und So R L -	outh Bo	und R I	- T - I	and R L -	West Bou T - R	
Min. Green:	0 0	0 0	0	0	0 0	0 0	0 0	
Volume Modul	·				-			
Base Vol: Growth Adj: Initial Bse: Added Vol: PasserByVol: Initial Fut: User Adj: PHF Adj: PHF Volume: Reduct Vol: Reduced Vol: PCE Adj: MLF Adj: FinalVolume:	12 0 1.00 1.00 12 0 0 0 0 0 12 0 1.00 1.00 1.00 1.00 12 0 0 0 12 0 1.00 1.00 1.00 1.00 1.00 1.00	92 102 1.00 1.0 92 102 0 0 92 102 1.00 1.0 92 102 0 0 92 102 1.00 1.0 92 102 1.00 1.0 1.00 1.0	1 0 0 1 0 1.00 0 1.00 1 0 1 0 1.00 0 1.00	1.00 3 0 0 3 1.00 1.00 3 0 3 1.00 1.00	1.00 1.00 2 199 0 0 0 0 2 199 1.00 1.00 1.00 1.00 2 199 0 0 2 199	1.00 1 3 33 0 0 0 0 3 33 1.00 1 3 33 0 0 3 33 1.00 1 1.00 1	.00 1.00 520 1 0 0 0 520 1 .00 1.00 520 1 0 0 520 1 .00 520 1 .00 1.00 .00 1.00 .00 1.00 .00 1.00	3 1.00 1.00 3 1.00 1.00 3
Saturation F Adjustment: Lanes: Final Sat.:	1.00 1.00 0.12 0.00 74 0	1.00 1.0 0.88 0.96 564 551	5 0.01	0.03 16	1.00 1.97 559 1200	0.03 1. 18 609	00 1.95 1305	0.05 33
Capacity Ana					11	ı	1	ı
<pre>Vol/Sat: Crit Moves: Delay/Veh: Delay Adj:</pre>	**** 9.1 0.0	9.1 10.1	**** 10.1	10.1	**** 8.9 9.4	9.4 8.	*** 8 11.4	11.3
AdjDel/Veh: LOS by Move: ApproachDel:	9.1 0.0 A * 9.1	9.1 10. A B	1 10.1 B 10.1	10.1 B	8.9 9.4 A A 9.4	9.4 8. A A	.8 11.4 B B	
Delay Adj: ApprAdjDel: LOS by Appr: AllWayAvqQ:	9.1 A		1.00 10.1 B 2 0.2		1.00 9.4 A 0.0 0.2	11	.00 2 B 1 0.6	0.6
Note: Queue	reported is Peak Hour	s the numb Volume S	er of o	cars p	er lane. Report [U	rban]	****	*****
Intersection	#3 Sheryl	Drive & 0	College	Drive				

SIGNAL WARRANT DISCLAIMER

This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

Level Of Service Computation Report 2000 HCM 4-Way Stop (Future Volume Alternative) Cum+Proj AM

Intersection #3: Sheryl Drive & College Drive [Skyline College]



Movement:	North Bound L - T - R	South Bound L - T - R	College Drive East Bound West Bound L - T - R L - T - R
Min. Green:	0 0 0	0 0 0	 0 0 0 0 0 0
	:AM Peak Hour	-	
Base Vol:		102 1 3	2 230 3 33 530 13
Growth Adi:	1.00 1.00 1.00		0 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse:		102 1 3	2 230 3 33 530 13
Added Vol:		0 0 0	0 0 0 0 0
PasserByVol:		0 0 0	0 0 0 0 0
Initial Fut:	12 0 92	102 1 3	2 230 3 33 530 13
User Adj:			0 1.00 1.00 1.00 1.00 1.00
PHF Adj:			0 1.00 1.00 1.00 1.00 1.00
PHF Volume:		102 1 3	
Reduct Vol:			
Reduced Vol:		102 1 3	
			0 1.00 1.00 1.00 1.00 1.00
MLF Adj:			0 1.00 1.00 1.00 1.00 1.00 1.00
	12 0 92	102 1 3	
		-	
Saturation F	•		
		1.00 1.00 1.0	0 1.00 1.00 1.00 1.00 1.00 1.00
			3 1.00 1.97 0.03 1.00 1.95 0.05
	72 0 554	542 5 16	
		-	
Capacity Anal	lysis Module:		
Vol/Sat:	0.17 xxxx 0.17	0.19 0.19 0.19	9 0.00 0.19 0.19 0.05 0.41 0.41
Crit Moves:	***	***	****
Delay/Veh:	9.3 0.0 9.3	10.2 10.2 10.2	8.9 9.7 9.7 8.9 11.6 11.5
Delay Adj:	1.00 1.00 1.00	1.00 1.00 1.0	0 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh:	9.3 0.0 9.3	10.2 10.2 10.2	8.9 9.7 9.7 8.9 11.6 11.5
LOS by Move:	A * A	в в в	A A A B B
ApproachDel:		10.2	9.7 11.4
Delay Adj:		1.00	1.00 1.00
ApprAdjDel:	9.3	10.2	9.7 11.4
LOS by Appr:	A	В	A B
			0.0 0.2 0.2 0.1 0.7 0.6
Note: Queue		number of cars	
	Peak Hour Volu	me Signal Warra	nt Report [Urban]

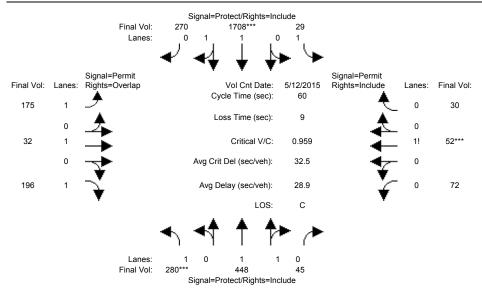
		e & College Driv	7 0

SIGNAL WARRANT DISCLAIMER

This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

Level Of Service Computation Report 2000 HCM Operations (Future Volume Alternative) Ex AM

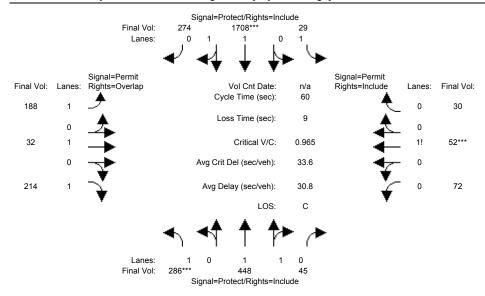
Intersection #4: Skyline Boulevard & College Drive [Skyline College]



Street Name: Skyline Boulevard College Drive North Bound South Bound East Bound West Bound L-T-R L-T-R L-T-R Min. Green: 0 0 0 0 0 0 0 0 0 0 ---|------||-------||----------------| Volume Module: >> Count Date: 12 May 2015 << 7:45 - 8:45 am 72 52 Base Vol: 280 448 45 29 1708 270 175 32 196 29 1708 270 175 32 196 72 52 Initial Bse: 280 448 45 0 0 0 0 0 0 0 0 0 0 0 Added Vol: 0 0 0 0 0 0 0 0 0 0 PasserByVol: 0 Ω Initial Fut: 280 448 45 29 1708 270 175 32 196 72 52 PHF Adj: PHF Volume: 280 448 45 29 1708 270 175 32 196 72 52 0 0 0 0 0 0 0 0 0 0 0 Reduct Vol: 0 Reduced Vol: 280 448 45 29 1708 270 175 32 196 72 52 MLF Adi: FinalVolume: 280 448 45 29 1708 270 175 32 196 72 52 30 -----|----|-----| Saturation Flow Module: Adjustment: 0.95 0.94 0.94 0.95 0.93 0.93 0.98 1.00 0.85 0.80 0.80 0.80 Lanes: 1.00 1.82 0.18 1.00 1.73 0.27 1.00 1.00 1.00 0.47 0.34 0.19 Final Sat.: 1805 3235 325 1805 3052 482 1870 1900 1615 715 516 298 -----||----| Capacity Analysis Module: Vol/Sat: 0.16 0.14 0.14 0.02 0.56 0.56 0.09 0.02 0.12 0.10 0.10 0.10 Crit Moves: **** Green/Cycle: 0.16 0.67 0.67 0.08 0.58 0.58 0.11 0.11 0.27 0.11 0.11 0.11 Volume/Cap: 0.96 0.21 0.21 0.21 0.96 0.96 0.89 0.16 0.46 0.96 0.96 0.96 3.9 26.7 23.6 23.6 62.4 24.8 19.1 85.5 85.5 85.5 Delay/Veh: 66.6 3.9 AdjDel/Veh: 66.6 3.9 3.9 26.7 23.6 23.6 62.4 24.8 19.1 85.5 85.5 85.5 Α C C 1 42 LOS by Move: E Α С E C B F F F 4 13 13 18 4 42 12 1 7 13 HCM2k95thQ: Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report 2000 HCM Operations (Future Volume Alternative) Ex+Proj AM

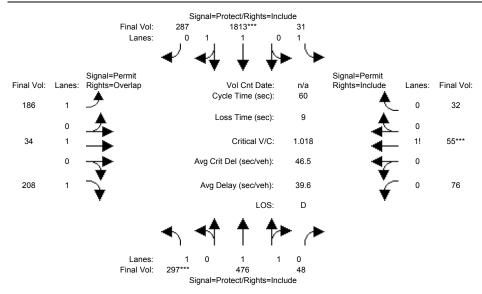
Intersection #4: Skyline Boulevard & College Drive [Skyline College]



Street Name: Skyline Boulevard College Drive North Bound South Bound East Bound West Bound Approach: L-T-R L-T-R L-T-R Min. Green: 0 0 0 0 0 0 0 0 0 0 0 ---|------||-------| Volume Module: AM Peak Hour Base Vol: 286 448 45 29 1708 274 188 32 214 72 52 29 1708 274 188 32 214 Initial Bse: 286 448 45 72 52 0 0 0 0 0 0 0 0 0 0 0 Added Vol: 0 0 0 0 0 0 PasserByVol: Ω Ω 0 0 0 Initial Fut: 286 448 29 1708 274 188 32 214 72 52 45 PHF Adj: PHF Volume: 286 448 45 29 1708 274 188 32 214 72 52 0 0 0 0 0 0 0 0 0 0 0 0 Reduct Vol: Reduced Vol: 286 448 45 29 1708 274 188 32 214 72 52 MLF Adi: FinalVolume: 286 448 45 29 1708 274 188 32 214 72 52 30 -----| | ---- | | ------ | | ------Saturation Flow Module: Adjustment: 0.95 0.94 0.94 0.95 0.93 0.93 0.99 1.00 0.85 0.80 0.80 0.80 Lanes: 1.00 1.82 0.18 1.00 1.72 0.28 1.00 1.00 1.00 0.47 0.34 0.19 Final Sat.: 1805 3235 325 1805 3046 489 1873 1900 1615 715 516 298 -----||----| Capacity Analysis Module: Vol/Sat: 0.16 0.14 0.14 0.02 0.56 0.56 0.10 0.02 0.13 0.10 0.10 0.10 Crit Moves: **** *** Green/Cycle: 0.16 0.67 0.67 0.08 0.58 0.58 0.10 0.10 0.27 0.10 0.10 0.10 Volume/Cap: 0.96 0.21 0.21 0.21 0.96 0.96 0.96 0.16 0.49 0.96 0.96 0.96 3.9 26.7 24.6 24.6 79.7 24.9 19.4 87.2 87.2 87.2 Delay/Veh: 67.5 3.9 AdjDel/Veh: 67.5 3.9 3.9 26.7 24.6 24.6 79.7 24.9 19.4 87.2 87.2 87.2 C C 1 42 LOS by Move: E Α Α С \mathbf{E} C B F F F 1 19 4 4 42 14 8 13 13 13 HCM2k95thQ: Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report 2000 HCM Operations (Future Volume Alternative) Cum AM

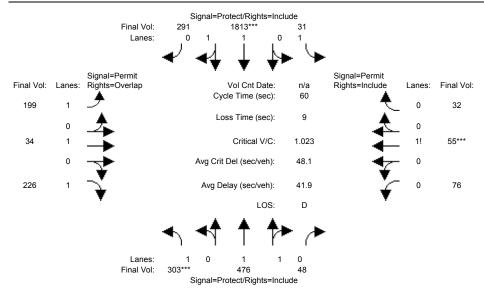
Intersection #4: Skyline Boulevard & College Drive [Skyline College]



Street Name: Skyline Boulevard College Drive North Bound South Bound East Bound West Bound Approach: L-T-R L-T-R L-T-R Min. Green: 0 0 0 0 0 0 0 0 0 0 0 ---|------||-------| Volume Module: AM Peak Hour Base Vol: 297 476 48 31 1813 287 186 34 208 76 55 31 1813 287 186 34 208 Initial Bse: 297 476 48 76 55 0 0 0 0 0 0 0 0 0 0 0 Added Vol: 0 0 0 0 0 0 0 0 PasserByVol: Ω Ω 0 0 Initial Fut: 297 476 31 1813 287 186 34 208 76 55 48 User Adj: PHF Adj: PHF Volume: 297 476 48 31 1813 287 186 34 208 76 55 32 0 0 0 0 0 0 0 Ω 0 0 0 0 Reduct Vol: 48 31 1813 287 186 34 208 76 55 Reduced Vol: 297 476 MLF Adi: 186 34 208 FinalVolume: 297 476 48 31 1813 287 76 55 -----| | ---- | | ----- | | ------Saturation Flow Module: Adjustment: 0.95 0.94 0.94 0.95 0.93 0.93 1.00 1.00 0.85 0.80 0.80 0.80 Lanes: 1.00 1.82 0.18 1.00 1.73 0.27 1.00 1.00 1.00 0.46 0.34 0.20 Final Sat.: 1805 3233 326 1805 3051 483 1900 1900 1615 712 515 300 -----||----| Capacity Analysis Module: Vol/Sat: 0.16 0.15 0.15 0.02 0.59 0.59 0.10 0.02 0.13 0.11 0.11 0.11 Crit Moves: **** *** Green/Cycle: 0.16 0.67 0.67 0.08 0.58 0.58 0.10 0.10 0.27 0.10 0.10 0.10 Volume/Cap: 1.02 0.22 0.22 0.22 1.02 1.02 0.93 0.17 0.48 1.02 1.02 1.02 3.9 26.8 37.0 37.0 71.9 24.9 19.4 102.9 103 102.9 Delay/Veh: 82.6 3.9 AdjDel/Veh: 82.6 3.9 3.9 26.8 37.0 37.0 71.9 24.9 19.4 102.9 103 102.9 C D LOS by Move: F A Α D E C B F F F 2 51 1 21 4 4 51 14 8 14 14 14 HCM2k95thQ: Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report 2000 HCM Operations (Future Volume Alternative) Cum+Proj AM

Intersection #4: Skyline Boulevard & College Drive [Skyline College]



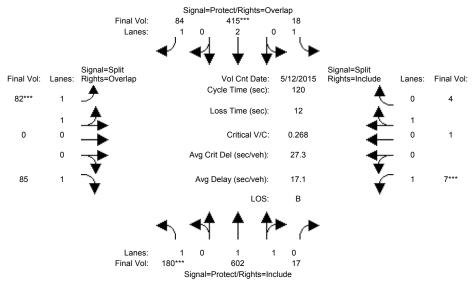
Street Name: Skyline Boulevard College Drive North Bound South Bound East Bound West Bound L-T-R L-T-R L-T-R 0 0 0 0 Min. Green: 0 0 0 0 0 0 0 ---|------||-------| Volume Module: AM Peak Hour Base Vol: 303 476 48 31 1813 291 199 34 226 76 55 31 1813 291 199 34 226 Initial Bse: 303 476 48 76 55 0 0 0 0 0 0 0 0 0 0 0 Added Vol: 0 0 0 0 0 0 0 0 PasserByVol: Ω 0 0 0 Initial Fut: 303 476 31 1813 291 199 34 226 76 55 48 PHF Adj: PHF Volume: 303 476 48 31 1813 291 199 34 226 76 55 32 0 0 0 0 0 0 0 0 0 0 0 0 Reduct Vol: 48 31 1813 291 199 34 226 76 55 Reduced Vol: 303 476 MLF Adi: FinalVolume: 303 476 48 31 1813 291 199 34 226 76 55 32 -----| | ----- | | ----- | | ------Saturation Flow Module: Adjustment: 0.95 0.94 0.94 0.95 0.93 0.93 1.00 1.00 0.85 0.80 0.80 0.80 Lanes: 1.00 1.82 0.18 1.00 1.72 0.28 1.00 1.00 1.00 0.46 0.34 0.20 Final Sat.: 1805 3233 326 1805 3045 489 1900 1900 1615 712 515 300 -----||----| Capacity Analysis Module: Vol/Sat: 0.17 0.15 0.15 0.02 0.60 0.60 0.10 0.02 0.14 0.11 0.11 0.11 Crit Moves: **** *** Green/Cycle: 0.16 0.67 0.67 0.08 0.58 0.58 0.10 0.10 0.27 0.10 0.10 0.10 Volume/Cap: 1.02 0.22 0.22 0.22 1.02 1.02 1.00 0.17 0.52 1.02 1.02 1.02 3.9 26.7 38.6 38.6 91.8 24.9 19.8 104.5 104 104.5 Delay/Veh: 83.5 3.9 AdjDel/Veh: 83.5 3.9 3.9 26.7 38.6 38.6 91.8 24.9 19.8 104.5 104 104.5 C D D 2 51 51 C B F F 1 8 14 14 LOS by Move: F A Α F F 1 21 4 4 16 14 14 HCM2k95thQ: Note: Queue reported is the number of cars per lane.

SMCCCD Facility Master Plan EIR Prepared by

Hexagon Transportation Consultants, Inc.

Level Of Service Computation Report 2000 HCM Operations (Future Volume Alternative)

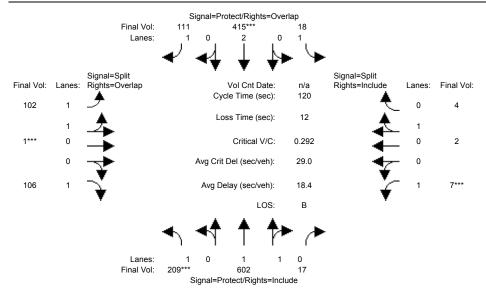
Intersection #1: Woodhill Drive & Farm Hill Boulevard [Canada College]



Street Name: Farm Hill Boulevard Woodhill Drive Approach: North Bound South Bound East Bound West Bound Movement: $L - T - R \quad L - T - R \quad L - T - R$ Min. Green: 0 0 0 0 0 0 0 0 0 0 0 -----| |-----| |------| |------| Volume Module: >> Count Date: 12 May 2015 << 5 - 6 pm Base Vol: 180 602 17 18 415 84 82 0 85 7 1 Initial Bse: 180 602 17 18 415 84 82 0 85 7 1 Added Vol: Ω 0 0 0 0 0 0 0 0 0 0 PasserByVol: 0 0 Ω Ω Ω 0 0 0 0 0 0 0 82 0 85 7 1 17 Initial Fut: 180 602 18 415 84 PHF Adj: PHF Volume: 180 602 17 18 415 84 82 0 85 7 1 4 0 0 0 0 0 0 0 0 0 0 1 Reduct Vol: 0 Ω 0 0 0 0 0 18 415 Reduced Vol: 180 602 17 84 82 MLF Adj: 84 82 0 85 7 1 4 FinalVolume: 180 602 17 18 415 Saturation Flow Module: Adjustment: 0.95 0.95 0.95 0.95 0.95 0.85 0.95 1.00 0.85 0.95 0.88 0.88 Lanes: 1.00 1.95 0.05 1.00 2.00 1.00 2.00 0.00 1.00 1.00 0.20 0.80 Final Sat.: 1805 3497 99 1805 3610 1615 3618 0 1615 1805 334 1338 -----| Capacity Analysis Module: Vol/Sat: 0.10 0.17 0.17 0.01 0.11 0.05 0.02 0.00 0.05 0.00 0.00 0.00 Crit Moves: **** **** Green/Cycle: 0.37 0.76 0.76 0.04 0.43 0.51 0.08 0.00 0.46 0.01 0.01 0.01 Volume/Cap: 0.27 0.23 0.23 0.23 0.27 0.10 0.27 0.00 0.12 0.27 0.21 0.21 4.3 56.9 22.2 15.0 51.9 0.0 18.8 64.0 62.7 62.7 Delay/Veh: 26.5 4.3 AdjDel/Veh: 26.5 4.3 4.3 56.9 22.2 15.0 51.9 0.0 18.8 64.0 62.7 62.7 E C B D A B E E LOS by Move: C Α Α 7 7 2 10 HCM2k95thQ: 9 3 3 0 1 4 1 Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report 2000 HCM Operations (Future Volume Alternative) Ex+Proj PM

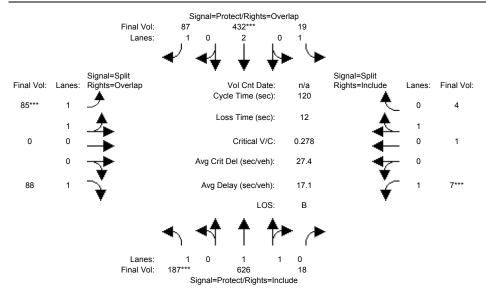
Intersection #1: Woodhill Drive & Farm Hill Boulevard [Canada College]



Street Name: Farm Hill Boulevard Woodhill Drive North Bound South Bound East Bound L-T-R L-T-R L-T-R Min. Green: 0 0 0 0 0 0 0 0 0 0 0 ---|------||-------| Volume Module: PM Peak Hour Base Vol: 209 602 17 18 415 111 102 1 106 17 18 415 111 102 1 106 Initial Bse: 209 602 0 0 0 0 0 0 0 0 Ω \cap Added Vol: 0 0 0 0 0 PasserByVol: 0 0 0 0 0 0 Initial Fut: 209 602 111 102 1 106 17 18 415 PHF Adj: PHF Volume: 209 602 17 18 415 111 102 1 106 0 0 0 0 0 0 0 0 0 Reduct Vol: 0 Reduced Vol: 209 602 17 7 2 18 415 111 102 1 106 MLF Adi: FinalVolume: 209 602 17 18 415 111 102 1 106 7 2 4 Saturation Flow Module: Adjustment: 0.95 0.95 0.95 0.95 0.95 0.85 0.95 0.95 0.85 0.95 0.90 0.90 Lanes: 1.00 1.95 0.05 1.00 2.00 1.00 1.98 0.02 1.00 1.00 0.33 0.67 Final Sat.: 1805 3497 99 1805 3610 1615 3586 35 1615 1805 570 1140 Capacity Analysis Module: Vol/Sat: 0.12 0.17 0.17 0.01 0.11 0.07 0.03 0.03 0.07 0.00 0.00 0.00 *** **** Crit Moves: **** **** Green/Cycle: 0.40 0.75 0.75 0.04 0.39 0.49 0.10 0.10 0.49 0.01 0.01 0.01 Volume/Cap: 0.29 0.23 0.23 0.23 0.29 0.14 0.29 0.29 0.13 0.29 0.26 0.26 4.7 57.0 25.1 16.8 50.8 50.8 16.6 65.3 64.8 64.8 Delay/Veh: 25.0 4.7 AdjDel/Veh: 25.0 4.7 4.7 57.0 25.1 16.8 50.8 50.8 16.6 65.3 64.8 64.8 E C B 2 11 4 D D B E E 4 4 4 1 1 LOS by Move: C Α Α E 10 7 7 HCM2k95thQ: Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report 2000 HCM Operations (Future Volume Alternative) Cum PM

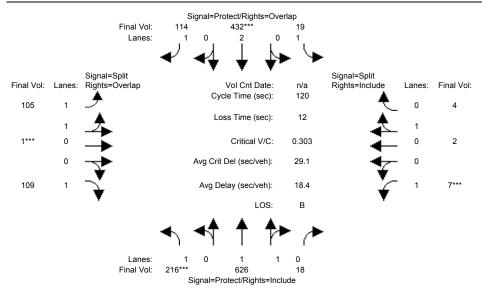
Intersection #1: Woodhill Drive & Farm Hill Boulevard [Canada College]



Street Name: Farm Hill Boulevard Woodhill Drive North Bound South Bound East Bound West Bound L-T-R L-T-R L-T-R Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0 ---|------||-------| Volume Module: PM Peak Hour Base Vol: 187 626 18 19 432 87 85 0 88 87 85 0 88 7 1 4 18 Initial Bse: 187 626 19 432 0 0 0 0 0 0 0 0 0 0 Ω Added Vol: 0 0 0 0 0 0 PasserByVol: Ω 0 0 0 0 Initial Fut: 187 626 19 432 7 1 18 87 85 0 88 PHF Adj: PHF Volume: 187 626 18 19 432 87 85 0 88 7 1 4 0 0 0 0 0 0 0 0 0 Reduct Vol: 0 0 Reduced Vol: 187 626 18 19 432 87 85 0 88 7 1 MLF Adi: FinalVolume: 187 626 18 19 432 87 85 0 88 7 1 4 Saturation Flow Module: Adjustment: 0.95 0.95 0.95 0.95 0.95 0.85 0.95 1.00 0.85 0.95 0.88 0.88 Lanes: 1.00 1.94 0.06 1.00 2.00 1.00 2.00 0.00 1.00 1.00 0.20 0.80 Final Sat.: 1805 3495 100 1805 3610 1615 3618 0 1615 1805 334 1338 Capacity Analysis Module: Vol/Sat: 0.10 0.18 0.18 0.01 0.12 0.05 0.02 0.00 0.05 0.00 0.00 0.00 **** *** Crit Moves: **** Green/Cycle: 0.37 0.76 0.76 0.04 0.43 0.51 0.08 0.00 0.46 0.01 0.01 0.01 Volume/Cap: 0.28 0.24 0.24 0.24 0.28 0.10 0.28 0.00 0.12 0.28 0.21 0.21 4.4 56.9 22.3 15.0 52.0 0.0 18.8 64.5 63.1 63.1 Delay/Veh: 26.6 4.4 AdjDel/Veh: 26.6 4.4 4.4 56.9 22.3 15.0 52.0 0.0 18.8 64.5 63.1 63.1 D A B E E 3 0 4 1 1 E C B 2 10 3 LOS by Move: C A Α 7 9 7 HCM2k95thQ: Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report 2000 HCM Operations (Future Volume Alternative) Cum+Proj PM

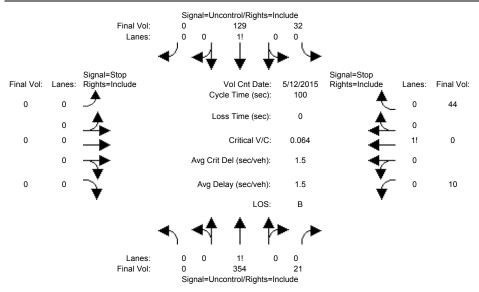
Intersection #1: Woodhill Drive & Farm Hill Boulevard [Canada College]



Street Name: Farm Hill Boulevard Woodhill Drive North Bound South Bound East Bound L-T-R L-T-R L-T-R 0 0 0 Min. Green: 0 0 0 0 0 0 0 0 ---|------||-------| Volume Module: PM Peak Hour Base Vol: 216 626 18 19 432 114 105 1 109 18 19 432 114 105 1 109 Initial Bse: 216 626 0 0 0 0 0 0 0 0 Ω \cap Added Vol: 0 0 0 0 0 0 0 PasserByVol: 0 0 0 0 Initial Fut: 216 626 114 105 1 109 18 19 432 PHF Adj: PHF Volume: 216 626 18 19 432 114 105 1 109 0 0 0 0 0 0 0 0 0 Reduct Vol: 0 Reduced Vol: 216 626 18 19 432 7 2 114 105 1 109 MLF Adi: FinalVolume: 216 626 18 19 432 114 105 1 109 7 2 4 -----|----|-----Saturation Flow Module: Adjustment: 0.95 0.95 0.95 0.95 0.95 0.85 0.95 0.95 0.95 0.90 0.90 Lanes: 1.00 1.94 0.06 1.00 2.00 1.00 1.98 0.02 1.00 1.00 0.33 0.67 Final Sat.: 1805 3495 100 1805 3610 1615 3587 34 1615 1805 570 1140 -----|----|----|-----| Capacity Analysis Module: Vol/Sat: 0.12 0.18 0.18 0.01 0.12 0.07 0.03 0.03 0.07 0.00 0.00 0.00 **** **** Crit Moves: **** **** Green/Cycle: 0.40 0.75 0.75 0.04 0.40 0.49 0.10 0.10 0.49 0.01 0.01 0.01 Volume/Cap: 0.30 0.24 0.24 0.24 0.30 0.14 0.30 0.30 0.14 0.30 0.27 0.27 4.7 57.0 25.0 16.7 50.9 50.9 16.7 66.0 65.4 65.4 Delay/Veh: 25.2 4.7 AdjDel/Veh: 25.2 4.7 4.7 57.0 25.0 16.7 50.9 50.9 16.7 66.0 65.4 65.4 E C B 2 11 5 D D B E E 4 4 4 1 1 LOS by Move: C Α Α 8 10 8 HCM2k95thQ: Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report 2000 HCM Unsignalized (Future Volume Alternative) Ex PM

Intersection #2: Canada Road & West Entry Drive [Canada College]



Street Name: West Entry Drive Canada Road North Bound South Bound East Bound West Bound Approach: L-T-R L-T-R L-T-R Volume Module: >> Count Date: 12 May 2015 << 5 - 6 pm 32 129 Base Vol: 0 354 21 Ο 0 0 0 10 Ω 21 32 129 0 Initial Bse: 0 354 Ω Ω 10 Added Vol: 0 0 0 0 0 0 0 0 0 0 0 0 PasserByVol: 0 0 0 0 0 0 0 10 0 354 32 129 0 0 0 0 21 0 Initial Fut: PHF Adj: PHF Volume: 0 354 21 32 129 0 0 0 0 10 0 44 0 0 Reduct Vol: 0 0 Ω Ω Ω Ω FinalVolume: 0 354 21 32 129 0 0 0 0 10 0 Critical Gap Module: FollowUpTim:xxxxx xxxxx xxxxx 2.2 xxxx xxxxx xxxxx xxxxx xxxxx 3.5 4.0 3.3 -----||----| Capacity Module: 495 441 -----||-----||-----| Level Of Service Module: LOS by Move: * * A * * * * * Movement: LT - LTR - RT SharedQueue:xxxxx xxxxx xxxxx 0.1 xxxx xxxxx xxxxx xxxxx xxxxx xxxxx 0.3 xxxxx Shrd ConDel:xxxxx xxxx xxxxx 8.1 xxxx xxxxx xxxxx xxxxx xxxxx xxxxx 11.2 xxxxx Shared LOS: * * * A * * * * * В 11.2 ApproachDel: XXXXXX XXXXXX XXXXXX ApproachLOS: Note: Queue reported is the number of cars per lane. Peak Hour Delay Signal Warrant Report ************************** Intersection #2 Canada Road & West Entry Drive

Future Volume Alternative: Peak Hour Warrant NOT Met

-----||-----||-----| Approach: North Bound South Bound East Bound West Bound Movement: L - T - R L - T - R L - T - R Control: Uncontrolled Uncontrolled Stop Sign Stop Sig Lanes: 0 0 0 1 0 0 1 0 0 0 0 0 0 0 0 0 1! 0 0 Uncontrolled Uncontrolled Stop Sign Stop Sign Approach[westbound][lanes=1][control=Stop Sign] Signal Warrant Rule #1: [vehicle-hours=0.2] FAIL - Vehicle-hours less than 4 for one lane approach. Signal Warrant Rule #2: [approach volume=54] FAIL - Approach volume less than 100 for one lane approach. Signal Warrant Rule #3: [approach count=3][total volume=590] FAIL - Total volume less than 650 for intersection with less than four approaches. ______

SIGNAL WARRANT DISCLAIMER

This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace a rigorous and complete traffic signal warrant analysis by the responsible jurisdiction. Consideration of the other signal warrants, which is beyond the scope of this software, may yield different results.

Peak Hour Volume Signal Warrant Report [Urban]

Intersection #2 Canada Road & West Entry Drive

Future Volume Alternative: Peak Hour Warrant NOT Met

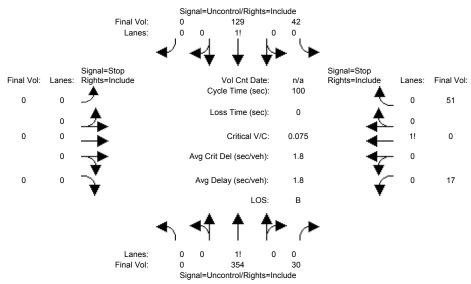
Major Street Volume: 536
Minor Approach Volume: 54
Minor Approach Volume Threshold: 386

SIGNAL WARRANT DISCLAIMER

This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

Level Of Service Computation Report 2000 HCM Unsignalized (Future Volume Alternative) Ex+Proj PM

Intersection #2: Canada Road & West Entry Drive [Canada College]



Street Name: West Entry Drive Canada Road North Bound South Bound East Bound West Bound Approach: L-T-R L-T-R L-T-R Volume Module: PM Peak Hour 42 129 0 Base Vol: 0 354 3.0 0 0 0 17 0 30 42 129 0 Initial Bse: 0 354 Ω 0 17 Added Vol: 0 0 0 0 0 0 0 0 0 0 0 0 0 0 PasserByVol: 0 0 0 0 0 0 0 0 354 42 129 0 0 17 30 0 0 0 Initial Fut: PHF Adj: PHF Volume: 0 354 30 42 129 0 0 0 0 17 0 51 0 0 Reduct Vol: 0 0 Ω Ω Ω 0 FinalVolume: 0 354 30 42 129 0 0 0 0 17 0 Critical Gap Module: FollowUpTim:xxxxx xxxxx xxxxx 2.2 xxxx xxxxx xxxxx xxxxx xxxxx 3.5 4.0 3.3 -----||----| Capacity Module: 479 427 681 -----||-----||-----| Level Of Service Module: LOS by Move: * * A * * * * * Movement: LT - LTR - RT SharedQueue:xxxxx xxxxx xxxxx 0.1 xxxx xxxxx xxxxx xxxxx xxxxx xxxxx 0.4 xxxxx Shrd ConDel:xxxxx xxxxx xxxxx 8.1 xxxx xxxxx xxxxx xxxxx xxxxx xxxxx 11.6 xxxxx Shared LOS: * * * A * * * * B 11.6 ApproachDel: XXXXXX XXXXXX XXXXXX ApproachLOS: Note: Queue reported is the number of cars per lane. Peak Hour Delay Signal Warrant Report ************************** Intersection #2 Canada Road & West Entry Drive

Future Volume Alternative: Peak Hour Warrant NOT Met

-----||-----||-----| Approach: North Bound South Bound East Bound West Bound Movement: L - T - R L - T - R L - T - R Control: Uncontrolled Uncontrolled Stop Sign Stop Sig Uncontrolled Uncontrolled Stop Sign Stop Sign Approach[westbound][lanes=1][control=Stop Sign] Signal Warrant Rule #1: [vehicle-hours=0.2] FAIL - Vehicle-hours less than 4 for one lane approach. Signal Warrant Rule #2: [approach volume=68] FAIL - Approach volume less than 100 for one lane approach. Signal Warrant Rule #3: [approach count=3][total volume=623] FAIL - Total volume less than 650 for intersection with less than four approaches. ______

SIGNAL WARRANT DISCLAIMER

This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace a rigorous and complete traffic signal warrant analysis by the responsible jurisdiction. Consideration of the other signal warrants, which is beyond the scope of this software, may yield different results.

Peak Hour Volume Signal Warrant Report [Urban]

Intersection #2 Canada Road & West Entry Drive

Future Volume Alternative: Peak Hour Warrant NOT Met

Major Street Volume: 555 Minor Approach Volume: 68

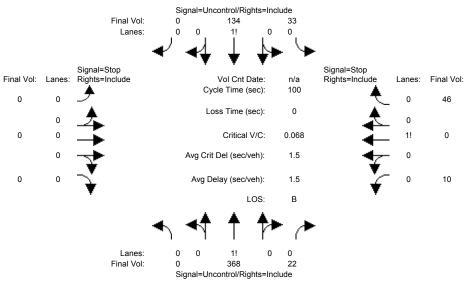
Minor Approach Volume Threshold: 376

SIGNAL WARRANT DISCLAIMER

This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

Level Of Service Computation Report 2000 HCM Unsignalized (Future Volume Alternative) Cum PM

Intersection #2: Canada Road & West Entry Drive [Canada College]



Street Name: West Entry Drive Canada Road North Bound South Bound East Bound West Bound Approach: L-T-R L-T-R L-T-R Volume Module: PM Peak Hour 33 134 0 Base Vol: 0 368 22 0 0 0 10 0 22 33 134 0 Initial Bse: 0 368 Ω 0 10 Added Vol: 0 0 0 0 0 0 0 0 0 0 0 0 0 PasserByVol: 0 0 0 0 0 0 0 0 0 368 33 134 0 0 10 0 22 0 0 Initial Fut: PHF Adj: PHF Volume: 0 368 22 33 134 0 0 0 0 10 0 46 0 0 Reduct Vol: 0 0 Ω Ω 0 FinalVolume: 0 368 22 33 134 0 0 0 0 10 0 Critical Gap Module: FollowUpTim:xxxxx xxxxx xxxxx 2.2 xxxx xxxxx xxxxx xxxxx xxxxx 3.5 4.0 3.3 -----||----||----|||----| Capacity Module: 672 -----||-----||-----| Level Of Service Module: LOS by Move: * * A * * * * * Movement: LT - LTR - RT SharedQueue:xxxxx xxxxx xxxxx 0.1 xxxx xxxxx xxxxx xxxxx xxxxx xxxxx 0.3 xxxxx Shrd ConDel:xxxxx xxxx xxxxx 8.1 xxxx xxxxx xxxxx xxxxx xxxxx xxxxx 11.3 xxxxx Shared LOS: * * * A * * * * В 11.3 ApproachDel: XXXXXX XXXXXX XXXXXX ApproachLOS: Note: Queue reported is the number of cars per lane. Peak Hour Delay Signal Warrant Report ************************** Intersection #2 Canada Road & West Entry Drive

Future Volume Alternative: Peak Hour Warrant NOT Met

-----||-----||-----| Approach: North Bound South Bound East Bound West Bound Movement: L - T - R L - T - R L - T - R Control: Uncontrolled Uncontrolled Stop Sign Stop Sig Lanes: 0 0 0 1 0 0 1 0 0 0 0 0 0 0 0 0 1! 0 0 Uncontrolled Uncontrolled Stop Sign Stop Sign Approach[westbound][lanes=1][control=Stop Sign] Signal Warrant Rule #1: [vehicle-hours=0.2] FAIL - Vehicle-hours less than 4 for one lane approach. Signal Warrant Rule #2: [approach volume=56] FAIL - Approach volume less than 100 for one lane approach. Signal Warrant Rule #3: [approach count=3][total volume=613] FAIL - Total volume less than 650 for intersection with less than four approaches. ______

SIGNAL WARRANT DISCLAIMER

This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace a rigorous and complete traffic signal warrant analysis by the responsible jurisdiction. Consideration of the other signal warrants, which is beyond the scope of this software, may yield different results.

Peak Hour Volume Signal Warrant Report [Urban]

Intersection #2 Canada Road & West Entry Drive

Future Volume Alternative: Peak Hour Warrant NOT Met

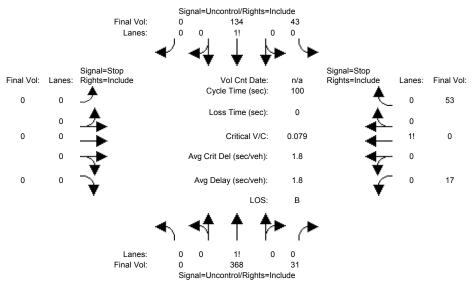
Major Street Volume: 557
Minor Approach Volume: 56
Minor Approach Volume Threshold: 375

SIGNAL WARRANT DISCLAIMER

This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

Level Of Service Computation Report 2000 HCM Unsignalized (Future Volume Alternative) Cum+Proj PM

Intersection #2: Canada Road & West Entry Drive [Canada College]



Street Name: West Entry Drive Canada Road North Bound South Bound East Bound West Bound Approach: L-T-R L-T-R L-T-R Volume Module: PM Peak Hour 43 134 0 Base Vol: 0 368 31 Ω 0 0 17 0 43 134 0 Initial Bse: 0 368 31 Ω 0 17 Added Vol: 0 0 0 0 0 0 0 0 0 0 0 0 0 0 PasserByVol: 0 0 0 0 0 0 0 0 368 31 43 134 0 0 17 0 0 0 Initial Fut: PHF Adj: PHF Volume: 0 368 31 43 134 0 0 0 0 17 0 53 0 0 Reduct Vol: 0 0 Ω Ω 0 FinalVolume: 0 368 31 43 134 0 0 0 0 17 0 Critical Gap Module: FollowUpTim:xxxxx xxxxx xxxxx 2.2 xxxx xxxxx xxxxx xxxxx xxxxx 3.5 4.0 3.3 -----||----| Capacity Module: 465 415 668 -----||-----||-----| Level Of Service Module: LOS by Move: * * * A * * * * * Movement: LT - LTR - RT SharedQueue:xxxxx xxxxx xxxxx 0.1 xxxx xxxxx xxxxx xxxxx xxxxx xxxxx 0.4 xxxxx Shrd ConDel:xxxxx xxxx xxxxx 8.2 xxxx xxxxx xxxxx xxxxx xxxxx xxxxx 11.8 xxxxx Shared LOS: * * * A * * * * B 11.8 ApproachDel: XXXXXX XXXXXX XXXXXX ApproachLOS: Note: Queue reported is the number of cars per lane. Peak Hour Delay Signal Warrant Report ************************** Intersection #2 Canada Road & West Entry Drive

Future Volume Alternative: Peak Hour Warrant NOT Met

-----||-----||-----| Approach: North Bound South Bound East Bound West Bound Movement: L - T - R L - T - R L - T - R Control: Uncontrolled Uncontrolled Stop Sign Stop Sig Uncontrolled Uncontrolled Stop Sign Stop Sign _____ Approach[westbound][lanes=1][control=Stop Sign] Signal Warrant Rule #1: [vehicle-hours=0.2] FAIL - Vehicle-hours less than 4 for one lane approach. Signal Warrant Rule #2: [approach volume=70] FAIL - Approach volume less than 100 for one lane approach. Signal Warrant Rule #3: [approach count=3][total volume=646] FAIL - Total volume less than 650 for intersection with less than four approaches. ______

SIGNAL WARRANT DISCLAIMER

This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace a rigorous and complete traffic signal warrant analysis by the responsible jurisdiction. Consideration of the other signal warrants, which is beyond the scope of this software, may yield different results.

Peak Hour Volume Signal Warrant Report [Urban]

Future Volume Alternative: Peak Hour Warrant NOT Met

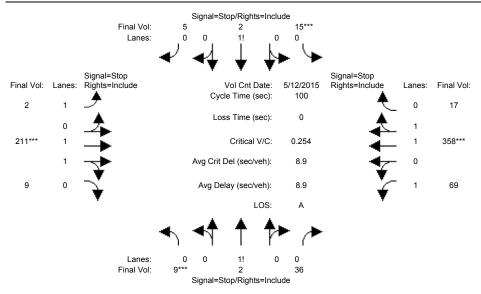
Major Street Volume: 576
Minor Approach Volume: 70

Minor Approach Volume Threshold: 367

SIGNAL WARRANT DISCLAIMER

This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

Level Of Service Computation Report 2000 HCM 4-Way Stop (Future Volume Alternative) Ex PM

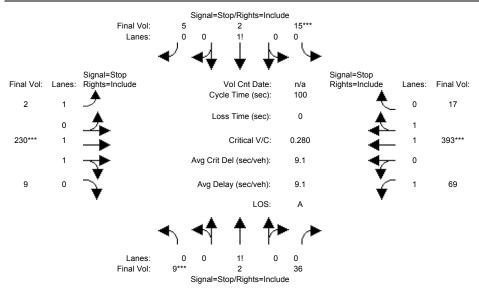


Street Name:	Sheryl	Drive	College Drive
Approach:	North Bound	South Bound	East Bound West Bound
Movement:	L - T - R	L - T - R	L - T - R L - T - R
			0 0 0 0 0
		-	
	e: >> Count Dat	e: 12 May 2015 <	< 5 - 6 pm
Base Vol:	9 2 36	15 2 5	
Growth Adj:	1.00 1.00 1.00	1.00 1.00 1.00	0 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse:	9 2 36	15 2 5	2 211 9 69 358 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
PasserByVol: Initial Fut:	9 2 36	15 2 5	2 211 9 69 358 17
User Adj:		1.00 1.00 1.00	0 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
PHF Volume:		15 2 5	2 211 9 69 358 17
Reduct Vol:	0 0 0	0 0 0	0 0 0 0 0 0
Reduced Vol:		15 2 5	2 211 9 69 358 17
			1.00 1.00 1.00 1.00 1.00 1.00
MLF Adi:	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00 1.00 1.00 1.00
FinalVolume:			2 211 9 69 358 17
Saturation F	low Module:		
Adjustment:	1.00 1.00 1.00	1.00 1.00 1.00	0 1.00 1.00 1.00 1.00 1.00 1.00
Lanes: (0.19 0.04 0.77	0.68 0.09 0.23	1.00 1.92 0.08 1.00 1.91 0.09
	131 29 524		
		-	
Capacity Anal	lysis Module:		
Vol/Sat:	0.07 0.07 0.07	0.04 0.04 0.04	4 0.00 0.16 0.16 0.10 0.25 0.25
Crit Moves:	***	***	****
Delay/Veh:	8.2 8.2 8.2	8.5 8.5 8.5	8.3 8.6 8.6 8.7 9.1 9.1
Delay Adj:	1.00 1.00 1.00	1.00 1.00 1.00	0 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh:	8.2 8.2 8.2	8.5 8.5 8.5	8.3 8.6 8.6 8.7 9.1 9.1
LOS by Move:	A A A	A A A	A A A A A
ApproachDel:		8.5	8.6 9.1
		1.00	1.00 1.00
Delay Adj: ApprAdjDel:	8.2	8.5	8.6 9.1
LOS by Appr:	A	A	A A
		0.0 0.0 0.0	0.0 0.2 0.2 0.1 0.3 0.3
		number of cars	
	_		nt Report [Urban]
*****	*****	*****	*****
Intersection	#3 Sheryl Driv	re & College Driv	re

SIGNAL WARRANT DISCLAIMER

This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

Level Of Service Computation Report 2000 HCM 4-Way Stop (Future Volume Alternative) Ex+Proj PM

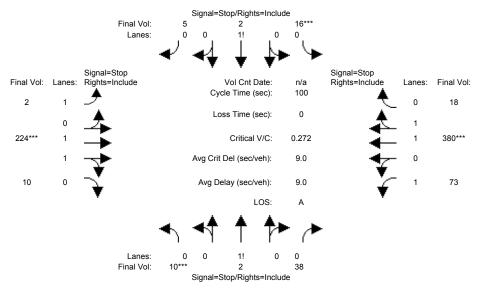


Approach: Movement:	L - T - R	South Bound L - T - R	East Bou L - T - R	nd West Bound L - T - R
Min. Green:	0 0 0	0 0 0	0 0 0	 0 0 0
	e:PM Peak Hour	-		
Base Vol: Growth Adj: Initial Bse: Added Vol: PasserByVol: Initial Fut: User Adj: PHF Adj: PHF Volume: Reduct Vol: Reduced Vol: PCE Adj:	9 2 36 1.00 1.00 1.00 9 2 36 0 0 0 0 9 2 36 1.00 1.00 1.00 1.00 1.00 1.00 9 2 36 0 0 0 9 2 36 1.00 1.00 1.00	1.00 1.00 1. 15 2 5 0 0 0 0 15 2 5 1.00 1.00 1. 15 2 5 0 0 0 15 2 5 0 0 0 15 2 5 1.00 1.00 1.	00 1.00 1.00 2 230 0 0 0 2 230 0 1.00 1.00 0 1.00 1.00 2 230 0 0 2 230 0 1.00 1.00	0 0 0 0 0 0 0 0 9 69 393 17 1.00 1.00 1.00 1.00 1.00 9 69 393 17 0 0 0 0 9 69 393 17 1.00 1.00 1.00 1.00
FinalVolume:	9 2 36	15 2 5	2 230	1.00 1.00 1.00 1.00 9 69 393 17
Lanes: Final Sat.:	1.00 1.00 1.00 0.19 0.04 0.77 129 29 514	0.68 0.09 0.2 419 56 14	23 1.00 1.92 0 630 1339	1.00 1.00 1.00 1.00 0.08 1.00 1.92 0.08 53 662 1406 61
Capacity Ana	lysis Module:			
	0.07 0.07 0.07 ****		04 0.00 0.17	0.17 0.10 0.28 0.28
Delay/Veh: Delay Adj: AdjDel/Veh: LOS by Move: ApproachDel: Delay Adj: ApprAdjDel: LOS by Appr: AllWayAvgQ: Note: Queue	8.3 8.3 8.3 1.00 1.00 1.00 8.3 8.3 8.3 A A A 8.3 1.00 8.3 A 0.1 0.1 0.1 reported is the Peak Hour Volu	8.6 8.6 8. 1.00 1.00 1. 8.6 8.6 8. A A A 8.6 1.00 8.6 A 0.0 0.0 0. number of car me Signal Warr	6 8.3 8.8 00 1.00 1.00 6 8.3 8.8 A A A 8.8 1.00 8.8 A 0 0.0 0.2 s per lane.	8.8 8.7 9.4 9.3 1.00 1.00 1.00 1.00 8.8 8.7 9.4 9.3 A A A A 9.3 1.00 9.3 A 0.2 0.1 0.4 0.4
				* * * * * * * * * * * * * * * * * * * *
Intersection	#3 Sheryl Driv	e & College Dr		

SIGNAL WARRANT DISCLAIMER

This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

Level Of Service Computation Report 2000 HCM 4-Way Stop (Future Volume Alternative) Cum PM



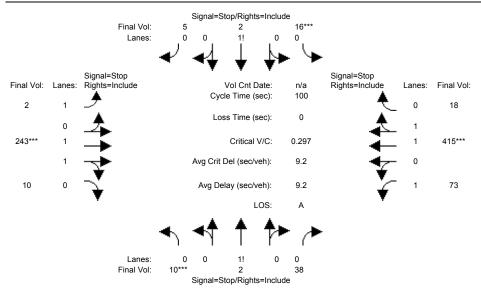
Street Name: Approach: Movement:	North Bound South Bound East Bound West Bound
 Min. Green:	
	e:PM Peak Hour
Base Vol:	
	1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse:	
Added Vol:	
PasserByVol:	
Initial Fut:	
User Adj:	
PHF Adj:	
PHF Volume:	
Reduct Vol:	
Reduced Vol:	
	1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
	1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
	10 2 38 16 2 5 2 224 10 73 380 18
Saturation F	
	1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
	0.20 0.04 0.76 0.69 0.09 0.22 1.00 1.91 0.09 1.00 1.91 0.09
	135 27 512 428 53 134 630 1331 60 660 1399 67
Capacity Ana	lysis Module:
Vol/Sat:	0.07 0.07 0.07 0.04 0.04 0.04 0.00 0.17 0.17 0.11 0.27 0.27
Crit Moves:	***
Delay/Veh:	8.3 8.3 8.3 8.6 8.6 8.6 8.3 8.8 8.7 8.7 9.3 9.3
Delay Adj:	1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh:	8.3 8.3 8.3 8.6 8.6 8.6 8.3 8.8 8.7 8.7 9.3 9.3
LOS by Move:	A A A A A A A A A
LOS by Move: ApproachDel:	8.3 8.6 8.8 9.2
Delay Adj:	1.00 1.00 1.00 1.00
ApprAdjDel:	8.3 8.6 8.8 9.2 A A A A
LOS by Appr:	
	0.1 0.1 0.1 0.0 0.0 0.0 0.0 0.2 0.2 0.1 0.4 0.4
Note: Queue	reported is the number of cars per lane.
	Peak Hour Volume Signal Warrant Report [Urban]

	#3 Sheryl Drive & College Drive

SIGNAL WARRANT DISCLAIMER

This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

Level Of Service Computation Report 2000 HCM 4-Way Stop (Future Volume Alternative) Cum+Proj PM



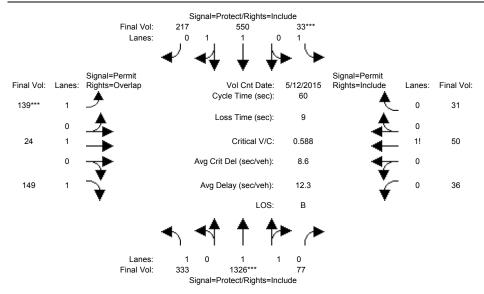
Street Name:	Sheryl Drive College Drive
Approach:	North Bound South Bound East Bound West Bound
Movement:	L-T-R L-T-R L-T-R
	e:PM Peak Hour
Base Vol:	10 2 38 16 2 5 2 243 10 73 415 18
Growth Adj:	1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse:	10 2 38 16 2 5 2 243 10 73 415 18
Added Vol:	0 0 0 0 0 0 0 0 0 0 0
PasserByVol:	0 0 0 0 0 0 0 0 0 0
Initial Fut:	
User Adj:	
PHF Adj:	
PHF Volume:	
Reduct Vol:	
Reduced Vol:	
	1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MIE Adi.	1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
FinalVolume:	
Saturation F	
	1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
	0.20 0.04 0.76 0.69 0.09 0.22 1.00 1.92 0.08 1.00 1.92 0.08
	132 26 502 421 53 131 624 1325 55 657 1398 61
	lysis Module:
	0.08 0.08 0.08 0.04 0.04 0.04 0.00 0.18 0.18 0.11 0.30 0.30
Crit Moves:	
Delay/Veh:	
Delay Adj:	
AdjDel/Veh:	
LOS by Move:	
ApproachDel:	
Delay Adj: ApprAdjDel:	8.4 8.7 8.9 9.5
LOS by Appr:	A A A A
	0.1 0.1 0.1 0.0 0.0 0.0 0.0 0.2 0.2 0.1 0.4 0.4
	reported is the number of cars per lane.
Note. Queue	Peak Hour Volume Signal Warrant Report [Urban]
*****	**************************************
	#3 Sheryl Drive & College Drive
	#3 3Netyr Drive & Correge Drive

SIGNAL WARRANT DISCLAIMER

This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

Level Of Service Computation Report 2000 HCM Operations (Future Volume Alternative) Ex PM

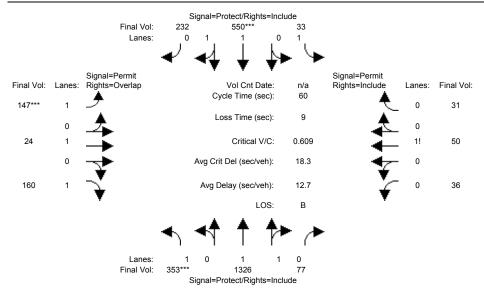
Intersection #4: Skyline Boulevard & College Drive [Skyline College]



Street Name: Skyline Boulevard College Drive North Bound South Bound East Bound West Bound L-T-R L-T-R L-T-R Min. Green: 0 0 0 0 0 0 0 0 0 0 ---|------||-------||----------------| Volume Module: >> Count Date: 12 May 2015 << 5 - 6 pm Base Vol: 333 1326 77 33 550 217 139 24 149 36 50 77 33 550 217 139 24 149 36 50 Initial Bse: 333 1326 0 0 0 0 0 0 0 0 0 0 0 Added Vol: 0 0 0 0 0 0 0 0 PasserByVol: 0 0 0 Ω Initial Fut: 333 1326 77 33 550 217 139 24 149 36 50 31 PHF Volume: 333 1326 77 33 550 217 139 24 149 0 0 0 0 0 0 0 0 Ω 0 0 Reduct Vol: 0 Reduced Vol: 333 1326 77 33 550 217 139 24 149 36 50 MLF Adi: FinalVolume: 333 1326 77 33 550 217 139 24 149 36 50 31 -----||----------| | ---Saturation Flow Module: Adjustment: 0.95 0.94 0.94 0.95 0.91 0.91 0.82 1.00 0.85 0.87 0.87 0.87 Lanes: 1.00 1.89 0.11 1.00 1.43 0.57 1.00 1.00 1.00 0.31 0.43 0.26 Final Sat.: 1805 3385 197 1805 2480 978 1549 1900 1615 507 704 436 -----|----|----|-----| Capacity Analysis Module: Vol/Sat: 0.18 0.39 0.39 0.02 0.22 0.22 0.09 0.01 0.09 0.07 0.07 0.07 **** Crit Moves: **** *** Green/Cycle: 0.32 0.67 0.67 0.03 0.38 0.38 0.15 0.15 0.47 0.15 0.15 0.15 Volume/Cap: 0.58 0.59 0.59 0.59 0.58 0.58 0.59 0.08 0.20 0.47 0.47 0.47 5.9 44.0 15.5 15.5 27.5 21.9 9.4 24.6 24.6 24.6 Delay/Veh: 18.7 5.9 AdjDel/Veh: 18.7 5.9 5.9 44.0 15.5 15.5 27.5 21.9 9.4 24.6 24.6 24.6 C C A C C 7 1 3 5 5 D B B 3 13 13 LOS by Move: B A A C 1 12 15 15 13 HCM2k95thQ: Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report 2000 HCM Operations (Future Volume Alternative) Ex+Proj PM

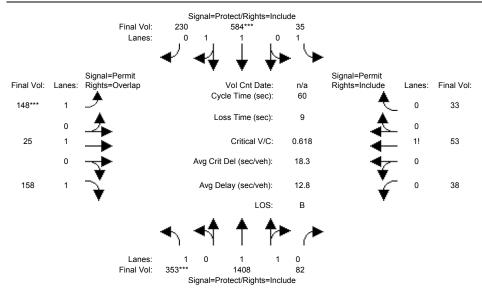
Intersection #4: Skyline Boulevard & College Drive [Skyline College]



Street Name: Skyline Boulevard College Drive North Bound South Bound East Bound West Bound Approach: L-T-R L-T-R L-T-R 0 0 0 Min. Green: 0 0 0 0 0 0 0 Ω 0 ---|------||-------| Volume Module: PM Peak Hour Base Vol: 353 1326 77 33 550 232 147 24 160 36 50 33 550 232 147 24 160 36 50 77 Initial Bse: 353 1326 31 0 0 0 0 0 0 0 0 0 0 0 Added Vol: 0 0 0 0 0 0 0 0 PasserByVol: Ω 0 0 0 Initial Fut: 353 1326 77 33 550 232 147 24 160 36 50 PHF Adj: PHF Volume: 353 1326 77 33 550 232 147 24 160 36 50 31 0 0 0 0 0 0 0 0 0 Ω 0 0 Reduct Vol: Reduced Vol: 353 1326 77 33 550 232 147 24 160 36 50 31 MLF Adi: FinalVolume: 353 1326 77 33 550 232 147 24 160 36 50 31 -----||----------| | ---Saturation Flow Module: Adjustment: 0.95 0.94 0.94 0.95 0.91 0.91 0.81 1.00 0.85 0.87 0.87 0.87 Lanes: 1.00 1.89 0.11 1.00 1.41 0.59 1.00 1.00 1.00 0.31 0.43 0.26 Final Sat.: 1805 3385 197 1805 2425 1023 1539 1900 1615 507 704 437 -----||-----| Capacity Analysis Module: Vol/Sat: 0.20 0.39 0.39 0.02 0.23 0.23 0.10 0.01 0.10 0.07 0.07 0.07 **** Crit Moves: **** *** Green/Cycle: 0.32 0.66 0.66 0.03 0.37 0.37 0.16 0.16 0.48 0.16 0.16 0.16 Volume/Cap: 0.61 0.59 0.59 0.59 0.61 0.61 0.61 0.08 0.21 0.45 0.45 6.0 44.5 16.1 16.1 28.1 21.7 9.2 24.2 24.2 24.2 Delay/Veh: 19.1 6.0 AdjDel/Veh: 19.1 6.0 6.0 44.5 16.1 16.1 28.1 21.7 9.2 24.2 24.2 24.2 D B B 3 13 13 C C A C C 7 1 4 5 5 LOS by Move: B A A C. 1 12 16 16 HCM2k95thQ: Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report 2000 HCM Operations (Future Volume Alternative) Cum PM

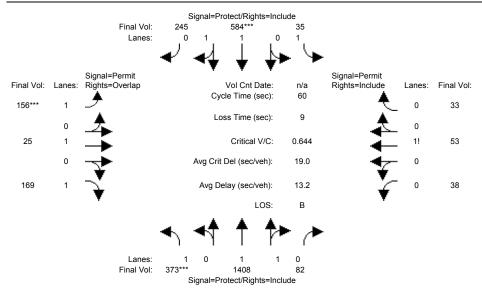
Intersection #4: Skyline Boulevard & College Drive [Skyline College]



Street Name: Skyline Boulevard College Drive North Bound South Bound East Bound West Bound Approach: L-T-R L-T-R L-T-R Min. Green: 0 0 0 0 0 0 0 0 0 0 0 ---|------||-------| Volume Module: PM Peak Hour Base Vol: 353 1408 82 35 584 230 148 25 158 38 53 35 584 230 148 25 158 38 53 Initial Bse: 353 1408 82 0 0 0 0 0 0 0 0 0 0 0 Added Vol: 0 0 0 0 0 0 0 PasserByVol: Ω 0 0 0 Initial Fut: 353 1408 82 35 584 230 148 25 158 38 53 PHF Adj: PHF Volume: 353 1408 82 35 584 230 148 25 158 38 53 33 0 0 0 0 0 0 0 0 Ω 0 Reduct Vol: 0 0 Reduced Vol: 353 1408 82 35 584 230 148 25 158 38 53 MLF Adj: FinalVolume: 353 1408 82 35 584 230 148 25 158 38 53 33 ----||--------| | ---Saturation Flow Module: Adjustment: 0.95 0.94 0.94 0.95 0.91 0.91 0.82 1.00 0.85 0.86 0.86 0.86 Lanes: 1.00 1.89 0.11 1.00 1.43 0.57 1.00 1.00 1.00 0.31 0.43 0.26 Final Sat.: 1805 3384 197 1805 2481 977 1564 1900 1615 503 702 437 -----||-----| Capacity Analysis Module: Vol/Sat: 0.20 0.42 0.42 0.02 0.24 0.24 0.09 0.01 0.10 0.08 0.08 0.08 **** Crit Moves: **** Green/Cycle: 0.32 0.67 0.67 0.03 0.38 0.38 0.15 0.15 0.47 0.15 0.15 0.15 Volume/Cap: 0.62 0.62 0.62 0.62 0.62 0.62 0.62 0.09 0.21 0.49 0.49 6.3 48.8 16.0 16.0 28.6 21.9 9.5 24.8 24.8 24.8 Delay/Veh: 19.5 6.3 AdjDel/Veh: 19.5 6.3 6.3 48.8 16.0 16.0 28.6 21.9 9.5 24.8 24.8 24.8 D B B C C A C C 7 1 4 6 6 LOS by Move: B A Α C. 4 14 1 13 17 17 14 HCM2k95thQ: Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report 2000 HCM Operations (Future Volume Alternative) Cum+Proj PM

Intersection #4: Skyline Boulevard & College Drive [Skyline College]



Street Name: Skyline Boulevard College Drive North Bound South Bound East Bound West Bound Approach: L-T-R L-T-R L-T-R 0 0 Min. Green: 0 0 0 0 0 0 0 0 0 ---|------||-------| Volume Module: PM Peak Hour Base Vol: 373 1408 82 35 584 245 156 25 169 38 53 35 584 245 156 25 169 38 53 Initial Bse: 373 1408 82 0 0 0 0 0 0 0 0 0 0 0 Added Vol: 0 0 0 0 0 0 0 0 PasserByVol: Ω Ω 0 0 Initial Fut: 373 1408 82 35 584 245 156 25 169 38 53 PHF Adj: PHF Volume: 373 1408 82 35 584 245 156 25 169 0 0 0 0 0 0 0 0 0 Ω 0 0 Reduct Vol: Reduced Vol: 373 1408 82 35 584 245 156 25 169 38 53 MLF Adi: FinalVolume: 373 1408 82 35 584 245 156 25 169 38 53 33 -----| | --------||-----Saturation Flow Module: Adjustment: 0.95 0.94 0.94 0.95 0.91 0.91 0.82 1.00 0.85 0.87 0.87 0.87 Lanes: 1.00 1.89 0.11 1.00 1.41 0.59 1.00 1.00 1.00 0.31 0.43 0.26 Final Sat.: 1805 3384 197 1805 2431 1020 1556 1900 1615 504 703 438 -----||-----| Capacity Analysis Module: Vol/Sat: 0.21 0.42 0.42 0.02 0.24 0.24 0.10 0.01 0.10 0.08 0.08 0.08 **** **** Crit Moves: **** Green/Cycle: 0.32 0.66 0.66 0.03 0.37 0.37 0.16 0.16 0.48 0.16 0.16 0.16 Volume/Cap: 0.64 0.63 0.63 0.63 0.64 0.64 0.64 0.08 0.22 0.48 0.48 0.48 6.4 49.2 16.6 16.6 29.6 21.8 9.3 24.6 24.6 24.6 Delay/Veh: 19.9 6.4 AdjDel/Veh: 19.9 6.4 6.4 49.2 16.6 16.6 29.6 21.8 9.3 24.6 24.6 24.6 D B B 4 15 15 C C A C C 8 1 4 6 6 LOS by Move: B A Α C. 1 13 17 17 HCM2k95thQ: Note: Queue reported is the number of cars per lane.